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HIGH PERFORMANCE VALVETRAIN



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Dealer Inquires: Contact Us at 650-557-2046

or

Visit Our Website www.kpmi.us

ARCTIC CAT® H2™ V-TWIN 2008-'16



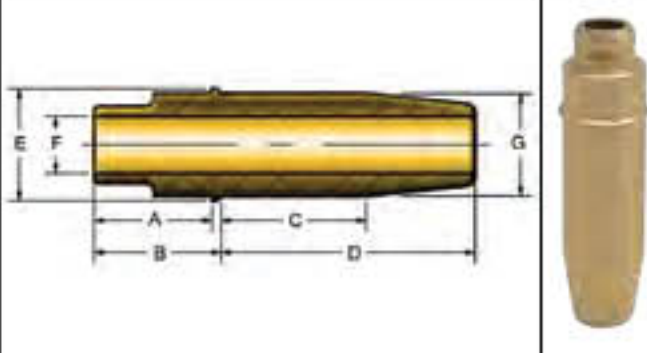
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	88-88000	Intake	.450"		1.200"		49#		159#		.450"
		Exhaust									
	Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers	8	H. T. Steel Basewashers		

Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	88-88012	Intake	31.62mm	1.245"	0.1960"	14°	3.695"	Standard
	88-88013	Intake	32.62mm	1.284"	0.1960"	14°	3.695"	Oversize
	88-88016	Exhaust	27.94mm	1.100"	0.1955"	20°	3.670"	Standard
	88-88017	Exhaust	28.94mm	1.139"	0.1955"	20°	3.670"	Oversize

Valve Guides • C630 Bronze For H2 V-Twin 2008-2013

	A	B	C	D	E	F	G	Intake	Exhaust
	0.420"	0.445"	0.730"	1.110"	0.455"	0.1955"	0.4163" / Std	88-88020	
							+0.001"	88-88021	
							+0.002"	88-88022	
							+0.010"	88-88029	
Use O.E.M. Seal									

ARCTIC CAT® VARIOUS 1056cc TWINS 2008-'15

- All 2014 5000 & 9000 C-TEC4 Engines
- Bearcat™ Z1 XT (Incl. Limited)
- TZ1™ (All Models Incl. Turbo)
- Z1™ (All Models Incl. Turbo)
- ProCross™ F & XF 1100 (All Models Incl. Turbo)
- ProClimb™ M 1100 (All Models Incl. Turbo)
- Jaguar™ Z1

Valve Spring Kit • Turbo Racing • High Performance

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	88-88050	Intake	.380"		1.440"		70#		184#		.380"
		Exhaust									
	Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers		8	H. T. Steel Basewashers	

Both our Turbo spring kit and "Shim in Tappet" Turbo spring kits are designed for applications with up to 35psi of boost.

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ARCTIC CAT® VARIOUS 1056cc TWINS 2008-'15

- All 2014 5000 & 9000 C-TEC4 Engines
- Bearcat™ Z1 XT (Incl. Limited)
- TZ1™ (All Models Incl. Turbo)
- Z1™ (All Models Incl. Turbo)
- ProCross™ F & XF 1100 (All Models Incl. Turbo)
- ProClimb™ M 1100 (All Models Incl. Turbo)
- Jaguar™ Z1

Valve Spring Kit • Turbo Racing • "Shim in Tappet" High Performance

	KPMI P/N	Type	Max Valve Lift		Installed Height	Seat Pressure	Open Pressure	@ Lift	
	88-88100	Intake	.380"		1.440"	70#	184#	.380"	
		Exhaust							
	Kit Includes			8	CrSi Valve Springs		8	Titanium Retainers	
				8	H. T. Steel Basewashers		8	H. T. Steel Tappets	
"Shim in Tappet" valve spring kits provide a solution to the common ovaling of retainers and shim spitting in higher performance applications. By locating the shim in the heat treated steel tappet instead of the titanium retainer, wear is greatly reduced, and reliability is increased. These tappets were designed and analyzed using the same Finite Element Analysis software used in the development of our valves in order to maintain the same strength and mass as our high performance traditional tappet/retainer system.									

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	88-88062	Intake	36.00mm	1.417"	0.2160"	10°	3.880"	Standard
	88-88063	Intake	37.00mm	1.457"	0.2160"	10°	3.880"	Oversize
	88-88066	Exhaust	33.00mm	1.299"	0.2155"	20°	3.525"	Standard
	88-88067	Exhaust	34.00mm	1.339"	0.2155"	20°	3.525"	Oversize

Valve Guides • C630 Bronze For H2 V-Twin 2008-2013

	A	B	C	D	E	F	G	Intake	Exhaust
	0.620"	0.655"	0.645"	0.825"	0.460"	0.2155"	0.4167" / Std.	88-88070	
							+0.001"	88-88071	
							+0.002"	88-88072	
							+0.010"	88-88079	

Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	88-88057	Intake	H. T. Steel	28.00mm	1.1017"	1.038"	0.763"	--	0.098"
		Exhaust							

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71016-4		Pkg. of 4		0%	
			71016-8		Pkg. of 8		0%	
			71016-16		Pkg. of 16		Less- 10%	
			71016-50		Pkg. of 50		Less- 15%	
			71016-100		Pkg. of 100		Less- 20%	

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BMW® R60™ / 2 1960-1969



BMW

Valve Spring Kit • O. E. M. Replacement • High Performance

	KPMI P/N	Type	Kit Includes							
			H. T. Steel Retainers		H. T. Steel Keepers		CrSi Valve Springs		H. T. Steel Basewashers	
	90-9082	Intake Exhaust	4	90-9084	4	90-9085	4	90-9086	4	90-9087
	Max Valve Lift	Installed Height		Seat Pressure		Open Pressure		@ Lift		
	.450"	1.355"		58#		152#		.450"		

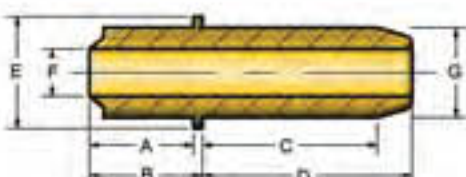
The springs in these kits are wound from super clean chrome silicon wire that has been heat treated and shot peened. These components offer optimal fitment, keeping lateral movement to a minimum. They work together as a system, providing long life, and maximum performance. Parts in this kit can be purchased individually as OEM replacements.

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	90-9060	Intake	34.00mm	1.339"	0.2730"	23°	3.425"	Standard
	90-9062	Exhaust	32.00mm	1.260"	0.2720"	29°	3.415"	Standard

Our valves are the quality you expect from Kibblewhite®, manufactured to exact O.E.M. specifications.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.600"	0.650"	1.000"	1.200"	0.620"	0.2730"	0.5140" / Std.		90-9070
							+0.001"		90-9071
							+0.002"		90-9072
							+0.004"		90-9074
							+0.010"		90-9080

No seal required

For all the applications available for Kibblewhite®'s BMW® line of products, please refer online to the BMW® section of the www.kpmi.us website, under *Sport Bike*.



BMW® 5/ 6/ 7/ R80™/ R90™/ R100™ 1970-1995

Valve Spring Kit • Lightweight • Performance Upgrade

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	90-9034	Intake	.500"		1.445"		104#		196#		.367"
		Exhaust									
	Kit Includes			4	CrSi Valve Springs	4	H.T. Steel Retainers	4	H. T. Steel Basewashers		

The springs in these kits are wound from super clean chrome silicon wire that has been heat treated and shot peened. These components offer optimal fitment, keeping lateral movement to a minimum. They work together as a system, providing long life, and maximum performance.

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	90-9035	Intake	42.00mm	1.654"	0.3130"	23°	3.885"	Standard
	90-9054	Intake	44.00mm	1.732"	0.3130"	23°	3.885"	Standard
	90-9037	Exhaust	34.00mm	1.339"	0.3125"	29°	3.885"	Standard
	90-9036	Exhaust	38.00mm	1.496"	0.3125"	29°	3.885"	Standard
	90-9045	Exhaust	40.00mm	1.575"	0.3125"	29°	3.885"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.600"	0.650"	0.980"	1.400"	0.620"	0.3125"	0.554" / Std.	90-9000	
							+0.001"	90-9001	
							+0.002"	90-9002	
							+0.003"	90-9003	
							+0.004"	90-9004	
							+0.010"	90-9009	
	0.600"	0.650"	0.980"	1.300"	0.620"	0.3125"	0.554" / Std.		90-9020
							+0.001"		90-9021
							+0.002"		90-9022
							+0.003"		90-9023
							+0.004"		90-9024
							+0.010"		90-9029

Wrist Pin Bushings • Nickel Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	90-9030	Bronze	0.9515"	0.8555"	0.9325"	Standard	Pkg. of 1

These wrist pin bushings have been machined from solid nickel bronze bar stock with a superior surface finish and are designed to be direct OEM replacements. The nickel content gives these bushings improved wearability when compared to the OEM bushing. All of these bushings are 100% quality controlled.

ORDER 650-557-2046

BRP® • CAN AM® DS 450™ 2008-2015



• 450X™

• 450XXC™

• 450XXM™

• 450 EFI™

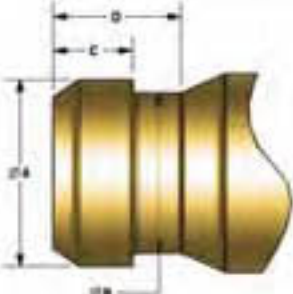
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	91-91100	Intake	.450"	1.385"	75#	235#	.450"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4		Titanium Retainers
				4	H. T. Steel Basewashers	4		H. T. Shims

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	91-91112	Intake	38.00mm	1.496"	0.2350"	20°	3.550"	Standard
	91-91113	Intake	39.00mm	1.535"	0.2350"	20°	3.550"	Oversize
	91-91116	Exhaust	31.00mm	1.220"	0.2347"	29°	3.565"	Standard
	91-91117	Exhaust	32.00mm	1.260"	0.2347"	29°	3.565"	Oversize

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.315"	0.520"	5	A	B	C	D	Intake
				0.435"±0.002"	0.395"	0.120"	0.210"	Exhaust
			Part Number			Quantity	Quantity Incentive	
			71029-4			Pkg. of 4	0%	
			71029-8			Pkg. of 8	0%	
			71029-16			Pkg. of 16	Less- 10%	
			71029-50			Pkg. of 50	Less- 15%	
			71029-100			Pkg. of 100	Less- 20%	

BRP® • CAN AM® 400 / 500 / 650 / 800 / 1000 2006-'14

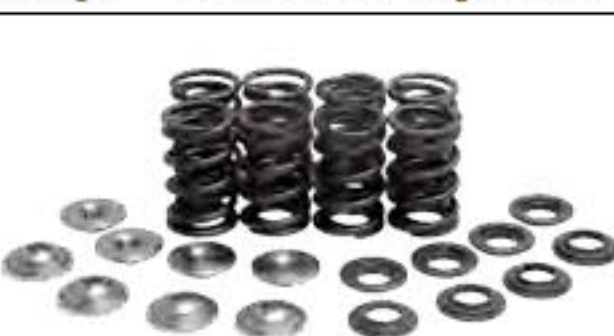
• Renegade™

• Outlander™

• Commander™

Valve Spring Kit • Lightweight Racing

For Outlander 500 2007-2014 / Outlander 650 2006-'14 / Outlander 800 2007-'14 / Outlander 1000 2014 / Renegade 500 2008-'14 / Renegade 500 2008-'14 / Renegade 800 2007-'14 / Renegade 1000 2012-'14 / Commander 800 2012-2014 / Commander 1000 2012-'14

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	91-91150	Intake	.445"		1.275"		58#		171#		.445"
		Exhaust									
	Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers	8	H. T. Steel Basewashers		

It may be necessary to use KPMI® Shortened Valve Guides (KPMI® # 91-91170 & # 91-91180) to achieve higher than stock lift.

VISIT US AT WWW.KPMI.US



BRP • CAN AM 400 / 500 / 650 / 800 / 1000 2006-'14

• Renegade™

• Outlander™

• Commander™

Valve Spring Kit • Lightweight Racing For Outlander 400 2006-'13

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	91-91156	Intake	.445"		1.275"		58#		171#		.445"
		Exhaust									
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers		

It may be necessary to use KPMI® Shortened Valve Guides (KPMI® # 91-91170 & # 91-91180) to achieve higher than stock lift.

It may be necessary to use KPMI® Shortened Valve Guides (KPMI® # 91-91170 & # 91-91180) to achieve higher than stock lift.

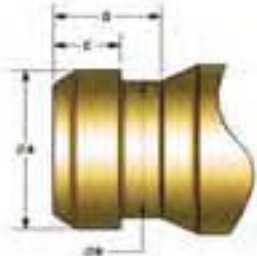
Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	91-91162	Intake	31.12mm	1.225"	0.1958"	22°	3.585"	Standard
	91-91163	Intake	32.12mm	1.264"	0.1958"	22°	3.585"	Oversize
	91-91166	Exhaust	27.00mm	1.063"	0.1953"	16°	3.520"	Standard
	91-91167	Exhaust	28.00mm	1.102"	0.1953"	16°	3.520"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.470"	0.780"	0.895"	0.433"	0.1958"	0.4362" / Std.	91-91170	
							+0.001"	91-91171	
							+0.002"	91-91172	
							+0.010"	91-91179	
	---	0.470"	0.680"	0.895"	0.433"	0.1953"	0.4362" / Std.		91-91180
							+0.001"		91-91181
							+0.002"		91-91182
							+0.010"		91-91189

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.320"	0.435"	5	A	B	C	D	Intake
				0.305"±0.002"	0.265"	0.100"	0.195"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71041-4			Pkg. of 4		0%
			71041-8			Pkg. of 8		0%
			71041-16			Pkg. of 16		Less- 10%
			71041-50			Pkg. of 50		Less- 15%
			71041-100			Pkg. of 100		Less- 20%

BRP® • CAN AM® MAVERICK™ 2013-2017



ALL MODELS EXCEPT MAVERICK™ X3

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	91-91200	Intake	.470"		1.370"		57#		177#		.470"
		Exhaust									
	Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers	8	H. T. Steel Basewashers		

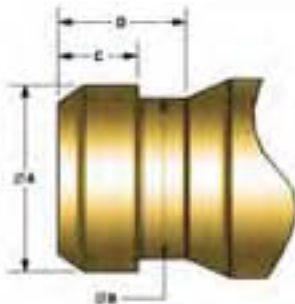
Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	91-91212	Intake	36.50mm	1.437"	0.2160"	14°	3.620"	Standard
	91-91213	Intake	37.50mm	1.476"	0.2160"	14°	3.620"	Oversize
	91-91216	Exhaust	31.00mm	1.220"	0.2155"	25°	3.515"	Standard
	91-91217	Exhaust	32.00mm	1.260"	0.2155"	25°	3.515"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.515"	0.745"	0.935"	0.433"	0.2155"	0.4361"/ Std.	91-91220	
	+0.001"							91-91221	
	+0.002"							91-91222	
	+0.010"							91-91229	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.315"	0.455"	5	A	B	C	D	Intake
				0.325"±0.002"	0.310"	0.110"	0.220"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71042-4		Pkg. of 4		0%	
			71042-8		Pkg. of 8		0%	
			71042-16		Pkg. of 16		Less- 10%	
			71042-50		Pkg. of 50		Less- 15%	
			71042-100		Pkg. of 100		Less- 20%	

For all the applications available for Kibblewhite's Can Am® line of products, please refer online to the BRP® section of the www.kpmi.us website, under **ATV / UTV**.

VISIT US AT WWW.KPMI.US



BRP • CAN AM® DS™ 650 2000-2007

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	91-91010	Intake	.500"		1.405"		69#		196#		.500"
		Exhaust									
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers		4	H. T. Steel Basewashers	

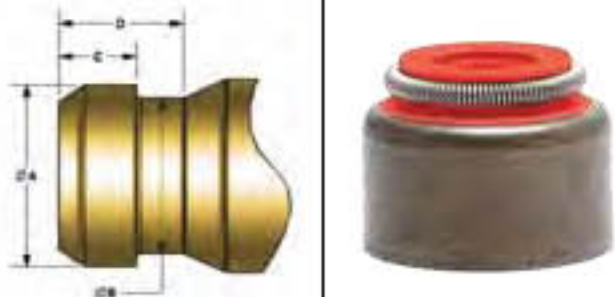
Valve Spring Kit • Lightweight Racing with Shim Under Conversion

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	91-91000	Intake	.500"		1.390"		74#		216#		.400"
		Exhaust									
	Kit Includes			4	CrSi Valve Springs		4	Titanium Retainers		4	H. T. Steel Basewashers
4				H. T. Steel Tappets				4	H. T. Steel Shims		

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	91-91015	Intake	36.00mm	1.417"	0.2350"	23°	3.565"	Standard
	91-91016	Intake	37.00mm	1.457"	0.2350"	23°	3.565"	Oversize
	91-91017	Exhaust	31.00mm	1.220"	0.2347"	29°	3.565"	Standard
	91-91018	Exhaust	32.00mm	1.260"	0.2347"	29°	3.565"	Oversize

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.400"	0.560"	5	A	B	C	D	Intake
				0.435"±0.002"	0.400"	0.120"	0.280"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71025-4		Pkg. of 4		0%	
			71025-8		Pkg. of 8		0%	
			71025-16		Pkg. of 16		Less- 10%	
			71025-50		Pkg. of 50		Less- 15%	
			71025-100		Pkg. of 100		Less- 20%	

BRP • ROTAX AIR COOLED SINGLES 500/600 1982-'06



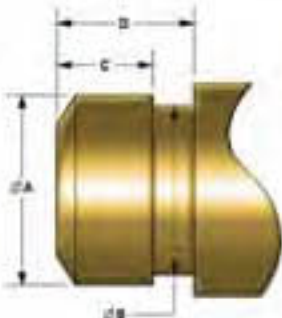
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	91-9400	Intake	.450"		1.305"		106#		266#		.450"
		Exhaust									
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers		

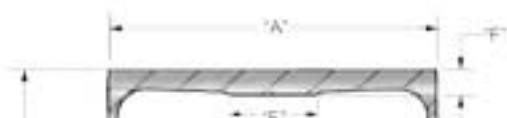
Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.440"	0.490"	0.785"	1.165"	0.495"	0.2745"	0.4752" / Std.	91-0478	
								+0.002"	91-0479	
								+0.004"	91-0480	
								+0.006"	91-0481	
								+0.015"	91-4036	
								+0.027"	91-0499	
		0.440"	0.490"	---	1.240"	0.495"	0.2745"	0.4752" / Std.		91-0482
								+0.002"		91-0483
								+0.004"		91-0484
								+0.006"		91-0485
								+0.015"		91-4037

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.374"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.430"	0.115"	0.240"	Exhaust
			Part Number			Quantity	Quantity Incentive	
			71019-4			Pkg. of 4	0%	
			71019-8			Pkg. of 8	0%	
			71019-16			Pkg. of 16	Less- 10%	
			71019-50			Pkg. of 50	Less- 15%	
			71019-100			Pkg. of 100	Less- 20%	

Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	91-9411	Intake	H. T. Steel	33.00mm	1.298"	1.235"	1.025"	0.340"	0.115"	Pkg. of 1
Exhaust										



BRP • SEADOO® "1503" 4-TEC ENGINES 2006-'16

Valve Spring Kit • Lightweight Racing

**NEW
PRODUCTS**



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
91-91051	Intake	.390"	1.360"	75#	185#	.390"
	Exhaust					
Kit Includes		12	CrSi Valve Springs			

This spring kit is designed specifically for this supercharged application. This spring kit drops into the cylinder head, working with the O.E.M. components to provide the correct pressure and harmonic range for this high performance supercharged power plant

Retainer Set • O.E.M. Replacement • H. T. Steel

**NEW
PRODUCTS**

	KPMI P/N	Type	Material	Quantity
	91-91052	Intake	H. T. Steel	Pkg. of 12
		Exhaust		

By utilizing FEA software and a special blend of heat treated alloy steel, it was possible to reduce mass while maintaining strength and wear resistance. These retainers are intended as an OEM replacement and are completely compatible with the OEM springs, keepers, and basewashers. The spring shoulder diameter has been designed to match the OEM retainer and spring as well as KPMI's high performance spring (P/N 91-91051), making this retainer your high performance OEM alternative.

Valves • Black Diamond™ • Black Nitroleg Stems

**NEW
PRODUCTS**

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	91-91062	Intake	38.00mm	1.496"	0.2350"	20°	3.555"	Standard
	91-91063	Intake	39.00mm	1.535"	0.2350"	20°	3.555"	Oversize
	91-91066	Exhaust	31.00mm	1.220"	0.2345"	25°	3.565"	Standard
	91-91067	Exhaust	32.00mm	1.260"	0.2345"	28°	3.565"	Oversize

Valves • White Diamond® • Inconel®

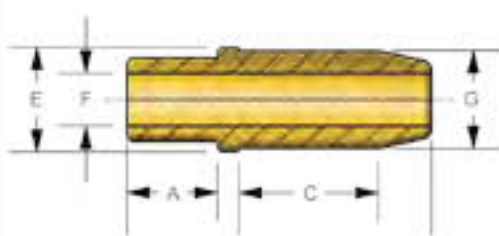
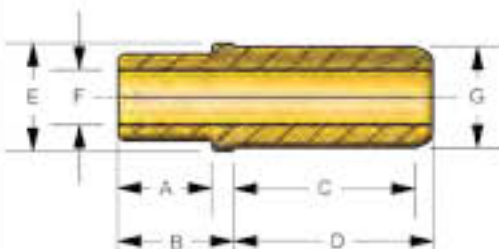
**NEW
PRODUCTS**

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	91-91096	Exhaust	31.00mm	1.220"	0.2345"	28°	3.555"	Standard

Inconel® is classified as a "Super Alloy", meaning that it is designed to survive under the most extreme temperatures and pressures, where other valves will begin to burn, corrode, or completely fail. This is the material of choice for high output engines running turbos, superchargers, nitromethane, or nitrous.

Valve Guides • C630 Bronze

**NEW
PRODUCTS**

		A	B	C	D	E	F	G	Intake	Exhaust
		0.405"	0.500"	0.625"	0.860"	0.465"	0.2350"	0.4360" / Std.	91-91070	
								+0.001"	91-91071	
								+0.002"	91-91072	
								+0.004"	91-91074	
								+0.010"	91-91079	
		0.405"	0.500"	0.785"	0.860"	0.465"	0.2345"	0.4360" / Std.		91-91080
								+0.001"		91-91081
								+0.002"		91-91082
								+0.004"		91-91084
								+0.010"		91-91089

ORDER 650-557-2046

BSA® B25™ 1968-1971



Valve Spring Kit • Lightweight Racing

NEW PRODUCTS



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
10-10300	Intake	.500"	1.375"	80#	258#	.500"	
	Exhaust						
Kit Includes		2	CrSi Valve Springs	2	H. T. Steel Retainers	2	H. T. Steel Basewashers

The springs in these kits are wound from super clean chrome silicon wire that has been heat treated and shot peened. These components offer optimal fitment, keeping lateral movement to a minimum. They work together as a system, providing long life, and maximum performance.

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	10-10312	Intake	36.91mm	1.453"	0.3105"	27°	3.660"	Standard
	10-10313	Intake	37.92mm	1.493"	0.3105"	27°	3.660"	Oversize
	10-10316	Exhaust	33.40mm	1.315"	0.3100"	24°	3.645"	Standard
	10-10317	Exhaust	34.39mm	1.354"	0.3100"	24°	3.645"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.330"	0.570"	0.630"	1.030"	0.560"	0.3095"	0.5010" / Std.		10-10320
							+0.001"		10-10321
							+0.010"		10-10329

Pushrods • Steel • Chrome Moly Tube

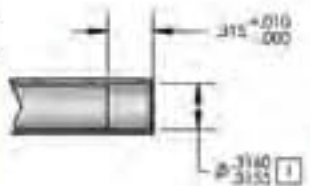
NEW PRODUCTS

Diagram of a pushrod showing dimensions A (overall length) and B (cavity to tip).

KPMI P/N	Type	Material	A	B	Quantity
10-10410	Intake	• Thin Wall Chrome Moly Tube • H. T. Steel Tips	6.915"	6.775"	Pkg. of 2
	Exhaust		6.873"	6.733"	
Custom length push rods available upon request.					

Blank Pushrods • Steel • Chrome Moly Tube

NEW PRODUCTS

		PRODUCTS		A	Ø.371" OD	Machining Information: 
		B	9.120" Overall Length			
		C	Ø.305" ID Before Machining			
	D	E	F	G	1. Break ID edge only at .015 x 45°	
	R.124	0.675"	0.375"	0.310"		
KPMI P/N	Model	Material			Kit Includes	
10-10502	BSA® Various	• Thin Wall Chrome Moly Tube • H. T. Steel Tips			2 Female Ended Pushrods / 2 Male Endpieces	

KPMI® will custom machine and finish 2 or 4 pushrods for a flat fee of \$120.00. Please place orders by using the Custom BSA® Pushrod Order Form found on our website at www.kpmi.us/forms.html.



BSA® B25™ 1968-1971

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.465"	0.550"	1	A	B	C	D	Intake
				0.500"±0.010"	0.445"	0.230"	0.280"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71012-2		Pkg. of 2		0%	
			71012-4		Pkg. of 4		0%	
			71012-8		Pkg. of 8		0%	
			71012-16		Pkg. of 16		Less- 10%	
			71012-50		Pkg. of 50		Less- 15%	
			71012-100		Pkg. of 100		Less- 20%	

Keeper Set • H. T. Steel • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51023-2	Single Radius Bead	0.310"	10.0°	0.235"	0.285"	0.417"	2 Pr.

BSA® A10™ 1950-1962

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.585"	0.765"	0.675"	1.335"	0.620"	0.3105"	0.5632" / Std.	10-4132	
								+0.002"	10-4133	
								+0.004"	10-4134	

Wrist Pin Bushings • Bronze

		KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
		10-10350	SAE660 Bronze	0.8775"	0.7480"	0.950"	Standard	Pkg. of 1
		10-10352	SAE660 Bronze	0.8795"	0.7480"	0.950"	+0.002"	Pkg. of 1

Designed and manufactured by Kibblewhite® to original OEM specifications with Kibblewhite® quality and precision.

Crankshaft Bushings • Bearing Bronze

		KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
		10-5020	SAE660 Bronze	1.690"	1.372"	1.075"	Standard	Pkg. of 1
		10-5021	SAE660 Bronze	1.690"	1.362"	1.075"	-0.010"	Pkg. of 1
		10-5022	SAE660 Bronze	1.690"	1.352"	1.075"	-0.020"	Pkg. of 1
		10-5023	SAE660 Bronze	1.690"	1.342"	1.075"	-0.030"	Pkg. of 1
		10-5024	SAE660 Bronze	1.690"	1.332"	1.075"	-0.040"	Pkg. of 1
		10-5025	SAE660 Bronze	1.690"	1.322"	1.075"	-0.050"	Pkg. of 1

Machined from high quality mill certified SAE660 Bearing Bronze (custom sizes available).

ORDER 650-557-2046

BSA® A50™ 1966-1970



Wrist Pin Bushings • Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	10-10350	SAE660 Bronze	0.8775"	0.7480"	0.950"	Standard	Pkg. of 1
	10-10352	SAE660 Bronze	0.8795"	0.7480"	0.950"	+0.002"	Pkg. of 1

Designed and manufactured by Kibblewhite® to original OEM specifications with Kibblewhite® quality and precision.

Crankshaft Bushings • Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	10-5010	SAE660 Bronze	1.815"	1.501"	1.005"	Standard	Pkg. of 1
	10-5011	SAE660 Bronze	1.815"	1.491"	1.005"	-0.010"	Pkg. of 1
	10-5012	SAE660 Bronze	1.815"	1.481"	1.005"	-0.020"	Pkg. of 1
	10-5013	SAE660 Bronze	1.815"	1.471"	1.005"	-0.030"	Pkg. of 1
	10-5014	SAE660 Bronze	1.815"	1.461"	1.005"	-0.040"	Pkg. of 1
	10-5015	SAE660 Bronze	1.815"	1.451"	1.005"	-0.050"	Pkg. of 1
	10-10000	SAE660 Bronze	1.835"	1.451"	1.005"	+0.020" OD	Pkg. of 1

Machined from high quality mill certified SAE660 Bearing Bronze (Custom sizes available).

Crankshaft Thrust Washer • Bearing Bronze

	KPMI P/N	Outside Diameter A	Inside Diameter B	Thickness C	Locating Flats D
	10-1000	2.115"	1.690"	0.065"	1.900"

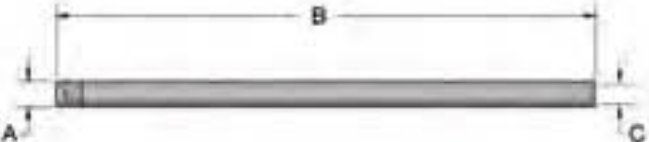
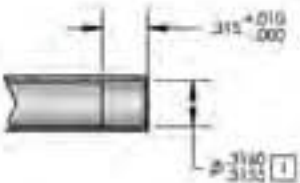
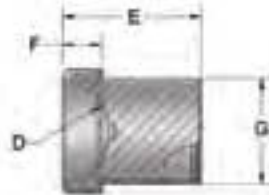
• Designed and manufactured by KPMI® specifically for use with various BSA® applications
 • Improved from OEM parts to include KPMI® design standards and precision machining
 • Manufactured from bearing bronze for increased wear resistance compared to OEM

Pushrods • Steel • Chrome Moly Tube

	KPMI P/N	Type	Material	A	B	Quantity
	10-10400	Intake	• Thin Wall Chrome Moly Tube	6.148"	5.868"	Pkg. of 4
		Exhaust	• H. T. Steel Tips	7.421"	7.141"	

Custom length pushrods available upon request.

Blank Pushrods • Steel • Chrome Moly Tube

		PRODUCTS		A	Ø.371" OD		Machining Information: 
		B	9.120" Overall Length				
		C	Ø.305" ID Before Machining				
	D		E		F		G
	R.156		0.420"		0.120"		0.310"
KPMI P/N		Model		Material		Kit Includes	
10-10512		BSA® Various		• Thin Wall Chrome Moly Tube • H. T. Steel Tips		2 Female Ended Pushrods / 2 Female Endpieces	

KPMI® will custom machine and finish 2 or 4 pushrods for a flat fee of \$120.00. Please place orders by using the Custom BSA® Pushrod Order Form found on our website at www.kpmi.us/forms.html.



BSA® B50 GOLDSTAR™ 1971-1973

Valve Spring Kit • Lightweight Racing

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	10-10050	Intake	.500"		1.375"		80#		258#		.500"
		Exhaust									
	Kit Includes			2	CrSi Valve Springs	2	H. T. Steel Retainers	2	H. T. Steel Basewashers		

The springs in these kits are wound from super clean chrome silicon wire that has been heat treated and shot peened. These components offer optimal fitment, keeping lateral movement to a minimum. They work together as a system, providing long life, and maximum performance.

Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	10-10062	Intake	44.45mm	1.750"	0.3105"	20°	4.080"	Standard
	10-10063	Intake	45.97mm	1.810"	0.3105"	20°	4.060"	Oversize
	10-10066	Exhaust	38.86mm	1.530"	0.3100"	24°	4.025"	Standard
	10-10067	Exhaust	40.39mm	1.590"	0.3100"	24°	4.005"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.465"	0.675"	0.910"	1.215"	0.560"	0.3100"	0.5010" / Std.		10-10070
							+0.002"		10-10072
							+0.004"		10-10074
							+0.006"		10-10076
							+0.050"		10-10079
No seal required.									

Push Rod • Steel • Chrome Moly Tube

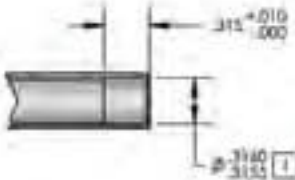
NEW PRODUCTS

Diagram of a pushrod with dimensions A and B. Dimension A is the total length, and dimension B is the length from the cavity to the tip.

KPMI P/N	Type	Material	A	B	Quantity
10-10425	Intake	• Thin Wall Chrome Moly Tube • H. T. Steel Tips	8.642"	8.502"	Pkg. of 2
	Exhaust				
Custom length pushrods available upon request.					

Blank Pushrods • Steel • Chrome Moly Tube

NEW PRODUCTS

		A		Ø.371" OD		Machining Information: 			
		B		9.120" Overall Length					
		C		Ø.305" ID Before Machining					
	D		E		F		G		
	R.124		0.675"		0.375"		0.310"		
KPMI P/N		Model		Material			Kit Includes		
10-10502		BSA® Various		• Thin Wall Chrome Moly Tube • H. T. Steel Tips			2 Female Ended Pushrods / 2 Male Endpieces		

KPMI® will custom machine and finish 2 or 4 pushrods for a flat fee of \$120.00. Please place orders by using the Custom BSA® Pushrod Order Form found on our website at www.kpmi.us/forms.html.

ORDER 650-557-2046

BSA® B50 GOLDSTAR™ 1971-1973



Keeper Set • H. T. Steel • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51023-2	Single Radius Bead	0.310"	10.0°	0.235"	0.285"	0.417"	2 Pr.

BSA® A65™ 1971-1972

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	10-4148	Intake	40.64mm	1.600"	0.3110"	R 1.500"	3.600"	Standard
	10-10100	Intake	42.14mm	1.659"	0.3110"	R 1.500"	3.580"	Oversize
	10-4150	Exhaust	35.81mm	1.410"	0.3105"	25°	3.555"	Standard
	10-10104	Exhaust	37.31mm	1.469"	0.3105"	25°	3.535"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.760"	0.840"	0.685"	1.135"	0.680"	0.3105"	0.5010" / Std.	10-4135	
							+0.002"	10-4136	
							+0.004"	10-4137	

No seal required.

Crankshaft Thrust Washer • Bearing Bronze

	KPMI P/N	Outside Diameter A	Inside Diameter B	Thickness C	Locating Flats D
	10-1000	2.115"	1.690"	0.065"	1.900"

• Designed and manufactured by KPMI® specifically for use with various BSA® applications
 • Improved from OEM parts to include KPMI® design standards and precision machining
 • Manufactured from bearing bronze for increased wear resistance compared to OEM

Wrist Pin Bushings • Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	10-10350	SAE660 Bronze	0.8775"	0.7480"	0.950"	Standard	Pkg. of 1
	10-10352	SAE660 Bronze	0.8795"	0.7480"	0.950"	+0.002"	Pkg. of 1

Designed and manufactured by Kibblewhite® to original OEM specifications with Kibblewhite® quality and precision.

Crankshaft Bushings • Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	10-5010	SAE660 Bronze	1.815"	1.501"	1.005"	Standard	Pkg. of 1
	10-5011	SAE660 Bronze	1.815"	1.491"	1.005"	-0.010"	Pkg. of 1
	10-5012	SAE660 Bronze	1.815"	1.481"	1.005"	-0.020"	Pkg. of 1
	10-5013	SAE660 Bronze	1.815"	1.471"	1.005"	-0.030"	Pkg. of 1
	10-5014	SAE660 Bronze	1.815"	1.461"	1.005"	-0.040"	Pkg. of 1
	10-5015	SAE660 Bronze	1.815"	1.451"	1.005"	-0.050"	Pkg. of 1
	10-10000	SAE660 Bronze	1.835"	1.451"	1.005"	+0.020" OD	Pkg. of 1

Machined from high quality mill certified SAE660 Bearing Bronze (Custom sizes available).

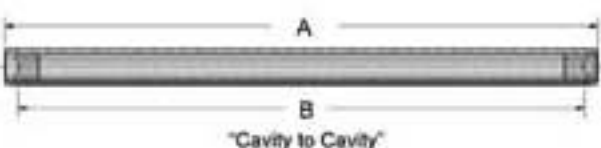
VISIT US AT WWW.KPMI.US



BSA® A65™ 1971-1972

Push Rod • Steel • Chrome MolyTube

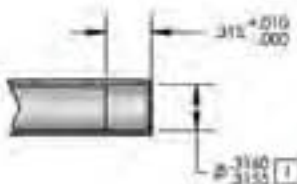
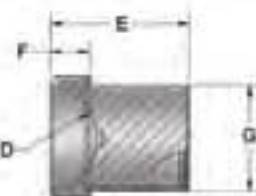
NEW PRODUCTS

	KPMI P/N	Type	Material	A	B	Quantity
	10-10405	Intake Exhaust	• Thin Wall Chrome Moly Tube • H. T. Steel Tips	6.391" 7.667"	6.111" 7.387"	Pkg. of 4

Custom length pushrods available upon request.

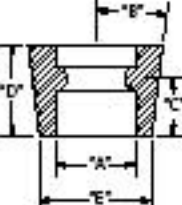
Blank Pushrods • Steel • Chrome Moly Tube

NEW PRODUCTS

		PRODUCTS		A	Ø.371" OD	Machining Information: 
			B	9.120" Overall Length		
			C	Ø.305" ID Before Machining		
	D		E		F	G
	R.156		0.420"		0.120"	0.310"
KPMI P/N	Model	Material			Kit Includes	
10-10512	BSA® Various	• Thin Wall Chrome Moly Tube • H. T. Steel Tips			2 Female Ended Pushrods / 2 Female Endpieces	
KPMI® will custom machine and finish 2 or 4 pushrods for a flat fee of \$120.00. Please place orders by using the Custom BSA® Pushrod Order Form found on our website at www.kpmi.us/forms.html .						

KPMI® will custom machine and finish 2 or 4 pushrods for a flat fee of \$120.00. Please place orders by using the Custom BSA® Pushrod Order Form found on our website at www.kpmi.us/forms.html.

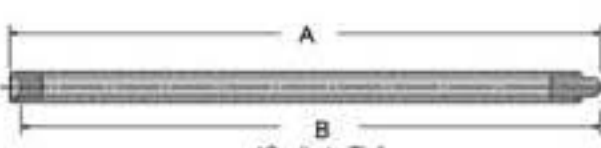
Keeper Set • H. T. Steel • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51023-4	Single Radius Bead	0.310"	10.0°	0.235"	0.285"	0.417"	4 Pr.

BSA® VARIOUS B44™ 1967-1970

Push Rod • Steel • Chrome Moly Tube

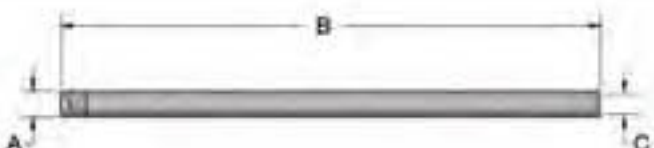
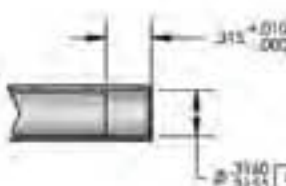
NEW PRODUCTS

	KPMI P/N	Model	Type	Material	A	B	Quantity
	10-10415	Round Barrel 1967- Earlier	Intake Exhaust	• Thin Wall Chrome Moly Tube • H. T. Steel Tips	8.205"	8.065"	Pkg. of 2
	10-10420	Square Barrel 1968-1970	Intake Exhaust	• Thin Wall Chrome Moly Tube • H. T. Steel Tips	8.355"	8.215"	Pkg. of 2

Custom length pushrods available upon request.

Blank Pushrods • Steel • Chrome Moly Tube

NEW PRODUCTS

		PRODUCTS		A	Ø.371" OD	Machining Information: 
		B	9.120" Overall Length			
		C	Ø.305" ID Before Machining			
	D		E		F	G
	R.124		0.675"		0.375"	0.310"
KPMI P/N	Model	Material			Kit Includes	
10-10502	BSA® Various	• Thin Wall Chrome Moly Tube • H. T. Steel Tips			2 Female Ended Pushrods / 2 Male Endpieces	
KPMI® will custom machine and finish 2 or 4 pushrods for a flat fee of \$120.00. Please place orders by using the Custom BSA® Pushrod Order Form found on our website at www.kpmi.us/forms.html .						

KPMI® will custom machine and finish 2 or 4 pushrods for a flat fee of \$120.00. Please place orders by using the Custom BSA® Pushrod Order Form found on our website at www.kpmi.us/forms.html.

ORDER 650-557-2046

BSA® ROCKET III™ 1968-1973



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	10-10200	Intake	.400"		1.350"		94#		240#		.400"
		Exhaust									
	Kit Includes			6	CrSi Valve Springs	6	Titanium Retainers	6	H. T. Steel Basewashers		

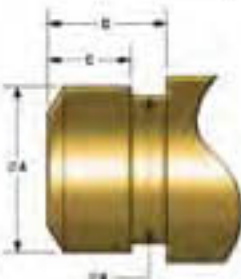
Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	10-10212	Intake	38.86mm	1.530"	0.3097"	R 1.500"	3.975"	Standard
	10-10213	Intake	40.39mm	1.590"	0.3097"	R 1.500"	3.950"	Oversize
	10-10216	Exhaust	33.40mm	1.315"	0.3100"	25°	3.915"	Standard
	10-10217	Exhaust	35.56mm	1.400"	0.3092"	25°	3.890"	Oversize

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.460"	0.560"	0.760"	1.310"	0.560"	0.3100"	0.5010" / Std.	10-10220	
									+0.002"	10-10222
		No seal required							+0.015"	10-10230
		A	B	C	D	E	F	G	Intake	Exhaust
		0.330"	0.430"	0.765"	1.315"	0.560"	0.3100"	0.5010" / Std.	10-10240	
									+0.002"	10-10242
									+0.004"	10-10244
									+0.006"	10-10246
Machined for seal. One seal supplied with each guide.								+0.015"	10-10250	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.465"	0.550"	1	A	B	C	D	Intake
				0.500"±0.010"	0.445"	0.230"	0.280"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71012-4			Pkg. of 4		0%
			71012-6			Pkg. of 6		0%
			71012-8			Pkg. of 8		0%
			71012-16			Pkg. of 16		Less- 10%
			71012-50			Pkg. of 50		Less- 15%
			71012-100			Pkg. of 100		Less- 20%

BSA® 650™ TWIN

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.465"	0.675"	0.910"	1.215"	0.560"	0.3100"	0.5010" / Std.	10-0347	
									+0.002"	10-0348
									+0.004"	10-0349
									+0.006"	10-0350
No seal required.								+0.050"	10-4055	

VISIT US AT WWW.KPMI.US

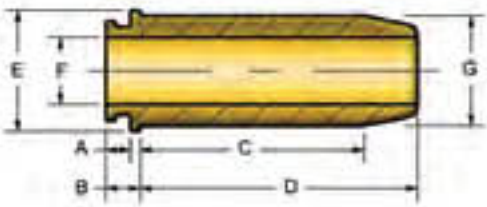
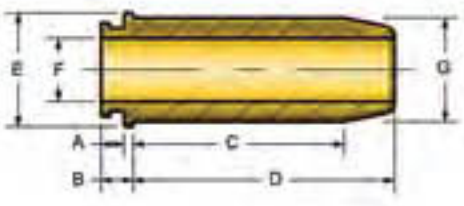


DUCATI® 800 / 900 2000-2007

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	92-92012	Intake	43.00mm	1.693"	0.3140"	22°	3.825"	Standard
	92-92013	Intake	44.00mm	1.732"	0.3140"	22°	3.825"	Oversize
	92-92016	Exhaust	38.00mm	1.496"	0.3135"	22°	3.730"	Standard
	92-92017	Exhaust	39.00mm	1.535"	0.3135"	22°	3.730"	Oversize

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.165"	0.205"	0.855	1.290"	0.560"	0.3145"	0.5147" / Std.	92-92020	
								+0.001"	92-92021	
								+0.002"	92-92022	
								+0.010"	92-92029	
		0.125"	0.165"	0.855	1.250"	0.560"	0.3140"	0.5147" / Std.		92-92030
								+0.001"		92-92031
								+0.002"		92-92032
								+0.010"		92-92039

Valve Guide Seals • Viton®

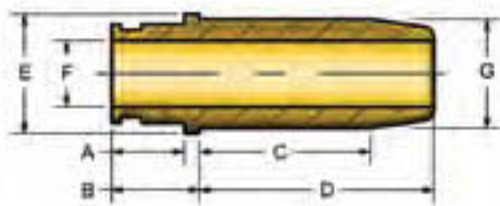
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
8.0mm	0.285"	0.555"	1	A	B	C	D	Intake
				0.466"-0.475"	0.411"-0.430"	0.040"	0.135"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71043-4			Pkg. of 4		0%	
		71043-8			Pkg. of 8		0%	
		71043-16			Pkg. of 16		Less- 10%	
		71043-50			Pkg. of 50		Less- 15%	
		71043-100			Pkg. of 100		Less- 20%	

For all the applications available for Kibblewhite's Ducati® line of products, please refer online to the Ducati® section of the www.kpmi.us website, under *Sport Bike*.

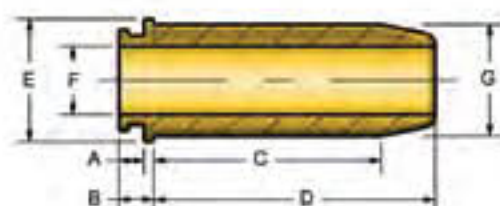
DUCATI® VARIOUS 750-916 1971-'98



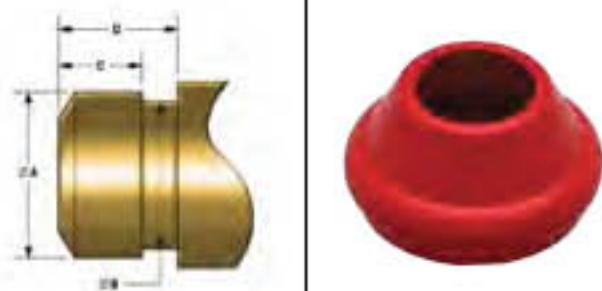
Valve Guides • C630 Bronze • For 750 GT 1971-1974

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.345"	0.415"	0.810"	1.110"	0.644"	0.3140"	0.5152" / Std.		92-9600
							+0.001"		92-9601
							+0.002"		92-9602
							+0.004"		92-9604
							+0.010"		92-9610

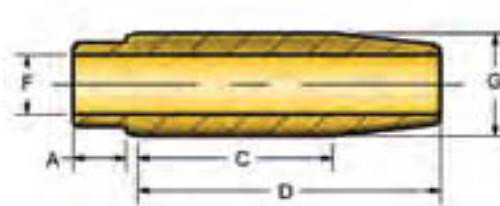
Valve Guides • C630 Bronze • For 750 FI Special / Paso 1986-1988 / 906 Paso 1988-1990

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.115"	0.160"	1.050"	1.300"	0.560"	0.3140"	0.5152" / Std.		92-9640
							+0.001"		92-9641
							+0.002"		92-9642
							+0.004"		92-9644
							+0.010"		92-9650

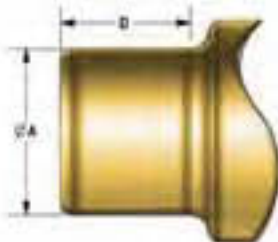
Valve Guide Seals • Viton® For 750 GT 1971-'74 / 750 FI Special / Paso 1986-'88 / 906 Paso 1988-'90

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
8.0mm	0.285"	0.555"	1	A	B	C	D	Intake
				0.466"-0.475"	0.411"-0.430"	0.040"	0.135"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71043-4				Pkg. of 4		0%
		71043-8				Pkg. of 8		0%
		71043-16				Pkg. of 16		Less- 10%
		71043-50				Pkg. of 50		Less- 15%
		71043-100				Pkg. of 100		Less- 20%

Valve Guides • C630 Bronze • For 851 SBK 1987-1992 / 888 SBK 1991-1993 / 916 SBK 1994-1998

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.245"	0.300"	0.900"	1.400"	---	0.2745	0.4745" / Std.		92-9620
							+0.001"		92-9621
							+0.002"		92-9622
							+0.004"		92-9624
							+0.010"		92-9630

Valve Guide Seals • Viton® • For 851 SBK 1987-1992 / 888 SBK 1991-1993 / 916 SBK 1994-1998

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.360"	0.520"	5	A	B	C	D	Intake
				0.383"-0.389"	---	---	0.255"	Exhaust
 			Part Number		Quantity		Quantity Incentive	
			71044-4		Pkg. of 4		0%	
			71044-8		Pkg. of 8		0%	
			71044-16		Pkg. of 16		Less- 10%	
			71044-50		Pkg. of 50		Less- 15%	
			71044-100		Pkg. of 100		Less- 20%	



DUCATI® SHIM KIT

Ducati Shim Kit



KPMI P/N	Type of Shim	Quantity
92-92300	Fits all years and two valve models except 1000cc, 1100cc, and Multistrada	Single Kit / 37 pcs. ----- 15 Closers / 21 Openers 1 Measurement Tool

This KPMI® Ducati Shim Kit # 92-92300 includes a closer measurement tool, 15 closers from 6.20 mm to 7.60 mm in 0.1 mm increments, and 21 openers from 3.00mm to 5.00mm in 0.1mm increments. All parts are heat treated for optimal performance and processed with black oxide for corrosion resistance and durability.

Individual Closers		Individual Openers		Individual Openers	
KPMI P/N	Size Range	KPMI P/N	Size Range	KPMI P/N	Size Range
92-92255	5.50mm	92-92120	2.00mm	92-92146	4.60mm
92-92256	5.60mm	92-92121	2.10mm	92-92147	4.70mm
92-92257	5.70mm	92-92122	2.20mm	92-92148	4.80mm
92-92258	5.80mm	92-92123	2.30mm	92-92149	4.90mm
92-92259	5.90mm	92-92124	2.40mm	92-92150	5.00mm
92-92260	6.00mm	92-92125	2.50mm	92-92151	5.10mm
92-92261	6.10mm	92-92126	2.60mm	92-92152	5.20mm
92-92262	6.20mm	92-92127	2.70mm	92-92153	5.30mm
92-92263	6.30mm	92-92128	2.80mm	92-92154	5.40mm
92-92264	6.40mm	92-92129	2.90mm	92-92155	5.50mm
92-92265	6.50mm	92-92130	3.00mm	92-92156	5.60mm
92-92266	6.60mm	92-92131	3.10mm	92-92157	5.70mm
92-92267	6.70mm	92-92132	3.20mm	92-92158	5.80mm
92-92268	6.80mm	92-92133	3.30mm	92-92159	5.90mm
92-92269	6.90mm	92-92134	3.40mm	92-92160	6.00mm
92-92270	7.00mm	92-92135	3.50mm	92-92161	6.10mm
92-92271	7.10mm	92-92136	3.60mm	92-92162	6.20mm
92-92272	7.20mm	92-92137	3.70mm	92-92163	6.30mm
92-92273	7.30mm	92-92138	3.80mm		
92-92274	7.40mm	92-92139	3.90mm		
92-92275	7.50mm	92-92140	4.00mm		
92-92276	7.60mm	92-92141	4.10mm		
92-92277	7.70mm	92-92142	4.20mm		
92-92278	7.80mm	92-92143	4.30mm		
92-92279	7.90mm	92-92144	4.40mm		
92-92280	8.00mm	92-92145	4.50mm		

KPMI® Shim Kit

- Designed and manufactured by KPMI® specifically for use with various Ducati® 8mm stem diameter valves.
- Improved from OEM parts to include KPMI® design standards and precision machining.
- All parts are through hardened for optimal performance, then black oxide coated for corrosion resistance and durability.



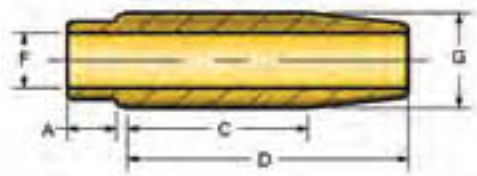
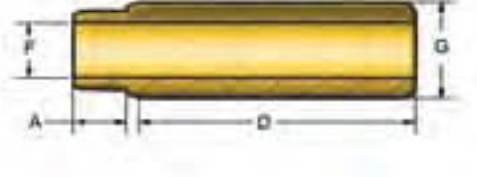
• Monster™ 1100 2010

• 1100S & Sport Classic GT™ 1000 Only

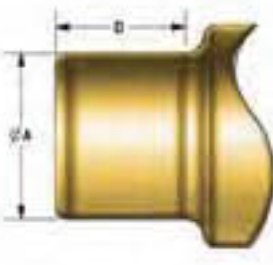
Valves • Black Diamond™ • Black Nitroneg Stems for 1000cc-1100cc Models Only

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	92-92062	Intake	45.00mm	1.772"	0.2746"	22°	3.830"	Standard
	92-92063	Intake	46.00mm	1.811"	0.2746"	22°	3.830"	Oversize
	92-92066	Exhaust	40.00mm	1.575"	0.2740"	22°	3.770"	Standard
	92-92067	Exhaust	41.00mm	1.614"	0.2740"	22°	3.770"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.235"	---	1.010"	1.270"	---	0.2745"	0.4744" / Std.	92-92070	
							+0.001"	92-92071	
							+0.002"	92-92072	
							+0.010"	92-92079	
	0.235"	---	---	1.280"	---	0.2740"	0.4744" / Std.		92-92080
							+0.001"		92-92081
							+0.002"		92-92082
							+0.010"		92-92089

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.360"	0.520"	5	A	B	C	D	Intake
				0.383"-0.389"	---	---	0.255"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71044-4			Pkg. of 4		0%
			71044-8			Pkg. of 8		0%
			71044-16			Pkg. of 16		Less- 10%
			71044-50			Pkg. of 50		Less- 15%
			71044-100			Pkg. of 100		Less- 20%

For all the applications available for Kibblewhite's Ducati® line of products, please refer online to the Ducati® section of the www.kpmi.us website, under *Sport Bike*.



HD® FLATHEAD™ 1930-1973

Valve Spring Kit • O. E. M. Replacement for 74" - 80" Flathead 1930-1948

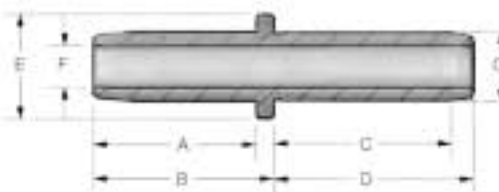
	KPMI P/N	Type	Kit Includes							
			H. T. Steel Retainers				H. T. Steel Keepers Pr.			
	20-20480	Intake	4	20-20481		4	20-20489			
		Exhaust	CrSi Valve Springs		H. T. Steel Basewashers		H. T. Steel Shims			
	4		20-20483		4	20-20485		4	20-20487	
	Max Valve Lift	Installed Height		Seat Pressure		Open Pressure		@ Lift		
	.375"	2.125"		65#		130#		.375"		

Some models may require shim# 20-20487 to achieve recommended installed height. All components are the quality you can expect from Kibblewhite®, manufactured to exact O.E.M. dimensions. These O.E.M. replacement parts may be purchased separately using the above part numbers.

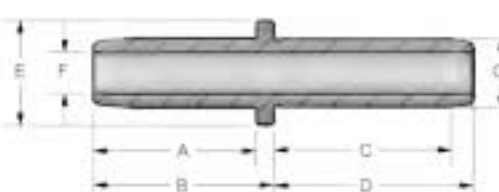
Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-20740	Intake	1.625"	41.28mm	0.3395"	R0.540	R 0.540	5.585"	45° Standard 1941-1973
		Exhaust	1.930"	49.02mm	0.3715"	R0.325	7°	6.280"	UL 74"-80"
	20-20742	Intake	1.930"	49.02mm	0.3715"	R0.325	7°	6.280"	UL 74"-80"
		Exhaust	2.050"	52.07mm	0.3715"	R0.325	7°	6.280"	UL 74"-80"
	20-20743	Intake	1.930"	49.02mm	0.3715"	R0.325	7°	5.940"	VL 74"-80"
		Exhaust	2.050"	52.07mm	0.3715"	R0.325	7°	5.940"	VL 74"-80"
	20-20744	Intake	1.930"	49.02mm	0.3715"	R0.325	7°	5.940"	VL 74"-80"
		Exhaust	2.050"	52.07mm	0.3715"	R0.325	7°	5.940"	VL 74"-80"
	20-20745	Intake	1.930"	49.02mm	0.3715"	R0.325	7°	5.940"	VL 74"-80"
		Exhaust	2.050"	52.07mm	0.3715"	R0.325	7°	5.940"	VL 74"-80"

Valve Guides • Cast Iron For 45" Flathead 1941-1973

	A	B	C	D	E	F	G	Intake	Exhaust
	1.200"	1.330"	1.310"	1.470"	0.855"	0.3395"	0.5647" / Std.	20-20750	20-20750
							+0.001"	20-20751	20-20751
							+0.002"	20-20752	20-20752
							+0.010"	20-20759	20-20759

Valve Guides • Cast Iron For 74"- 80" Flathead 1930-1948

	A	B	C	D	E	F	G	Intake	Exhaust
	1.120"	1.275"	1.630"	1.860"	0.935"	0.3715"	0.5952" / Std.	20-20760	20-20760
							+0.001"	20-20761	20-20761
							+0.002"	20-20762	20-20762
							+0.010"	20-20769	20-20769

For sizing KPMI® Cast Iron Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

HD® KNUCKLEHEAD™ 1936-1947

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20170	Intake	.480"	1.310"	158#	340#	.480"
		Exhaust					
	Kit Includes		4	H. T. Steel Retainers		4	H. T. Steel Keepers Pr.
			4	CrSi Valve Springs		4	H. T. Steel Shims

Spring kit must be used with Kibblewhite® guides, or the tops of your guides must be machined to use this kit. Retainers manufactured from heat treated, aircraft quality, steel billet. FEA stress analysis used to incorporate unique concave radius, and design equidistant holes to lighten retainer without sacrificing strength. Black Oxide treatment applied to resist corrosion. Machining Instructions included with kit, or check our website www.kpmi.us for current info.

ORDER 650-557-2046

HD® KNUCKLEHEAD™ 1936-1947



Valve Spring Kit • O. E. M. Replacement



KPMI P/N	Type	Kit Includes			
		H. T. Steel Retainers	H. T. Steel Keepers Pr.	CrSi Valve Springs	H. T. Steel Basewashers
20-20425	Intake Exhaust	4 20-20426	4 20-20429	4 20-20427	4 20-20428
Max Valve Lift	Installed Height	Seat Pressure		Open Pressure	
.415"	1.375"	127#		270#	
				@ Lift	
				.415"	

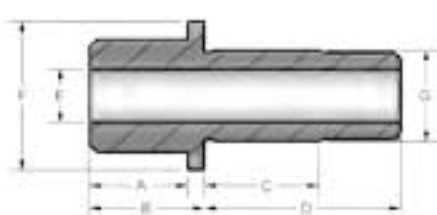
All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance. All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. dimensions. These O.E.M. replacement parts may be purchased separately using the above part numbers.

Valves • Black Diamond™ • Black Nitroleg Stems



KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
					Radius	Angle		
20-4101	Intake	1.750"	44.45mm	0.3765"	R0.234	23°	3.590"	Standard
20-20414	Intake	1.940"	49.28mm	0.3765"	R0.234	23°	3.590"	Oversize
20-4102	Exhaust	1.750"	44.45mm	0.3760"	R0.236	27°	3.670"	Standard

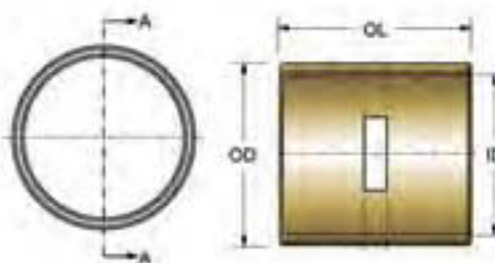
Valve Guides • Cast Iron



A	B	C	D	E	F	G	Intake	Exhaust
0.600"	0.700"	0.700"	1.200"	1.050"	0.3755"	0.6440" / Std.	20-4095C	
						+0.002"	20-4096C	
						+0.004"	20-4097C	
						+0.006"	20-4098C	
						+0.008"	20-4099C	
						+0.025"	20-4100C	

For sizing KPMI® Cast Iron Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

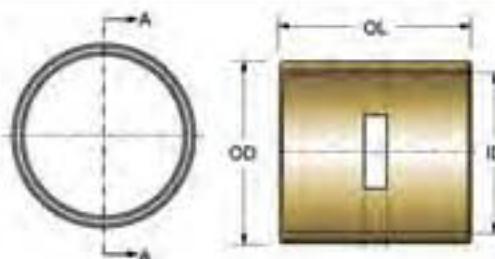
Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze



KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
20-20570	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 2
20-20572	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 2
20-20580	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1
20-20582	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

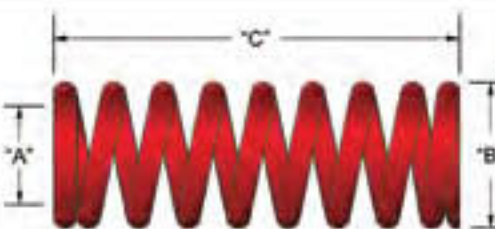
Wrist Pin Bushings • High Performance • C630 Bronze



KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
20-0645	C630 Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Clutch Springs



KPMI P/N	Description	A	B	C	Quantity
20-0788	Replace 38075-41	0.468"	0.685"	1.488"	Pkg. of 10

Manufactured from high quality chrome silicon wire, they are designed to supply 20% more plate load than stock springs.

VISIT US AT WWW.KPMI.US



HD® PANHEAD™ 1948-1965

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20445	Intake	.600"	1.500"	154#	389#	.600"
		Exhaust					
	Kit Includes		4	H. T. Steel Retainers	4	H. T. Steel Keepers Pr.	
			4	CrSi Valve Springs	4	H. T. Steel Basewashers	

This lightweight Panhead® spring kit is designed to work with factory covers without interference. Further, the basewasher in this kit has been counter bored to allow the seal to fit inside the basewasher which increases the retainer to seal clearance for higher lift cams. The retainers in this kit are designed using the latest CAD software available. The retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valve Spring Kit • O. E. M. Replacement

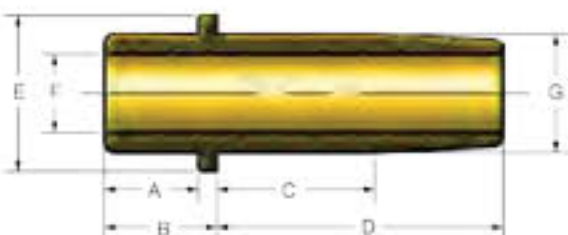
	KPMI P/N	Type	Kit Includes					
			H. T. Steel Retainers	H. T. Steel Keepers Pr.	CrSi Valve Springs	H. T. Steel Basewashers		
	20-20430	Intake	4	20-20431	4	20-20432	4	20-20433
		Exhaust						
	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure	
	.415"		1.375"		129#		272#	

All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance. All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. dimensions. These O.E.M. replacements parts may be purchased separately using the above part numbers.

Valves • Black Diamond™ • Black Nitroleg Stems

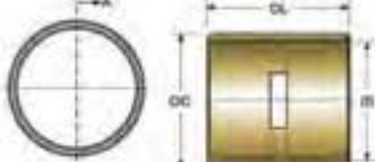
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-4257	Intake	1.750"	44.45mm	0.3765"	R0.234	23°	3.800"	OEM18071-48
	20-4195	Exhaust	1.750"	44.45mm	0.3760"	R0.234	29°	3.820"	OEM18082-57

Valve Guides • C630 Bronze • Cast Iron

	A	B	C	D	E	F	G	Intake	
	0.450"	0.540"	0.810"	1.340"	0.745"	0.3760"	0.5650" / Std.	C630 Bronze	Cast Iron
							+0.001"	20-2020	20-2020C
							+0.002"	20-2021	20-2021C
							+0.003"	20-2022	20-2022C
							+0.004"	20-2023	20-2023C
							+0.006"	20-2024	20-2024C
							+0.008"	20-2026	20-2026C
							+0.010"	20-2028	20-2028C
							+0.012"	20-2029	20-2029C
	A	B	C	D	E	F	G	Exhaust	
	0.450"	0.540"	0.810"	1.340"	0.745"	0.3760"	0.5650" / Std.	C630 Bronze	Cast Iron
							+0.001"	20-2030	20-2030C
							+0.002"	20-2031	20-2031C
							+0.003"	20-2032	20-2032C
							+0.004"	20-2033	20-2033C
							+0.006"	20-2034	20-2034C
							+0.008"	20-2036	20-2036C
							+0.010"	20-2038	20-2038C
							+0.012"	20-2039	20-2039C
	A	B	C	D	E	F	G	Exhaust	
	0.450"	0.540"	0.810"	1.340"	0.745"	0.3760"	0.5650" / Std.	C630 Bronze	Cast Iron
							+0.001"	20-2030	20-2030C
							+0.002"	20-2031	20-2031C
							+0.003"	20-2032	20-2032C
							+0.004"	20-2033	20-2033C
							+0.006"	20-2034	20-2034C
							+0.008"	20-2036	20-2036C
							+0.010"	20-2038	20-2038C
							+0.012"	20-2039	20-2039C

For sizing KPMI® Cast Iron Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Wrist Pin Bushings • High Performance • C630 Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-0645	C630 Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1

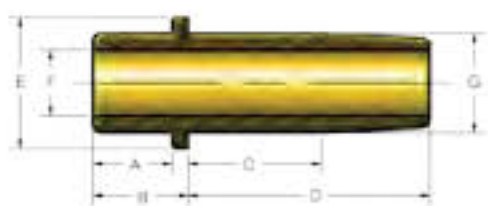
KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

ORDER 650-557-2046

HD® PANHEAD™ 1948-1965



Valve Guides • Manganese Bronze

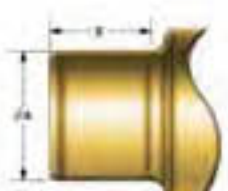
	A	B	C	D	E	F	G	Intake	Exhaust
	0.375"	0.465"	0.885"	1.435"	0.745"	0.3760"	0.5650" / Std.	20-2020M	20-2030M
							+0.001"	20-2021M	20-2031M
							+0.002"	20-2022M	20-2032M
							+0.003"	20-2023M	20-2033M
							+0.004"	20-2024M	20-2034M
							+0.006"	20-2026M	20-2036M
							+0.008"	20-2028M	20-2038M
							+0.010"	20-2029M	20-2039M
							+0.025"	20-20HSM	20-30HSM

For sizing KPMI® Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
3/8"	0.516"	0.661"	5	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.375"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71011-4		Pkg. of 4		0%
				71011-8		Pkg. of 8		0%
				71011-16		Pkg. of 16		Less- 10%
				71011-50		Pkg. of 50		Less- 15%
				71011-100		Pkg. of 100		Less- 20%

Valve Guide Seals • PC Style

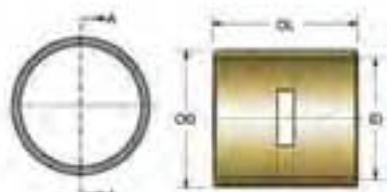
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
3/8"	0.518"	0.650"	6	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.375"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71002-4		Pkg. of 4		0%
				71002-8		Pkg. of 8		0%
				71002-16		Pkg. of 16		Less- 10%
				71002-50		Pkg. of 50		Less- 15%
				71002-100		Pkg. of 100		Less- 20%

Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
3/8"	0.375"	0.660"	7	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.315"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71035-4		Pkg. of 4		0%
				71035-8		Pkg. of 8		0%
				71035-16		Pkg. of 16		Less- 10%
				71035-50		Pkg. of 50		Less- 15%
				71035-100		Pkg. of 100		Less- 20%

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20570	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 2
	20-20572	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 2
	20-20580	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1
	20-20582	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 1

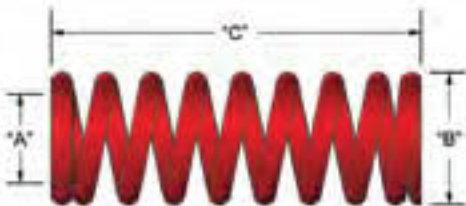
Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

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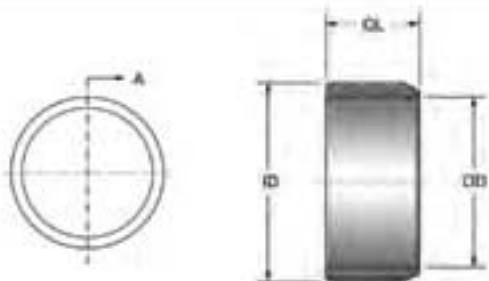


HD® PANHEAD™ 1948-1965

Clutch Springs

	KPMI P/N	Description	A	B	C	Quantity
	20-0788	Replace 38075-41	0.468"	0.685"	1.488"	Pkg. of 10
Manufactured from high quality chrome silicon wire, they are designed to supply 20% more plate load than stock springs.						

Spigot • Exhaust • 6061-T6 Aluminum

	KPMI P/N	Type	Material	O. D.	I. D.	O. L.	Quantity
	20-2104	Exhaust	6061-T6 aluminum	2.060"	1.765"	0.970"	Pkg. of 1
Kibblewhite®'s replacement exhaust spigot has been designed and machined from 6061-T6 aluminum extruded tubing. This spigot allows you to rebuild the exhaust attachment point on your classic Panhead engine.							

Recommended Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC510	Intake	2.007"	50.98mm	1.562"	39.67mm	0.450"	11.43mm	Pkg. of 1
KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.									

HD® SPORTSTER™ 1957-1969

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	20-2210	Intake	.480"	1.310"	158#	340#	.480"	
		Exhaust						
	Kit Includes			4	H. T. Steel Retainers		4	H. T. Steel Keepers Pr.
				4	CrSi Valve Springs		4	H. T. Steel Basewashers
Longer KPMI "R" model valves, 20-4167 (int.) and 20-4168(ex.) may be required to achieve correct installed height for this spring kit. Rockers should clear covers when kit is installed correctly.								

Valve Spring Kit • O. E. M. Replacement



KPMI P/N	Type	Kit Includes							
		H. T. Steel Retainers		H. T. Steel Keepers Pr.		CrSi Valve Springs		H. T. Steel Basewashers	
		4	20-20441	4	20-4275	4	20-2215	4	20-20085
20-20440	Intake Exhaust								
Max Valve Lift	Installed Height	Seat Pressure		Open Pressure		@ Lift			
.400"	1.245"	95#		330#		.400"			

All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance. All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. dimensions. These O.E.M. replacements parts may be purchased separately using the above part numbers.

ORDER 650-557-2046

HD® SPORTSTER™ 1957-1969



Valve Guides • C630 Bronze • Cast Iron

		A	B	C	D	E	F	G	Intake	
									C630 Bronze	Cast Iron
		0.470"	0.545"	0.700"	1.225"	0.745"	0.3085"	0.5650" / Std.	20-2320	20-2320C
								+0.001"	20-2321	20-2321C
								+0.002"	20-2322	20-2322C
								+0.010"	20-2329	20-2329C
		A	B	C	D	E	F	G	Exhaust	
		0.470"	0.545"	0.600"	1.225"	0.745"	0.3375"	0.5650" / Std.	20-2330	20-2330C
								+0.001"	20-2331	20-2331C
								+0.002"	20-2332	20-2332C
								+0.010"	20-2339	20-2339C

For sizing KPMI® Cast Iron Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valves • Black Diamond™ • Black Nitroleg Stems



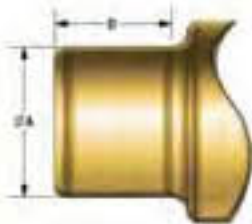
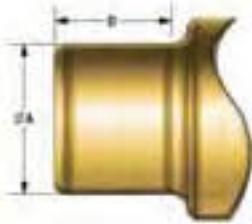
KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
					Radius	Angle		
20-4258	Intake	1.825"	46.36mm	0.3090"	R0.375	23°	3.562"	OEM18071-58
20-4197	Exhaust	1.570"	39.88mm	0.3384"	R0.236	29°	3.512"	OEM18080-58R
20-4197-1	Exhaust	1.630"	41.40mm	0.3384"	R0.236	29°	3.512"	Oversize

Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC541	Intake	2.132"	54.15mm	1.690"	42.93mm	0.450"	11.43mm	Pkg. of 1
	10-SC446	Exhaust	1.757"	44.62mm	1.375"	35.00mm	0.450"	11.43mm	Pkg. of 1

KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.

Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.375"	0.630"	7	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.295"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71033-4				Pkg. of 4		0%
		71033-8				Pkg. of 8		0%
		71033-16				Pkg. of 16		Less- 10%
		71033-50				Pkg. of 50		Less- 15%
		71033-100				Pkg. of 100		Less- 20%
Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
11/32"	0.375"	0.630"	7	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.295"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71034-4				Pkg. of 4		0%
		71034-8				Pkg. of 8		0%
		71034-16				Pkg. of 16		Less- 10%
		71034-50				Pkg. of 50		Less- 15%
		71034-100				Pkg. of 100		Less- 20%

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

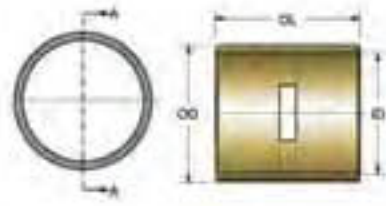
Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8



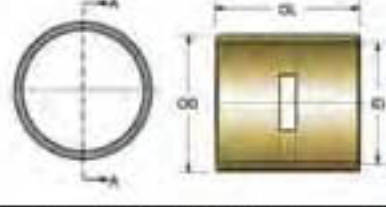
HD® SPORTSTER™ 1957-1969

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20810	660 Bearing Bronze	0.897"	0.788"	0.945"	Standard	Pkg. of 1
	20-20812	660 Bearing Bronze	0.899"	0.788"	0.945"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

Wrist Pin Bushings • High Performance • C630 Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-0644	C630 Bronze	0.897"	0.788"	0.945"	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

HD® SPORTSTER™ 1970-1983

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	20-2210	Intake	.480"	1.310"	158#	340#	.480"	
		Exhaust						
	Kit Includes			4	H. T. Steel Retainers		4	H. T. Steel Keepers Pr.
				4	CrSi Valve Springs		4	H. T. Steel Basewashers

Longer KPMI 'R' model valves, 20-4167 (int.) and 20-4168(ex.) may be required to achieve correct installed height for this spring kit. Rockers should clear covers when kit is installed correctly. Retainers manufactured from heat treated, aircraft quality, steel billet. FEA stress analysis used to incorporate unique concave radius, and design equidistant holes to lighten retainer without sacrificing strength. Black Oxide treatment applied to resist corrosion.

Valve Spring Kit • O. E. M. Replacement

	KPMI P/N	Type	Kit Includes							
			H. T. Steel Retainers		H. T. Steel Keepers Pr.		CrSi Valve Springs		H. T. Steel Basewashers	
	20-20440	Intake Exhaust	4	20-20441	4	20-4275	4	20-2215	4	20-20085
Max Valve Lift			Installed Height		Seat Pressure		Open Pressure		@ Lift	
.400"			1.245"		95#		330#		.400"	

All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance. All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. dimensions. These O.E.M. replacements parts may be purchased separately using the above part numbers.

Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
	20-4196	Intake	1.935"	49.15mm	0.3090"	Radius	Angle	3.620"	OEM18070-70
	20-4167	Intake	1.950"	49.53mm	0.3090"	R0.256	23°		OEM18069-65R
	20-4196-1	Intake	2.000"	50.80mm	0.3090"	R0.256	23°		Oversize
	20-4197	Exhaust	1.570"	39.88mm	0.3384"	R0.236	29°		OEM18080-58R
	20-4197-1	Exhaust	1.630"	41.40mm	0.3384"	R0.236	29°		Oversize
	20-4168	Exhaust	1.750"	44.45mm	0.3384"	R0.236	29°		OEM18080-70R

HD® SPORTSTER™ 1970-1983



Valve Guides • C630 Bronze • Cast Iron

		A	B	C	D	E	F	G	Intake	
									C630 Bronze	Cast Iron
		0.470"	0.545"	0.700"	1.225"	0.745"	0.3085"	0.5650" / Std.	20-2320	20-2320C
								+0.001"	20-2321	20-2321C
								+0.002"	20-2322	20-2322C
								+0.010"	20-2329	20-2329C
		A	B	C	D	E	F	G	Exhaust	
		0.470"	0.545"	0.600"	1.225"	0.745"	0.3375"	0.5650" / Std.	20-2330	20-2330C
								+0.001"	20-2331	20-2331C
								+0.002"	20-2332	20-2332C
								+0.010"	20-2339	20-2339C

For sizing KPMI® Cast Iron Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC541	Intake	2.132"	54.15mm	1.690"	42.93mm	0.450"	11.43mm	Pkg. of 1
	10-SC446	Exhaust	1.757"	44.62mm	1.375"	35.00mm	0.450"	11.43mm	Pkg. of 1

KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.

Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.375"	0.630"	7	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.295"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71033-4				Pkg. of 4		0%
		71033-8				Pkg. of 8		0%
		71033-16				Pkg. of 16		Less- 10%
		71033-50				Pkg. of 50		Less- 15%
		71033-100				Pkg. of 100		Less- 20%
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
11/32"	0.375"	0.630"	7	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.295"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71034-4				Pkg. of 4		0%
		71034-8				Pkg. of 8		0%
		71034-16				Pkg. of 16		Less- 10%
		71034-50				Pkg. of 50		Less- 15%
		71034-100				Pkg. of 100		Less- 20%

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8



Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Manufactured from high quality chrome silicon wire, spring is designed to supply 20% more plate load than stock

HD® SHOVELHEAD™ 74" 1966-1977

Retainer offset 0.070" for taller installed height. Basewashers counter-bored to accept a 0.665" OD seal



All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance. All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. dimensions. These O.E.M. replacement parts may be purchased separately using the above part numbers.

HD® SHOVELHEAD™ 74" 1966-1977



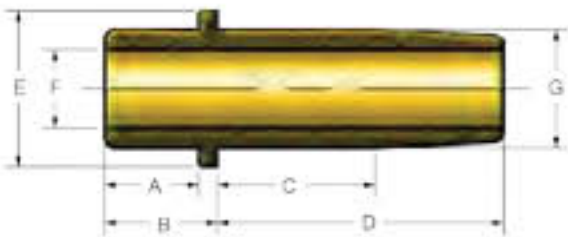
Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-4194	Intake	1.950"	49.53mm	0.3765"	R0.234	23°	3.885"	OEM18078-80
	20-4256	Intake	2.000"	50.80mm	0.3765"	R0.234	23°	3.885"	Oversize
	20-4195	Exhaust	1.750"	44.45mm	0.3760"	R0.234	29°	3.810"	OEM18082-57
	20-4195S	Exhaust	1.780"	45.21mm	0.3760"	R0.234	29°	3.820"	Oversize
	20-4195-1	Exhaust	1.8120"	46.02mm	0.3760"	R0.234	29°	3.820"	Oversize

Black Diamond™ Valves • Fat Stem • Black Nitroneg Stems

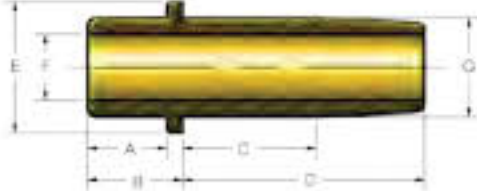
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-4294	Intake	1.950"	49.53mm	0.3780"	R0.234	23°	3.885"	OEM18075-8
	20-4295	Exhaust	1.750"	44.45mm	0.3775"	R0.234	29°	3.810"	Standard

Valve Guides • C630 Bronze • Cast Iron

	A	B	C	D	E	F	G	Intake	
								C630 Bronze	Cast Iron
	0.450"	0.540"	0.810"	1.340"	0.745"	0.3760"	0.5650" / Std.	20-2020	20-2020C
							+0.001"	20-2021	20-2021C
							+0.002"	20-2022	20-2022C
							+0.003"	20-2023	20-2023C
							+0.004"	20-2024	20-2024C
							+0.006"	20-2026	20-2026C
							+0.008"	20-2028	20-2028C
							+0.010"	20-2029	20-2029C
							+0.025"	20-20HS	20-20HSC
	A	B	C	D	E	F	G	Exhaust	
	0.450"	0.540"	0.810"	1.340"	0.745"	0.3760"	0.5650" / Std.	20-2030	20-2030C
							+0.001"	20-2031	20-2031C
							+0.002"	20-2032	20-2032C
							+0.003"	20-2033	20-2033C
							+0.004"	20-2034	20-2034C
							+0.006"	20-2036	20-2036C
							+0.008"	20-2038	20-2038C
							+0.010"	20-2039	20-2039C
							+0.025"	20-30HS	20-30HSC

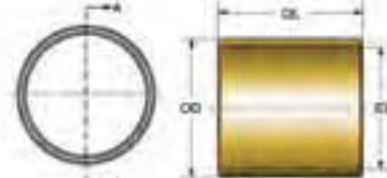
For sizing KPMI® Cast Iron Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guides • Manganese Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.375"	0.465"	0.885"	1.435"	0.745"	0.3760"	0.5650" / Std.	20-2020M	20-2030M
							+0.001"	20-2021M	20-2031M
							+0.002"	20-2022M	20-2032M
							+0.003"	20-2023M	20-2033M
							+0.004"	20-2024M	20-2034M
							+0.006"	20-2026M	20-2036M
							+0.008"	20-2028M	20-2038M
							+0.010"	20-2029M	20-2039M
							+0.025"	20-20HSM	20-30HSM

For sizing KPMI® Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Kicker Shaft Bushings & Seal

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-2107	Bronze	0.9355"	0.741"	1.105"	Standard	2 Bushings & 1 O-Ring
	20-2108	Bronze	0.9405"	0.741"	1.105"	+0.005"	2 Bushings & 1 O-Ring

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HD® SHOVELHEAD™ 74" 1966-1977

Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
3/8"	0.375"	0.660"	7	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.315"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71035-4		Pkg. of 4		0%
				71035-8		Pkg. of 8		0%
				71035-16		Pkg. of 16		Less- 10%
				71035-50		Pkg. of 50		Less- 15%
				71035-100		Pkg. of 100		Less- 20%

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
3/8"	0.516"	0.661"	5	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.375"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71011-4		Pkg. of 4		0%
				71011-8		Pkg. of 8		0%
				71011-16		Pkg. of 16		Less- 10%
				71011-50		Pkg. of 50		Less- 15%
				71011-100		Pkg. of 100		Less- 20%

Valve Guide Seals • PC Style

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
3/8"	0.518"	0.650"	6	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.375"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71002-4		Pkg. of 4		0%
				71002-8		Pkg. of 8		0%
				71002-16		Pkg. of 16		Less- 10%
				71002-50		Pkg. of 50		Less- 15%
				71002-100		Pkg. of 100		Less- 20%

Rocker Arm Bushings • 660 Bearing Bronze

		KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
		20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8

Wrist Pin Bushings • High Performance • Nickel Bronze Alloy

		KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
		20-0645	C630 Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

		KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
		20-20570	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 2
		20-20572	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 2
		20-20580	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1
		20-20582	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

ORDER 650-557-2046

HD® SHOVELHEAD™ 74" 1966-1977



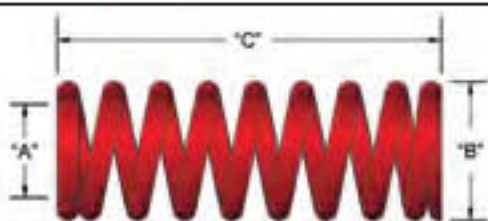
Valve Seats • Powdered Metal



KPMI P/N	Type	O. D.		I. D.		Height		Quantity
10-SC550	Intake	54.97mm	2.164"	44.45mm	1.750"	11.43mm	0.450"	Pkg. of 1
10-SC523	Exhaust	52.32mm	2.060"	39.67mm	1.562"	11.43mm	0.450"	Pkg. of 1

KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.

Clutch Springs



KPMI P/N	Description	A	B	C	Quantity
20-0789	Replace 38075-68	0.439"	0.629"	1.718"	Pkg. of 10

Manufactured from high quality chrome silicon wire, they are designed to supply 20% more plate load than stock springs.

HD® SHOVELHEAD™ 80" 1978-1983

Valve Spring Kit • Lightweight Racing



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-21100	Intake Exhaust	.600"	1.510"	152#	387#	.600"
Kit Includes		4	H.A. 7075-T6 Retainers	4	H. T. Steel Keepers Pr.	
		4	CrSi Valve Springs	4	H. T. Steel Basewashers	
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
*20-21150	Intake Exhaust	.600"	1.510"	152#	387#	.600"
Kit Includes		4	H. T. Steel Retainers	4	H. T. Steel Keepers Pr.	
		4	CrSi Valve Springs	4	H. T. Steel Basewashers	

*All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance. Retainer offset 0.070" for taller installed height. Basewashers counter-bored to accept a 0.720" OD seal. Basewasher fits over 0.625" guide top.

Valve Spring Kit • O. E. M. Replacement



KPMI P/N	Type	Kit Includes							
		H. T. Steel Retainers		H. T. Steel Keepers Pr.		CrSi Valve Springs		H. T. Steel Basewashers	
20-20850	Intake	4	20-20851	4	20-20857	4	20-20853	4	20-20855
	Exhaust								
Max Valve Lift	Installed Height		Seat Pressure			Open Pressure			@ Lift
.415"	1.375"		129#			272#			.415"

All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance. All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. dimensions. These O.E.M. replacements parts may be purchased separately using the above part numbers.

Valves • Black Diamond™ • Black Nitroleg Stems



KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
					Radius	Angle		
20-4194	Intake	1.950"	49.53mm	0.3765"	R0.234	23°	3.885"	OEM18078-80
20-4256	Intake	2.000"	50.80mm	0.3765"	R0.234	23°	3.885"	Oversize
20-4195	Exhaust	1.750"	44.45mm	0.3760"	R0.234	29°	3.810"	OEM18082-57
20-4195S	Exhaust	1.780"	45.21mm	0.3760"	R0.234	29°	3.820"	Oversize
20-4195-1	Exhaust	1.8120"	46.02mm	0.3760"	R0.234	29°	3.820"	Oversize

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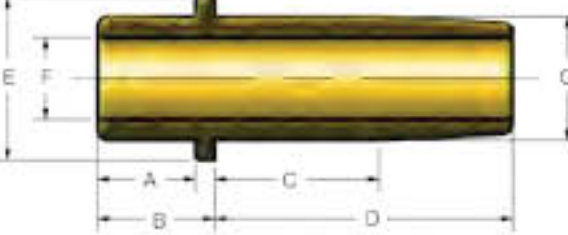


HD® SHOVELHEAD™ 80" 1978-1983

Valves • Black Diamond™ Valves • Fat Stem • Black Nitroneg Stems

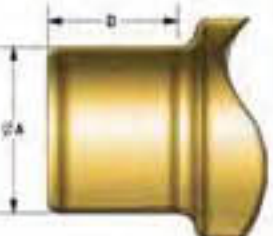
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-4294	Intake	1.950"	49.53mm	0.3780"	R0.234	23°	3.885"	OEM18075-81
	20-4295	Exhaust	1.750"	44.45mm	0.3775"	R0.234	29°	3.810"	Standard

Valve Guides • C630 Bronze • Cast Iron • Manganese Bronze

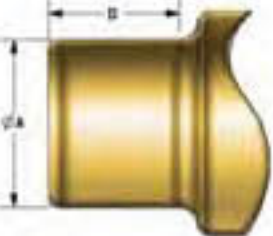
	A	B	C	D	E	F	G	Intake		
								C630 Bronze	Cast Iron	Manganese
	0.450"	0.540"	0.755"	1.370"	0.745"	0.3745"	0.625" / Std.	20-2050	20-2050C	20-2050M
							+0.001"	20-2051	20-2051C	20-2051M
							+0.002"	20-2052	20-2052C	20-2052M
							+0.003"	---	20-2053C	---
							+0.004"	20-2054	20-2054C	20-2054M
							+0.005"	---	20-2055C	---
							+0.006"	20-2056	20-2056C	20-2056M
							+0.008"	---	20-2058C	---
							+0.010"	---	20-2059C	---
							+0.025"	20-50HS	20-50HSC	20-50HSM
	A	B	C	D	E	F	G	Exhaust		
								20-2060	20-2060C	20-2060M
	0.450"	0.540"	0.755"	1.370"	0.745"	0.3745"	0.625" / Std.	20-2061	20-2061C	20-2061M
							+0.001"	20-2062	20-2062C	20-2062M
							+0.002"	---	20-2063C	---
							+0.003"	20-2064	20-2064C	20-2064M
							+0.004"	---	20-2065C	---
							+0.005"	20-2066	20-2066C	20-2066M
							+0.006"	---	20-2068C	---
							+0.008"	---	20-2069C	---
							+0.010"	20-60HS	20-60HSC	20-60HSM
							+0.025"			

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
3/8"	0.516"	0.661"	5	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.375"	Exhaust
				Part Number		Quantity		Quantity Incentive
				*71011-4		Pkg. of 4		0%
				*71011-8		Pkg. of 8		0%
				*71011-16		Pkg. of 16		Less- 10%
				*71011-50		Pkg. of 50		Less- 15%
				*71011-100		Pkg. of 100		Less- 20%

Valve Guide Seals • PC Style

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
3/8"	0.518"	0.650"	6	A	B	C	D	Intake
				0.562"±0.002"	---	---	0.375"	Exhaust
				Part Number		Quantity		Quantity Incentive
				*71002-4		Pkg. of 4		0%
				*71002-8		Pkg. of 8		0%
				*71002-16		Pkg. of 16		Less- 10%
				*71002-50		Pkg. of 50		Less- 15%
				*71002-100		Pkg. of 100		Less- 20%

*To use the above seals in this application, it is required to modify the guides with a 0.562" Ø x 3/8" Pilot seal cutter. Please refer to Goodson part number VSC-562375. www.goodson.com

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HD® SHOVELHEAD™ 80" 1978-1983



Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
3/8"	0.400"	0.720"	7	A	B	C	D	Intake
				0.625"±0.002"	---	---	0.310"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71036-4		Pkg. of 4		0%		
		71036-8		Pkg. of 8		0%		
		71036-16		Pkg. of 16		Less- 10%		
		71036-50		Pkg. of 50		Less- 15%		
		71036-100		Pkg. of 100		Less- 20%		

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20570	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 2
	20-20572	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 2
	20-20580	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1
	20-20582	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

Wrist Pin Bushings • High Performance • C630 Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-0645	C630 Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Kicker Shaft Bushings & Seal

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-2107	Bronze	0.9355"	0.741"	1.105"	Standard	2 Bushings & 1 O-Ring
	20-2108	Bronze	0.9405"	0.741"	1.105"	+0.005"	2 Bushings & 1 O-Ring

Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8

Clutch Springs

	KPMI P/N	Description	A	B	C	Quantity
	20-0789	Replace 38075-68	0.439"	0.629"	1.718"	Pkg. of 10

Manufactured from high quality chrome silicon wire, they are designed to supply 20% more plate load than stock springs.

Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC550	Intake	2.164"	54.97mm	1.750"	44.45mm	0.450"	11.43mm	Pkg. of 1
	10-SC523	Exhaust	2.060"	52.32mm	1.562"	39.67mm	0.450"	11.43mm	Pkg. of 1

KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.

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HD® EVOLUTION™ 1984-1999

Valve Spring Kit • "High Performance" Ovate Wire Beehive

**NEW
PRODUCTS**



PRODUCT

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-21300	Intake	.610"	1.860"	175#	400#	.610"
	Exhaust					
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Retainers	
		4	H. T. Steel Keeper (OEM Style)	4	H. T. Steel Basewashers	
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-21500	Intake	.660"	1.860"	178#	371#	.660"
	Exhaust					
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Retainers	
		4	H. T. Steel Keepers (9° Degree Taper)	4	H. T. Steel Basewashers	

Valve Spring Kit • Lightweight Racing



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-20122	Intake	.600"	1.810"	175#	380#	.600"
	Exhaust					
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
		4	Titanium Retainers	4	H. T. Steel Basewashers	
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
*20-20132	Intake	.600"	1.810"	175#	380#	.600"
	Exhaust					
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
		4	H. T. Steel Retainers	4	H. T. Steel Basewashers	
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-20060	Intake	.655"	1.865"	190#	465#	.655"
	Exhaust					
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
		4	Titanium Retainers	4	H. T. Steel Basewashers	
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
*20-20081	Intake	.655"	1.860"	185#	450#	.655"
	Exhaust					
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
		4	H. T. Steel Retainers	4	H. T. Steel Basewashers	

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valves • Black Diamond™ • Black Nitroneg Stems

**NEW
PRODUCTS**



KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip		O. L.	Remarks
				Radius	Angle		
20-4171	Intake	1.840"	46.74mm	0.3100"	R0.236	23°	4.445" OEM18074-83B
20-20900	Intake	2.150"	54.61mm	0.3108"	R0.550	24°	4.480" AV&V# AV2150
20-20905	Intake	1.990"	50.55mm	0.3108"	R0.675	25°	4.440" AV&V# AV1990
20-20910	Intake	1.940"	49.28mm	0.3108"	R0.675	25°	4.440" AV&V# AV1940
20-20915	Intake	1.900"	48.26mm	0.3108"	R0.675	25°	4.440" AV&V# AV1900
20-20955	Intake	2.100"	53.34mm	0.3108"	R0.560	24°	4.475" AV&V# AV2100
20-20990	Intake	2.020"	51.31mm	0.3108"	R0.670	25°	4.440" AV&V# AV2020A
20-20965	Intake	2.020"	51.31mm	0.3108"	R0.645	25°	4.510" AV&V# AV2020S
20-4170	Exhaust	1.615"	41.02mm	0.3096"	R0.236	29°	4.525" OEM18082-83
20-20920	Exhaust	1.650"	41.91mm	0.3106"	R0.750	25°	4.515" AV&V# AV1650
20-20925	Exhaust	1.610"	40.89mm	0.3106"	R0.750	25°	4.510" AV&V# AV1610D
20-20930	Exhaust	1.585"	40.26mm	0.3106"	R0.750	25°	4.505" AV&V# AV1585
20-20960	Exhaust	1.700"	43.18mm	0.3106"	R0.600	25°	4.535" AV&V# AV1700A
20-20970	Exhaust	1.610"	40.89mm	0.3106"	R0.750	25°	4.565" AV&V# AV1610S

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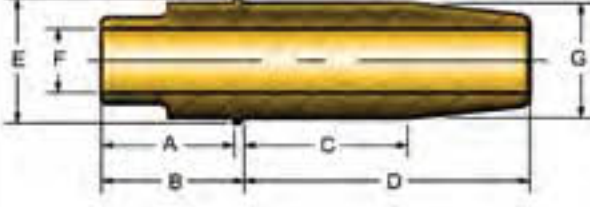
Valves • Black Diamond™ and White Diamond® • Specially Designed for HD Racing Applications



KPMI P/N	Type		Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
20-4169	In	Black Diamond™	1.940"	49.28mm	0.3100"	R0.234	23°	4.400"	Branch Heads
20-20108	In	Black Diamond™	2.000"	50.80mm	0.3100"	R0.234	23°	4.445"	STD Heads
20-4171R	In	Black Diamond™	1.900"	48.26mm	0.3100"	R0.344	28°	4.420"	Racing Profile
20-4270K	Ex	White Diamond®	1.630"	41.40mm	0.3096"	R0.500	40°	4.525"	*Inconel®
20-20419	In	White Diamond®	1.900"	48.26mm	0.3100"	R0.344	28°	4.445"	Oversize
20-B101	Ex	Black Diamond™	1.615"	41.02mm	0.3096"	R0.325	R01.625	4.460"	Branch Heads
20-4170R	Ex	Black Diamond™	1.630"	41.40mm	0.3096"	R0.500	40°	4.525"	Racing Profile
20-4170S	Ex	Black Diamond™	1.750"	44.45mm	0.3095"	R0.236	24°	4.480"	STD Heads

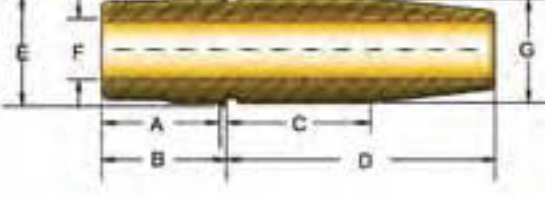
* Custom sizes available, see custom KPMI® Valve Order Form at back of catalog. Inconel® is a high nickel content stainless steel classified as a "super alloy". It retains its mechanical properties at higher temps than other stainless materials. It also resists valve face pitting and recession in performance applications with unleaded and exotic fuels to a greater degree than other stainless materials. It is an excellent choice for turbocharged and nitrous applications.

Valve Guides • C630 Bronze • Cast Iron • Manganese • Shouldered • .420" Seal Ø • Shortened for .600" Lift

	A	B	C	D	E	F	G	Intake		
								C630 Bronze	Cast Iron	Manganese
	0.650"	0.700"	0.800"	1.400"	0.615"	0.3098"	0.5620" / Std.	20-2120	20-2120C	20-2120M
							+0.001"	20-2121	20-2121C	20-2121M
							+0.002"	20-2122	20-2122C	20-2122M
							+0.003"	20-2123	20-2123C	20-2123M
							+0.004"	20-2124	20-2124C	20-2124M
							+0.010"	20-2129	20-2129C	20-2129M
	0.650"	0.700"	1.150"	1.450"	0.615"	0.3098"	0.5620" / Std.	20-2130	20-2130C	20-2130M
							+0.001"	20-2131	20-2131C	20-2131M
							+0.002"	20-2132	20-2132C	20-2132M
							+0.003"	20-2133	20-2133C	20-2133M
							+0.004"	20-2134	20-2134C	20-2134M
							+0.010"	20-2139	20-2139C	20-2139M

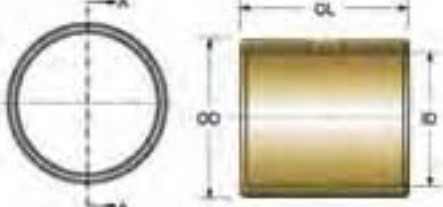
For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guides • Manganese Bronze • .530" Seal Ø • Shortened for .655" Lift

	A	B	C	D	E	F	G	Intake	Exhaust	AV&V#
	0.620"	0.665"	0.737"	1.435"	0.615"	0.3100"	0.5625" / Std.	20-20860M		VG5600
							+0.001"	20-20861M		VG5601
							+0.002"	20-20862M		VG5602
							+0.010"	20-20869M		VG5610
	0.620"	0.665"	1.135"	1.435"	0.615"	0.3096"	0.5625" / Std.		20-20870M	VG5700
							+0.001"		20-20871M	VG5701
							+0.002"		20-20872M	VG5702
							+0.010"		20-20879M	VG5710

For sizing KPMI® Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Rocker Arm Bushings • 660 Bearing Bronze

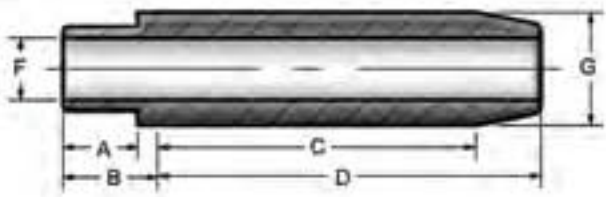
	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8

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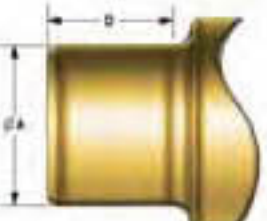


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Valve Guides • O.E.M. Replacement • .420" Seal Ø

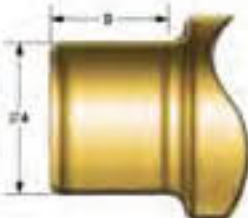
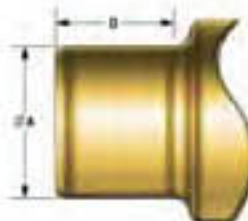
	A	B	C	D	E	F	G	Intake / Exhaust	
								C630 Bronze	Cast Iron
	0.375"	0.375"	1.700"	2.025"	—	0.3098"	0.5620" / Std.	20-4320	20-4320C
							+0.001"	20-4321	20-4321C
							+0.002"	20-4322	20-4322C
							+0.003"	20-4323	20-4323C
							+0.004"	20-4324	20-4324C
							+0.010"	20-4329	20-4329C

Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.385"	0.565"	7	A	B	C	D	Intake
				0.420"±0.002"	—	—	0.315"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71032-4		Pkg. of 4		0%
				71032-8		Pkg. of 8		0%
				71032-16		Pkg. of 16		Less- 10%
				71032-50		Pkg. of 50		Less- 15%
				71032-100		Pkg. of 100		Less- 20%

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.412"	0.566"	5	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.275"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71010-4				Pkg. of 4		0%
		71010-8				Pkg. of 8		0%
		71010-16				Pkg. of 16		Less- 10%
		71010-50				Pkg. of 50		Less- 15%
		71010-100				Pkg. of 100		Less- 20%
Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.514"	0.671"	5	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.330"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71045-4				Pkg. of 4		0%
		71045-8				Pkg. of 8		0%
		71045-16				Pkg. of 16		Less- 10%
		71045-50				Pkg. of 50		Less- 15%
		71045-100				Pkg. of 100		Less- 20%

Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC500	Intake	1.969"	50.00mm	1.535"	39.00mm	0.453"	11.50mm	Pkg. of 1
	10-SC510	Intake	2.007"	50.98mm	1.562"	39.67mm	0.450"	11.43mm	Pkg. of 1
	10-SC541	Intake	2.132"	54.15mm	1.690"	42.93mm	0.450"	11.43mm	Pkg. of 1
	10-SC446	Exhaust	1.757"	44.62mm	1.375"	35.00mm	0.450"	11.43mm	Pkg. of 1

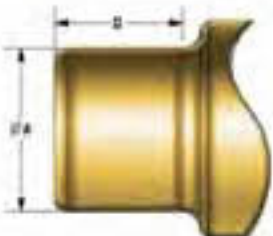
KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.

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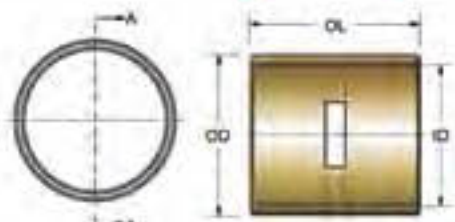
HD® EVOLUTION™ 1984-1999



Valve Guide Seals • PC Style

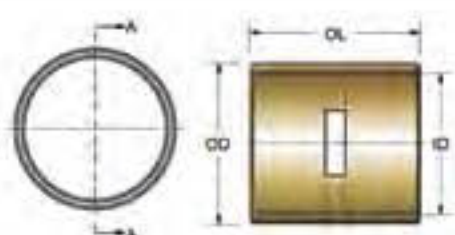
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.517"	0.510"	6	A	B	C	D	Intake
				0.415"±0.005"	---	---	0.350"	Exhaust
 		Part Number		Quantity		Quantity Incentive		
		71008-4		Pkg. of 4		0%		
		71008-8		Pkg. of 8		0%		
		71008-16		Pkg. of 16		Less- 10%		
		71008-50		Pkg. of 50		Less- 15%		
		71008-100		Pkg. of 100		Less- 20%		

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20570	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 2
	20-20572	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 2
	20-20580	660 Bearing Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1
	20-20582	660 Bearing Bronze	0.899"	0.788"	1.065"	+0.002"	Pkg. of 1

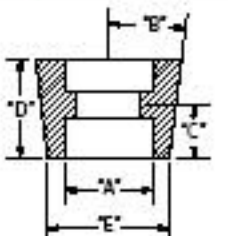
Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

Wrist Pin Bushings • High Performance • C630 Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-0645	C630 Bronze	0.897"	0.788"	1.065"	Standard	Pkg. of 1

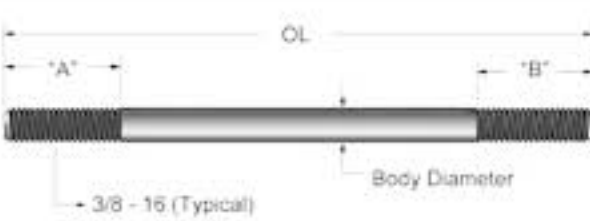
KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Keeper Set • O.E.M. Replacement

 	KPMI P/N	Style	A	B	C	D	E	Quantity
	51014-4	Single Square Bead	0.310	7.0°	0.190"	0.380"	0.380"	4Pr.

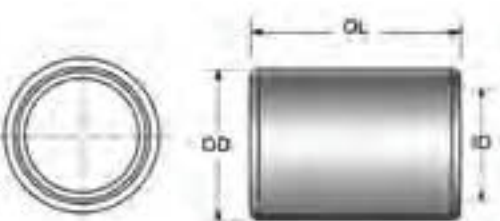
The bead height is referenced from the minor diameter of the keeper to the center of the bead.

Cylinder Studs • H. T. Steel

	KPMI P/N	Material	O.L.	Body Dia.	A	B	Quantity
	20-2098	H. T. Steel	6.725"	0.370"	1.050"	1.100"	Pkg. of 8

Machined from U.S. milled fine grain, heat treated aircraft quality steel. 180,000 psi yield strength. Threads rolled after heat treatment for maximum strength and fatigue life. Centerless ground OD to insure concentricity. Case end threaded for interference fit to maintain good thread engagement at high temps. Black Oxide finish to resist corrosion and to give excellent appearance.

Cylinder Dowels • Steel

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2099	Steel	0.5575"	0.375"	0.505"	Pkg. of 4



HD® EVO SPORTSTER™ 883cc 1986-'03

Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW
PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21300	Intake Exhaust	.610"	1.860"	175#	400#	.610"
	Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Retainers	
			4	H. T. Steel Keeper (OEM Style)	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21500	Intake Exhaust	.660"	1.860"	178#	371#	.660"
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Retainers		
		4	H. T. Steel Keepers (9° Degree Taper)	4	H. T. Steel Basewashers		

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20122	Intake Exhaust	.600"	1.810"	175#	380#	.600"
	Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
			4	Titanium Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20132	Intake Exhaust	.600"	1.810"	175#	380#	.600"
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.		
		4	H. T. Steel Retainers	4	H. T. Steel Basewashers		
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20060	Intake Exhaust	.655"	1.860"	190#	450#	.655"
	Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
			4	Titanium Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20081	Intake Exhaust	.655"	1.860"	185#	450#	.655"
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.		
		4	H. T. Steel Retainers	4	H. T. Steel Basewashers		

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valves • Black Diamond™ • Black Nitroneg Stems For 883cc 1986-2003 Model

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
			Radius	Angle		Radius	Angle		
	20-20090	Intake	1.585"	40.26mm	0.3100"	R0.250	23°	4.550"	OEM18031-86
	20-20092	Exhaust	1.350"	34.29mm	0.3095"	R0.250	17°	4.640	OEM18030-86

Valves • Black Diamond™ • Black Nitroneg Stems • Special Conversion Valves For 883cc / 1200cc 1986-'03 Model

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
			Radius	Angle		Radius	Angle		
	20-2010	Intake	1.715"	43.56mm	0.3100"	R0.236	23°	4.550"	Conversion Valve
	20-2012	Exhaust	1.480"	37.59mm	0.3096"	R0.500	40°	4.625"	Conversion Valve

Cylinder Dowels • Steel

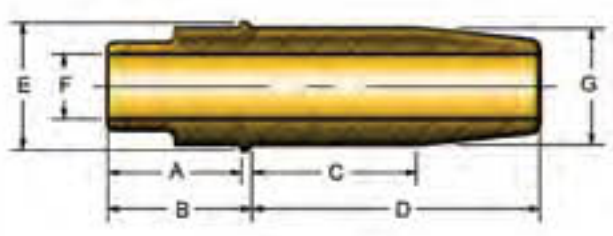
	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2099	Steel	0.5575"	0.375"	0.505"	Pkg. of 4

ORDER 650-557-2046

HD® EVO SPORTSTER™ 883cc 1986-'03

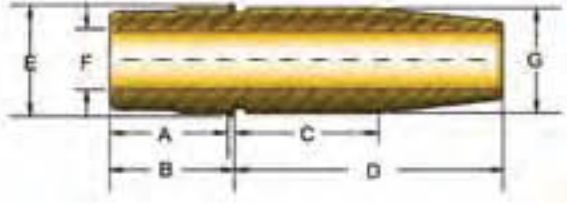


Valve Guides • C630 Bronze • Cast Iron • Manganese • Shouldered • .420" Seal Ø • Shortened for .600" Lift

	A	B	C	D	E	F	G	Intake		
								C630 Bronze	Cast Iron	Manganese
	0.650"	0.700"	0.800"	1.400"	0.615"	0.3098"	0.5620" / Std.	20-2120	20-2120C	20-2120M
							+0.001"	20-2121	20-2121C	20-2121M
							+0.002"	20-2122	20-2122C	20-2122M
							+0.003"	20-2123	20-2123C	20-2123M
							+0.004"	20-2124	20-2124C	20-2124M
							+0.010"	20-2129	20-2129C	20-2129M
	A	B	C	D	E	F	G	Exhaust		
	0.650"	0.700"	1.150"	1.450"	0.615"	0.3098"	0.5620" / Std.	20-2130	20-2130C	20-2130M
							+0.001"	20-2131	20-2131C	20-2131M
							+0.002"	20-2132	20-2132C	20-2132M
							+0.003"	20-2133	20-2133C	20-2133M
							+0.004"	20-2134	20-2134C	20-2134M
							+0.010"	20-2139	20-2139C	20-2139M

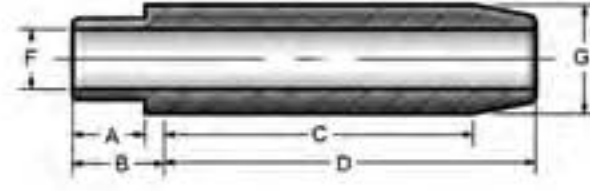
For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guides • Manganese Bronze • .530" Seal Ø • Shortened for .655" Lift NEW PRODUCTS

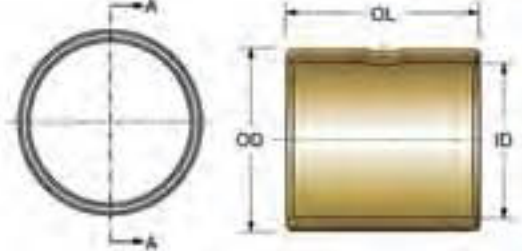
	A	B	C	D	E	F	G	Intake	Exhaust	AV&V#
	0.620"	0.665"	0.737"	1.435"	0.615"	0.3100"	0.5625" / Std.	20-20860M		VG5600
							+0.001"	20-20861M		VG5601
							+0.002"	20-20862M		VG5602
							+0.010"	20-20869M		VG5610
	0.620"	0.665"	1.135"	1.435"	0.615"	0.3096"	0.5625" / Std.		20-20870M	VG5700
							+0.001"		20-20871M	VG5701
							+0.002"		20-20872M	VG5702
							+0.010"		20-20879M	VG5710

For sizing KPMI® Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guides • C630 Bronze • Cast Iron • O.E.M. Replacement • .420" Seal Ø

	A	B	C	D	E	F	G	Intake / Exhaust	
								C630 Bronze	Cast Iron
	0.375"	0.375"	1.700"	2.025"	---	0.3098"	0.5620" / Std.	20-4320	20-4320C
							+0.001"	20-4321	20-4321C
							+0.002"	20-4322	20-4322C
							+0.003"	20-4323	20-4323C
							+0.004"	20-4324	20-4324C
							+0.010"	20-4329	20-4329C

Rocker Arm Bushings • 660 Bearing Bronze

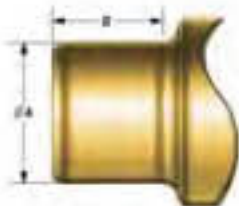
	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8

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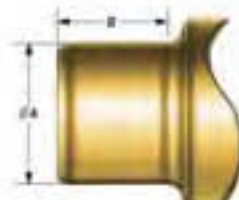
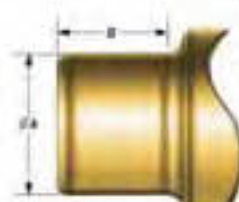
HD® EVO SPORTSTER™ 883cc 1986-'03

Valve Guide Seals • O.E.M. Replacement

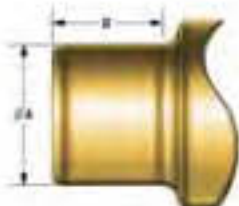
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.385"	0.565"	7	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.315"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71032-4		Pkg. of 4		0%
				71032-8		Pkg. of 8		0%
				71032-16		Pkg. of 16		Less- 10%
				71032-50		Pkg. of 50		Less- 15%
				71032-100		Pkg. of 100		Less- 20%

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

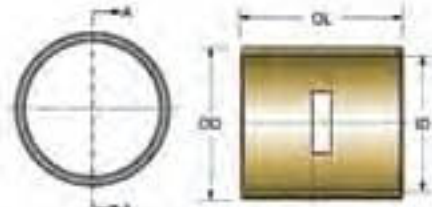
Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.412"	0.566"	5	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.275"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71010-4			Pkg. of 4		0%
			71010-8			Pkg. of 8		0%
			71010-16			Pkg. of 16		Less- 10%
			71010-50			Pkg. of 50		Less- 15%
			71010-100			Pkg. of 100		Less- 20%
Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.514"	0.671"	5	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.330"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71045-4			Pkg. of 4		0%
			71045-8			Pkg. of 8		0%
			71045-16			Pkg. of 16		Less- 10%
			71045-50			Pkg. of 50		Less- 15%
			71045-100			Pkg. of 100		Less- 20%

Valve Guide Seals • PC Style

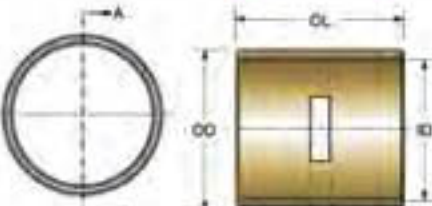
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.517"	0.510"	6	A	B	C	D	Intake
				0.415"±0.005"	---	---	0.350"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71008-4		Pkg. of 4		0%
				71008-8		Pkg. of 8		0%
				71008-16		Pkg. of 16		Less- 10%
				71008-50		Pkg. of 50		Less- 15%
				71008-100		Pkg. of 100		Less- 20%

Wrist Pin Bushings • High Performance • C630 Bronze

		KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
		20-0644	C630 Bronze	0.897"	0.788"	0.945"	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

		KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
		20-20810	660 Bearing Bronze	0.897"	0.788"	0.945"	Standard	Pkg. of 1
		20-20812	660 Bearing Bronze	0.899"	0.788"	0.945"	+0.002"	Pkg. of 1

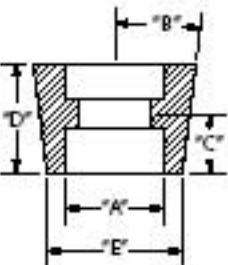
Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

ORDER 650-557-2046

HD® EVO SPORTSTER™ 883cc 1986-'03



Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51014-4	Single Square Bead	0.310	7.0°	0.190"	0.380"	0.380"	4Pr.

The bead height is referenced from the minor diameter of the keeper to the center of the bead.

HD® EVO SPORTSTER™ 883cc 2004-'17

Valve Spring Kit • Lightweight Racing

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-20360	Intake	.600"	1.860"	160#	365#	.600"	
	Exhaust						
Kit Includes		4	Titanium Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
*20-20364	Intake	.600"	1.860"	160#	365#	.600"	
	Exhaust						
Kit Includes		4	H.T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-20350	Intake	.655"	1.860"	185#	450#	.655"	
	Exhaust						
Kit Includes		4	Titanium Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
*20-20355	Intake	.655"	1.860"	185#	450#	.655"	
	Exhaust						
Kit Includes		4	H.T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		

Note: These kits are supplied with 2 supplemental exhaust basewashers for use with the OEM exhaust guides.

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW PRODUCTS

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-21400	Intake	.610"	1.860"	175#	400#	.610"	
	Exhaust						
Kit Includes		4	H. T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		4	H. T. Steel Keeper (OEM Style)		4	H. T. Steel Basewashers	
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-21550	Intake	.660"	1.860"	178#	371#	.660"	
	Exhaust						
Kit Includes		4	H. T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		4	H. T. Steel Keepers (9° Degree Taper)		4	H. T. Steel Basewashers	

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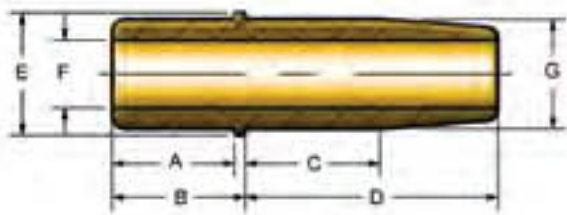
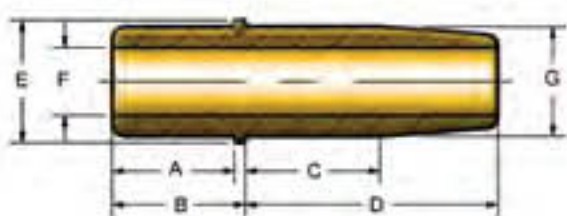


HD® EVO SPORTSTER™ 883cc 2004-'17

Valves • Black Diamond™ • Black Nitron® Stems • Special Conversion Valves for 883cc to 1200cc 2004-'17

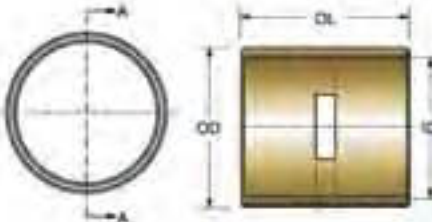
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-20550	Intake	1.715"	43.56mm	0.2760"	R0.236	23°	4.580"	Conversion Valve
	20-20555	Exhaust	1.480"	37.59mm	0.2755"	R0.500	40°	4.660"	Conversion Valve

Valve Guides • Shouldered • Use O.E.M. Style or Kibblewhite® Seals • Shortened for 0.655" Lift

	A	B	C	D	E	F	G	Intake	
								C630 Bronze	Cast Iron
	0.690"	0.770"	0.800"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20690	20-20690C
							+0.001"	20-20691	20-20691C
							+0.002"	20-20692	20-20692C
							+0.010"	20-20699	20-20699C
	A	B	C	D	E	F	G	Exhaust	
	0.650"	0.770"	1.030"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20700	20-20700C
							+0.001"	20-20701	20-20701C
							+0.002"	20-20702	20-20702C
							+0.010"	20-20709	20-20709C
	A	B	C	D	E	F	G	Intake	
								Manganese	Ref. AV&V
	0.685"	0.735"	0.702"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20690M	VG6600
							+0.001"	20-20691M	VG6601
							+0.002"	20-20692M	VG6602
							+0.010"	20-20699M	VG6610
	A	B	C	D	E	F	G	Exhaust	
	0.685"	0.735"	0.920"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20700M	VG6700
							+0.001"	20-20701M	VG6701
							+0.002"	20-20702M	VG6702
							+0.010"	20-20709M	VG6710

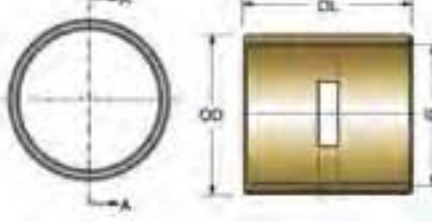
For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Wrist Pin Bushings • High Performance • Nickel Bronze Alloy

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-0644	Nickel Bronze Alloy	0.897"	0.788"	0.945"	Pkg. of 1

KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20810	660 Bearing Bronze	0.897"	0.788"	0.945"	Standard	Pkg. of 1
	20-20812	660 Bearing Bronze	0.899"	0.788"	0.945"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

ORDER 650-557-2046

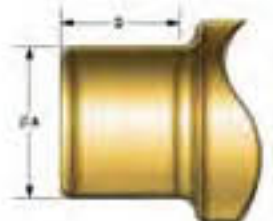
HD® EVO SPORTSTER™ 883cc 2004-'17



Valve Guide Seals • Tophat

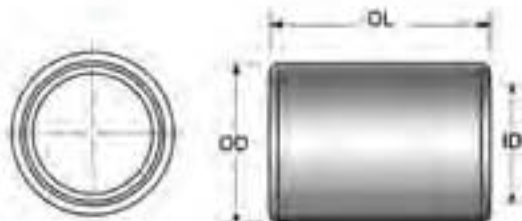
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.974"	1.457"	3	A	B	C	D	Intake
				0.560"±0.005"	---	---	0.970"	Exhaust
 		Part Number			Quantity		Quantity Incentive	
		71030-4			Pkg. of 4		0%	
		71030-8			Pkg. of 8		0%	
		71030-16			Pkg. of 16		Less- 10%	
		71030-50			Pkg. of 50		Less- 15%	
		71030-100			Pkg. of 100		Less- 20%	

Valve Guide Seals • Viton®

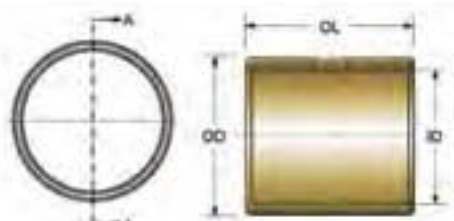
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.510"	0.665"	5	A	B	C	D	Intake
				0.560"±0.002"	---	---	0.375"	Exhaust
 		Part Number			Quantity		Quantity Incentive	
		71028-4			Pkg. of 4		0%	
		71028-8			Pkg. of 8		0%	
		71028-16			Pkg. of 16		Less- 10%	
		71028-50			Pkg. of 50		Less- 15%	
		71028-100			Pkg. of 100		Less- 20%	

Use with Kibblewhite® Spring Kits on O.E.M. or Kibblewhite® Valve Guides

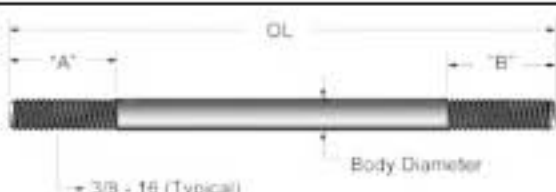
Cylinder Dowels • Steel

		KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
		20-2099	Steel	0.5575"	0.375"	0.505"	Pkg. of 4

Rocker Arm Bushings • 660 Bearing Bronze

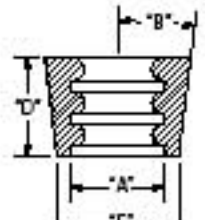
		KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
		20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8

Cylinder Studs • H. T. Steel

		KPMI P/N	Material	O.L.	Body Dia.	A	B	Quantity
		20-2097	H. T. Steel	5.760"	0.370"	1.050"	1.100"	Pkg. of 8

Machined from U.S. milled fine grain, heat treated aircraft quality steel. 180,000 psi yield strength. Threads rolled after heat treatment for maximum strength and fatigue life. Centerless ground OD to insure concentricity. Case end threaded for interference fit to maintain good thread engagement at high temps. Black Oxide finish to resist corrosion and to give excellent appearance.

Keeper Set • O.E.M. Replacement

 		KPMI P/N	Style	A	B	C	D	E	Quantity
		51016-4	Triple Radius Bead	0.275	7.0°	---	0.345"	0.290"	4Pr.

The bead height is referenced from the minor diameter of the keeper to the center of the bead.



HD® XL™ 1100cc 1986-1987

Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW
PRODUCTS



Product 12

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-21300	Intake	.610"	1.860"	175#	400#	.610"
	Exhaust					
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Retainers	
		4	H. T. Steel Keeper (OEM Style)	4	H. T. Steel Basewashers	
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-21500	Intake	.660"	1.860"	178#	371#	.660"
	Exhaust					
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Retainers	
		4	H. T. Steel Keepers (9° Degree Taper)	4	H. T. Steel Basewashers	

Valve Spring Kit • Lightweight Racing



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-20122	Intake	.600"	1.810"	175#	380#	.600"
	Exhaust					
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
		4	Titanium Retainers	4	H. T. Steel Basewashers	
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
*20-20132	Intake	.600"	1.810"	175#	380#	.600"
	Exhaust					
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
		4	H. T. Steel Retainers	4	H. T. Steel Basewashers	



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-20060	Intake	.655"	1.860"	190#	450#	.655"
	Exhaust					
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
		4	Titanium Retainers	4	H. T. Steel Basewashers	
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
*20-20081	Intake	.655"	1.860"	185#	450#	.655"
	Exhaust					
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
		4	H. T. Steel Retainers	4	H. T. Steel Basewashers	

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valves • Black Diamond™ • Black Nitroneg Stems for 1100cc 1986 Model



KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
					Radius	Angle		
20-4249	Intake	1.850"	47.00mm	0.3105"	R0.236	23°	4.490"	OEM18023-86
20-4250	Intake	1.940"	49.28mm	0.3105"	R0.375	23°	4.440"	Oversize
20-4251	Exhaust	1.615"	41.02mm	0.3096"	R0.500	40°	4.575"	OEM18024-86

Valves • Black Diamond™ • Black Nitroneg Stems for 1100cc 1987 Model



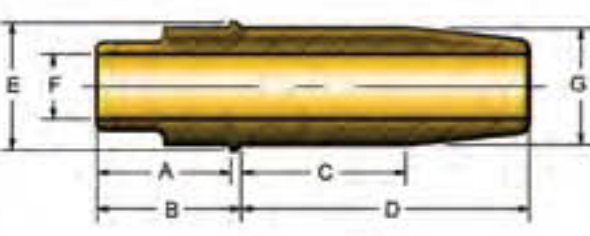
KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
					Radius	Angle		
20-2013	Intake	1.715"	43.56mm	0.3100"	R0.236	23°	4.480"	OEM180823-87
20-2014	Exhaust	1.480"	37.59mm	0.3096"	R0.500	40°	4.560"	OEM18024-87

ORDER 650-557-2046

HD® XL™ 1100cc 1986-1987



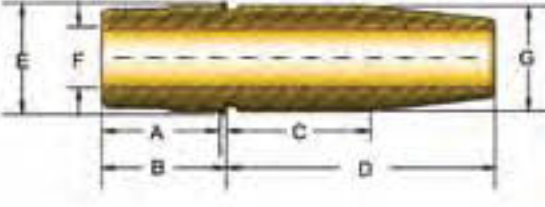
Valve Guides • C630 Bronze • Cast Iron • Manganese • Shouldered • .420" Seal Ø • Shortened for .600" Lift

	A	B	C	D	E	F	G	Intake		
								C630 Bronze	Cast Iron	Manganese
	0.650"	0.700"	0.800"	1.400"	0.615"	0.3098"	0.5620" / Std.	20-2120	20-2120C	20-2120M
							+0.001"	20-2121	20-2121C	20-2121M
							+0.002"	20-2122	20-2122C	20-2122M
							+0.003"	20-2123	20-2123C	20-2123M
							+0.004"	20-2124	20-2124C	20-2124M
							+0.010"	20-2129	20-2129C	20-2129M
	A	B	C	D	E	F	G	Exhaust		
	0.650"	0.700"	1.150"	1.450"	0.615"	0.3098"	0.5620" / Std.	20-2130	20-2130C	20-2130M
							+0.001"	20-2131	20-2131C	20-2131M
							+0.002"	20-2132	20-2132C	20-2132M
							+0.003"	20-2133	20-2133C	20-2133M
							+0.004"	20-2134	20-2134C	20-2134M
							+0.010"	20-2139	20-2139C	20-2139M

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guides • Manganese Bronze • .530" Seal Ø • Shortened for .655" Lift

NEW PRODUCTS

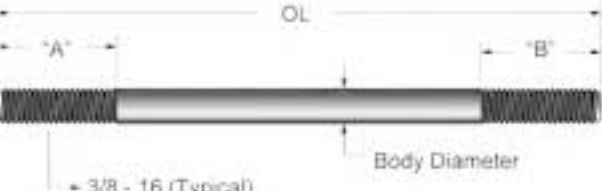
	A	B	C	D	E	F	G	Intake	Exhaust	AV&V#
	0.620"	0.665"	0.737"	1.435"	0.615"	0.3100"	0.5625" / Std.	20-20860M		VG5600
							+0.001"	20-20861M		VG5601
							+0.002"	20-20862M		VG5602
							+0.010"	20-20869M		VG5610
	0.620"	0.665"	1.135"	1.435"	0.615"	0.3096"	0.5625" / Std.		20-20870M	VG5700
							+0.001"		20-20871M	VG5701
							+0.002"		20-20872M	VG5702
							+0.010"		20-20879M	VG5710

For sizing KPMI® Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guides • C630 Bronze • Cast Iron • O.E.M. Replacement • .420" Seal Ø

	A	B	C	D	E	F	G	Intake / Exhaust	
	0.375"	0.375"	1.700"	2.025"	---	0.3098"	0.5620" / Std.	C630 Bronze	Cast Iron
							+0.001"	20-4320	20-4320C
							+0.002"	20-4321	20-4321C
							+0.003"	20-4322	20-4322C
							+0.004"	20-4323	20-4323C
							+0.010"	20-4324	20-4324C
								20-4329	20-4329C

Cylinder Studs • H. T. Steel

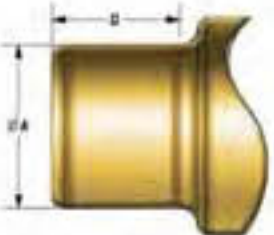
	KPMI P/N	Material	O.L.	Body Dia.	A	B	Quantity
= 3/8 - 16 (Typical)	20-2097	H. T. Steel	5.760"	0.370"	1.050"	1.100"	Pkg. of 8

Machined from U.S. milled fine grain, heat treated aircraft quality steel. 180,000 psi yield strength. Threads rolled after heat treatment for maximum strength and fatigue life. Centerless ground OD to insure concentricity. Case end threaded for interference fit to maintain good thread engagement at high temps. Black Oxide finish to resist corrosion and to give excellent appearance.



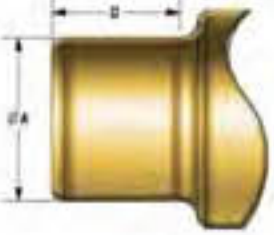
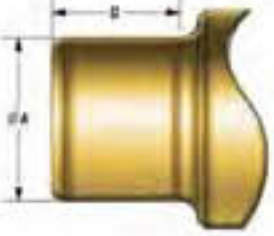
HD® XL™ 1100cc 1986-1987

Valve Guide Seals • O.E.M. Replacement

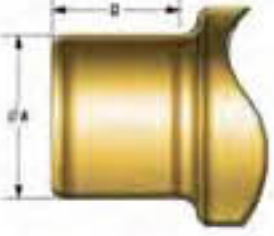
Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.385"	0.565"	7	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.315"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71032-4		Pkg. of 4		0%	
			71032-8		Pkg. of 8		0%	
			71032-16		Pkg. of 16		Less- 10%	
			71032-50		Pkg. of 50		Less- 15%	
			71032-100		Pkg. of 100		Less- 20%	

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.412"	0.566"	5	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.275"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71010-4			Pkg. of 4		0%
			71010-8			Pkg. of 8		0%
			71010-16			Pkg. of 16		Less- 10%
			71010-50			Pkg. of 50		Less- 15%
			71010-100			Pkg. of 100		Less- 20%
Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.514"	0.671"	5	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.330"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71045-4			Pkg. of 4		0%
			71045-8			Pkg. of 8		0%
			71045-16			Pkg. of 16		Less- 10%
			71045-50			Pkg. of 50		Less- 15%
			71045-100			Pkg. of 100		Less- 20%

Valve Guide Seals • PC Style

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.517"	0.510"	6	A	B	C	D	Intake
				0.415"±0.005"	---	---	0.350"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71008-4			Pkg. of 4		0%
			71008-8			Pkg. of 8		0%
			71008-16			Pkg. of 16		Less- 10%
			71008-50			Pkg. of 50		Less- 15%
			71008-100			Pkg. of 100		Less- 20%

Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC500	Intake	1.969"	50.00mm	1.535"	39.00mm	0.453"	11.50mm	Pkg. of 1
	10-SC510	Intake	2.007"	50.98mm	1.562"	39.67mm	0.450"	11.43mm	Pkg. of 1
	10-SC541	Intake	2.132"	54.15mm	1.690"	42.93mm	0.450"	11.43mm	Pkg. of 1
	10-SC446	Exhaust	1.757"	44.62mm	1.375"	35.00mm	0.450"	11.43mm	Pkg. of 1

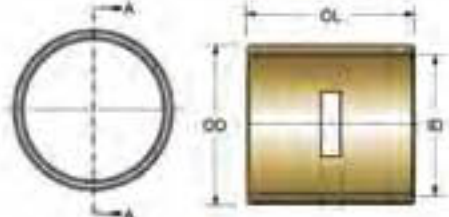
KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.

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HD® XL™ 1100cc 1986-1987

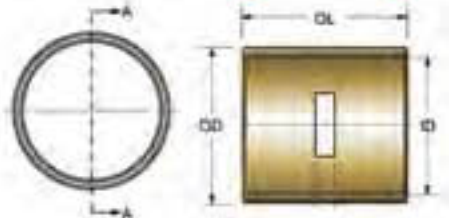


Wrist Pin Bushings • High Performance • C630 Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-0644	C630 Bronze	0.897"	0.788"	0.945"	Pkg. of 1

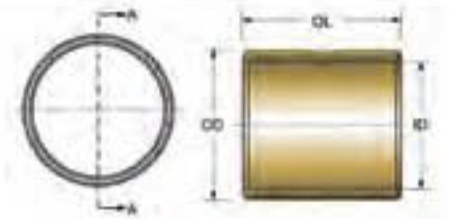
KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

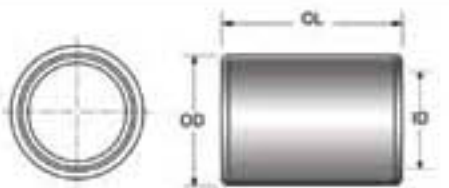
	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	20-20810	660 Bearing Bronze	0.897"	0.788"	0.945"	Standard	Pkg. of 1
	20-20812	660 Bearing Bronze	0.899"	0.788"	0.945"	+0.002"	Pkg. of 1

Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

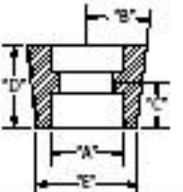
Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8

Cylinder Dowels • Steel

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2099	Steel	0.5575"	0.375"	0.505"	Pkg. of 4

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51014-4	Single Square Bead	0.310	7.0°	0.190"	0.380"	0.380"	4Pr.

The bead height is referenced from the minor diameter of the keeper to the center of the bead.

HD® EVO SPORTSTER™ 1200cc 1988-'03

Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW
PRODUCTS

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-21300	Intake	.610"	1.860"	175#	400#	.610"	
	Exhaust						
Kit Includes		4	CrSi Valve Springs		4	H. T. Steel Retainers	
		4	H. T. Steel Keeper (OEM Style)		4	H. T. Steel Basewashers	
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-21500	Intake	.660"	1.860"	178#	371#	.660"	
	Exhaust						
Kit Includes		4	CrSi Valve Springs		4	H. T. Steel Retainers	
		4	H. T. Steel Keepers (9° Degree Taper)		4	H. T. Steel Basewashers	



HD® EVO SPORTSTER™ 1200cc 1988-'03

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20122	Intake	.600"	1.810"	175#	380#	.600"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
			4	Titanium Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20132	Intake	.600"	1.810"	175#	380#	.600"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
			4	H. T. Steel Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20060	Intake	.655"	1.860"	185#	450#	.655"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
			4	Titanium Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20081	Intake	.655"	1.860"	185#	450#	.655"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
			4	H. T. Steel Retainers	4	H. T. Steel Basewashers	

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-2013	Intake	1.715"	43.56mm	0.3100"	R0.236	23°	4.480"	OEM180823-87
	20-2014	Exhaust	1.480"	37.59mm	0.3096"	R0.500	40°	4.560"	OEM18024-87

Valve Guides • C630 Bronze • Cast Iron • O.E.M. Replacement • .420" Seal Ø

	A	B	C	D	E	F	G	Intake / Exhaust	
								C630 Bronze	Cast Iron
	0.375"	0.375"	1.700"	2.025"	---	0.3098"	0.5620" / Std.	20-4320	20-4320C
							+0.001"	20-4321	20-4321C
							+0.002"	20-4322	20-4322C
							+0.003"	20-4323	20-4323C
							+0.004"	20-4324	20-4324C
							+0.010"	20-4329	20-4329C

Valve Guides • Manganese Bronze • .530" Seal Ø • Shortened for .655" Lift

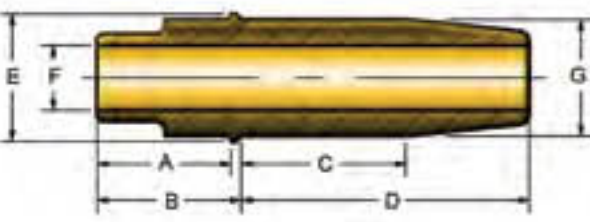
	A	B	C	D	E	F	G	Intake	Exhaust	AV&V#
	0.620"	0.665"	0.737"	1.435"	0.615"	0.3100"	0.5625" / Std.	20-20860M		VG5600
							+0.001"	20-20861M		VG5601
							+0.002"	20-20862M		VG5602
							+0.010"	20-20869M		VG5610
	0.620"	0.665"	1.135"	1.435"	0.615"	0.3096"	0.5625" / Std.		20-20870M	VG5700
							+0.001"		20-20871M	VG5701
							+0.002"		20-20872M	VG5702
							+0.010"		20-20879M	VG5710

For sizing KPMI® Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

HD® EVO SPORTSTER™ 1200cc 1988-'03

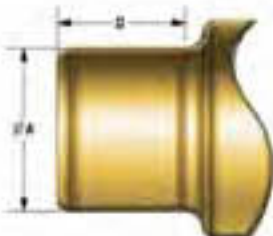


Valve Guides • C630 Bronze • Cast Iron • Manganese • Shouldered • .420" Seal Ø • Shortened for .600" Lift

	A	B	C	D	E	F	G	Intake		
								C630 Bronze	Cast Iron	*Manganese
	0.650"	0.700"	0.800"	1.400"	0.615"	0.3098"	0.5620" / Std.	20-2120	20-2120C	20-2120M
							+0.001"	20-2121	20-2121C	20-2121M
							+0.002"	20-2122	20-2122C	20-2122M
							+0.003"	20-2123	20-2123C	20-2123M
							+0.004"	20-2124	20-2124C	20-2124M
							+0.010"	20-2129	20-2129C	20-2129M
	A	B	C	D	E	F	G	Exhaust		
	0.650"	0.700"	1.150"	1.450"	0.615"	0.3098"	0.5620" / Std.	20-2130	20-2130C	20-2130M
							+0.001"	20-2131	20-2131C	20-2131M
							+0.002"	20-2132	20-2132C	20-2132M
							+0.003"	20-2133	20-2133C	20-2133M
							+0.004"	20-2134	20-2134C	20-2134M
							+0.010"	20-2139	20-2139C	20-2139M

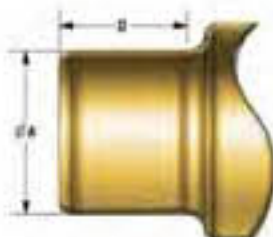
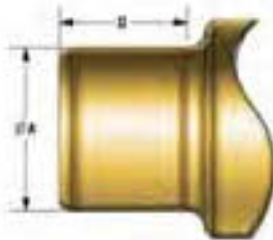
For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.385"	0.565"	7	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.315"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71032-4		Pkg. of 4		0%
				71032-8		Pkg. of 8		0%
				71032-16		Pkg. of 16		Less- 10%
				71032-50		Pkg. of 50		Less- 15%
				71032-100		Pkg. of 100		Less- 20%

Please use KPMI® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Valve Guide Seals • Viton®

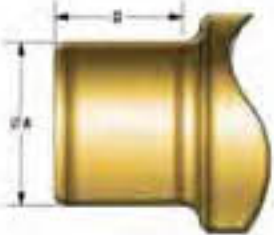
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.412"	0.566"	5	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.275"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71010-4				Pkg. of 4		0%
		71010-8				Pkg. of 8		0%
		71010-16				Pkg. of 16		Less- 10%
		71010-50				Pkg. of 50		Less- 15%
		71010-100				Pkg. of 100		Less- 20%
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.514"	0.671"	5	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.330"	Exhaust
		Part Number				Quantity		Quantity Incentive
		NEW PRODUCTS 71045-4				Pkg. of 4		0%
		71045-8				Pkg. of 8		0%
		71045-16				Pkg. of 16		Less- 10%
		71045-50				Pkg. of 50		Less- 15%
		71045-100				Pkg. of 100		Less- 20%

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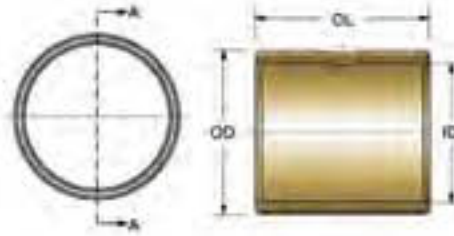


HD® EVO SPORTSTER™ 1200cc 1988-'03

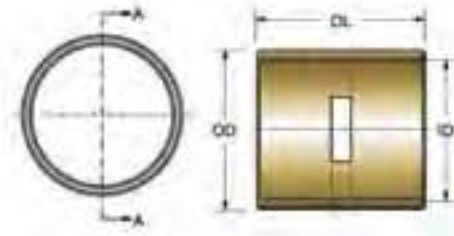
Valve Guide Seals • PC Style

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.517"	0.510"	6	A	B	C	D	Intake
				0.415"±0.005"	---	---	0.350"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71008-4			Pkg. of 4		0%
			71008-8			Pkg. of 8		0%
			71008-16			Pkg. of 16		Less- 10%
			71008-50			Pkg. of 50		Less- 15%
			71008-100			Pkg. of 100		Less- 20%

Rocker Arm Bushings • 660 Bearing Bronze

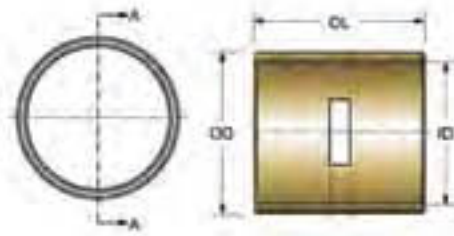
		KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
		20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8

Wrist Pin Bushings • High Performance • Nickel Bronze Alloy

		KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
		20-0644	Nickel Bronze Alloy	0.897"	0.788"	0.945"	Pkg. of 1

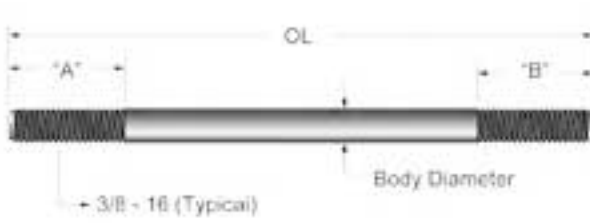
KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

		KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
		20-20810	660 Bearing Bronze	0.897"	0.788"	0.945"	Standard	Pkg. of 1
		20-20812	660 Bearing Bronze	0.899"	0.788"	0.945"	+0.002"	Pkg. of 1

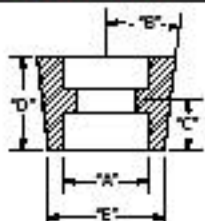
Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.

Cylinder Studs • H. T. Steel

		KPMI P/N	Material	O.L.	Body Dia.	A	B	Quantity
		20-2097	H. T. Steel	5.760"	0.370"	1.050"	1.100"	Pkg. of 8

Machined from U.S. milled fine grain, heat treated aircraft quality steel. 180,000 psi yield strength. Threads rolled after heat treatment for maximum strength and fatigue life. Centerless ground OD to insure concentricity. Case end threaded for interference fit to maintain good thread engagement at high temps. Black Oxide finish to resist corrosion and to give excellent appearance.

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51014-4	Single Square Bead	0.310	7.0°	0.190"	0.380"	0.380"	4Pr.

The bead height is referenced from the minor diameter of the keeper to the center of the bead.

ORDER 650-557-2046

HD® EVO SPORTSTER™ 1200cc 1988-'03



Cylinder Dowels • Steel

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2099	Steel	0.5575"	0.375"	0.505"	Pkg. of 4

HD® EVO SPORTSTER™ 1200cc 2004-'17

Valve Spring Kit • Lightweight Racing

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-20360	Intake	.600"	1.860"	160#	365#	.600"	
	Exhaust						
Kit Includes		4	Titanium Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
*20-20364	Intake	.600"	1.860"	160#	365#	.600"	
	Exhaust						
Kit Includes		4	H.T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-20350	Intake	.655"	1.860"	185#	450#	.655"	
	Exhaust						
Kit Includes		4	Titanium Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
*20-20355	Intake	.655"	1.860"	185#	450#	.655"	
	Exhaust						
Kit Includes		4	H.T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2	Ex H. T. Steel Basewashers	4	H. T. Steel Basewashers		

Note: These kits are supplied with 2 supplemental exhaust basewashers for use with the OEM exhaust guides.

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valve Spring Kit • "High Performance" Ovate Wire Beehive

**NEW
PRODUCTS**

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-21400	Intake	.610"	1.860"	175#	400#	.610"	
	Exhaust						
Kit Includes		4	H. T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		4	H. T. Steel Keeper (OEM Style)		4	H. T. Steel Basewashers	
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-21550	Intake	.660"	1.860"	178#	371#	.660"	
	Exhaust						
Kit Includes		4	H. T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		4	H. T. Steel Keepers (9° Degree Taper)		4	H. T. Steel Basewashers	

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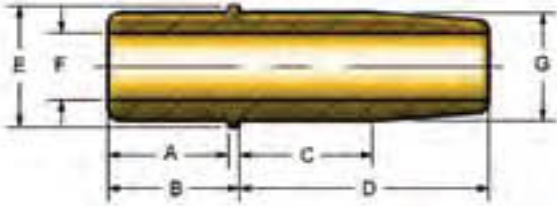
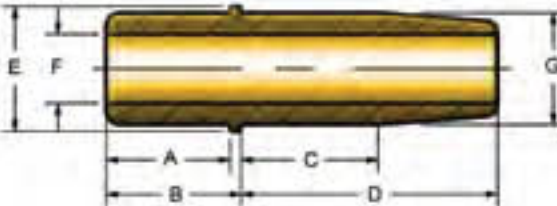


HD® EVO SPORTSTER™ 1200cc 2004-'17

Valves • Black Diamond™ • Black Nitroleg Stems

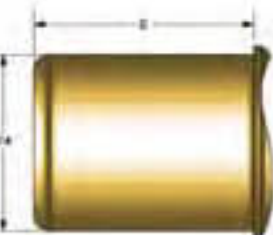
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-20260	Intake	1.805"	45.85mm	0.2760"	R0.344	28°	4.525"	OEM18690-02
	20-20262	Intake	1.900"	48.26mm	0.2760"	R0.344	28°	4.500"	Oversize
	20-20265	Exhaust	1.575"	40.00mm	0.2755"	R0.500	34°	4.610"	OEM18691-02
	20-20266	Exhaust	1.615"	41.02mm	0.2755"	R0.500	34°	4.590"	Oversize

Valve Guides • Shouldered • Use O.E.M. Style or Kibblewhite® Seals • Shortened for 0.655" Lift

	A	B	C	D	E	F	G	Intake	
								C630 Bronze	Cast Iron
	0.690"	0.770"	0.800"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20690	20-20690C
							+0.001"	20-20691	20-20691C
							+0.002"	20-20692	20-20692C
							+0.010"	20-20699	20-20699C
	A	B	C	D	E	F	G	Exhaust	
	0.650"	0.770"	1.030"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20700	20-20700C
							+0.001"	20-20701	20-20701C
							+0.002"	20-20702	20-20702C
							+0.010"	20-20709	20-20709C
	A	B	C	D	E	F	G	Intake	
								Manganese	Ref. AV&V
	0.685"	0.735"	0.702"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20690M	VG6600
							+0.001"	20-20691M	VG6601
							+0.002"	20-20692M	VG6602
							+0.010"	20-20699M	VG6610
	A	B	C	D	E	F	G	Exhaust	
	0.685"	0.735"	0.920"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20700M	VG6700
							+0.001"	20-20701M	VG6701
							+0.002"	20-20702M	VG6702
							+0.010"	20-20709M	VG6710

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guide Seals • Tophat

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.974"	1.457"	3	A	B	C	D	Intake
				0.560"±0.005"	---	---	0.970"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71030-4		Pkg. of 4		0%	
			71030-8		Pkg. of 8		0%	
			71030-16		Pkg. of 16		Less- 10%	
			71030-50		Pkg. of 50		Less- 15%	
			71030-100		Pkg. of 100		Less- 20%	

Cylinder Dowels • Steel

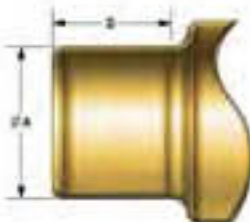
	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2099	Steel	0.5575"	0.375"	0.505"	Pkg. of 4

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HD® EVO SPORTSTER™ 1200cc 2004-'17

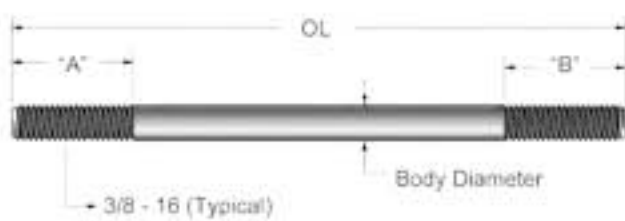


Valve Guide Seals • Viton®

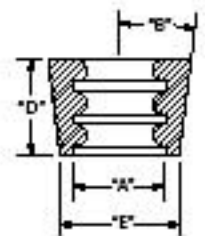
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.510"	0.665"	5	A	B	C	D	Intake
				0.560"±0.002"	---	---	0.375"	Exhaust
 		Part Number		Quantity		Quantity Incentive		
		71028-4		Pkg. of 4		0%		
		71028-8		Pkg. of 8		0%		
		71028-16		Pkg. of 16		Less- 10%		
		71028-50		Pkg. of 50		Less- 15%		
		71028-100		Pkg. of 100		Less- 20%		

Use with Kibblewhite® Spring Kits on O.E.M. or Kibblewhite® Valve Guides

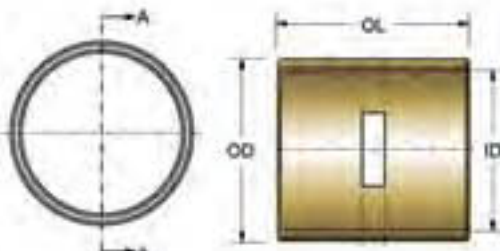
Cylinder Studs • H. T. Steel

		KPMI P/N	Material	O.L.	Body Dia.	A	B	Quantity
		20-2097	H. T. Steel	5.760"	0.370"	1.050"	1.100"	Pkg. of 8
Machined from U.S. milled fine grain, heat treated aircraft quality steel. 180,000 psi yield strength. Threads rolled after heat treatment for maximum strength and fatigue life. Centerless ground OD to insure concentricity. Case end threaded for interference fit to maintain good thread engagement at high temps. Black Oxide finish to resist corrosion and to give excellent appearance.								

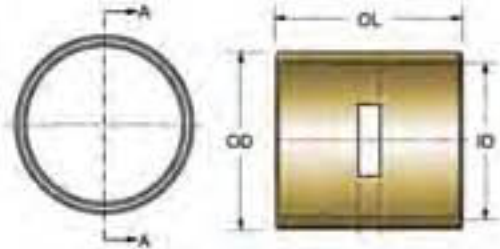
Keeper Set • O.E.M. Replacement

 		KPMI P/N	Style	A	B	C	D	E	Quantity
		51016-4	Triple Radius Bead	0.275	7.0°	---	0.345"	0.290"	4Pr.
The bead height is referenced from the minor diameter of the keeper to the center of the bead.									

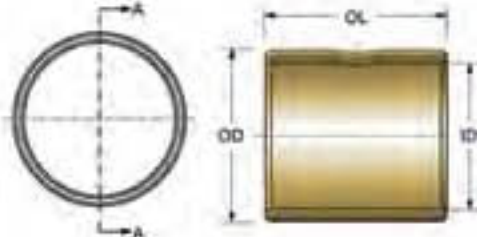
Wrist Pin Bushings • High Performance • C630 Bronze

		KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
		20-0644	C630 Bronze	0.897"	0.788"	0.945"	Pkg. of 1
KPMI® has developed what we believe to be the highest quality wrist pin bushings available. Our wrist pin bushings are machined from a solid Nickel Bronze alloy, with an exceptional Rockwell hardness rating. These bushings are a must for high performance applications.							

Wrist Pin Bushings • Engine Builder Series • 660 Bearing Bronze

		KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
		20-20810	660 Bearing Bronze	0.897"	0.788"	0.945"	Standard	Pkg. of 1
		20-20812	660 Bearing Bronze	0.899"	0.788"	0.945"	+0.002"	Pkg. of 1
Made from SAE660 bearing bronze to exact tolerances, these bushings will meet or exceed fitment and wear ability of all other replacement style bushings available.								

Rocker Arm Bushings • 660 Bearing Bronze

		KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
		20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8

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HD® TWIN CAM™ 88" 1999-2004

Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW
PRODUCTS

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21300	Intake Exhaust	.610"	1.860"	175#	400#	.610"
	Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Retainers	
			4	H. T. Steel Keeper (OEM Style)	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-21500	Intake Exhaust	.660"	1.860"	178#	371#	.660"
	Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Retainers	
			4	H. T. Steel Keepers (9° Degree Taper)	4	H. T. Steel Basewashers	

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20122	Intake Exhaust	.600"	1.810"	175#	380#	.600"
	Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
			4	Titanium Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20132	Intake Exhaust	.600"	1.810"	175#	380#	.600"
	Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
			4	H. T. Steel Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20060	Intake Exhaust	.655"	1.865"	190#	465#	.655"
	Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
			4	Titanium Retainers	4	H. T. Steel Basewashers	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*20-20081	Intake Exhaust	.655"	1.860"	185#	450#	.655"
	Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
			4	H. T. Steel Retainers	4	H. T. Steel Basewashers	

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

Valves • Black Diamond™ • Black Nitroleg Stems For All 5/16 Stem Valves

NEW
PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
	20-20055	Intake	1.840"	46.74mm	0.3100"	Radius	Angle	4.445"	OEM18074-83A
	20-20056	Intake	1.900"	48.26mm	0.3100"	R0.344	28°	4.420"	Oversize
	20-20108	Intake	2.000"	50.80mm	0.3100"	R0.234	23°	4.445"	Oversize
	20-20900	Intake	2.150"	54.61mm	0.3108"	R0.550	24°	4.480"	AV&V# AV2150
	20-20905	Intake	1.990"	50.55mm	0.3108"	R0.675	25°	4.440"	AV&V# AV1990
	20-20910	Intake	1.940"	49.28mm	0.3108"	R0.675	25°	4.440"	AV&V# AV1940
	20-20915	Intake	1.900"	48.26mm	0.3108"	R0.675	25°	4.440"	AV&V# AV1900
	20-20955	Intake	2.100"	53.34mm	0.3108"	R0.560	24°	4.475"	AV&V# AV2100
	20-20990	Intake	2.020"	51.31mm	0.3108"	R0.670	25°	4.440"	AV&V# AV2020A
	20-20965	Intake	2.020"	51.31mm	0.3108"	R0.645	25°	4.510"	AV&V# AV2020S
	20-20057	Exhaust	1.565"	39.75mm	0.3095"	R0.250	17°	4.505"	OEM18085-991
	20-20920	Exhaust	1.650"	41.91mm	0.3106"	R0.750	25°	4.515"	AV&V# AV1650
	20-20925	Exhaust	1.610"	40.89mm	0.3106"	R0.750	25°	4.510"	AV&V# AV1610D
	20-20930	Exhaust	1.585"	40.26mm	0.3106"	R0.750	25°	4.505"	AV&V# AV1585
	20-20960	Exhaust	1.700"	43.18mm	0.3106"	R0.600	25°	4.535"	AV&V# AV1700A
	20-20970	Exhaust	1.610"	40.89mm	0.3106"	R0.750	25°	4.565"	AV&V# AV1610S

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HD® TWIN CAM™ 88" 1999-2004

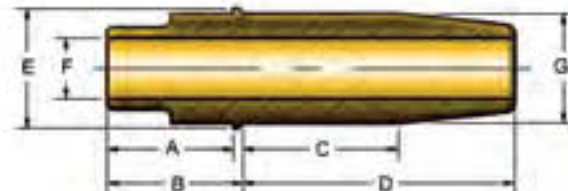


Valves • Black Diamond™ and White Diamond® • Specially Designed For HD Racing Applications



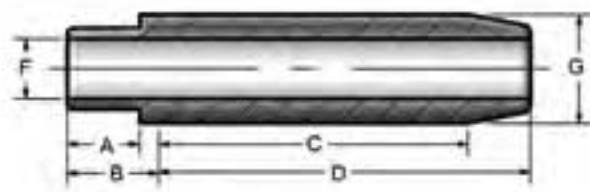
KPMI P/N	Type		Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
20-4169	In	Black Diamond™	1.940"	49.28mm	0.3100"	R0.234	23°	4.400"	Branch Heads
20-4270K	Ex	White Diamond®	1.630"	41.40mm	0.3096"	R0.500	40°	4.525"	O/S Inconel®
20-20419	In	White Diamond®	1.900"	48.26mm	0.3100"	R0.344	28°	4.445"	Oversize
20-B101	Ex	Black Diamond™	1.615"	41.02mm	0.3096"	R0.325	R01.625	4.460"	Branch Heads
20-4170R	Ex	Black Diamond™	1.630"	41.40mm	0.3096"	R0.500	40°	4.525"	Oversize
20-4170S	Ex	Black Diamond™	1.750"	44.45mm	0.3095"	R0.236	24°	4.480"	Std. Heads

Valve Guides • C630 Bronze • Cast Iron • Manganese • Shouldered • .420" Seal Ø • Shortened for .600" Lift

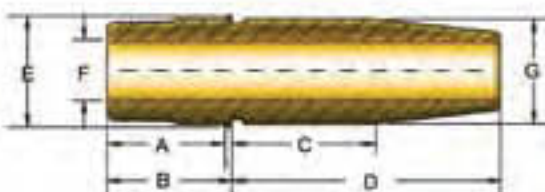
	A	B	C	D	E	F	G	Intake		
								C630 Bronze	Cast Iron	Manganese
	0.650"	0.700"	0.800"	1.400"	0.615"	0.3098"	0.5620" / Std.	20-2120	20-2120C	20-2120M
							+0.001"	20-2121	20-2121C	20-2121M
							+0.002"	20-2122	20-2122C	20-2122M
							+0.003"	20-2123	20-2123C	20-2123M
							+0.004"	20-2124	20-2124C	20-2124M
							+0.010"	20-2129	20-2129C	20-2129M
	A	B	C	D	E	F	G	Exhaust		
	0.650"	0.700"	1.150"	1.450"	0.615"	0.3098"	0.5620" / Std.	20-2130	20-2130C	20-2130M
							+0.001"	20-2131	20-2131C	20-2131M
							+0.002"	20-2132	20-2132C	20-2132M
							+0.003"	20-2133	20-2133C	20-2133M
							+0.004"	20-2134	20-2134C	20-2134M
							+0.010"	20-2139	20-2139C	20-2139M

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Valve Guides • C630 Bronze • Cast Iron • O.E.M. Replacement • .420" Seal Ø

	A	B	C	D	E	F	G	Intake / Exhaust	
								C630 Bronze	Cast Iron
	0.375"	0.375"	1.700"	2.025"	---	0.3098"	0.5620" / Std.	20-4320	20-4320C
							+0.001"	20-4321	20-4321C
							+0.002"	20-4322	20-4322C
							+0.003"	20-4323	20-4323C
							+0.004"	20-4324	20-4324C
							+0.010"	20-4329	20-4329C
									

Valve Guides • Manganese Bronze • .530" Seal Ø • Shortened for .655" Lift NEW PRODUCTS

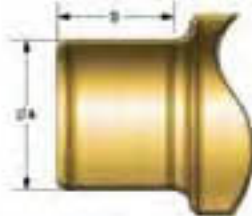
	A	B	C	D	E	F	G	Intake	Exhaust	AV&V#
	0.620"	0.665"	0.737"	1.435"	0.615"	0.3100"	0.5625" / Std.	20-20860M		VG5600
							+0.001"	20-20861M		VG5601
							+0.002"	20-20862M		VG5602
							+0.010"	20-20869M		VG5610
	0.620"	0.665"	1.135"	1.435"	0.615"	0.3096"	0.5625" / Std.		20-20870M	VG5700
							+0.001"		20-20871M	VG5701
							+0.002"		20-20872M	VG5702
							+0.010"		20-20879M	VG5710

For sizing KPMI® Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).



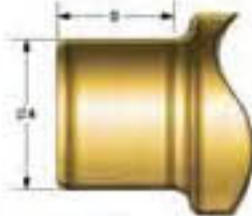
HD® TWIN CAM™ 88" 1999-2004

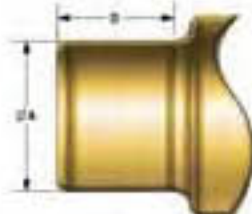
Valve Guide Seals • O.E.M. Replacement

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.385"	0.565"	7	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.315"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71032-4			Pkg. of 4		0%
			71032-8			Pkg. of 8		0%
			71032-16			Pkg. of 16		Less- 10%
			71032-50			Pkg. of 50		Less- 15%
			71032-100			Pkg. of 100		Less- 20%

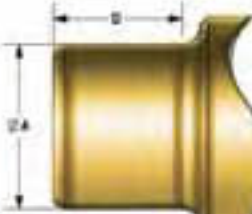
Please use KPML® installation tools and protectors listed in Harley Davidson® Tool Section (Pg. 65)

Valve Guide Seals • Viton®

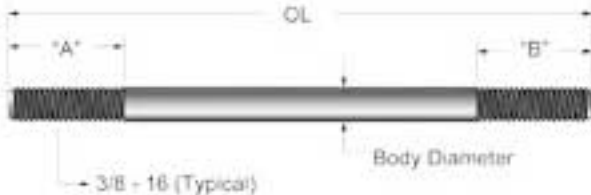
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.412"	0.566"	5	A	B	C	D	Intake
				0.420"±0.002"	---	---	0.275"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71010-4			Pkg. of 4		0%
			71010-8			Pkg. of 8		0%
			71010-16			Pkg. of 16		Less- 10%
			71010-50			Pkg. of 50		Less- 15%
			71010-100			Pkg. of 100		Less- 20%

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.514"	0.671"	5	A	B	C	D	Intake
				0.530"±0.002"	---	---	0.330"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71045-4		Pkg. of 4		0%
				71045-8		Pkg. of 8		0%
				71045-16		Pkg. of 16		Less- 10%
				71045-50		Pkg. of 50		Less- 15%
				71045-100		Pkg. of 100		Less- 20%

Valve Guide Seals • PC Style

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.517"	0.510"	6	A	B	C	D	Intake
				0.415"±0.005"	---	---	0.350"	Exhaust
 			Part Number		Quantity		Quantity Incentive	
			71008-4		Pkg. of 4		0%	
			71008-8		Pkg. of 8		0%	
			71008-16		Pkg. of 16		Less- 10%	
			71008-50		Pkg. of 50		Less- 15%	
			71008-100		Pkg. of 100		Less- 20%	

Cylinder Studs • H. T. Steel

			KPML P/N	Material	O.L.	Body Dia.	A	B	Quantity
			20-20412	H. T. Steel	6.310"	0.370"	1.250"	1.250"	Pkg. of 8

Machined from U.S. milled fine grain, heat treated aircraft quality steel. 180,000 psi yield strength. Threads rolled after heat treatment for maximum strength and fatigue life. Centerless ground OD to insure concentricity. Case end threaded for interference fit to maintain good thread engagement at high temps. Black Oxide finish to resist corrosion and to give excellent appearance.

ORDER 650-557-2046

HD® TWIN CAM™ 88" 1999-2004



Keeper Set • O.E.M. Replacement

	KPMI P/N	Style	A	B	C	D	E	Quantity
	51014-4	Single Square Bead	0.310	7.0°	0.190"	0.380"	0.380"	4Pr.

The bead height is referenced from the minor diameter of the keeper to the center of the bead.

Rocker Arm Bushings • 660 Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-2106	660 Bearing Bronze	0.6795"	0.548"	1.065"	Pkg. of 8

Cylinder Dowels • Steel

	KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
	20-20413	Steel	0.4365"	0.323"	0.610"	Pkg. of 4

Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC500	Intake	1.969"	50.00mm	1.535"	39.00mm	0.453"	11.50mm	Pkg. of 1
	10-SC510	Intake	2.007"	50.98mm	1.562"	39.67mm	0.450"	11.43mm	Pkg. of 1
	10-SC541	Intake	2.132"	54.15mm	1.690"	42.93mm	0.450"	11.43mm	Pkg. of 1
	10-SC446	Exhaust	1.757"	44.62mm	1.375"	35.00mm	0.450"	11.43mm	Pkg. of 1

KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.

HD® TWIN CAM™ 88"-103" 2005-2017

Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW
PRODUCTS

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-21400	Intake	.610"	1.860"	175#	400#	.610"	
	Exhaust						
Kit Includes		4	H. T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		4	H. T. Steel Keeper (OEM Style)		4	H. T. Steel Basewashers	
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-21550	Intake	.660"	1.860"	178#	371#	.660"	
	Exhaust						
Kit Includes		4	H. T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		4	H. T. Steel Keepers (9° Degree Taper)		4	H. T. Steel Basewashers	

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HD® TWIN CAM™ 88"-103" 2005-2017

Valve Spring Kit • Lightweight Racing



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-20360	Intake	.600"	1.860"	160#	365#	.600"
	Exhaust					
Kit Includes		4 Titanium Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2 Ex H. T. Steel Basewashers		4		H. T. Steel Basewashers



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
*20-20364	Intake	.600"	1.860"	160#	365#	.600"
	Exhaust					
Kit Includes		4 H.T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2 Ex H. T. Steel Basewashers		4		H. T. Steel Basewashers

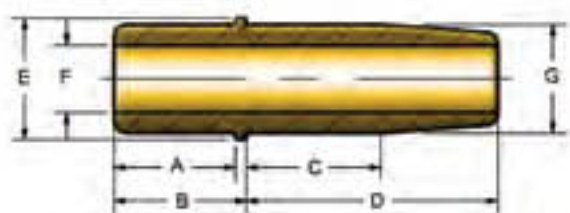
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-20350	Intake	.655"	1.860"	185#	450#	.655"
	Exhaust					
Kit Includes		4 Titanium Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2 Ex H. T. Steel Basewashers		4		H. T. Steel Basewashers

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
*20-20355	Intake	.655"	1.860"	185#	450#	.655"
	Exhaust					
Kit Includes		4 H.T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2 Ex H. T. Steel Basewashers		4		H. T. Steel Basewashers

Note: These kits are supplied with 2 supplemental exhaust basewashers for use with the OEM exhaust guides.

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

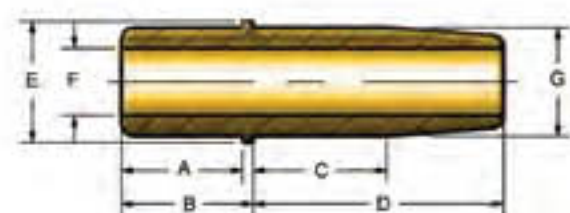
Valve Guides • Shouldered • Use O.E.M. Style or Kibblewhite® Seals • Shortened for 0.655" Lift



A	B	C	D	E	F	G	Intake	
							C630 Bronze	Cast Iron
0.690"	0.770"	0.800"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20690	20-20690C
						+0.001"	20-20691	20-20691C
						+0.002"	20-20692	20-20692C
						+0.010"	20-20699	20-20699C



A	B	C	D	E	F	G	Exhaust	
0.650"	0.770"	1.030"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20700	20-20700C
						+0.001"	20-20701	20-20701C
						+0.002"	20-20702	20-20702C
						+0.010"	20-20709	20-20709C



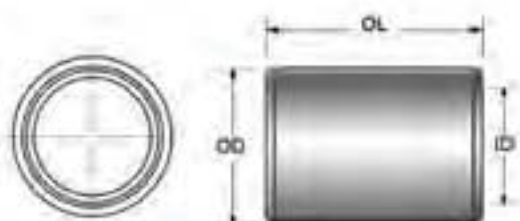
A	B	C	D	E	F	G	Intake	
							Manganese	Ref. AV&V
0.685"	0.735"	0.702"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20690M	VG6600
						+0.001"	20-20691M	VG6601
						+0.002"	20-20692M	VG6602
						+0.010"	20-20699M	VG6610



A	B	C	D	E	F	G	Exhaust	
0.685"	0.735"	0.920"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20700M	VG6700
						+0.001"	20-20701M	VG6701
						+0.002"	20-20702M	VG6702
						+0.010"	20-20709M	VG6710

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

Cylinder Dowels • Steel



KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
20-20413	Steel	0.4365"	0.323"	0.610"	Pkg. of 4

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HD® TWIN CAM™ 88"-103" 2005-2017



Valves • Black Diamond™ • Black Nitroleg Stems **NEW PRODUCTS**

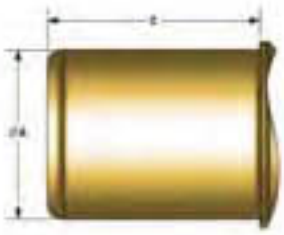
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-20322	Intake	1.805"	45.85mm	0.2760"	R0.413	1.700°R	4.420"	OEM18074-05
	20-20323R	Intake	1.900"	48.26mm	0.2760"	R0.344	28°	4.420"	Oversize
	20-20935	Intake	1.980"	50.29mm	0.2757"	R0.290	23°	4.455"	AV1980-7TGB
	20-20940	Intake	1.900"	48.26mm	0.2757"	R0.475	24°	4.445"	AV1900-7TGB
	20-20325	Exhaust	1.575"	40.00mm	0.2755"	R0.354	22°	4.520"	OEM18085-991
	20-20326R	Exhaust	1.630"	41.40mm	0.2755"	R0.500	34°	4.520"	Oversize
	20-20945	Exhaust	1.610"	40.89mm	0.2755"	R0.595	25°	4.545"	AV1610-7TGB
	20-20950	Exhaust	1.575"	40.00mm	0.2755"	R0.595	25°	4.560"	AV1575-7TGB

Valves • Black Diamond™ • Fat Stem • Black Nitroleg Stems

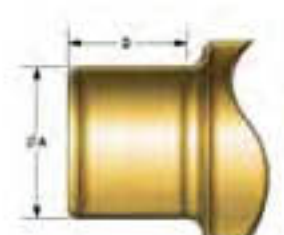
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-20772	Intake	1.805"	45.85mm	0.2810"	R0.413	1.700°R	4.415"	Standard
	20-20776	Exhaust	1.575"	40.00mm	0.2805"	R0.374	23°	4.510"	Standard

KPMI® Reamer GR-2820 should be used to size the OEM valve guides to accommodate these valves.

Valve Guide Seals • Tophat

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.974"	1.457"	3	A	B	C	D	Intake
				0.560"±0.005"	---	---	0.970"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71030-4		Pkg. of 4	0%	
				71030-8		Pkg. of 8	0%	
				71030-16		Pkg. of 16	Less- 10%	
				71030-50		Pkg. of 50	Less- 15%	
				71030-100		Pkg. of 100	Less- 20%	

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.510"	0.665"	5	A	B	C	D	Intake
				0.560"±0.002"	---	---	0.375"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71028-4		Pkg. of 4	0%	
				71028-8		Pkg. of 8	0%	
				71028-16		Pkg. of 16	Less- 10%	
				71028-50		Pkg. of 50	Less- 15%	
				71028-100		Pkg. of 100	Less- 20%	

Use with Kibblewhite® Spring Kits on O.E.M. or Kibblewhite® Valve Guides

Valve Seats • Powdered Metal

	KPMI P/N	Type	O. D.		I. D.		Height		Quantity
	10-SC500	Intake	1.969"	50.00mm	1.535"	39.00mm	0.453"	11.50mm	Pkg. of 1
	10-SC510	Intake	2.007"	50.98mm	1.562"	39.67mm	0.450"	11.43mm	Pkg. of 1
	10-SC541	Intake	2.132"	54.15mm	1.690"	42.93mm	0.450"	11.43mm	Pkg. of 1
	10-SC446	Exhaust	1.757"	44.62mm	1.375"	35.00mm	0.450"	11.43mm	Pkg. of 1

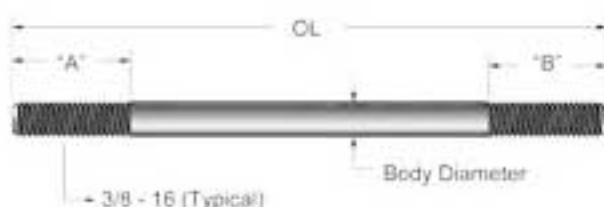
KPMI's proprietary seat material is compatible with leaded and unleaded fuels including methanol and ethanol fuel blends. This material offers excellent thermal characteristics and resists microwelding that leads to seat and valve face recession. Leading edge has generous radius to ease installation.

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HD® TWIN CAM™ 88"-103" 2005-2017

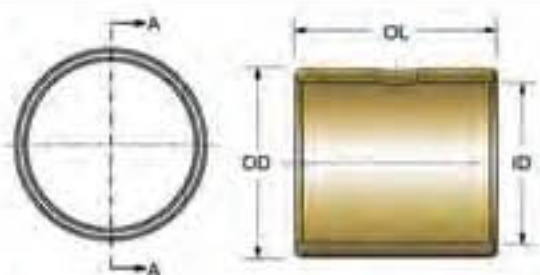
Cylinder Studs • H. T. Steel



KPMI P/N	Material	O.L.	Body Dia.	A	B	Quantity
20-20412	H. T. Steel	6.310"	0.370"	1.250"	1.250"	Pkg. of 8

Machined from U.S. milled fine grain, heat treated aircraft quality steel. 180,000 psi yield strength. Threads rolled after heat treatment for maximum strength and fatigue life. Centerless ground OD to insure concentricity. Case end threaded for interference fit to maintain good thread engagement at high temps. Black Oxide finish to resist corrosion and to give excellent appearance.

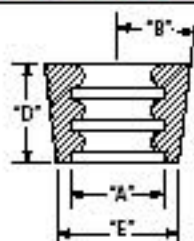
Rocker Arm Bushings • 660 Bearing Bronze



KPMI P/N	Material	O. D.	I. D.	O. L.	Quantity
20-20780	660 Bearing Bronze	1.019"	0.925"	1.040"	Pkg. of 2
20-20790	660 Bearing Bronze	1.019"	0.925"	1.040"	Pkg. of 1

Note: Wrist Pins do not include oil hole(s). These must be drilled after installation.

Keeper Set • O.E.M. Replacement



KPMI P/N	Style	A	B	C	D	E	Quantity
51016-4	Triple Radius Bead	0.275	7.0°	---	0.345"	0.290"	4Pr.

The bead height is referenced from the minor diameter of the keeper to the center of the bead.

HD® BUELL® XB9™ 2003-2007

Valve Spring Kit • Lightweight Racing



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-20360	Intake Exhaust	.600"	1.860"	160#	365#	.600"
Kit Includes		4 Titanium Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2 Ex H. T. Steel Basewashers		4		H. T. Steel Basewashers

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
*20-20364	Intake Exhaust	.600"	1.860"	160#	365#	.600"
Kit Includes		4 H.T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2 Ex H. T. Steel Basewashers		4		H. T. Steel Basewashers



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
20-20350	Intake Exhaust	.655"	1.860"	185#	450#	.655"
Kit Includes		4 Titanium Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2 Ex H. T. Steel Basewashers		4		H. T. Steel Basewashers

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
*20-20355	Intake Exhaust	.655"	1.860"	185#	450#	.655"
Kit Includes		4 H.T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		2 Ex H. T. Steel Basewashers		4		H. T. Steel Basewashers

Note: These kits are supplied with 2 supplemental exhaust basewashers for use with the OEM exhaust guides.

* All KPMI® retainers are designed using the latest CAD software available. Further, the retainers are tested using finite element analysis (FEA) to ensure the retainer can endure high stress levels during operation. By using billet aircraft alloy material, heat treating it, and then employing our high powered design software, KPMI® is able to maximize weight saving by incorporating a series of drilled holes in the retainers. These retainers are both strong and light, allowing significant reduction to overall valvetrain mass, which is known to improve performance.

ORDER 650-557-2046

HD® BUELL® XB9™ 2003-2007



Valve Spring Kit • "High Performance" Ovate Wire Beehive

NEW PRODUCTS

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-21400	Intake	.610"	1.860"	175#	400#	.610"	
	Exhaust						
Kit Includes		4	H. T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		4	H. T. Steel Keeper (OEM Style)	4	H. T. Steel Basewashers		
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-21550	Intake	.660"	1.860"	178#	371#	.660"	
	Exhaust						
Kit Includes		4	H. T. Steel Retainers	4	CrSi Valve Springs	4	Viton® Seals
		4	H. T. Steel Keepers (9° Degree Taper)	4	H. T. Steel Basewashers		

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-20260	Intake	1.805"	45.85mm	0.2760"	R0.344	28°	4.525"	Standard
	20-20262	Intake	1.900"	48.26mm	0.2760"	R0.344	28°	4.500"	Oversize
	20-20265	Exhaust	1.575"	40.00mm	0.2755"	R0.500	34°	4.610"	Standard
	20-20266	Exhaust	1.615"	41.02mm	0.2755"	R0.500	34°	4.590"	Oversize

Valve Guides • Shouldered • Use O.E.M. Style or Kibblewhite® Seals • Shortened for 0.655" Lift

	A	B	C	D	E	F	G	Intake	
								C630 Bronze	Cast Iron
	0.690"	0.770"	0.800"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20690	20-20690C
							+0.001"	20-20691	20-20691C
							+0.002"	20-20692	20-20692C
							+0.010"	20-20699	20-20699C
	A	B	C	D	E	F	G	Exhaust	
	0.650"	0.770"	1.030"	1.280"	0.615"	0.2750"	0.5620" / Std.	20-20700	20-20700C
							+0.001"	20-20701	20-20701C
							+0.002"	20-20702	20-20702C
							+0.010"	20-20709	20-20709C
	A	B	C	D	E	F	G	Intake	
								Manganese	Ref. AV&V
	0.685"	0.735"	0.702"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20690M	VG6600
							+0.001"	20-20691M	VG6601
							+0.002"	20-20692M	VG6602
							+0.010"	20-20699M	VG6610
	A	B	C	D	E	F	G	Exhaust	
	0.685"	0.735"	0.920"	1.305"	0.615"	0.2750"	0.5625" / Std.	20-20700M	VG6700
							+0.001"	20-20701M	VG6701
							+0.002"	20-20702M	VG6702
							+0.010"	20-20709M	VG6710

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

VISIT US AT WWW.KPMI.US



HD® BUELL® XB9™ 2003-2007

Valve Guide Seals • Tophat

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.974"	1.457"	3	A	B	C	D	Intake
				0.560"±0.005"	---	---	0.970"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71030-4		Pkg. of 4		0%		
		71030-8		Pkg. of 8		0%		
		71030-16		Pkg. of 16		Less- 10%		
		71030-50		Pkg. of 50		Less- 15%		
		71030-100		Pkg. of 100		Less- 20%		

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.510"	0.665"	5	A	B	C	D	Intake
				0.560"±0.002"	---	---	0.375"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71028-4		Pkg. of 4		0%		
		71028-8		Pkg. of 8		0%		
		71028-16		Pkg. of 16		Less- 10%		
		71028-50		Pkg. of 50		Less- 15%		
		71028-100		Pkg. of 100		Less- 20%		

Use with Kibblewhite® Spring Kits on O.E.M. or Kibblewhite® Valve Guides

HD® V-ROD™ 2005

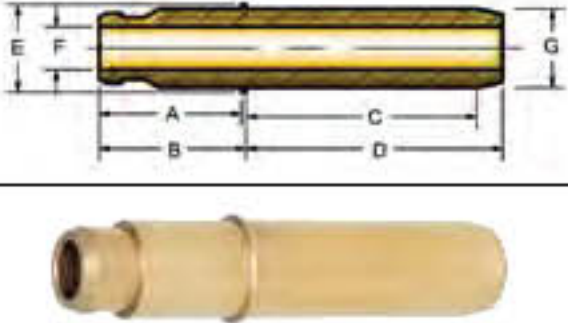
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	20-20140	Intake	.500"	1.360"	72#	230#	.500"
		Exhaust					
	Kit Includes			8		Titanium Retainers	

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-20147	Intake	1.575"	40.00mm	0.2350"	R0.310	10°	4.580"	Standard
	20-20152	Exhaust	1.360"	34.54mm	0.2345"	R0.465	25°	4.620"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.720"	0.745"	1.050"	1.180"	0.440"	0.2340"	0.3957" / Std.	20-20330	
							+0.001"	20-20331	
							+0.010"	20-20339	
	0.720"	0.745"	1.170"	1.300"	0.440"	0.2340"	0.3957" / Std.		20-20340
							+0.001"		20-20341
	Use O.E.M valve guide seals.						+0.010"		20-20349

ORDER 650-557-2046

HD® V-ROD™ 2005



Tappets • O.E.M. Replacement • H.T. Steel

A technical drawing of a rectangular tappet. The drawing shows a cross-section of the part. Dimension 'A' is the overall width. Dimension 'B' is the width of the top flange. Dimension 'C' is the thickness of the top flange. Dimension 'E' is the height of the side walls. Dimension 'F' is the height of the top flange. The central opening is rectangular with rounded corners.

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
20-20157	Intake	None	31.00mm	1.2195"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
	Exhaust								
Refer to KPMI® Tappet Section , in back of catalog, when selecting oversize tappets.									

HD® MILWAUKEE-EIGHT™ 2017-2018

Valve Spring Kit • Ovate Wire Beehive

NEW PRODUCTS

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-21000	Intake	.465"	1.410"	80#	212#	.465"	
	Exhaust						
Kit Includes		8	Titanium Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
20-21050	Intake	.465"	1.410"	80#	212#	.465"	
	Exhaust						
Kit Includes		8	H. T. Steel Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers

Valve Spring Kit • Ovate Wire Beehive • High Lift

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	20-21200	Intake	0.550"		1.550"		104#		230#		0.550"
		Exhaust									
	Kit Includes			8	Titanium Retainers			8	CrSi Valve Springs		

Valves • Black Diamond™ • Black Nitroleg Stems

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-21012	Intake	1.571"	39.90mm	0.2347"	R0.235	10°	4.015"	Standard
	20-21015	Intake	1.591"	40.40mm	0.2347"	R0.235	10°	4.015"	Oversize
	20-21013	Intake	1.630"	41.40mm	0.2347"	R0.235	10°	4.055"	Oversize
	20-21016	Exhaust	1.264"	32.11mm	0.2342"	R0.460	24°	4.050"	Standard
	20-21017	Exhaust	1.284"	32.61mm	0.2342"	R0.460	24°	4.050"	Oversize
KPMI® Black Diamond™ Blank Valve PN 20-21019 is available for M8 Application and please see Blank Valve section in back of catalog.									

Valve • White Diamond® • Inconel® • Exhaust

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip		O. L.	Remarks
						Radius	Angle		
	20-21018	Exhaust	1.284"	32.61mm	0.2342"	R0.460	24°	4.050"	Oversize

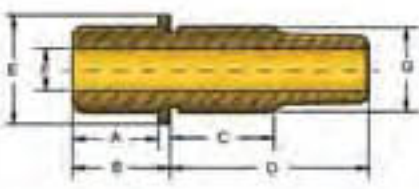
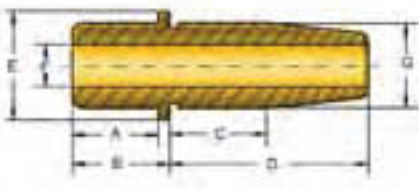
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HD® MILWAUKEE-EIGHT™ 2017-2018

Valve Guides • C630 Bronze • Cast Iron • Manganese Bronze

NEW PRODUCTS

		A	B	C	D	E	F	G	Intake		
									C630 Bronze	Cast Iron	Manganese
		0.480"	0.545"	0.540"	1.110"	0.600"	0.2347	0.4750" / Std.	20-21020	20-21020C	20-21020M
								+0.001"	20-21021	20-21021C	20-21021M
								+0.002"	20-21022	20-21022C	20-21022M
								+0.010"	20-21029	20-21029C	20-21029M
		A	B	C	D	E	F	G	Exhaust		
									C630 Bronze	Cast Iron	Manganese
		0.480"	0.545"	0.600"	1.110"	0.600"	0.2342	0.4750" / Std.	20-21030	20-21030C	20-21030M
								+0.001"	20-21031	20-21031C	20-21031M
								+0.002"	20-21032	20-21032C	20-21032M
								+0.010"	20-21039	20-21039C	20-21039M

For sizing KPMI® Cast Iron and Manganese Bronze Valve Guides please use Reamers and Ball Hones listed in HD® Tool section (Pg.65).

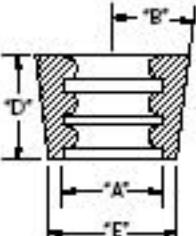
Valve Guide Seals • Tophat

NEW PRODUCTS

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.712"	1.170"	3	A	B	C	Spring shoulder Ø	Intake
				0.475"±0.002"	---	0.545"	0.707	Exhaust
				Part Number		Quantity		Quantity Incentive
				71046-4		Pkg. of 4		0%
				71046-8		Pkg. of 8		0%
				71046-16		Pkg. of 16		Less- 10%
				71046-50		Pkg. of 50		Less- 15%
				71046-100		Pkg. of 100		Less- 20%

Keeper Set • O.E.M. Replacement

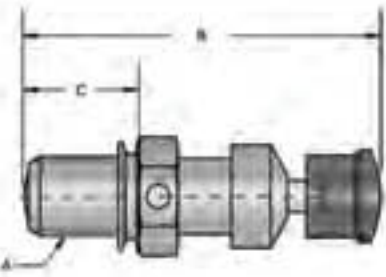
NEW PRODUCTS

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51029-8	Triple Radius Bead	0.236"	7.0°	---	0.200"	0.282"	8Pr.

HD® TOOLS

Compression Release Valves

NEW PRODUCTS

	KPMI P/N	A	B	C	Quantity	Note
	20-21250	M10 x 1	1.400"	0.350"	Pkg. of 2	Fits Evos, Shortened thread for ease of installation, 6kn closing force
	20-21265	M10 x 1	1.400"	0.350"	Pkg. of 20	
	20-21255	M10 x 1	1.730"	0.350"	Pkg. of 2	Fits Twin Cams, Shortened thread for ease of installation, 6kn closing force
	20-21270	M10 x 1	1.730"	0.350"	Pkg. of 20	
	20-21260	M10 x 1	1.750"	0.500"	Pkg. of 2	6kn closing force
	20-21275	M10 x 1	1.750"	0.500"	Pkg. of 20	

Installation Protector

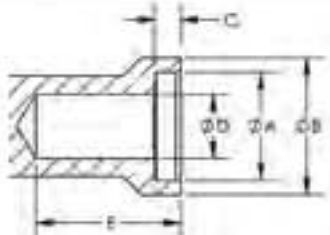
	KPMI P/N (2-pack)	KPMI P/N (1-pack)	Application	Stem Diameter	Fits		Color
	20-20634	20-20637	Evolution Ironhead Sportster Intake	5/16"	71032-4	71033-4	Green
	20-20635	20-20638	Ironhead Sportster Exhaust	11/32"	71034-4		Clear
	20-20636	20-20639	Panhead Shovelhead 74" & Shovelhead 80"	3/8"	71035-4	71036-4	Red

The flexible thin wall protectors are designed to fit over the top of the valve stem, protecting the sealing element from any sharp edges that might damage it during installation.

ORDER 650-557-2046

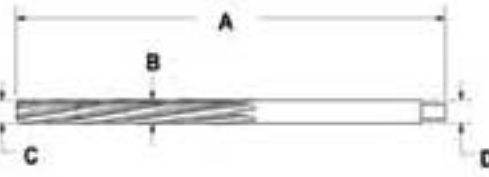


Installation Tools & Tool Kits

		Tool Kit P/N	Description							
		20-20835	Kit includes all 4 sizes of installations							
		Tool P/N	Fits	Color	ØA	ØB	C	ØD	E	Quantity
		20-20830	71032-4	Red	Ø0.575"	0.860"	0.160"	0.404"	0.910	Pkg. of 1
		20-20831	71036-4	Blue	Ø0.758"	0.860"	0.160"	0.404"	0.910	Pkg. of 1
		20-20832	71033-4 71034-4	White	Ø0.638"	0.860"	0.160"	0.404"	0.910	Pkg. of 1
		20-20833	71035-4	Black	Ø0.673"	0.860"	0.160"	0.404"	0.910	Pkg. of 1

These installation tools for OE style seals are manufactured from high strength 6061-T6 Aluminum for increased durability when compared to plastic installers. The tools are designed for precision fitment onto the seal OD to help the builder center the seal over the valve guide so that a few light strikes from a hammer will set the seal. Radiused top striking surface reduces the likelihood of a burr forming from deformation. Each installation tool is color coded and laser marked for each seal size by guide diameter.

Reamers • Solid Carbide **NEW PRODUCTS**

	KPMI P/N	Description	Overall Length "A"	Cutting Diameter "B"	Pilot Diameter "C"	Shank Diameter "D"
	CR-1971	0.1971 carbide valve guide reamer	7.625"	0.1971"	0.192"	0.190"
	CR-2357	0.2357 carbide valve guide reamer	7.625"	0.2357"	0.230"	0.228"
	CR-2768	0.2768 carbide valve guide reamer	7.625"	0.2768"	0.271"	0.269"
	CR-3110	0.3110 carbide valve guide reamer	7.625"	0.3110"	0.306"	0.304"
	CR-3115	0.3115 carbide valve guide reamer	7.625"	0.3115"	0.306"	0.304"
	CR-3120	0.3120 carbide valve guide reamer	7.625"	0.3120"	0.307"	0.305"
	CR-3775	0.3775 carbide valve guide reamer	7.625"	0.3775"	0.372"	0.370"

KPMI® Carbide valve guide reamers are manufactured from Solid Carbide. All KPMI® reamers are ground to: +/- .0002". KPMI® carbide reamers are straight-flute and have a 6-flute design. The pilot portion of KPMI® reamers are 1.0" to 1.5" long. Insert the pilot into a guide that you intend to size. Using a hand held drill, apply honing oil or ATF before and during reaming a guide. KPMI® reamers have been specifically designed for Manganese Bronze valve guides and Cast Iron. **Do not attempt to use these reamers to size C630 Nickel Aluminum Bronze guides. Also, once a reamer is used on Cast Iron, it's not advisable to then use it on a bronze guide.**

Reamers • High Speed Steel

	KPMI P/N	Description	Overall Length "A"	Cutting Diameter "B"	Pilot Diameter "C"	Shank Diameter "D"
	GR-2357	0.2357 HSS valve guide reamer	7.125"	0.2357"	0.229"	0.228"
	GR-2770	0.2770 HSS valve guide reamer	7.125"	0.2770"	0.271"	0.270"
	GR-2820	0.2820 HSS valve guide reamer	7.125"	0.2820"	0.271"	0.270"
	GR-3100	0.3100 HSS valve guide reamer	7.125"	0.3100"	0.304"	0.303"
	GR-3110	0.3110 HSS valve guide reamer	7.125"	0.3110"	0.305"	0.304"
	GR-3115	0.3115 HSS valve guide reamer	7.125"	0.3115"	0.305"	0.304"
	GR-3120	0.3120 HSS valve guide reamer	7.125"	0.3120"	0.306"	0.305"
	GR-3400	0.3400 HSS valve guide reamer	7.125"	0.3400"	0.334"	0.333"
	GR-3410	0.3410 HSS valve guide reamer	7.125"	0.3410"	0.335"	0.334"
	GR-3730	0.3730 HSS valve guide reamer	7.125"	0.3730"	0.367"	0.336"
	GR-3775	0.3775 HSS valve guide reamer	7.125"	0.3775"	0.371"	0.370"
	GR-3790	0.3790 HSS valve guide reamer	7.125"	0.3790"	0.373"	0.372"

KPMI® valve guide reamers are manufactured from premium hardened High Speed Steel. The advertised finished reamer diameters are ground to: +/- .0002". These spiral fluted reamers incorporate a 1.00" long pilot (reduced diameter) which gets inserted into an unfinished guide bore, to align the reamer to the valve guide centerline, during the sizing process. These reamers have been specifically designed for KPMI® Manganese Bronze and Cast Iron valve guides. **Do not attempt to use these reamers to size C630 Nickel Aluminum Bronze guides. Also, once a reamer is used on Cast Iron, it is not advisable to then use it on a bronze guide.**

Ball Hones

	KPMI P/N	Description	Overall Length "A"	Hone Head Length "B"	Hone Diameter "C"	Shank Diameter "D"
	GH-2755	7.0mm valve guide hone	7.975"	2.075"	0.325"	0.130"
	GH-3125	5/16 (.3125") valve guide hone	8.125"	2.225"	0.375"	0.145"
	GH-3750	3/8 (.3750") valve guide hone	8.050"	2.190"	0.415"	0.145"

BC Series Flex-Hone are manufactured by Brush Research (BRM). The BC Series Flex-Hone tool is designed for use on any type or size of valve guide from 4mm up to 3/8" in diameter. This guide hone is designed for surface finishing and cross hole deburring. Although Ball Hones have many uses, KPMI® offers them primarily to be used after a guide has been reamed. Using a Ball Hone after reaming creates a uniform surface free of irregularities, which improves surface contact and reduces the risk of galling or seizure. Please see our FAQ for recommended clearances.





HONDA® XR™ 50 2000-2003

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.245"	0.335"	0.655"	0.775"	0.645"	0.1960"	0.3963" / Std.	30-30510	
								+0.002"	30-30512	
								+0.010"	30-30519	
		0.245"	0.335"	0.790"	0.865"	0.645"	0.1960"	0.3963" / Std.		30-30520
								+0.002"		30-30522
								+0.010"		30-30529

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71015-2			Pkg. of 2		0%	
		71015-4			Pkg. of 4		0%	
		71015-8			Pkg. of 8		0%	
		71015-16			Pkg. of 16		Less- 10%	
		71015-50			Pkg. of 50		Less- 15%	
		71015-100			Pkg. of 100		Less- 20%	

HONDA® CRF™ / XR™ 75-100 1973-2013

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	30-30235	Intake	.360"		1.165"		47#		130#		.360"
		Exhaust									
	Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers	2	Spring Shims		

Spring Only Kit • Replacement



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
30-4062	Intake	.400"	1.210"	54#	145#	.400"
	Exhaust					
Kit Includes		2	CrSi Valve Springs			

Valves • Black Diamond™ • Black Nitroneg Stems (Excludes XR75 1973-'76 Intake)

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30238	Intake	24.00mm	0.945"	0.2145"	20°	3.115"	Standard
	30-30239	Intake	26.00mm	1.024"	0.2145"	20°	3.115"	Oversize
	30-30241	Exhaust	20.50mm	0.807"	0.2140"	20°	3.100"	Standard
	30-30242	Exhaust	22.00mm	0.866"	0.2140"	20°	3.100"	Oversize

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.115"	0.225"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71016-2			Pkg. of 2		0%	
		71016-4			Pkg. of 4		0%	
		71016-8			Pkg. of 8		0%	
		71016-16			Pkg. of 16		Less- 10%	
		71016-50			Pkg. of 50		Less- 15%	
		71016-100			Pkg. of 100		Less- 20%	

ORDER 650-557-2046

HONDA® CRF™ 150R 2007-2018



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	30-30880	Intake	.350"		1.320"		45#		143#		.350"
		Exhaust									
	Kit Includes			2	In, CrSi Valve Springs	2	In, Titanium Retainers	2	In, H. T. Steel Basewashers		
2				Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	2	Ex, H. T. Steel Basewashers			

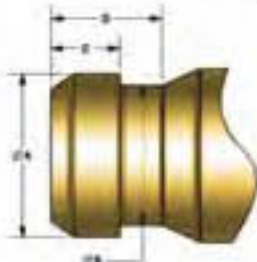
Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30910	Intake	26.00mm	1.024"	0.1765"	19°	3.065"	Standard
	30-30911	Intake	27.00mm	1.063"	0.1765"	19°	3.065"	Oversize
	30-30913	Exhaust	22.50mm	0.886"	0.1760"	19°	3.145"	Standard
	30-30914	Exhaust	23.50mm	0.925"	0.1760"	19°	3.145"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.550"	0.570"	0.710"	---	0.1765	0.3566" / Std.	30-30890	
							+0.001"	30-30891	
							+0.002"	30-30892	
							+0.010"	30-30899	
	---	0.790"	0.600"	0.710"	---	0.1760	0.3566" / Std.		30-30900
							+0.001"		30-30901
							+0.002"		30-30902
							+0.010"		30-30909

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71014-4		Pkg. of 4		0%	
			71014-8		Pkg. of 8		0%	
			71014-16		Pkg. of 16		Less- 10%	
			71014-50		Pkg. of 50		Less- 15%	
			71014-100		Pkg. of 100		Less- 20%	

HONDA® CB™ 160 1965-1969

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30800	Intake	.354"	1.175"	48#	134 #	.354"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs	4	* H. T. Steel Keepers Pr.	
			4	Titanium Retainers	4	H. T. Steel Basewashers	

*Designed for use with Kibblewhite® valves only. KPMI® keepers which are supplied with this kit are designed to work with Kibblewhite® valves utilizing a radius groove keeper design.



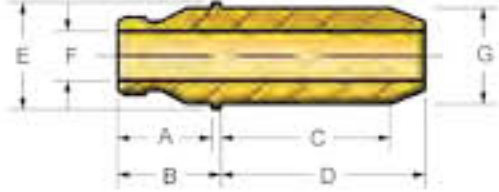
HONDA® CB™ 160 1965-1969

Valves • Black Diamond™ • Black Nitroneg Stems

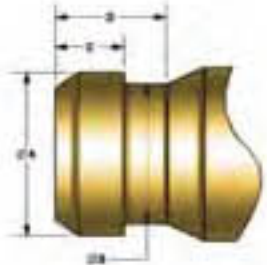
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30830	Intake	25.00mm	0.984"	0.2157"	21°	2.980"	Standard
	30-30831	Intake	26.00mm	1.024"	0.2157"	21°	2.980"	Oversize
	30-30833	Exhaust	22.00mm	0.866"	0.2152"	15°	2.975"	Standard
	30-30834	Exhaust	23.00mm	0.906"	0.2152"	15°	2.975"	Oversize

Not recommended for O.E.M. replacement. These valves have been designed to work with Kibblewhite® Radius Groove Keepers, which are supplied with Kibblewhite® Spring Kit #30-30800.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.415"	0.450"	0.650"	0.880"	0.440"	0.2155"	0.3975" / Std.	30-30810	
							+0.001"	30-30811	
							+0.002"	30-30812	
							+0.010"	30-30819	
	0.415"	0.450"	0.790"	1.040"	0.440"	0.2152"	0.3975" / Std.		30-30820
							+0.001"		30-30821
							+0.002"		30-30822
							+0.010"		30-30829

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71016-4		Pkg. of 4		0%
				71016-8		Pkg. of 8		0%
				71016-16		Pkg. of 16		Less- 10%
				71016-50		Pkg. of 50		Less- 15%
				71016-100		Pkg. of 100		Less- 20%

HONDA® CB™ 175 1970-1975

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-30840	Intake	.354"	1.175"	47#	133#	.354"	
		Exhaust						
	Kit Includes		4	CrSi Valve Springs		4		* H. T. Steel Keepers Pr.
			4	Titanium Retainers		4		H. T. Steel Basewashers

*Designed for use with Kibblewhite® valves only. KPMI® keepers which are supplied with this kit are designed to work with Kibblewhite® valves utilizing a radius groove keeper design.

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30870	Intake	28.00mm	1.102"	0.2157"	21°	2.920"	Standard
	30-30871	Intake	29.00mm	1.142"	0.2157"	21°	2.920"	Oversize
	30-30873	Exhaust	24.00mm	0.945"	0.2152"	15°	2.895"	Standard
	30-30874	Exhaust	25.00mm	0.984"	0.2152"	15°	2.895"	Oversize

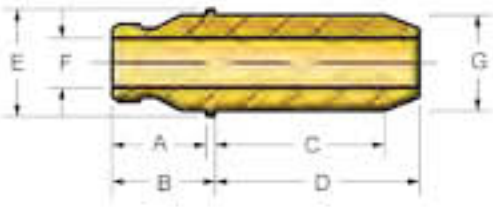
Not recommended for O.E.M. replacement. These valves have been designed to work with Kibblewhite® Radius Groove Keepers, which are supplied with Kibblewhite® Spring Kit #30-30840.

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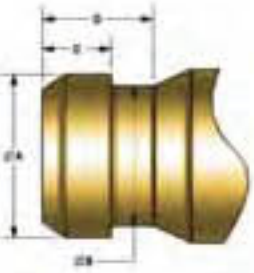
HONDA® CB™ 175 1970-1975



Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.415"	0.450"	0.650"	0.880"	0.440"	0.2155"	0.3975" / Std.	30-30850	
							+0.001"	30-30851	
							+0.002"	30-30852	
							+0.010"	30-30859	
	0.415"	0.450"	0.790"	1.040"	0.440"	0.2152"	0.3975" / Std.		30-30860
							+0.001"		30-30861
							+0.002"		30-30862
							+0.010"		30-30869

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71016-4		Pkg. of 4		0%
				71016-8		Pkg. of 8		0%
				71016-16		Pkg. of 16		Less- 10%
				71016-50		Pkg. of 50		Less- 15%
				71016-100		Pkg. of 100		Less- 20%

HONDA® VARIOUS 185-200 1980-2002

• ATC™ 185 / 200 1980-1986

• XL 200R / XR 200 / XR 200R 1980-2002

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	30-4021	Intake	.450"		1.345"		66#		202#		.450"
		Exhaust									
	Kit Includes			2	CrSi Valve Springs	2	Titanium Retainers	2	H. T. Steel Basewashers		

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift		Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-4016	Intake	.500"		1.390"	57#	145#	.290"
		Exhaust						
	Kit Includes			2	CrSi Valve Springs		2	H. T. Steel Shims

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30120	Intake	30.00mm	1.181"	0.2145"	23°	3.605"	Standard
	30-30121	Intake	31.00mm	1.220"	0.2145"	23°	3.620"	Oversize
	30-30122	Exhaust	25.00mm	0.984"	0.2140"	29°	3.595"	Standard

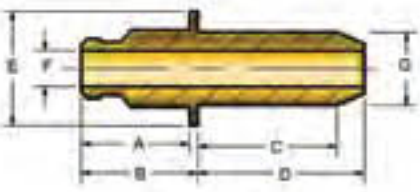


HONDA® VARIOUS 185-200 1980-2002

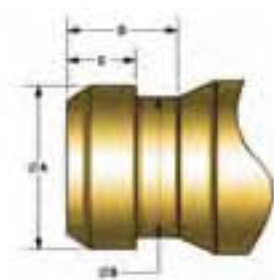
• ATC™ 185 / 200 1980-1986

• XL 200R / XR 200 / XR 200R 1980-2002

Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.550"	0.650"	0.890"	1.050"	0.685"	0.2155"	0.4372" / Std.		30-4069
							+0.004"		30-4159
							+0.015"		30-4160

Valve Guide Seals • Viton®

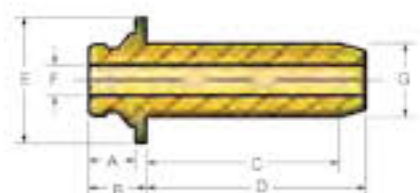
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71016-2				Pkg. of 2		0%
		71016-4				Pkg. of 4		0%
		71016-8				Pkg. of 8		0%
		71016-16				Pkg. of 16		Less- 10%
		71016-50				Pkg. of 50		Less- 15%
		71016-100				Pkg. of 100		Less- 20%

HONDA® XR™ 200R RFVC 1984-1985

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	30-30077	Intake	.355"		1.205"		55#		150#		.355"
		Exhaust									
Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers			

Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.400"	0.495"	1.185"	1.300"	0.650"	0.2155"	0.4355" / Std.		30-3100
							+0.002"		30-3102
							+0.010"		30-3110

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71016-4			Pkg. of 4		0%	
		71016-8			Pkg. of 8		0%	
		71016-16			Pkg. of 16		Less- 10%	
		71016-50			Pkg. of 50		Less- 15%	
		71016-100			Pkg. of 100		Less- 20%	

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HONDA® CRF 250R 2004-'07 / 250X 2004-'17



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30590	Intake	.350"	1.320"	50#	145#	.350"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	
4				H. T. Steel Basewashers	4	Red Viton® Seals	

Valve Spring Kit • High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-31300	Intake	.385"	1.185"	50#	160#	.385"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4		Titanium Retainers
				4	H. T. Steel Basewashers	4		Red Viton® Seals

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-31200	Intake	.350"	1.320"	50#	145#	.350"	
		Kit Includes		2	CrSi Valve Springs	2	Titanium Retainers	2
				2	Black Diamond™ Valves	2	Red Viton® Seals	

Valves • Black Diamond™ • Black Nitroleg Stems

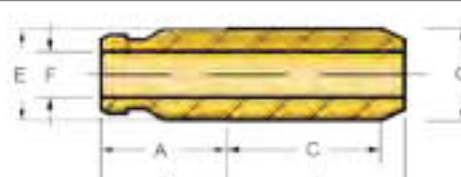
KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
30-30630	Intake	31.00mm	1.220"	0.1961"	20°	3.280"	Standard
30-30631	Intake	32.00mm	1.260"	0.1961"	20°	3.280"	Oversize
30-30633	Exhaust	26.00mm	1.024"	0.1956"	20°	3.235"	Standard
30-30634	Exhaust	27.00mm	1.063"	0.1956"	20°	3.235"	Oversize

Valves • O.E.M. Replacement • Titanium • Stainless

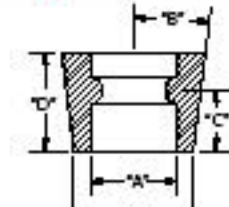
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	30-30630T	Intake	31.00mm	1.220"	0.1960"	20°	3.275"	Titanium
	30-30633	Exhaust	26.00mm	1.024"	0.1956"	20°	3.235"	Stainless

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.540"	0.540"	0.710"	0.770"	0.394"	0.1961"	0.3965" / Std.	30-30610	
							+0.001"	30-30611	
							+0.002"	30-30612	
							+0.010"	30-30619	
	0.740"	0.740"	0.675"	0.775"	0.394"	0.1956"	0.3965" / Std.		30-30620
							+0.001"		30-30621
							+0.002"		30-30622
							+0.004"		30-30624
							+0.010"		30-30629

Keeper Set • O.E.M. Replacement

	KPMI P/N	Style	Type	A	B	C	D	E	Quantity
	51025-4	Single Radius Bead	Intake Exhaust	0.196"	7.0°	0.170"	0.205"	0.236"	4Pr.

Note: The bead height is referenced from the minor diameter of the keeper to the center of the bead.

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HONDA® CRF™ 250R 2004-'07 / 250X 2004-'17

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71014-4		Pkg. of 4		0%
				71014-8		Pkg. of 8		0%
				71014-16		Pkg. of 16		Less- 10%
				71014-50		Pkg. of 50		Less- 15%
				71014-100		Pkg. of 100		Less- 20%

HONDA® CRF™ 250R 2008-2009

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-31150	Intake	.350"	1.320"	50#	145#	.350"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4		Titanium Retainers
				4	H. T. Steel Basewashers	4		Red Viton® Seals

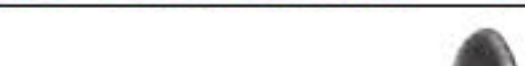
Valve Spring Kit • High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-31310	Intake	.385"	1.185"	50#	160#	.385"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4		Titanium Retainers
				4	H. T. Steel Basewashers	4		Red Viton® Seals

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-31200	Intake	.350"	1.320"	50#	145#	.350"	
	Kit Includes		2	CrSi Valve Springs	2	Titanium Retainers	2	H. T. Steel Basewashers
			2	Black Diamond™ Valves	2	Red Viton® Seals		

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-31162	Intake	31.00mm	1.220"	0.1961"	20°	3.280"	Standard
	30-31163	Intake	32.00mm	1.260"	0.1961"	20°	3.280"	Oversize
	30-31166	Exhaust	26.00mm	1.024"	0.1760"	20°	3.235"	Standard

Valves • O.E.M. Replacement • Titanium • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	30-31162T	Intake	31.00mm	1.220"	0.1960"	20°	3.275"	Titanium
	30-31166	Exhaust	26.00mm	1.024"	0.1768"	20°	3.235"	Stainless

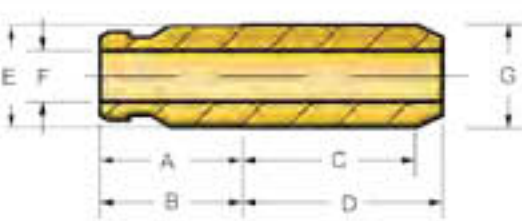
Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

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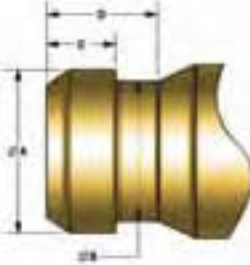
HONDA® CRF™ 250R 2008-2009



Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.540"	0.540"	0.710"	0.770"	0.394"	0.1960"	0.3965" / Std.	30-31170	
							+0.001"	30-31171	
							+0.002"	30-31172	
							+0.010"	30-31179	
	0.740"	0.740"	0.750"	0.850"	0.394"	0.1760"	0.3965" / Std.		30-31180
							+0.001"		30-31181
							+0.002"		30-31182
							+0.010"		30-31189

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71014-4		Pkg. of 4		0%
				71014-8		Pkg. of 8		0%
				71014-16		Pkg. of 16		Less- 10%
				71014-50		Pkg. of 50		Less- 15%
				71014-100		Pkg. of 100		Less- 20%

HONDA® CRF™ 250R 2010-2015

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31450	Intake	.385"	1.185"	50#	160#	.385"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs	4	Titanium Retainers	
			4	H. T. Steel Basewashers	4	Red Viton® Seals	

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31500	Intake	.385"	1.185"	50#	160#	.385"
Kit Includes	2	CrSi Valve Springs	2	Titanium Retainers	2	H. T. Steel Basewashers	
	2	Black Diamond™ Valves	2	Red Viton® Seals			

Valves • Black Diamond™ • Black Nitroneg Stems



KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
30-31462	Intake	30.50mm	1.201"	0.1961"	20°	3.500"	Standard
30-31463	Intake	31.50mm	1.240"	0.1961"	20°	3.500"	Oversize
30-31466	Exhaust	25.00mm	0.984"	0.1760"	20°	3.310"	Standard
30-31467	Exhaust	26.00mm	1.024"	0.1760"	20°	3.310"	Oversize



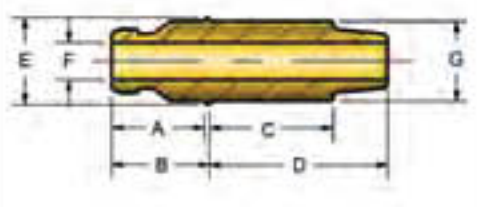
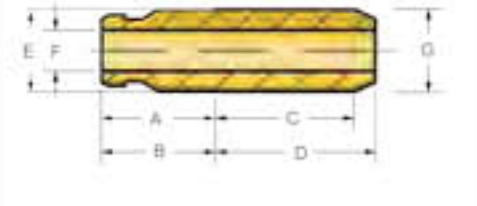
HONDA® CRF™ 250R 2010-2015

Valves • O.E.M. Replacement • Titanium • Stainless

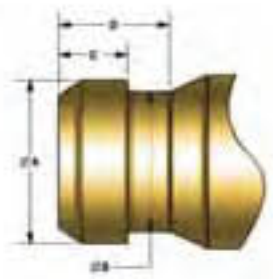
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	30-31462T	Intake	30.50mm	1.221"	0.1960"	20°	3.500"	Titanium
	30-31466	Exhaust	25.00mm	0.984"	0.1760"	20°	3.310"	Stainless

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.610"	0.610"	0.745"	0.965"	0.394"	0.1961"	0.3965" / Std.	30-31470	
								+0.001"	30-31471	
								+0.002"	30-31472	
								+0.010"	30-31479	
		0.820"	0.820"	0.650"	0.770"	0.394"	0.1760"	0.3965" / Std.		30-31480
								+0.001"		30-31481
								+0.002"		30-31482
								+0.010"		30-31489

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71014-4		Pkg. of 4		0%
				71014-8		Pkg. of 8		0%
				71014-16		Pkg. of 16		Less- 10%
				71014-50		Pkg. of 50		Less- 15%
				71014-100		Pkg. of 100		Less- 20%

HONDA® CRF™ 250R 2016-2017

Valve Spring Kit • Lightweight Racing NEW PRODUCTS



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
30-32400	Intake	.380"	1.180"	51#	160#	.380"	
	Exhaust						
Kit Includes		4	CrSi Valve Springs	4	Titanium Retainers	4	*Red Viton® Seals
		2	In H. T. Steel Basewashers		2	Ex H. T. Steel Basewashers	

*KPMI® supplied Viton® seals must be used with this kit. O.E.M. seals are NOT compatible.

ORDER 650-557-2046

HONDA® CRF™ 250R 2016-2017



Intake Only • Steel Valve Conversion Kit

NEW PRODUCTS



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
30-32440	Intake	.380"	1.180"	51#	160#	.380"	
Kit Includes		2	CrSi Valve Springs	2	Titanium Retainers	2	H. T. Steel Basewashers
		2	Black Diamond™ Valves	2	*Red Viton® Seals		

*KPMI® supplied Viton® seals must be used with this kit. O.E.M. seals are NOT compatible.

Valves • Black Diamond™ • Black Nitroeneg Stems

NEW PRODUCTS



	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-32412	Intake	30.50mm	1.201"	0.1961"	20°	3.500"	Standard
	30-32413	Intake	31.50mm	1.240"	0.1961"	20°	3.500"	Oversize
	30-32416	Exhaust	25.00mm	0.984"	0.1956"	20°	3.310"	Standard

You must use KPMI® Spring Kit 30-32400 When installing Black Diamond™ Valves

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

NEW PRODUCTS



KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Material	
30-32412T	Intake	30.50mm	1.201"	0.1960"	20°	3.500"	Titanium
30-32416T	Exhaust	25.00mm	0.984"	0.1956"	20°	3.300"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. KPMI® Tensilite® titanium valves are one piece forgings made from 6-2-4-2 titanium alloy. These are the latest developments in titanium valve alloys and have superior hardness, strength, and thermal characteristics when compared to other titanium valve alloys. Tensilite® valves are covered with a chromium nitride (CRN) PVD coating. This coating adheres exceptionally well to titanium, has a low coefficient of friction, and is impact, abrasion, and corrosion resistant.

Valve Guides • C630 Bronze

NEW PRODUCTS

		A	B	C	D	E	F	G	Intake	Exhaust
		0.675"	0.675"	0.710"	0.815"	0.394"	0.1961"	0.3963" / Std.	30-32420	
								+0.001"	30-32421	
								+0.002"	30-32422	
								+0.010"	30-32429	
		0.835"	0.835"	0.630"	0.735"	0.394"	0.1956"	0.3963" / Std.		30-32430
								+0.001"		30-32431
								+0.002"		30-32432
								+0.010"		30-32439

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71014-4			Pkg. of 4		0%	
		71014-8			Pkg. of 8		0%	
		71014-16			Pkg. of 16		Less- 10%	
		71014-50			Pkg. of 50		Less- 15%	
		71014-100			Pkg. of 100		Less- 20%	

VISIT US AT WWW.KPMI.US



HONDA® TRX™ 250X 1987-1992

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	30-3041	Intake	.400"		1.215"		76#		192#		.400"
		Exhaust									
	Kit Includes			4	CrSi Valve Springs		4	Titanium Retainers		4	H. T. Steel Shims

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30088	Intake	25.50mm	1.004"	0.2155"	23°	3.680"	Standard
	30-30090	Exhaust	22.50mm	0.886"	0.2150"	29°	3.650"	Standard

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.400"	0.495"	1.185"	1.300"	0.800"	0.2150"	0.4355" / Std.	30-3030	
								+0.002"	30-3032	
								+0.010"	30-3040	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71016-4				Pkg. of 4		0%
		71016-8				Pkg. of 8		0%
		71016-16				Pkg. of 16		Less- 10%
		71016-50				Pkg. of 50		Less- 15%
		71016-100				Pkg. of 100		Less- 20%

HONDA® XR™ / XL™ 250R RFVC 1984-'95

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-30077	Intake	.355"	1.205"	55#	150#	.355"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4

ORDER 650-557-2046

HONDA® XR™ / XL™ 250R RFVC 1984-'95



Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30081	Intake	28.50mm	1.122"	0.2160"	23°	3.805"	Standard
	30-30082	Intake	29.50mm	1.161"	0.2160"	23°	3.805"	Oversize
	*30-30083	Exhaust	23.50mm	0.925"	0.2155"	29°	3.775"	Standard

* Note # 30-30083 - Recommended for XR250R 1986-1995 Model only

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.400"	0.495"	1.185"	1.300"	0.650"	0.2155"	0.4355" / Std.	30-3100	
							+0.002"	30-3102	
							+0.010"	30-3110	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71016-4		Pkg. of 4		0%		
		71016-8		Pkg. of 8		0%		
		71016-16		Pkg. of 16		Less- 10%		
		71016-50		Pkg. of 50		Less- 15%		
		71016-100		Pkg. of 100		Less- 20%		

HONDA® XR™ 250R RFVC 1996-2004

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30070	Intake	.465"	1.455"	52#	143#	.300"
		Exhaust					
	Kit Includes			4		CrSi Valve Springs	4

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-4154	Intake	.465"	1.205"	55#	140#	.300"
		Exhaust					
	Kit Includes			4		CrSi Valve Springs	4

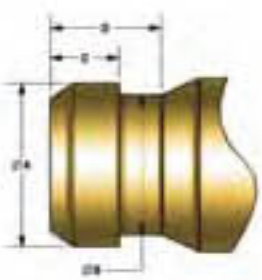


HONDA® XR™ 250R RFVC 1996-2004

Valves • Black Diamond™ • Black Nitroneg Stems

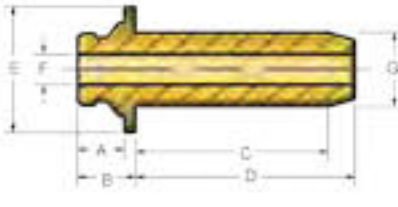
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30073	Intake	28.50mm	1.122"	0.1960"	23°	3.805"	Standard
	30-30075	Exhaust	23.50mm	0.925"	0.1955"	29°	3.765"	Standard

Valve Guide Seals • Viton®

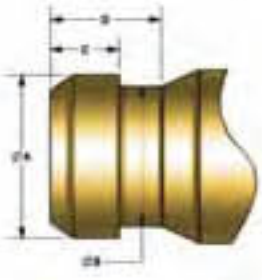
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number			Quantity	Quantity Incentive
				71016-4			Pkg. of 4	0%
				71016-8			Pkg. of 8	0%
				71016-16			Pkg. of 16	Less- 10%
				71016-50			Pkg. of 50	Less- 15%
				71016-100			Pkg. of 100	Less- 20%

HONDA® XR™ 250L 1991-1996

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.400"	0.495"	1.185"	1.300"	0.650"	0.2155"	0.4355" / Std.	30-3100	
								+0.002"	30-3102	
								+0.010"	30-3110	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number			Quantity	Quantity Incentive
				71016-4			Pkg. of 4	0%
				71016-8			Pkg. of 8	0%
				71016-16			Pkg. of 16	Less- 10%
				71016-50			Pkg. of 50	Less- 15%
				71016-100			Pkg. of 100	Less- 20%

HONDA® TRX™ 300EX / X 1993-2009

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-3041	Intake	.400"	1.215"	76#	192#	.400"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4

ORDER **650-557-2046**

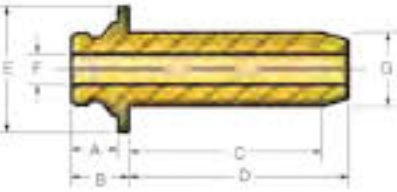
HONDA® TRX™ 300EX / X 1993-2009



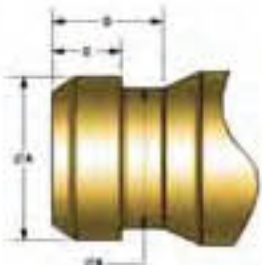
Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30088	Intake	25.50mm	1.004"	0.2155"	23°	3.680"	Standard
	30-30090	Exhaust	22.50mm	0.886"	0.2150"	29°	3.650"	Standard

Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.400"	0.495"	1.185"	1.300"	0.800"	0.2150"	0.4355" / Std.	30-3030	
							+0.002"	30-3032	
							+0.010"	30-3040	

Valve Guide Seals • Viton®

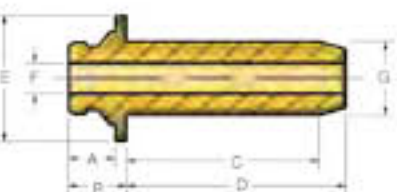
Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71016-4			Pkg. of 4		0%
			71016-8			Pkg. of 8		0%
			71016-16			Pkg. of 16		Less- 10%
			71016-50			Pkg. of 50		Less- 15%
			71016-100			Pkg. of 100		Less- 20%

HONDA® 350 RFVC 1983-1985

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-4083	Intake	.460"	1.390"	65#	204#	.460"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs		

Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.400"	0.495"	1.185"	1.300"	0.650"	0.2155"	0.4355" / Std.	30-3100	
							+0.002"	30-3102	
							+0.010"	30-3110	



HONDA® 350 RFVC 1983-1985

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71016-4		Pkg. of 4		0%	
			71016-8		Pkg. of 8		0%	
			71016-16		Pkg. of 16		Less- 10%	
			71016-50		Pkg. of 50		Less- 15%	
			71016-100		Pkg. of 100		Less- 20%	

HONDA® CB™ / CL™ 350 TWIN 1968-'73

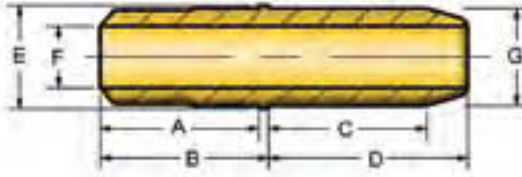
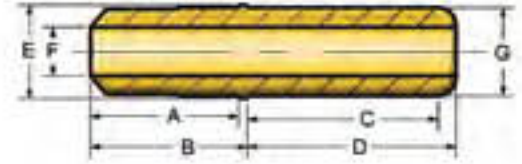
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30104	Intake	.465"	1.315"	101#	266#	.465"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers Pr.	
			4	Titanium Retainers	4	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30361	Intake	34.00mm	1.339"	0.2745"	15°	3.910"	Standard
	30-30362	Intake	35.00mm	1.378"	0.2745"	15°	3.900"	Oversize
	30-30364	Exhaust	28.00mm	1.102"	0.2740"	23°	3.850"	Standard
	30-30365	Exhaust	29.00mm	1.142"	0.2740"	23°	3.840"	Oversize

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.830"	0.880"	0.810"	1.020"	0.525"	0.2745"	0.4950" / Std.	30-0359		
									+0.002"	30-0360	
									+0.010"	30-0400	
		0.830"	0.880"	1.070"	1.170"	0.525"	0.2740"	0.4950" / Std.		30-0363	
									+0.002"		30-0364
							+0.010"			30-0401	
No seal required.											

ORDER 650-557-2046

HONDA® CB™ / CL™ 350 TWIN 1968-'73



- Lightweight 5.00mm Conversion System

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height	Seat Pressure		Open Pressure	@ Lift
	30-30320	Intake	.460"		1.370"	68#		207#	.460"
		Exhaust							
	Kit Includes			4	CrSi Valve Springs		4	H. T. Steel Keepers Pr.	
				4	Titanium Retainers		4	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30326	Intake	34.00mm	1.339"	0.1965"	20°	3.835"	Standard
	30-30327	Intake	35.00mm	1.378"	0.1965"	20°	3.825"	Oversize
	30-30328	Exhaust	28.00mm	1.102"	0.1960"	23°	3.775"	Standard
	30-30329	Exhaust	29.00mm	1.142"	0.1960"	23°	3.765"	Oversize

Must use Kibblewhite® Lash Caps #94007-4 (Pkg. of 4). Valves have been shortened to fit lash caps.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.440"	0.600"	0.825"	1.165"	0.525"	0.1960"	0.4953" / Std.	30-30330	
							+0.001"	30-30331	
							+0.002"	30-30332	
							+0.010"	30-30339	
	0.440"	0.600"	1.000"	1.180"	0.525"	0.1960"	0.4953" / Std.		30-30340
							+0.001"		30-30341
							+0.002"		30-30342
							+0.010"		30-30349

One seal supplied with each guide.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71015-4		Pkg. of 4		0%
				71015-8		Pkg. of 8		0%
				71015-16		Pkg. of 16		Less- 10%
				71015-50		Pkg. of 50		Less- 15%
				71015-100		Pkg. of 100		Less- 20%

Lash Caps • H.T. Steel

	KPMI P/N	Material	"A"	"B"	"C"	"D"	"C" - "D"	Quantity
	94007-4	H.T. Steel	5.00mm	0.277"	0.175"	0.100"	0.075"	Pkg. of 4
			0.1969"					



HONDA® ATC™ 350X 1985-1986

Spring Only Kit • High Performance

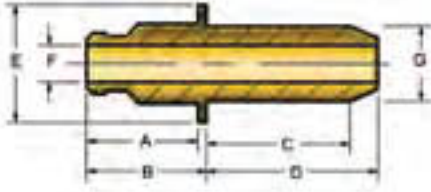
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-3045	Intake	.415"	1.160"	90#	210#	.415"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs		4

HONDA® XL™ 350 1974-1978

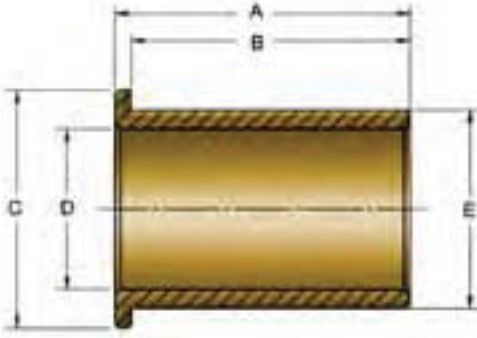
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-30230	Intake	.440"	1.195"	59#	172#	.440"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.550"	0.650"	0.890"	1.050"	0.685"	0.2155"	0.4372" / Std.	30-0494	
							+0.004"	30-0496	
	0.550"	0.650"	0.890"	1.050"	0.685"	0.2155"	0.4372" / Std.		30-0498
							+0.004"		30-0500

Swing Arm Bushing • Bearing Bronze For XL™ 350 1976-1978 **NEW PRODUCTS**

	KPMI P/N	Material	A	B	C	D	E	Quantity
	30-0477	Bearing Bronze	1.550"	1.465"	Ø 1.250"	Ø 0.8435"	Ø 1.045"	1 Pr.
	• Replaces worn or damaged plastic OEM bushing • High quality bearing bronze offers increased durability and better fitment than OEM component • OEM P/N: 52108-457-300 & 52108-422-300							

HONDA® CB™ 350F / 400F 1972-1977

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-1032	Intake	.400"	1.270"	40#	131#	.400"
		Exhaust					
	Kit Includes			8	CrSi Valve Springs		

HONDA® XR™ 400 RFVC 1996-2004



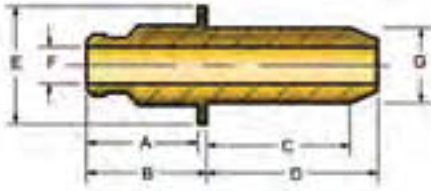
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30085	Intake	.430"	1.380"	71#	210#	.430"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs		4

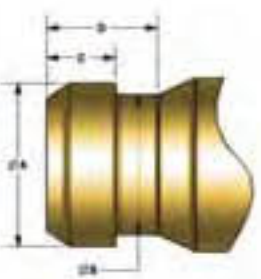
Valves • Black Diamond™ • Black Nitro Neg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-3115	Intake	33.00mm	1.300"	0.2156"	20°	4.040"	Standard
	30-3116	Intake	34.00mm	1.340"	0.2156"	20°	4.020"	Oversize
	30-3117	Exhaust	29.00mm	1.142"	0.2150"	29°	3.980"	Standard
	30-3118	Exhaust	30.00mm	1.181"	0.2150"	29°	3.960"	Oversize

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.550"	0.645"	1.020"	1.300"	0.715"	0.2150"	0.4355" / Std.	30-3120	
								+0.001"	30-3121	
								+0.002"	30-3122	
								+0.010"	30-3130	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71016-4				Pkg. of 4		0%
		71016-8				Pkg. of 8		0%
		71016-16				Pkg. of 16		Less- 10%
		71016-50				Pkg. of 50		Less- 15%
		71016-100				Pkg. of 100		Less- 20%

HONDA® TRX™ 400X/ 400EX 1999-'14

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-3111	Intake	.465"	1.375"	70#	157#	.300"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs		4	Titanium Retainers

Running cams with over .350" lift requires the use of shortened KPMI® guide, PN 30-3120

VISIT US AT WWW.KPMI.US

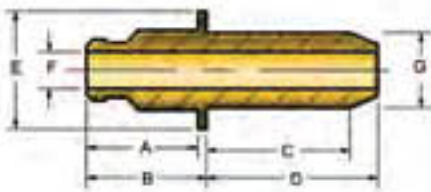


HONDA® TRX™ 400X/ 400EX 1999-'14

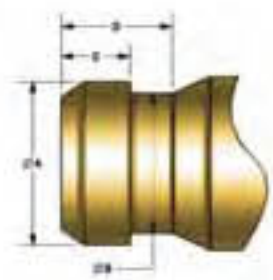
Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-3115	Intake	33.00mm	1.300"	0.2156"	20°	4.040"	Standard
	30-3116	Intake	34.00mm	1.340"	0.2156"	20°	4.020"	Oversize
	30-3117	Exhaust	29.00mm	1.142"	0.2150"	29°	3.980"	Standard
	30-3118	Exhaust	30.00mm	1.181"	0.2150"	29°	3.960"	Oversize

Valve Guides • C630 Bronze

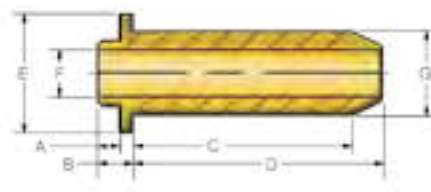
	A	B	C	D	E	F	G	Intake	Exhaust
	0.550"	0.645"	1.020"	1.300"	0.715"	0.2150"	0.4355" / Std.	30-3120	
							+0.001"	30-3121	
							+0.002"	30-3122	
							+0.010"	30-3130	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.115"	0.225"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71016-4		Pkg. of 4		0%
				71016-8		Pkg. of 8		0%
				71016-16		Pkg. of 16		Less- 10%
				71016-50		Pkg. of 50		Less- 15%
				71016-100		Pkg. of 100		Less- 20%

HONDA® CB® 450 1965-'72 / CB® 500 TWIN 1965-'76

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.130"	0.210"	1.293"	1.468"	0.702"	0.2750"	0.4955" / Std.	30-0367	
							+0.002"	30-0368	
							+0.004"	30-0369	
							+0.006"	30-0370	

HONDA® CB® 450 1965-'72 / CB® 500 TWIN 1965-'76

• Lightweight 5.00mm Conversion System

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-30300	Intake	.460"	1.180"	72#	188#	.460"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4		H. T. Steel Keepers Pr.
				4	Titanium Retainers	4		H. T. Steel Basewashers

ORDER 650-557-2046

HONDA® CB 450 1965-'72 / CB 500 TWIN 1965-'76



• Lightweight 5.00mm Conversion System

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30306	Intake	38.00mm	1.496"	0.1960"	20°	3.855"	Standard
	30-30307	Intake	39.00mm	1.535"	0.1960"	20°	3.845"	Oversize
	30-30308	Exhaust	33.00mm	1.299"	0.1955"	18°	3.715"	Standard
	30-30309	Exhaust	34.00mm	1.339"	0.1955"	18°	3.695"	Oversize

Valves shortened for lash caps. Use Kibblewhite® Lash Caps #94007-4 (Pkg. of 4). Using these valves as O.E.M. replacements requires Kibblewhite® 5.0mm Conversion Guides and Keepers.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.259"	0.354"	1.311"	1.621"	0.524"	0.1960"	0.4951" / Std.	30-30690	
							+0.001"	30-30691	
							+0.002"	30-30692	
							+0.010"	30-30699	
	0.259"	0.354"	1.241"	1.436"	0.524"	0.1955"	0.4951" / Std.		30-30700
							+0.001"		30-30701
							+0.002"		30-30702
							+0.010"		30-30709

One seal supplied with each guide.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71015-4		Pkg. of 4		0%	
			71015-8		Pkg. of 8		0%	
			71015-16		Pkg. of 16		Less- 10%	
			71015-50		Pkg. of 50		Less- 15%	
			71015-100		Pkg. of 100		Less- 20%	

Keeper Set • O.E.M. Style • 5.0mm Conversion

	KPMI P/N	Style	A	B	C	D	E	Quantity
	51015-4	Single Radius Bead	0.196"	10.0°	0.160"	0.200"	0.308"	4Pr.

These Kibblewhite® Keepers seamlessly merge the Kibblewhite® 5.0mm Conversion Valves and Guides with the O.E.M. Retainer and Torsion System.

Lash Caps • H.T. Steel

	KPMI P/N	Material	"A"	"B"	"C"	"D"	"C" - "D"	Quantity
	94007-4	H.T. Steel	5.00mm	0.277"	0.175"	0.100"	0.075"	Pkg. of 4
			0.1969"					



HONDA® CRF™ 450R 2002-2008

Valve Spring Kit • Lightweight Racing



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
30-30640	Intake	.440"	1.215"	40#	147#	.440"	
	Exhaust	.440"	1.365"	70#	203#	.440"	
Kit Includes		2	In CrSi Valve Springs	2	In Titanium Retainers	2	In H.T. Steel Basewashers
		2	*Ex CrSi Valve Springs	2	Ex Titanium Retainers	2	Ex H.T. Steel Basewashers

*The Exhaust springs for this kit include a progressively wound Inner Spring, which should be installed with the tightly wound end seated on the H. T. Steel Basewashers.

Intake Only • Steel Valve Conversion Kit



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
30-31210	Intake	.440"	1.215"	40#	147#	.440"
Kit Includes		2	CrSi Valve Springs	2	Titanium Retainers	
		2	Black Diamond™ Valves	2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroneg Stems



KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
30-30220	Intake	36.00mm	1.417"	0.2158"	20°	3.315"	Standard
30-30221	Intake	37.00mm	1.457"	0.2158"	20°	3.325"	Oversize
30-30222	Intake	38.00mm	1.496"	0.2158"	20°	3.325"	Oversize
30-30223	Exhaust	31.00mm	1.220"	0.1957"	20°	3.310"	Standard
30-30224	Exhaust	32.00mm	1.260"	0.1957"	20°	3.320"	Oversize
30-30225	Exhaust	30.00mm	1.181"	0.1957"	20°	3.310"	2007-'08 Std.

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

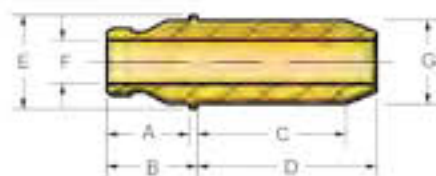
Valves • O.E.M. Replacement • Titanium • Stainless



KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
30-30220T	Intake	36.00mm	1.417"	0.2158"	20°	3.325"	Titanium
30-30223	Exhaust	31.00mm	1.220"	0.1957"	20°	3.310"	Stainless
30-30225	Exhaust	30.00mm	1.181"	0.1957"	20°	3.310"	2007-'08 Stainless

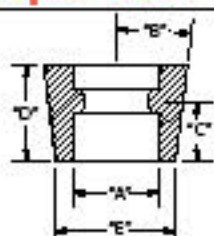
Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze



A	B	C	D	E	F	G	Intake	Exhaust
0.495"	0.520"	0.650"	0.760"	0.480"	0.2155"	0.4360" / Std.	30-30200	
						+0.001"	30-30201	
						+0.002"	30-30202	
						+0.004"	30-30204	
						+0.010"	30-30209	
0.580"	0.605"	0.740"	0.890"	0.480"	0.1955"	0.4360" Std.		30-30210
						+0.001"		30-30211
						+0.002"		30-30212
						+0.004"		30-30214
						+0.010"		30-30219

Keeper Set • O.E.M. Replacement



KPMI P/N	Style	Type	A	B	C	D	E	Quantity
30-30650	Single Radius Bead	Intake	0.215"	7.0°	0.179"	0.214"	0.262"	2 Pr.
		Exhaust	0.196"	7.0°	0.170"	0.205"	0.236"	2 Pr.

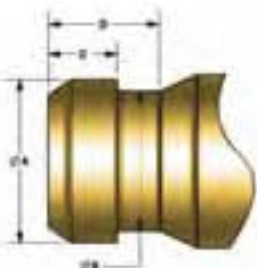
Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

ORDER 650-557-2046

HONDA® CRF™ 450R 2002-2008



Valve Guide Seal Kits • High Performance

		Intake Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs					
						A	B	C	D		
		5.5mm	0.320"	0.440"	4	0.358"±0.005"	0.320"	0.115"	0.225"		
		Exhaust Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs					
				A	B	C	D				
		5.0mm	0.350"	0.405"	4	0.340"±0.005"	0.303"	0.125"	0.230"		
Part Number		30-30550		Kit Includes		2	Intake Viton® Seals		2	Exhaust Viton® Seals	

Tappets • O.E.M Replacement • H.T. Steel

Technical drawing of a tappet cross-section. The drawing shows a rectangular component with rounded corners. Dimensions are labeled as follows: 'A' is the top width, 'B' is the bottom width, 'C' is the total height, 'E' is the width of the central flat area, and 'F' is the height of the side flange.

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
30-30648	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 2

Refer to **KPMI® Tappet Section**, in back of catalog, when selecting oversize tappets.

HONDA® CRF™ 450R 2009-2012

Valve Spring Kit • Lightweight Racing

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
30-31250	Intake	.440"	1.215"	40#	147#	.440"	
	Exhaust	.440"	1.365"	71#	203#	.440"	
Kit Includes		2	In CrSi Valve Springs	2	In Titanium Retainers	2	In H.T. Steel Basewashers
		2	*Ex CrSi Valve Springs	2	In Titanium Retainers	2	Ex H.T. Steel Basewashers
*The Exhaust springs for this kit include a progressively wound Inner Spring, which should be installed with the tightly wound end seated on the H.T. Steel Basewashers.							

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31240	Intake	.440"	1.215"	40#	147#	.440"
	Kit Includes		2 CrSi Valve Springs	2 Titanium Retainers			
			2 Black Diamond™ Valves	2 H. T. Steel Basewashers			

Valves • Black Diamond™ • Black Nitroneg Stems



KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
30-31262	Intake	36.00mm	1.417"	0.1960"	20°	3.095"	Standard
30-31263	Intake	37.00mm	1.457"	0.1960"	20°	3.095"	Oversize
30-31266	Exhaust	30.00mm	1.181"	0.1955"	20°	3.175"	Standard
30-31267	Exhaust	31.00mm	1.220"	0.1955"	20°	3.185"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

VISIT US AT WWW.KPMI.US



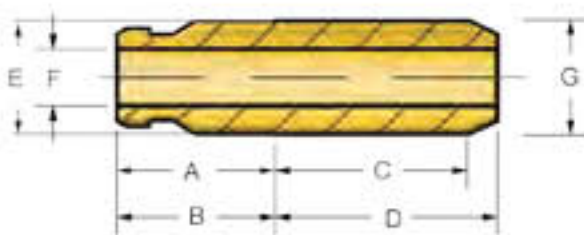
HONDA® CRF™ 450R 2009-2012

Valves • O.E.M. Replacement • Titanium • Stainless

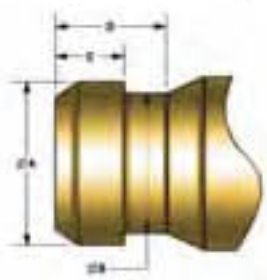
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	30-31262T	Intake	36.00mm	1.417"	0.1960"	20°	3.095"	Titanium
	30-31266	Exhaust	30.00mm	1.181"	0.1955"	20°	3.175"	Stainless

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

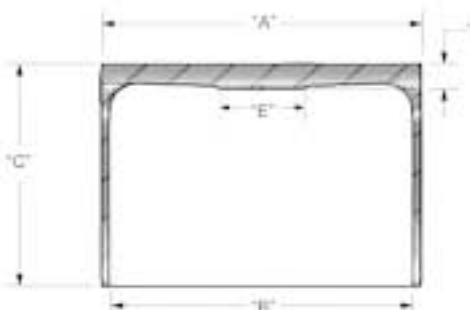
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.535"	0.535"	0.590"	0.670"	0.433"	0.1960"	0.4360" / Std.	30-31270	
							+0.001"	30-31271	
							+0.002"	30-31272	
							+0.010"	30-31279	
	0.630"	0.630"	0.730"	0.870"	0.433"	0.1955"	0.4360" / Std.		30-31280
							+0.002"		30-31282
							+0.010"		30-31289

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71015-4				Pkg. of 4		0%
		71015-8				Pkg. of 8		0%
		71015-16				Pkg. of 16		Less- 10%
		71015-50				Pkg. of 50		Less- 15%
		71015-100				Pkg. of 100		Less- 20%

Tappets • H.T. Steel • High Performance

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	30-31292	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 2
	Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.									

HONDA® CRF™ 450R 2013-2016

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-31600	Intake	.440"	1.215"	40#	147#	.440"	
		Exhaust	.440"	1.365"	70#	203#	.440"	
	Kit Includes		2	In, CrSi Valve Springs	2	In, Titanium Retainers	2	In, H. T. Steel Basewashers
			2	*Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	2	Ex, H. T. Steel Basewashers
*The Exhaust springs for this kit include a progressively wound Inner Spring, which should be installed with the tightly wound end seated on the H. T. Steel Basewashers								

ORDER 650-557-2046

HONDA® CRF™ 450R 2013-2016



Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31580	Intake	.440"	1.215"	40#	147#	.440"
	Kit Includes		2	CrSi Valve Springs	2	Titanium Retainers	
			2	Black Diamond™ Valves	2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-31612	Intake	36.00mm	1.417"	0.1960"	20°	3.095"	Standard
	30-31613	Intake	37.00mm	1.457"	0.1960"	20°	3.095"	Oversize
	30-31616	Exhaust	31.00mm	1.220"	0.1955"	20°	3.175"	Standard
	30-31617	Exhaust	32.00mm	1.260"	0.1955"	20°	3.175"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Titanium • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	30-31612T	Intake	36.00mm	1.417"	0.1960"	20°	3.095"	Titanium
	30-31616	Exhaust	31.00mm	1.220"	0.1955"	20°	3.175"	Stainless

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.535"	0.535"	0.590"	0.670"	0.433"	0.1960"	0.4360" / Std.	30-31620	
							+0.001"	30-31621	
							+0.002"	30-31622	
							+0.010"	30-31629	
	0.630"	0.630"	0.730"	0.870"	0.433"	0.1955"	0.4360" / Std.		30-31630
							+0.001"		30-31631
							+0.002"		30-31632
							+0.010"		30-31639

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
			Part Number				Quantity	Quantity Incentive
			71015-4				Pkg. of 4	0%
			71015-8				Pkg. of 8	0%
			71015-16				Pkg. of 16	Less- 10%
			71015-50				Pkg. of 50	Less- 15%
			71015-100				Pkg. of 100	Less- 20%



HONDA® CRF™ 450R 2013-2016

Tappets • O.E.M Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	30-31642	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 2
Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.										

HONDA® CRF™ 450X 2005-2017

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31050	Intake	.440"	1.215"	40#	147#	.440"
		Exhaust	.440"	1.365"	70#	203#	.440"
Kit Includes			2 In, CrSi Valve Springs	2 In, Titanium Retainers	2 In, H. T. Steel Basewashers		
			2 Ex, CrSi Valve Springs	2 Ex, Titanium Retainers	2 Ex, H. T. Steel Basewashers		

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-31230	Intake	.440"	1.215"	40#	147#	.440"
Kit Includes			2 CrSi Valve Springs	2 Titanium Retainers			
			2 Black Diamond™ Valves	2 H. T. Steel Basewashers			

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-31062	Intake	35.00mm	1.378"	0.2158"	20°	3.315"	Standard
	30-31063	Intake	36.00mm	1.417"	0.2158"	20°	3.315"	Oversize
	30-31066	Exhaust	30.00mm	1.181"	0.1957"	20°	3.310"	Standard
	30-31067	Exhaust	31.00mm	1.220"	0.1957"	20°	3.310"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.495"	0.520"	0.650"	0.760"	0.480"	0.2155"	0.4360" / Std.	30-31070	
							+0.001"	30-31071	
							+0.002"	30-31072	
							+0.004"	30-31074	
							+0.010"	30-31079	
	0.580"	0.605"	0.740"	0.890"	0.480"	0.1955"	0.4360" / Std.		30-31080
							+0.001"		30-31081
							+0.002"		30-31082
							+0.004"		30-31084
							+0.010"		30-31089

Keeper Set • O.E.M. Replacement

	KPMI P/N	Style	Type	A	B	C	D	E	Quantity
	30-31095	Single Radius Bead	Intake	0.215"	7.0°	0.179"	0.214"	0.262"	2 Pr.
			Exhaust	0.196"	7.0°	0.170"	0.205"	0.236"	2 Pr.

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

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HONDA® CRF™ 450X 2005-2017



Valve Guide Seal Kits • High Performance

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Tappets • O.E.M Replacement • H.T. Steel

A technical cross-section drawing of a tappet. The drawing shows a rectangular component with a flat top surface and rounded ends. Dimension 'A' is the total width of the top surface. Dimension 'B' is the width of the base. Dimension 'C' is the height of the component. Dimension 'E' is the width of the flat top surface, excluding the rounded ends. Dimension 'F' is the radius of the rounded ends.

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
30-31092	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 2

Refer to **KPMI® Tappet Section**, in back of catalog, when selecting oversize tappets.

HONDA® TRX™ 450R 2004-2005

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30720	Intake	.440"	1.215"	40#	147#	.440"
		Exhaust	.440"	1.365"	70#	203#	.440"
	Kit Includes		2 In, CrSi Valve Springs	2 In, Titanium Retainers	2 In, H. T. Steel Basewashers		
2 Ex, CrSi Valve Springs			2 Ex, Titanium Retainers	2 Ex, H. T. Steel Basewashers			

Valves • Black Diamond™ • Black Nitroneg Stems



KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
30-30750	Intake	36.00mm	1.417"	0.2158"	20°	3.315"	Standard
30-30751	Intake	37.00mm	1.457"	0.2158"	20°	3.325"	Oversize
30-30752	Intake	38.00mm	1.496"	0.2158"	20°	3.325"	Oversize
30-30753	Exhaust	30.00mm	1.181"	0.2151"	20°	3.315"	Standard
30-30754	Exhaust	31.00mm	1.220"	0.2151"	20°	3.325"	Oversize
30-30755	Exhaust	32.00mm	1.260"	0.2151"	20°	3.325"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Racing Valve Kit • Titanium • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	30-30750T	Intake	36.00mm	1.417"	0.2158"	20°	3.325"	Titanium
	30-30753	Exhaust	30.00mm	1.181"	0.2151"	20°	3.315"	Stainless

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.



HONDA® TRX™ 450R 2004-2005

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.495"	0.520"	0.650"	0.760"	0.480"	0.2155"	0.4360" / Std.	30-30730	
							+0.001"	30-30731	
							+0.002"	30-30732	
							+0.004"	30-30734	
							+0.010"	30-30739	
	0.580"	0.605"	0.705"	0.830"	0.480"	0.2150"	0.4360" / Std.		30-30740
							+0.001"		30-30741
							+0.002"		30-30742
							+0.004"		30-30744
							+0.010"		30-30749

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71016-4		Pkg. of 4		0%	
			71016-8		Pkg. of 8		0%	
			71016-16		Pkg. of 16		Less- 10%	
			71016-50		Pkg. of 50		Less- 15%	
			71016-100		Pkg. of 100		Less- 20%	

Tappets • O.E.M Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	30-30728	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 2
Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.										

HONDA® TRX™ 450R / ER 2006-2014

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30920	Intake	.440"	1.215"	40#	147#	.440"
		Exhaust	.440"	1.365"	70#	203#	.440"
	Kit Includes		2	In, CrSi Valve Springs	2	In, Titanium Retainers	2
		2	Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	2	Ex, H. T. Steel Basewashers

Racing Valve Kit • Titanium • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	30-30950T	Intake	36.00mm	1.417"	0.2158"	20°	3.325"	Titanium
	30-30953	Exhaust	30.00mm	1.181"	0.1957"	20°	3.310"	Stainless

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

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HONDA® TRX™ 450R / ER 2006-2014

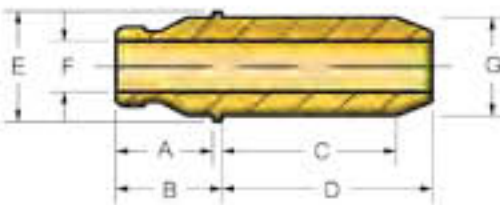


Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30950	Intake	36.00mm	1.417"	0.2158"	20°	3.315"	Standard
	30-30951	Intake	37.00mm	1.457"	0.2158"	20°	3.325"	Oversize
	30-30952	Intake	38.00mm	1.496"	0.2158"	20°	3.325"	Oversize
	30-30953	Exhaust	30.00mm	1.181"	0.1957"	20°	3.310"	Standard
	30-30954	Exhaust	31.00mm	1.220"	0.1957"	20°	3.310"	Oversize
	30-30955	Exhaust	32.00mm	1.260"	0.1957"	20°	3.320"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

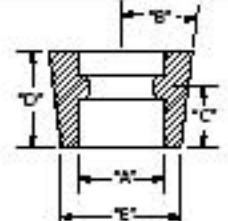
	A	B	C	D	E	F	G	Intake	Exhaust
	0.495"	0.520"	0.650"	0.760"	0.480"	0.2155"	0.4360" / Std.	30-30930	
							+0.001"	30-30931	
							+0.002"	30-30932	
							+0.004"	30-30934	
							+0.010"	30-30939	
	0.580"	0.605"	0.740"	0.890"	0.480"	0.1955"	0.4360" / Std.		30-30940
							+0.001"		30-30941
							+0.002"		30-30942
							+0.004"		30-30944
							+0.010"		30-30949

Valve Guide Seal Kits • High Performance

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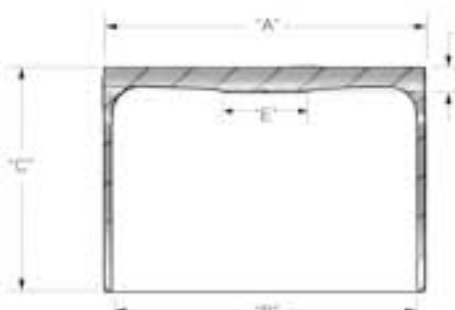
Keeper Set • O.E.M. Replacement

NEW PRODUCT

		KPMI P/N	Style	Type	A	B	C	D	E	Quantity
		30-30655	Single Radius Bead	Intake	0.215"	7.0°	0.179"	0.214"	0.262"	2 Pr.
				Exhaust	0.196"	7.0°	0.170"	0.205"	0.236"	2 Pr.

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

Tappets • O.E.M Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	30-30648	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 2
	Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.									

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HONDA® CB™ 500 / 4 - CB™ 550 / 4 1971-'78

Valve Spring Kit • Lightweight Racing



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
30-31550	Intake	.440"	1.385"	70#	203#	.440"
	Exhaust					
Kit Includes		8	CrSi Valve Springs		8	Titanium Retainers
Use O.E.M. Basewashers						

Spring Only Kit • OEM Replacement



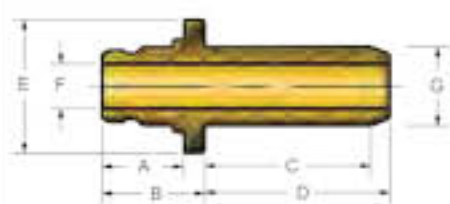
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
30-4045	Intake	.440"	1.390"	60#	195#	.440"
	Exhaust					
Kit Includes		8	CrSi Valve Springs			

Valves • Black Diamond™ • Black Nitroneg Stems



KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
30-31330	Intake	27.50mm	1.083"	0.2150"	20°	3.680"	Standard
30-31331	Intake	28.50mm	1.122"	0.2150"	20°	3.680"	Oversize
30-31334	Exhaust	23.00mm	0.905"	0.2145"	30°	3.650"	Standard
30-31335	Exhaust	24.00mm	0.945"	0.2145"	30°	3.650"	Oversize

Valve Guides • C630 Bronze



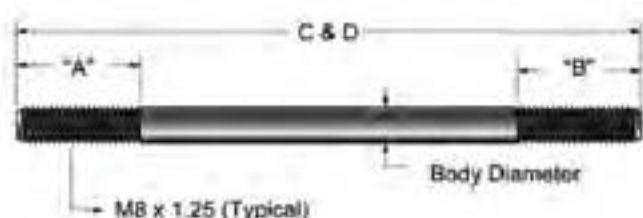
A	B	C	D	E	F	G	Intake	Exhaust
0.475"	0.595"	0.980"	1.230"	0.720"	0.2150"	0.4372" / Std.	30-3150	
						+0.001"	30-3151	
						+0.002"	30-3152	
						+0.004"	30-3154	
						+0.010"	30-3160	

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71016-4			Pkg. of 4		0%
			71016-8			Pkg. of 8		0%
			71016-16			Pkg. of 16		Less- 10%
			71016-50			Pkg. of 50		Less- 15%
			71016-100			Pkg. of 100		Less- 20%

Cylinder Head Studs For CB™500 1976 and CB™550 1976-1978

NEW PRODUCTS



KPMI P/N	O.L. "C"	O.L. "D"	Body Dia.	A	B	Remarks
30-32450	5.787"	5.118"	0.309"	0.551"	0.827"	Standard
Kit Includes	6	5.787" O.L. Studs		6	5.118" O.L. Studs	

These High Performance Cylinder studs are made from 180,000 psi yield strength, fine grain, heat treated, premium grade 8740 steel. Threads are rolled after heat treating to ensure maximum strength and the longest fatigue life possible. The case-end threads are designed to have a slight interference fit to maintain good thread contact at high temperature. Studs are centerless ground to ensure concentricity, and finished with a black oxide treatment for a premium appearance.

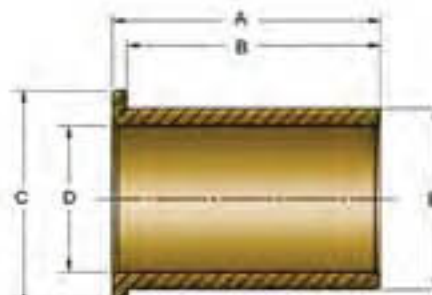
ORDER 650-557-2046

HONDA® CB™ 500 / 4 - CB™ 550 / 4 1971-'78



Swing Arm Bushing • Bearing Bronze For CB™500 1975-1976 and CB™550 1975-1978

NEW PRODUCTS

	KPMI P/N	Material	A	B	C	D	E	Quantity
	30-0477	Bearing Bronze	1.550"	1.465"	Ø 1.250"	Ø 0.8435"	Ø 1.045"	1 Pr.
- Replaces worn or damaged plastic OEM bushing - High quality bearing bronze offers increased durability and better fitment than OEM component - OEM P/N: 52108-457-300 & 52108-422-300								

HONDA® CBR™ 600 F2 / F3 1991-1996

Spring Only Kit • OEM Replacement

	KPMI P/N	Type	Max Valve Lift		Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-3020	Intake	.420"		1.220"	50#	140#	.400"
		Exhaust						
	Kit Includes			16	CrSi Valve Springs			

Retainer Set • Titanium

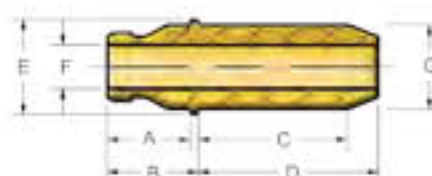
	KPMI P/N	Type	Material	Quantity
	30-3021	Intake	Titanium	Pkg. of 16
		Exhaust		

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-3024	Intake	25.50mm	1.004"	0.1566"	19°	3.115"	Standard
	30-3025	Intake	26.50mm	1.043"	0.1566"	19°	3.115"	Oversize
	30-3022	Exhaust	22.00mm	0.866"	0.1561"	20°	3.120"	Standard
	30-3023	Exhaust	23.00mm	0.905"	0.1561"	20°	3.120"	Oversize

Intake valves made from special alloy to resist face recession common in these models

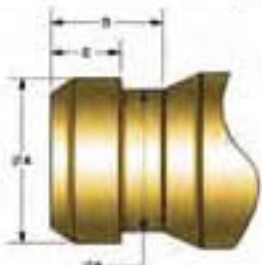
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.385"	0.410"	0.800"	0.900"	0.365"	0.1561"	0.3370" / Std.	30-3010	
							+0.002"	30-3012	
							+0.010"	30-3019	



HONDA® CBR™ 600 F2 / F3 1991-1996

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.0mm	0.310"	0.380"	2	0.315"±0.005"	0.270"	0.120"	0.235"	Intake Exhaust
				Part Number		Quantity		Quantity Incentive
				71013-4		Pkg. of 4		0%
				71013-8		Pkg. of 8		0%
				71013-16		Pkg. of 16		Less- 10%
				71013-50		Pkg. of 50		Less- 15%
				71013-100		Pkg. of 100		Less- 20%

Tappets • O.E.M Replacement • H.T. Steel

A technical cross-sectional drawing of a tappet. The drawing shows a rectangular component with a central recessed area. Dimension lines indicate the following measurements: 'A' is the total width of the top surface; 'B' is the total width of the base; 'C' is the total height of the component; 'E' is the width of the central recessed area; and 'F' is the height of the side walls on either side of the recess.

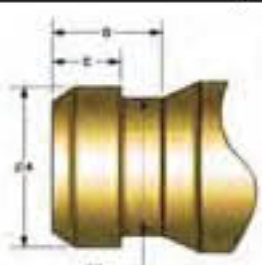
KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
30-30019	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 16
	Exhaust								
Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.									

HONDA® CBR™ 600F4i 2001-2006

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-30290	Intake	.360"	1.230"	51#	139#	.360"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs	16	Titanium Retainers
8				In, H. T. Steel Basewashers	8	Ex, H. T. Steel Basewashers	

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
4.0mm	0.310"	0.380"	2	0.315"±0.005"	0.270"	0.120"	0.235"	Intake Exhaust
				Part Number		Quantity		Quantity Incentive
				71013-4		Pkg. of 4		0%
				71013-8		Pkg. of 8		0%
				71013-16		Pkg. of 16		Less- 10%
				71013-50		Pkg. of 50		Less- 15%
				71013-100		Pkg. of 100		Less- 20%

Tappets • O.E.M Replacement • H.T. Steel

Technical drawing of a rectangular tappet. The drawing shows a cross-section of the tappet with dimensions labeled: A (width), B (width), C (height), D (height), E (width), and F (width). The drawing is a technical illustration of a rectangular component with rounded corners and a central rectangular cutout. The dimensions are labeled as follows: A is the total width, B is the width of the central cutout, C is the total height, D is the height of the central cutout, E is the width of the central cutout, and F is the width of the central cutout.

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
30-30019	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 16
	Exhaust								
Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.									

ORDER 650-557-2046

HONDA® HAWK NT™ 650 1988-1991



Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	30-3070	Intake	.500"	1.460"	45#	196#	.500"	
		Exhaust	.500"	1.420"	74#	252#	.500"	
	Kit Includes		4	In, CrSi Valve Springs	4	In, Titanium Retainers	4	In, H. T. Steel Basewashers
			2	Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	4	In, Spring Shims
2			Ex, Spring Shims		2	Ex, Spring Shims		

HONDA® VARIOUS 500cc-650cc 1983-'14

- XL™ 500 S / XR™ 500 / 500R 1983-1984
- GB™ 500 / 1989-1990

- XL™ / XR™ 600 1983-2000
- XL™ / XR™ 650L 1993-2014

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	30-30015	Intake	.465"		1.210"		70#		185#		.400"
		Exhaust									
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Shims		

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-4081	Intake	.465"	1.210"	70#	210#	.465"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs		

Valves • Black Diamond™ • Black Nitro Neg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-3003	Intake	36.00mm	1.417"	0.2590"	23°	4.165"	Standard
	30-3004	Exhaust	31.00mm	1.220"	0.2585"	29°	4.095"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.300"	0.375"	1.240"	1.410"	0.808"	0.2585"	0.4755"/ Std.	30-3050	
							+0.002"	30-3052	
							+0.010"	30-3060	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.5mm	0.353"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.415"	0.115"	0.260"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71018-4		Pkg. of 4		0%
				71018-8		Pkg. of 8		0%
				71018-16		Pkg. of 16		Less- 10%
				71018-50		Pkg. of 50		Less- 15%
				71018-100		Pkg. of 100		Less- 20%

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HONDA® XR™ 650R 2000-2007

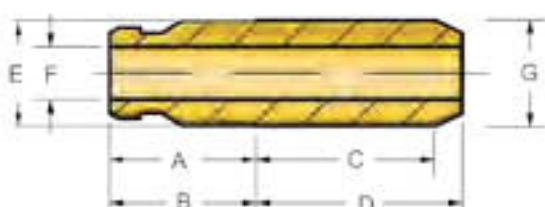
Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure	Open Pressure		@ Lift
	30-30161	Intake	.440"		1.225"		70#	195#		.440"
		Exhaust								
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30166	Intake	37.00mm	1.457"	0.2590"	19°	4.025"	Standard
	30-30167	Intake	38.00mm	1.496"	0.2590"	19°	4.040"	Oversize
	30-30168	Exhaust	32.00mm	1.260"	0.2585"	19°	4.065"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.600"	0.600"	0.805"	1.075"	0.475"	0.2590"	0.4753" / Std.	30-30170	
							+0.001"	30-30171	
							+0.002"	30-30172	
							+0.010"	30-30179	
	0.600"	0.600"	1.000"	1.230"	0.475"	0.2590"	0.4753" / Std.		30-30180
							+0.001"		30-30181
							+0.002"		30-30182
							+0.010"		30-30189

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.5mm	0.353"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.415"	0.115"	0.260"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71018-4		Pkg. of 4		0%
				71018-8		Pkg. of 8		0%
				71018-16		Pkg. of 16		Less- 10%
				71018-50		Pkg. of 50		Less- 15%
				71018-100		Pkg. of 100		Less- 20%

HONDA® TRX™ 700XX 2008-2009

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure	Open Pressure		@ Lift
	30-31350	Intake	.375"		1.220"		71#	180#		.375"
		Exhaust								
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers	

ORDER 650-557-2046

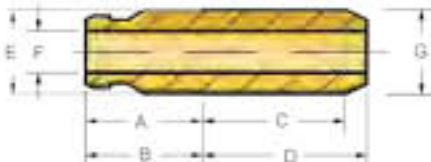
HONDA® TRX™ 700XX 2008-2009



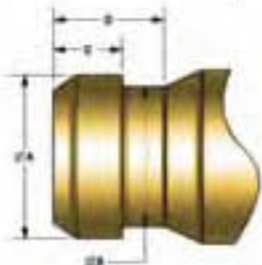
Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-31362	Intake	36.00mm	1.417"	0.2590"	19°	4.025"	Standard
	30-31363	Intake	37.00mm	1.457"	0.2590"	19°	4.025"	Oversize
	30-31366	Exhaust	32.00mm	1.260"	0.2585"	19°	4.065"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.600"	0.600"	0.805"	1.075"	0.475"	0.2590"	0.4753"/ Std.	30-31370	
							+0.001"	30-31371	
							+0.002"	30-31372	
							+0.010"	30-31379	
	0.600"	0.600"	1.000"	1.230"	0.475"	0.2590"	0.4753"/ Std.		30-31380
							+0.001"		30-31381
							+0.002"		30-31382
							+0.010"		30-31389

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.5mm	0.353"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.415"	0.115"	0.260"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71018-4		Pkg. of 4		0%
				71018-8		Pkg. of 8		0%
				71018-16		Pkg. of 16		Less- 10%
				71018-50		Pkg. of 50		Less- 15%
				71018-100		Pkg. of 100		Less- 20%

HONDA® CB™ 750 SOHC 1969-1977

• Excluding F2™ Models

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-0307	Intake	.500"	1.330"	80#	240#	.440"
		Exhaust					
	Kit Includes			8	CrSi Valve Springs		

Retainer Set • Titanium

	KPMI P/N	Type	Material	Quantity
	30-0308	Intake	Titanium	Pkg. of 8
		Exhaust		

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-4186	Intake	32.00mm	1.260"	0.2590"	23°	4.020"	Standard
	30-4187	Intake	33.50mm	1.319"	0.2590"	23°	4.040"	Oversize
	30-4188	Exhaust	28.00mm	1.102"	0.2585"	29°	4.020"	Standard
	30-4189	Exhaust	28.50mm	1.122"	0.2585"	29°	4.040"	Oversize

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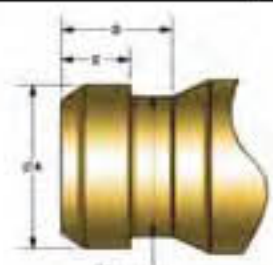
HONDA® CB™ 750 SOHC 1969-1977

• Excluding F2™ Models

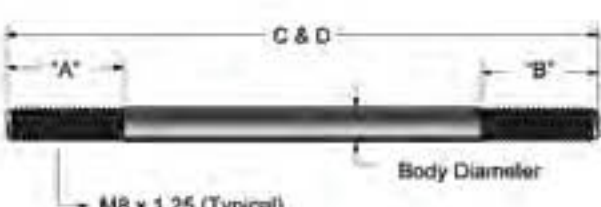
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.585"	0.635"	0.865"	1.135"	0.495"	0.2590"	0.4762" / Std.	30-0379	
							+0.002"	30-0380	
	0.585"	0.635"	0.925"	1.195"	0.495"	0.2585"	0.4762" / Std.		30-0383
							+0.002"		30-0384
							+0.015"		30-4035

Valve Guide Seals • Viton®

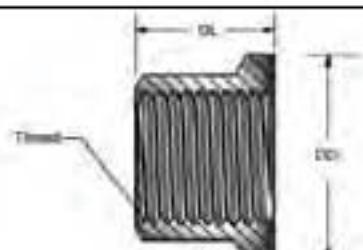
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.5mm	0.353"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.415"	0.115"	0.260"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71018-4		Pkg. of 4		0%
				71018-8		Pkg. of 8		0%
				71018-16		Pkg. of 16		Less- 10%
				71018-50		Pkg. of 50		Less- 15%
				71018-100		Pkg. of 100		Less- 20%

Cylinder Head Studs For CB™750 1969-1978

	KPMI P/N	O.L. "C"	O.L. "D"	Body Dia.	A	B	Remarks
	30-0800	6.299"	7.717"	0.309"	0.630"	0.787"	Standard
	Includes	4	6.299" O.L. Studs		12	7.717" O.L. Studs	

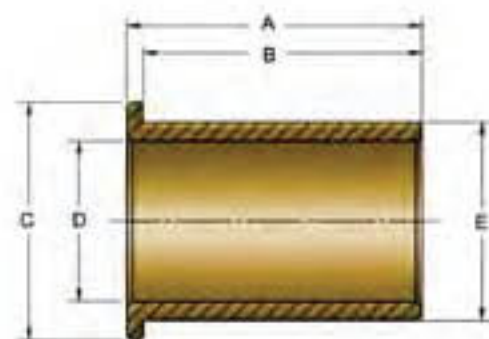
These High Performance Cylinder studs are made from 180,000 psi yield strength, fine grain, heat treated, premium grade 8740 steel. Threads are rolled after heat treating to ensure maximum strength and the longest fatigue life possible. The case-end threads are designed to have a slight interference fit to maintain good thread contact at high temperature. Studs are centerless ground to ensure concentricity, and finished with a black oxide treatment for a premium appearance.

Cylinder Head Nuts For CB™750 1969-1978

	KPMI P/N	Material	O. L.	O. D.	Thread	Quantity
	30-32300	H. T. Steel	0.385"	0.670"	M8 x 1.25	Pkg. of 16
	41003-4	H. T. Steel	0.385"	0.670"	M8 x 1.25	Pkg. of 4
Designed for Honda CB750, but can be used for general purpose (see diagram for detail)						

These nuts are manufactured from a high strength premium steel that promotes excellent surface finish and tight tolerances, two critical factors for achieving correct fit and torque. After machining, the nuts are heat treated to a specific depth. This creates hard, wear resistant working surfaces, while retaining a ductile core to prevent cracking under load. The premium black oxide treatment gives an excellent, corrosion resistant appearance.

Swing Arm Bushing • Bearing Bronze For CB™750 1976-1979

	KPMI P/N	Material	A	B	C	D	E	Quantity
	30-0477	Bearing Bronze	1.550"	1.465"	Ø 1.250"	Ø 0.8435"	Ø 1.045"	1 Pr.
	• Replaces worn or damaged plastic OEM bushing • High quality bearing bronze offers increased durability and better fitment than OEM component • OEM P/N: 52108-457-300 & 52108-422-300							

ORDER 650-557-2046

HONDA® CB™ 750 SOHC 1969-1977



- Excluding F2™ Models (5.0mm Conversion System)

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	30-30150	Intake	.435"		1.375"		71#		203#		.435"
		Exhaust									
	Kit Includes			8	CrSi Valve Springs	8	H. T. Steel Keepers Pr.		8	Titanium Retainers	
8				H. T. Steel Basewashers				8	H. T. Steel Shims		

Valves • Black Diamond™ • Black Nitroneg Stems

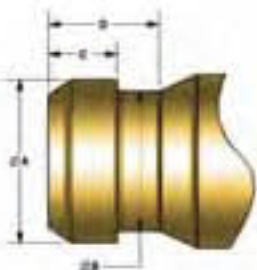
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-30157	Intake	32.00mm	1.260"	0.1960"	20°	3.935"	Standard
	30-30158	Intake	34.00mm	1.339"	0.1960"	20°	3.935"	Oversize
	30-30159	Exhaust	27.00mm	1.063"	0.1955"	23°	3.940"	KPMI® Standard
	30-30160	Exhaust	28.00mm	1.102"	0.1955"	23°	3.925"	KPMI® Oversize

Must use Kibblewhite® Lash Caps #94007-8. Valves shortened for lash caps. Must use 5.00mm conversion guides and spring kit with these valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.400"	0.440"	0.980"	1.380"	0.510"	1.960"	0.4762" / Std.	30-0379-5	
							+0.002"	30-0380-5	
							+0.015"	30-4034-5	
	0.400"	0.440"	1.030"	1.430"	0.510"	1.960"	0.4762" / Std.		30-0383-5
							+0.002"		30-0384-5
							+0.015"		30-4035-5

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71015-4			Pkg. of 4		0%
			71015-8			Pkg. of 8		0%
			71015-16			Pkg. of 16		Less- 10%
			71015-50			Pkg. of 50		Less- 15%
			71015-100			Pkg. of 100		Less- 20%

Lash Caps • H.T. Steel

	KPMI P/N	Material	"A"	"B"	"C"	"D"	"C" - "D"	Quantity
	94007-8	H.T. Steel	5.00mm	0.277"	0.175"	0.100"	0.075"	Pkg. of 8
			0.1969"					

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HONDA® CB™ 750 DOHC 1979-1983

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-1017	Intake	.500"	1.390"	60#	185#	.400"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs		

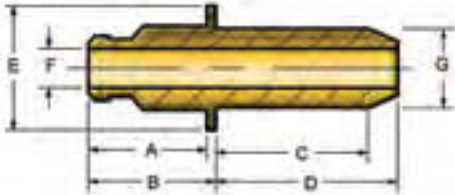
Retainer Set • Titanium

	KPMI P/N	Type	Material	Quantity
	30-1019	Intake	Titanium	Pkg. of 16
		Exhaust		
These retainers accept a 9.5mm OD shim and requires use of 30-1020 "Shim Under" style tappet. See adjustment shim section for available sizes.				

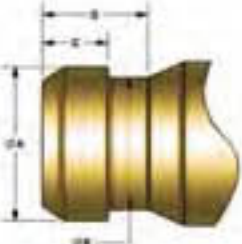
Valves • Black Diamond™ • Black Nitroneg Stems NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-4221	Intake	0.985"	25.02mm	0.2157"	23°	3.535"	Standard
	30-4222	Exhaust	0.870"	22.10mm	0.2152"	29°	3.475"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.550"	0.650"	0.890"	1.050"	0.685"	0.2155"	0.4372" / Std.	30-4071	
							+0.004"	30-4161	
							+0.015"	30-4162	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
			Part Number				Quantity	Quantity Incentive
			71016-4				Pkg. of 4	0%
			71016-8				Pkg. of 8	0%
			71016-16				Pkg. of 16	Less- 10%
			71016-50				Pkg. of 50	Less- 15%
			71016-100				Pkg. of 100	Less- 20%

Tappets • Shim On Bottom Conv. • H.T. Steel

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
30-1020	Intake	H. T. Steel	28.00mm	1.1016"	1.040"	0.860"	0.310"	0.135"	Pkg. of 16
	Exhaust								
Requires use of Kibblewhite® "Shim Under" Style Retainer # 30-1019 (Pkg. of 16).									

HONDA® CBR™ 900RR 1993-1999



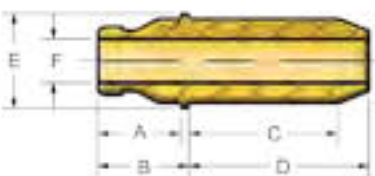
Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-6068	Intake	.480"	1.270"	45#	135#	.400"
		Exhaust					
	Kit Includes		16	CrSi Valve Springs			

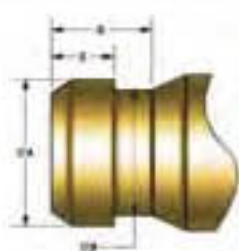
Retainer Set • Titanium

	KPMI P/N	Type	Material	Quantity
	30-6067	Intake	Titanium	Pkg. of 16
		Exhaust		

Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.545"	0.570"	0.660"	0.780"	0.385"	0.1765"	0.3570" / Std.	30-30050	
							+0.001"	30-30051	
							+0.002"	30-30052	
							+0.010"	30-30059	

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71014-4			Pkg. of 4		0%
			71014-8			Pkg. of 8		0%
			71014-16			Pkg. of 16		Less- 10%
			71014-50			Pkg. of 50		Less- 15%
			71014-100			Pkg. of 100		Less- 20%

Tappets • O.E.M Replacement • H.T. Steel

Technical drawing of a rectangular tappet. The drawing shows a cross-section of the tappet with various dimensions labeled. The overall width is labeled 'A'. The overall height is labeled 'B'. The width of the top flange is labeled 'C'. The width of the bottom flange is labeled 'D'. The width of the central body is labeled 'E'. The width of the left side flange is labeled 'F'. The width of the right side flange is labeled 'G'. The width of the left side flange is labeled 'H'. The width of the right side flange is labeled 'I'. The width of the left side flange is labeled 'J'. The width of the right side flange is labeled 'K'. The width of the left side flange is labeled 'L'. The width of the right side flange is labeled 'M'. The width of the left side flange is labeled 'N'. The width of the right side flange is labeled 'O'. The width of the left side flange is labeled 'P'. The width of the right side flange is labeled 'Q'. The width of the left side flange is labeled 'R'. The width of the right side flange is labeled 'S'. The width of the left side flange is labeled 'T'. The width of the right side flange is labeled 'U'. The width of the left side flange is labeled 'V'. The width of the right side flange is labeled 'W'. The width of the left side flange is labeled 'X'. The width of the right side flange is labeled 'Y'. The width of the left side flange is labeled 'Z'.

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
30-30227	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 16
	Exhaust								
Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.									

HONDA® CBR™ 1000 2004-2005

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	30-30760	Intake	.385"		1.320"		46#		140#		.385"
		Exhaust									
	Kit Includes			16	CrSi Valve Springs	16	Titanium Retainers	16	H. T. Steel Basewashers		



HONDA® CBR™ 1000 2004-2005

Valves • Black Diamond™ • Black Nitroleg Stems

KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
30-30790	Intake	29.00mm	1.142"	0.1570"	10°	3.740"	Standard
30-30791	Intake	30.00mm	1.181"	0.1570"	10°	3.740"	Oversize
30-30793	Exhaust	24.00mm	0.945"	0.1565"	20°	3.755"	Standard
30-30794	Exhaust	25.00mm	0.984"	0.1565"	20°	3.755"	Oversize

Tappets • O.E.M Replacement • H.T. Steel

Technical drawing of a tappet cross-section. Dimensions are labeled as follows: A (Total width), B (Width of the top flange), C (Total height), D (Height of the top flange), E (Width of the central slot), F (Width of the central slot at the base), G (Width of the side flange), H (Height of the side flange), I (Width of the side flange at the base), J (Width of the side flange at the top), K (Width of the side flange at the bottom), L (Width of the side flange at the top edge), M (Width of the side flange at the bottom edge), N (Width of the side flange at the top edge), O (Width of the side flange at the bottom edge), P (Width of the side flange at the top edge), Q (Width of the side flange at the bottom edge), R (Width of the side flange at the top edge), S (Width of the side flange at the bottom edge), T (Width of the side flange at the top edge), U (Width of the side flange at the bottom edge), V (Width of the side flange at the top edge), W (Width of the side flange at the bottom edge), X (Width of the side flange at the top edge), Y (Width of the side flange at the bottom edge), Z (Width of the side flange at the top edge).

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
30-30766	Intake	H. T. Steel	26.00mm	1.0232"	0.970"	0.790"	0.255"	0.115"	Pkg. of 16
	Exhaust								

Refer to **KPMI® Tappet Section**, in back of catalog, when selecting oversize tappets.

HONDA® VARIOUS 900cc-1100cc 1980-'83

• CB™ 900/ 1000 / 1100F DOHC1980-1983

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-1017	Intake	.500"	1.390"	60#	185#	.400"
		Exhaust					
	Kit Includes			16			

Retainer Set • Titanium

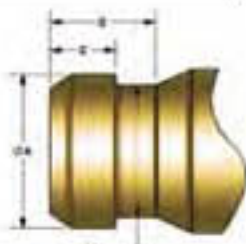
	30-1019	Intake	Titanium	Pkg. of 16
		Exhaust		

These retainers accept a 9.5mm OD shim and requires use of 30-1020 "Shim Under" style tappet. See adjustment shim section for available sizes.

Valve Guides • C630 Bronze

	0.550"	0.650"	0.890"	1.050"	0.685"	0.2155"	0.4372" / Std.	30-4071	
							+0.004"	30-4161	
							+0.015"	30-4162	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
		Part Number		Quantity	Quantity Incentive			
		71016-4		Pkg. of 4	0%			
		71016-8		Pkg. of 8	0%			
		71016-16		Pkg. of 16	Less- 10%			
		71016-50		Pkg. of 50	Less- 15%			
		71016-100		Pkg. of 100	Less- 20%			

HONDA® VARIOUS 900cc-1100cc 1980-'83



• CB™ 900/ 1000 / 1100F DOHC 1980-1983

Tappets • Shim On Bottom Conv. • H.T. Steel

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
30-1020	Intake	H. T. Steel	28.00mm	1.1016"	1.040"	0.860"	0.310"	0.135"	Pkg. of 16
	Exhaust								

Requires use of Kibblewhite® "Shim Under" Style Retainer # 30-1019 (Pkg. of 16).

HONDA® CBR™ 1100XX-BLACKBIRD™ 1997-2003

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	30-30100	Intake	.405"		1.290"		66#		168#		.405"
		Exhaust									
	Kit Includes			16	CrSi Valve Springs	16	Titanium Retainers	16	H. T. Steel Basewashers		

Keeper Set • O.E.M. Replacement

NEW PRODUCTS

		KPMI P/N	Style	Type	A	B	C	D	E	Quantity
		51025-16	Single Radius Bead	Intake	0.196"	7.0°	0.170"	0.205"	0.236"	16Pr.
				Exhaust						

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

HONDA® CBX 6 CYLINDER 1979-1982

Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	30-1018	Intake	.500"	1.390"	60#	175	.400"
		Exhaust					
	Kit Includes			24	CrSi Valve Springs		

Retainer Set • Titanium



KPMI P/N	Type	Material	Quantity
30-1021	Intake	Titanium	Pkg. of 24
	Exhaust		

These retainers accept a 9.5mm OD shim and requires use of 30-1022 "Shim Under" style tappet. See adjustment shim section for available sizes.

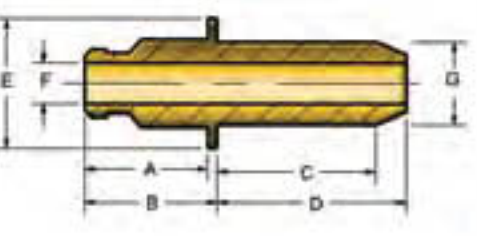


HONDA® CBX 6 CYLINDER 1979-1982

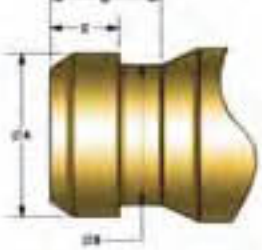
Valves • Black Diamond™ • Black Nitroleg Stems **NEW PRODUCTS**

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	30-4221	Intake	0.985"	25.02mm	0.2157"	23°	3.535"	Standard
	30-4222	Exhaust	0.870"	22.10mm	0.2152"	29°	3.475"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.550"	0.650"	0.890"	1.050"	0.685"	0.2155"	0.4372" / Std.	30-4071	
							+0.004"	30-4161	
							+0.015"	30-4162	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
	Part Number					Quantity		Quantity Incentive
	71016-4					Pkg. of 4		0%
	71016-8					Pkg. of 8		0%
	71016-16					Pkg. of 16		Less- 10%
	71016-24					Pkg. of 24		Less- 10%
	71016-50					Pkg. of 50		Less- 15%
	71016-100					Pkg. of 100		Less- 20%

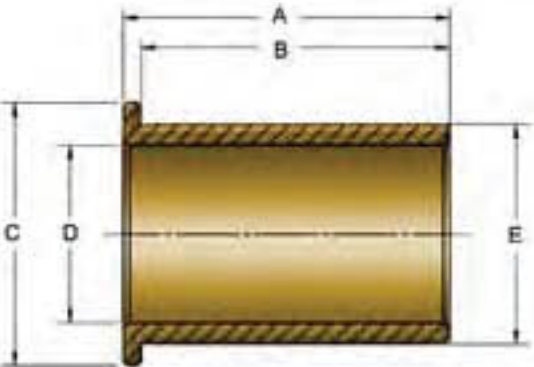
Tappets • Shim On Bottom Conv. • H.T. Steel

A technical cross-sectional drawing of a tappet. The drawing shows a rectangular base with a central recessed area. Dimension 'A' is the total width of the base. Dimension 'B' is the width of the central recessed area. Dimension 'C' is the height of the base. Dimension 'E' is the width of the central recessed area at its top edge. Dimension 'F' is the height of the central recessed area. The top surface of the central recessed area is shaded with diagonal lines.

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
30-1022	Intake	H. T. Steel	28.00mm	1.1016"	1.040"	0.860"	0.310"	0.135"	Pkg. of 24
	Exhaust								

Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.

Swing Arm Bushing • Bearing Bronze For CBX™ 1979

	KPMI P/N	Material	A	B	C	D	E	Quantity
	30-0477	Bearing Bronze	1.550"	1.465"	Ø 1.250"	Ø 0.8435"	Ø 1.045"	1 Pr.
	• Replaces worn or damaged plastic OEM bushing • High quality bearing bronze offers increased durability and better fitment than OEM component • OEM P/N: 52108-457 & 52108-422-300							

NEW HONDA[®] STAINLESS CONV. TOP END SERVICE KITS



KIT CONTENTS

- High Compression Racing Piston w/ Coated Skirt (w/ rings and pin)
- Top End Gasket Kit (Head Gasket, Base Gasket, Exhaust Gasket, Cam Chain Tensioner Gasket, Valve Stem Seals, Cylinder Head Drain Seal)
- Black Diamond™ Stainless Valves
- Lightweight Racing Spring Kit (Titanium Retainers, Dual Springs, HT Steel Basewashers)

FEATURES

- Designed specifically for the performance demands of popular racing MX Bikes and Quads.
- Pistons designed to return the compression ratio to stock compuressionafter the effects of the dished stainless valves
- 2618 Alloy Fully CNC Machined Piston with performance skirt coating
- Black Diamond™ Stainless Steel Conversion system significantly increases valve durability
- Lightweight Racing Spring Kit Compatible with high performnace cams.
- All of the gaskets, rings, pins and seals required for a top end rebuild

IMPORTANT NOTE: The piston, rings, valves and pin clips in this kit are designed to work together as a system. They are **NOT COMPATIBLE** with O.E.M. components and should **ONLY** be used with the components in this KPMI® Top End Service Kit.

COMING SOON!
QUALITY TAKEN SOME... BUT IT WILL BE WELL WORTH THE WAIT



Top End Service Kit For CRF™ 450R 2002-2008

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
30-32700	Intake	.440"	1.215"	40#	147#	.440"	
	Exhaust	.440"	1.365"	70#	203#	.440"	
Kit Includes		2	In Titanium Retainers	2	In CrSi Valve Springs	2	In H. T. Steel Basewashers
		2	Ex Titanium Retainers	2	*Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers
		2	In Black Diamond™ Valves		2	Ex Black Diamond™ Valves	
		1	High Compression Racing Piston Kit		1	Top End Gasket Kit	

Top End Service Kit For CRF™ 450X 2005-2017

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
30-32900	Intake	.440"	1.215"	40#	147#	.440"	
	Exhaust	.440"	1.365"	70#	203#	.440"	
Kit Includes		2	In Titanium Retainers	2	In CrSi Valve Springs	2	In H. T. Steel Basewashers
		2	Ex Titanium Retainers	2	*Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers
		2	In Black Diamond™ Valves		2	Ex Black Diamond™ Valves	
		1	High Compression Racing Piston Kit		1	Top End Gasket Kit	

Top End Service Kit For TRX™ 450R 2004-2005

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
30-32500	Intake	.440"	1.215"	40#	147#	.440"	
	Exhaust	.440"	1.365"	70#	203#	.440"	
Kit Includes		2	In Titanium Retainers	2	In CrSi Valve Springs	2	In H. T. Steel Basewashers
		2	Ex Titanium Retainers	2	*Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers
		2	In Black Diamond™ Valves		2	Ex Black Diamond™ Valves	
		1	High Compression Racing Piston Kit		1	Top End Gasket Kit	

Top End Service Kit For TRX™ 450R / ER 2006-2014

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
30-32600	Intake	.440"	1.215"	40#	147#	.440"	
	Exhaust	.440"	1.365"	70#	203#	.440"	
Kit Includes		2	In Titanium Retainers	2	In CrSi Valve Springs	2	In H. T. Steel Basewashers
		2	Ex Titanium Retainers	2	*Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers
		2	In Black Diamond™ Valves		2	Ex Black Diamond™ Valves	
		1	High Compression Racing Piston Kit		1	Top End Gasket Kit	

*The Exhaust springs for this kit include a progressively wound Inner Spring, which should be installed with the tightly wound end seated on the H.T. Steel Basewashers.

VISIT US AT WWW.KPMI.US



HUSQVARNA® 350 / 410 1991-2000

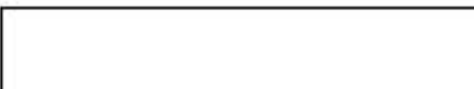
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	93-93020	Intake	.400"		1.210"		74#		189#		.400"
		Exhaust									
	Kit Includes			4	CrSi Valve Springs		4	Titanium Retainers		4	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	93-93010	Intake	32.50mm	1.280"	0.2352"	23°	4.020"	Standard
	93-93011	Exhaust	27.00mm	1.063"	0.2347"	29°	4.020"	Standard

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.430"	0.465"	0.970"	1.110"	0.510"	0.2350"	0.4750" / Std.	93-93000		
									+0.010"	93-93009	
		Use O.E.M. valve guide seal.									

HUSQVARNA® VARIOUS 510-610cc 1983-2001

- TX™ 510 1983-'88
- TE™ 510 1983-'90
- TC™ 510 1987-'90
- WXE™ 610 1991-'96
- WMX™ 610 1991
- TE™ 610 1992-'98
- TC™ 610 1992-'98
- WXC™ 610 1992-'96
- SM™ 610 R 2000-2001

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	93-93012	Intake	35.00mm	1.378"	0.2352"	23°	3.970"	Standard
	93-93013	Intake	36.00mm	1.417"	0.2352"	23°	3.970"	Oversize
	93-93014	Exhaust	30.00mm	1.181"	0.2347"	29°	3.970"	Standard

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.430"	0.465"	0.970"	1.110"	0.510"	0.2350"	0.4750" / Std.	93-93000		
									+0.010"	93-93009	
		Use O.E.M. valve guide seal.									

ORDER 650-557-2046

HUSQVARNA® VARIOUS 450'S 2014-2018



• FS 450 2017-2018

• FX 450 2017

• FC 450 2014-2018

NEW
PRODUCTS

Valve Spring Kit • Beehive Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift			
	96-96500	Intake	.435"	1.360"	80#	205#	.435"			
		Exhaust								
	Kit Includes			2	In CrSi Valve Springs	2	In Titanium Retainers	2	In H.T. Steel Basewashers	2
2				Ex CrSi Valve Springs	2	Ex Titanium Retainers	2	Ex H.T. Steel Basewashers	--	Ex H.T. Steel Shims

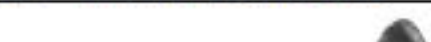
*KPMI® supplied Viton® seals must be used with this kit. O.E.M. seals are NOT compatible.

*KPMI® supplied Viton® seals must be used with this kit. O.E.M. seals are NOT compatible.

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	96-96540	Intake	.435"		1.360"		80#		205#		.435"
			Kit Includes		2	CrSi Valve Springs	2	Titanium Retainers	2	H. T. Steel Basewashers	
					2	Black Diamond™ Valves		2	H.T. Steel Shims		

Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	96-96512	Intake	39.93mm	1.572"	0.2358"	15°	3.675"	Standard
	96-96516	Exhaust	33.15mm	1.305"	0.2353"	30°	3.645"	Standard

You must use KPMI® Spring Kit 96-96500 when installing Black Diamond™ Valves

Valves • OEM Replacement • Tensilite® • Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	96-96512T	Intake	39.93mm	1.572"	0.2358"	15°	3.675"	Standard
	96-96516T	Exhaust	33.15mm	1.305"	0.2353"	30°	3.645"	Standard

Valve Guides • C630 Bronze

		*A	*C	*D	E	F	G	Intake	Exhaust
		0.555"	0.945"	1.140"	0.433"	0.2353"	0.4352" / Std.	96-96520	
							+0.001"	96-96521	
							+0.002"	96-96522	
							+0.010"	96-96529	
		0.635"	0.865"	1.060"	0.433"	0.2353"	0.4352" / Std.		96-96520
							+0.001"		96-96521
							+0.002"		96-96522
							+0.010"		96-96529
		*Note: One guide design installs at two different heights depending on Intake or Exhaust usage. You must install to lower line for exhaust and upper line for intake.							

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.315"	0.520"	5	A	B	C	D	Intake
				0.435"±0.002"	0.395"	0.120"	0.210"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71029-4		Pkg. of 4		0%
				71029-8		Pkg. of 8		0%
				71029-16		Pkg. of 16		Less- 10%
				71029-50		Pkg. of 50		Less- 15%
				71029-100		Pkg. of 100		Less- 20%

VISIT US AT WWW.KPMI.US



HUSQVARNA® VARIOUS 450-510cc 2006-'08

• TE/ TC/ TXC 450-510

• SM 450R-510R

• SM 450RR 2006

Valve Spring Kit • Lightweight High-Lift Racing

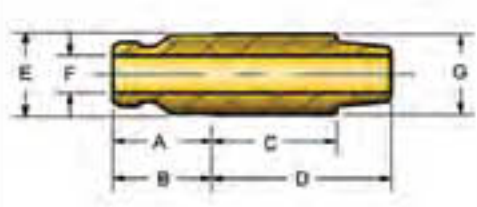
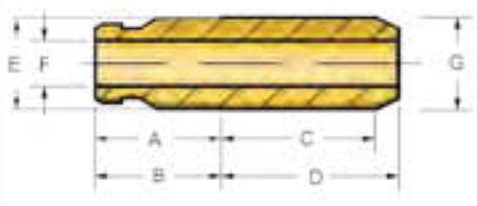
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	93-93050	Intake	.440"	1.350"	50#	160#	.440"
		Exhaust	.440"	1.390"	40#	150#	.440"
	Kit Includes		4	CrSi Valve Springs	4	Titanium Retainers	4

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	93-93062	Intake	37.00mm	1.457"	0.2160"	20°	3.955"	Standard
	93-93063	Intake	38.00mm	1.496"	0.2160"	20°	3.955"	Oversize
	93-93066	Exhaust	31.00mm	1.220"	0.1958"	20°	3.565"	Standard
	93-93067	Exhaust	32.00mm	1.260"	0.1958"	20°	3.565"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.515"	0.515"	0.660"	1.290"	0.432"	0.2160"	0.4355" / Std.	93-93070	
							+0.001"	93-93071	
							+0.002"	93-93072	
							+0.010"	93-93079	
	0.650"	0.650"	0.700"	0.990"	0.412"	0.1958"	0.4156" / Std.		93-93080
							+0.001"		93-93081
							+0.002"		93-93082
							+0.010"		93-93089
Use O.E.M. valve guide seal.									

INDIAN® 74" V-TWIN MODELS

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	20-2018	Intake	50.80mm	2.000"	0.3697"	19°	5.126"	Standard
	20-2019	Exhaust	50.80mm	2.000"	0.3697"	10°	5.130"	Standard

KAWASAKI® MOJAVE™ 1987-2004



Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-4190	Intake	29.00mm	1.142"	0.2155"	20°	3.510"	Standard
	40-4191	Intake	30.50mm	1.201"	0.2155"	20°	3.530"	Oversize
	40-4192	Exhaust	24.50mm	0.965"	0.2150"	25°	3.430"	Standard
	40-4193	Exhaust	25.00mm	0.984"	0.2150"	25°	3.440"	Oversize

KAWASAKI® KX250F™ 2004-2016

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	40-40100	Intake	.445"		1.320"		46#		155#		.445"
		Exhaust									
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers		4	H. T. Steel Basewashers	

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift		Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40350	Intake	.445"		1.320"	46#	155#	.445"
	Kit Includes		2	CrSi Valve Springs		2	Titanium Retainers	
			2	Black Diamond™ Valves		2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40140	Intake	31.00mm	1.220"	0.1765"	20°	3.120"	Standard
	40-40141	Intake	32.00mm	1.260"	0.1765"	20°	3.130"	Oversize
	40-40143	Exhaust	25.00mm	0.985"	0.1756"	25°	3.125"	Standard
	40-40144	Exhaust	26.00mm	1.024"	0.1756"	25°	3.135"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

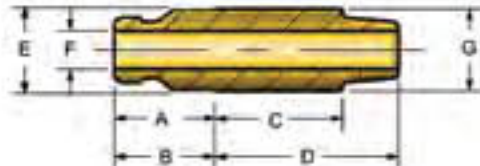
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	40-40140T	Intake	31.00mm	1.220"	0.1765"	20°	3.120"	Titanium
	40-40143T	Exhaust	25.00mm	0.985"	0.1756"	25°	3.125"	Titanium

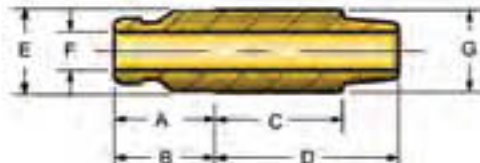
Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.



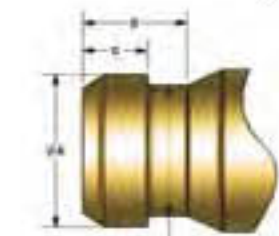
KAWASAKI® KX250F™ 2004-2016

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.465"	0.465"	0.565"	0.870"	0.374"	0.1765"	0.3765" / Std.	40-40520	
								+0.001"	40-40521	
								+0.002"	40-40522	
								+0.010"	40-40529	
Note: #40-40520-29 - Recommended for 2007-2016 model only										

		0.440"	0.465"	0.590"	0.850"	0.410"	0.1765"	0.3765" / Std.	40-40120	
								+0.001"	40-40121	
								+0.002"	40-40122	
								+0.010"	40-40129	
Note: #40-40120-29 - Recommended for Intake 2004-2006 model only and Exhaust 2004-2016 all model.										

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71013-4		Pkg. of 4		0%
				71013-8		Pkg. of 8		0%
				71013-16		Pkg. of 16		Less- 10%
				71013-50		Pkg. of 50		Less- 15%
				71013-100		Pkg. of 100		Less- 20%

Tappets • O.E.M. Replacement • H.T. Steel

Technical drawing of a tappet cross-section. Dimensions are labeled as follows: A (total width), B (base width), C (height), D (fillet radius), E (inner width), and F (inner height).

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
40-40106	Intake	H. T. Steel	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"	Pkg. of 2
Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.									

KAWASAKI® KLX™ 300R/ 250R/ S/ SF 1994-'14

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-40008	Intake	.440"		1.245"	49#	156#	.440"	
		Exhaust							
	Kit Includes			4	CrSi Valve Springs		4	Titanium Retainers	
				4	H. T. Steel Basewashers		4	H. T. Steel Shims	

Valve Spring Kit • High Performance for O.E.M. Retainers

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-4431	Intake	.430"	1.245"	51#	155#	.430"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Basewashers	4

ORDER 650-557-2046

KAWASAKI® KLX® 300R/ 250R/ S/ SF 1994-'14



Valves • White Diamond™ • Hard Chrome Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-4372H	Intake	29.00mm	1.142"	0.1765"	20°	3.360"	Standard
	40-4374H	Intake	30.00mm	1.181"	0.1765"	20°	3.360"	Oversize
	40-4373H	Exhaust	25.00mm	0.895"	0.1760"	20°	3.375"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.560"	0.595"	0.620"	0.855"	0.460"	0.1760"	0.4165" / Std.	40-4420	
							+0.010"	40-4430	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71013-4			Pkg. of 4		0%
			71013-8			Pkg. of 8		0%
			71013-16			Pkg. of 16		Less- 10%
			71013-50			Pkg. of 50		Less- 15%
			71013-100			Pkg. of 100		Less- 20%

KAWASAKI® KLX™/ KFX™ 400 2001-'06

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	40-40148	Intake	.440"		1.205"		57#		171#		.440"
		Exhaust									
Kit Includes			4	CrSi Valve Springs		4	Titanium Retainers		4	H. T. Steel Basewashers	

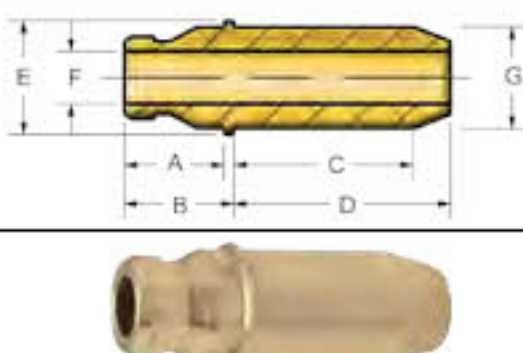
Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40188	Intake	36.00mm	1.417"	0.1960"	20°	3.245"	Standard
	40-40189	Intake	37.00mm	1.457"	0.1960"	20°	3.245"	Oversize
	40-40191	Exhaust	29.00mm	1.142"	0.1953"	21°	3.210"	Standard
	40-40192	Exhaust	30.00mm	1.181"	0.1953"	21°	3.210"	Oversize



KAWASAKI® KLX™ / KFX™ 400 2001-'06

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.390"	0.430"	0.570"	0.770"	0.466"	0.1960"	0.4167" / Std.	40-40170	
							+0.001"	40-40171	
							+0.002"	40-40172	
							+0.004"	40-40174	
							+0.010"	40-40179	

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71015-4		Pkg. of 4		0%	
			71015-8		Pkg. of 8		0%	
			71015-16		Pkg. of 16		Less- 10%	
			71015-50		Pkg. of 50		Less- 15%	
			71015-100		Pkg. of 100		Less- 20%	

KAWASAKI® KLX 450R™ 2008-2015

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-40700	Intake	.415"	1.325"	50#	155#	.415"	
		Exhaust	.415"	1.215"	50#	144#	.415"	
	Kit Includes			2	In, CrSi Valve Springs	2	In, Titanium Retainers	2
			2	Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	2	Ex, H. T. Steel Basewashers

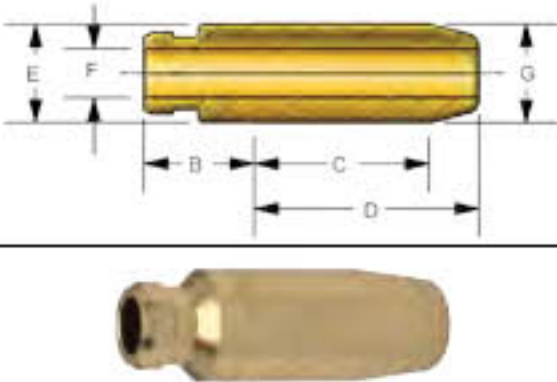
Valves • Black Diamond™ • Black Nitroneg Stems



KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
40-40712	Intake	35.00mm	1.378"	0.2158"	20°	3.280"	Standard
40-40713	Intake	36.00mm	1.417"	0.2158"	20°	3.280"	Oversize
40-40716	Exhaust	30.00mm	1.181"	0.2150"	20°	3.230"	Standard
40-40717	Exhaust	31.00mm	1.221"	0.2150"	20°	3.230"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.390"	0.550"	0.895"	0.434"	0.2150"	0.4365" / Std.	40-40720	
							+0.001"	40-40721	
							+0.002"	40-40722	
							+0.010"	40-40729	

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KAWASAKI® KLX 450R™ 2008-2015



Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71016-4		Pkg. of 4		0%
				71016-8		Pkg. of 8		0%
				71016-16		Pkg. of 16		Less- 10%
				71016-50		Pkg. of 50		Less- 15%
				71016-100		Pkg. of 100		Less- 20%

Tappets • O.E.M. Replacement • H.T. Steel

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
40-40742	Intake	None	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"	Pkg. of 4

Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.

KAWASAKI® KX 450F™ 2006-2008

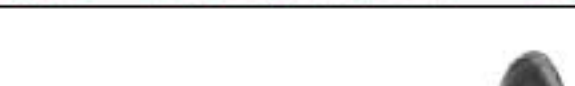
Valve Spring Kit • Lightweight High-Lift Racing

		KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
		40-40300	Intake	.415"	1.325"	51#	155#	.415"
			Exhaust	.415"	1.215"	52#	146#	.415"
Kit Includes		2	In, CrSi Valve Springs	2	In, Titanium Retainers	2	In, H. T. Steel Basewashers	
		2	Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	2	Ex, H. T. Steel Basewashers	

Intake Only • Steel Valve Conversion Kit

		KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
		40-40360	Intake	.415"	1.325"	51#	155#	.415"
		Kit Includes		2	CrSi Valve Springs	2	Titanium Retainers	
				2	Black Diamond™ Valves	2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40312	Intake	36.00mm	1.417"	0.2158"	20°	3.280"	Standard
	40-40313	Intake	37.00mm	1.457"	0.2158"	20°	3.280"	Oversize
	40-40316	Exhaust	31.00mm	1.220"	0.2150"	20°	3.230"	Standard

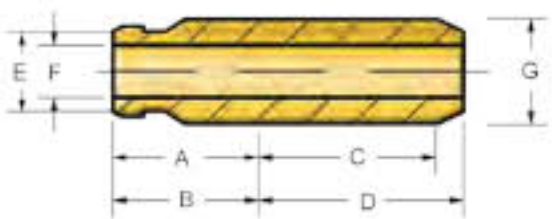
Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

VISIT US AT WWW.KPMI.US



KAWASAKI® KX 450F™ 2006-2008

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.390"	0.390"	0.550"	0.895"	0.434"	0.2150"	0.4365" / Std.		40-40320
							+0.001"		40-40321
							+0.002"		40-40322
							+0.010"		40-40329

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
 		Part Number		Quantity		Quantity Incentive		
		71015-4		Pkg. of 4		0%		
		71015-8		Pkg. of 8		0%		
		71015-16		Pkg. of 16		Less- 10%		
		71015-50		Pkg. of 50		Less- 15%		
		71015-100		Pkg. of 100		Less- 20%		

Tappets • O.E.M. Replacement • H.T. Steel

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
40-40342	Intake	None	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"	Pkg. of 4
	Exhaust								
Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.									

KAWASAKI® KX 450F™ 2009-2016

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-40660	Intake	.415"	1.290"	64#	169#	.415"	
		Exhaust	.415"	1.240"	65#	170#	.415"	
	Kit Includes			2	In, CrSi Valve Springs	2	In, Titanium Retainers	2
			2	Ex, CrSi Valve Springs	2	Ex, Titanium Retainers	2	Ex, H. T. Steel Basewashers

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40380	Intake	.415"	1.290"	64#	169#	.415"
	Kit Includes		2	CrSi Valve Springs	2	Titanium Retainers	
			2	Black Diamond™ Valves	2	H. T. Steel Basewashers	

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KAWASAKI® KX 450F™ 2009-2016

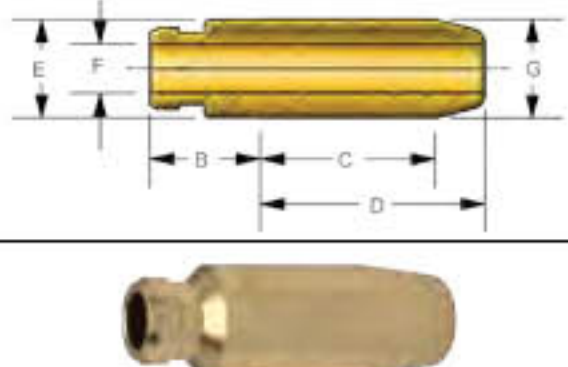


Valves • Black Diamond™ • Black Nitron® Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40652	Intake	35.99mm	1.417"	0.2155"	20°	3.080"	Standard
	40-40653	Intake	37.01mm	1.457"	0.2155"	20°	3.080"	Oversize
	40-40656	Exhaust	31.01mm	1.221"	0.2150"	20°	3.030"	Standard
	40-40657	Exhaust	32.00mm	1.260"	0.2150"	20°	3.030"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.380"	0.525"	0.760"	0.434"	0.2150"	0.4365" / Std.	40-40670	
							+0.001"	40-40671	
							+0.002"	40-40672	
							+0.010"	40-40679	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71015-4		Pkg. of 4		0%		
		71015-8		Pkg. of 8		0%		
		71015-16		Pkg. of 16		Less- 10%		
		71015-50		Pkg. of 50		Less- 15%		
		71015-100		Pkg. of 100		Less- 20%		

Tappets • O.E.M. Replacement • H.T. Steel

A technical cross-section drawing of a tappet. The drawing shows a rectangular base with rounded corners. Dimension 'A' is the total width of the base. Dimension 'B' is the width of the base at the outer edges. Dimension 'C' is the total height of the base. Dimension 'E' is the width of the central flat top surface. Dimension 'F' is the height of the central flat top surface. The top surface is shaded with diagonal lines.

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
40-40690	Intake	H. T. Steel	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"	Pkg. of 4
	Exhaust								
Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.									

KAWASAKI® KFX 450R™ 2008-2014

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40550	Intake	.415"	1.325"	51#	155#	.415"
		Exhaust	.415"	1.215"	52#	146#	.415"
	Kit Includes		2 In, CrSi Valve Springs	2 In, Titanium Retainers	2 In, H. T. Steel Basewashers		
			2 Ex, CrSi Valve Springs	2 Ex, Titanium Retainers	2 Ex, H. T. Steel Basewashers		

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KAWASAKI® KFX 450R™ 2008-2014

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40950	Intake	.415"	1.325"	51#	155#	.415"
	Kit Includes		2	CrSi Valve Springs	2	Titanium Retainers	
			2	Black Diamond™ Valves	2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40562	Intake	36.00mm	1.417"	0.2158"	20°	3.280"	Standard
	40-40563	Intake	37.00mm	1.457"	0.2158"	20°	3.280"	Oversize
	40-40566	Exhaust	31.00mm	1.221"	0.2150"	20°	3.230"	Standard

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.390"	0.390"	0.550"	0.895"	0.434"	0.2150"	0.4365" / Std.	40-40570	
							+0.001"	40-40571	
							+0.002"	40-40572	
							+0.010"	40-40579	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71016-4		Pkg. of 4		0%	
			71016-8		Pkg. of 8		0%	
			71016-16		Pkg. of 16		Less- 10%	
			71016-50		Pkg. of 50		Less- 15%	
			71016-100		Pkg. of 100		Less- 20%	

Tappets • O.E.M. Replacement • H.T. Steel

A technical cross-section drawing of a tappet. The drawing shows a U-shaped component with a flat top and rounded corners. Dimension lines indicate the following measurements: 'A' is the total width of the top surface; 'B' is the height of the top surface; 'C' is the total height of the component; 'E' is the width of the central opening; and 'F' is the radius of the corner fillet.

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
40-40592	Intake	None	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"	Pkg. of 4
	Exhaust								

Refer to **KPMI® Tappet Section**, in back of catalog, when selecting oversize tappets.

For all the applications available for Kibblewhite's Kawasaki® line of products, please refer online to the Kawasaki® section of the www.kpmi.us website, under **Dirt Bike**.

ORDER 650-557-2046

KAWASAKI® NINJA 500R™ 1987-2009



Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-4190	Intake	29.00mm	1.142"	0.2155"	20°	3.510"	Standard
	40-4191	Intake	30.50mm	1.201"	0.2155"	20°	3.530"	Oversize
	40-4192	Exhaust	24.50mm	0.965"	0.2150"	25°	3.430"	Standard
	40-4193	Exhaust	25.00mm	0.984"	0.2150"	25°	3.440"	Oversize

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71016-4		Pkg. of 4		0%
				71016-8		Pkg. of 8		0%
				71016-16		Pkg. of 16		Less- 10%
				71016-50		Pkg. of 50		Less- 15%
				71016-100		Pkg. of 100		Less- 20%

KAWASAKI® KLR™ 600 / 650 1984-2010

Valve Spring Kit • High Performance for O.E.M. Retainers

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-4350	Intake	.460"	1.205"	75#	175#	.460"
		Exhaust					
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Basewashers

KAWASAKI® KZ™ 650 / 750 1976-1985

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-0893	Intake	.500"	1.330"	90#	268#	.500"
		Exhaust					
	Kit Includes			8	CrSi Valve Springs		

Retainer Set • O.E.M. Replacement • Titanium

	KPMI P/N	Type	Material	Quantity
	40-1008	Intake	Titanium	Pkg. of 8
		Exhaust		

Tappets • Shim On Bottom Conv. • H.T. Steel

A technical drawing of a rectangular tappet. The drawing shows a cross-section of the part. Dimension 'A' is the width of the top surface. Dimension 'B' is the width of the bottom surface. Dimension 'C' is the height of the side walls. Dimension 'E' is the width of the central flat area. Dimension 'F' is the thickness of the side walls.

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
40-1013	Intake	None	33.00mm	1.298"	1.235"	1.025"	0.340"	0.115"	Pkg. of 8
	Exhaust								
Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.									

VISIT US AT WWW.KPMI.US



KAWASAKI® KLX™ 650 / 650R 1993-'96

Valve Spring Kit with Shim Under Conversions • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-40051	Intake	.450"	1.195"	77#	207#	.450"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4	H. T. Steel Keepers	4
4				H. T. Steel Basewashers	4	H. T. Steel Tappets	4	Adj. Shims
To prevent high lift cams from spitting shims, Kibblewhite® recommends using shim under tappets for cams with over 0.400" lift. See Kibblewhite® Tappet Section in back of catalog.								

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	40-4349	Intake	.400"		1.200"		75#		191#		.400"
		Exhaust									
	Kit Includes			4	CrSi Valve Springs	4	Titanium Retainers	4	H. T. Steel Basewashers		

Valve Spring Only Kit • High Performance for O.E.M. Retainers

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-4089	Intake	.450"	1.380"	75#	175#	.450"
		Exhaust					
	Kit Includes		4	CrSi Valve Springs			

KAWASAKI® NINJA™ 650R / VERSYS 2006-'13

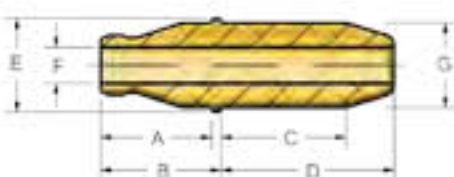
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-40800	Intake	.400"	1.215"	39#	136#	.400"	
		Exhaust						
	Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers	8

Valves • Black Diamond™ • Black Nitroneg Stems

KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
40-40812	Intake	33.35mm	1.313"	0.1765"	10°	3.810"	Standard
40-40813	Intake	34.35mm	1.352"	0.1765"	10°	3.810"	Oversize
40-40816	Exhaust	28.27mm	1.113"	0.1760"	22°	3.820"	Standard
40-40817	Exhaust	29.27mm	1.152"	0.1760"	22°	3.820"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.560"	0.595"	0.620"	0.855"	0.460"	0.1760"	0.4165" / Std.	40-40820	
							+0.010"	40-40829	

ORDER 650-557-2046

KAWASAKI® NINJA™ 650R / VERSYS 2006-'13



Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71013-4		Pkg. of 4		0%
				71013-8		Pkg. of 8		0%
				71013-16		Pkg. of 16		Less- 10%
				71013-50		Pkg. of 50		Less- 15%
				71013-100		Pkg. of 100		Less- 20%

Tappets • O.E.M. Replacement • H.T. Steel

A technical cross-sectional drawing of a tappet. The drawing shows a rectangular base with rounded corners. Dimension 'A' is the total width at the top. Dimension 'B' is the total width at the bottom. Dimension 'C' is the total height. Dimension 'D' is the height of the top flat surface. Dimension 'E' is the width of the top flat surface. Dimension 'F' is the radius of the top outer corner. Dimension 'G' is the radius of the bottom outer corner.

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
40-40807	Intake	None	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"	Pkg. of 8
	Exhaust								

NOTE: Shims of less than 1.90mm may cause clearance issues between tappet and retainer. Always check clearances before installing smaller than O.E.M. shims.
Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.

KAWASAKI® VARIOUS 2005-2013

- KFX™ 700 2005-'09
- Brute Force™ 650 2005-'13
- Brute Force™ 650I 2006-'12
- Prairie™ 700 • 2005-'06
- Brute Force™ 750I • 2005-'12
- Teryx™ 750 • 2008-'12 (Excluding Teryx 4)

Valve Spring Kit • Lightweight Racing

		KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
		40-40400	Intake Exhaust	.500"	1.400"	59#	210#	.500"
		Kit Includes		8	CrSi Valve Springs	8	Titanium Retainers	
				8	H. T. Steel Basewashers	8	H. T. Steel Shims	

KPMI® Guides must be installed when using cams greater than .430" valve lift.

Valves • Black Diamond™ • Black Nitro Neg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40412	Intake	30.00mm	1.181"	0.1960"	10°	3.610"	Standard
	40-40413	Intake	31.00mm	1.220"	0.1960"	10°	3.610"	Oversize
	40-40416	Exhaust	26.00mm	1.024"	0.1955"	10°	3.655"	Standard
	40-40417	Exhaust	27.00mm	1.063"	0.1955"	10°	3.655"	Oversize

Custom oversize's available +3 and +4 mm, call for availability.

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.450"	0.550"	0.590"	0.790"	0.675"	0.1955"	0.4161" / Std.	40-40420	
								+ 0.001"	40-40421	
								+ 0.002"	40-40422	
								+0.010"	40-40429	

VISIT US AT WWW.KPMI.US



KAWASAKI® VARIOUS 2005-2013

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71015-4		Pkg. of 4		0%		
		71015-8		Pkg. of 8		0%		
		71015-16		Pkg. of 16		Less- 10%		
		71015-50		Pkg. of 50		Less- 15%		
		71015-100		Pkg. of 100		Less- 20%		

KAWASAKI® VARIOUS 650 / 750 2012-2018

- Brute Force 650 4x4 / 4x4i • 2013
- Brute Force 750 4x4i • 2013-2018

- Teryx™ • 2013-2018
- Teryx 4™ • 2012-2018

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height	Seat Pressure		Open Pressure	@ Lift
	40-40900	Intake	.500"		1.400"	59#		210#	.500"
		Exhaust							
	Kit Includes			8	CrSi Valve Springs		8	Titanium Retainers	
8				H. T. Steel Basewashers		8	H. T. Steel Shims		

Note: KPMI® Guides must be installed when using cams greater than 0.430" valve lift.

Valves • Black Diamond™ • Black Nitroleg Stems

		KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
		40-40920	Intake	30.00mm	1.181"	0.1960"	10°	3.610"	Standard
		40-40921	Intake	31.00mm	1.220"	0.1960"	10°	3.610"	Oversize
		40-40924	Exhaust	26.00mm	1.024"	0.1955"	10°	3.655"	Standard
		40-40925	Exhaust	27.00mm	1.063"	0.1955"	10°	3.655"	Oversize

If the above sizes are not what you need, we can make any size custom valve. Please call for more information.

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.500"	0.550"	0.590"	0.790"	0.510"	0.1955"	0.4161" / Std.	40-40910	
								+ 0.001"	40-40911	
								+ 0.002"	40-40912	
								+0.010"	40-40919	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71014-4		Pkg. of 4		0%		
		71014-8		Pkg. of 8		0%		
		71014-16		Pkg. of 16		Less- 10%		
		71014-50		Pkg. of 50		Less- 15%		
		71014-100		Pkg. of 100		Less- 20%		

ORDER 650-557-2046

KAWASAKI® KZ™ / Z1™ 900 1973-1977



Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-0449	Intake	.425"	1.330"	90#	245#	.425"
		Exhaust					
Kit Includes			8	CrSi Valve Springs			

Retainer Set • O.E.M. Replacement • Titanium for Valve Spring Only Kit 40-0449

	KPMI P/N	Type	Material	Quantity	Remarks
	40-1008M	Intake	Titanium	Pkg. of 8	O.E.M. Style
		Exhaust			

Valve Spring Only Kit • High Performance

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
40-1016	Intake	.475"	1.330"	90#	265#	.475"
	Exhaust					
Kit Includes		8	CrSi Valve Springs			
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
40-1007	Intake	.490"	1.320"	95#	269#	.490"
	Exhaust					
Kit Includes		8	CrSi Valve Springs			
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
40-1014	Intake	.565"	1.405"	105#	305#	.565"
	Exhaust					
Kit Includes		8	CrSi Valve Springs			

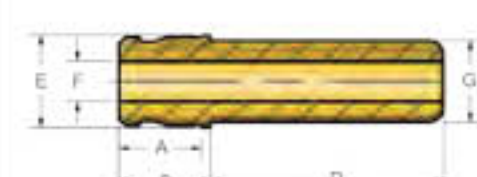
Retainer Set • Shim On Bottom • Titanium for Valve Spring Only Kits 40-1016, 40-1007, and 40-1014

	KPMI P/N	Type	Material	Quantity
	40-1008	Intake	Titanium	Pkg. of 8
		Exhaust		
Use with Kibblewhite® "Shim On Bottom" Style Tappets # 40-1013 with this retainer.				

Valves • White Diamond® • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-4180H	Intake	36.00mm	1.417"	0.2745"	23°	3.615"	Standard
	40-4181H	Intake	37.50mm	1.476"	0.2745"	23°	3.615"	Oversize (max w/ stock seat)
	40-4183H	Exhaust	30.00mm	1.181"	0.2745"	29°	3.555"	Standard
	40-4184H	Exhaust	31.00mm	1.220"	0.2745"	29°	3.555"	Oversize (max w/ stock seat)

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.440"	0.490"	0.785"	1.165"	0.495"	0.2745"	0.4752" / Std.	40-0478	
							+0.002"	40-0479	
							+0.004"	40-0480	
							+0.006"	40-0481	
							+0.015"	40-4036	
							+0.027"	40-0499	
	0.440"	0.490"	---	1.240"	0.495"	0.2745"	0.4752" / Std.		40-0482
							+0.002"		40-0483
							+0.004"		40-0484
							+0.006"		40-0485
							+0.015"		40-4037



KAWASAKI® KZ™ / Z1™ 900 1973-1977

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.374"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.430"	0.115"	0.240"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71019-4			Pkg. of 4		0%	
		71019-8			Pkg. of 8		0%	
		71019-16			Pkg. of 16		Less- 10%	
		71019-50			Pkg. of 50		Less- 15%	
		71019-100			Pkg. of 100		Less- 20%	

Tappets • Shim On Bottom Conv. • H.T. Steel

A technical drawing of a tappet, which is a mechanical component used in internal combustion engines. The drawing shows a cross-section of the tappet with several dimensions labeled: 'A' is the overall width, 'B' is the width of the base, 'C' is the height of the base, 'E' is the width of the central opening, and 'F' is the height of the central opening. The drawing is a black and white line drawing with hatching used to indicate different materials or sections.

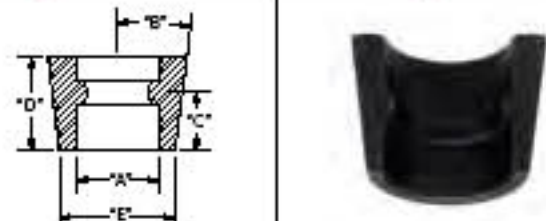
KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
40-1013	Intake	None	33.00mm	1.2980"	1.235"	1.025"	0.340"	0.115"	Pkg. of 8
	Exhaust								
40-4202	Intake	None	33.50mm	1.3184"	1.250"	1.025"	0.313"	0.115"	Pkg. of 1 (Oversize)
	Exhaust								
40-4203	Intake	None	34.00mm	1.3380"	1.258"	1.025"	0.313"	0.115"	Pkg. of 1 (Oversize)
	Exhaust								

Use Kibblewhite® Shim On Bottom Retainers # 40-1008 (Pkg. of 8). Large tappets available, see Kibblewhite® Tappet Section in back of catalog.

Retainer Set • Replacement • High Performance

	KPMI P/N	Type	Material	Description			
	40-4006	Intake	Titanium	"Shim Under" Style supplied with 15° Jumbo Keepers for radius groove valves.			
		Exhaust					
	Set Includes			8	Titanium Retainers	8	H.T. Steel Keepers Pr.
	15° Jumbo keepers are designed for high spring loads in racing application.						

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51001-8	Single Radius Bead	0.275"	7.0°	0.160"	0.340"	0.349"	8Pr.
		51008-8	Single Radius Bead	0.275"	7.0°	0.188"	0.323"	0.342"	8Pr.

KAWASAKI® NINJA™ 900 1984-1986

Valves • Black Diamond™ • Black Nitroneg Stems

		KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
		40-4190	Intake	29.00mm	1.142"	0.2155"	20°	3.510"	Standard
		40-4191	Intake	30.50mm	1.201"	0.2155"	20°	3.530"	Oversize
		40-4192	Exhaust	24.50mm	0.965"	0.2150"	25°	3.430"	Standard
		40-4193	Exhaust	25.00mm	0.984"	0.2150"	25°	3.440"	Oversize

ORDER 650-557-2046

KAWASAKI® KZ™ / Z1™ POLICE 1000 1977-'05



Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-0449	Intake	.425"	1.330"	90#	245#	.425"
		Exhaust					
Kit Includes			8	CrSi Valve Springs			

Retainer Set • O.E.M. Replacement • Titanium for Valve Spring Only Kit 40-0449

	KPMI P/N	Type	Material	Quantity	Remarks
	40-1008M	Intake	Titanium	Pkg. of 8	O.E.M. Style
		Exhaust			

Valve Spring Only Kit • High Performance

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
40-1016	Intake	.475"	1.330"	90#	265#	.475"
	Exhaust					
Kit Includes		8	CrSi Valve Springs			
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
40-1007	Intake	.490"	1.320"	95#	269#	.490"
	Exhaust					
Kit Includes		8	CrSi Valve Springs			
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
40-1014	Intake	.565"	1.405"	105#	305#	.565"
	Exhaust					
Kit Includes		8	CrSi Valve Springs			

Retainer Set • Shim On Bottom • Titanium for Valve Spring Only Kits 40-1016, 40-1007, and 40-1014

	KPMI P/N	Type	Material	Quantity
	40-1008	Intake	Titanium	Pkg. of 8
		Exhaust		
	Use with Kibblewhite® "Shim On Bottom" Style Tappets # 40-1013 with this retainer.			

Valves • White Diamond® • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-4180H	Intake	36.00mm	1.417"	0.2745"	23°	3.615"	Standard
	40-4181H	Intake	37.50mm	1.476"	0.2745"	23°	3.615"	Oversize (max w/ stock seat)
	40-4183H	Exhaust	30.00mm	1.181"	0.2745"	29°	3.555"	Standard
	40-4184H	Exhaust	31.00mm	1.220"	0.2745"	29°	3.555"	Oversize (max w/ stock seat)

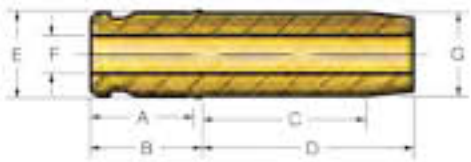
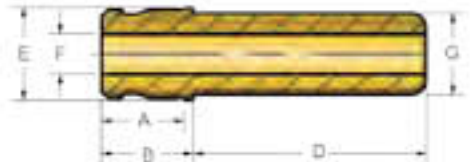
Valves • White Diamond® • J Model Valves • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-4281H	Intake	38.50mm	1.516"	0.2745"	23°	3.565"	Standard
	40-4285H	Exhaust	32.00mm	1.260"	0.2745"	29°	3.500"	Standard



KAWASAKI® KZ / Z1 POLICE 1000 1977-'05

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.440"	0.490"	0.785"	1.165"	0.495"	0.2745"	0.4752" / Std.	40-0478	
								+0.002"	40-0479	
								+0.004"	40-0480	
								+0.006"	40-0481	
								+0.015"	40-4036	
								+0.027"	40-0499	
		0.440"	0.490"	---	1.240"	0.495"	0.2745"	0.4752" / Std.		40-0482
								+0.002"		40-0483
								+0.004"		40-0484
								+0.006"		40-0485
								+0.015"		40-4037

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.374"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.430"	0.115"	0.240"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71019-4		Pkg. of 4		0%
				71019-8		Pkg. of 8		0%
				71019-16		Pkg. of 16		Less- 10%
				71019-50		Pkg. of 50		Less- 15%
				71019-100		Pkg. of 100		Less- 20%

Tappets • Shim On Bottom Conv. • H.T. Steel

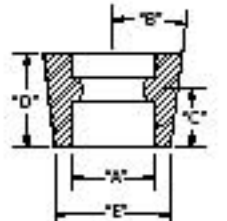
KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
40-1013	Intake	None	33.00mm	1.2980"	1.235"	1.025"	0.340"	0.115"	Pkg. of 8
	Exhaust								
40-4202	Intake	None	33.50mm	1.3184"	1.250"	1.025"	0.313"	0.115"	Pkg. of 1 (Oversize)
	Exhaust								
40-4203	Intake	None	34.00mm	1.3380"	1.258"	1.025"	0.313"	0.115"	Pkg. of 1 (Oversize)
	Exhaust								

Use Kibblewhite® Shim On Bottom Retainers # 40-1008 (Pkg. of 8). Large tappets available, see Kibblewhite® Tappet Section in back of catalog.

Retainer Set • Titanium

	KPMI P/N	Type	Material	Description			
	40-4006	Intake	Titanium	"Shim Under" Style supplied with 15° Jumbo Keepers for radius groove valves.			
		Exhaust					
	Set Includes			8	Titanium Retainers	8	H.T. Steel Keepers Pr.
15° Jumbo keepers are designed for high spring loads in racing application.							

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51001-8	Single Radius Bead	0.275"	7.0°	0.160"	0.340"	0.349"	8Pr.
		51008-8	Single Radius Bead	0.275"	7.0°	0.188"	0.323"	0.342"	8Pr.

ORDER 650-557-2046

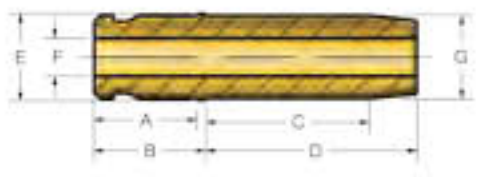
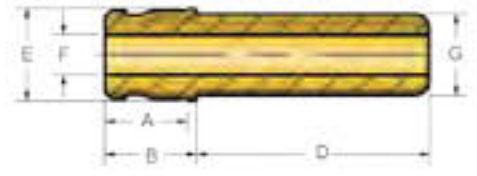


KAWASAKI® GPZ™ 1100 1981-1982

Valves • White Diamond® • J Model Valves • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-4281H	Intake	38.50mm	1.516"	0.2745"	23°	3.565"	Standard
	40-4285H	Exhaust	32.00mm	1.260"	0.2745"	29°	3.500"	Standard

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.440"	0.490"	0.785"	1.165"	0.495"	0.2745"	0.4752" / Std.	40-0478	
								+0.002"	40-0479	
								+0.004"	40-0480	
								+0.006"	40-0481	
								+0.015"	40-4036	
								+0.027"	40-0499	
		0.440"	0.490"	---	1.240"	0.495"	0.2745"	0.4752" / Std.		40-0482
								+0.002"		40-0483
								+0.004"		40-0484
								+0.006"		40-0485
								+0.015"		40-4037

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.374"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.430"	0.115"	0.240"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71019-4			Pkg. of 4		0%	
		71019-8			Pkg. of 8		0%	
		71019-16			Pkg. of 16		Less- 10%	
		71019-50			Pkg. of 50		Less- 15%	
		71019-100			Pkg. of 100		Less- 20%	

Tappets • Shim On Bottom Conv. • H.T. Steel

A technical drawing of a rectangular tappet. The drawing shows a cross-section of the part. Dimension 'A' is the total width of the top surface. Dimension 'B' is the total width of the bottom surface. Dimension 'C' is the total height of the part. Dimension 'E' is the width of the central rectangular opening. Dimension 'F' is the thickness of the side walls. The top surface is hatched to indicate a specific material or finish.

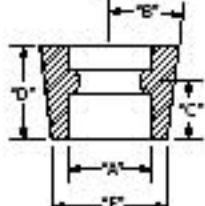
KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
40-1013	Intake	None	33.00mm	1.2980"	1.235"	1.025"	0.340"	0.115"	Pkg. of 8
	Exhaust								
40-4202	Intake	None	33.50mm	1.3184"	1.250"	1.025"	0.313"	0.115"	Pkg. of 1 (Oversize)
	Exhaust								
40-4203	Intake	None	34.00mm	1.3380"	1.258"	1.025"	0.313"	0.115"	Pkg. of 1 (Oversize)
	Exhaust								

Use Kibblewhite® Shim On Bottom Retainers # 40-1008 (Pkg. of 8). Large tappets available, see Kibblewhite® Tappet Section in back of catalog.

Retainer Set • Replacement • High Performance

	KPMI P/N	Type	Material	Description			
	40-4006	Intake	Titanium	"Shim Under" Style supplied with 15° Jumbo Keepers for radius groove valves.			
		Exhaust					
	Set Includes			8	Titanium Retainers	8	H.T. Steel Keepers Pr.
	15° Jumbo keepers are designed for high spring loads in racing application.						

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51001-8	Single Radius Bead	0.275"	7.0°	0.160"	0.340"	0.349"	8Pr.
		51008-8	Single Radius Bead	0.275"	7.0°	0.188"	0.323"	0.342"	8Pr.

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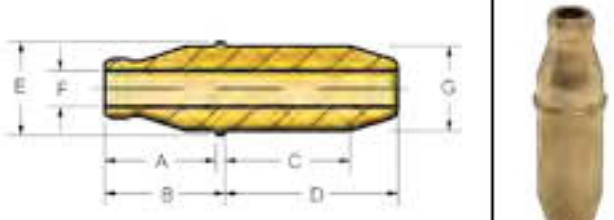
KAWASAKI® ZX-7R™ 1991-1995



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	40-4385	Intake	.425"		1.220"		55#		159#		.425"
		Exhaust									
	Kit Includes			16	CrSi Valve Springs		16	Titanium Retainers		16	H. T. Steel Basewashers

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.560"	0.595"	0.620"	0.855"	0.460"	0.1760"	0.4165" / Std.	40-4400	
							+0.010"	40-4410	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71013-4			Pkg. of 4		0%
			71013-8			Pkg. of 8		0%
			71013-16			Pkg. of 16		Less- 10%
			71013-50			Pkg. of 50		Less- 15%
			71013-100			Pkg. of 100		Less- 20%

KAWASAKI® VULCAN™ 1500 1986-'08

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	40-40004	Intake	.450"		1.450"		67#		227#		.450"
		Exhaust									
	Kit Includes			8	CrSi Valve Springs	8	Titanium Retainers	8	H. T. Steel Shims		

KAWASAKI® VULCAN™ 1500 (Mean Streak) 2002-'03

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40060	Intake	.450"	1.450"	67#	227#	.450"
		Exhaust					
	Kit Includes			8	CrSi Valve Springs		8

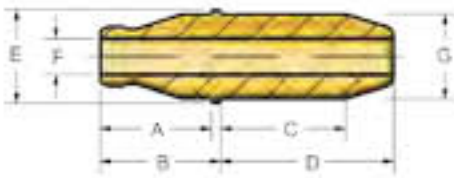


KAWASAKI® ZX-7R™ 1996-2003

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	40-4395	Intake	.460"		1.260"		45#		157#		.460"
		Exhaust									
	Kit Includes			16	CrSi Valve Springs	16	Titanium Retainers	16	H. T. Steel Basewashers		

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.560"	0.595"	0.620"	0.855"	0.460"	0.1760"	0.4165" / Std.	40-4400	
									+0.010"	40-4410

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
						Part Number	Quantity	Quantity Incentive
71013-4				Pkg. of 4		0%		
71013-8				Pkg. of 8		0%		
71013-16				Pkg. of 16		Less- 10%		
71013-50				Pkg. of 50		Less- 15%		
71013-100				Pkg. of 100		Less- 20%		

KAWASAKI® ZX-9R™ 1994-2003

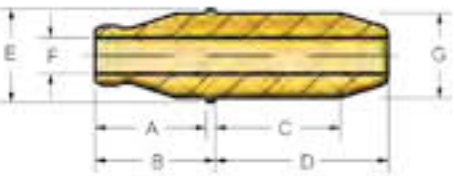
Valve Spring Kit • Lightweight Racing For 1994-1997 Models

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	40-4385	Intake	.425"		1.220"		55#		159#		.425"
		Exhaust									
	Kit Includes			16	CrSi Valve Springs	16	Titanium Retainers	16	H. T. Steel Basewashers		

Valve Spring Kit • Lightweight Racing For 1998-2003 Models

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	40-4500	Intake	.470"		1.280"		40#		155#		.470"
		Exhaust									
	Kit Includes			16	CrSi Valve Springs	16	Titanium Retainers		16	H. T. Steel Basewashers	

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.560"	0.595"	0.620"	0.855"	0.460"	0.1760"	0.4165" / Std.	40-4400	
									+0.010"	40-4410

ORDER 650-557-2046

KAWASAKI® ZX-9R™ 1994-2003



Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71013-4		Pkg. of 4		0%
				71013-8		Pkg. of 8		0%
				71013-16		Pkg. of 16		Less- 10%
				71013-50		Pkg. of 50		Less- 15%
				71013-100		Pkg. of 100		Less- 20%

KAWASAKI® ZX-10R™ 1988-1990

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-4611	Intake	.500"	1.400"	39#	160#	.400"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs		

Retainer Set • Titanium

	KPMI P/N	Type	Material	Quantity
	40-4612	Intake	Titanium	Pkg. of 16
		Exhaust		

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71015-4		Pkg. of 4		0%
				71015-8		Pkg. of 8		0%
				71015-16		Pkg. of 16		Less- 10%
				71015-50		Pkg. of 50		Less- 15%
				71015-100		Pkg. of 100		Less- 20%

KAWASAKI® ZX-10R™ 2004-2007

Single Spring Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40500	Intake	.425"	1.320"	65#	182#	.425"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs	16	H. T. Steel Retainers

* Springs are compatible with OEM Retainers & Basewashers and can be ordered individually, however KPMI® supplies this kit with the 40-40501 Retainers for increased durability over the OEM Aluminum Retainers.

Retainer Set • H. T. Steel

	KPMI P/N	Type	Material	Quantity
	40-40501	Intake	H. T. Steel	Pkg. of 16
		Exhaust		

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KAWASAKI® ZX-10R™ 2004-2007

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40450	Intake	.445"	1.350"	50#	162#	.445"
		Exhaust	.445"	1.240"	44#	153#	.445"
	Kit Includes		8 In, CrSi Valve Springs	8 In, Titanium Retainers	8 In, H. T. Steel Basewashers		
			8 Ex, CrSi Valve Springs	8 Ex, Titanium Retainers	8 Ex, H. T. Steel Basewashers		

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40462	Intake	30.00mm	1.181"	0.1765"	10°	3.565"	Standard
	40-40463	Intake	31.00mm	1.220"	0.1765"	11°	3.580"	Oversize

Valves • Tensilite® • Exhaust • Chromium Nitride PVD Coated Titanium NEW PRODUCTS

KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
40-40466T	Exhaust	25.50mm	1.004"	0.1762"	25°	3.595"	Standard

All titanium valves are 1 piece forged for superior strength over a 2 piece valve. The Tensilite PVD CrN coating is a state of the art process, which exceeds OEM specifications.

Tappets • O.E.M. Replacement • H.T. Steel

A technical drawing of a tappet cross-section. The drawing shows a rectangular base with rounded corners. Dimension 'A' is the total width of the base. Dimension 'B' is the width of the central flat area. Dimension 'C' is the total height of the base. Dimension 'E' is the height of the central flat area. Dimension 'F' is the height of the side flange.

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
40-40485	Intake	H. T. Steel	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"	Pkg. of 16
	Exhaust								

Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
			Part Number				Quantity	Quantity Incentive
			71013-4				Pkg. of 4	0%
			71013-8				Pkg. of 8	0%
			71013-16				Pkg. of 16	Less- 10%
			71013-50				Pkg. of 50	Less- 15%
			71013-100				Pkg. of 100	Less- 20%

KAWASAKI® ZX-10R™ 2008-2010

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-41100	Intake	.445"	1.350"	50#	162#	.445"
		Exhaust	.445"	1.240"	44#	153#	.445"
	Kit Includes		8 In, CrSi Valve Springs	8 In, Titanium Retainers	8 In, H. T. Steel Basewashers		
			8 Ex, CrSi Valve Springs	8 Ex, Titanium Retainers	8 Ex, H. T. Steel Basewashers		

ORDER 650-557-2046

KAWASAKI® ZX-10R™ 2008-2010



Single Spring Kit • High Performance

NEW PRODUCTS



KPMI P/N		Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
40-41120		Intake	.425"	1.320"	65#	182#	.425"
		Exhaust					
Kit Includes			16	CrSi Valve Springs	16	H. T. Steel Retainers	

Springs are compatible with OEM Retainers & Basewashers and can be ordered individually, however KPMI® supplies this kit with the 40-41121 Retainers for increased durability over the OEM Aluminum Retainers.

Retainer Set • H. T. Steel

NEW PRODUCTS

	KPMI P/N	Type	Material	Quantity
	40-41121	Intake	H. T. Steel	Pkg. of 16
		Exhaust		

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-41112	Intake	30.00mm	1.181"	0.1767"	10°	3.565"	Standard
	40-41113	Intake	31.00mm	1.220"	0.1767"	10°	3.580"	Oversize
	40-41116	Exhaust	24.50mm	0.965"	0.1762"	25°	3.590"	Standard

Valves • Tensilite® • Exhaust • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-41117T	Exhaust	25.50mm	1.004"	0.1762"	25°	3.595"	Standard

All titanium valves are 1 piece forged for superior strength over a 2 piece valve. The Tensilite PVD CrN coating is a state of the art process, which exceeds OEM specifications.

Tappets • O.E.M. Replacement • H.T. Steel

NEW PRODUCTS

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	40-41125	Intake	None	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"	Pkg. of 16
		Exhaust								

Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71013-4			Pkg. of 4		0%
			71013-8			Pkg. of 8		0%
			71013-16			Pkg. of 16		Less- 10%
			71013-50			Pkg. of 50		Less- 15%
			71013-100			Pkg. of 100		Less- 20%

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KAWASAKI® ZX-10R™ 2011-2013

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	40-40850	Intake	.445" *	1.350"	50#	162#	.445"	
		Exhaust	.445"	1.240"	44#	153#	.445"	
	Kit Includes		8	In, CrSi Valve Springs		8	In, Titanium Retainers	
			8	In, H. T. Steel Basewashers		8	In, H. T. Steel Shims	
8			Ex, CrSi Valve Springs	8	Ex, Titanium Retainers	8	Ex, H. T. Steel Basewashers	
* When converting to a stainless steel intake valve, it is recommend to not exceed the OEM cam lift. Stainless steel exhaust valve OK to 0.445" lift. Titanium IN&EX valves OK to 0.445"								

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71013-4		Pkg. of 4		0%
				71013-8		Pkg. of 8		0%
				71013-16		Pkg. of 16		Less- 10%
				71013-50		Pkg. of 50		Less- 15%
				71013-100		Pkg. of 100		Less- 20%

KAWASAKI® ZX-11™/ ZRX™ 1100/ 1200 1999-'05

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-4611	Intake	.500"	1.400"	39#	160#	.400"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs		

Retainer Set • Titanium

	KPMI P/N	Type	Material	Quantity
	40-4612	Intake	Titanium	Pkg. of 16
		Exhaust		

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71015-4		Pkg. of 4		0%
				71015-8		Pkg. of 8		0%
				71015-16		Pkg. of 16		Less- 10%
				71015-50		Pkg. of 50		Less- 15%
				71015-100		Pkg. of 100		Less- 20%

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KAWASAKI® ZX-12R™ 2000-2005



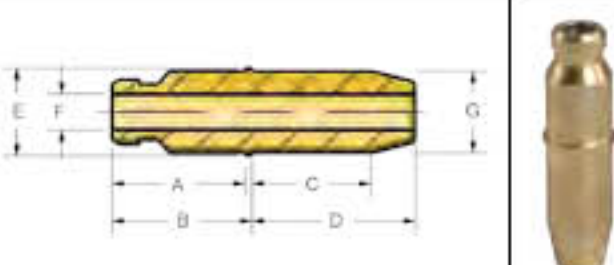
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height	Seat Pressure		Open Pressure	@ Lift		
	40-40025	Intake	.420"		1.410"	56#		183#	.420"		
		Exhaust									
	Kit Includes			16		CrSi Valve Springs		16		Titanium Retainers	
				16		H. T. Steel Basewashers		16		H. T. Steel Shims	

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40030	Intake	33.40mm	1.315"	0.1960"	10°	3.845"	Standard
	40-40031	Intake	34.40mm	1.354"	0.1960"	10°	3.845"	Oversize
	40-40032	Exhaust	28.24mm	1.112"	0.1955"	10°	3.865"	Standard
	40-40033	Exhaust	29.26mm	1.152"	0.1955"	10°	3.865"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.690"	0.730"	0.555"	0.855"	0.460"	0.1955"	0.4165" / Std.	40-40040	
							+0.001"	40-40041	
							+0.002"	40-40042	
							+0.010"	40-40050	

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71015-4			Pkg. of 4		0%	
		71015-8			Pkg. of 8		0%	
		71015-16			Pkg. of 16		Less- 10%	
		71015-50			Pkg. of 50		Less- 15%	
		71015-100			Pkg. of 100		Less- 20%	

KAWASAKI® ZX-14™ 2006-2011

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height	Seat Pressure	Open Pressure	@ Lift		
	40-40267	Intake	.405"		1.285"	66#	168#	.405"		
		Exhaust								
	Kit Includes			16		CrSi Valve Springs	16		Titanium Retainers	16

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KAWASAKI® ZX-14™ 2006-2011

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	40-40292	Intake	.425"	1.320"	65#	182#	.425"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs		

Springs are compatible with OEM Retainers & Basewashers and can be ordered individually, however KPMI® recommends the 40-40291 Retainer for increased durability over the OEM.

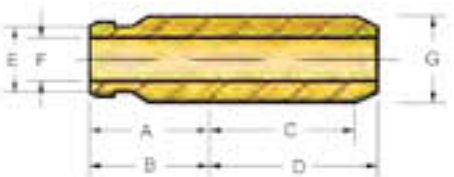
Retainer Set • O. E. M. Replacement • H. T. Steel NEW PRODUCTS

	KPMI P/N	Type	Material	Quantity
	40-40291	Intake	H. T. Steel	Pkg. of 16
		Exhaust		

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40273	Intake	33.40mm	1.315"	0.1958"	10°	3.565"	Standard
	40-40274	Intake	34.40mm	1.354"	0.1958"	10°	3.565"	Oversize
	40-40276	Exhaust	28.25mm	1.112"	0.1953"	10°	3.575"	Standard
	40-40277	Exhaust	29.25mm	1.152"	0.1953"	10°	3.575"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.460"	0.460"	0.500"	0.780"	0.413"	0.1950"	0.4162" / Std.	40-40280	
							+0.001"	40-40281	
							+0.002"	40-40282	
							+0.010"	40-40289	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
			Part Number				Quantity	Quantity Incentive
			71015-4				Pkg. of 4	0%
			71015-8				Pkg. of 8	0%
			71015-16				Pkg. of 16	Less- 10%
			71015-50				Pkg. of 50	Less- 15%
			71015-100				Pkg. of 100	Less- 20%

Tappets • O.E.M. Replacement • H.T. Steel

A technical cross-sectional drawing of a tappet. The drawing shows a rectangular base with a central recessed area. Dimension 'A' is the total width of the base. Dimension 'B' is the width of the recessed area. Dimension 'C' is the height of the base. Dimension 'E' is the width of the recessed area at the top. Dimension 'F' is the height of the top edge of the base.

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
40-40271	Intake	None	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"	Pkg. of 16
	Exhaust								

Refer to **KPMI® Tappet Section**, in back of catalog, when selecting oversize tappets.

ORDER 650-557-2046

KAWASAKI® PWC™ 2007-2014



- STX • 2009-2010
- STX-15F™ • 2006-2014
- Ultra 250X™ • 2007-2008
- Ultra LX™ • 2008-2014
- Ultra 260X™ • 2009-2010
- Ultra 260LX™ • 2009-2010

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height	Seat Pressure	Open Pressure	@ Lift		
	40-40750	Intake	.385"		1.410"	56#	171#	.383"		
		Exhaust								
	Kit Includes			16	CrSi Valve Springs		16		Titanium Retainers	
				16	H. T. Steel Basewashers		8		In, H. T. Steel Shims	

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	40-40762	Intake	33.40mm	1.315"	0.1960"	10°	3.845"	Standard
	40-40763	Intake	34.40mm	1.354"	0.1960"	10°	3.845"	Oversize
	40-40766	Exhaust	28.24mm	1.112"	0.1955"	10°	3.865"	Standard
	40-40767	Exhaust	29.26mm	1.152"	0.1955"	10°	3.865"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.690"	0.730"	0.555"	0.855"	0.460"	0.1955"	0.4165" / Std.	40-40770	
							+0.001"	40-40771	
							+0.002"	40-40772	
							+0.010"	40-40779	

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
		Part Number				Quantity	Quantity Incentive	
		71015-4				Pkg. of 4	0%	
		71015-8				Pkg. of 8	0%	
		71015-16				Pkg. of 16	Less- 10%	
		71015-50				Pkg. of 50	Less- 15%	
		71015-100				Pkg. of 100	Less- 20%	

For all the applications available for Kibblewhite's Kawasaki® line of products, please refer online to the Kawasaki® section of the www.kpmi.us website, under *PWC / Snowmobile*.



KTM® 250 2005-2007

- For RC4 Engines

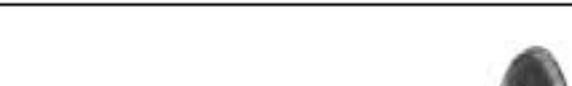
Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	96-96090	Intake	.425"	1.175"	60#	169#	.425"
		Exhaust	.425"	1.175"	60#	169#	.425"
	Kit Includes		2 In, CrSi Valve Springs	2 In, Titanium Retainers	2 In, H. T. Steel Basewashers		

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	96-96130	Intake	.425"	1.175"	60#	169#	.425"
		Exhaust	.425"	1.175"	60#	169#	.425"
	Kit Includes		2 CrSi Valve Springs	2 Titanium Retainers	2 H. T. Steel Basewashers		

Valves • Black Diamond™ • Black Nitroneg Stems



KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
96-96102	Intake	30.95mm	1.218"	0.1960"	15°	3.910"	Standard
96-96103	Intake	31.95mm	1.258"	0.1960"	15°	3.910"	Oversize
96-96106	Exhaust	26.60mm	1.047"	0.1955"	30°	3.665"	Standard
96-96107	Exhaust	27.60mm	1.087"	0.1955"	30°	3.665"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	96-96102T	Intake	30.95mm	1.218"	0.1960"	15°	3.910"	Titanium
	96-96106T	Exhaust	26.60mm	1.047"	0.1955"	30°	3.665"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.200"	0.475"	1.020"	1.335"	0.470"	0.1960"	0.3958" / Std.	96-96110	
							+0.001"	96-96111	
							+0.002"	96-96112	
							+0.010"	96-96119	
	0.200"	0.475"	0.765"	1.200"	0.470"	0.1955"	0.3958" / Std.		96-96120
							+0.001"		96-96121
							+0.002"		96-96122
							+0.010"		96-96129

KTM® 250 2005-2007



- For RC4 Engines

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.320"	0.435"	5	A	B	C	D	Intake
				0.305"±0.002"	0.265"	0.100"	0.195"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71041-4		Pkg. of 4		0%		
		71041-8		Pkg. of 8		0%		
		71041-16		Pkg. of 16		Less- 10%		
		71041-50		Pkg. of 50		Less- 15%		
		71041-100		Pkg. of 100		Less- 20%		

KTM® 250 2008-2011

- For RC4 Engines

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	96-96250	Intake	.425"	1.285"	60#	169#	.425"
		Exhaust	.425"	1.285"	60#	169#	.425"
	Kit Includes		2 In, CrSi Valve Springs	2 In, Titanium Retainers	2 In, H. T. Steel Basewashers		
			2 Ex, CrSi Valve Springs	2 Ex, Titanium Retainers	2 Ex, H. T. Steel Basewashers		

Intake Only • Steel Valve Conversion Kit

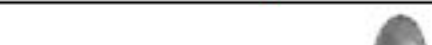
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	96-96450	Intake	.425"	1.175"	60#	169#	.425"
	Kit Includes		2 CrSi Valve Springs	2 Titanium Retainers			
			2 Black Diamond™ Valves	2 H. T. Steel Basewashers			

Valves • Black Diamond™ • Black Nitroneg Stems

KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
96-96262	Intake	30.95mm	1.218"	0.1960"	15°	3.910"	Standard
96-96263	Intake	31.95mm	1.258"	0.1960"	15°	3.910"	Oversize
96-96266	Exhaust	26.60mm	1.047"	0.1955"	30°	3.665"	Standard
96-96267	Exhaust	27.60mm	1.087"	0.1955"	30°	3.665"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	96-96262T	Intake	30.95mm	1.218"	0.1960"	15°	3.910"	Titanium
	96-96266T	Exhaust	26.60mm	1.047"	0.1955"	30°	3.665"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.



KTM® 250 2008-2011

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.200"	0.475"	1.020"	1.335"	0.470"	0.1960"	0.3958" / Std.	96-96270	
							+0.001"	96-96271	
							+0.002"	96-96272	
							+0.010"	96-96279	
	0.200"	0.475"	0.765"	1.200"	0.470"	0.1955"	0.3958" / Std.		96-96280
							+0.001"		96-96281
							+0.002"		96-96282
							+0.010"		96-96289

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.320"	0.435"	5	A	B	C	D	Intake
				0.305"±0.002"	0.265"	0.100"	0.195"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71041-4		Pkg. of 4		0%	
			71041-8		Pkg. of 8		0%	
			71041-16		Pkg. of 16		Less- 10%	
			71041-50		Pkg. of 50		Less- 15%	
			71041-100		Pkg. of 100		Less- 20%	

KTM® 250 2012-2013

• For RC4 Engines

• XCF - W™ Only • 2013

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	96-96250	Intake	.425"	1.175"	60#	169#	.425"
		Exhaust	.425"	1.175"	60#	169#	.425"
	Kit Includes		2 In, CrSi Valve Springs	2 In, Titanium Retainers	2 In, H. T. Steel Basewashers		
			2 Ex, CrSi Valve Springs	2 Ex, Titanium Retainers	2 Ex, H. T. Steel Basewashers		

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	96-96450	Intake	.425"	1.175"	60#	169#	.425"
	Kit Includes		2 CrSi Valve Springs	2 Titanium Retainers			
			2 Black Diamond™ Valves	2 H. T. Steel Basewashers			

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks
	96-96262	Intake	30.95mm	1.218"	15°	3.910"	Standard
	96-96263	Intake	31.95mm	1.258"	15°	3.910"	Oversize
	96-96266	Exhaust	26.60mm	1.047"	30°	3.665"	Standard
	96-96267	Exhaust	27.60mm	1.087"	30°	3.665"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

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KTM® 250 2012-2013



• For RC4 Engines

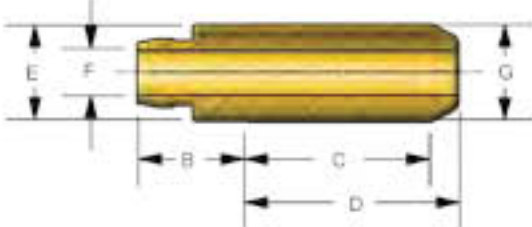
• XCF - W™ Only • 2013

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

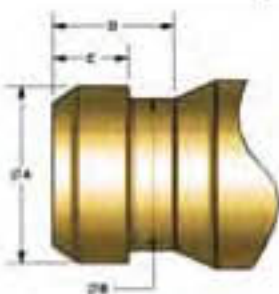
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	96-96262T	Intake	30.95mm	1.218"	0.1960"	15°	3.910"	Titanium
	96-96266T	Exhaust	26.60mm	1.047"	0.1955"	30°	3.665"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.475"	1.020"	1.335"	---	0.1960"	0.4352" / Std.	96-96290	
							+0.001"	96-96291	
							+0.002"	96-96292	
							+0.010"	96-96299	
	---	0.475"	0.765"	1.200"	---	0.1955"	0.4352" / Std.		96-96300
							+0.001"		96-96301
							+0.002"		96-96302
							+0.010"		96-96309

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.320"	0.435"	5	A	B	C	D	Intake
				0.305"±0.002"	0.265"	0.100"	0.195"	Exhaust
			Part Number				Quantity	Quantity Incentive
			71041-4				Pkg. of 4	0%
			71041-8				Pkg. of 8	0%
			71041-16				Pkg. of 16	Less- 10%
			71041-50				Pkg. of 50	Less- 15%
			71041-100				Pkg. of 100	Less- 20%

KTM® SX-F / XC-F 250 2013-2015

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift		
	96-96400	Intake	.450"	1.340"	50#	165#	.450"		
		Exhaust							
	Kit Includes			2	In, CrSi Valve Springs	2	In, H. T. Steel Retainers	2	In, H. T. Steel Basewashers
				2	Ex, CrSi Valve Springs	2	In, H. T. Steel Retainers	2	Ex, H. T. Steel Basewashers

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	96-96480	Intake	.450"	1.340"	50#	165#	.450"
	Kit Includes		2	CrSi Valve Springs	2	H. T. Steel Retainers	
			2	Black Diamond™ Valves	2	H. T. Steel Basewashers	

VISIT US AT WWW.KPMI.US



KTM® SX-F / XC-F 250 2013-2015

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	96-96412	Intake	32.51mm	1.280"	0.1960"	15°	3.770"	Standard
	96-96416	Exhaust	26.55mm	1.045"	0.1955"	30°	3.875"	Standard

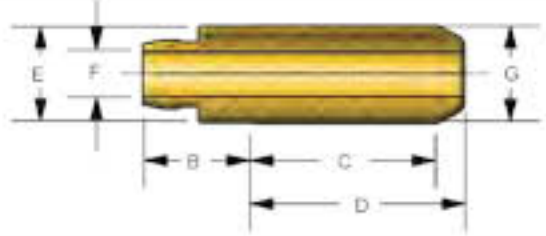
Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

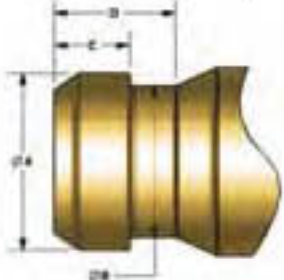
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	96-96412T	Intake	32.51mm	1.280"	0.1960"	15°	3.770"	Titanium
	96-96416T	Exhaust	26.55mm	1.045"	0.1955"	30°	3.875"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.490"	0.715"	1.165"	---	0.1960"	0.4352" / Std.	96-96420	
							+0.001"	96-96421	
							+0.002"	96-96422	
							+0.010"	96-96429	
	---	0.490"	0.885"	1.165"	---	0.1955"	0.4352" / Std.		96-96430
							+0.001"		96-96431
							+0.002"		96-96432
							+0.010"		96-96439

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.320"	0.435"	5	A	B	C	D	Intake
				0.305"±0.002"	0.265"	0.100"	0.195"	Exhaust
			Part Number				Quantity	Quantity Incentive
			71041-4				Pkg. of 4	0%
			71041-8				Pkg. of 8	0%
			71041-16				Pkg. of 16	Less- 10%
			71041-50				Pkg. of 50	Less- 15%
			71041-100				Pkg. of 100	Less- 20%

KTM® ALL RFS ENGINES 400cc-560cc 2000-'09

Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	96-96000	Intake	.435"	1.175"	75#	214#	.435"	
		Exhaust						
	Kit Includes		2	In, CrSi Valve Springs	2	In, H. T. Steel Retainers	2	In, H. T. Steel Basewashers
			2	Ex, CrSi Valve Springs	2	In, H. T. Steel Retainers	2	Ex, H. T. Steel Basewashers
			2	In, Spring Shims			2	Ex, Spring Shims

ORDER 650-557-2046

KTM® ALL RFS ENGINES 400cc-560cc 2000-'09



Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	96-96070	Intake	.435"	1.175"	75#	214#	.435"
	Kit Includes		2	CrSi Valve Springs		2	H. T. Steel Retainers
			2	Black Diamond™ Valves		2	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroneg Stems



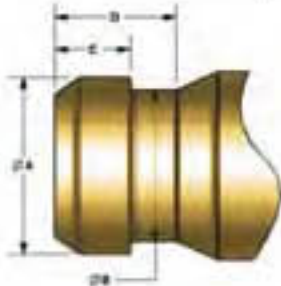
KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
96-96004	Intake	35.00mm	1.378"	0.2350"	20°	3.815"	Standard
96-96005	Intake	36.00mm	1.417"	0.2350"	20°	3.815"	Oversize
96-96007	Exhaust	30.00mm	1.181"	0.2342"	24°	3.815"	Standard
96-96008	Exhaust	31.00mm	1.220"	0.2342"	24°	3.815"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.410"	0.450"	0.555"	0.945"	0.525"	0.2360"	0.4745" / Std.	96-96010	
							+0.001"	96-96011	
							+0.002"	96-96012	
							+0.010"	96-96019	
	0.410"	0.450"	0.740"	1.100"	0.525"	0.2360"	0.4745" / Std.		96-96020
							+0.001"		96-96021
							+0.002"		96-96022
							+0.010"		96-96029

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.315"	0.520"	5	A	B	C	D	Intake
				0.435"±0.002"	0.395"	0.120"	0.210"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71029-4		Pkg. of 4		0%	
			71029-8		Pkg. of 8		0%	
			71029-16		Pkg. of 16		Less- 10%	
			71029-50		Pkg. of 50		Less- 15%	
			71029-100		Pkg. of 100		Less- 20%	

For all the applications available for Kibblewhite's KPMI® line of products, please refer online to the KTM® section of the www.kpmi.us website, under *Dirt Bikes*.



KTM® 450 2007-2011

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	96-96162T	Intake	40.25mm	1.585"	0.2358"	15°	3.455"	Titanium
	96-96166T	Exhaust	31.70mm	1.248"	0.2353"	30°	3.520"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.315"	0.520"	5	A	B	C	D	Intake
				0.435"±0.002"	0.395"	0.120"	0.210"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71029-4		Pkg. of 4		0%	
			71029-8		Pkg. of 8		0%	
			71029-16		Pkg. of 16		Less- 10%	
			71029-50		Pkg. of 50		Less- 15%	
			71029-100		Pkg. of 100		Less- 20%	

KTM® 400cc-530cc 2008-2013

• (For XC4 Engines)

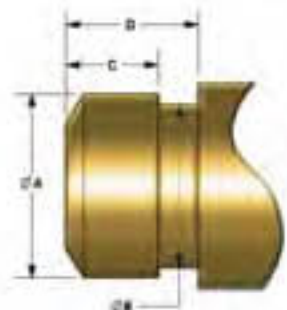
• EXC-R / XCR-W / EXC / XC-W

Valves • O.E.M. Replacement • Titanium • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	96-96212T	Intake	39.95mm	1.573"	0.2350"	15°	3.650"	Titanium
	96-96216	Exhaust	33.10mm	1.303"	0.1955"	30°	3.620"	Stainless

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

High Performance Valve Guide Seal Kits

		Intake Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs					
						A	B	C	D		
		6.0mm	0.315"	0.520"	5	0.435"±0.002"	0.395"	0.120"	0.215"		
		Exhaust Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs					
						A	B	C	D		
		5.0mm	0.320"	0.435"	5	0.305"±0.002"	0.265"	0.100"	0.195"		
Part Number		96-96380		Kit Includes		2	Intake Viton® Seals		2	Exhaust Viton® Seals	

KTM® VARIOUS 450'S 2013-2018



• 450 XC-F 2013-2017

• 450 SX-F 2013-2018

**NEW
PRODUCTS**

Valve Spring Kit • Beehive Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	96-96500	Intake	.435"	1.360"	80#	205#	.435"
		Exhaust					
	Kit Includes			2 In CrSi Valve Springs	2 In Titanium Retainers	2 In H.T. Steel Basewashers	2 In H.T. Steel Shims
2 Ex CrSi Valve Springs				2 Ex Titanium Retainers	2 Ex H.T. Steel Basewashers	-- Ex H.T. Steel Shims	

*KPMI® supplied Viton® seals must be used with this kit. O.E.M. seals are NOT compatible.

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	96-96540	Intake	.435"	1.360"	80#	205#	.435"	
		Kit Includes		2	CrSi Valve Springs	2	Titanium Retainers	2
	2			Black Diamond™ Valves	2	H.T. Steel Shims		

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	96-96512	Intake	39.93mm	1.572"	0.2358"	15°	3.675"	Standard
	96-96516	Exhaust	33.15mm	1.305"	0.2353"	30°	3.645"	Standard

You must use KPMI® Spring Kit 96-96500 when installing Black Diamond™ Valves

Valves • OEM Replacement • Tensilite® • Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	96-96512T	Intake	39.93mm	1.572"	0.2358"	15°	3.675"	Standard
	96-96516T	Exhaust	33.15mm	1.305"	0.2353"	30°	3.645"	Standard

Valve Guides • C630 Bronze

	*A	*C	*D	E	F	G	Intake	Exhaust
	0.555"	0.945"	1.140"	0.433"	0.2353"	0.4352" / Std.	96-96520	
						+0.001"	96-96521	
						+0.002"	96-96522	
						+0.010"	96-96529	
	0.635"	0.865"	1.060"	0.433"	0.2353"	0.4352" / Std.		96-96520
						+0.001"		96-96521
						+0.002"		96-96522
						+0.010"		96-96529
	*Note: One guide design installs at two different heights depending on Intake or Exhaust usage. You must install to lower line for exhaust and upper line for intake.							

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.315"	0.520"	5	A	B	C	D	Intake
				0.435"±0.002"	0.395"	0.120"	0.210"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71029-4			Pkg. of 4		0%
			71029-8			Pkg. of 8		0%
			71029-16			Pkg. of 16		Less- 10%
			71029-50			Pkg. of 50		Less- 15%
			71029-100			Pkg. of 100		Less- 20%

VISIT US AT WWW.KPMI.US



MOTO GUZZI® ALL 2-VALVE "BIG-BLOCKS" 1971-'12

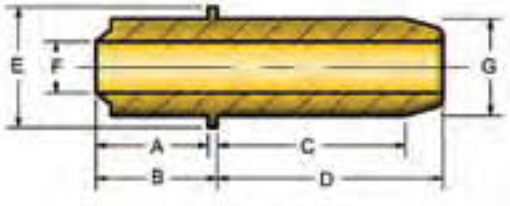
Valve Spring Kit • Lightweight High-Lift Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	90-90000	Intake	.575"	1.420"	111#	204#	.375"	
		Exhaust						
	Kit Includes			4	CrSi Valve Springs	4	H.T. Steel Retainers	4

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	90-9100	Intake	41.00mm	1.614"	0.3145"	23°	4.200"	Standard (OEM #13036000)
	90-9102	Intake	44.00mm	1.732"	0.3145"	23°	4.185"	Standard (OEM #14036050)
	90-9101	Exhaust	36.00mm	1.417"	0.3140"	27°	4.130"	Standard (OEM #13033100)
	90-9103	Exhaust	37.10mm	1.461"	0.3140"	27°	4.100"	Standard (OEM #14036150)

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.645"	0.695"	1.205"	1.405"	0.620"	0.3145"	0.5538" / Std.	90-4067	
							+0.002"	90-4068	
	Seal not required.						+0.015"	90-4175	

PERFORMANCE FEATURES-BLACK DIAMOND™ VALVE

Welded Stellite resists impact and abrasion and never comes loose.

Lower edge of the keeper groove design incorporates a taper leading to a radius to prevent valve stem seal damage and ease installation.

Tulip profiles tested on a Flow Data 700 computerized flow bench for optimized airflow characteristics.

Finite Element Analysis is used to create a unique dish design that makes the valve light and strong.



Minor diameter of keeper grooves incorporate a radius in each corner for maximum strength.

Proprietary Black Diamond™ process treats the steel to a depth of 0.002" creating a hard, smooth, corrosion resistant surface that cannot flake, crack or peel off.

Intake Valves have a chamfer on the edge of the margin to help keep flow organized without promoting reversion.

Exhaust valves have a radiused margin to optimize flow.

NORTON® 750 1968-1973



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		* Installed Height	Seat Pressure		Open Pressure	@ Lift
	50-0460	Intake	.500"		1.420"	105#		185#	.320"
		Exhaust							
	Kit Includes			4	7075-T6 H. A. Retainers		4	H. T. Steel Keepers Pr.	
4				CrSi Valve Springs		4	H. T. Steel Basewashers		

*Important: In order to achieve the above installation height, it will be necessary to spot face the spring pad prior to guide installation.

Valve Spring Kit • O. E. M. Replacement

	KPMI P/N	Type	Kit Includes				
	50-50000	Intake	H. T. Steel Retainers		CrSi Valve Springs		H. T. Steel Basewashers
		Exhaust	4	50-50001	4	50-50004	4 50-50003
	Max Valve Lift	Installed Height	Seat Pressure		Open Pressure		@ Lift
	.410"	1.280"	93#		170#		.320"

All components are the quality you can expect from Kibblewhite®, manufactured to exact O.E.M. dimensions. These O.E.M. replacements parts may be purchased separately using the above part numbers.

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	50-4092	Intake	38.10mm	1.500"	0.3107"	1.5" R	4.065"	Standard
	50-4092-1	Intake	39.62mm	1.560"	0.3107"	1.5" R	4.055"	Oversize
	50-4091	Exhaust	33.02mm	1.300"	0.3107"	27°	4.015"	Standard
	50-4091-1	Exhaust	34.54mm	1.360"	0.3107"	27°	4.005"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.330"	0.430"	1.025"	1.525"	0.680"	0.3105"	0.5010" / Std.	50-0403	
							+0.002"	50-0404	
							+0.004"	50-0405	
							+0.006"	50-0406	
	0.470"	0.655"	0.785"	1.345"	0.682"	0.3105"	0.5010" / Std.		50-0410
							+0.002"		50-0411
							+0.004"		50-0412
							+0.006"		50-0413

Push Rod • Alloy Tube • H. T. Steel Endpieces

	KPMI P/N	Type	Material	"A"	"B"	Quantity
	50-50010	Intake	H. T. Seamless Aluminum	8.150"	8.010"	Pkg. of 2
		Exhaust		7.300"	7.160"	Pkg. of 2

VISIT US AT WWW.KPMI.US



NORTON® 750 1968-1973

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.465"	0.550"	1	A	B	C	D	Intake
				0500"±0.010"	0.445"	0.230"	0.280"	Exhaust
 		Part Number				Quantity		Quantity Incentive
		71012-4				Pkg. of 4		0%
		71012-8				Pkg. of 8		0%
		71012-16				Pkg. of 16		Less- 10%
		71012-50				Pkg. of 50		Less- 15%
		71012-100				Pkg. of 100		Less- 20%

NORTON® 850 1973-1977

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	* Installed Height	Seat Pressure	Open Pressure	@ Lift	
	50-0460	Intake	.500"	1.420"	105#	185#	.320"	
		Exhaust						
	Kit Includes		4	7075-T6 H. A. Retainers		4		H. T. Steel Keepers Pr.
			4	CrSi Valve Springs		4		H. T. Steel Basewashers

*Important: In order to achieve the above installation height, it will be necessary to spot face the spring pad prior to guide installation.

Valve Spring Kit • O. E. M. Replacement

	KPMI P/N	Type	Kit Includes				
	50-50000	Intake	H. T. Steel Retainers		CrSi Valve Springs		H. T. Steel Basewashers
		Exhaust	4	50-50001	4	50-50004	4 50-50003
	Max Valve Lift	Installed Height	Seat Pressure		Open Pressure		@ Lift
	.410"	1.280"	93#		170#		.320"

All components are the quality you can expect from Kibblewhite®, manufactured to exact O.E.M. dimensions. These O.E.M. replacements parts may be purchased separately using the above part numbers.

Valves • Black Diamond™ • Black Nitroneg Stems

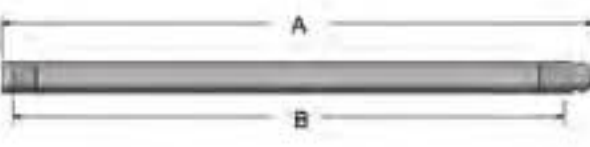
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	50-4092	Intake	38.10mm	1.500"	0.3107"	1.5" R	4.065"	Standard
	50-4092-1	Intake	39.62mm	1.560"	0.3107"	1.5" R	4.055"	Oversize
	50-4091	Exhaust	33.02mm	1.300"	0.3107"	27°	4.015"	Standard
	50-4091-1	Exhaust	34.54mm	1.360"	0.3107"	27°	4.005"	Oversize

NORTON® 850 1973-1977

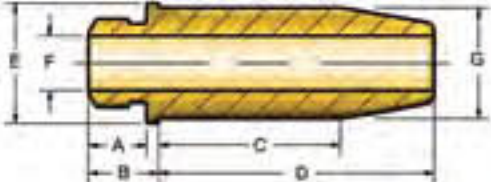


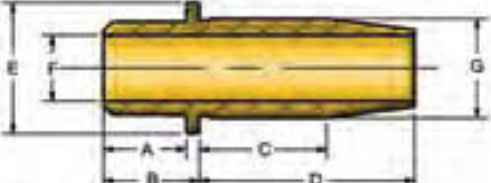
NORTON

Push Rod • Alloy Tube • H. T. Steel Endpieces

	KPMI P/N	Type	Material	"A"	"B"	Quantity
	50-50010	Intake	H. T. Seamless Aluminum	8.150"	8.010"	Pkg. of 2
		Exhaust		7.300"	7.160"	Pkg. of 2

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.330"	0.400"	1.030"	1.560"	0.680"	0.3105"	0.6260" / Std.	50-0648		
									+0.002"	50-0649	
									+0.004"	50-0650	
									+0.006"	50-0651	

		0.525"	0.580"	0.955"	1.420"	0.680"	0.3105"	0.6260" / Std.		50-0652	
									+0.002"		50-0653
									+0.004"		50-0654
									+0.006"		50-0655

Note: Exhaust seals are not required.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.465"	0.550"	1	A	B	C	D	Intake
				0500"±0.010"	0.445"	0.230"	0.280"	
		Part Number				Quantity		Quantity Incentive
		71012-4				Pkg. of 4		0%
		71012-8				Pkg. of 8		0%
		71012-16				Pkg. of 16		Less- 10%
		71012-50				Pkg. of 50		Less- 15%
		71012-100				Pkg. of 100		Less- 20%

For all the applications available for Kibblewhite's Norton® line of products, please refer online to the Norton® section of the www.kpmi.us website, under *British Bike*.



POLARIS® 400-500 1996-'14, Series 10, 11

- Ranger™ 400 2010-2014
- Sportsman™ 500 1996-2013
- Xpedition™ 425 2000-2002
- Scrambler™ 500 1997-2012
- Magnum™ 500 1996-2003
- Ranger™ 500 1999-'13, Series 10,11

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	82-82000	Intake	.440"	1.285"	40#	140#	.440"	
		Exhaust						
Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H.T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	82-82005	Intake	31.00mm	1.220"	0.2345"	14°	3.970"	Standard
	82-82008	Exhaust	26.55mm	1.063"	0.2340"	25°	3.985"	Standard

POLARIS® PREDATOR™ / OUTLAW™ 500 2003-'07

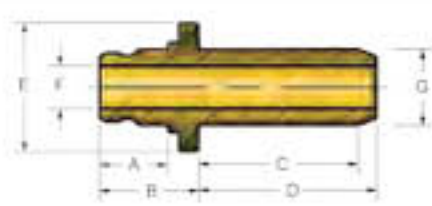
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82012	Intake	.440"	1.375"	66#	199#	.440"
		Exhaust					
	Kit Includes			4	Titanium Retainers		4

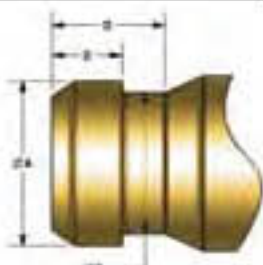
Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	82-82052	Intake	37.00mm	1.457"	0.2345"	20°	4.030"	Standard
	82-82053	Intake	38.00mm	1.496"	0.2345"	20°	4.030"	Oversize
	82-82055	Exhaust	32.00mm	1.260"	0.2345"	22°	4.055"	Standard
	82-82056	Exhaust	33.00mm	1.300"	0.2345"	22°	4.055"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.375"	0.545"	0.880"	0.980"	0.704"	0.2345"	0.4160" / Std.	82-82030	
							+0.001"	82-82031	
							+0.010"	82-82039	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71017-4		Pkg. of 4		0%	
			71017-8		Pkg. of 8		0%	
			71017-16		Pkg. of 16		Less- 10%	
			71017-50		Pkg. of 50		Less- 15%	
			71017-100		Pkg. of 100		Less- 20%	

ORDER 650-557-2046

POLARIS® SPORTSMAN™ 800 2006-'14



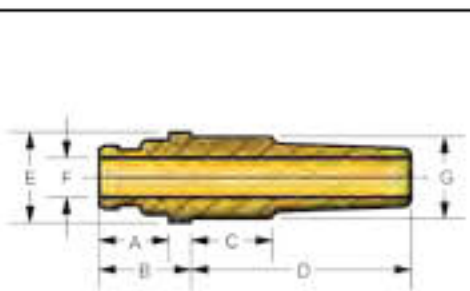
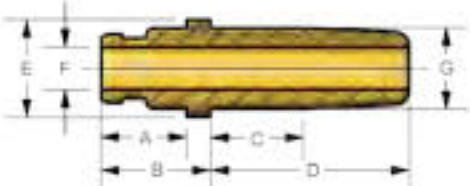
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	82-82060	Intake	.500"		1.495"		65#		235#		.500"
		Exhaust									
	Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	2	In, Viton® Seals		
2				In, H.T. Steel Basewashers			2	Ex, H.T. Steel Basewashers			
These seals are designed to work with the KPMI® Spring Kit and OEM intake Valve Guides. Use the recommended #71017-4 seals when using KPMI® Valve Guides											

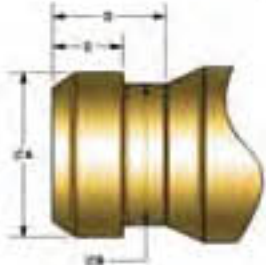
Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	82-82065	Intake	35.00mm	1.378"	0.2357"	25°	4.510"	Standard
	82-82066	Intake	36.00mm	1.417"	0.2357"	25°	4.510"	Oversize
	82-82068	Exhaust	30.00mm	1.181"	0.2352"	11°	4.555"	Standard
	82-82069	Exhaust	31.00mm	1.220"	0.2352"	11°	4.555"	Oversize

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust	
		0.470"	0.560"	0.495"	1.335"	0.544	0.2360"	0.4950" / Std.	82-82070		
									+0.001"	82-82071	
									+0.002"	82-82072	
									+0.010"	82-82079	
		0.525"	0.615"	0.520"	1.115"	0.544"	0.2355"	0.4531" / Std.		82-82080	
									+0.001"		82-82081
									+0.002"		82-82082
									+0.010"		82-82089

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71017-4			Pkg. of 4		0%
			71017-8			Pkg. of 8		0%
			71017-16			Pkg. of 16		Less- 10%
			71017-50			Pkg. of 50		Less- 15%
			71017-100			Pkg. of 100		Less- 20%

These seals are designed to work with the KPMI® Guides.



POLARIS® RZR™ 800 2008-2010

Valve Spring Kit • Lightweight Racing

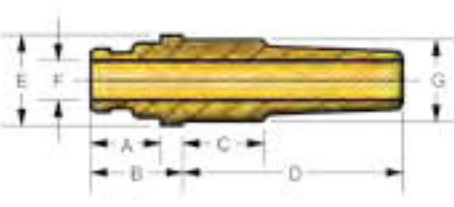
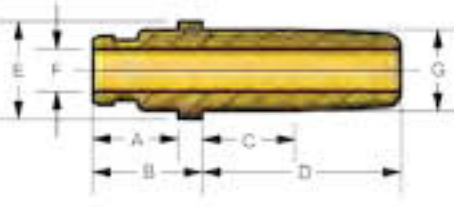
	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	82-82200	Intake	.500"		1.495"		65#		235#		.500"
		Exhaust									
	Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	2	In, Viton® Seals		
2				In, H. T. Steel Basewashers			2	Ex, H. T. Steel Basewashers			

These seals are designed to work with the KPMI® Spring Kit and OEM intake Valve Guides. Use the recommended #71017-4 seals when using KPMI® Valve Guides

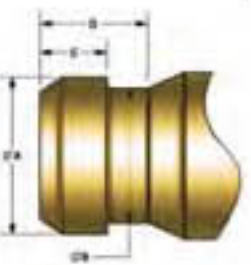
Valves • Black Diamond™ • Black Nitroleg Stems

KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
82-82212	Intake	35.00mm	1.378"	0.2357"	25°	4.510"	Standard
82-82213	Intake	36.00mm	1.417"	0.2357"	25°	4.510"	Oversize
82-82216	Exhaust	30.00mm	1.181"	0.2352"	11°	4.555"	Standard
82-82217	Exhaust	31.00mm	1.220"	0.2352"	11°	4.555"	Oversize

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.470"	0.560"	0.495"	1.335"	0.544	0.2360"	0.4950" / Std.	82-82220	
								+0.001"	82-82221	
								+0.002"	82-82222	
								+0.010"	82-82229	
		0.525"	0.615"	0.520"	1.115"	0.544"	0.2355"	0.4531" / Std.		82-82230
								+0.001"		82-82231
								+0.002"		82-82232
								+0.010"		82-82239

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71017-4			Pkg. of 4		0%	
		71017-8			Pkg. of 8		0%	
		71017-16			Pkg. of 16		Less- 10%	
		71017-50			Pkg. of 50		Less- 15%	
		71017-100			Pkg. of 100		Less- 20%	

These seals are designed to work with the KPMI® Guides.

POLARIS® RZR™ 800 2011-2014

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	82-82300	Intake	.500"		1.495"		65#		235#		.500"
		Exhaust									
	Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs		2	In, Viton® Seals	
2				In, H. T. Steel Basewashers			2	Ex, H. T. Steel Basewashers			

These seals are designed to work with the KPMI® Spring Kit and OEM intake Valve Guides. Use the recommended #71017-4 seals when using KPMI® Valve Guides

ORDER 650-557-2046

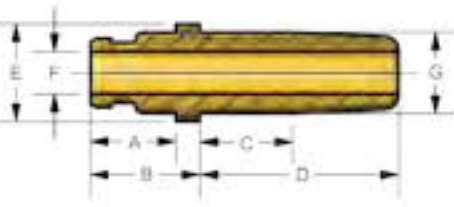
POLARIS® RZR™ 800 2011-2014



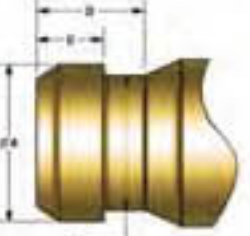
Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	82-82312	Intake	35.00mm	1.378"	0.2357"	25°	4.510"	Standard
	82-82313	Intake	36.00mm	1.417"	0.2357"	25°	4.510"	Oversize
	82-82316	Exhaust	30.00mm	1.181"	0.2352"	11°	4.555"	Standard
	82-82317	Exhaust	31.00mm	1.220"	0.2352"	11°	4.555"	Oversize

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.490"	0.580"	1.385"	1.515"	0.552"	0.2352"	0.4531" / Std.	82-82320	
								+0.001"	82-82321	
								+0.002"	82-82322	
								+0.010"	82-82329	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71017-4				Pkg. of 4		0%
		71017-8				Pkg. of 8		0%
		71017-16				Pkg. of 16		Less- 10%
		71017-50				Pkg. of 50		Less- 15%
		71017-100				Pkg. of 100		Less- 20%

These seals are designed to work with the KPMI® Guides.

POLARIS® RZR™ XP900 2011-2012

Valve Spring Kit • Lightweight Racing





KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
82-82160	Intake	.450"	1.375"	57#	150#	.450"	
	Exhaust						
Kit Includes		8	Titanium Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
*82-82650	Intake	.450"	1.375"	57#	150#	.450"	
	Exhaust						
Kit Includes		8	H. T. Steel Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers

*KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With two different spring pressure option kits to choose from, these are the ultimate setup for any Polaris RZR/Ranger tuner.

Valve Spring Kit • Beehive Racing

	NEW PRODUCTS	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift	
		82-82580	Intake	.435"		1.360"		80#		205#		.435"	
			Exhaust										
	Kit Includes				8	H.T. Steel Retainers		8	CrSi Valve Springs		8	H.T. Steel Basewashers	

VISIT US AT WWW.KPMI.US



POLARIS® RZR™ XP900 2011-2012

Valve Spring Kit • High Performance “Turbo” Racing



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
82-82190	Intake	.450"	1.375"	65#	200#	.450"	
	Exhaust						
Kit Includes		8	Titanium Retainers	8	CrSi Valve Springs	8	H.T. Steel Basewashers
When installing these kits with a shouldered guide, the use of a spring shim (KPMI P/N 92039-8 or equivalent) may be necessary for guide shoulder to basewasher clearance.							
KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
*82-82700	Intake	.450"	1.375"	65#	200#	.450"	
	Exhaust						
Kit Includes		8	H.T. Steel Retainers	8	CrSi Valve Springs	8	H.T. Steel Basewashers

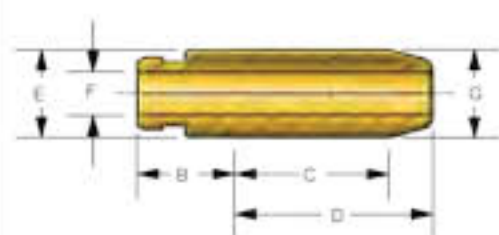
*KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With two different spring pressure option kits to choose from, these are the ultimate setup for any Polaris RZR/Ranger tuner.

Valves • Black Diamond™ • Black Nitroleg Stems

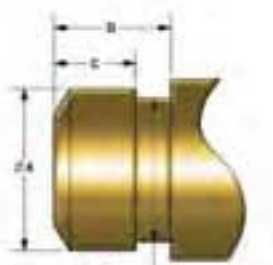


KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
82-82155	Intake	37.72mm	1.485"	0.2160"	17°	3.775"	Standard
82-82156	Intake	38.72mm	1.524"	0.2160"	17°	3.775"	Oversize
82-82158	Exhaust	32.44mm	1.277"	0.2155"	25°	3.815"	Standard
82-82159	Exhaust	33.44mm	1.317"	0.2155"	25°	3.815"	Oversize

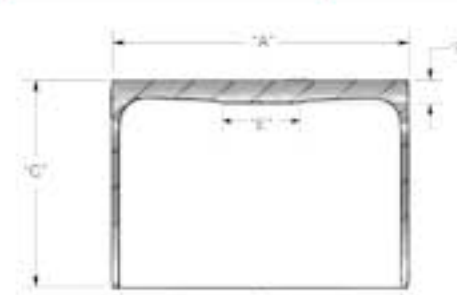
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	—	0.460"	0.815"	0.960"	0.433"	0.2155"	0.4353" / Std.	82-82170	
							+0.001"	82-82171	
							+0.002"	82-82172	
							+0.004"	82-82174	
							+0.010"	82-82179	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71015-4		Pkg. of 4		0%
				71015-8		Pkg. of 8		0%
				71015-16		Pkg. of 16		Less- 10%
				71015-50		Pkg. of 50		Less- 15%
				71015-100		Pkg. of 100		Less- 20%

Tappets • O.E.M. Replacement • H.T. Steel



KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
82-82185	Intake	None	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
	Exhaust								
82-82187	Intake	DLC Coated	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
	Exhaust								

Note: These tappets must be used with KPMI® spring kit to convert to a 9.5mm shim adjustment system. *Our coated tappets undergo a low temperature PVD process to deposit a DLC film, which is extremely hard and has a very low coefficient of friction. These properties help the tappet to maintain its durability in extreme duty situations. Although KPMI® recommends never running a camshaft off the edge of the tappet, this coating may help increase durability in these applications. For complete shim range visit www.kpmi.us or Tappets section in back of catalog.

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POLARIS® RZR™ 900 2013-2014



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82500	Intake	.450"	1.375"	57#	150#	.450"
		Exhaust					
	Kit Includes		8	Titanium Retainers	8	CrSi Valve Springs	
			8	H.T. Steel Basewashers	8	Viton® Seals	

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*82-82750	Intake	.450"	1.375"	57#	150#	.450"
		Exhaust					
	Kit Includes		8	H.T. Steel Retainers	8	CrSi Valve Springs	
			8	H.T. Steel Basewashers	8	Viton® Seals	

*KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With two different spring pressure option kits to choose from, these are the ultimate setup for any Polaris RZR/Ranger tuner.

Valve Spring Kit • High Performance "Turbo" Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82450	Intake	.450"	1.375"	65#	200#	.450"
		Exhaust					
	Kit Includes		8	Titanium Retainers	8	CrSi Valve Springs	
			8	H.T. Steel Basewashers	8	Viton® Seals	

- 1) Both of these kits are compatible with the OEM tappet lash adjustment system and the KPMI® shim conversion tappets listed below.
- 2) The seals included in these kits are intended for use with OEM guides. Please use KPMI® P/N 71016-8 when installing KPMI® guides.
- 3) Some early 2013 models came from the OEM with guides that included a seal detail. These guides require the use of KPMI® seal P/N 71015-8.
- 4) Our Turbo spring kit has been designed for applications with up to 15psi of boost.

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*82-82800	Intake	.450"	1.375"	65#	200#	.450"
		Exhaust					
	Kit Includes		8	H.T. Steel Retainers	8	CrSi Valve Springs	
			8	H.T. Steel Basewashers	8	Viton® Seals	

*KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With two different spring pressure option kits to choose from, these are the ultimate setup for any Polaris RZR/Ranger tuner.

Valve Spring Kit • Beehive Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82560	Intake	.435"	1.360"	80#	205#	.435"
		Exhaust					
	Kit Includes		8	H.T. Steel Retainers	8	CrSi Valve Springs	

- 1) This kit is compatible with the OEM tappet lash adjustment system and the KPMI® shim conversion tappets listed below.
- 2) This kit is designed for compatibility with the OEM integrated Seal/Base (OE# 3610212).

Valves • Black Diamond™ • Black Nitro Neg Stems



KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
82-82462	Intake	37.72mm	1.485"	0.2160"	17°	3.775"	Standard
82-82463	Intake	38.72mm	1.524"	0.2160"	17°	3.775"	Oversize
82-82466	Exhaust	32.44mm	1.277"	0.2155"	25°	3.815"	Standard
82-82467	Exhaust	33.44mm	1.317"	0.2155"	25°	3.815"	Oversize

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POLARIS® RZR™ 900 2013-2014

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.455"	0.755"	0.940"	0.433"	0.2160"	0.4353" / Std.	82-82480	
							+0.001"	82-82481	
							+0.002"	82-82482	
							+0.010"	82-82489	
	---	0.455"	0.815"	0.940"	0.433"	0.2155"	0.4353" / Std.		82-82470
							+0.001"		82-82471
							+0.002"		82-82472
							+0.010"		82-82479

Note: These guides are compatible with both KPMI® seals and the OEM Tophat Seal.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71016-4		Pkg. of 4		0%
				71016-8		Pkg. of 8		0%
				71016-16		Pkg. of 16		Less- 10%
				71016-50		Pkg. of 50		Less- 15%
				71016-100		Pkg. of 100		Less- 20%

Tappets • Shim On Bottom Conv. • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	82-82459	Intake	None	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"
	*82-82495	Exhaust	None	31.15mm	1.2260"	1.156"	0.800"	0.325"	Pkg. of 8
		Intake	DLC Coated	31.15mm	1.2260"	1.156"	0.800"	0.325"	Pkg. of 8
	*82-82495	Exhaust	DLC Coated	31.15mm	1.2260"	1.156"	0.800"	0.325"	Pkg. of 8
		Intake	DLC Coated	31.15mm	1.2260"	1.156"	0.800"	0.325"	Pkg. of 8

Note: These tappets must be used with KPMI® spring kit to convert to a 9.5mm shim adjustment system.*Our coated tappets undergo a low temperature PVD process to deposit a DLC film, which is extremely hard and has a very low coefficient of friction. These properties help the tappet to maintain its durability in extreme duty situations. Although KPMI® recommends never running a camshaft off the edge of the tappet, this coating may help increase durability in these applications. For complete shim range visit www.kpmi.us or Tappets section in back of catalog.

POLARIS® VARIOUS 900'S 2013-2016

• Ranger™ 900 XP 2013-2015

• RZR™ 900 2015-2016

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82260	Intake	.450"	1.375"	57#	150#	.450"
		Exhaust					
	Kit Includes	8	Titanium Retainers		8	H.T. Steel Basewashers	
8		CrSi Valve Springs		8	Viton® Seals		
The tappet must never contact the retainer for this application. To ensure this, the top surface of the shim must never fall below the top surface of the retainer.							
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*82-82850	Intake	.450"	1.375"	57#	150#	.450"
		Exhaust					
	Kit Includes	8	H.T. Steel Retainers		8	H.T. Steel Basewashers	
8		CrSi Valve Springs		8	Viton® Seals		

*KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With two different spring pressure option kits to choose from, these are the ultimate setup for any Polaris RZR/Ranger tuner.

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POLARIS® VARIOUS 900'S 2013-2016



• Ranger™ 900 XP 2013-2015

• RZR™ 900 2015-2016

Valve Spring Kit • High Performance “Turbo” Racing



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
82-82290	Intake	.450"	1.375"	65#	200#	.450"
	Exhaust					
Kit Includes		8	Titanium Retainers	8	CrSi Valve Springs	
		8	H.T. Steel Basewashers	8	Viton® Seals	
When installing these kits with a shouldered guide, the use of a spring shim (KPMI P/N 92039-8 or equivalent) may be necessary for guide shoulder to basewasher clearance.						



NEW PRODUCTS

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
*82-82900	Intake	.450"	1.375"	65#	200#	.450"
	Exhaust					
Kit Includes		8	H.T. Steel Retainers	8	CrSi Valve Springs	
		8	H.T. Steel Basewashers	8	Viton® Seals	

*KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With two different spring pressure option kits to choose from, these are the ultimate setup for any Polaris RZR/Ranger tuner.

Valve Spring Kit • Beehive Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82570	Intake	.435"	1.360"	80#	205#	.435"
		Exhaust					
	Kit Includes		8	H.T. Steel Retainers	8	CrSi Valve Springs	

1) This kit is compatible with the OEM tappet lash adjustment system and the KPMI® shim conversion tappets listed below.
2) This kit is designed for compatibility with the OEM integrated Seal/Base (OE# 3610212).

Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	82-82255	Intake	34.42mm	1.355"	0.2160"	17°	3.765'	Standard
	82-82256	Intake	35.42mm	1.394"	0.2160"	17°	3.765'	Oversize
	82-82258	Exhaust	29.21mm	1.150"	0.2155"	25°	3.805"	Standard
	82-82259	Exhaust	30.21mm	1.189"	0.2155"	25°	3.805"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.455"	0.755"	0.940"	0.433"	0.2160"	0.4353" / Std.	82-82270	
							+0.001"	82-82271	
							+0.002"	82-82272	
							+0.010"	82-82279	
	---	0.455"	0.815"	0.940"	0.433"	0.2155"	0.4353" / Std.		82-82420
							+0.001"		82-82421
							+0.002"		82-82422
							+0.010"		82-82429

Note: These guides are compatible with both KPMI® seals and the OEM Tophat Seal.

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POLARIS® VARIOUS 900'S 2013-2016

• Ranger™ 900 XP 2013-2015

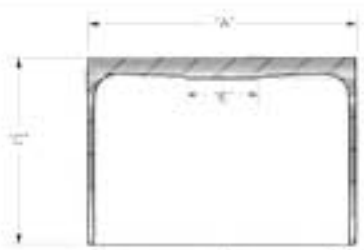
• RZR™ 900 2015-2016

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71016-4		Pkg. of 4		0%		
		71016-8		Pkg. of 8		0%		
		71016-16		Pkg. of 16		Less- 10%		
		71016-50		Pkg. of 50		Less- 15%		
		71016-100		Pkg. of 100		Less- 20%		

Note: These seals are intended to be used with KPMI® Guides in conjunction with KPMI® dual spring kits.

Tappets • Shim On Bottom Conv. • H.T. Steel

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	82-82285	Intake	None	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
		Exhaust								
	82-82287	Intake	DLC Coated	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"	Pkg. of 8
Exhaust										

Note: These tappets must be used with KPMI® spring kit to convert to a 9.5mm shim adjustment system. *Our coated tappets undergo a low temperature PVD process to deposit a DLC film, which is extremely hard and has a very low coefficient of friction. These properties help the tappet to maintain its durability in extreme duty situations. Although KPMI® recommends never running a camshaft off the edge of the tappet, this coating may help increase durability in these applications. For complete shim range visit www.kpmi.us or Tappets section in back of catalog.

POLARIS® RZR™ XP1000 2014

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82400	Intake	.450"	1.375"	57#	150#	.450"
	Kit Includes	Exhaust	8	Titanium Retainers	8	CrSi Valve Springs	
			8	H.T. Steel Basewashers	8	Viton® Seals	
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	*82-82950	Intake	.450"	1.375"	57#	150#	.450"
	Kit Includes	Exhaust	8	H.T. Steel Retainers	8	CrSi Valve Springs	
			8	H.T. Steel Basewashers	8	Viton® Seals	

*KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With two different spring pressure option kits to choose from, these are the ultimate setup for any Polaris RZR/Ranger tuner.

Valve Spring Kit • Beehive Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	82-82550	Intake	.435"	1.360"	80#	205#	.435"
	Kit Includes	Exhaust	8	H.T. Steel Retainers	8	CrSi Valve Springs	

1) This kit is compatible with the OEM tappet lash adjustment system and the KPMI® shim conversion tappets listed below.
2) This kit is designed for compatibility with the OEM integrated Seal/Base (OE# 3610212).

Valves • Black Diamond™ • Black Nitroleg Stems

KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
82-82362	Intake	37.72mm	1.485"	0.2160"	17°	3.775"	Standard
82-82363	Intake	38.72mm	1.524"	0.2160"	17°	3.775"	Oversize
82-82366	Exhaust	29.21mm	1.150"	0.2155"	25°	3.805"	Standard
82-82367	Exhaust	30.21mm	1.189"	0.2155"	25°	3.805"	Oversize

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POLARIS® RZR™ XP1000 2014



Valve Spring Kit • High Performance “Turbo” Racing

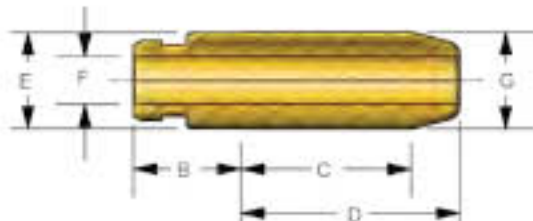
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift		
	82-82350	Intake	.450"	1.375"	65#	200#	.450"		
		Exhaust							
	Kit Includes			8		Titanium Retainers		8	CrSi Valve Springs
				8		H.T. Steel Basewashers		8	Viton® Seals

- 1) Both of these kits are compatible with the OEM tappet lash adjustment system and the KPMI® shim conversion tappets listed below.
 2) The seals included in these kits are intended for use with OEM guides. Please use KPMI® P/N 71016-8 when installing KPMI® guides.
 3) Some early 2013 models came from the OEM with guides that included a seal detail. These guides require the use of KPMI® seal P/N 71015-8.
 4) Our Turbo spring kit has been designed for applications with up to 15psi of boost.

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	*82-83000	Intake	.450"	1.375"	65#	200#	.450"	
		Exhaust						
	NEW PRODUCTS	Kit Includes		8	H.T. Steel Retainers	8	CrSi Valve Springs	8

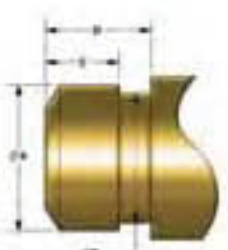
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Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.455"	0.750"	0.935"	0.433"	0.2160"	0.4353" / Std.	82-82370	
								+0.001"	82-82371
								+0.002"	82-82372
								+0.010"	82-82379
	---	0.455"	1.090"	1.190"	0.433"	0.2155"	0.4353" / Std.		82-82380
								+0.001"	82-82381
								+0.002"	82-82382
								+0.010"	82-82389

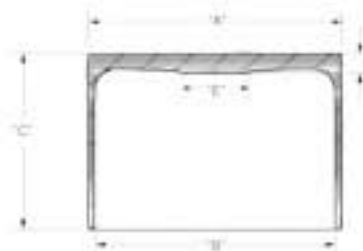
Note: These guides are compatible with both KPMI® seals and the OEM Tophat Seal.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71016-4		Pkg. of 4		0%
				71016-8		Pkg. of 8		0%
				71016-16		Pkg. of 16		Less- 10%
				71016-50		Pkg. of 50		Less- 15%
				71016-100		Pkg. of 100		Less- 20%

Note: These seals are intended to be used with KPMI® Guides in conjunction with KPMI® dual spring kits.

Tappets • Shim On Bottom Conv. • H.T. Steel

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	82-82359	Intake	None	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"
		Exhaust							
	82-82395	Intake	DLC Coated	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"
		Exhaust							

Note: These tappets must be used with KPMI® spring kit to convert to a 9.5mm shim adjustment system. *Our coated tappets undergo a low temperature PVD process to deposit a DLC film, which is extremely hard and has a very low coefficient of friction. These properties help the tappet to maintain its durability in extreme duty situations. Although KPMI® recommends never running a camshaft off the edge of the tappet, this coating may help increase durability in these applications. For complete shim range visit www.kpmi.us or Tappets section in back of catalog.



POLARIS® RZR® XP1000 / XP TURBO 2015-'18

Valve Spring Kit • Beehive Racing **NEW PRODUCTS**



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
82-82600	Intake	.435"	1.360"	80#	205#	.435"
	Exhaust					
Kit Includes		8	H.T. Steel Retainers		8	CrSi Valve Springs

- 1) This kit is compatible with the OEM tappet lash adjustment system and the KPMI® shim conversion tappets listed below.
2) This kit is designed for compatibility with the OEM integrated Seal/Base (OE# 3610212).

Valves • Black Diamond™ • Black Nitroleg Stems **NEW PRODUCTS**

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	82-82612	Intake	37.72mm	1.485"	0.2160"	17°	3.775"	Standard
	82-82613	Intake	38.72mm	1.524"	0.2160"	17°	3.775"	Oversize
	*82-82616	Exhaust	29.21mm	1.150"	0.2155"	25°	3.805"	Standard
	*82-82617	Exhaust	30.21mm	1.189"	0.2155"	25°	3.805"	Oversize

Note: *Not recommended for Turbo applications (see KPMI® Turbo valve PN's 82-83100 & 82-83116)

Valve Kit • Turbo **NEW PRODUCTS**

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	82-83100	Intake	37.72mm	1.485"	0.2160"	17°	3.775"	Standard
		Exhaust	29.21mm	1.150"	0.2155"	25°	3.805"	Standard
	Kit Includes		4	Intake White Diamond® Valves		4	Exhaust Inconel® Valves	

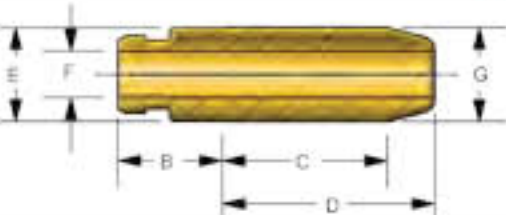
The Turbo Valve Kit is specifically designed for Turbo applications using our 1-Pc forged "Super Alloy" Inconel® 751 exhaust valve that retains mechanical properties and corrosion resistance at elevated temperatures. The exhaust valve is paired with a 1-Pc White Diamond® Stainless Intake for superior performance and longevity. Together this valve kit provides the performance for boosted applications at a competitive selling price.

Valves • White Diamond® • Inconel® **NEW PRODUCTS**

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	82-83112	Intake	37.72mm	1.485"	0.2160"	17°	3.775"	Standard
	82-83116	Exhaust	29.21mm	1.150"	0.2155"	25°	3.805"	Standard -Inconel® Recommended for Turbos

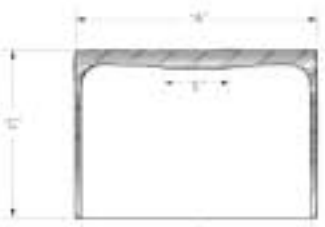
Inconel® is classified as a "Super Alloy", meaning that it is designed to survive under the most extreme temperatures and pressures where other valves will begin to burn, corrode, or completely fail. This is the material of choice for high output engines running turbos, superchargers, nitromethane, or nitrous.

Valve Guides • C630 Bronze **NEW PRODUCTS**

	A	B	C	D	E	F	G	Intake	Exhaust
	---	0.455"	0.755"	0.940"	0.433"	0.2160"	0.4353" / Std.	82-82620	
							+0.001"	82-82621	
							+0.002"	82-82622	
							+0.010"	82-82629	
	---	0.455"	1.090"	1.190"	0.433"	0.2155"	0.4353" / Std.		82-82630
							+0.001"		82-82631
							+0.002"		82-82632
							+0.010"		82-82639

Note: These guides are compatible with both KPMI® seals and the OEM Tophat Seal.

Tappets • Shim On Bottom Conv. • H.T. Steel **NEW PRODUCTS**

	KPMI P/N	Type	Coating	A	B	C	E	F	Quantity
	82-82607	Intake	None	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"
		Exhaust							
	*82-82609	Intake	DLC Coated	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"
		Exhaust							

Note: These tappets must be used with KPMI® spring kit to convert to a 9.5mm shim adjustment system. *Our coated tappets undergo a low temperature PVD process to deposit a DLC film, which is extremely hard and has a very low coefficient of friction. These properties help the tappet to maintain its durability in extreme duty situations. Although KPMI® recommends never running a camshaft off the edge of the tappet, this coating may help increase durability in these applications. For complete shim range visit www.kpmi.us or Tappets section in back of catalog.

ORDER 650-557-2046

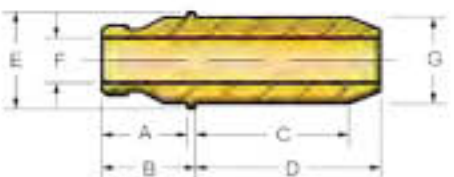
SUZUKI® DR™ 250/ 350S/ SE 1990-1999



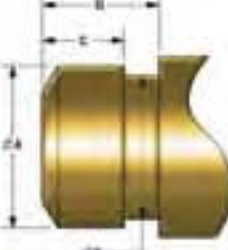
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	60-6041	Intake	.350"		1.200"		61#		141#		.350"
		Exhaust									
	Kit Includes			4	Titanium Retainers		4	CrSi Valve Springs		4	H.T. Steel Basewashers

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.410"	0.450"	0.740"	0.890"	0.467"	0.1955"	0.4170" / Std.		60-6030
							+0.001"		60-6031
							+0.002"		60-6032
							+0.003"		60-6033
							+0.010"		60-6040

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
			Part Number				Quantity	Quantity Incentive
			71015-4				Pkg. of 4	0%
			71015-8				Pkg. of 8	0%
			71015-16				Pkg. of 16	Less- 10%
			71015-50				Pkg. of 50	Less- 15%
			71015-100				Pkg. of 100	Less- 20%

SUZUKI® RM-Z250™ 2004-2006

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	60-60170	Intake	.445"		1.320"		46#		155#		.445"
		Exhaust									
	Kit Includes			4	Titanium Retainers		4	CrSi Valve Springs		4	H.T. Steel Basewashers

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	60-60450	Intake	.445"		1.320"		46#		155#		.445"
	Kit Includes		2	CrSi Valve Springs			2	Titanium Retainers			
			2	Black Diamond™ Valves			2	H. T. Steel Basewashers			



SUZUKI® RM-Z250™ 2004-2006

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60210	Intake	31.00mm	1.220"	0.1765"	20°	3.120"	Standard
	60-60211	Intake	32.00mm	1.260"	0.1765"	20°	3.120"	Oversize
	60-60213	Exhaust	25.00mm	0.984"	0.1756"	25°	3.125"	Standard
	60-60214	Exhaust	26.00mm	1.024"	0.1756"	25°	3.125"	Oversize

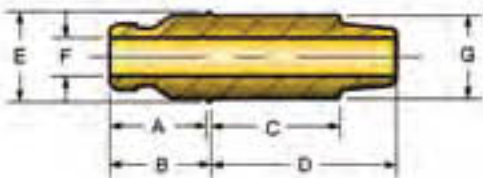
Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

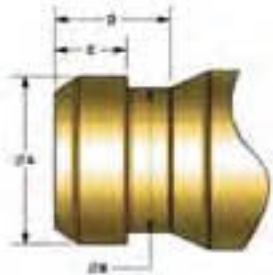
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	60-60210T	Intake	31.00mm	1.220"	0.1765"	20°	3.110"	Titanium
	60-60213T	Exhaust	25.00mm	0.984"	0.1756"	25°	3.115"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

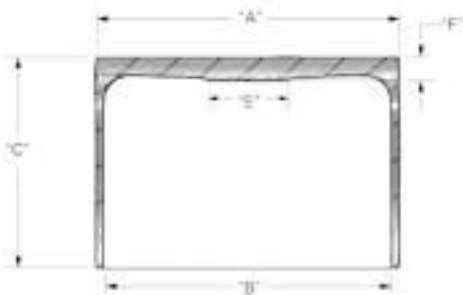
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.440"	0.465"	0.590"	0.850"	0.410"	0.1765"	0.3765" / Std.	60-60190	
							+0.001"	60-60191	
							+0.002"	60-60192	
							+0.010"	60-60199	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71013-4		Pkg. of 4		0%
				71013-8		Pkg. of 8		0%
				71013-16		Pkg. of 16		Less- 10%
				71013-50		Pkg. of 50		Less- 15%
				71013-100		Pkg. of 100		Less- 20%

Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	60-60176	Intake	None	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"	Pkg. of 2

Refer to KPMI® Tappet Section, in back of catalog, when selecting oversize tappets.

SUZUKI® RM-Z250™ 2007-2017



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	60-60500	Intake	.445"		1.300"		51#		160#		.445"
		Exhaust									
Kit Includes			4	Titanium Retainers		4	CrSi Valve Springs		4	H.T. Steel Basewashers	

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60470	Intake	.445"	1.300"	51#	160#	.445"
		Kit Includes		2	CrSi Valve Springs	2	Titanium Retainers
				2	Black Diamond™ Valves	2	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroneg Stems

KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
60-60512	Intake	31.00mm	1.220"	0.1765"	15°	3.175"	Standard
60-60513	Intake	32.00mm	1.260"	0.1765"	15°	3.185"	Oversize
60-60516	Exhaust	25.00mm	0.985"	0.1760"	25°	3.185"	Standard
60-60517	Exhaust	26.00mm	0.1025"	0.1760"	25°	3.195"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

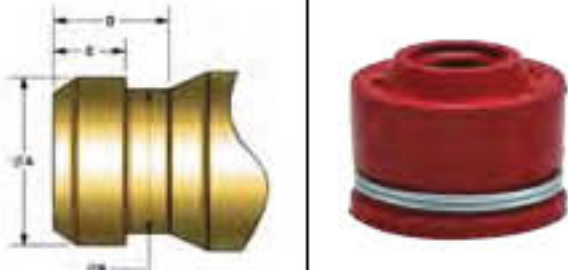
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	60-60512T	Intake	31.00mm	1.220"	0.1765"	15°	3.165"	Titanium
	60-60516T	Exhaust	25.00mm	0.985"	0.1760"	25°	3.175"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.545"	0.545"	0.530"	0.700"	0.374"	0.1765	0.3778" / Std.	60-60520	
							+0.001"	60-60521	
							+0.002"	60-60522	
							+0.010"	60-60529	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.0mm	0.310"	0.380"	2	A	B	C	D	Intake
				0.315"±0.005"	0.270"	0.120"	0.235"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71013-4			Pkg. of 4		0%	
		71013-8			Pkg. of 8		0%	
		71013-16			Pkg. of 16		Less- 10%	
		71013-50			Pkg. of 50		Less- 15%	
		71013-100			Pkg. of 100		Less- 20%	

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SUZUKI® LT-Z / D-RZ 400 2000-2017

• LT-Z™ 400 2003-2014

• D-RZ™ 400E/ S/ SM™ 2000-2017

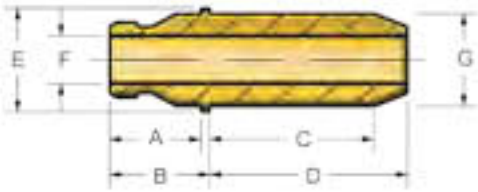
Valve Spring Kit • Lightweight Racing • with Shim Under Conversion

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60045	Intake	.440"	1.205"	57#	171#	.440"	
		Exhaust						
	Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4

Valves • Black Diamond™ • Black Nitroleg Stems (SPECIAL INDUCTION HARDENED FACES)

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60050	Intake	36.00mm	1.418"	0.1960"	20°	3.245"	Standard
	60-60051	Intake	37.00mm	1.457"	0.1960"	20°	3.245"	Oversize
	60-60053	Exhaust	29.00mm	1.142"	0.1953"	17°	3.200"	Standard
	60-60054	Exhaust	30.00mm	1.182"	0.1953"	17°	3.200"	Oversize

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.390"	0.430"	0.570"	0.770"	0.466"	0.1960"	0.4167" / Std.	60-60060	
								+0.001"	60-60061	
								+0.002"	60-60062	
								+0.004"	60-60064	
								+0.010"	60-60069	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71015-4			Pkg. of 4		0%
			71015-8			Pkg. of 8		0%
			71015-16			Pkg. of 16		Less- 10%
			71015-50			Pkg. of 50		Less- 15%
			71015-100			Pkg. of 100		Less- 20%

For all the applications available for Kibblewhite's Suzuki® line of products, please refer online to the Suzuki® section of the www.kpmi.us website, under **ATV / UTV Valvetrain Components**.

SUZUKI® LTR™ 450 / 450Z 2006-2009



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60280	Intake	.415"	1.190"	61#	168#	.415"
		Exhaust	.415"	1.215"	56#	157#	.415"
	Kit Includes		4	Titanium Retainers	4	CrSi Valve Springs	4

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift		Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60850	Intake	.415"		1.190"	61#	168#	.415"
	Kit Includes		2	CrSi Valve Springs		2	Titanium Retainers	
			2	Black Diamond™ Valves		2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroneg Stems



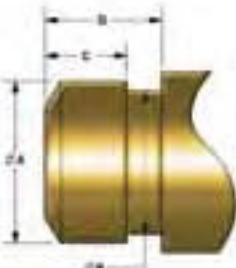
KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
60-60310	Intake	36.00mm	1.418"	0.2155"	20°	3.210"	Standard
60-60311	Intake	37.00mm	1.457"	0.2155"	20°	3.210"	Oversize
60-60313	Exhaust	29.00mm	1.142"	0.2150"	20°	3.190"	Standard
60-60314	Exhaust	30.00mm	1.182"	0.2150"	20°	3.190"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.375"	0.410"	0.600"	0.820"	0.460"	0.2155"	0.4170" / Std.	60-60290	
							+0.001"	60-60291	
							+0.002"	60-60292	
							+0.004"	60-60294	
							+0.010"	60-60299	
	0.375"	0.410"	0.600"	0.820"	0.460"	0.2155"	0.4170" / Std.		60-60300
							+0.001"		60-60301
							+0.002"		60-60302
							+0.004"		60-60304
								+0.010"	60-60309

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71016-4			Pkg. of 4		0%
			71016-8			Pkg. of 8		0%
			71016-16			Pkg. of 16		Less- 10%
			71016-50			Pkg. of 50		Less- 15%
			71016-100			Pkg. of 100		Less- 20%

VISIT US AT WWW.KPMI.US



SUZUKI® RM-Z450™ 2005-2006

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60240	Intake	.415"	1.190"	61#	168#	.415"
		Exhaust	.415"	1.220"	55#	156#	.415"
	Kit Includes		4	Titanium Retainers	4	CrSi Valve Springs	4

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	60-60460	Intake	.415"		1.190"		61#		168#		.415"
	Kit Includes		2	CrSi Valve Springs			2	Titanium Retainers			
			2	Black Diamond™ Valves			2	H. T. Steel Basewashers			

Valves • Black Diamond™ • Black Nitroneg Stems

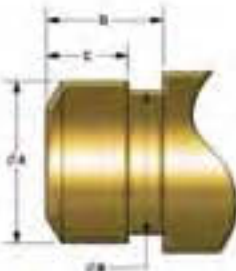
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60270	Intake	36.00mm	1.418"	0.1960"	20°	3.245"	Standard
	60-60271	Intake	37.00mm	1.456"	0.1960"	20°	3.245"	Oversize
	60-60273	Exhaust	29.00mm	1.142"	0.1953"	25°	3.210"	Standard
	60-60274	Exhaust	30.00mm	1.182"	0.1953"	25°	3.210"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.375"	0.410"	0.580"	0.800"	0.460"	0.1955"	0.4170" / Std.	60-60320	
							+0.001"	60-60321	
							+0.002"	60-60322	
							+0.010"	60-60329	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
 			Part Number		Quantity		Quantity Incentive	
			71015-4		Pkg. of 4		0%	
			71015-8		Pkg. of 8		0%	
			71015-16		Pkg. of 16		Less- 10%	
			71015-50		Pkg. of 50		Less- 15%	
			71015-100		Pkg. of 100		Less- 20%	

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SUZUKI® RM-Z450™ 2007



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	60-60650	Intake	.415"		1.190"		61#		168#		.415"
		Exhaust	.415"		1.220"		55#		156#		.415"
	Kit Includes			4	Titanium Retainers		4	CrSi Valve Springs		4	H.T. Steel Basewashers

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift		Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-61000	Intake	.415"		1.190"	61#	168#	.415"
	Kit Includes		2	CrSi Valve Springs		2	Titanium Retainers	
			2	Black Diamond™ Valves		2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroneg Stems

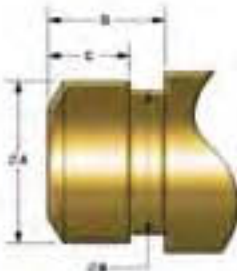
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60662	Intake	36.00mm	1.418"	0.2160"	20°	3.240"	Standard
	60-60666	Exhaust	29.00mm	1.142"	0.2150"	20°	3.190"	Standard

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.375"	0.410"	0.600"	0.820"	0.460"	0.2155"	0.4170" / Std.	60-60670	
							+0.001"	60-60671	
							+0.002"	60-60672	
							+0.010"	60-60679	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71016-4			Pkg. of 4		0%
			71016-8			Pkg. of 8		0%
			71016-16			Pkg. of 16		Less- 10%
			71016-50			Pkg. of 50		Less- 15%
			71016-100			Pkg. of 100		Less- 20%



SUZUKI® RM-Z450™ 2008-2017

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60700	Intake	.415"	1.190"	61#	168#	.415"
		Exhaust	.415"	1.220"	56#	157#	.415"
	Kit Includes		4	Titanium Retainers	4	CrSi Valve Springs	4

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	60-60720	Intake	.415"		1.190"		61#		168#		.415"
	Kit Includes		2	CrSi Valve Springs			2	Titanium Retainers			
			2	Black Diamond™ Valves			2	H. T. Steel Basewashers			

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60712	Intake	36.00mm	1.418"	0.2155"	20°	3.210"	Standard
	60-60713	Intake	37.00mm	1.417"	0.2155"	20°	3.210"	Oversize
	60-60718	Exhaust	31.00mm	1.220"	0.2150"	20°	3.195"	Standard

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

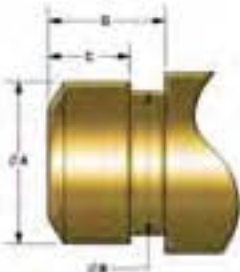
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	60-60712T	Intake	36.00mm	1.418"	0.2155"	20°	3.215"	Titanium
	60-60718T	Exhaust	31.00mm	1.220"	0.2150"	20°	3.180"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.375"	0.410"	0.600"	0.820"	0.460"	0.2155"	0.4170" / Std.		60-60730
							+0.001"		60-60731
							+0.002"		60-60732
							+0.004"		60-60734
							+0.010"		60-60739

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
 			Part Number		Quantity		Quantity Incentive	
			71016-4		Pkg. of 4		0%	
			71016-8		Pkg. of 8		0%	
			71016-16		Pkg. of 16		Less- 10%	
			71016-50		Pkg. of 50		Less- 15%	
			71016-100		Pkg. of 100		Less- 20%	

ORDER 650-557-2046

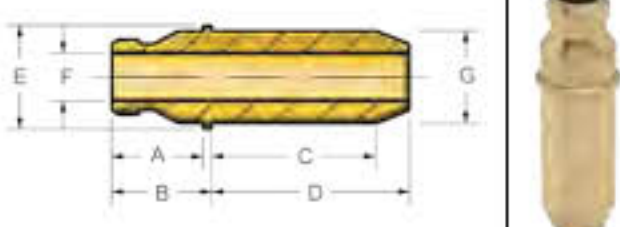
SUZUKI® GSX-R™ 600 1997-2000



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	60-1006	Intake	.420"		1.225"		55#		157#		.420"
		Exhaust									
	Kit Includes			16	Titanium Retainers	16	CrSi Valve Springs	16	H.T. Steel Basewashers		

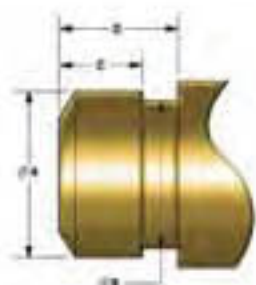
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.435"	0.460"	0.875"	1.020"	0.460"	0.1750"	0.4170" / Std.	60-6130	
							+0.001"	60-6131	
							+0.010"	60-6140	

Retainer Set • O. E. M. Replacement • Titanium

	KPMI P/N	Type	Material	Quantity
	60-6156	Intake	Titanium	Pkg. of 16
		Exhaust		

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71014-4			Pkg. of 4		0%
			71014-8			Pkg. of 8		0%
			71014-16			Pkg. of 16		Less- 10%
			71014-50			Pkg. of 50		Less- 15%
			71014-100			Pkg. of 100		Less- 20%

SUZUKI® GS 500E™ 1989-2009

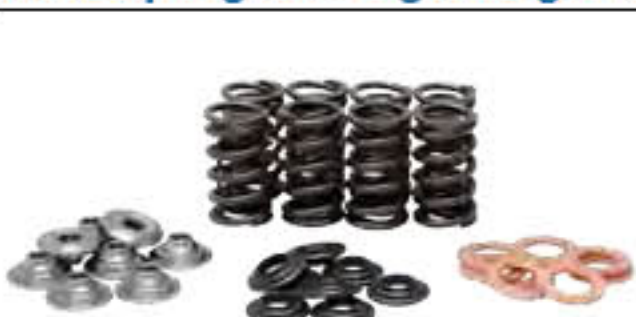
Valve Spring Kit • Lightweight Racing • with Shim Under Conversion

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift		
	60-60120	Intake	.500"	1.345"	90#	268#	.500"		
		Exhaust							
	Kit Includes			4	Titanium Retainers	4	H.T. Steel Keepers Pr.	4	CrSi Valve Springs
				4	H.T. Steel Basewashers		4	H.T. Steel Spring Shims	



SUZUKI® SV™ 650 1999-2009

Valve Spring Kit • Lightweight Racing • with Shim Under Conversion

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	60-60030	Intake	.405"	1.285"	66#	168#	.405"	
		Exhaust						
	Kit Includes		8	Titanium Retainers		8	CrSi Valve Springs	
			8	H.T. Steel Basewashers		8	H.T. Steel Spring Shims	

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.435"	0.460"	0.875"	1.020"	0.460"	0.1750"	0.4170" / Std.	60-60080	
							+0.001"	60-60081	
							+0.010"	60-60089	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71014-4		Pkg. of 4		0%
				71014-8		Pkg. of 8		0%
				71014-16		Pkg. of 16		Less- 10%
				71014-50		Pkg. of 50		Less- 15%
				71014-100		Pkg. of 100		Less- 20%

SUZUKI® DR™ 750 / 800 BIG 1988-1998

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.440"	0.490"	0.785"	1.165"	0.495"	0.2745"	0.4752"	60-60090	
							+0.002"	60-60092	
							+0.004"	60-60094	
							+0.015"	60-60099	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.374"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.430"	0.115"	0.240"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71019-4		Pkg. of 4		0%
				71019-8		Pkg. of 8		0%
				71019-16		Pkg. of 16		Less- 10%
				71019-50		Pkg. of 50		Less- 15%
				71019-100		Pkg. of 100		Less- 20%

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SUZUKI® GS™ 750 PRE-1980



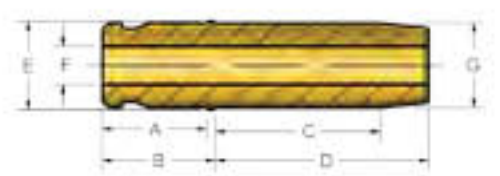
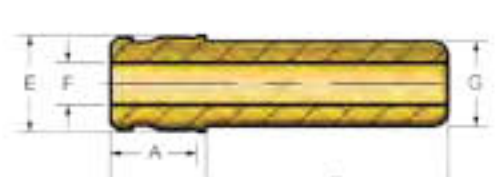
Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-0891	Intake	.480"	1.375"	78#	250#	.480"
		Exhaust					
	Kit Includes			8	CrSi Valve Springs		

Retainer Set • Titanium

	KPMI P/N	Type	Material			
	60-6106	Intake	Titanium			
		Exhaust				
	Set Includes	8	Titanium Retainers		8	H. T. Steel Keepers Pr.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.620"	0.670"	0.860"	1.115"	0.495"	0.2745"	0.4752" / Std.	60-0860	
							+0.002"	60-0861	
							+0.015"	60-4090	
	0.620"	0.670"	---	1.115"	0.495"	0.2745"	0.4752" / Std.		60-0864
							+0.002"		60-0865
							+0.015"		60-4107

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.374"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.430"	0.115"	0.240"	Exhaust
			Part Number				Quantity	Quantity Incentive
			71019-4				Pkg. of 4	0%
			71019-8				Pkg. of 8	0%
			71019-16				Pkg. of 16	Less- 10%
			71019-50				Pkg. of 50	Less- 15%
			71019-100				Pkg. of 100	Less- 20%

SUZUKI® GS™ 750 E/ ES/ L/ T 1980-1986

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-1028	Intake	.390"	1.215"	50#	138#	.390"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs		



SUZUKI® GS™ 750 E/ ES/ L/ T 1980-1986

Retainer Set • O. E. M. Replacement • Titanium

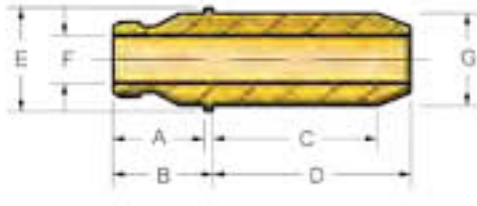
	KPMI P/N	Type	Material	Quantity
	60-1034T	Intake	Titanium	Pkg. of 16
		Exhaust		
	Note : Fits O.E.M. Springs			

Valves • Black Diamond™ • Black Nitroneg Stems



KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
60-60220	Intake	27.50mm	1.083"	0.2145"	27°	3.380"	Standard
60-4301	Intake	28.50mm	1.122"	0.2155"	23°	3.435"	Oversize
60-4311	Intake	29.50mm	1.161"	0.2155"	23°	3.435"	Oversize
60-4302	Intake	31.00mm	1.220"	0.2155"	23°	3.435"	Oversize
60-4304	Exhaust	24.50mm	0.965"	0.2145"	27°	3.415"	Oversize
60-4305	Exhaust	25.00mm	0.984"	0.2145"	27°	3.415"	Oversize

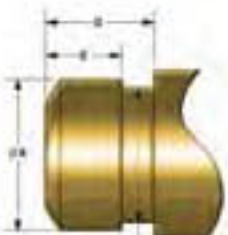
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.465"	0.510"	0.780"	0.940"	0.488"	0.2160"	0.4365" / Std.	60-1029	
							+0.002"	60-1030	
							+0.015"	60-4030	
							+0.065"	60-1052	
Valve Guides • C630 Bronze • Special 5.0mm Conversion									
	A	B	C	D	E	F	G	Intake	Exhaust
	0.465"	0.510"	0.780"	0.940"	0.488"	0.1950"	0.4365"	60-4298	
Special Blank									
	A	B	C	D	E	F	G	Intake	Exhaust
	0.465"	---	---	1.285"	0.435"	0.2145"	0.6250"±0.010	60-4031	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number			Quantity	Quantity Incentive
				71016-4			Pkg. of 4	0%
				71016-8			Pkg. of 8	0%
				71016-16			Pkg. of 16	Less- 10%
				71016-50			Pkg. of 50	Less- 15%
				71016-100			Pkg. of 100	Less- 20%

Valve Guide Seals • Viton® For Special 5.0mm Conversion

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
				Part Number			Quantity	Quantity Incentive
				71015-4			Pkg. of 4	0%
				71015-8			Pkg. of 8	0%
				71015-16			Pkg. of 16	Less- 10%
				71015-50			Pkg. of 50	Less- 15%
				71015-100			Pkg. of 100	Less- 20%

ORDER 650-557-2046

SUZUKI® GSX-R™ 750 1986-1992



Valve Spring Only Kit • High Performance For 1986-1990 Models

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-1002	Intake	.440"	1.215"	55#	170#	.440"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs		

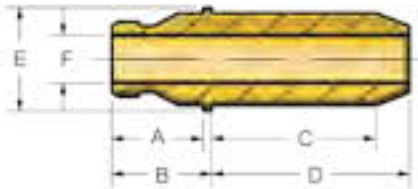
Valve Spring Only Kit • High Performance For 1991-1992 Models

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-1003	Intake	.440"	1.255"	45#	158#	.440"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs		

Retainer Set • Titanium

	KPMI P/N	Type	Material	Models	Quantity
	60-6155	Intake	Titanium	1986-1990	Pkg. of 16
		Exhaust			
Note : Fits O.E.M. Springs and KPMI® Spring Kit PN 60-1002					

Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.410"	0.450"	0.740"	0.890"	0.467"	0.1955"	0.4170" / Std.	60-4156-1	
							+0.002"	60-4157-1	
							+0.006"	60-4159-1	
							+0.085"	60-4160-1	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71015-4			Pkg. of 4		0%
			71015-8			Pkg. of 8		0%
			71015-16			Pkg. of 16		Less- 10%
			71015-50			Pkg. of 50		Less- 15%
			71015-100			Pkg. of 100		Less- 20%

SUZUKI® GSX-R™ 750 1993-1995

Valve Spring Kit • Lightweight Racing



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
60-60040	Intake	.440"	1.230"	50#	158#	.440"	
	Exhaust						
Kit Includes		16	Titanium Retainers	16	CrSi Valve Springs	16	H. T. Steel Basewashers

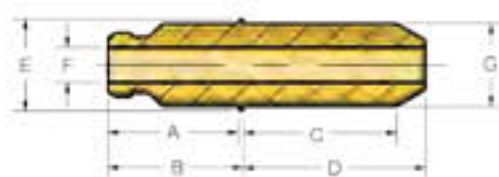


SUZUKI® GSX-R™ 750 1993-1995

Retainer Set • O. E. M. Replacement • Titanium

	KPMI P/N	Type	Material	Quantity
	60-6154	Intake	Titanium	Pkg. of 16
		Exhaust		
	Note : Fits O.E.M. Springs			

Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.655"	0.680"	0.770"	0.915"	0.460"	0.1760"	0.4170" / Std.	60-6000	
							+0.002"	60-6002	
							+0.010"	60-6010	

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
 	Part Number			Quantity		Quantity Incentive		
	71014-4			Pkg. of 4		0%		
	71014-8			Pkg. of 8		0%		
	71014-16			Pkg. of 16		Less- 10%		
	71014-50			Pkg. of 50		Less- 15%		
	71014-100			Pkg. of 100		Less- 20%		

SUZUKI® GSX-R™ 750 SRAD 1996-1999

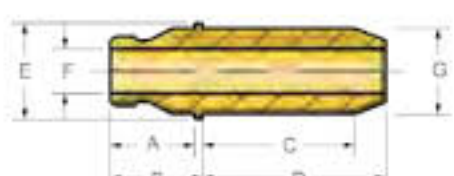
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	60-1005	Intake	.420"		1.220"		55#		157#		.420"
		Exhaust									
	Kit Includes			16	Titanium Retainers	16	CrSi Valve Springs	16	H. T. Steel Basewashers		

Retainer Set • O. E. M. Replacement • Titanium

	KPMI P/N	Type	Material	Quantity
	60-6155	Intake	Titanium	Pkg. of 16
		Exhaust		
	Note : Fits O.E.M. Springs			

Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.435"	0.460"	0.875"	1.020"	0.460"	0.1755"	0.4170" / Std.	60-6130	
							+0.002"	60-6131	
							+0.010"	60-6140	

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SUZUKI® GSX-R™ 750 SRAD 1996-1999



Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71014-4		Pkg. of 4		0%
				71014-8		Pkg. of 8		0%
				71014-16		Pkg. of 16		Less- 10%
				71014-50		Pkg. of 50		Less- 15%
				71014-100		Pkg. of 100		Less- 20%

SUZUKI® GS™ 850 1979-1983

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-0891	Intake	.480"	1.375"	78#	250#	.480"
		Exhaust					
	Kit Includes			8			

Retainer Set • Titanium

	KPMI P/N	Type	Material				
	60-6106	Intake	Titanium				
		Exhaust					
	Set Includes		8	Titanium Retainers	8	H. T. Steel 15° Jumbo Keepers Pr.	

SUZUKI® GS™ 1000 PRE-1981

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-0891	Intake	.480"	1.375"	78#	250#	.480"
		Exhaust					
	Kit Includes			8			

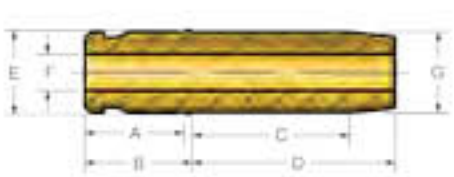
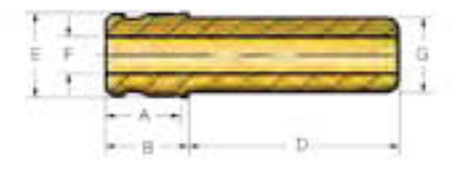
Retainer Set • Titanium

	KPMI P/N	Type	Material				
	60-6106	Intake	Titanium				
		Exhaust					
	Set Includes		8	Titanium Retainers	8	H. T. Steel 15° Jumbo Keepers Pr.	

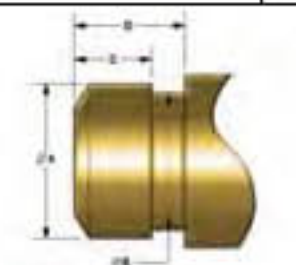


SUZUKI® GS™ 1000 PRE-1981

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.620"	0.670"	0.860"	1.115"	0.495"	0.2745"	0.4752" / Std.	60-0860	
								+0.002"	60-0861	
								+0.015"	60-4090	
		0.620"	0.670"	---	1.115"	0.495"	0.2745"	0.4752" / Std.		60-0864
								+0.002"		60-0865
								+0.015"		60-4107

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
7.0mm	0.374"	0.560"	4	A	B	C	D	Intake
				0.475"±0.005"	0.430"	0.115"	0.240"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71019-4		Pkg. of 4		0%
				71019-8		Pkg. of 8		0%
				71019-16		Pkg. of 16		Less- 10%
				71019-50		Pkg. of 50		Less- 15%
				71019-100		Pkg. of 100		Less- 20%

Tappets • Shim On Bottom Conv. • H.T. Steel

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
60-1026	Std.	None	33.50mm	1.3184"	1.250"	1.025"	0.313"	0.115"	Pkg. of 8
60-4220	+0.020	None	34.00mm	1.3380"	1.258"	1.025"	0.313"	0.115"	Pkg. of 1

Requires Kibblewhite® Shim On Bottom Retainers # 60-6106 (Pkg. of 8). Refer to KPMI® Tappet Section, in back of catalog, when selecting other size tappets.

SUZUKI® GSX-R1000™ 2001-2004

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	60-60146	Intake	.440"		1.320"		46#		154#		.440"
		Exhaust									
	Kit Includes			16	Titanium Retainers	16	CrSi Valve Springs	16	H. T. Steel Basewashers		

Valves • Black Diamond™ • Black Nitroleg Stems



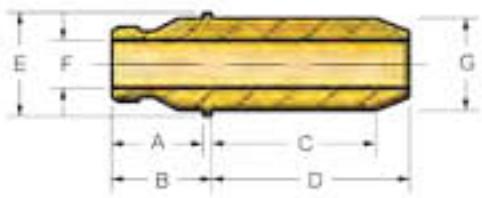
KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
60-60140	Intake	29.00mm	1.142"	0.1568"	20°	3.740"	Standard
60-60141	Intake	30.00mm	1.181"	0.1568"	20°	3.740"	Oversize
60-60143	Exhaust	24.00mm	0.945"	0.1563"	20°	3.755"	Standard
60-60144	Exhaust	25.00mm	0.984"	0.1563"	20°	3.755"	Oversize

ORDER **650-557-2046**

SUZUKI® GSX-R1000™ 2001-2004



Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.425"	0.450"	0.750"	0.990"	0.385"	0.1570"	0.3573" / Std.		60-60150
							+0.001"		60-60151
							+0.002"		60-60152
							+0.010"		60-60159

SUZUKI® GSX-R™ 1000 2005-2008

Valve Spring Kit • Lightweight Racing and Stainless Steel Conversion

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60600	Intake	Titanium Valve Only				
		Exhaust	.445"	1.330"	43#	152#	.445"
		Intake	Stainless Steel Conversion				
		Exhaust	.370"	1.245"	65#	156#	.370"
	Kit Includes		16	Titanium Retainers	16	CrSi Valve Springs	16
16			Spring Shims		16	Spring Shims	

To achieve the proper installed height when using the stainless valve conversion, it may be necessary to utilize the 0.030" & 0.060" shims provided with the kit.

Valve Spring Only Kit • "Performance Rebuild" Beehive

**NEW
PRODUCTS**

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60950	Intake	.425"	1.335"	60#	181#	.425"
		Exhaust					
	Kit Includes		16	CrSi Valve Springs	16	H. T. Steel Basewashers	

- These springs have been designed to provide pressures to control stainless steel valves. Experienced engine builders who are running aggressive camshafts or higher than factory RPM's may choose to run these elevated pressures with titanium valves as well
- These high quality replacement springs have been designed to exceed the OEM specifications by fitting precisely on the spring shoulder diameter of both the OEM retainers, and KPMI H.T. Steel retainers (P/N 60-60941)
- This kit also includes H.T. Steel basewashers in order to achieve a precision fitment on the large end of our beehive spring which, better controls the lateral motion of the spring, ensuring longer life and less wear on the spring, retainer, and basewasher.
- KPMI® has gone a step further and specified the latest in spring materials and processing, for an extremely robust design that will last longer than anything currently on the market
- Unique features of this spring include is beehive variable rate wind to reduce the chances of spring surge due to cam harmonics, Super-Clean Chrome Silicon wire with additional Vanadium and Nickel added for increased strength, and a gas nitrided and double shot peened finish for greater fatigue life

Retainer Set • O. E. M. Replacement • H. T. Steel

**NEW
PRODUCTS**

	KPMI P/N	Type	Material	Quantity
	60-60941	Intake	H.T. Steel	Pkg. of 16
		Exhaust		

- By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer
- These retainers are intended as an OEM replacement and are completely compatible with the OEM springs, keepers, and shims
- The spring shoulder diameter has been designed to match the OEM retainer and spring as well as KPMI's beehive spring (P/N 60-60950), making this retainer your high performance OEM alternative



SUZUKI® GSX-R™ 1000 2005-2008

Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60612	Intake	30.00mm	1.181"	0.1765"	25°	3.760"	Standard
	60-60616	Exhaust	24.00mm	0.945"	0.1760"	14°	3.750"	Standard
Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.								

Valve • Titanium • Tensilite® • Intake

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60614T	Intake	31.00mm	1.220"	0.1765"	25°	3.755"	Oversize

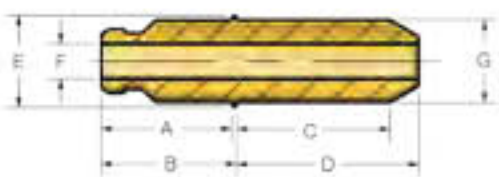
Valve • White Diamond® • Inconel® • Exhaust

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60618	Exhaust	24.00mm	0.945"	0.1760"	14°	3.750"	Standard

Inconel® is classified as a "Super Alloy", meaning that it is designed to survive under the most extreme temperatures and pressures, where other valves will begin to burn, corrode, or completely fail. This is the material of choice for high output engines running turbos, superchargers, nitromethane, or nitrous.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.520"	0.545"	0.730"	0.945"	0.410"	0.1760"	0.3773" / Std.	60-60620	
							+0.001"	60-60621	
							+0.002"	60-60622	
							+0.010"	60-60629	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71014-4		Pkg. of 4		0%
				71014-8		Pkg. of 8		0%
				71014-16		Pkg. of 16		Less- 10%
				71014-50		Pkg. of 50		Less- 15%
				71014-100		Pkg. of 100		Less- 20%

SUZUKI® GS™ 1100 E / ES / S 1980-1986

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-1028	Intake	.390"	1.215"	50#	138#	.390"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs		

SUZUKI® GS™ 1100 E / ES / S 1980-1986



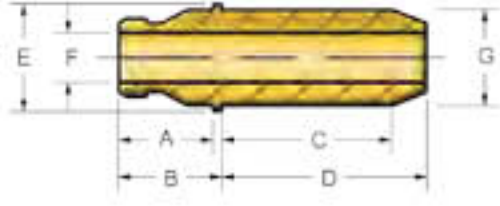
Retainer Set • O. E. M. Replacement • Titanium

	KPMI P/N	Type	Material	Quantity
	60-1034T	Intake	Titanium	Pkg. of 16
		Exhaust		
Note : Fits O.E.M. Springs and KPMI® Spring Kit PN 60-1028				

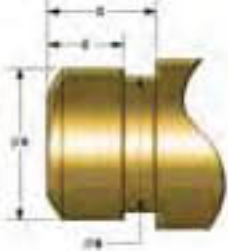
Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60220	Intake	27.50mm	1.083"	0.2145"	27°	3.380"	Standard
	60-4301	Intake	28.50mm	1.122"	0.2155"	23°	3.435"	Oversize
	60-4311	Intake	29.50mm	1.161"	0.2155"	23°	3.435"	Oversize
	60-4302	Intake	31.00mm	1.220"	0.2155"	23°	3.435"	Oversize
	60-4304	Exhaust	24.50mm	0.965"	0.2145"	27°	3.415"	Oversize
	60-4305	Exhaust	25.00mm	0.984"	0.2145"	27°	3.415"	Oversize

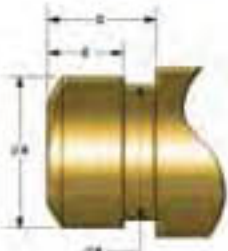
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.465"	0.510"	0.780"	0.940"	0.488"	0.2160"	0.4365" / Std.	60-1029	
							+0.002"	60-1030	
							+0.015"	60-4030	
							+0.065"	60-1052	
	Valve Guides • C630 Bronze • Special 5.0mm Conversion								
	A	B	C	D	E	F	G	Intake	Exhaust
	0.465"	0.510"	0.780"	0.940"	0.488"	0.1950"	0.4365"	60-4298	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71016-4		Pkg. of 4		0%		
		71016-8		Pkg. of 8		0%		
		71016-16		Pkg. of 16		Less- 10%		
		71016-50		Pkg. of 50		Less- 15%		
		71016-100		Pkg. of 100		Less- 20%		

Valve Guide Seals • Viton® For Special 5.0mm Conversion

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71015-4		Pkg. of 4		0%		
		71015-8		Pkg. of 8		0%		
		71015-16		Pkg. of 16		Less- 10%		
		71015-50		Pkg. of 50		Less- 15%		
		71015-100		Pkg. of 100		Less- 20%		



SUZUKI® GSX-R™ 1100 1986-1990

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-1002	Intake	.440"	1.215"	55#	170#	.440"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs		

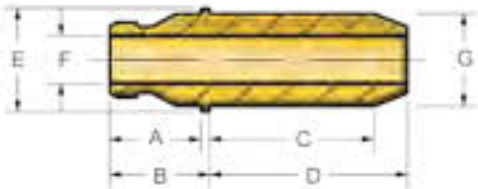
Retainer Set • Titanium

	KPMI P/N	Type	Material	Quantity
	60-4155	Intake	Titanium	Pkg. of 16
		Exhaust		
	Note : Fits O.E.M. Springs and KPMI® Spring Kit PN 60-1002			

Valve • White Diamond® • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-4216H	Intake	28.50mm	1.122"	0.1958"	19°	3.390"	Standard
	60-4218H	Intake	30.00mm	1.181"	0.1958"	19°	3.390"	Oversize
	60-4215H	Exhaust	25.00mm	0.984"	0.1948"	17°	3.360"	Standard
	60-4217H	Exhaust	26.00mm	1.024"	0.1948"	17°	3.360"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.410"	0.450"	0.740"	0.890"	0.467"	0.1955"	0.4170" / Std.	60-4156-1	
							+0.002"	60-4157-1	
							+0.006"	60-4159-1	
							+0.085"	60-4160-1	

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
				Part Number		Quantity	Quantity Incentive	
				71015-4		Pkg. of 4	0%	
				71015-8		Pkg. of 8	0%	
				71015-16		Pkg. of 16	Less- 10%	
				71015-50		Pkg. of 50	Less- 15%	
				71015-100		Pkg. of 100	Less- 20%	

SUZUKI® GSX-R™ 1100 1991-1992

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-1003	Intake	.440"	1.255"	45#	158#	.440"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs		

ORDER 650-557-2046

SUZUKI® GSX-R™ 1100 1991-1992



Valve • White Diamond® • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-6091H	Intake	28.50mm	1.122"	0.1958"	19°	3.450"	Standard
	60-6092H	Exhaust	25.00mm	0.984"	0.1948"	17°	3.420"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.410"	0.450"	0.740"	0.890"	0.467"	0.1955"	0.4170" / Std.	60-4156-1	
							+0.002"	60-4157-1	
							+0.006"	60-4159-1	
							+0.085"	60-4160-1	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71015-4		Pkg. of 4		0%
				71015-8		Pkg. of 8		0%
				71015-16		Pkg. of 16		Less- 10%
				71015-50		Pkg. of 50		Less- 15%
				71015-100		Pkg. of 100		Less- 20%

SUZUKI® GSX-R™ 1100 1993-1998

• Water Cooled

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	60-60040	Intake	.440"		1.235"		50#		158#		.440"
		Exhaust									
	Kit Includes			16	Titanium Retainers		16	CrSi Valve Springs		16	H. T. Steel Basewashers

Retainer Set • O. E. M. Replacement • Titanium

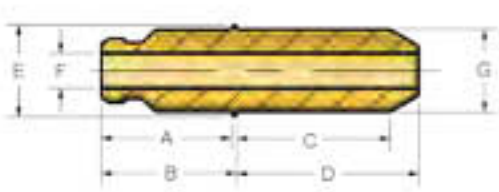
	KPMI P/N	Type	Material	Quantity
	60-6154	Intake	Titanium	Pkg. of 16
		Exhaust		
	Note : Fits O.E.M. Springs			



SUZUKI® GSX-R™ 1100 1993-1998

• Water Cooled

Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.520"	0.545"	0.730"	0.945"	0.410"	0.1760"	0.3773" / Std.	60-60620	
							+0.001"	60-60621	
							+0.002"	60-60622	
							+0.010"	60-60629	

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71014-4				Pkg. of 4		0%
		71014-8				Pkg. of 8		0%
		71014-16				Pkg. of 16		Less- 10%
		71014-50				Pkg. of 50		Less- 15%
		71014-100				Pkg. of 100		Less- 20%

SUZUKI® GS™ 1150 1984-1986

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-1028	Intake	.390"	1.215"	50#	138#	.390"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs		

Retainer Set • O. E. M. Replacement • Titanium

	KPMI P/N	Type	Material	Quantity
	60-1034T	Intake	Titanium	Pkg. of 16
		Exhaust		
Note : Fits O.E.M. Springs and KPMI® Spring Kit PN 60-1028				

Valves • Black Diamond™ • Black Nitroneg Stems

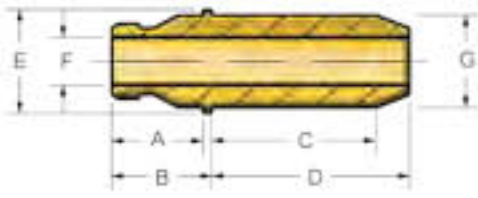
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60220	Intake	27.50mm	1.083"	0.2145"	27°	3.380"	Standard
	60-4301	Intake	28.50mm	1.122"	0.2155"	23°	3.435"	Oversize
	60-4311	Intake	29.50mm	1.161"	0.2155"	23°	3.435"	Oversize
	60-4302	Intake	31.00mm	1.220"	0.2155"	23°	3.435"	Oversize
	60-4304	Exhaust	24.50mm	0.965"	0.2145"	27°	3.415"	Oversize
	60-4305	Exhaust	25.00mm	0.984"	0.2145"	27°	3.415"	Oversize

ORDER 650-557-2046

SUZUKI® GS™ 1150 1984-1986



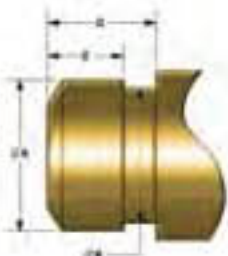
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.465"	0.510"	0.780"	0.940"	0.488"	0.2160"	0.4365" / Std.		60-1029
							+0.002"		60-1030
							+0.015"		60-4030
							+0.065"		60-1052
Valve Guides • C630 Bronze • Special 5.0mm Conversion									
A	B	C	D	E	F	G	Intake	Exhaust	
0.465"	0.510"	0.780"	0.940"	0.488"	0.1950"	0.4365"		60-4298	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71016-4		Pkg. of 4		0%
				71016-8		Pkg. of 8		0%
				71016-16		Pkg. of 16		Less- 10%
				71016-50		Pkg. of 50		Less- 15%
				71016-100		Pkg. of 100		Less- 20%

Valve Guide Seals • Viton® For Special 5.0mm Conversion

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71015-4		Pkg. of 4		0%
				71015-8		Pkg. of 8		0%
				71015-16		Pkg. of 16		Less- 10%
				71015-50		Pkg. of 50		Less- 15%
				71015-100		Pkg. of 100		Less- 20%

SUZUKI® HAYABUSA™ 1999-2017

Valve Spring Kit • "Shim in Tappet" Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60750	Intake	.490"	1.455"	65#	195#	.415"
		Exhaust					
	Kit Includes		16	Titanium Retainers	16	CrSi Valve Springs	
			16	H. T. Steel Basewashers	16	H. T. Steel Tappets	

This high lift kit is designed for maximum performance applications on 1999-2014 models. It includes KPMI® "Shim in Tappet" design tappets that solve the issues of retainer counter-bore ovaling and adjustment shims becoming dislodged. It is especially recommended for use with reduced base circle cams.

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	60-60760	Intake	.490"		1.455"		65#		190#		.415"
		Exhaust									
	Kit Includes			16	Titanium Retainers	16	CrSi Valve Springs	16	H. T. Steel Basewashers		

This high lift kit is designed for maximum performance applications on 1999-2014 models, and includes lightweight titanium retainers as well as high lift, super-clean chrome silicon wire dual valve springs.

VISIT US AT WWW.KPMI.US



SUZUKI HAYABUSA™ 1999-2017

Valve Spring Kit • Lightweight Racing

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	60-60900	Intake	.490"		1.455"		65#		190#		.415"
		Exhaust									
	Kit Includes			16	H. T. Steel Retainers	16	CrSi Valve Springs	16	H. T. Steel Basewashers		

KPMI® performance valve spring kits are modeled using cam profile and simulation softwares. By utilizing FEA software, it was possible to take advantage of the increased strength and wear resistance of a heat treated steel retainer, while reducing its mass to within grams of a comparable titanium retainer. With 65lbs of seat pressure these kits are the ultimate setup for any 1999-'14 'Busa street/strip tuner.

Retainer Set • O. E. M. Replacement • H. T. Steel

NEW PRODUCTS

	KPMI P/N	Type	Material	Quantity
	60-60901	Intake	H. T. Steel	Pkg. of 16
		Exhaust		

Note : Fits O.E.M. Springs and KPMI® Spring Kit PN 60-60900

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	60-60560	Intake	.490"	1.455"	65#	195#	.415"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs		

This spring set fits the stock retainers and bases on all 1999-2015 'Busa models. It is the street/strip tuner's answer for high performance valve springs.

Valve Kit • High Performance Racing

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60910	Intake	34.00mm	1.339"	0.1962"	21°	3.745"	Oversize
		Exhaust	27.50mm	1.083"	0.1956"	17°	3.735"	Standard
	Kit Includes			8	Intake Titanium Valves		8	Exhaust Inconel® Valves

The High Performance Racing Valve Kit for the Suzuki Hayabusa is a specially formulated combination of valve materials and sizes, designed in conjunction with top racers, for maximum performance. The kit includes a +1mm oversize Tensilite Titanium Intake Valve and a White Diamond Inconel Exhaust Valve (standard head size). Components are designed for increased air flow and resistance to the high operating temperatures from applications running forced induction and/or exotic fuels. This combination has been offered as a kit to provide the greatest value for builders and racers looking for the ultimate valve setup.

Valve • Titanium • Tensilite® • Intake

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60413T	Intake	34.00mm	1.339"	0.1962"	21°	3.745"	Oversize

All titanium valves are 1 piece forged for superior strength over a 2 piece valve. The Tensilite PVD CrN coating is a state of the art process, which is much tougher than the OEM oxidizing process. These +1mm oversized valves offer a 33% savings in mass over the '99-'07 steel valves and come within 2 grams of the '08 and later titanium valves.

Valves • White Diamond® • Inconel® • Exhaust

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60436	Exhaust	27.50mm	1.083"	0.1956"	17°	3.735"	Standard
	60-60437	Exhaust	28.50mm	1.122"	0.1956"	17°	3.735"	Oversize

Inconel® is classified as a "Super Alloy", meaning that it is designed to survive under the most extreme temperatures and pressures, where other valves will begin to burn, corrode, or completely fail. This is the material of choice for high output engines running turbos, superchargers, nitromethane, or nitrous.

ORDER 650-557-2046

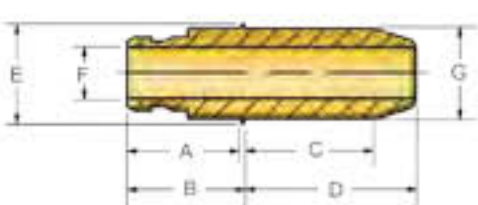
SUZUKI® HAYABUSA™ 1999-2017



Valves • Black Diamond™ • Black Nitron® Stems

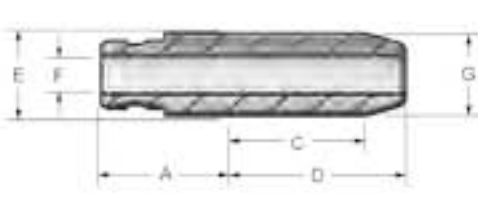
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	60-60008	Intake	33.00mm	1.299"	0.1962"	18°	3.740"	Standard
	60-60009	Intake	34.00mm	1.339"	0.1962"	18°	3.750"	Oversize
	60-60010	Exhaust	27.50mm	1.083"	0.1956"	17°	3.735"	Standard
	60-60011	Exhaust	28.50mm	1.122"	0.1956"	17°	3.725"	Oversize

Valve Guides • C630 Bronze • Manganese Bronze **NEW PRODUCTS**

	A	B	C	D	E	F	G	Intake / Exhaust	
								C630 Bronze	Manganese
	0.560"	0.585"	0.650"	0.860"	0.460"	0.1962"	0.4170" / Std.	60-60020	60-60020-M
							+0.001"	60-60021	60-60021-M
							+0.002"	60-60022	60-60022-M
							+0.004"	60-60024	60-60024-M
							+0.010"	60-60029	60-60029-M

For sizing KPMI® Manganese Bronze Valve guides please use Reamer #GR-1970. For a complete listing of hones and reamers please see component section in back of catalog.

Valve Guides • Cast Iron **NEW PRODUCTS**

	A	B	C	D	E	F	G	Intake / Exhaust	
	0.585"	----	0.650"	0.860"	0.415"	0.1931"	0.4170" / Std.	60-60020-C	
							+0.001"	60-60021-C	
							+0.002"	60-60022-C	
							+0.004"	60-60024-C	
							+0.010"	60-60029-C	

Valve Guide Installer **NEW PRODUCTS**

	KPMI P/N	O.L.	Body Ø	Inner Ø 1	Inner Ø 2	Depth 1	Depth 2	Quantity
		A	B	C	D	E	F	
	60-61400	8.000"	0.615"	0.425"	0.348"	0.285"	0.650"	Pkg. of 1

Specifically designed for KPMI's Cast Iron, C630 and Manganese Bronze guides

Valve Guide Remover **NEW PRODUCTS**

	KPMI P/N	O.L.	Body Ø	Ø 1	Ø 2	Length 1	Length 2	Quantity
		A	B	C	D	E	F	
	60-61405	8.000"	0.615"	0.182"	0.397"	1.000"	4.000"	Pkg. of 1

Works with other applications (see dimensions for compatibility)

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.0mm	0.350"	0.405"	4	A	B	C	D	Intake
				0.340"±0.005"	0.303"	0.125"	0.230"	Exhaust
			Part Number			Quantity	Quantity Incentive	
			71015-4			Pkg. of 4	0%	
			71015-8			Pkg. of 8	0%	
			71015-16			Pkg. of 16	Less- 10%	
			71015-50			Pkg. of 50	Less- 15%	
			71015-100			Pkg. of 100	Less- 20%	

Tappets • O.E.M. Replacement • Shim On Bottom Conv. • H.T. Steel

A technical drawing of a rectangular component, likely a tappet, with dimensions labeled. The overall width is 'A', the overall height is 'B', the inner width is 'C', the inner height is 'E', and the thickness of the side walls is 'F'. The drawing shows a cross-section of the component with a central rectangular opening.

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
60-60014	In/ Ex	None	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"	Pkg. of 16
60-60035	In/ Ex	None	28.50mm	1.1220"	1.058"	0.763"	0.320"	0.098"	Pkg. of 16
60-60335	In/ Ex	DLC Coated	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"	Pkg. of 16

Refer to KPMI® Tappet Section, in back of catalog, when selecting other size tappets.

VISIT US AT WWW.KPMI.US



SUZUKI HAYABUSA™ 1999-2017

Cylinder Stud Kit • H. T. Steel • Oversize • 1/2" -20 Thread **NEW PRODUCTS**

KPMI P/N	Material	O.L.	Body Dia.	A	B	Remarks
60-61200	H. T. Steel	8.200"	0.498"	1.340"	1.340"	1/2" Dia. Oversize
Kit Includes	10	H. T. Steel Studs	10	H. T. Steel Nuts	10	H. T. Steel Washers

- 1/2" Oversized studs for maximum strength, intended for high HP and forced induction applications
- High quality CNC machined, heat treated steel nuts and studs with rolled threads for maximum tensile strength
- 12- Point Nut pattern allows maximum power transmission and clearance when installing
- Cases must be drilled and tapped for 1/2-20 thread, prior to installation
- Aftermarket head/base gaskets that can accept a 1/2" diameter stud are required
- Black Oxided for enhanced corrosion resistance
- Nuts also sold separately, see the KPMI® "Tools & Components" section of our website and catalog for purchasing information

Cylinder Stud • H. T. Steel • Oversize • 1/2" -20 Thread **NEW PRODUCTS**

	KPMI P/N	Material	O.L.	Body Dia.	A	B	Remarks
	60-61201	H. T. Steel	8.200"	0.498"	1.340"	1.340"	1/2" Dia. Oversize
	Includes	10	H. T. Steel Studs				

- Replaces the stock cylinder head bolt design, with a superior stud / nut configuration
- 1/2" Oversized studs for maximum strength, intended for high HP and forced induction applications
- High quality CNC machined, heat treated steel studs with rolled threads (not cut) for maximum tensile strength

Cylinder Studs • H. T. Steel • M10 x 1.25 Thread

	KPMI P/N	Material	O.L.	Body Dia.	A	B	Remarks
	60-60825	H. T. Steel	8.010"	0.370"	1.155"	1.310"	Std. Length
	Includes	10	H. T. Steel Studs		10	H. T. Steel Washers	

- High quality CNC machined, ground and heat treated steel studs with rolled threads for maximum tensile strength
- Black Oxided for enhanced corrosion resistance

Cylinder Nuts • Steel

	KPMI P/N	Material	O.D.	O.L.	Thread	Quantity
	41002-4	H.T. Steel	0.786"	0.520"	1/2-20 UNF 3A	Pkg. of 4
	60-60820	H.T. Steel	0.740"	0.750"	M10 x 1.25	Pkg. of 10
	41001-4	H.T. Steel	0.740"	0.750"	M10 x 1.25	Pkg. of 4

- High quality CNC machined, heat treated steel nuts with rolled threads for maximum tensile strength
- Black Oxided for enhanced corrosion resistance

Washers • Spacers for 10M x 1.25 Thread

	KPMI P/N	Material	O.D.	O.L.	Thickness	Quantity
	60-60840	Stainless Steel	0.787"	0.413"	0.079"	Pkg. of 10
	60-60835	Apmco - 45	0.740"	0.396"	0.100"	Pkg. of 10

Note: Washers may be needed with +0.200" Length Studs

ORDER 650-557-2046

TRIUMPH® 500 TWIN 1958-1973



TRIUMPH

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	70-70030	Intake	.455"		1.205"		74#		206#		.455"
		Exhaust									
	Kit Includes			4	Titanium Retainers		4	CrSi Valve Springs		4	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroneg Stems



KPMI P/N	Type	Head Diameter	Stem Diameter	Tulip	O. L.	Remarks	
70-4290	Intake	39.12mm	1.540"	0.3105"	23°	3.480"	Standard
70-4292	Intake	40.64mm	1.600"	0.3105"	23°	3.500"	Oversize
70-4291	Exhaust	33.66mm	1.325"	0.3100"	27°	3.425"	Standard
70-4293	Exhaust	34.93mm	1.375"	0.3100"	27°	3.445"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.560"	0.610"	0.620"	1.160"	0.550"	0.3105"	0.5010" / Std.		70-0339
							+0.002"		70-0340
							+0.004"		70-0341
							+0.006"		70-0342
							+0.015"		70-4031
No seal required.									

Fork Bushing • Nickel Bronze

	KPMI P/N	Type	O.D.	LD	O.L.	Quantity
	70-0646	Top	1.4990"	1.3075"	1.000"	Pkg. of 1
	70-0647	Bottom	1.4945"	1.2495"	0.875"	Pkg. of 1

Note: Fits 1963-1970 Triumph 500 Twin's.

Crankshaft Bushings • Bearing Bronze

	KPMI P/N	Material	O. D.	I. D.	O. L.	Remarks	Quantity
	70-0817	Bronze	1.814"	1.439"	1.035"	Standard	Pkg. of 1
	70-0818	Bronze	1.814"	1.429"	1.035"	-0.010"	Pkg. of 1
	70-0819	Bronze	1.814"	1.419"	1.035"	-0.020"	Pkg. of 1
	70-0820	Bronze	1.814"	1.409"	1.035"	-0.030"	Pkg. of 1

Machined from high quality mill certified SAE660 Bearing Bronze (custom sizes available).

For all the applications available for Kibblewhite's Triumph® line of products, please refer online to the Triumph® section of the www.kpmi.us website, under **British Bike**.

VISIT US AT WWW.KPMI.US



TRIUMPH® PRE-UNIT 500/ 650 1951-'62

Valves • Black Diamond™ • Black Nitroleg Stems • For Pre-Unit 650 1956-1962

**NEW
PRODUCTS**

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	70-70380	Intake	38.10mm	1.500"	0.3105"	R1.4	3.790"	Standard
	70-70385	Exhaust	34.11mm	1.343"	0.3100"	15°	3.775"	Standard

Welded tips (no lash caps required).

Valve Guides • C630 Bronze • Manganese

		A	B	C	D	E	F	G	Intake / Exhaust	
									C630 Bronze	Manganese
		0.460"	0.610"	0.840"	1.390"	0.680"	0.3105"	0.5010" / Std.	70-0331	70-0331-M
								+0.002"	70-0332	70-0332-M
								+0.004"	70-0333	70-0333-M
								+0.006"	70-0334	70-0334-M
								+0.015"	70-0840	70-0840-M
								+0.050"	70-4033	70-4033-M

Note : No seal required.

For sizing KPMI® Cast Iron and Manganese Bronze Valve guides please use Reamers #GR-3115. For a complete listing of hones and reamers please see component section in back of catalog.

Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.315"	0.405"	0.820"	1.370"	0.680"	0.3105"	0.5010" / Std.	70-0331S	
								+0.002"	70-0332S	
								+0.004"	70-0333S	
								+0.006"	70-0334S	
								+0.015"	70-0840S	
								+0.050"	70-4033S	

Machined for seal, seals sold separately.

Valve Guide Seals • Viton® • 6.00mm Coverion Systems

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.465"	0.550"	1	A	B	C	D	Intake
				0.500"±0.010"	0.445"	0.230"	0.280"	Exhaust
			Part Number				Quantity	Quantity Incentive
			71012-4				Pkg. of 4	0%
			71012-8				Pkg. of 8	0%
			71012-16				Pkg. of 16	Less- 10%
			71012-50				Pkg. of 50	Less- 15%
			71012-100				Pkg. of 100	Less- 20%

Thrust Washer • Transmission • For Pre-Unit 650's 1960-1962

	KPMI P/N	Material	O.D.	O.L.	Thickness	Quantity
	70-0474	Bronze	1.280"	0.880"	0.090"	Pkg. of 1

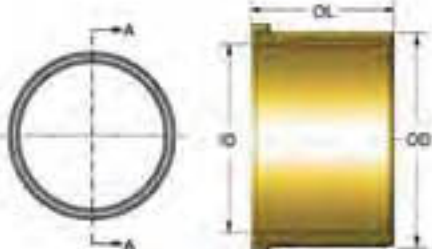
Note: Transmission thrust washer for needle bearing gearbox.

ORDER 650-557-2046

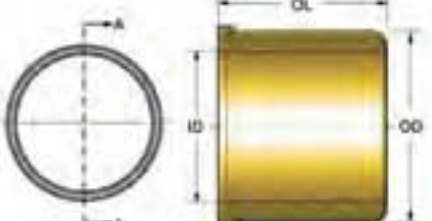
TRIUMPH® PRE-UNIT 500/ 650 1951-'62



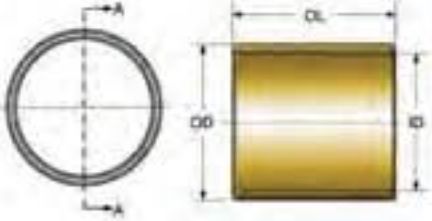
Fork Bushing • Nickel Bronze

	KPMI P/N	Type	O.D.	I.D.	O.L.	Quantity
	70-0646	Top	1.4990"	1.3075"	1.000"	Pkg. of 1
	70-0647	Bottom	1.4945"	1.2495"	0.875"	Pkg. of 1

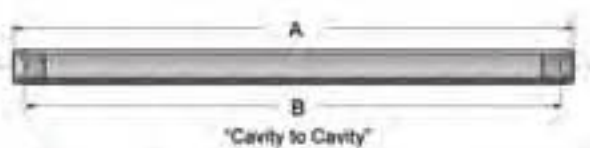
Camshaft Bushings • Nickel Bronze

	KPMI P/N	Type	O.D.	I.D.	O.L.	Quantity
	70-0458	Outer (Timing Side)	1.270"	0.8740"	1.000"	Pkg. of 1
	70-0467	Inner (Drive Side)	1.0015"	0.809"	0.937"	Pkg. of 1

Wrist Pin Bushings • Bearing Bronze

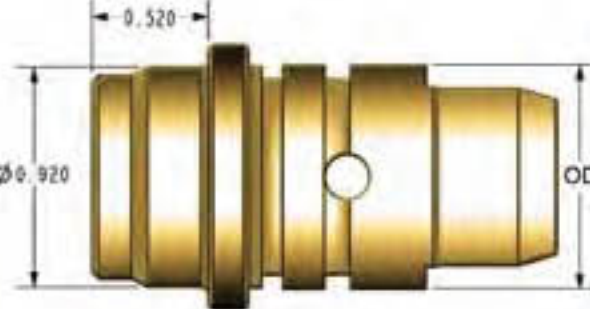
	KPMI P/N	Type	O.D.	I.D.	O.L.	Quantity
	70-0459	Rod (Small End)	0.815"	0.6885"	1.031"	Pkg. of 1

Push Rods Alloy Tube • For Pre-Unit 650's 1956-1962

	KPMI P/N	Material	A	B	Quantity
	70-0301	H.T. Steel Endpieces	6.302"	6.022"	Pkg. of 4

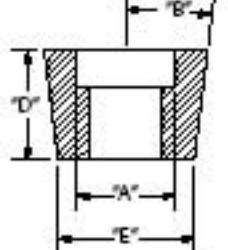
Made from light, strong, and tough, aircraft quality heat treated seamless aluminum tubing. These push rods are assembled with hardened steel ends that are held to exacting radius and surface finish tolerances. They are a perfect match for the rocker and tappet. After assembly, the OD of the entire push rod is precision ground to create a part that is first class in finish, fit, and function. This is the push rod of choice for Triumph racers, rebuilders, and restorers around the world.

Tappet Blocks • Racing

	KPMI P/N	Material	Camshaft Lift	O.L.	Quantity
	70-0448	Bronze - 674	0.450"	1.0005"	Pkg. of 1
	70-70332	Bronze - 674	0.450"	1.0005"	Pkg. of 2
	70-70340	Cast Iron - G2	0.450"	1.0005"	Pkg. of 1
	70-70342	Cast Iron - G2	0.450"	1.0005"	Pkg. of 2

Made from Nickel Aluminum Bronze / Cast Iron and designed to accept more lift. When installing this tappet block in 1946-'68 models, it will be necessary to reduce the upper body diameter. To ensure the push rod tube fits around the upper portion of the tappet block, the existing Ø0.984 diameter must be machined down to to Ø0.920" as shown in diagram.

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	A	B	C	D	E	Quantity
		51017-4	Shouldered Square Bead	0.310	7.0°	---	0.245"	0.369"	4Pr.



TRIUMPH® 650 / 750 1963-1983

- 6.00mm Conversion System

Valve Spring Kit • Beehive For Triumph 650

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift			
	70-70510	Intake	.460"	1.375"	90#	220#	.460"			
		Exhaust								
	Kit Includes			4	Titanium Retainers			4	H. T. Steel Keepers	
				4	CrSi Valve Springs			4	H. T. Steel Basewashers	
Note: Must use 6.0mm Valves and Guides										

Note: Must use 6.0mm Valves and Guides

Valve Spring Kit • Beehive For Triumph 750

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift		
	70-70520	Intake	.460"	1.375"	90#	220#	.460"		
		Exhaust							
	Kit Includes		4	Titanium Retainers		4		H. T. Steel Keepers	
			4	CrSi Valve Springs		4		H. T. Steel Basewashers	
Note: Must use 6.0mm Valves and Guides									

Note: Must use 6.0mm Valves and Guides

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	70-70550	Intake	40.64mm	1.600"	0.2355"	23°	3.850"	Standard
	70-70551	Intake	42.16mm	1.660"	0.2355"	23°	3.830"	Oversize
	70-70553	Exhaust	36.58mm	1.440"	0.2350"	29°	3.780"	Standard
	70-70554	Exhaust	38.10mm	1.500"	0.2350"	29°	3.760"	Oversize

Note: Welded tips (no lash caps required). Titanium Valves Available Custom

Lash Caps • H.T. Steel

	KPMI P/N	Material	"A"	"B"	"C"	"D"	"C" - "D"	Quantity
	94008-4	H.T. Steel	6.00mm	0.315"	0.120"	0.080"	0.040"	Pkg. of 4
			0.2362"					

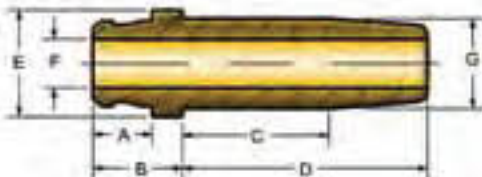
For all the applications available for Kibblewhite's Triumph® line of products, please refer online to the Triumph® section of the www.kpmi.us website, under **British Bike**.

TRIUMPH® 650 / 750 1963-1983



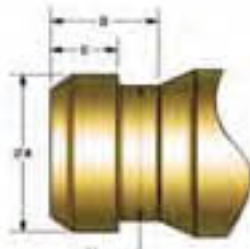
• 6.00mm Conversion System

Valve Guides • C630 Bronze • 6.00mm Conversion Systems

		A	B	C	D	E	F	G	Intake	Exhaust
		0.330"	0.500"	0.820"	1.370"	0.685"	0.2350"	0.5010" / Std.	70-70530	
									+0.002"	70-70532
									+0.015"	70-70545

One seal supplied with each guide.

Valve Guide Seals • Viton® • 6.00mm Conversion Systems

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
			Part Number		Quantity		Quantity Incentive	
			71017-4		Pkg. of 4		0%	
			71017-8		Pkg. of 8		0%	
			71017-16		Pkg. of 16		Less- 10%	
			71017-50		Pkg. of 50		Less- 15%	
			71017-100		Pkg. of 100		Less- 20%	

These seals are designed to work with the KPMI® Guides.

TRIUMPH® 650 / 750 1963-1983

Valve Spring Kit • Lightweight Racing



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
70-0300	Intake	.520"	1.420"	104#	234#	.520"
	Exhaust					
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers	
		4	H.A. 7075-T6 Retainers	4	H. T. Steel Basewashers	



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
70-70170	Intake	.520"	1.420"	104#	234#	.520"
	Exhaust					
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Keepers	
		4	Titanium Retainers	4	H. T. Steel Basewashers	



NEW PRODUCTS

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
70-70400 for 650cc	Intake	.460"	1.310"	90#	220#	.460"	
	Exhaust						
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Retainers	4	H. T. Steel Basewashers

NEW PRODUCTS

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
70-70450 for 750cc	Intake	.460"	1.310"	90#	220#	.460"	
	Exhaust						
Kit Includes		4	CrSi Valve Springs	4	H. T. Steel Retainers	4	H. T. Steel Basewashers

*O.E.M. Replacement Keepers available in pairs P/N 51017-4



TRIUMPH® 650 / 750 1963-1983

Valve Spring Kit • Beehive • For Triumph 650

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	70-70270	Intake	.460"		1.375"		90#		220#		.460"
		Exhaust									
	Kit Includes			4	H. T. Steel Retainers	4	CrSi Valve Springs	4	H. T. Steel Basewashers		

Valve Spring Kit • Beehive • For Triumph 750

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	70-70280	Intake	.460"		1.375"		90#		220#		.460"
		Exhaust									
	Kit Includes			4	H. T. Steel Retainers		4	CrSi Valve Springs		4	H. T. Steel Basewashers

Valve Spring Kit • O. E. M. Replacement For Triumph 650

	KPMI P/N	Type	Kit Includes							
			H. T. Steel Retainers		H. T. Steel Keepers		CrSi Valve Springs		H. T. Steel Basewashers	
	70-70140	Intake	4	70-70141	Use O.E.M	4	70-70143	4	70-70145	
		Exhaust								
	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift	
.348"		1.250"		68#		145#		.348"		

1963-1965: Basewasher and springs are not direct O.E.M. replacements, all spring kit parts must be used together.
 1966-1972: All components are direct O.E.M. replacements. These O.E.M. replacements parts may be purchased separately using the above part numbers.
 O.E.M. Replacement keepers available in pairs PT#51017-4.

Valve Spring Kit • O. E. M. Replacement For Triumph 750

	KPMI P/N	Type	Kit Includes							
			H. T. Steel Retainers		H. T. Steel Keepers		CrSi Valve Springs		H. T. Steel Basewashers	
	70-70250	Intake	4	70-70251	Use O.E.M	4	70-70253	4	70-70255	
		Exhaust								
	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift	
	.348"		1.250"		68#		145#		.348"	

All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. specifications. These O.E.M. replacements parts may be purchased separately using the above part numbers.

Valves • Black Diamond™ • Black Nitronex Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	70-4228	Intake	40.64mm	1.600"	0.3105"	1.5" R	3.850"	Standard
	70-4229	Intake	42.16mm	1.660"	0.3105"	1.5" R	3.830"	Oversize
	70-4230	Exhaust	36.58mm	1.440"	0.310"	24°	3.780"	Standard
	70-4231	Exhaust	38.10mm	1.500"	0.310"	24°	3.760"	Oversize

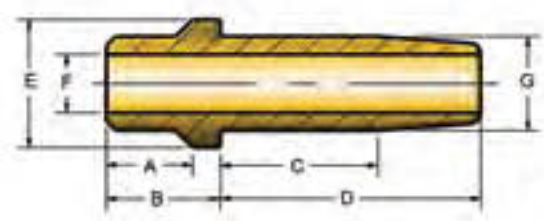
TRIUMPH 650 / 750 1963-1983



Valves • Untreated Stems • O.E.M. Replacement (RAW)

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	70-70500	Intake	40.64mm	1.600"	0.3105"	1.5" R	3.850"	Standard
	70-70501	Intake	42.16mm	1.660"	0.3105"	1.5" R	3.830"	Oversize
	70-70504	Exhaust	36.58mm	1.440"	0.310"	24°	3.780"	Standard
	70-70505	Exhaust	38.10mm	1.500"	0.310"	24°	3.760"	Oversize

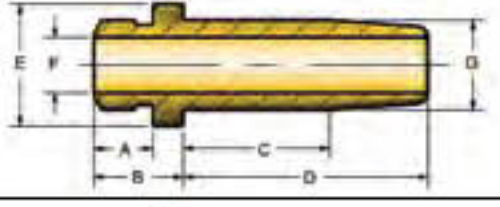
Valve Guides • C630 Bronze • Manganese

	A	B	C	D	E	F	G	Intake / Exhaust	
								C630 Bronze	Manganese
	0.460"	0.610"	0.840"	1.390"	0.680"	0.3105"	0.5010" / Std.	70-0331	70-0331-M
							+0.002"	70-0332	70-0332-M
							+0.004"	70-0333	70-0333-M
							+0.006"	70-0334	70-0334-M
							+0.015"	70-0840	70-0840-M
							+0.050"	70-4033	70-4033-M

Note : No seal required.

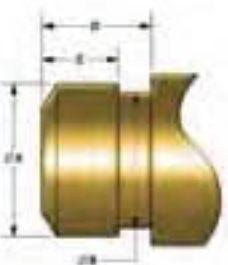
For sizing KPMI® Cast Iron and Manganese Bronze Valve guides please use Reamers #GR-3115. For a complete listing of hones and reamers please see component section in back of catalog.

Valve Guides • C630 Bronze

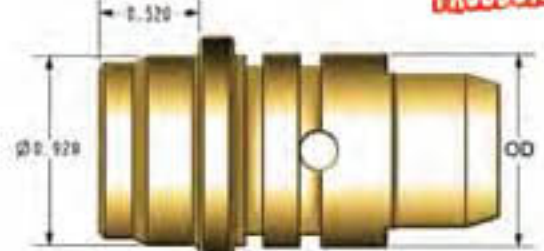
	A	B	C	D	E	F	G	Intake	Exhaust
	0.315"	0.405"	0.820"	1.370"	0.680"	0.3105"	0.5010" / Std.	70-0331S	
							+0.002"	70-0332S	
							+0.004"	70-0333S	
							+0.006"	70-0334S	
							+0.015"	70-0840S	
							+0.050"	70-4033S	

Machined for seal, seals sold separately.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.465"	0.550"	1	A	B	C	D	Intake
				0.500"±0.010"	0.445"	0.230"	0.280"	Exhaust
	Part Number		Quantity		Quantity Incentive			
	71012-4		Pkg. of 4		0%			
	71012-8		Pkg. of 8		0%			
	71012-16		Pkg. of 16		Less- 10%			
	71012-50		Pkg. of 50		Less- 15%			
	71012-100		Pkg. of 100		Less- 20%			

Tappet Blocks • Racing **NEW PRODUCTS**

	KPMI P/N	Material	Camshaft Lift	O.L.	Quantity
	70-0448	Bronze - 674	0.450"	1.0005"	Pkg. of 1
	70-70332	Bronze - 674	0.450"	1.0005"	Pkg. of 2
	70-70340	Cast Iron - G2	0.450"	1.0005"	Pkg. of 1
	70-70342	Cast Iron - G2	0.450"	1.0005"	Pkg. of 2

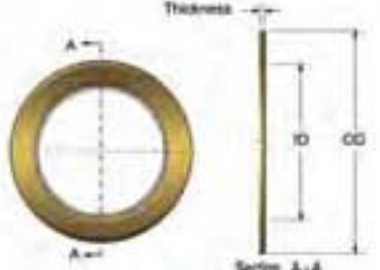
Made from Nickel Aluminum Bronze / Cast Iron and designed to accept more lift. When installing this tappet block in 1946-'68 models, it will be necessary to reduce the upper body diameter. To ensure the push rod tube fits around the upper portion of the tappet block, the existing Ø0.984 diameter must be machined down to to Ø0.920" as shown in diagram.

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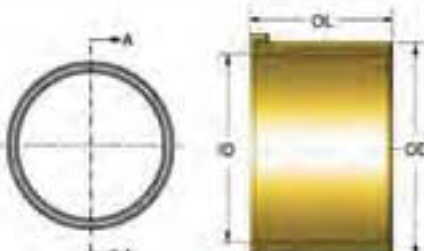
TRIUMPH® 650 / 750 1963-1983

Thrust Washer • Transmission

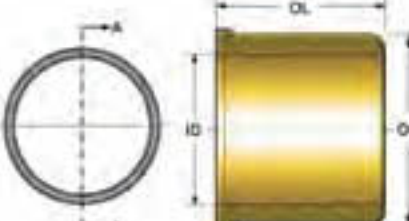
	KPMI P/N	Material	O.D.	I.D.	Thickness	Quantity
	*70-0474	Bronze	1.280"	0.880"	0.090"	Pkg. of 1
	70-0476	Bronze	2.620"	2.018"	0.057"	Pkg. of 1
	70-0477	Bronze	2.620"	1.835"	0.057"	Pkg. of 1

*Note: Transmission thrust washer for needle bearing gearbox

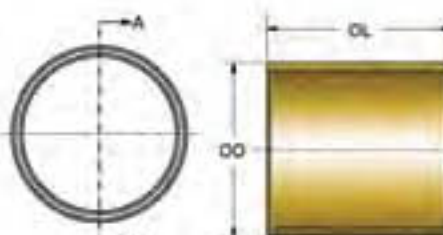
Fork Bushing • Nickel Bronze

	KPMI P/N	Type	O.D.	I.D.	O.L.	Quantity
	70-0646	Top	1.4990"	1.3075"	1.000"	Pkg. of 1
	70-0647	Bottom	1.4945"	1.2495"	0.875"	Pkg. of 1

Camshaft Bushings • Nickel Bronze

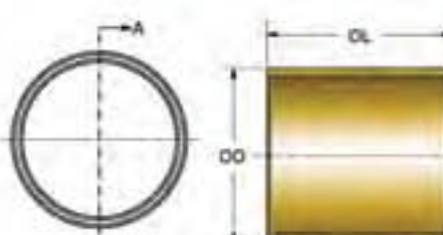
	KPMI P/N	Type	O.D.	I.D.	O.L.	Quantity
	70-0458	Outer (Timing Side)	1.270"	0.8740"	1.000"	Pkg. of 1
	70-0467	Inner (Drive Side)	1.0015"	0.809"	0.937"	Pkg. of 1

Wrist Pin Bushings • Bearing Bronze

	KPMI P/N	Type	O.D.	I.D.	O.L.	Quantity
	70-0459	Rod (Small End)	0.815"	0.6885"	1.031"	Pkg. of 1

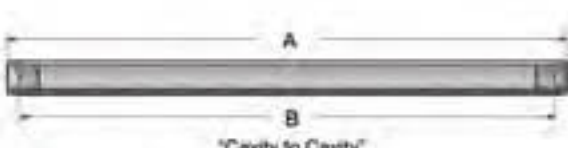
High Gear Bushings • Bronze • For 650 1963-1972 Models

NEW PRODUCTS

	KPMI P/N	Type	O.D.	I.D.	O.L.	Quantity
	70-70160	4-Speed	0.910"	0.810"	1.100"	1 Pr.

These bushings are designed to replace the single OEM style bushing. They maintain the same bearing surface while the gap between each bushing provides a large cavity for oil to pool, aiding in lubrication of the shaft.

Push Rods Alloy Tube • H.T. Steel Endpieces

	KPMI P/N	Material	A	B	Quantity
	70-0301	H.T. Steel Endpieces (for 650)	6.302"	6.022"	Pkg. of 4
	70-0447	H.T. Steel Endpieces (for 750)	5.905"	5.625"	Pkg. of 4

Made from light, strong, and tough, aircraft quality heat treated seamless aluminum tubing. These push rods are assembled with hardened steel ends that are held to exacting radius and surface finish tolerances. They are a perfect match for the rocker and tappet. After assembly, the OD of the entire push rod is precision ground to create a part that is first class in finish, fit, and function. This is the push rod of choice for Triumph racers, rebuilders, and restorers around the world.

ORDER 650-557-2046

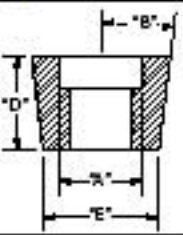
TRIUMPH® 650 / 750 1963-1983



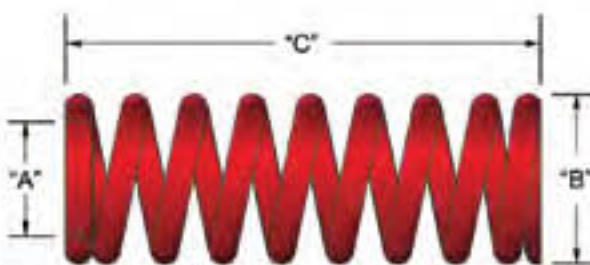
Clutch Push Rod • H.T. Steel

	KPMI P/N	Material	Type	A	B	Quantity
	70-0505	H.T. Steel	Drill Rod (H.T. tips)	11.812"	0.219"	Pkg. of 1

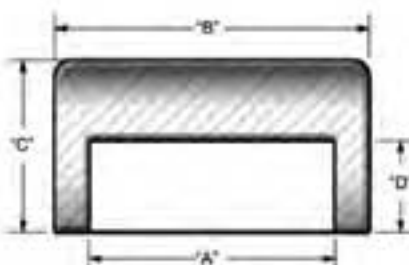
Keeper Set • O.E.M. Replacement • H.T. Steel

 	KPMI P/N	Style	A	B	C	D	E	Quantity
	51017-4	Shouldered Square Bead	0.310	7.0°	---	0.245"	0.369"	4Pr.

Clutch Springs

	KPMI P/N	Description	A	B	C	Quantity
	70-0124	3 Clutch Spring Models	0.452"	0.662"	1.858"	Pkg. of 3
	70-0465	4 Clutch Spring Models	0.452"	0.662"	1.858"	Pkg. of 4
Manufactured from high quality chrome silicon wire, they are designed to supply 20% more plate load than stock springs.						

Lash Caps • H.T. Steel

	KPMI P/N	Material	"A"	"B"	"C"	"D"	"C" - "D"	Quantity
	94001-4	H.T. Steel	7.94mm	0.395"	0.160"	0.080"	0.080"	Pkg. of 4
			0.3126"					

TRIUMPH® TRIDENT™ 1971-1976

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	70-70350	Intake	.400"		1.350"		95#		242#		.400"
		Exhaust									
	Kit Includes			6	Titanium Retainers	6	CrSi Valve Springs	6	H. T. Steel Basewashers		

Valves • Black Diamond™ • Black Nitroneg Stems • For 1971-1972 Models

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	70-1009	Intake	38.86mm	1.530"	0.3105"	1.5" R	3.975"	Standard
	70-1010	Intake	40.39mm	1.590"	0.3105"	1.5" R	3.950"	Oversize
	70-1011	Exhaust	33.40mm	1.315"	0.3100"	25°	3.915"	Standard
	70-1012	Exhaust	35.56mm	1.400"	0.3100"	25°	3.890"	Oversize

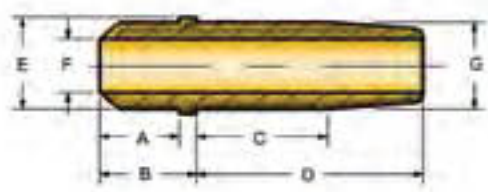


TRIUMPH® TRIDENT™ 1971-1976

Valves • Black Diamond™ • Black Nitroneg Stems • For 1973-1976 Models

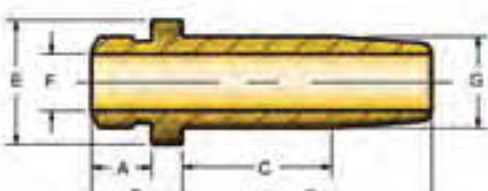
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	70-0885	Intake	38.86mm	1.530"	0.3105"	1.5" R	3.735"	Standard
	70-0852	Intake	40.39mm	1.590"	0.3105"	1.5" R	3.710"	Oversize
	70-0886	Exhaust	33.40mm	1.315"	0.3100"	25°	3.680"	Standard
	70-0853	Exhaust	35.56mm	1.400"	0.3100"	25°	3.655"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.460"	0.560"	0.760"	1.310"	0.560"	0.3105"	0.5010" / Std.	70-0343	
							+0.002"	70-0344	
							+0.015"	70-4153	

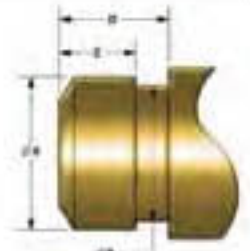
No seal required

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.330"	0.430"	0.765"	1.315"	0.560"	0.3105"	0.5010" / Std.	70-0812	
							+0.002"	70-0813	
							+0.004"	70-0814	
							+0.006"	70-0815	
							+0.015"	70-4039	

One seal supplied with each guide.

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5/16"	0.465"	0.550"	1	A	B	C	D	Intake
				0.500"±0.010"	0.445"	0.230"	0.280"	Exhaust
			Part Number				Quantity	Quantity Incentive
			71012-4				Pkg. of 4	0%
			71012-8				Pkg. of 8	0%
			71012-16				Pkg. of 16	Less- 10%
			71012-50				Pkg. of 50	Less- 15%
			71012-100				Pkg. of 100	Less- 20%

TRIUMPH® 865 2001-2010

Valve Spring Kit • Lightweight Racing • Shim Under Conversion



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
70-70300	Intake	.450"	1.415"	55#	191#	.450"	
	Exhaust						
Kit Includes		8	Titanium Retainers	8	H. T. Steel Keeper Pr.	8	CrSi Valve Springs
		8	H. T. Steel Basewashers	8	H. T. Steel Tappets	8	Adj. Shims 9.5mm OD

Spring Kit requires 9.5mm adjustment shims. See Kibblewhite® Adjustment Shim Section in back of catalog for more information.

ORDER 650-557-2046

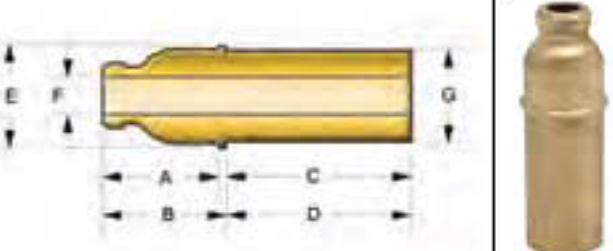
TRIUMPH® 865 2001-2010



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	70-70120	Intake	.450"		1.280"		52#		166#		.450"
		Exhaust									
	Kit Includes			8	Titanium Retainers	8	CrSi Valve Springs	8	H. T. Steel Basewashers		

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.625"	0.670"	0.995"	0.995"	0.590"	0.2150"	0.5338" / Std.	70-70320	
								+0.001"	70-70321
								+0.002"	70-70322
								+0.010"	70-70329

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
		Part Number				Quantity	Quantity Incentive	
		71016-4				Pkg. of 4	0%	
		71016-8				Pkg. of 8	0%	
		71016-16				Pkg. of 16	Less- 10%	
		71016-50				Pkg. of 50	Less- 15%	
		71016-100				Pkg. of 100	Less- 20%	

TRIUMPH® VARIOUS 885cc-955cc 1997-2001

• T509 885cc 1997-1998

• T595 / 955I / 955cc 1997-2001

Valve Spring Kit • Lightweight Racing • Shim Under Conversion

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	70-70035	Intake	.440"		1.375"		68#		201#		.440"
		Exhaust									
	Kit Includes			12	Titanium Retainers	12	H. T. Steel Keeper Pr.	12	CrSi Valve Springs		
				12	H. T. Steel Basewashers	12	H. T. Steel Tappets	12	Spacers		

Spring Kit requires 9.5mm adjustment shims. See Kibblewhite® Adjustment Shim Section in back of catalog for more information.

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	70-70026	Intake	.440"		1.375"		65#		204#		.440"
		Exhaust									
	Kit Includes			12	Titanium Retainers		12	H. T. Steel Keeper Pr.		12	CrSi Valve Springs
12				H. T. Steel Basewashers				12	Spacers		

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YAMAHA® RAPTOR™ 250 2008-2013

Valve Spring Kit • Lightweight Racing

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
80-80550	Intake	.440"	1.240"	65#	192#	.440"	
	Exhaust						
Kit Includes		2	Titanium Retainers	2	CrSi Valve Springs	2	H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80562	Intake	34.00mm	1.339"	0.2355"	15°	3.690"	Standard
	80-80563	Intake	35.00mm	1.378"	0.2355"	15°	3.670"	Oversize
	80-80566	Exhaust	28.50mm	1.122"	0.2350"	23°	3.640"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.455"	0.490"	0.845"	1.245"	0.480"	0.2355"	0.4552" / Std.	80-80570	
							+0.002"	80-80572	
							+0.010"	80-80579	
	0.455"	0.490"	0.975"	1.295"	0.480"	0.2350"	0.4552" / Std.		80-80580
							+0.002"		80-80582
							+0.010"		80-80589

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71017-2			Pkg. of 2		0%	
		71017-4			Pkg. of 4		0%	
		71017-8			Pkg. of 8		0%	
		71017-16			Pkg. of 16		Less- 10%	
		71017-50			Pkg. of 50		Less- 15%	
		71017-100			Pkg. of 100		Less- 20%	

YAMAHA® SR™ / TT™ / XT™ 250 1976-1981

Valve Guides • C630 Bronze

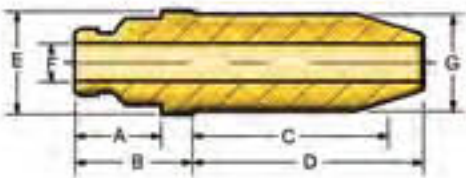
	A	B	C	D	E	F	G	Intake	Exhaust
	0.645"	0.765"	0.970"	1.200"	0.905"	0.3135"	0.5535" / Std.	80-8100	
							+0.001"	80-8101	
							+0.010"	80-8110	

ORDER 650-557-2046

YAMAHA® SRX™ 250 / XT™ 250 / 350 1984-2000



Valve Guides • C630 Bronze

		A	B	C	D	E	F	G	Intake	Exhaust
		0.470"	0.610"	0.585"	0.850"	0.470"	0.2160"	0.4350" / Std.	80-8030	
									+0.002"	80-8032
									+0.015"	80-8039

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71016-4			Pkg. of 4		0%
			71016-8			Pkg. of 8		0%
			71016-16			Pkg. of 16		Less- 10%
			71016-50			Pkg. of 50		Less- 15%
			71016-100			Pkg. of 100		Less- 20%

YAMAHA® TTR™ 250 1999-2006

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80000	Intake	.380"	1.165"	32#	75#	.380"	
		Exhaust						
	Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4

The springs in these kits are wound from super clean chrome silicon wire that has been heat treated and shot peened. These components offer optimal fitment, keeping lateral movement to a minimum. They work together as a system, providing long life, and maximum performance.

YAMAHA® WR™ / YZ™ 250F 2001-2013

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift		
	80-80066	Intake	.380"	1.105"	39#	86#	.380"		
		Exhaust							
	Kit Includes			3	In Titanium Retainers	3	In CrSi Valve Springs	3	In H. T. Steel Basewashers
				2	Ex Titanium Retainers	2	Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers
3				In Viton® Seals			2	Ex Viton® Seals	



YAMAHA® WR™ / YZ™ 250F 2001-2013

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80850	Intake	.380"	1.105"	39#	86#	.380"	
	Kit Includes		3	In Titanium Retainers	3	In CrSi Valve Springs	3	In H. T. Steel Basewashers
			2	Outer In Black Diamond™ Valves	1	Center In Black Diamond™ Valves		

Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80073	Intake	23.00mm	0.906"	0.1568"	25°	3.150"	Standard
	80-80075	Intake (Center)	23.00mm	0.906"	0.1568"	25°	3.095"	Standard
	80-80077	Exhaust	24.50mm	0.965"	0.1758"	25°	3.070"	Standard

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	80-80073T	Intake	23.00mm	0.906"	0.1570"	25°	3.150"	Titanium
	80-80075T	Intake (Center)	23.00mm	0.906"	0.1570"	25°	3.090"	Titanium
	80-80077T	Exhaust	24.50mm	0.965"	0.1758"	25°	3.070"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.375"	.400"	0.520"	0.720"	.400"	0.1570"	0.3563" / Std.	80-80080	
							+0.001"	80-80081	
							+0.002"	80-80082	
							+0.010"	80-80089	
	0.405"	.430"	0.590"	0.790"	.440"	0.1760"	0.3958" / Std.		80-80090
							+0.001"		80-80091
							+0.002"		80-80092
							+0.010"		80-80099

Valve Guide Seal Kits • High Performance

		Intake Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs			
		4.0mm	0.320"	0.355"	5	A	B	C	D
						0.285"±0.002"	0.245"	0.120"	0.215"
		Exhaust Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs			
		4.5mm	0.331"	0.370"	4	A	B	C	D
						0.321"±0.002"	0.281"	0.120"	0.240"
Part Number		80-80440		Kit Includes		3	Intake Viton® Seals	2	Exhaust Viton® Seals

ORDER 650-557-2046

YAMAHA® YFM™ 350 / 400 1987-2014



- BIG BEAR™ 350 1987-'99
- GRIZZLY™ 350 2007-'14
- RAPTOR™ 350 2004-'13
- WARRIOR™ 350 1987-'04
- WOLVERINE™ 350 1995-'09
- BIG BEAR™ 400 2000-'12
- KODIAK™ 400 1987-'06

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height	Seat Pressure		Open Pressure	@ Lift
	80-8000	Intake	.475"		1.325"	97#		266#	.475"
		Exhaust							
	Kit Includes			2	Titanium Retainers		2	H. T. Steel Keepers Pr.	
				2	CrSi Valve Springs		2	H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80012	Intake	40.00mm	1.575"	0.2750"	23°	4.020"	Standard
	80-80013	Intake	41.00mm	1.614"	0.2750"	23°	4.020"	Oversize
	80-80014	Exhaust	34.00mm	1.339"	0.2745"	29°	3.945"	Standard

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.475"	0.515"	1.100"	1.290"	0.520"	0.2750"	0.4942" / Std.	80-8010	
							+0.002"	80-8012	
							+0.010"	80-8020	

Use O.E.M. valve guide seal.

YAMAHA® YZ™ 250F / FX 2014-2018

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80900	Intake	.425"	1.180"	48#	151#	.425"	
		Exhaust	.400"	1.125"	40#	119#	.400"	
	Kit Includes		2	In Titanium Retainers	2	In CrSi Valve Springs	2	In H. T. Steel Basewashers
			2	Ex Titanium Retainers	2	Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers

Intake Only • Titanium Valve Kits

	KPMI P/N	Type	*Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-80970	Intake	.425"	1.180"	48#	151#	.425"
	Kit Includes		2	Intake Titanium Retainers	2	Intake CrSi Valve Springs	
			2	Intake H. T. Steel Basewashers	2	Intake Tensilite® Titanium Valves	

* It may be necessary to use KPMI shortened valve guides (KPMI® #80-8092X & 80-8093X) to achieve higher than stock lift.



YAMAHA® YZ™ 250F / FX 2014-2018

Top End Service Kit For YZ 250F 2014-2016

NEW PRODUCTS

KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
80-81200	Intake	.395"	1.150"	55#	151#	.395"	
	Exhaust	.370"	1.100"	46#	119#	.370"	
Kit Includes		2	In Titanium Retainers	2	In CrSi Valve Springs	2	In H. T. Steel Basewashers
		2	Ex Titanium Retainers	2	Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers
		2	In Black Diamond™ Valves		2	Ex Black Diamond™ Valves	
		1	High Compression Racing Piston Kit		1	Top End Gasket Kit	
IMPORTANT NOTE: The piston, rings, valves and pin clips in this kit are designed to work together as a system. They are NOT COMPATIBLE with O.E.M. components and should ONLY be used with the components in this KPMI® Top End Service Kit.							

Components • Replacement • Top End Service Kit For YZ 250F 2014-2016

NEW PRODUCTS

KPMI P/N	Description	Specification
80-81400	Spring Kit	Includes: Ti Retainers, CrSi Valve Springs, H.T. Steel Basewashers
80-80912	Intake, Standard Valve	Valves • Black Diamond™ • Black Nitroeneg Stems
80-80916	Exhaust, Standard Valve	Valves • Black Diamond™ • Black Nitroeneg Stems
80-81201	Gasket Kit	Includes: Base gasket, Engine case gasket, Exhaust gasket, Head gasket, Washers, Valve stem seals
80-81202	Piston Rings	1 complete set
80-81203	Piston Pin	1 piece
80-81204	Piston Pin Clips	1 pair
80-81205	Piston	Includes: Pin, Rings, Clips, Piston

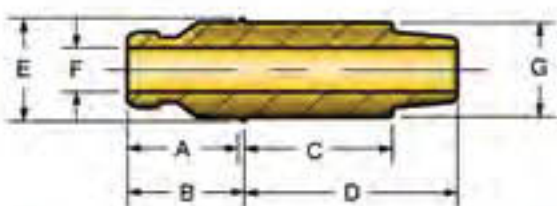
These components are intended for use with the KPMI® Top End Kit and are not intended for OEM compatibility.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

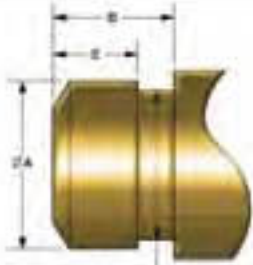
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	80-80912T	Intake	31.00mm	1.220"	0.1962"	18°	3.280"	Titanium
	80-80916T	Exhaust	25.00mm	0.984"	0.1760"	30°	3.235"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.350"	0.360"	0.535"	0.905"	0.430"	0.1962"	0.3957" / Std.	80-80920	
							+0.001"	80-80921	
							+0.002"	80-80922	
							+0.010"	80-80929	
	0.330"	0.340"	0.615"	1.015"	0.391"	0.1760"	0.3563" / Std.		80-80930
							+0.001"		80-80931
							+0.002"		80-80932
							+0.010"		80-80939

Valve Guide Seal Kits • High Performance

		Intake Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs			
						A	B	C	D
		5.0mm	0.350"	0.405"	4	0.340"±0.005"	0.303"	0.125"	0.230"
		Exhaust Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs			
						A	B	C	D
		4.5mm	0.331"	0.370"	4	0.321"±0.002"	0.281"	0.120"	0.240"

Part Number		80-80990		Kit Includes		2	Intake Viton® Seals	2	Exhaust Viton® Seals
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ORDER 650-557-2046

YAMAHA® WR™ / YZ™ 400F / 426F 1998-'02



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80100	Intake	.375"	1.105"	39#	85#	.375"	
		Exhaust	.375"	1.105"	39#	85#	.375"	
	Kit Includes		3	In Titanium Retainers	3	In CrSi Valve Springs	3	In H. T. Steel Basewashers
			2	Ex Titanium Retainers	2	Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers
3			In Viton® Seals		2	Ex Viton® Seals		

Valves • White Diamond® • Stainless

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-8055H	Intake	27.00mm	1.063"	0.1765"	15°	3.320"	Standard
	80-8056H	Intake (Center)	27.00mm	1.063"	0.1765"	15°	3.280"	Standard
	80-8057H	Exhaust	28.00mm	1.102"	0.1955"	25°	3.220"	Standard

Must use Kibblewhite® Lightweight Valve Spring Kits when installing White Diamond™ Valves.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.550"	0.580"	0.510"	0.640"	0.430"	0.1765"	0.3957" / Std.	80-80110	
							+0.002"	80-80112	
							+0.010"	80-80119	
	0.580"	0.610"	0.580"	0.695"	0.420"	0.1955"	0.3957" / Std.		80-80120
							+0.002"		80-80122
							+0.010"		80-80129

Use O.E.M. valve guide seal.

Valve Guide Seal Kits • High Performance

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Keeper Set • O.E.M. Replacement

	KPMI P/N	Style	Type	A	B	C	D	E	Quantity
	80-80130	Single Radius Bead	Intake	0.177"	6.0°	0.186"	0.221"	0.212"	3 Pr.
			Exhaust	0.196"	6.5°	0.181"	0.216"	0.270"	2 Pr.

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

YAMAHA® VARIOUS 450cc 2003-'18

- WR™ 450 2003-'15
- YZ™ 450F 2003-'09
- YFZ™ 450 2004-'09
- YFZ™ 450X 2008-'11
- YFZ™ 450R 2009-'18
- YFZ™ 450SE 2010-'18

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80206	Intake	.380"	1.105"	39#	86#	.380"	
		Exhaust	.380"	1.105"	39#	86#	.380"	
	Kit Includes		3	In Titanium Retainers	3	In CrSi Valve Springs	3	In H. T. Steel Basewashers
			2	Ex Titanium Retainers	2	Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers
			3	In Viton® Seals		2	Ex Viton® Seals	

VISIT US AT WWW.KPMI.US



YAMAHA® VARIOUS 450cc 2003-'18

- WR™ 450 2003-'15
- YZ™ 450F 2003-'09
- YFZ™ 450 2004-'09
- YFZ™ 450X 2008-'11
- YFZ™ 450R 2009-'18
- YFZ™ 450SE 2010-'18

Intake Only • Stainless Valve Conversion Kits

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-80950	Intake	.380"	1.105"	39#	86#	.380"
	Kit Includes		3	In Titanium Retainers	3	In CrSi Valve Springs	3
3			In Viton® Seals	3	In White Diamond® Valves		

Valves • White Diamond® • Stainless

KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
80-80213H	Intake	27.00mm	1.063"	0.1765"	15°	3.040"	Standard
80-80214H	Intake	28.00mm	1.102"	0.1765"	15°	3.030"	Oversize
80-80215H	Intake	27.00mm	1.063"	0.1765"	15°	3.000"	Std.(Center)
80-80216H	Intake	28.00mm	1.102"	0.1765"	15°	2.990"	OS (Center)
80-80217H	Exhaust	28.00mm	1.102"	0.1956"	20°	2.955"	Standard
80-80218H	Exhaust	29.00mm	1.142"	0.1956"	20°	2.945"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing White Diamond® Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
80-80213T	Intake	27.00mm	1.063"	0.1765"	15°	3.030"	Titanium
80-80215T	Intake (Center)	27.00mm	1.063"	0.1765"	15°	2.995"	Titanium
80-80217T	Exhaust	28.00mm	1.102"	0.1957"	20°	2.950"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.350"	0.385"	0.480"	0.680"	0.430"	0.1768"	0.3957" / Std.	80-80220	
							+0.001"	80-80221	
							+0.002"	80-80222	
							+0.010"	80-80229	
	0.350"	0.385"	0.510"	0.680"	0.430"	0.1961"	0.3957" / Std.		80-80230
							+0.001"		80-80231
							+0.002"		80-80232
							+0.010"		80-80239

Valve Guide Seal Kits • High Performance

	In / Ex Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs			
	A	B	C	D				
	4.5mm /	0.331"	0.370"	4	0.321"±0.002"	0.281"	0.120"	0.240"
Part Number	80-80710		Kit Includes		3	Intake Viton® Seals	2	Exhaust Viton® Seals

Keeper Set • O.E.M. Replacement

	KPMI P/N	Style	Type	A	B	C	D	E	Quantity
	80-80715	Single Radius Bead	Intake	0.177"	6.0°	0.186"	0.221"	0.212"	3 Pr.
			Exhaust	0.196"	6.5°	0.181"	0.216"	0.270"	2 Pr.

Note: The bead height is referenced from the minor diameter of the keeper to the center of the bead.

ORDER 650-557-2046

YAMAHA® YZ™ 450F 2010-2013



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-80750	Intake	.450"	1.185"	46#	155#	.450"
		Exhaust	.450"	1.185"	46#	155#	.450"
	Kit Includes		2 In Titanium Retainers	2 In CrSi Valve Springs	2 In H. T. Steel Basewashers		
			2 Ex Titanium Retainers	2 Ex CrSi Valve Springs	2 Ex H. T. Steel Basewashers		

The use of KPMI® guides(#80-8077X and #80-8078X) may be necessary when using higher than stock lift cams.

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-81050	Intake	.450"	1.185"	46#	155#	.450"
	Kit Includes		2 Intake Titanium Retainers	2 Intake CrSi Valve Springs			
			2 Intake H. T. Steel Basewashers	2 Intake Black Diamond™ Valves			

The use of KPMI® guides(#80-8077X and #80-8078X) may be necessary when using higher than stock lift cams.

Valves • Black Diamond™ • Black Nitroneg Stems

KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
80-80762	Intake	36.00mm	1.417"	0.2158"	20°	3.280"	Standard
80-80763	Intake	37.00mm	1.457"	0.2158"	20°	3.280"	Oversize
80-80766	Exhaust	30.00mm	1.181"	0.2155"	20°	3.385"	Standard
80-80767	Exhaust	31.00mm	1.220"	0.2155"	20°	3.385"	Oversize

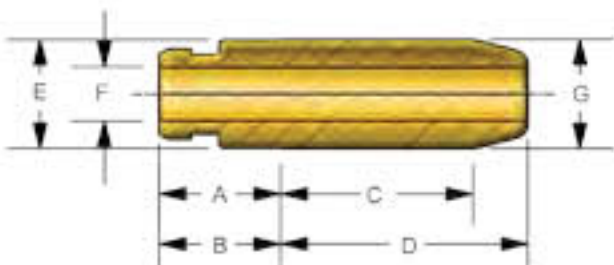
Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	80-80762T	Intake	36.00mm	1.417"	0.2160"	20°	3.280"	Titanium
	80-80766T	Exhaust	30.00mm	1.181"	0.2155"	20°	3.375"	Titanium

Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.540"	0.540"	0.560"	0.775"	0.432"	0.2160"	0.4352" / Std.	80-80770	
							+0.001"	80-80771	
							+0.002"	80-80772	
							+0.010"	80-80779	
	0.390"	0.390"	0.760"	1.030"	0.432"	0.2155"	0.4352" Std.		80-80780
							+0.001"		80-80781
							+0.002"		80-80782
							+0.010"		80-80789



YAMAHA® YZ™ 450F 2010-2013

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.333"	0.455"	2	A	B	C	D	Intake
				0.365"±0.002"	0.325"	0.120"	0.235"	Exhaust
		Part Number		Quantity		Quantity Incentive		
		71040-4		Pkg. of 4		0%		
		71040-8		Pkg. of 8		0%		
		71040-16		Pkg. of 16		Less- 10%		
		71040-50		Pkg. of 50		Less- 15%		
		71040-100		Pkg. of 100		Less- 20%		

YAMAHA® YZ™ 450F 2014-'17 / 450FX 2014-'18

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80750	Intake	.450"	1.185"	46#	155#	.450"	
		Exhaust	.450"	1.185"	46#	155#	.450"	
	Kit Includes			2	In Titanium Retainers	2	In CrSi Valve Springs	2
2				Ex Titanium Retainers	2	Ex CrSi Valve Springs	2	Ex H. T. Steel Basewashers

The use of KPMI® guides(#80-8077X and #80-8078X) may be necessary when using higher than stock lift cams.

Intake Only • Steel Valve Conversion Kit

	KPMI P/N	Type	*Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-81100	Intake	.450"	1.185"	46#	155#	.450"
		Kit Includes		2	Intake Titanium Retainers	2	Intake CrSi Valve Springs
				2	Intake H. T. Steel Basewashers	2	Intake Black Diamond™ Valves

The use of KPMI® guides(#80-8077X and #80-8078X) may be necessary when using higher than stock lift cams.

Valves • Black Diamond™ • Black Nitroleg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80872	Intake	37.00mm	1.457"	0.2158"	20°	3.280"	Standard
	80-80876	Exhaust	30.50mm	1.201"	0.2155"	28°	3.380"	Standard

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • O.E.M. Replacement • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Material
	80-80872T	Intake	37.00mm	1.457"	0.2160"	18°	3.280"	Titanium
	80-80876T	Exhaust	30.50mm	1.201"	0.2155"	28°	3.375"	Titanium

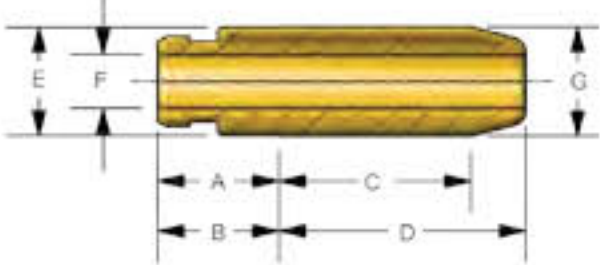
Note: These valves are intended as O.E.M. replacement valves and are completely compatible with the O.E.M. spring kits. However, experienced engine builders, who are running aggressive camshafts or higher than factory RPM's may find the combination of the O.E.M. Style Valve and KPMI's Lightweight Racing Spring Kits advisable. All titanium valves are (Tensilite®) PVD CrN coated, and all stainless valves are Black Diamond™ coated.

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YAMAHA® YZ™ 450F 2014-'17 / 450FX 2014-'18



Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.540"	0.540"	0.560"	0.775"	0.432"	0.2160"	0.4352" / Std.	80-80770	
							+0.001"	80-80771	
							+0.002"	80-80772	
							+0.010"	80-80779	
	0.390"	0.390"	0.760"	1.030"	0.432"	0.2155"	0.4352" Std.		80-80780
							+0.001"		80-80781
							+0.002"		80-80782
							+0.010"		80-80789

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.333"	0.455"	2	A	B	C	D	Intake
				0.365"±0.002"	0.325"	0.120"	0.235"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71040-4			Pkg. of 4		0%
			71040-8			Pkg. of 8		0%
			71040-16			Pkg. of 16		Less- 10%
			71040-50			Pkg. of 50		Less- 15%
			71040-100			Pkg. of 100		Less- 20%

YAMAHA® SR™ / TT™ / XT™ 500 1976-1981

Valve Spring Kit • High Performance

NEW PRODUCTS

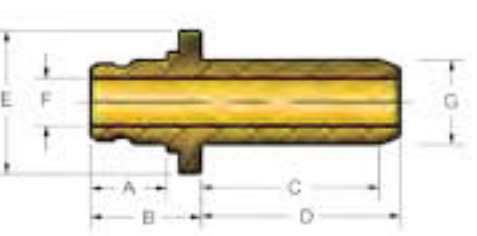
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-81500	Intake	.515"	1.690"	117#	254#	.515"
		Exhaust					
	Kit Includes		2	H.T. Steel Retainers	2	H.T. Steel Keeper Pr.	
			2	CrSi Valve Springs	2	H.T. Steel Spring Shims	

This kit supersedes KPMI® spring only kit 80-0514, which is no longer available

Retainer Set • H. T. Steel

	KPMI P/N	Type	Material			
	80-80350	Intake	H.T. Steel			
		Exhaust				
	Set Includes	2	H.T. Steel Retainers	2	H.T. Steel Keepers Pr.	

Valve Guides • C630 Bronze

 	A	B	C	D	E	F	G	Intake	Exhaust
	0.645"	0.765"	0.970"	1.200"	0.905"	0.3135"	0.5535" / Std.	80-8100	
							+0.001"	80-8101	
							+0.010"	80-8110	

Use O.E.M. valve guide seal

VISIT US AT WWW.KPMI.US



YAMAHA® SR™ / TT™ / XT™ 550 / 600 1982-'95

Valve Spring Kit • High Lift

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	80-80241	Intake	.438"		1.220"		70#		197#		.438"
		Exhaust									
	Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H. T. Steel Basewashers		

YAMAHA® XJ™ 650 / 700 1980-1984

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	80-80200	Intake	.440"		1.335"		75#		200#		.440"
		Exhaust									
	Kit Includes			8	Titanium Retainers		8	CrSi Valve Springs		8	H. T. Steel Keeper Pr.

YAMAHA® XS™ 650 1970-1983

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80340	Intake	.515"	1.450"	100#	228#	.515"	
		Exhaust						
	Kit Includes			4	Titanium Retainers		4	H. T. Steel Keeper Pr.
				4	CrSi Valve Springs		4	H. T. Steel Basewashers

Must use Kibblewhite® Guides with high lift cams. This kit is supplied with radiused bead keepers and must be used with radius groove valves

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.430"	0.550"	0.840"	1.290"	0.905"	0.3140"	0.5930" / Std.	80-80370	
							+0.001"	80-80371	
							+0.002"	80-80372	
							+0.010"	80-80379	
									80-80360
	0.430"	0.550"	1.150"	1.550"	0.905"	0.3140"	0.5930" / Std.		80-80360
							+0.001"		80-80361
							+0.002"		80-80362
							+0.010"		80-80369

Use O.E.M. valve guide seal

YAMAHA® XS™ 650 1970-1983



Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80380	Intake	41.15mm	1.620"	0.3145"	25°	4.105"	Standard
	80-80381	Intake	42.15mm	1.659"	0.3145"	25°	4.085"	Oversize
	80-80383	Exhaust	35.15mm	1.384"	0.3140"	29°	4.030"	Standard
	80-80384	Exhaust	36.15mm	1.423"	0.3140"	29°	4.010"	Oversize

These valves utilize a radiused keeper groove. To install in models prior to 1973, use with radius beaded keepers #51012-4

YAMAHA® VARIOUS 660'S 2001-2008

• GRIZZLY™ 2002-2008

• RAPTOR™ 2001-2005

• RHINO™ 2004-2007

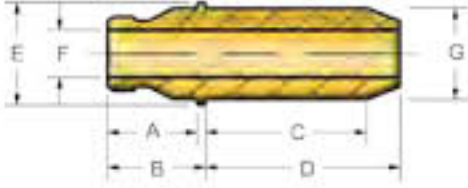
Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	80-80030	Intake	.450"	1.205"	55#	145#	.345"	
		Exhaust						
	Kit Includes		5	Titanium Retainers		5	CrSi Valve Springs	
			3	In H. T. Steel Basewashers		2	Ex H. T. Steel Basewashers	

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80060	Intake	30.00mm	1.181"	0.2355"	15°	3.960"	Standard
	80-80061	Intake	31.00mm	1.220"	0.2355"	15°	3.960"	Oversize
	80-80063	Exhaust	32.00mm	1.260"	0.2348"	25°	3.650"	Standard
	80-80064	Exhaust	33.00mm	1.299"	0.2348"	25°	3.650"	Oversize

Valve Guides • C630 Bronze

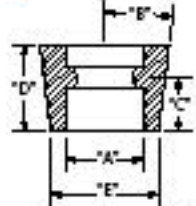
	A	B	C	D	E	F	G	Intake	Exhaust
	0.315"	0.350"	1.125"	1.255"	0.495"	0.2345"	0.4550" / Std.	80-80040	
							+0.001"	80-80041	
							+0.002"	80-80042	
							+0.010"	80-80049	
	0.440"	0.475"	0.860"	0.990"	0.495"	0.2348"	0.4550" / Std.		80-80050
							+0.001"		80-80051
							+0.002"		80-80052
							+0.010"		80-80059

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
				Part Number		Quantity		Quantity Incentive
				71017-4		Pkg. of 4		0%
				71017-8		Pkg. of 8		0%
				71017-16		Pkg. of 16		Less- 10%
				71017-50		Pkg. of 50		Less- 15%
				71017-100		Pkg. of 100		Less- 20%

Keeper Set • O.E.M. Replacement

NEW PRODUCTS

		KPMI P/N	Style	Type	A	B	C	D	E	Quantity
		51028-4	Single Radius Bead	Intake Exhaust	0.235"	7.0°	0.075"	0.238"	0.295"	4 Pr.

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

VISIT US AT WWW.KPMI.US



YAMAHA® VARIOUS 700'S 2006-2018

- GRIZZLY™ 2007-2015
- RAPTOR™ 2006-2018

- RHINO™ 2008-2013
- VIKING™ 2014-2018

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	80-80410	Intake	.480"		1.420"		54#		195#		.480"
		Exhaust									
	Kit Includes			4	Titanium Retainers	4	CrSi Valve Springs	4	H. T. Steel Basewashers		

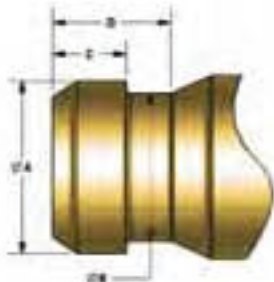
Valves • Black Diamond™ • Black Nitroleg Stems

KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
80-80430	Intake	38.00mm	1.496"	0.2355"	11°	4.025"	Standard
80-80431	Intake	39.00mm	1.535"	0.2355"	11°	4.010"	Oversize
80-80432	Intake	40.00mm	1.575"	0.2355"	11°	4.010"	Oversize (+2mm)
80-80433	Exhaust	32.00mm	1.260"	0.2350"	25°	3.785"	Standard
80-80434	Exhaust	33.00mm	1.299"	0.2350"	25°	3.770"	Oversize
80-80435	Exhaust	34.00mm	1.339"	0.2350"	25°	3.770"	Oversize (+2mm)

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.485"	0.525"	0.790"	1.110"	0.495"	0.2350"	0.4550" / Std.		80-80420
							+0.001"		80-80421
							+0.002"		80-80422
							+0.010"		80-80429

Valve Guide Seals • Viton®

Stem Diameter	O.L	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.371"	0.480"	5	A	B	C	D	Intake
				0.385"±0.002"	0.341"	0.120"	0.255"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71017-4				Pkg. of 4		0%
		71017-8				Pkg. of 8		0%
		71017-16				Pkg. of 16		Less- 10%
		71017-50				Pkg. of 50		Less- 15%
		71017-100				Pkg. of 100		Less- 20%

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	Type	A	B	C	D	E	Quantity
		51028-4	Single Radius Bead	Intake	0.235"	7.0°	0.075"	0.238"	0.295"	4 Pr.
				Exhaust						

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

ORDER 650-557-2046

YAMAHA® YXZ 1000R 2016-2017



Valve Spring Kit • Lightweight Racing

NEW PRODUCTS



KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
80-81300	Intake	.445"		1.300"		53#		167#		.445"
	Exhaust									
Kit Includes		12	Titanium Retainers		12	CrSi Valve Springs		12	H. T. Steel Basewashers	



KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
80-81700	Intake	.445"		1.300"		53#		167#		.445"
	Exhaust									
Kit Includes		12	H. T. Steel Retainers		12	CrSi Valve Springs		12	H. T. Steel Basewashers	

It may be necessary to use KPMI® Shortened Valve Guides # 80-81320, to achieve higher stock lift.

Valves • Black Diamond™ • Black Nitroeneg Stems

NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-81312	Intake	31.00mm	1.220"	0.1765"	15°	3.495"	Standard
	80-81313	Intake	32.00mm	1.260"	0.1765"	15°	3.495"	Oversize
	80-81316	Exhaust	26.00mm	1.024"	0.1760"	25°	3.470"	Standard
	80-81317	Exhaust	27.00mm	1.063"	0.1760"	25°	3.470"	Oversize

Valve Guides • C630 Bronze

NEW PRODUCTS

	A	B	C	D	E	F	G	Intake	Exhaust
	0.530"	0.530"	0.585"	0.750"	0.354"	0.1760"	0.3564" / Std.		80-81320
							+0.001"		80-81321
							+0.002"		80-81322
							+0.004"		80-81324
							+0.010"		80-81329

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust

	Part Number		Quantity	Quantity Incentive
	71014-4		Pkg. of 4	0%
	71014-8		Pkg. of 8	0%
	71014-12		Pkg. of 12	0%
	71014-16		Pkg. of 16	Less- 10%
	71014-50		Pkg. of 50	Less- 15%
	71014-100		Pkg. of 100	Less- 20%

Keeper Set • O.E.M. Replacement

NEW PRODUCTS

	KPMI P/N	Style	Type	A	B	C	D	E	Quantity
	80-81330	Single Radius Bead	Intake	0.177"	6.0°	0.186"	0.221"	0.212"	12 Pr.
			Exhaust						

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

VISIT US AT WWW.KPMI.US



YAMAHA® FJ™ 1100/ 1200 1984-1993

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-1017	Intake	.500"	1.390"	60#	210#	.500"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs		

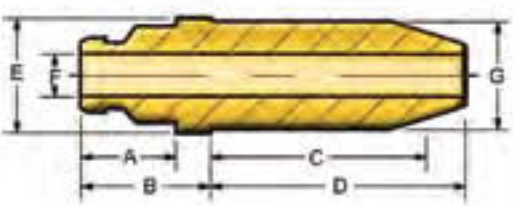
Retainer Set • Shim On Bottom Conversion • Titanium

	KPMI P/N	Type	Material			
	80-1019	Intake	Titanium			
		Exhaust				
	Set Includes	16	Titanium Retainers		16	H. T. Steel Keepers Pr.
	Retainer may not be used separately as O.E.M. replacement. Use of Shim On Bottom conversion Tappet, PN 80-1020, is required when using these retainers. Retainers require the use of 9.5mm adjustment shim; see KPMI® Adjustment Shim Section in back of catalog for more information.					

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-8120	Intake	29.00mm	1.142"	0.2160"	20°	3.700"	Standard
	80-8122	Intake	30.50mm	1.201"	0.2160"	20°	3.690"	Oversize
	80-8121	Exhaust	25.00mm	0.984"	0.2155"	20°	3.690"	Standard
	80-8123	Exhaust	26.00mm	1.024"	0.2155"	20°	3.690"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.470"	0.610"	0.695"	0.960"	0.470"	0.2160"	0.4350" / Std.	80-4172	
							+0.002"	80-4173	
							+0.004"	80-4180	
							+0.006"	80-4181	
							+0.015"	80-4174	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
			Part Number				Quantity	Quantity Incentive
			71016-4				Pkg. of 4	0%
			71016-8				Pkg. of 8	0%
			71016-16				Pkg. of 16	Less- 10%
			71016-50				Pkg. of 50	Less- 15%
			71016-100				Pkg. of 100	Less- 20%

Tappets • Shim On Bottom Conv. • H.T. Steel

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
80-1020	Intake	None	28.00mm	1.1016"	1.040"	0.860"	0.310"	0.135"	Pkg. of 16
	Exhaust								

Use of Shim On Bottom conversion Retainer Set, PN 80-1019, is required when using these tappets. Refer to KPMI® Tappet Section, in back of catalog, when selecting other size tappets.

YAMAHA® V-MAX™ 1985-2007



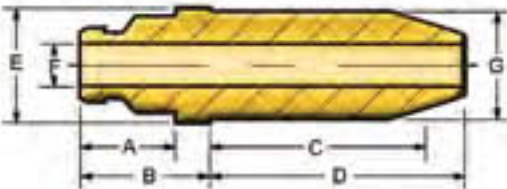
Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-8021	Intake	.450"	1.375"	65#	198#	.450"
		Exhaust					
	Kit Includes			16	CrSi Valve Springs		

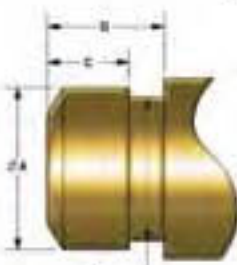
Retainer Set • Shim On Bottom Conversion • Titanium

	KPMI P/N	Type	Material			
	80-8023	Intake	Titanium			
		Exhaust				
	Set Includes	16	Titanium Retainers		16	H. T. Steel Keepers Pr.
	Retainer may not be used separately as O.E.M. replacement. Use of Shim On Bottom conversion Tappet, PN 80-1020, is required when using these retainers. Retainers require the use of 9.5mm adjustment shim; see KPMI® Adjustment Shim Section in back of catalog for more information.					

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.470"	0.610"	0.585"	0.850"	0.470"	0.2160"	0.4350" / Std.	80-8030	
							+0.002"	80-8032	
							+0.015"	80-8039	

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
5.5mm	0.320"	0.440"	4	A	B	C	D	Intake
				0.358"±0.005"	0.320"	0.110"	0.200"	Exhaust
			Part Number			Quantity		Quantity Incentive
			71016-4			Pkg. of 4		0%
			71016-8			Pkg. of 8		0%
			71016-16			Pkg. of 16		Less- 10%
			71016-50			Pkg. of 50		Less- 15%
			71016-100			Pkg. of 100		Less- 20%

Tappets • Shim On Bottom Conv. • H.T. Steel

A technical drawing of a tappet, which is a mechanical component used in internal combustion engines. The drawing shows a cross-section of the tappet with several dimensions labeled: 'A' is the total width, 'B' is the width of the base, 'C' is the height of the base, 'E' is the width of the central flat surface, and 'F' is the height of the central flat surface. The drawing is a line drawing with hatching to indicate the cross-section.

KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
80-1020	Intake	None	28.00mm	1.1016"	1.040"	0.860"	0.310"	0.135"	Pkg. of 16
	Exhaust								

Use of Shim On Bottom conversion Retainer Set, PN 80-1023, is required when using these tappets. Refer to **KPMI® Tappet Section**, in back of catalog, when selecting other size tappets.

YAMAHA® XS™ 1100 1978-1981

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift
	80-0449	Intake	.440"	1.275"	85#	215#	.440"
		Exhaust					
	Kit Includes			8	CrSi Valve Springs		

Note: Use OEM Retainers.

VISIT US AT WWW.KPMI.US



YAMAHA® YZF™ R1 1998-2003

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift	
	80-80250	Intake	.380"		1.200"		28#		74#		.380"	
		Exhaust	.380"		1.120"		38#		84#		.380"	
	Kit Includes			12	In Titanium Retainers		20	CrSi Valve Springs		12	In H. T. Steel Basewashers	
				8	Ex Titanium Retainers		8	Ex Viton® Seals		8	Ex H. T. Steel Basewashers	

Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	80-80394	Intake	.350"		1.370"		30#		90#		.350"
		Exhaust	.315"		1.415"		44#		95#		.315"
	Kit Includes			12	In CrSi Valve Springs		8	Ex. CrSi Valve Springs		8	Ex H. T. Steel Basewashers

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80280	Intake	23.00mm	0.906"	0.1568"	15°	3.620"	Standard
	80-80281	Intake	23.50mm	0.925"	0.1568"	15°	3.620"	Oversize
	80-80283	Intake	23.00mm	0.906"	0.1568"	15°	3.565"	Standard (Center)
	80-80284	Intake	23.50mm	0.925"	0.1568"	15°	3.565"	Oversize (Center)
	80-80286	Exhaust	24.50mm	0.965"	0.1757"	25°	3.505"	Standard
	80-80287	Exhaust	25.00mm	0.984"	0.1757"	25°	3.505"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.580"	0.610"	0.520"	0.710"	0.381"	0.1568"	0.3563" / Std	80-80190	
							+0.001"	80-80191	
							+0.010"	80-80199	
Intake - Use O.E.M valve guide seal									
	0.580"	0.610"	0.510"	0.690"	0.420"	0.1757"	0.3955" / Std.		80-80180
							+0.001"		80-80181
							+0.010"		80-80189

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Exhaust
				0.321"±0.005"	0.281"	0.120"	0.240"	
			Part Number			Quantity		Quantity Incentive
			71014-4			Pkg. of 4		0%
			71014-8			Pkg. of 8		0%
			71014-16			Pkg. of 16		Less- 10%
			71014-50			Pkg. of 50		Less- 15%
			71014-100			Pkg. of 100		Less- 20%

ORDER 650-557-2046

YAMAHA® YZF™ R1 2004-2006



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure	Open Pressure	@ Lift
	80-80500	Intake	.340"		1.325"		48#	118#	.340"
		Exhaust							
	Kit Includes		12	In Titanium Retainers	20	CrSi Valve Springs	12	In H. T. Steel Basewashers	
			8	Ex Titanium Retainers	8	Ex H. T. Steel Basewashers			

YAMAHA® YZF™ R1 2007-2008

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure	Open Pressure	@ Lift
	80-80650	Intake	.400"		1.410"		50#	188#	.400"
		Exhaust	.400"		1.280"		66#	167#	.400"
	Kit Includes		8	In Titanium Retainers	8	Ex Titanium Retainers	8	In CrSi Valve Springs	
			8	Ex CrSi Valve Springs	8	In H. T. Steel Basewashers			
			8	In H. T. Steel Basewashers	8	Ex H. T. Steel Basewashers			

Valves • Black Diamond™ • Black Nitroneg Stems

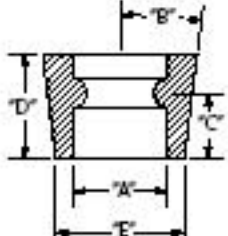
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80666	Exhaust	25.00mm	0.989"	0.1760"	15°	3.565"	Standard
	80-80667	Exhaust	26.00mm	1.024"	0.1760"	15°	3.565"	Oversize

Must use Kibblewhite® Lightweight Valve Spring Kits when installing Black Diamond™ Valves.

Valves • Tensilite® • Chromium Nitride PVD Coated Titanium

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80662T	Intake	31.00mm	1.220"	0.1960"	25°	3.590"	Standard
	80-80663T	Intake	32.00mm	1.260"	0.1960"	25°	3.590"	Oversize

Keeper Set • O.E.M. Replacement NEW PRODUCTS

		KPMI P/N	Style	Type	A	B	C	D	E	Quantity
		80-80660	Single Radius Bead	Intake	0.177"	6.0°	0.186"	0.221"	0.212"	8 Pr.
				Exhaust	0.196"	6.5°	0.181"	0.216"	0.270"	8 Pr.

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.



YAMAHA® VARIOUS 1049cc TRIPLES 2008-'15

• FX NYTRO™ 2008-2014

• SRVIPER™ 2014-2015

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	80-80450	Intake	.445"		1.300"		53#		162#		.445"
		Exhaust									
	Kit Includes			12	Titanium Retainers		12	CrSi Valve Springs		12	H. T. Steel Basewashers

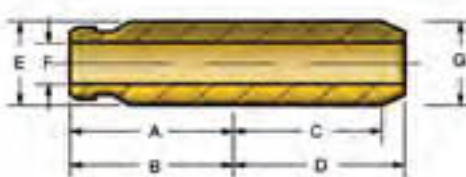
		KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
		80-81800	Intake	.445"		1.300"		53#		162#		.445"
			Exhaust									
		Kit Includes			12	H. T. Steel Retainers		12	CrSi Valve Springs		12	H. T. Steel Basewashers

It may be necessary to use KPMI® Shortened Valve Guides # 80-80470, to achieve higher stock lift.

Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80462	Intake	31.00mm	1.220"	0.1765"	15°	3.495"	Standard
	80-80463	Intake	32.00mm	1.260"	0.1765"	15°	3.495"	Oversize
	80-80466	Exhaust	26.00mm	1.024"	0.1760"	25°	3.470"	Standard
	80-80467	Exhaust	27.00mm	1.063"	0.1760"	25°	3.470"	Oversize

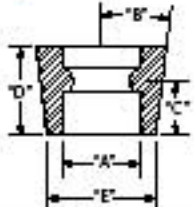
Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.530"	0.530"	0.585"	0.750"	0.354"	0.1760"	0.3564" / Std.	80-80470	
							+0.001"	80-80471	
							+0.002"	80-80472	
							+0.004"	80-80474	
							+0.010"	80-80479	

Valve Guide Seals • Viton®

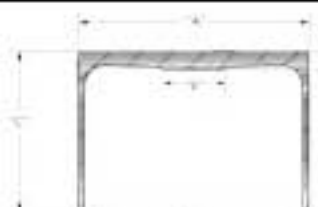
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Intake
				0.321"±0.005"	0.281"	0.120"	0.240"	Exhaust
		Part Number			Quantity		Quantity Incentive	
		71014-4			Pkg. of 4		0%	
		71014-8			Pkg. of 8		0%	
		71014-12			Pkg. of 12		0%	
		71014-16			Pkg. of 16		Less- 10%	
		71014-50			Pkg. of 50		Less- 15%	
		71014-100			Pkg. of 100		Less- 20%	

Keeper Set • O.E.M. Replacement

		KPMI P/N	Style	Type	A	B	C	D	E	Quantity
		80-80495	Single Radius Bead	Intake Exhaust	0.177"	6.0°	0.186"	0.221"	0.212"	12 Pr.

Note : The bead height is referenced from the minor diameter of the keeper to the center of the bead.

Tappets • O.E.M. Replacement • H.T. Steel

	KPMI P/N	Type	Coating	A		B	C	E	F	Quantity
	80-80492	Intake	None	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"	Pkg. of 1
Exhaust										

Refer to KPMI® Tappet Section, in back of catalog, when selecting other size tappets.

ORDER 650-557-2046

YAMAHA® APEX™ / RX-1 (ALL MODELS) 2003-'10



Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	80-80600	Intake	.365"		1.100"		40#		85#		.365"
		Exhaust									
	Kit Includes			12	In Titanium Retainers	12	In CrSi Valve Springs	12	In H. T. Steel Basewashers		
				8	Ex Titanium Retainers	8	Ex CrSi Valve Springs	8	Ex H. T. Steel Basewashers		
8				Ex Viton® Seals							

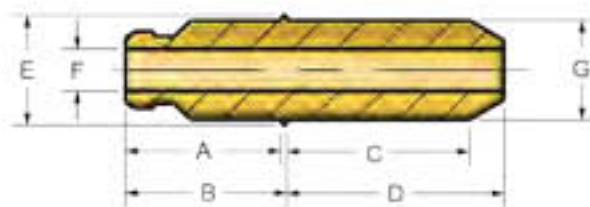
Valve Spring Only Kit • High Performance

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure	Open Pressure	@ Lift
	80-80394	Intake	.350"		1.370"		30#	90#	.350"
		Exhaust	.315"		1.415"		44#	95#	.315"
	Kit Includes		12	In CrSi Valve Springs	8	Ex. CrSi Valve Springs	8	Ex H. T. Steel Basewashers	

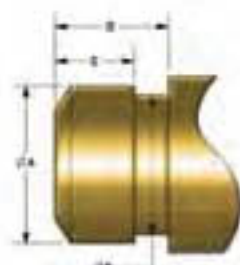
Valves • Black Diamond™ • Black Nitroneg Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-80612	Intake	23.00mm	0.906"	0.1568"	15°	3.620"	Standard
	80-80613	Intake	23.50mm	0.925"	0.1568"	15°	3.620"	Oversize
	80-80614	Intake	23.00mm	0.906"	0.1568"	15°	3.565"	Standard (Center)
	80-80615	Intake	23.50mm	0.925"	0.1568"	15°	3.565"	Oversize (Center)
	80-80616	Exhaust	24.50mm	0.965"	0.1757"	25°	3.505"	Standard
	80-80617	Exhaust	25.00mm	0.984"	0.1757"	25°	3.505"	Oversize

Valve Guides • C630 Bronze

	A	B	C	D	E	F	G	Intake	Exhaust
	0.580"	0.610"	0.520"	0.710"	0.381"	0.1568"	0.3563" / Std	80-80620	
							+0.001"	80-80621	
							+0.010"	80-80629	
Intake - Use O.E.M valve guide seal									
	0.580"	0.610"	0.510"	0.690"	0.420"	0.1757"	0.3955" / Std.		80-80630
							+0.001"		80-80631
							+0.010"		80-80639

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Exhaust
				0.321"±0.005"	0.281"	0.120"	0.240"	
			Part Number				Quantity	Quantity Incentive
			71014-4				Pkg. of 4	0%
			71014-8				Pkg. of 8	0%
			71014-16				Pkg. of 16	Less- 10%
			71014-50				Pkg. of 50	Less- 15%
			71014-100				Pkg. of 100	Less- 20%



YAMAHA® MR-1™ WATERCRAFT ENG. 2002-'13

- FX1000™ 2002-2006
- FX140™ 2002-2004
- SR230™ 2003-2007
- AR230™ 2004-2009
- FX™ MODELS 2004-2006
- SX230™ 2004-2009
- AR210™ 2006-2013
- SR210™ 2006-2007
- SX210™ 2006-2013
- 212SS/ X™ 2008-2010
- 232 LIMITED 2008-2009
- VX CRUISER™ 2011-2013
- WAVE RUNNER™ FX's & VX's 2005-2013

Valve Spring Kit • Lightweight Racing **NEW PRODUCTS**

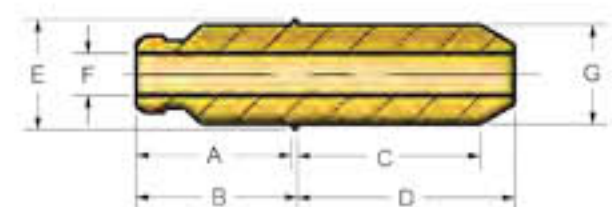


KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
80-81150	Intake	.365"	1.100"	40#	85#	.365"	
	Exhaust						
Kit Includes		12	In Titanium Retainers	12	In CrSi Valve Springs	12	In H. T. Steel Basewashers
		8	Ex Titanium Retainers	8	Ex CrSi Valve Springs	8	Ex H. T. Steel Basewashers
		8	Ex Viton® Seals				

Valves • Black Diamond™ • Black Nitroneg Stems **NEW PRODUCTS**

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-81162	Intake	23.00mm	0.906"	0.1568"	15°	3.620"	Standard
	80-81163	Intake	23.50mm	0.925"	0.1568"	15°	3.620"	Oversize
	80-81164	Intake	23.00mm	0.906"	0.1568"	15°	3.565"	Standard (Center)
	80-81165	Intake	23.50mm	0.925"	0.1568"	15°	3.565"	Oversize (Center)
	80-81166	Exhaust	24.50mm	0.965"	0.1757"	25°	3.505"	Standard
	80-81167	Exhaust	25.00mm	0.984"	0.1757"	25°	3.505"	Oversize

Valve Guides • C630 Bronze **NEW PRODUCTS**

	A	B	C	D	E	F	G	Intake	Exhaust
	0.580"	0.610"	0.520"	0.710"	0.381"	0.1568"	0.3563" / Std	80-81170	
							+0.001"	80-81171	
							+0.010"	80-81179	
	Intake - Use O.E.M valve guide seal								
	0.580"	0.610"	0.510"	0.690"	0.420"	0.1757"	0.3955" / Std.		80-81180
							+0.001"		80-81181
							+0.010"		80-81189

Valve Guide Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
4.5mm	0.331"	0.370"	4	A	B	C	D	Exhaust
				0.321"±0.005"	0.281"	0.120"	0.240"	
				Part Number		Quantity		Quantity Incentive
				71014-4		Pkg. of 4		0%
				71014-8		Pkg. of 8		0%
				71014-16		Pkg. of 16		Less- 10%
				71014-50		Pkg. of 50		Less- 15%
				71014-100		Pkg. of 100		Less- 20%

YAMAHA® 1.8L 4V WATERCRAFT 2008-'18



Valve Spring Kit • High Performance Lightweight Racing

NEW PRODUCTS

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure	Open Pressure		@ Lift	
	80-81000	Intake	.425"		1.375"		85#	221#		.425"	
		Exhaust									
Kit Includes			16	Titanium Retainers		16	CrSi Valve Springs		16	H. T. Steel Basewashers	

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure	Open Pressure		@ Lift	
	80-81600	Intake	.425"		1.375"		85#	221#		.425"	
		Exhaust									
Kit Includes			16	H.T. Steel Retainers		16	CrSi Valve Springs		16	H. T. Steel Basewashers	

- Spring Kit is designed with increased spring rate and higher lift compatibility over the stock components
- Spring Kit is specifically designed for high boost / high RPM applications
- CNC'd Titanium or H.T. Steel Retainers and Cr-Si dual springs provide valvetrain control at high RPM with high performance camshaft compatibility

Valves • White Diamond® • Stainless • Inconel®

NEW PRODUCTS

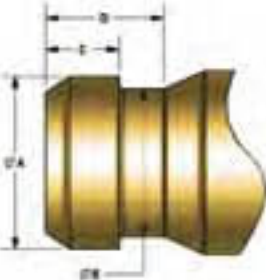
	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	80-81012	Intake	34.00mm	1.339"	0.2159"	15°	3.560"	Standard (Stainless)
	*80-81016	Exhaust	29.00mm	1.142"	0.2154"	25°	3.535"	Standard (Inconel®)
*Inconel® is classified as a "Super Alloy", meaning that it is designed to survive under the most extreme temperatures and pressures, where other valves will begin to burn, corrode, or completely fail. This is the material of choice for high output engines running turbos, superchargers, nitromethane, or nitrous.								

Valve Guides • C630 Bronze

NEW PRODUCTS

	A	B	C	D	E	F	G	Intake	Exhaust
	0.435"	0.495"	0.730"	1.020"	0.475"	0.2154"	0.3774" / Std.		80-81020
							+0.001"		80-81021
							+0.002"		80-81022
							+0.010"		80-81029

Valve Guide Seals • Viton®

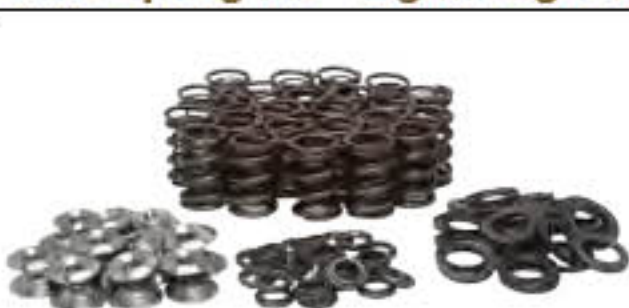
Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
6.0mm	0.333"	0.455"	2	A	B	C	D	Intake
				0.365"±0.002"	0.325"	0.120"	0.235"	Exhaust
		Part Number				Quantity		Quantity Incentive
		71040-4				Pkg. of 4		0%
		71040-8				Pkg. of 8		0%
		71040-16				Pkg. of 16		Less- 10%
		71040-50				Pkg. of 50		Less- 15%
		71040-100				Pkg. of 100		Less- 20%



AUTOMOTIVE BMW™ / MITSUBISHI™ / PORSCHE™

BMW™ M3™ • E36

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	90-90010	Intake	.500"		1.430"		50#		191#		.500"
		Exhaust									
	Kit Includes			24	Titanium Retainers			24	CrSi Valve Springs		
				24	H. T. Steel Basewashers (Outer)			24	H. T. Steel Basewashers (Inner)		

MITSUBISHI™ 3.0L 24V 6G72

Valve Spring Kit • Lightweight Racing

	KPMI P/N	Type	Max Valve Lift		Installed Height		Seat Pressure		Open Pressure		@ Lift
	97-97040	Intake	.465"		1.300"		88#		219#		.465"
		Exhaust									
	Kit Includes			24	Titanium Retainers	24	CrSi Valve Springs	24	H. T. Steel Basewashers		

PORSCHE™ 911 / 930 / 964 / 2V

2.0L / 2.2L / 2.4L / 2.7L / 3.0L / 3.2L / 3.3L

Valve Spring Kit • Lightweight Racing



KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
98-98000	Intake	.540"	1.485"	91#	226#	.540"	
	Exhaust						
Kit Includes		12	Titanium Retainers	12	CrSi Valve Springs	12	H. T. Steel Basewashers

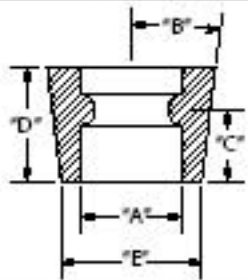
Valve Spring Kit • Turbocharged Lightweight Racing

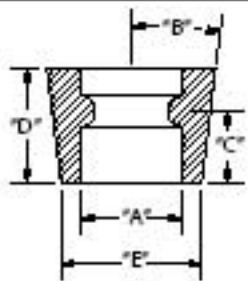
	KPMI P/N	Type	Max Valve Lift	Installed Height	Seat Pressure	Open Pressure	@ Lift	
	98-98010	Intake	.540"	1.455"	100#	233#	.540"	
		Exhaust						
	Kit Includes		12	Titanium Retainers		12	CrSi Valve Springs	
			12	H. T. Steel Basewashers (Outer)		12	H. T. Steel Shims	

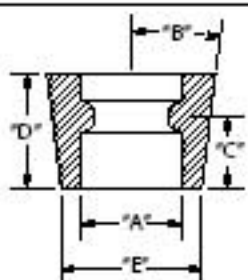
ORDER 650-557-2046

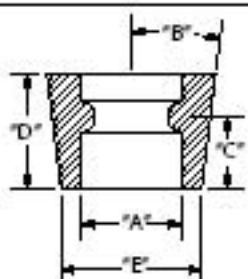


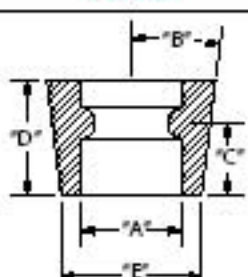
All KPMI® keepers are single-point machined from high tensile strength billet material (with the exception of forged multi-bead styles). After machining, the keepers are split, tumbled and then heat treated. At KPMI® we pay close attention to the surface finish and tolerance of all diameters, taper angle, and bead location. This type of detail insures repeatability you can count on. All Kibblewhite® Keepers are sold in pairs of 4, 8, 16, 50, and 100. * The bead height is referenced from the minor diameter of the keeper to the center of the bead.

Single Radius Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.275"	7.0°	0.160"	0.340"	0.349"
		Part Number		Quantity
		51001-4		4 Pairs
		51001-8		8 Pairs
		51001-16		16 Pairs
		51001-50		50 Pairs
		51001-100		100 Pairs

Single Radius Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.215"	10.0°	0.076"	0.210"	0.285"
		Part Number		Quantity
		51002-4		4 Pairs
		51002-8		8 Pairs
		51002-16		16 Pairs
		51002-50		50 Pairs
		51002-100		100 Pairs

Single Radius Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.196"	7.0°	0.185"	0.225"	0.279"
		Part Number		Quantity
		51004-4		4 Pairs
		51004-8		8 Pairs
		51004-16		16 Pairs
		51004-50		50 Pairs
		51004-100		100 Pairs

Single Radius Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.275"	15.0°	0.135"	0.300"	0.350"
		Part Number		Quantity
		51006-4		4 Pairs
		51006-8		8 Pairs
		51006-16		16 Pairs
		51006-50		50 Pairs
		51006-100		100 Pairs

Single Radius Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.275"	7.0°	0.188"	0.323"	0.342"
		Part Number		Quantity
		51008-4		4 Pairs
		51008-8		8 Pairs
		51008-16		16 Pairs
		51008-50		50 Pairs
		51008-100		100 Pairs



KEEPERS

All KPMI® keepers are single-point machined from high tensile strength billet material (with the exception of forged multi-bead styles). After machining, the keepers are split, tumbled and then heat treated. At KPMI® we pay close attention to the surface finish and tolerance of all diameters, taper angle, and bead location. This type of detail insures repeatability you can count on. All Kibblewhite® Keepers are sold in pairs of 4, 8, 16, 50, and 100. * The bead height is referenced from the minor diameter of the keeper to the center of the bead.

Single Radius Bead

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.215"	10.0°	0.199"	0.237"	0.288"
		Part Number		Quantity
		51010-4		4 Pairs
		51010-8		8 Pairs
		51010-16		16 Pairs
		51010-50		50 Pairs
		51010-100		100 Pairs

Single Radius Bead

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.275"	7.0°	0.190"	0.340"	0.349"
		Part Number		Quantity
		51011-4		4 Pairs
		51011-8		8 Pairs
		51011-16		16 Pairs
		51011-50		50 Pairs
		51011-100		100 Pairs

Single Radius Bead

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.315"	15.0°	0.100"	0.300"	0.344"
		Part Number		Quantity
		51012-4		4 Pairs
		51012-8		8 Pairs
		51012-16		16 Pairs
		51012-50		50 Pairs
		51012-100		100 Pairs

Single Radius Bead

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.235"	7.0°	0.153"	0.250"	0.300"
		Part Number		Quantity
		51013-4		4 Pairs
		51013-8		8 Pairs
		51013-16		16 Pairs
		51013-50		50 Pairs
		51013-100		100 Pairs

Single Radius Bead

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.196"	10.0°	0.160"	0.200"	0.308"
		Part Number		Quantity
		51015-4		4 Pairs
		51015-8		8 Pairs
		51015-16		16 Pairs
		51015-50		50 Pairs
		51015-100		100 Pairs

ORDER 650-557-2046



Single Radius Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	10.0°	0.235"	0.285"	0.417"
		Part Number		Quantity
		51023-4		4 Pairs
		51023-8		8 Pairs
		51023-16		16 Pairs
		51023-50		50 Pairs
		51023-100		100 Pairs

Single Radius Bead NEW PRODUCTS				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.215"	7.0°	0.179"	0.214"	0.262"
		Part Number		Quantity
		51024-4		4 Pairs
		51024-8		8 Pairs
		51024-16		16 Pairs
		51024-50		50 Pairs
		51024-100		100 Pairs

Single Radius Bead NEW PRODUCTS				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.196"	7.0°	0.170"	0.205"	0.236"
		Part Number		Quantity
		51025-4		4 Pairs
		51025-8		8 Pairs
		51025-16		16 Pairs
		51025-50		50 Pairs
		51025-100		100 Pairs

Single Radius Bead NEW PRODUCTS				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.177"	6.0°	0.186"	0.221"	0.212"
		Part Number		Quantity
		51026-4		4 Pairs
		51026-8		8 Pairs
		51026-16		16 Pairs
		51026-50		50 Pairs
		51026-100		100 Pairs

Single Radius Bead NEW PRODUCTS				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.196"	6.5°	0.181"	0.216"	0.270"
		Part Number		Quantity
		51027-4		4 Pairs
		51027-8		8 Pairs
		51027-16		16 Pairs
		51027-50		50 Pairs
		51027-100		100 Pairs



KEEPERS

All KPMI® keepers are single-point machined from high tensile strength billet material (with the exception of forged multi-bead styles). After machining, the keepers are split, tumbled and then heat treated. At KPMI® we pay close attention to the surface finish and tolerance of all diameters, taper angle, and bead location. This type of detail insures repeatability you can count on. All Kibblewhite® Keepers are sold in pairs of 4, 8, 16, 50, and 100. * The bead height is referenced from the minor diameter of the keeper to the center of the bead.

Single Radius Bead

NEW
PRODUCTS

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.235"	7.0°	0.075"	0.238"	0.295"
		Part Number	Quantity	
		51028-4	4 Pairs	
		51028-8	8 Pairs	
		51028-16	16 Pairs	
		51028-50	50 Pairs	
		51028-100	100 Pairs	

Single Radius Bead

NEW
PRODUCTS

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.275"	9.0°	0.300"	0.345"	0.398"
		Part Number	Quantity	
		51030-4	4 Pairs	
		51030-8	8 Pairs	
		51030-16	16 Pairs	
		51030-50	50 Pairs	
		51030-100	100 Pairs	

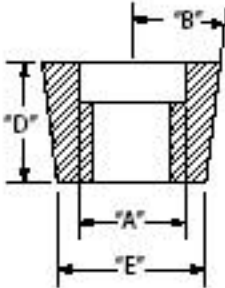
Shouldered Square Bead

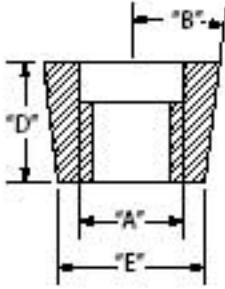
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.375"	15.0°	----	0.305"	0.403"
		Part Number	Quantity	
		51005-4	4 Pairs	
		51005-8	8 Pairs	
		51005-16	16 Pairs	
		51005-50	50 Pairs	
		51005-100	100 Pairs	

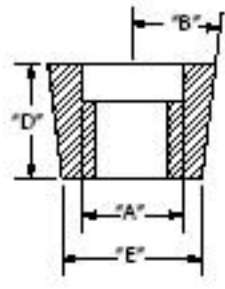
Shouldered Square Bead

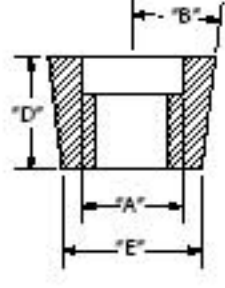
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	15.0°	----	0.315"	0.381"
		Part Number	Quantity	
		51007-4	4 Pairs	
		51007-8	8 Pairs	
		51007-16	16 Pairs	
		51007-50	50 Pairs	
		51007-100	100 Pairs	

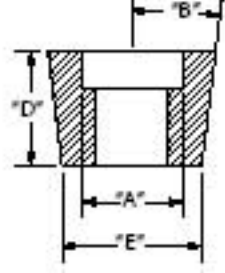


Shouldered Square Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	15.0°	----	0.343"	0.375"
		Part Number		Quantity
		51009-4		4 Pairs
		51009-8		8 Pairs
		51009-16		16 Pairs
		51009-50		50 Pairs
		51009-100		100 Pairs

Shouldered Square Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	7.0°	----	0.245"	0.369"
		Part Number		Quantity
		51017-4		4 Pairs
		51017-8		8 Pairs
		51017-16		16 Pairs
		51017-50		50 Pairs
		51017-100		100 Pairs

Shouldered Square Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.315"	15.0°	----	0.315"	0.379"
		Part Number		Quantity
		51018-4		4 Pairs
		51018-8		8 Pairs
		51018-16		16 Pairs
		51018-50		50 Pairs
		51018-100		100 Pairs

Shouldered Square Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	7.0°	----	0.250"	0.371"
		Part Number		Quantity
		51020-4		4 Pairs
		51020-8		8 Pairs
		51020-16		16 Pairs
		51020-50		50 Pairs
		51020-100		100 Pairs

Shouldered Square Bead				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	15.0°	----	0.235"	0.380"
		Part Number		Quantity
		51022-4		4 Pairs
		51022-8		8 Pairs
		51022-16		16 Pairs
		51022-50		50 Pairs
		51022-100		100 Pairs



KEEPERS

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Single Square Bead

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	15.0°	0.220"	0.365"	0.360"
		Part Number	Quantity	
		51003-4	4 Pairs	
		51003-8	8 Pairs	
		51003-16	16 Pairs	
		51003-50	50 Pairs	
		51003-100	100 Pairs	

Single Square Bead

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	7.0°	0.190"	0.380"	0.380"
		Part Number	Quantity	
		51014-4	4 Pairs	
		51014-8	8 Pairs	
		51014-16	16 Pairs	
		51014-50	50 Pairs	
		51014-100	100 Pairs	

Single Square Bead NEW PRODUCTS

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.310"	9.0°	0.155"	0.345"	0.398"
		Part Number	Quantity	
		51031-4	4 Pairs	
		51031-8	8 Pairs	
		51031-16	16 Pairs	
		51031-50	50 Pairs	
		51031-100	100 Pairs	

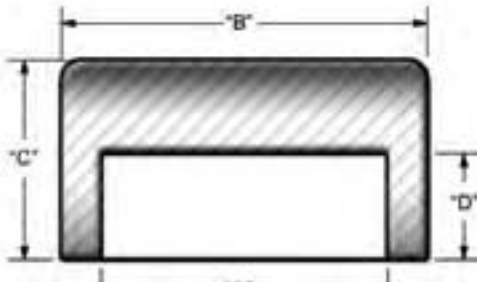
Triple Radius Bead

Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.275"	7.0°	----	0.290"	0.345"
		Part Number	Quantity	
		51016-4	4 Pairs	
		51016-8	8 Pairs	
		51016-16	16 Pairs	
		51016-50	50 Pairs	
		51016-100	100 Pairs	



Triple Radius Bead NEW PRODUCTS				
Stem Diameter "A"	Keeper Angle "B"	*Bead Height "C"	Overall Length "D"	Minor Diameter "E"
0.236"	7.0°	---	0.200"	0.282"
		Part Number		Quantity
		51029-4		4 Pairs
		51029-8		8 Pairs
		51029-16		16 Pairs
		51029-50		50 Pairs
		51029-100		100 Pairs

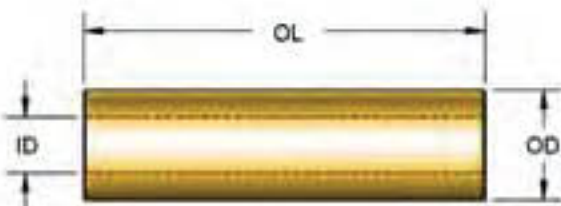
LASH CAPS



KPMI® lash caps are machined from a tough steel that is heat treated to a specific depth, creating a hard impact and wear resistant surface, with a ductile core so they do not crack.

Lash Caps										
Qty. 4 KPMI P/N	Qty. 8 KPMI P/N	Qty. 16 KPMI P/N	Qty. 50 KPMI P/N	Qty. 100 KPMI P/N	"A" Bore Diameter		"B" Outside Diameter	"C" Overall Length	"D" Counterbore Depth	("C"- "D") Roof Thickness
94001-4	94001-8	94001-16	94001-50	94001-100	7.94mm	0.3126"	0.395"	0.160"	0.080"	0.080"
94002-4	94002-8	94002-16	94002-50	94002-100	7.00mm	0.2756"	0.355"	0.160"	0.080"	0.080"
94003-4	94003-8	94003-16	94003-50	94003-100	6.50mm	0.2595"	0.335"	0.120"	0.080"	0.040"
94004-4	94004-8	94004-16	94004-50	94004-100	5.50mm	0.2165"	0.295"	0.090"	0.050"	0.040"
94005-4	94005-8	94005-16	94005-50	94005-100	5.00mm	0.1969"	0.277"	0.090"	0.050"	0.040"
94006-4	94006-8	94006-16	94006-50	94006-100	5.00mm	0.1969"	0.277"	0.230"	0.150"	0.080"
94007-4	94007-8	94007-16	94007-50	94007-100	5.00mm	0.1969"	0.277"	0.175"	0.100"	0.075"
94008-4	94008-8	94008-16	94008-50	94008-100	6.00mm	0.2282"	0.315"	0.120"	0.080"	0.040"

MANGANESE BLANK GUIDES



The Manganese blank guides are designed with large OD's and long lengths to allow maximum versatility and can be machined to fit a large variety of applications. The Manganese material is easily reamed, and then can be delicately finished with our high quality ball hones. These blank guides are a perfect choice for repair work or machining a custom guide for hard to find applications.

Manganese Blank Guides NEW PRODUCTS					
KPMI P/N	ID	OD	OL	Quantity	Fits
20-20380	7.0mm	0.740"	2.700"	Pkg. of 1	Universal
20-20381	0.308"	0.740"	2.700"	Pkg. of 1	Universal
20-20382	0.372"	0.740"	2.700"	Pkg. of 1	Universal
20-20383	0.341"	0.740"	2.700"	Pkg. of 1	Universal



VALVE GUIDE SEALS

All KPMI® seals are conveniently packaged in quantities of: 4, 8, 16, 50, and 100. Value added savings have been built into the 16, 50, and 100 quantity packs with 10, 15, and 20% savings respectively. Select your seal type and then use the diagram and specifications to ensure your valve guides share the same dimensions for a proper fit.

Seal Style 1 - Solid Viton®

Seal Style 1 - Solid Viton®							
Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
8.0mm	0.285"	0.455"	A	B	C	D	764.1.013.1A
			0.466"-0.475"	0.411"-0.430"	0.040"	0.135"	
		KPMI P/N			Quantity		Quantity Incentive
		71043-4			Pkg. of 4		0%
		71043-8			Pkg. of 8		0%
		71043-16			Pkg. of 16		Less- 10%
		71043-50			Pkg. of 50		Less- 15%
		71043-100			Pkg. of 100		Less- 20%

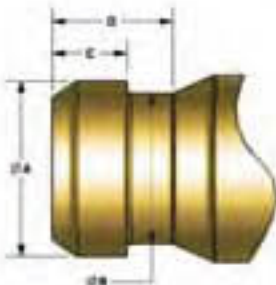
Seal Style 1 - Solid Viton®

Seal Style 1 - Solid Viton®							
Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.465"	0.550"	A	B	C	D	---
			0.500"±0.010"	0.445"	0.230"	0.280"	
		KPMI P/N		Quantity		Quantity Incentive	
		71012-4		Pkg. of 4		0%	
		71012-8		Pkg. of 8		0%	
		71012-16		Pkg. of 16		Less- 10%	
		71012-50		Pkg. of 50		Less- 15%	
		71012-100		Pkg. of 100		Less- 20%	

Seal Style 2 - Solid Viton® w/ Tension Spring

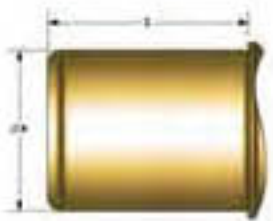
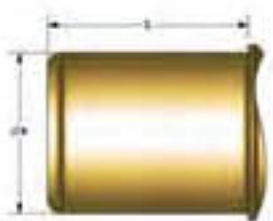
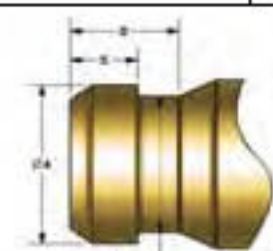
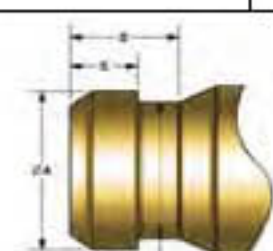
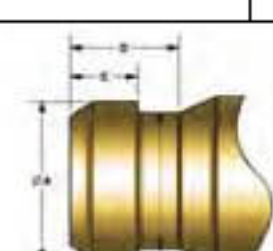
Seal Style 2 - Solid Viton® w/ Tension Spring							
Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
4.0mm	0.310"	0.380"	A	B	C	D	12209-KT7-013
			0.315"±0.005"	0.270"	0.120"	0.235"	
		KPMI P/N		Quantity		Quantity Incentive	
		71013-4		Pkg. of 4		0%	
		71013-8		Pkg. of 8		0%	
		71013-16		Pkg. of 16		Less- 10%	
		71013-50		Pkg. of 50		Less- 15%	
		71013-100		Pkg. of 100		Less- 20%	

Seal Style 2 - Solid Viton® w/ Tension Spring

Seal Style 2 - Solid Viton® w/ Tension Spring							
Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5.5mm	0.330"	0.455"	A	B	C	D	51Y-12119-00-00
			0.365"±0.002"	0.325"	0.120"	0.235"	
		KPMI P/N			Quantity		Quantity Incentive
		71040-4			Pkg. of 4		0%
		71040-8			Pkg. of 8		0%
		71040-16			Pkg. of 16		Less- 10%
		71040-50			Pkg. of 50		Less- 15%
		71040-100			Pkg. of 100		Less- 20%

VALVE GUIDE SEALS



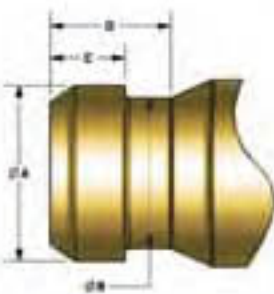
Seal Style 3 - Solid Viton® w/ Metal Jacket & Integral Spring Base							
Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs			Spring Shoulder Dia.	OEM REF.
6.0mm	0.712"	1.170"	A	B	C		18100044
			0.475"±0.005"	---	0.545"	0.707"	
		KPMI P/N			Quantity		Quantity Incentive
		71046-4			Pkg. of 4		0%
		71046-8			Pkg. of 8		0%
		71046-16			Pkg. of 16		Less- 10%
		71046-50			Pkg. of 50		Less- 15%
		71046-100			Pkg. of 100		Less- 20%
Seal Style 3 - Solid Viton® w/ Metal Jacket & Integral Spring Base							
Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs			Spring Shoulder Dia.	OEM REF.
7.0mm	0.974"	1.457"	A	B	C		18094-02A
			0.560"±0.005"	---	0.700"	0.970"	
		KPMI P/N			Quantity		Quantity Incentive
		71030-4			Pkg. of 4		0%
		71030-8			Pkg. of 8		0%
		71030-16			Pkg. of 16		Less- 10%
		71030-50			Pkg. of 50		Less- 15%
		71030-100			Pkg. of 100		Less- 20%
Seal Style 4 - Solid Viton® w/ Choker & Tension Spring							
Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
4.5mm	0.331"	0.370"	A	B	C	D	12209-ML0-722
			0.321"±0.005"	0.281"	0.120"	0.240"	
		KPMI P/N			Quantity		Quantity Incentive
		71014-4			Pkg. of 4		0%
		71014-8			Pkg. of 8		0%
		71014-16			Pkg. of 16		Less- 10%
		71014-50			Pkg. of 50		Less- 15%
		71014-100			Pkg. of 100		Less- 20%
Seal Style 4 - Solid Viton® w/ Choker & Tension Spring							
Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5.0mm	0.350"	0.405"	A	B	C	D	09289-05011
			0.340"±0.005"	0.303"	0.125"	0.230"	
		KPMI P/N			Quantity		Quantity Incentive
		71015-4			Pkg. of 4		0%
		71015-8			Pkg. of 8		0%
		71015-16			Pkg. of 16		Less- 10%
		71015-50			Pkg. of 50		Less- 15%
		71015-100			Pkg. of 100		Less- 20%
Seal Style 4 - Solid Viton® w/ Choker & Tension Spring							
Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5.5mm	0.320"	0.440"	A	B	C	D	12206.502-005
			0.358"±0.005"	0.320"	0.110"	0.200"	
		KPMI P/N			Quantity		Quantity Incentive
		71016-4			Pkg. of 4		0%
		71016-8			Pkg. of 8		0%
		71016-16			Pkg. of 16		Less- 10%
		71016-50			Pkg. of 50		Less- 15%
		71016-100			Pkg. of 100		Less- 20%



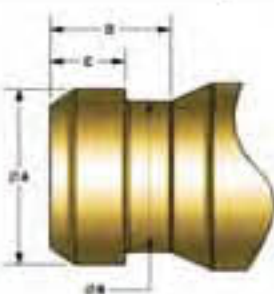
VALVE GUIDE SEALS

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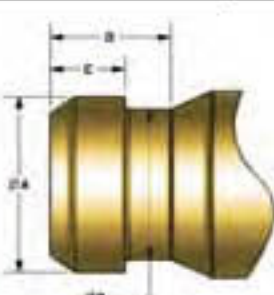
Seal Style 4 - Solid Viton® w/ Choker & Tension Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
6.5mm	0.353"	0.560"	A	B	C	D	12209-300-003
			0.475"±0.005"	0.415"	0.115"	0.260"	
 			KPMI P/N		Quantity		Quantity Incentive
			71018-4		Pkg. of 4		0%
			71018-8		Pkg. of 8		0%
			71018-16		Pkg. of 16		Less- 10%
			71018-50		Pkg. of 50		Less- 15%
			71018-100		Pkg. of 100		Less- 20%

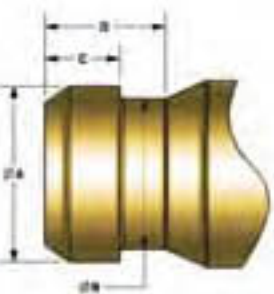
Seal Style 4 - Solid Viton® w/ Choker & Tension Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
7.0mm	0.374"	0.560"	A	B	C	D	92049-016
			0.475"±0.005"	0.430"	0.115"	0.240"	
 			KPMI P/N		Quantity		Quantity Incentive
			71019-4		Pkg. of 4		0%
			71019-8		Pkg. of 8		0%
			71019-16		Pkg. of 16		Less- 10%
			71019-50		Pkg. of 50		Less- 15%
			71019-100		Pkg. of 100		Less- 20%

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
4.0mm	0.320"	0.355"	A	B	C	D	---
			0.285"±0.002"	0.245"	0.120"	0.215"	
 			KPMI P/N		Quantity		Quantity Incentive
			71039-4		Pkg. of 4		0%
			71039-8		Pkg. of 8		0%
			71039-16		Pkg. of 16		Less- 10%
			71039-50		Pkg. of 50		Less- 15%
			71039-100		Pkg. of 100		Less- 20%

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5.0mm	0.320"	0.435"	A	B	C	D	77036027000
			0.305"±0.002"	0.265"	0.100"	0.195"	
 			KPMI P/N		Quantity		Quantity Incentive
			71041-4		Pkg. of 4		0%
			71041-8		Pkg. of 8		0%
			71041-16		Pkg. of 16		Less- 10%
			71041-50		Pkg. of 50		Less- 15%
			71041-100		Pkg. of 100		Less- 20%

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VALVE GUIDE SEALS



Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5.5mm	0.540"	0.524"	A	B	C	D	---
			0.435"±0.002"	---	---	0.410"	
		KPMI P/N		Quantity		Quantity Incentive	
		71038-4		Pkg. of 4		0%	
		71038-8		Pkg. of 8		0%	
		71038-16		Pkg. of 16		Less- 10%	
		71038-50		Pkg. of 50		Less- 15%	
		71038-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5.5mm	0.315"	0.455"	A	B	C	D	420430420
			0.325"±0.002"	0.310"	0.110"	0.220"	
		KPMI P/N		Quantity		Quantity Incentive	
		71042-4		Pkg. of 4		0%	
		71042-8		Pkg. of 8		0%	
		71042-16		Pkg. of 16		Less- 10%	
		71042-50		Pkg. of 50		Less- 15%	
		71042-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
6.0mm	0.371"	0.480"	A	B	C	D	5H0-12119-00-00
			0.385"±0.002"	0.341"	0.120"	0.255"	
		KPMI P/N		Quantity		Quantity Incentive	
		71017-4		Pkg. of 4		0%	
		71017-8		Pkg. of 8		0%	
		71017-16		Pkg. of 16		Less- 10%	
		71017-50		Pkg. of 50		Less- 15%	
		71017-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
6.0mm	0.400"	0.560"	A	B	C	D	711230510
			0.435"±0.002"	0.400"	0.120"	0.285"	
		KPMI P/N		Quantity		Quantity Incentive	
		71025-4		Pkg. of 4		0%	
		71025-8		Pkg. of 8		0%	
		71025-16		Pkg. of 16		Less- 10%	
		71025-50		Pkg. of 50		Less- 15%	
		71025-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

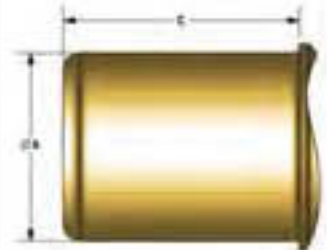
Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
6.5mm	0.315"	0.520"	A	B	C	D	59036027000
			0.435"±0.002"	0.395"	0.120"	0.210"	
		KPMI P/N		Quantity		Quantity Incentive	
		71029-4		Pkg. of 4		0%	
		71029-8		Pkg. of 8		0%	
		71029-16		Pkg. of 16		Less- 10%	
		71029-50		Pkg. of 50		Less- 15%	
		71029-100		Pkg. of 100		Less- 20%	



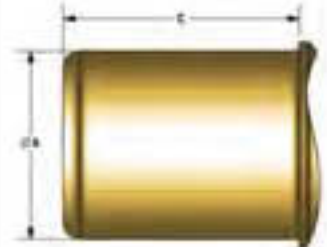
VALVE GUIDE SEALS

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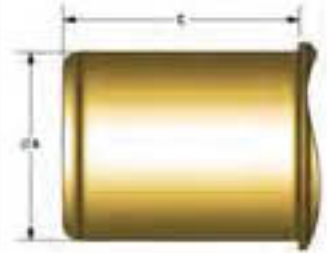
Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
6.0mm	0.524"	0.615"	A	B	C	D	---
			0.495"±0.002"	---	---	0.385"	
				KPMI P/N		Quantity	Quantity Incentive
				71031-4		Pkg. of 4	0%
				71031-8		Pkg. of 8	0%
				71031-16		Pkg. of 16	Less- 10%
				71031-50		Pkg. of 50	Less- 15%
				71031-100		Pkg. of 100	Less- 20%

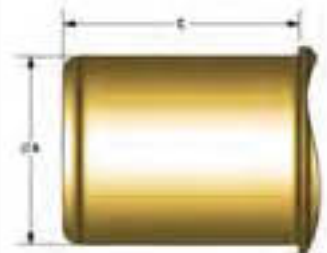
Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
6.0mm	0.394"	0.555"	A	B	C	D	---
			0.447"±0.002"	---	---	0.265"	
				KPMI P/N		Quantity	Quantity Incentive
				71037-4		Pkg. of 4	0%
				71037-8		Pkg. of 8	0%
				71037-16		Pkg. of 16	Less- 10%
				71037-50		Pkg. of 50	Less- 15%
				71037-100		Pkg. of 100	Less- 20%

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
7.0mm	0.517"	0.550"	A	B	C	D	022-1516
			0.435"±0.002"	---	---	0.310"	
				KPMI P/N		Quantity	Quantity Incentive
				71026-4		Pkg. of 4	0%
				71026-8		Pkg. of 8	0%
				71026-16		Pkg. of 16	Less- 10%
				71026-50		Pkg. of 50	Less- 15%
				71026-100		Pkg. of 100	Less- 20%

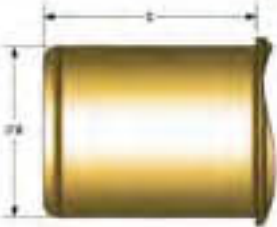
Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
7.0mm	0.510"	0.665"	A	B	C	D	---
			0.560"±0.002"	---	---	0.375"	
				KPMI P/N		Quantity	Quantity Incentive
				71028-4		Pkg. of 4	0%
				71028-8		Pkg. of 8	0%
				71028-16		Pkg. of 16	Less- 10%
				71028-50		Pkg. of 50	Less- 15%
				71028-100		Pkg. of 100	Less- 20%

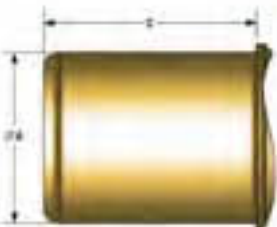
VALVE GUIDE SEALS



Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
7.0mm	0.360"	0.520"	A	B	C	D	764.1.087.1A
			0.383"-0.389"	---	---	0.255"	
		KPMI P/N		Quantity		Quantity Incentive	
		71044-4		Pkg. of 4		0%	
		71044-8		Pkg. of 8		0%	
		71044-16		Pkg. of 16		Less- 10%	
		71044-50		Pkg. of 50		Less- 15%	
		71044-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

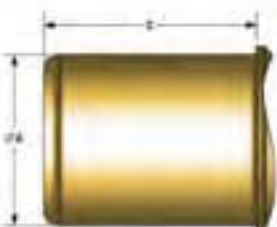
Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
8.0mm	0.374"	0.598"	A	B	C	D	E6TZ6571A
			0.427"±0.002"	---	---	0.265"	
		KPMI P/N		Quantity		Quantity Incentive	
		71027-4		Pkg. of 4		0%	
		71027-8		Pkg. of 8		0%	
		71027-16		Pkg. of 16		Less- 10%	
		71027-50		Pkg. of 50		Less- 15%	
		71027-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

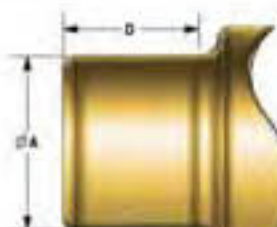
Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.412"	0.566"	A	B	C	D	35178930
			0.420"±0.002"	---	---	0.275"	
		KPMI P/N		Quantity		Quantity Incentive	
		71010-4		Pkg. of 4		0%	
		71010-8		Pkg. of 8		0%	
		71010-16		Pkg. of 16		Less- 10%	
		71010-50		Pkg. of 50		Less- 15%	
		71010-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

NEW PRODUCTS

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.514"	0.671"	A	B	C	D	---
			0.530"±0.002"	---	---	0.330"	
		KPMI P/N		Quantity		Quantity Incentive	
		71045-4		Pkg. of 4		0%	
		71045-8		Pkg. of 8		0%	
		71045-16		Pkg. of 16		Less- 10%	
		71045-50		Pkg. of 50		Less- 15%	
		71045-100		Pkg. of 100		Less- 20%	

Seal Style 5 - Solid Viton® w/ Metal Jacket & Choker Spring

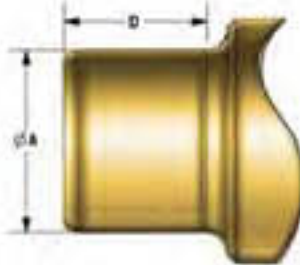
Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.516"	0.661"	A	B	C	D	---
			0.562"±0.002"	---	---	0.210"	
		KPMI P/N		Quantity		Quantity Incentive	
		71011-4		Pkg. of 4		0%	
		71011-8		Pkg. of 8		0%	
		71011-16		Pkg. of 16		Less- 10%	
		71011-50		Pkg. of 50		Less- 15%	
		71011-100		Pkg. of 100		Less- 20%	



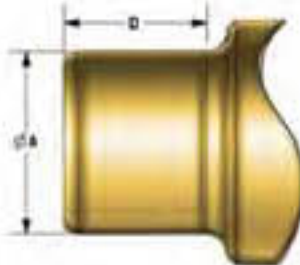
VALVE GUIDE SEALS

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Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.386"	0.512"	A	B	C	D	5403212
			0.425"±0.002"	---	---	0.235"	
		KPMI P/N			Quantity		Quantity Incentive
		71003-4			Pkg. of 4		0%
		71003-8			Pkg. of 8		0%
		71003-16			Pkg. of 16		Less- 10%
		71003-50			Pkg. of 50		Less- 15%
		71003-100			Pkg. of 100		Less- 20%

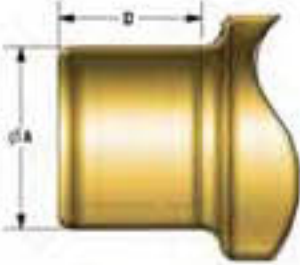
Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.510"	0.600"	A	B	C	D	---
			0.500"±0.002"	---	---	0.365"	
		KPMI P/N			Quantity		Quantity Incentive
		71006-4			Pkg. of 4		0%
		71006-8			Pkg. of 8		0%
		71006-16			Pkg. of 16		Less- 10%
		71006-50			Pkg. of 50		Less- 15%
		71006-100			Pkg. of 100		Less- 20%

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.517"	0.510"	A	B	C	D	8921209
			0.415"±0.002"	---	---	0.350"	
		KPMI P/N		Quantity		Quantity Incentive	
		71008-4		Pkg. of 4		0%	
		71008-8		Pkg. of 8		0%	
		71008-16		Pkg. of 16		Less- 10%	
		71008-50		Pkg. of 50		Less- 15%	
		71008-100		Pkg. of 100		Less- 20%	

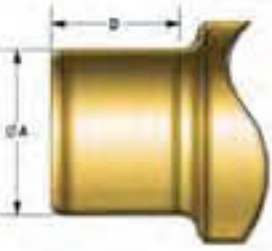
Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.506"	0.632"	A	B	C	D	---
			0.530"±0.002"	---	---	0.365"	
		KPMI P/N		Quantity		Quantity Incentive	
		71009-4		Pkg. of 4		0%	
		71009-8		Pkg. of 8		0%	
		71009-16		Pkg. of 16		Less- 10%	
		71009-50		Pkg. of 50		Less- 15%	
		71009-100		Pkg. of 100		Less- 20%	

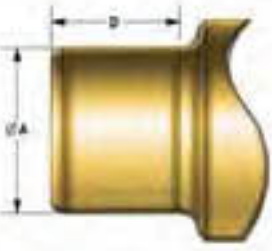
VALVE GUIDE SEALS



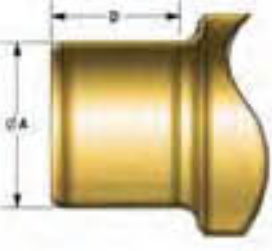
Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
11/32"	0.510"	0.596"	A	B	C	D	---
			0.500"±0.002"	---	---	0.360"	
		KPMI P/N		Quantity		Quantity Incentive	
		71005-4		Pkg. of 4		0%	
		71005-8		Pkg. of 8		0%	
		71005-16		Pkg. of 16		Less- 10%	
		71005-50		Pkg. of 50		Less- 15%	
		71005-100		Pkg. of 100		Less- 20%	

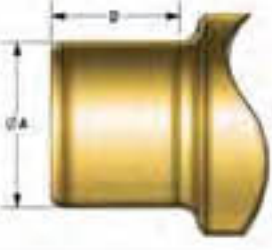
Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
11/32"	0.514"	0.654"	A	B	C	D	---
			0.562"±0.002"	---	---	0.345"	
		KPMI P/N		Quantity		Quantity Incentive	
		71007-4		Pkg. of 4		0%	
		71007-8		Pkg. of 8		0%	
		71007-16		Pkg. of 16		Less- 10%	
		71007-50		Pkg. of 50		Less- 15%	
		71007-100		Pkg. of 100		Less- 20%	

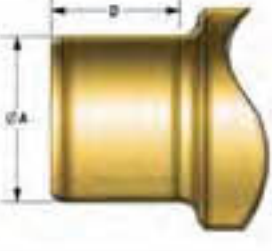
Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.502"	0.626"	A	B	C	D	---
			0.530"±0.002"	---	---	0.350"	
		KPMI P/N		Quantity		Quantity Incentive	
		71001-4		Pkg. of 4		0%	
		71001-8		Pkg. of 8		0%	
		71001-16		Pkg. of 16		Less- 10%	
		71001-50		Pkg. of 50		Less- 15%	
		71001-100		Pkg. of 100		Less- 20%	

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.518"	0.650"	A	B	C	D	---
			0.562"±0.002"	---	---	0.365"	
		KPMI P/N		Quantity		Quantity Incentive	
		71002-4		Pkg. of 4		0%	
		71002-8		Pkg. of 8		0%	
		71002-16		Pkg. of 16		Less- 10%	
		71002-50		Pkg. of 50		Less- 15%	
		71002-100		Pkg. of 100		Less- 20%	

Seal Style 6 - Solid PC w/ Metal Band & Choker Spring

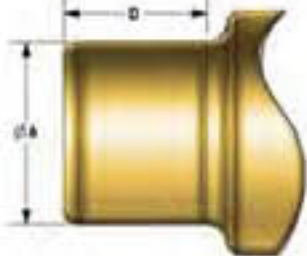
Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.507"	0.600"	A	B	C	D	---
			0.500"±0.002"	---	---	0.355"	
		KPMI P/N		Quantity		Quantity Incentive	
		71004-4		Pkg. of 4		0%	
		71004-8		Pkg. of 8		0%	
		71004-16		Pkg. of 16		Less- 10%	
		71004-50		Pkg. of 50		Less- 15%	
		71004-100		Pkg. of 100		Less- 20%	



VALVE GUIDE SEALS

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Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.385"	0.565"	A	B	C	D	18001-83B
			0.420"±0.002"	---	---	0.315"	
		KPMI P/N		Quantity		Quantity Incentive	
		71032-4		Pkg. of 4		0%	
		71032-8		Pkg. of 8		0%	
		71032-16		Pkg. of 16		Less- 10%	
		71032-50		Pkg. of 50		Less- 15%	
		71032-100		Pkg. of 100		Less- 20%	

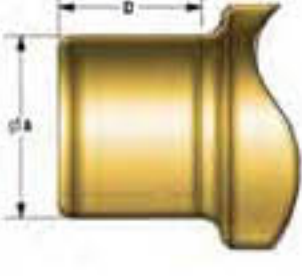
Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
5/16"	0.375"	0.630"	A	B	C	D	1804698
			0.530"±0.002"	---	---	0.295"	
		KPMI P/N		Quantity		Quantity Incentive	
		71033-4		Pkg. of 4		0%	
		71033-8		Pkg. of 8		0%	
		71033-16		Pkg. of 16		Less- 10%	
		71033-50		Pkg. of 50		Less- 15%	
		71033-100		Pkg. of 100		Less- 20%	

Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
11/32"	0.375"	0.630"	A	B	C	D	---
			0.530"±0.002"	---	---	0.365"	
		KPMI P/N		Quantity		Quantity Incentive	
		71034-4		Pkg. of 4		0%	
		71034-8		Pkg. of 8		0%	
		71034-16		Pkg. of 16		Less- 10%	
		71034-50		Pkg. of 50		Less- 15%	
		71034-100		Pkg. of 100		Less- 20%	

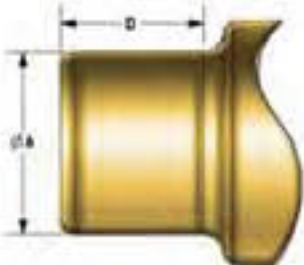
Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.375"	0.660"	A	B	C	D	---
			0.562"±0.002"	---	---	0.315"	
		KPMI P/N			Quantity		Quantity Incentive
		71035-4			Pkg. of 4		0%
		71035-8			Pkg. of 8		0%
		71035-16			Pkg. of 16		Less- 10%
		71035-50			Pkg. of 50		Less- 15%
		71035-100			Pkg. of 100		Less- 20%

VALVE GUIDE SEALS



Seal Style 7 - H.D. OEM Style Solid Teflon w/ a Metal Jacket

Stem Diameter	O.L.	Seal O.D.	Designed for these guide specs				OEM REF.
3/8"	0.400"	0.720"	A	B	C	D	1800081
			0.625±0.002"	---	---	0.310"	
 			KPMI P/N		Quantity		Quantity Incentive
			71036-4		Pkg. of 4		0%
			71036-8		Pkg. of 8		0%
			71036-16		Pkg. of 16		Less- 10%
			71036-50		Pkg. of 50		Less- 15%
			71036-100		Pkg. of 100		Less- 20%

INSTALLATION PROTECTORS



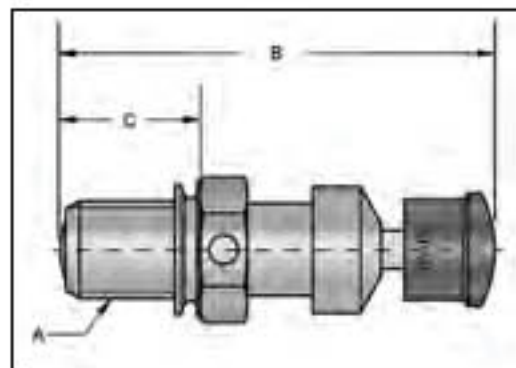
20-20637 / 20-20638 / 20-20639

The flexible thin wall protectors are designed to fit over the top of the valve stem, protecting the sealing element from any sharp edges that might damage it during installation.

Installation Protector						
KPMI P/N (2-pack)	KPMI P/N (1-pack)	Application	Stem Diameter	Fits		Color
20-20634	20-20637	Evolution & Ironhead Sportster Intake	5/16"	71032-4	71033-4	Green
20-20635	20-20638	Ironhead Sportster Exhaust	11/32"	71034-4		Clear
20-20636	20-20639	Panhead & Shovelhead 74" & Shovelhead 80"	3/8"	71035-4	71036-4	Red

COMPRESSION RELEASE VALVES

NEW PRODUCTS



- KPMI® Compression Release valves are state of the art and priced competitively
- Designed to reduce "hot start" issues and starter / battery loads
- 5-7 Newtons of closing force resistance, for high demand applications
- Custom molded knobs ensure a cool touch and easy operation
- Embossed with the KPMI® brand to ensure product quality

20-21260 / 20-21255 / 20-21250

Compression Release Valves					
KPMI P/N (2-pack)	KPMI P/N (20-pack)	A	B	C	Note
20-21250	20-21265	M10 x 1	1.400"	0.350"	Fits Evos, Shortened thread for ease of installation, 6kn closing force
20-21255	20-21270	M10 x 1	1.730"	0.350"	Fits Twin Cams, Shortened thread for ease of installation, 6kn closing force
20-21260	20-21275	M10 x 1	1.750"	0.500"	6kn closing force

VISIT US AT WWW.KPMI.US



INSTALLATION TOOLS

These installation tools for OE style seals are manufactured from high strength 6061-T6 Aluminum for increased durability when compared to plastic installers. The tools are designed for precision fitment onto the seal OD to help the builder center the seal over the valve guide so that a few light strikes from a hammer will set the seal. Radiused top striking surface reduces the likelihood of a burr forming from deformation. Each installation tool is color coded and laser marked for each seal size by guide diameter.



20-20830



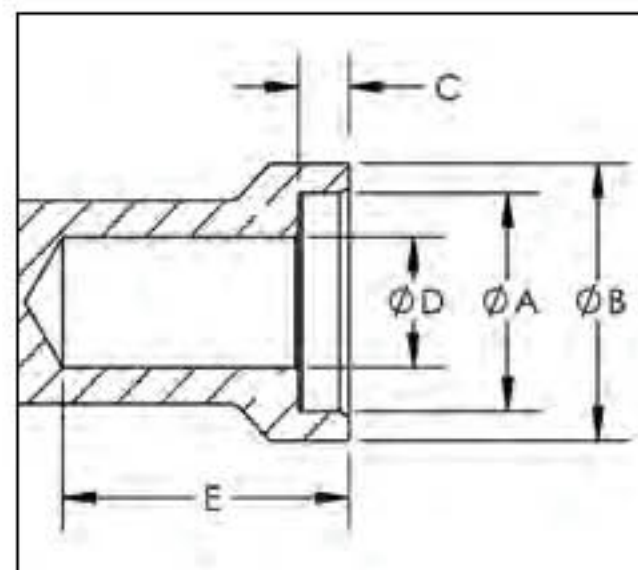
20-20831



20-20832



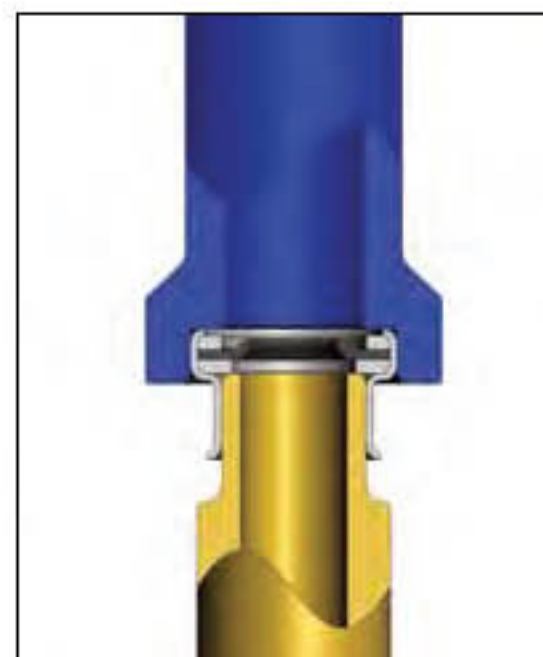
20-20833



Installation Tools									
KPMI P/N (1-pack)	Application	ØA	ØB	C	ØD	E	Fits KPMI Seal P/N		Color
20-20830	Evolution 5/16" Stem	Ø0.575	0.860	0.160	0.404	0.910	71032-4		Red
20-20831	Shovelhead 80"	Ø0.728	0.860	0.160	0.404	0.910	71036-4		Blue
20-20832	Ironhead Sportster In/ Ex	Ø0.638	0.860	0.160	0.404	0.910	71033-4	71034-4	White
20-20833	Panhead & Shovelhead 74"	Ø0.673	0.860	0.160	0.404	0.910	71035-4		Black

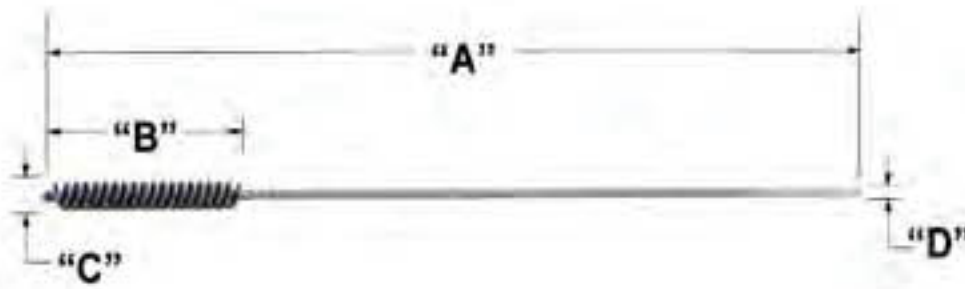


20-20835



Installation Tool Kit	
KPMI P/N	Description
20-20835	Kit includes all 4 sizes of installations

BALL HONES



- Silicon Carbide composite for Bronze or Cast Iron
- Ideal for finishing a reamed hole
- Cleaning up a used guide
- Minor sizing less than a thou

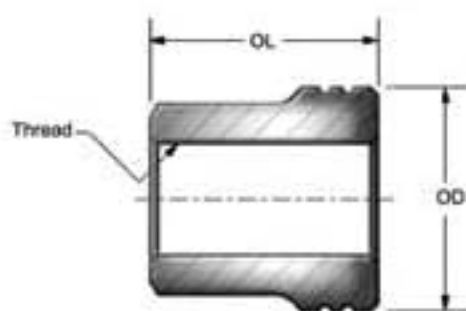


Ball Hones - Universal

KPMI P/N	Description	Overall Length "A"	Hone Head Length "B"	Hone Diameter "C"	Shank Diameter "D"
GH-1574	4.0mm valve guide hone	6.010"	0.925"	0.180"	0.055"
GH-1771	4.5mm valve guide hone	6.010"	0.975"	0.205"	0.060"
GH-1968	5.0mm valve guide hone	8.055"	1.775"	0.220"	0.085"
GH-2165	5.5mm valve guide hone	8.120"	1.790"	0.240"	0.085"
GH-2362	6.0mm valve guide hone	7.975"	1.590"	0.260"	0.110"
GH-2755	7.0mm valve guide hone	7.975"	2.075"	0.325"	0.130"
GH-3125	5/16 (.3125") valve guide hone	8.125"	2.225"	0.375"	0.145"
GH-3750	3/8 (.3750") valve guide hone	8.050"	2.190"	0.415"	0.145"

BC Series Flex-Hone are manufactured by Brush Research (BRM). The BC Series Flex-Hone tool is designed for use on any type or size of valve guide from 4mm up to 3/8" in diameter. This guide hone is designed for surface finishing and cross hole deburring. Although Ball Hones have many uses, KPMI® offers them primarily to be used after a guide has been reamed. Using a Ball Hone after reaming creates a uniform surface free of irregularities, which improves surface contact and reduces the risk of galling or seizure. Please see our FAQ for recommended clearances.

NUTS



41001-4

These nuts are manufactured from a premium steel that promotes excellent surface finish and tight tolerances, two critical factors for achieving correct fit and torque. After machining, the nuts are heat treated to a specific depth to create hard, wear resistant working surfaces, while retaining a ductile core to prevent cracking under load. The premium black oxide treatment gives an excellent, corrosion resistant appearance.

Nuts

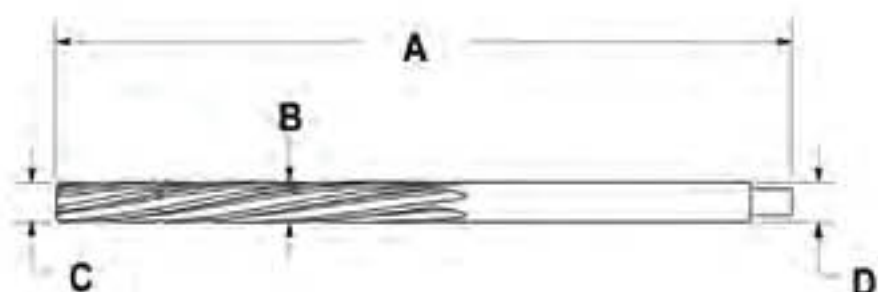
NEW PRODUCTS

KPMI P/N	Thread	Overall Length	Flange Diameter	HEX Pattern	Quantity
41001-4	M10 x 1.25	0.750"	0.740"	14mm	Pkg. of 4
41002-4	1/2-20 UNF	0.520"	0.786"	14mm	Pkg. of 4
41003-4	M8 x 1.25	0.385"	0.670"	13mm	Pkg. of 4



HIGH SPEED STEEL REAMERS

KPMI® valve guide reamers are manufactured from premium hardened High Speed Steel. The advertised finished reamer diameters are ground to: $\pm .0002$ ". These spiral fluted reamers incorporate a 1.00" long pilot (reduced diameter) which gets inserted into an unfinished guide bore, to align the reamer to the valve guide centerline, during the sizing process. These reamers have been specifically designed for KPMI® Manganese Bronze and Cast Iron valve guides. Do not attempt to use these reamers to size C630 Nickel Aluminum Bronze guides. Also, once a reamer is used on Cast Iron, it is not advisable to then use it on a bronze guide.



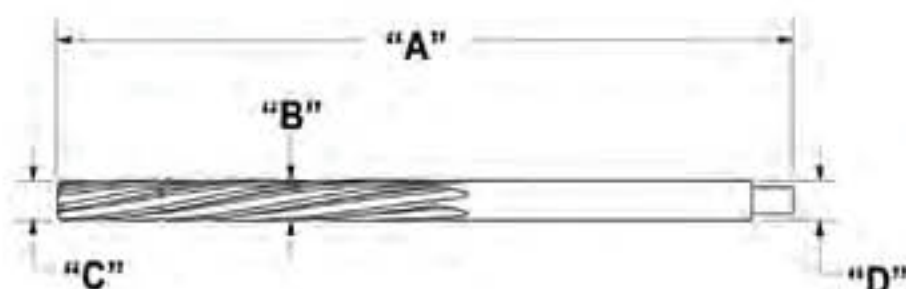
GR-3770 / GR-2770

Reamers					
KPMI P/N	Description	Overall Length A	Cutting Diameter B	Pilot Diameter C	Shank Diameter D
GR-1970	0.1970 HSS valve guide reamer	7.125"	0.1970"	0.191"	0.190"
GR-2357	0.1970 HSS valve guide reamer	7.125"	0.2357"	0.229"	0.288"
GR-2770	0.2770 HSS valve guide reamer	7.125"	0.2770"	0.271"	0.270"
GR-2820	0.2820 HSS valve guide reamer	7.125"	0.2820"	0.272"	0.275"
GR-3100	0.3100 HSS valve guide reamer	7.125"	0.3100"	0.304"	0.303"
GR-3110	0.3110 HSS valve guide reamer	7.125"	0.3110"	0.305"	0.304"
GR-3115	0.3115 HSS valve guide reamer	7.125"	0.3115"	0.305"	0.304"
GR-3120	0.3120 HSS valve guide reamer	7.125"	0.3120"	0.306"	0.305"
GR-3400	0.3400 HSS valve guide reamer	7.125"	0.3400"	0.334"	0.333"
GR-3410	0.3410 HSS valve guide reamer	7.125"	0.3410"	0.335"	0.334"
GR-3730	0.3730 HSS valve guide reamer	7.125"	0.3730"	0.367"	0.336"
GR-3770	0.3770 HSS valve guide reamer	7.125"	0.3770"	0.371"	0.370"
GR-3775	0.3775 HSS valve guide reamer	7.125"	0.3775"	0.371"	0.370"
GR-3780	0.3780 HSS valve guide reamer	7.125"	0.3780"	0.372"	0.371"
GR-3790	0.3790 HSS valve guide reamer	7.125"	0.3790"	0.373"	0.372"

SOLID CARBIDE REAMERS



KPMI® Carbide valve guide reamers are manufactured from Solid Carbide. All KPMI® reamers are ground to: $\pm .0002"$. KPMI® carbide reamers are straight-flute and have a 6-flute design. The pilot portion of KPMI® reamers are 1.0" to 1.5" long. Insert the pilot into a guide that you intend to size. Using a hand held drill, apply honing oil or ATF before and during reaming a guide. KPMI® reamers have been specifically designed for Manganese Bronze valve guides and Cast Iron. Do not attempt to use these reamers to size C630 Nickel Aluminum Bronze guides. Also, once a reamer is used on Cast Iron, it's not advisable to then use it on a bronze guide.



NEW
PRODUCTS



CR-3775 / CR-2768

Solid Carbide Reamers					
KPMI P/N	Description	Overall Length "A"	Cutting Diameter "B"	Pilot Diameter "C"	Shank Diameter "D"
CR-1971	0.1971 carbide valve guide reamer	7.625"	0.1971"	0.192"	0.190"
CR-2357	0.2357 carbide valve guide reamer	7.625"	0.2357"	0.230"	0.228"
CR-2768	0.2768 carbide valve guide reamer	7.625"	0.2768"	0.271"	0.269"
CR-3110	0.3110 carbide valve guide reamer	7.625"	0.3110"	0.306"	0.304"
CR-3115	0.3115 carbide valve guide reamer	7.625"	0.3115"	0.306"	0.304"
CR-3120	0.3120 carbide valve guide reamer	7.625"	0.3120"	0.307"	0.305"
CR-3775	0.3775 carbide valve guide reamer	7.625"	0.3775"	0.372"	0.370"

VALVE GUIDE INSTALLATION & REMOVAL TOOLS

- Machined to properly fit KPMI® Hayabusa valve guide designs
- Extra-long handles provide ergonomically grooved gripping area and the ability to work in tough to reach situations
- Guide installation tool is designed to register on uniquely designed seal relief minimizing guide deformation on the seal end, ensuring proper height above the head without guess and check measuring as seen in Figure (1)
- Guide removal tool allows the user to drive any 5mm guide with a 10mm outer diameter through lengthy guide bores thanks to its added length below the gripping area shown in Figure (2)
- Driver material is a high strength bronze purposefully selected for its shock absorption capabilities allowing for comfortable use as well as compatibility with cast and bronze guides



Figure 1



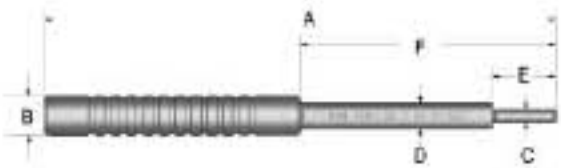
Figure 2

NEW
PRODUCTS



60-61400 / 60-61405

Valve Guide Installer								
	KPMI P/N	O.L. A	Body Ø B	Inner Ø 1 C	Inner Ø 2 D	Depth 1 E	Depth 2 F	Quantity
	60-61400	8.000"	0.615"	0.425"	0.348"	0.285"	0.650"	Pkg. of 1

Valve Guide Remover								
	KPMI P/N	O.L. A	Body Ø B	Ø 1 C	Ø 2 D	Length 1 E	Length 2 F	Quantity
	60-61405	8.000"	0.615"	0.182"	0.397"	1.000"	4.000"	Pkg. of 1

VISIT US AT WWW.KPMI.US



BLACK DIAMOND™ VALVE BLANKS

The Proprietary Black Diamond™ process is not a coating. It penetrates and treats the steel to a depth of .002", so it can never peel or flake off. Coatings such as chrome are "surface build ups" that rely on adhesion to remain intact. They can crack, peel, and flake off, depositing abrasive debris in the guide, causing wear and seizure. The Black Diamond™ process creates an extremely hard and smooth finish, preventing accelerated wear on the stem and keeper groove areas. This hard smooth finish has a low coefficient of friction, making it less aggressive on the valve guide, and promoting longer guide life. In exhaust environments, the Black Diamond™ process offers increased resistance to corrosion which is critical for long life.



Black Diamond™ Valve Blanks						
KPMI Part No.	Type	Head Diameter	Stem Diameter	Tulip Profile	Overall Length	
3/8" Stem Diameter						
20-4194B	IN	54.00mm	2.125"	0.3765"	23°	5.000"
20-4195B	EX	47.00mm	1.850"	0.3745"	29°	5.000"
5/16" Stem Diameter						
20-4171B2	IN	57.15mm	2.250"	0.3100"	23°	5.000"
20-4171B1	IN	53.34mm	2.100"	0.3100"	23°	5.000"
20-4171B	IN	50.80mm	2.000"	0.3100"	23°	5.000"
20-4170B2	EX	44.45mm	1.750"	0.3096"	30°	5.000"
20-4170B1	EX	44.45mm	1.750"	0.3096"	40°	5.000"
20-4170B	EX	43.56mm	1.715"	0.3096"	40°	5.000"
8.0mm Stem Diameter						
11-10011	IN	46.00mm	1.811"	0.3145"	18°	5.000"
7.0mm Stem Diameter						
11-10008	IN	50.80mm	2.000"	0.2750"	23°	5.200"
40-4178B	IN	42.00mm	1.654"	0.2745"	23°	5.000"
6.5mm Stem Diameter						
30-30228B	IN	42.00mm	1.653"	0.2590"	20°	5.000"
6.0mm Stem Diameter						
93-93015B	IN	42.00mm	1.653"	0.2352"	23°	5.000"
20-21019	IN	44.00mm	1.732"	0.2347"	10°	5.200"
5.5mm Stem Diameter						
30-30244B	IN	40.00mm	1.575"	0.2158"	20°	5.000"
60-4303B	IN	34.00mm	1.339"	0.2155"	23°	5.000"
40-4176B	EX	29.00mm	1.142"	0.2145"	29°	5.000"
5.0mm Stem Diameter						
60-60012B	IN	34.00mm	1.339"	0.1962"	18°	5.000"
60-60013B	EX	28.50mm	1.122"	0.1953"	17°	5.000"
60-60076B	IN	40.00mm	1.575"	0.1962"	20°	5.000"
4.5mm Stem Diameter						
11-10004	IN	34.00mm	1.339"	0.1760"	18°	5.000"
11-10005	IN	32.00mm	1.260"	0.1765"	18°	5.000"
11-10006	EX	28.00mm	1.102"	0.1755"	20°	5.000"
11-10007	EX	26.00mm	1.024"	0.1755"	20°	5.000"
4.0mm Stem Diameter						
11-10000	IN	32.00mm	1.260"	0.1568"	18°	5.000"
11-10001	IN	28.00mm	1.102"	0.1568"	18°	5.000"
11-10002	EX	26.00mm	1.024"	0.1563"	20°	5.000"
11-10003	EX	24.00mm	0.945"	0.1563"	20°	5.000"

ORDER 650-557-2046

TENSILITE® TITANIUM / WHITE DIAMOND® WHITE BLANKS



Tensilite® Titanium Valve Blanks

KPMI Part No.	Type	Head Diameter	Stem Diameter	Tulip Profile	Overall Length
7.0mm Stem Diameter					
40-4244T	IN / Ex	48.00mm	1.890"	0.2745"	17° 5.100"
40-4238T	IN / Ex	42.00mm	1.654"	0.2745"	23° 5.000"
6.0mm Stem Diameter					
11-10020T	IN / EX	42.00mm	1.653"	0.2355"	23° 5.320"
5.5mm Stem Diameter					
60-1062T	IN / Ex	40.00mm	1.575"	0.2155"	20° 5.000"
60-1060T	IN / Ex	34.00mm	1.339"	0.2155"	20° 5.000"
5.0mm Stem Diameter					
11-10017T	IN / Ex	38.00mm	1.496"	0.1960"	18° 5.000"
11-10019T	IN / Ex	29.00mm	1.142"	0.1955"	20° 5.000"
4.5mm Stem Diameter					
11-10016T	IN / Ex	28.00mm	1.102"	0.1755"	20° 4.300"
4.0mm Stem Diameter					
11-10013T	IN / Ex	30.00mm	1.181"	0.1568"	18° 5.000"
11-10014T	IN / Ex	26.00mm	1.024"	0.1560"	20° 5.000"

White Diamond® Valve Blanks

KPMI Part No.	Type	Head Diameter		Stem Diameter	Tulip Profile	Overall Length	AV&V Part No.
5/16" Stem Diameter							
*20-20975	IN	55.88mm	2.200"	0.3108"	25°	5.700"	AV2200BC
*20-20980	IN	53.34mm	2.100"	0.3108"	24°	5.700"	AV2100BC
*20-20985	EX	43.18mm	1.700"	0.3106"	25°	5.700"	AV1700BC
*Note: Bi-metal (can be hardened)							
7.0mm Stem Diameter							
40-4178BH	IN	42.01mm	1.657"	0.2745"	23°	5.200"	---
40-4179BH	EX	33.00mm	1.299"	0.2745"	29°	5.200"	---
5.0mm Stem Diameter							
60-4310BH	IN / EX	34.00mm	1.339"	0.1958"	23°	4.900"	---

For all the blank valves available, please refer online to the valve blanks section of the www.kpmi.us website, under *Precision Components*

Kibblewhite® Tensilite® titanium valves are manufactured from solid U.S. milled titanium bar. The titanium bar is cut, and forged, and then the stem is pulled from the forging process and cross-sectionally reduced.

These one piece forgings made from 6AL4V or 6-2-4-2 titanium alloy reflect the latest developments in titanium valve alloys. These alloys have superior hardness, strength, and thermal characteristics. After final grinding and machining, Tensilite® valves are encased in a hard Chromium Nitride (CrN) shell. CrN offers excellent resistance to impact, abrasion and corrosion. These qualities and its low coefficient of friction make CrN the coating of choice for high performance titanium valves.



Tensilite® Valve Blank

We fully CNC machine our White Diamond® Valves from a one-piece forging of either EV8 Stainless Steel or Inconel-751. These materials have proven heat and corrosion resistance properties and are hard chromed with a 360 degree anode to produce the highest possible grade of hard chrome finish.



White Diamond® Valve Blank

VISIT US AT WWW.KPMI.US



TAPPETS



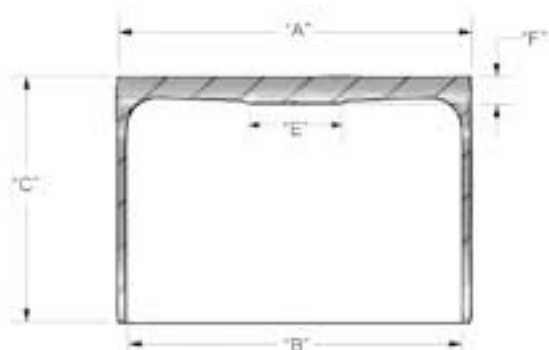
H.T. Steel



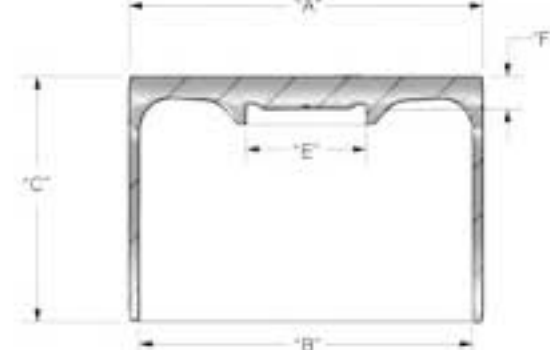
H.T. Steel Plus DLC Coated



Shim On Bottom (SOB)



Shim In Tappet (SIT)



Tappet / Shim On Bottom (SOB)

Qty.1 Part Number	Outside Diameter "A"		Inside Diameter "B"	Overall Length "C"	Button Diameter "E"	Roof Thickness "F"
600-100001	26.00mm	1.0232"	0.970"	0.790"	0.236"	0.115"
600-100050	26.50mm	1.0420"	0.992"	0.748"	0.285"	0.106"
600-100200	28.00mm	1.1016"	1.040"	0.860"	0.310"	0.135"
600-100202	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"
600-100250	28.50mm	1.1220"	1.058"	0.763"	0.320"	0.098"
600-100500	31.00mm	1.2195"	1.156"	0.800"	0.325"	0.108"
600-100525	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"
600-100700	33.00mm	1.2980"	1.235"	1.025"	0.340"	0.115"
600-100750	33.50mm	1.3184"	1.250"	1.025"	0.340"	0.115"
600-100800	34.00mm	1.3380"	1.258"	1.025"	0.313"	0.115"
600-101095	36.95mm	1.4547"	1.388"	1.040"	0.400"	0.105"
600-101300	39.00mm	1.5350"	1.457"	1.040"	0.400"	0.145"

Tappet / Shim In Tappet (SIT)

Qty.1 Part Number	Outside Diameter "A"		Inside Diameter "B"	Overall Length "C"	Shim Diameter "E"	Roof Thickness "F"
600-100205	28.00mm	1.1017"	1.038"	0.763"	0.375"	0.100"

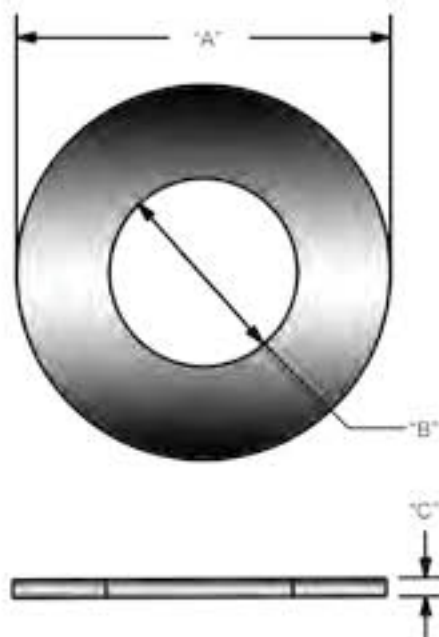
Kibblewhite® Engineers design our tappets using Finite Element Stress Analysis (FEA) software. This software allows our engineers to lighten the tappets without sacrificing strength so we can create the strongest, lightest tappets possible. These tappets are machined from aircraft quality solid steel bar stock. They undergo a proprietary heat treat process that creates a hard surface and a non brittle-core, maximizing toughness and wear resistance. Kibblewhite® tappets are run in high performance automotive and motorcycle applications including Motocross, Flat Track, Road Race, Drag Race, and Land Speed Racing at the Bonneville Salt Flats.

Tappet / DLC Coated

Qty.1 Part Number	Outside Diameter "A"		Inside Diameter "B"	Overall Length "C"	Button Diameter "E"	Roof Thickness "F"
600-100202-DLC	28.00mm	1.1017"	1.038"	0.763"	0.320"	0.098"
600-100525-DLC	31.15mm	1.2260"	1.156"	0.800"	0.325"	0.108"

Our coated tappets undergo a low temperature PVD process to deposit a DLC film, which is extremely hard and has a very low coefficient of friction. These properties help the tappet to maintain its durability in extreme duty situations. Although KPMI® never recommends running a camshaft off the edge of the tappet, this coating may help increase durability in these applications.

SHIMS BOOSTER / VALVE SPRING

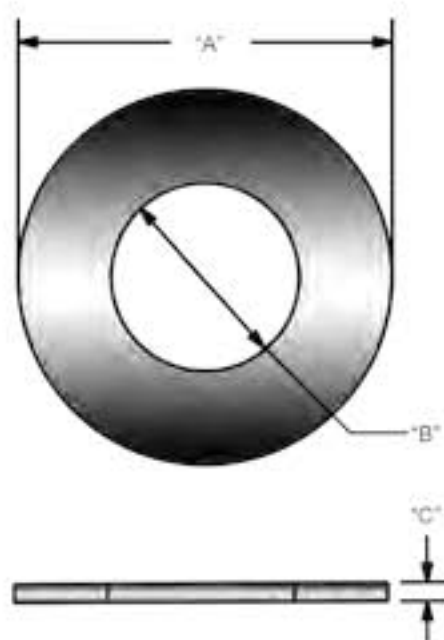


Shims - Booster / Valve Spring

Qty 4 Part No.	Qty 8 Part No.	Qty 16 Part No.	Qty 50 Part No.	Qty 100 Part No.	Outside Diameter - A -	Inside Diameter - B -	Thickness - C -
92001-4	92001-8	92001-16	92001-50	92001-100	1.437"	0.645"	0.015"
92002-4	92002-8	92002-16	92002-50	92002-100	1.437"	0.645"	0.030"
92003-4	92003-8	92003-16	92003-50	92003-100	1.437"	0.645"	0.060"
92004-4	92004-8	92004-16	92004-50	92004-100	0.760"	0.578"	0.060"
92005-4	92005-8	92005-16	92005-50	92005-100	0.760"	0.578"	0.030"
92006-4	92006-8	92006-16	92006-50	92006-100	0.760"	0.578"	0.015"
92007-4	92007-8	92007-16	92007-50	92007-100	0.920"	0.520"	0.030"
92008-4	92008-8	92008-16	92008-50	92008-100	0.920"	0.520"	0.060"
92009-4	92009-8	92009-16	92009-50	92009-100	1.218"	0.875"	0.060"
92010-4	92010-8	92010-16	92010-50	92010-100	1.156"	0.828"	0.030"
92011-4	92011-8	92011-16	92011-50	92011-100	1.020"	0.735"	0.125"
92012-4	92012-8	92012-16	92012-50	92012-100	1.100"	0.721"	0.060"
92013-4	92013-8	92013-16	92013-50	92013-100	1.250"	0.812"	0.060"
92014-4	92014-8	92014-16	92014-50	92014-100	1.250"	0.812"	0.030"
92015-4	92015-8	92015-16	92015-50	92015-100	1.125"	0.719"	0.030"
92016-4	92016-8	92016-16	92016-50	92016-100	1.125"	0.719"	0.060"
92017-4	92017-8	92017-16	92017-50	92017-100	1.312"	0.765"	0.030"
92018-4	92018-8	92018-16	92018-50	92018-100	1.218"	0.875"	0.030"
92019-4	92019-8	92019-16	92019-50	92019-100	1.100"	0.719"	0.030"
92020-4	92020-8	92020-16	92020-50	92020-100	1.000"	0.688"	0.060"
92021-4	92021-8	92021-16	92021-50	92021-100	1.000"	0.765"	0.060"
92022-4	92022-8	92022-16	92022-50	92022-100	1.438"	1.059"	0.030"
92023-4	92023-8	92023-16	92023-50	92023-100	1.000"	0.688"	0.030"
92024-4	92024-8	92024-16	92024-50	92024-100	1.000"	0.688"	0.015"
92025-4	92025-8	92025-16	92025-50	92025-100	1.360"	1.000"	0.060"
92026-4	92026-8	92026-16	92026-50	92026-100	1.360"	1.000"	0.030"
92027-4	92027-8	92027-16	92027-50	92027-100	1.360"	1.000"	0.015"
92028-4	92028-8	92028-16	92028-50	92028-100	1.500"	1.031"	0.060"
92029-4	92029-8	92029-16	92029-50	92029-100	1.500"	1.031"	0.030"
92030-4	92030-8	92030-16	92030-50	92030-100	1.500"	1.031"	0.015"
92031-4	92031-8	92031-16	92031-50	92031-100	1.000"	0.765"	0.030"



SHIMS BOOSTER / VALVE SPRING



Shims - Booster / Valve Spring

Qty 4 Part No.	Qty 8 Part No.	Qty 16 Part No.	Qty 50 Part No.	Qty 100 Part No.	Outside Diameter - A -	Inside Diameter - B -	Thickness - C -
92032-4	92032-8	92032-16	92032-50	92032-100	1.000"	0.765"	0.015"
92033-4	92033-8	92033-16	92033-50	92033-100	1.218"	0.875"	0.015"
92034-4	92034-8	92034-16	92034-50	92034-100	1.100"	0.719"	0.015"
92035-4	92035-8	92035-16	92035-50	92035-100	1.250"	0.625"	0.060"
92036-4	92036-8	92036-16	92036-50	92036-100	1.250"	0.625"	0.030"
92037-4	92037-8	92037-16	92037-50	92037-100	1.250"	0.625"	0.015"
92038-4	92038-8	92038-16	92038-50	92038-100	0.970"	0.445"	0.060"
92039-4	92039-8	92039-16	92039-50	92039-100	0.970"	0.445"	0.030"
92040-4	92040-8	92040-16	92040-50	92040-100	0.970"	0.445"	0.015"
92041-4	92041-8	92041-16	92041-50	92041-100	0.915"	0.640"	0.060"
92042-4	92042-8	92042-16	92042-50	92042-100	0.915"	0.640"	0.030"
92043-4	92043-8	92043-16	92043-50	92043-100	0.915"	0.640"	0.015"
92044-4	92044-8	92044-16	92044-50	92044-100	0.796"	0.515"	0.060"
92045-4	92045-8	92045-16	92045-50	92045-100	0.796"	0.515"	0.030"
92046-4	92046-8	92046-16	92046-50	92046-100	0.796"	0.515"	0.015"
92047-4	92047-8	92047-16	92047-50	92047-100	1.312"	0.765"	0.060"
92048-4	92048-8	92048-16	92048-50	92048-100	1.312"	0.765"	0.015"
92049-4	92049-8	92049-16	92049-50	92049-100	1.480"	0.703"	0.060"
92050-4	92050-8	92050-16	92050-50	92050-100	1.480"	0.703"	0.030"
92051-4	92051-8	92051-16	92051-50	92051-100	1.480"	0.703"	0.015"
92052-4	92052-8	92052-16	92052-50	92052-100	1.640"	0.635"	0.060"
92053-4	92053-8	92053-16	92053-50	92053-100	1.640"	0.635"	0.030"
92054-4	92054-8	92054-16	92054-50	92054-100	1.640"	0.635"	0.015"
92055-4	92055-8	92055-16	92055-50	92055-100	1.500"	0.765"	0.060"
92056-4	92056-8	92056-16	92056-50	92056-100	1.500"	0.765"	0.030"
92057-4	92057-8	92057-16	92057-50	92057-100	1.477"	0.765"	0.015"
92058-4	92058-8	92058-16	92058-50	92058-100	1.500"	0.562"	0.060"
92059-4	92059-8	92059-16	92059-50	92059-100	1.500"	0.562"	0.030"
92060-4	92060-8	92060-16	92060-50	92060-100	1.500"	0.562"	0.015"
92061-4	92061-8	92061-16	92061-50	92061-100	1.247"	0.518"	0.060"
92062-4	92062-8	92062-16	92062-50	92062-100	1.247"	0.518"	0.030"
92063-4	92063-8	92063-16	92063-50	92063-100	1.247"	0.518"	0.015"

ORDER 650-557-2046

SHIMS VALVE ADJUSTMENT



Manufactured from heat treated aircraft quality steel, KPMI® holds exact dimensional tolerances, height and perpendicularity on these shims. KPMI® sets specific hardness and surface finish specifications to insure optimum fit, Performance, strength, and durability. Shims are available in 7.5mm, 9.5mm, and 13.0mm ODs.

All KPMI® adj. shims are conveniently packaged in quantities of: 4, 8, 16, 50, and 100. For more information visit KPMI.US



7.5mm Shims - Valve Adjustment

Qty 4 Part No.	Qty 8 Part No.	Qty 16 Part No.	Qty 50 Part No.	Qty 100 Part No.	Thickness
93075-4	93075-8	93075-16	93075-50	93075-100	1.20mm
93076-4	93076-8	93076-16	93076-50	93076-100	1.25mm
93077-4	93077-8	93077-16	93077-50	93077-100	1.30mm
93078-4	93078-8	93078-16	93078-50	93078-100	1.35mm
93079-4	93079-8	93079-16	93079-50	93079-100	1.40mm
93080-4	93080-8	93080-16	93080-50	93080-100	1.45mm
93081-4	93081-8	93081-16	93081-50	93081-100	1.50mm
93082-4	93082-8	93082-16	93082-50	93082-100	1.55mm
93083-4	93083-8	93083-16	93083-50	93083-100	1.60mm
93084-4	93084-8	93084-16	93084-50	93084-100	1.65mm
93085-4	93085-8	93085-16	93085-50	93085-100	1.70mm
93086-4	93086-8	93086-16	93086-50	93086-100	1.75mm
93087-4	93087-8	93087-16	93087-50	93087-100	1.80mm
93088-4	93088-8	93088-16	93088-50	93088-100	1.85mm
93089-4	93089-8	93089-16	93089-50	93089-100	1.90mm
93090-4	93090-8	93090-16	93090-50	93090-100	1.95mm
93091-4	93091-8	93091-16	93091-50	93091-100	2.00mm
93092-4	93092-8	93092-16	93092-50	93092-100	2.05mm
93093-4	93093-8	93093-16	93093-50	93093-100	2.10mm
93094-4	93094-8	93094-16	93094-50	93094-100	2.15mm
93095-4	93095-8	93095-16	93095-50	93095-100	2.20mm
93096-4	93096-8	93096-16	93096-50	93096-100	2.25mm
93097-4	93097-8	93097-16	93097-50	93097-100	2.30mm
93098-4	93098-8	93098-16	93098-50	93098-100	2.35mm
93099-4	93099-8	93099-16	93099-50	93099-100	2.40mm
93100-4	93100-8	93100-16	93100-50	93100-100	2.45mm
93101-4	93101-8	93101-16	93101-50	93101-100	2.50mm
93102-4	93102-8	93102-16	93102-50	93102-100	2.55mm
93103-4	93103-8	93103-16	93103-50	93103-100	2.60mm
93104-4	93104-8	93104-16	93104-50	93104-100	2.65mm
93105-4	93105-8	93105-16	93105-50	93105-100	2.70mm
93106-4	93106-8	93106-16	93106-50	93106-100	2.75mm
93107-4	93107-8	93107-16	93107-50	93107-100	2.80mm
93108-4	93108-8	93108-16	93108-50	93108-100	2.85mm
93109-4	93109-8	93109-16	93109-50	93109-100	2.90mm
93110-4	93110-8	93110-16	93110-50	93110-100	2.95mm
93111-4	93111-8	93111-16	93111-50	93111-100	3.00mm
93112-4	93112-8	93112-16	93112-50	93112-100	3.05mm

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SHIMS VALVE ADJUSTMENT



Manufactured from heat treated aircraft quality steel, KPMI® holds exact dimensional tolerances, height and perpendicularity on these shims. KPMI® sets specific hardness and surface finish specifications to insure optimum fit, Performance, strength, and durability. Shims are available in 7.5mm, 9.5mm, and 13.0mm ODs.

All KPMI® adj. shims are conveniently packaged in quantities of: 4, 8, 16, 50, and 100. For more information visit KPMI.US

7.5mm Shims - Valve Adjustment

Qty 4 Part No.	Qty 8 Part No.	Qty 16 Part No.	Qty 50 Part No.	Qty 100 Part No.	Thickness
93113-4	93113-8	93113-16	93113-50	93113-100	3.10mm
93114-4	93114-8	93114-16	93114-50	93114-100	3.15mm
93115-4	93115-8	93115-16	93115-50	93115-100	3.20mm
93116-4	93116-8	93116-16	93116-50	93116-100	3.25mm
93117-4	93117-8	93117-16	93117-50	93117-100	3.30mm
93118-4	93118-8	93118-16	93118-50	93118-100	3.35mm
93119-4	93119-8	93119-16	93119-50	93119-100	3.40mm
93120-4	93120-8	93120-16	93120-50	93120-100	3.45mm
93121-4	93121-8	93121-16	93121-50	93121-100	3.50mm

9.5mm Shims - Valve Adjustment

Qty 4 Part No.	Qty 8 Part No.	Qty 16 Part No.	Qty 50 Part No.	Qty 100 Part No.	Thickness
93001-4	93001-8	93001-16	93001-50	93001-100	1.20mm
93002-4	93002-8	93002-16	93002-50	93002-100	1.25mm
93003-4	93003-8	93003-16	93003-50	93003-100	1.30mm
93004-4	93004-8	93004-16	93004-50	93004-100	1.35mm
93005-4	93005-8	93005-16	93005-50	93005-100	1.40mm
93006-4	93006-8	93006-16	93006-50	93006-100	1.45mm
93007-4	93007-8	93007-16	93007-50	93007-100	1.50mm
93008-4	93008-8	93008-16	93008-50	93008-100	1.55mm
93009-4	93009-8	93009-16	93009-50	93009-100	1.60mm
93010-4	93010-8	93010-16	93010-50	93010-100	1.65mm
93011-4	93011-8	93011-16	93011-50	93011-100	1.70mm
93012-4	93012-8	93012-16	93012-50	93012-100	1.75mm
93013-4	93013-8	93013-16	93013-50	93013-100	1.80mm
93014-4	93014-8	93014-16	93014-50	93014-100	1.85mm
93015-4	93015-8	93015-16	93015-50	93015-100	1.90mm
93016-4	93016-8	93016-16	93016-50	93016-100	1.95mm
93017-4	93017-8	93017-16	93017-50	93017-100	2.00mm
93018-4	93018-8	93018-16	93018-50	93018-100	2.05mm
93019-4	93019-8	93019-16	93019-50	93019-100	2.10mm
93020-4	93020-8	93020-16	93020-50	93020-100	2.15mm
93021-4	93021-8	93021-16	93021-50	93021-100	2.20mm
93022-4	93022-8	93022-16	93022-50	93022-100	2.25mm
93023-4	93023-8	93023-16	93023-50	93023-100	2.30mm
93024-4	93024-8	93024-16	93024-50	93024-100	2.35mm
93025-4	93025-8	93025-16	93025-50	93025-100	2.40mm
93026-4	93026-8	93026-16	93026-50	93026-100	2.45mm
93027-4	93027-8	93027-16	93027-50	93027-100	2.50mm
93028-4	93028-8	93028-16	93028-50	93028-100	2.55mm
93029-4	93029-8	93029-16	93029-50	93029-100	2.60mm
93030-4	93030-8	93030-16	93030-50	93030-100	2.65mm
93031-4	93031-8	93031-16	93031-50	93031-100	2.70mm
93032-4	93032-8	93032-16	93032-50	93032-100	2.75mm
93033-4	93033-8	93033-16	93033-50	93033-100	2.80mm
93034-4	93034-8	93034-16	93034-50	93034-100	2.85mm
93035-4	93035-8	93035-16	93035-50	93035-100	2.90mm
93036-4	93036-8	93036-16	93036-50	93036-100	2.95mm
93037-4	93037-8	93037-16	93037-50	93037-100	3.00mm
93038-4	93038-8	93038-16	93038-50	93038-100	3.05mm
93039-4	93039-8	93039-16	93039-50	93039-100	3.10mm
93040-4	93040-8	93040-16	93040-50	93040-100	3.15mm
93041-4	93041-8	93041-16	93041-50	93041-100	3.20mm

ORDER 650-557-2046

SHIMS VALVE ADJUSTMENT



9.5mm Shims - Valve Adjustment

Qty 4 Part No.	Qty 8 Part No.	Qty 16 Part No.	Qty 50 Part No.	Qty 100 Part No.	Thickness
93042-4	93042-8	93042-16	93042-50	93042-100	3.25mm
93043-4	93043-8	93043-16	93043-50	93043-100	3.30mm
93044-4	93044-8	93044-16	93044-50	93044-100	3.35mm
93045-4	93045-8	93045-16	93045-50	93045-100	3.40mm
93046-4	93046-8	93046-16	93046-50	93046-100	3.45mm
93047-4	93047-8	93047-16	93047-50	93047-100	3.50mm

13mm Shims - Valve Adjustment

Qty 4 Part No.	Qty 8 Part No.	Qty 16 Part No.	Qty 50 Part No.	Qty 100 Part No.	Thickness
93050-4	93050-8	93050-16	93050-50	93050-100	2.05mm
93051-4	93051-8	93051-16	93051-50	93051-100	2.10mm
93052-4	93052-8	93052-16	93052-50	93052-100	2.15mm
93053-4	93053-8	93053-16	93053-50	93053-100	2.20mm
93054-4	93054-8	93054-16	93054-50	93054-100	2.25mm
93055-4	93055-8	93055-16	93055-50	93055-100	2.30mm
93056-4	93056-8	93056-16	93056-50	93056-100	2.35mm
93057-4	93057-8	93057-16	93057-50	93057-100	2.40mm
93058-4	93058-8	93058-16	93058-50	93058-100	2.45mm
93059-4	93059-8	93059-16	93059-50	93059-100	2.50mm
93060-4	93060-8	93060-16	93060-50	93060-100	2.55mm
93061-4	93061-8	93061-16	93061-50	93061-100	2.60mm
93062-4	93062-8	93062-16	93062-50	93062-100	2.65mm
93063-4	93063-8	93063-16	93063-50	93063-100	2.70mm
93064-4	93064-8	93064-16	93064-50	93064-100	2.75mm
93065-4	93065-8	93065-16	93065-50	93065-100	2.80mm
93066-4	93066-8	93066-16	93066-50	93066-100	2.85mm
93067-4	93067-8	93067-16	93067-50	93067-100	2.90mm
93068-4	93068-8	93068-16	93068-50	93068-100	2.95mm
93069-4	93069-8	93069-16	93069-50	93069-100	3.00mm
93070-4	93070-8	93070-16	93070-50	93070-100	3.05mm
93071-4	93071-8	93071-16	93071-50	93071-100	3.10mm

SEATS (HIGH CHROME)

- 18-22% Chromium for resistance to abrasion, corrosion and deformation
- 1-2% Nickel content, which lends to corrosion-resistance and toughness
- Machined from solid bar stock and ground to exacting tolerances
- The alternative to Powder Metal
- Machines as a continuous chip
- Use KPMI® "High Chromium Seats" for your next gasoline or diesel engine rebuild

KPMI Part Number	Outside Diameter		Inside Diameter		Height	
10-HC414	41.40mm	1.630"	29.97mm	1.180"	9.78mm	0.385"
10-HC446	44.63mm	1.757"	34.82mm	1.371"	8.00mm	0.315"
10-HC447	44.63mm	1.757"	35.81mm	1.410"	10.92mm	0.430"
10-HC462	46.23mm	1.820"	34.93mm	1.375"	11.43mm	0.450"
10-HC477	47.75mm	1.880"	36.45mm	1.435"	10.41mm	0.410"
10-HC478	47.80mm	1.882"	38.61mm	1.520"	10.41mm	0.410"
10-HC493	49.38mm	1.944"	40.01mm	1.575"	10.16mm	0.400"
10-HC494	49.40mm	1.945"	34.93mm	1.375"	11.18mm	0.440"
10-HC510	51.00mm	2.008"	40.89mm	1.610"	11.18mm	0.440"
10-HC518	51.82mm	2.040"	43.18mm	1.700"	10.80mm	0.425"
10-HC525	52.53mm	2.068"	44.45mm	1.750"	8.00mm	0.315"
10-HC526	52.58mm	2.070"	40.89mm	1.610"	11.68mm	0.460"
10-HC541	54.15mm	2.132"	45.72mm	1.800"	11.68mm	0.460"
10-HC542	54.23mm	2.135"	44.45mm	1.750"	10.16mm	0.400"
10-HC549	54.94mm	2.163"	44.45mm	1.750"	11.56mm	0.455"
10-HC573	57.33mm	2.257"	39.37mm	1.550"	12.70mm	0.500"

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SEATS (POWDERED METAL)



In an effort to develop valve seats that fit our exacting standards, Kibblewhite® tested and chemically separated several iron based valve seats. We specified a combination of materials that gave us a seat with good uniform hardness and resistance to microwelding, wear, and recession. Casting a seat with this combination of alloys was not possible, and only with the latest in Powdered Metal Technology were we able to blend these alloys creating a high density seat with exceptional wear resistance, machinability, and thermal qualities. This material is compatible with all types of fuel blends, resists corrosion and burning, and is machinable with standard tooling.

These seats have been thoroughly tested on the track and street, in high RPM multi-valve applications, high spring load V-twin applications, with leaded and unleaded gasoline, ethanol, methanol, and in naturally aspirated and forced induction applications. In each case they have performed flawlessly, making these the seats of choice for cylinder head builders everywhere.

KPMI Part Number	Outside Diameter		Inside Diameter		Height	
10-SC250	25.00mm	0.984"	17.00mm	0.669"	9.00mm	0.355"
10-SC260	26.00mm	1.024"	18.00mm	0.709"	9.00mm	0.355"
10-SC270	27.00mm	1.063"	19.00mm	0.748"	9.00mm	0.355"
10-SC280	28.00mm	1.102"	20.00mm	0.787"	9.00mm	0.355"
10-SC290	29.00mm	1.142"	21.00mm	0.827"	9.50mm	0.375"
10-SC300	30.00mm	1.181"	22.00mm	0.866"	9.50mm	0.375"
10-SC310	31.00mm	1.220"	23.00mm	0.906"	9.50mm	0.375"
10-SC320	32.00mm	1.260"	24.00mm	0.945"	9.50mm	0.375"
10-SC330	33.00mm	1.299"	25.00mm	0.984"	9.50mm	0.375"
10-SC340	34.00mm	1.339"	26.00mm	1.024"	9.50mm	0.375"
10-SC350	35.00mm	1.378"	26.00mm	1.024"	11.00mm	0.434"
10-SC360	36.00mm	1.417"	27.00mm	1.063"	11.00mm	0.434"
10-SC370	37.00mm	1.457"	28.00mm	1.102"	11.00mm	0.434"
10-SC380	38.00mm	1.496"	29.00mm	1.142"	11.00mm	0.434"
10-SC390	39.00mm	1.535"	30.00mm	1.181"	11.00mm	0.434"
10-SC400	40.00mm	1.575"	30.00mm	1.181"	11.00mm	0.434"
10-SC410	41.00mm	1.614"	31.00mm	1.220"	11.00mm	0.434"
10-SC414	41.43mm	1.631"	30.15mm	1.187"	11.43mm	0.450"
10-SC420	42.00mm	1.654"	32.00mm	1.260"	11.00mm	0.434"
10-SC430	43.00mm	1.693"	33.00mm	1.299"	11.00mm	0.434"
10-SC440	44.00mm	1.732"	34.00mm	1.339"	11.00mm	0.434"
10-SC446	44.62mm	1.757"	35.00mm	1.375"	11.43mm	0.450"
10-SC450	45.00mm	1.772"	34.50mm	1.358"	11.00mm	0.434"
10-SC460	46.00mm	1.811"	35.50mm	1.398"	11.00mm	0.434"
10-SC462	46.20mm	1.819"	34.93mm	1.375"	11.43mm	0.450"
10-SC470	47.00mm	1.850"	36.50mm	1.437"	11.00mm	0.434"
10-SC478	47.78mm	1.881"	36.50mm	1.437"	11.43mm	0.450"
10-SC480	48.00mm	1.890"	37.50mm	1.476"	11.00mm	0.434"
10-SC490	49.00mm	1.929"	38.50mm	1.516"	11.00mm	0.434"
10-SC494	49.40mm	1.945"	38.10mm	1.500"	11.43mm	0.450"
10-SC500	50.00mm	1.969"	39.00mm	1.535"	11.50mm	0.453"
10-SC510	50.98mm	2.007"	39.67mm	1.562"	11.43mm	0.450"
10-SC523	52.32mm	2.060"	39.67mm	1.562"	11.43mm	0.450"
10-SC525	52.53mm	2.068"	42.85mm	1.687"	11.43mm	0.450"
10-SC541	54.15mm	2.132"	42.93mm	1.690"	11.43mm	0.450"
10-SC550	54.97mm	2.164"	44.45mm	1.750"	11.43mm	0.450"
10-SC557	55.73mm	2.194"	45.72mm	1.800"	11.43mm	0.450"
10-SC573	57.30mm	2.256"	47.50mm	1.870"	11.43mm	0.450"

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SEATS (NICKEL ALUMINUM BRONZE)



TITANIUM valves require the use of Kibblewhite® Nickel Aluminum Bronze valve seat inserts. This premium copper based alloy is designed specifically for use with titanium valves. These seats are the product of a 2 year Kibblewhite® R&D effort during which we recorded and verified results with 4&5 valve singles, domestic and foreign sport compacts, multi valve and single cylinder street bikes, as well as British and European 4strokes. In every one of our tests for wear, thermal conductivity, and machinability, the seats surpassed the standard we set for success.

These seats have been used successfully with titanium valves in drag race, road race, desert race, motocross, and land speed racing. The seats are tall, have ample material on the ID for shaping, and are offered in several sizes making them truly universal in application. The ODs have a smooth surface finish that offers maximum contact with the head counterbore for optimum heat transfer, and a generous radius on the leading edge to prevent galling during installation.

KPMI Part Number	Outside Diameter		Inside Diameter		Height	
10-SB240	24.00mm	0.945"	16.00mm	0.630"	9.00mm	0.355"
10-SB250	25.00mm	0.984"	17.00mm	0.669"	9.00mm	0.355"
10-SB260	26.00mm	1.024"	18.00mm	0.709"	9.00mm	0.355"
10-SB270	27.00mm	1.063"	19.00mm	0.748"	9.00mm	0.355"
10-SB275	27.50mm	1.083"	19.00mm	0.748"	9.00mm	0.355"
10-SB280	28.00mm	1.102"	20.00mm	0.787"	9.00mm	0.355"
10-SB285	28.50mm	1.122"	20.00mm	0.787"	9.00mm	0.355"
10-SB290	29.00mm	1.142"	21.00mm	0.827"	9.50mm	0.375"
10-SB295	29.50mm	1.161"	21.00mm	0.827"	9.50mm	0.375"
10-SB300	30.00mm	1.181"	22.00mm	0.866"	9.50mm	0.375"
10-SB305	30.50mm	1.201"	22.00mm	0.866"	9.50mm	0.375"
10-SB310	31.00mm	1.220"	23.00mm	0.906"	9.50mm	0.375"
10-SB315	31.50mm	1.240"	23.00mm	0.906"	9.50mm	0.375"
10-SB320	32.00mm	1.260"	24.00mm	0.945"	9.50mm	0.375"
10-SB325	32.50mm	1.280"	24.00mm	0.945"	9.50mm	0.375"
10-SB330	33.00mm	1.299"	25.00mm	0.984"	9.50mm	0.375"
10-SB335	33.50mm	1.319"	25.00mm	0.984"	9.50mm	0.375"
10-SB340	34.00mm	1.339"	26.00mm	1.024"	9.50mm	0.375"
10-SB345	34.50mm	1.358"	26.00mm	1.024"	9.50mm	0.375"
10-SB350	35.00mm	1.378"	25.00mm	0.984"	11.00mm	0.434"
10-SB355	35.50mm	1.398"	26.00mm	1.024"	11.00mm	0.434"
10-SB360	36.00mm	1.417"	27.00mm	1.063"	11.00mm	0.434"
10-SB365	36.50mm	1.437"	27.00mm	1.063"	11.00mm	0.434"
10-SB370	37.00mm	1.457"	28.00mm	1.102"	11.00mm	0.434"
10-SB375	37.50mm	1.476"	28.00mm	1.102"	11.00mm	0.434"
10-SB380	38.00mm	1.496"	29.00mm	1.142"	11.00mm	0.434"
10-SB385	38.50mm	1.516"	29.00mm	1.142"	11.00mm	0.434"
10-SB390	39.00mm	1.535"	30.00mm	1.181"	11.00mm	0.434"
10-SB395	39.50mm	1.555"	30.00mm	1.181"	11.00mm	0.434"
10-SB400	40.00mm	1.575"	30.00mm	1.181"	11.00mm	0.434"
10-SB405	40.50mm	1.594"	30.00mm	1.181"	11.00mm	0.434"
10-SB410	41.00mm	1.614"	31.00mm	1.220"	11.00mm	0.434"
10-SB415	41.50mm	1.634"	31.00mm	1.220"	11.00mm	0.434"
10-SB420	42.00mm	1.654"	32.00mm	1.260"	11.00mm	0.434"
10-SB430	43.00mm	1.693"	33.00mm	1.299"	11.00mm	0.434"
10-SB440	44.00mm	1.732"	34.00mm	1.339"	11.00mm	0.434"
10-SB450	45.00mm	1.772"	34.50mm	1.358"	11.00mm	0.434"
10-SB460	46.00mm	1.811"	35.50mm	1.398"	11.00mm	0.434"
10-SB470	47.00mm	1.850"	36.50mm	1.437"	11.00mm	0.434"
10-SB480	48.00mm	1.890"	37.50mm	1.476"	11.00mm	0.434"
10-SB490	49.00mm	1.929"	38.50mm	1.516"	11.00mm	0.434"
10-SB500	50.00mm	1.969"	39.00mm	1.535"	11.50mm	0.453"

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LEAD-FREE • CHROME PLATED WHEEL WEIGHTS

SPIN TRUE



The Spin True® Wheel Weights have several advantages beyond other existing Wheel Weight products.

Symmetrical Clamping Force: The Spin True® Wheel Weights (unlike other products) maintain at least four points of contact with the spoke nipple creating a secure and balanced fitment.

“Lead-Free” Composition: Unlike many other wheel weights on the market, Spin True® Wheel Weights are manufactured from a material that does not contain lead. This is particularly important for customers in states that have anti-lead legislation.

60 Pieces Wheel Weight Kit for Large Spoke Nipples (0.300"Ø - 0.350"Ø)

	KPMI P/N	Kit Includes					
		0.25 Oz Weights Pr.		0.50 Oz Weights Pr.		0.75 Oz Weights Pr.	
	99-99125	10	99-99025	10	99-99035	10	99-99045
		1.00 Oz Weights Pr.		1.25 Oz Weights Pr.		1.50 Oz Weights Pr.	
		10	99-99055	10	99-99065	10	99-99075
Kit Also Includes	1	Allen Wrench	1	Tap	120	Screws	

60 Pieces Wheel Weight Kit for Small Spoke Nipples (0.250"Ø - 0.300"Ø)

	KPMI P/N	Kit Includes					
		0.25 Oz Weights Pr.		0.50 Oz Weights Pr.		0.75 Oz Weights Pr.	
	99-99130	10	99-99020	10	99-99030	10	99-99040
		1.00 Oz Weights Pr.		1.25 Oz Weights Pr.		1.50 Oz Weights Pr.	
		10	99-99050	10	99-99060	10	99-99070
Kit Also Includes	1	Allen Wrench	1	Tap	120	Screws	

6 Pieces Wheel Weight Sample Kit for Large Spoke Nipples (0.300"Ø - 0.350"Ø)

	KPMI P/N	Kit Includes					
		0.25 Oz Weights Pr.		0.50 Oz Weights Pr.		0.75 Oz Weights Pr.	
	99-99135	1	0.25 Oz Weights Pr.	1	0.50 Oz Weights Pr.	1	0.75 Oz Weights Pr.
		1	1.00 Oz Weights Pr.	1	1.25 Oz Weights Pr.	1	1.50 Oz Weights Pr.
		1	Allen Wrench		12	Screws	

6 Pieces Wheel Weight Sample Kit for Small Spoke Nipples (0.250"Ø - 0.300"Ø)

	KPMI P/N	Kit Includes					
		0.25 Oz Weights Pr.		0.50 Oz Weights Pr.		0.75 Oz Weights Pr.	
	99-99140	1	0.25 Oz Weights Pr.	1	0.50 Oz Weights Pr.	1	0.75 Oz Weights Pr.
		1	1.00 Oz Weights Pr.	1	1.25 Oz Weights Pr.	1	1.50 Oz Weights Pr.
		1	Allen Wrench		12	Screws	

Note: See Figure1 on how to determine your nipple diameter

Replacement Screws

	KPMI P/N		Quantity
	99-99105		Pkg. of 240
	99-99106		Pkg. of 120
	99-99107		Pkg. of 40

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LEAD-FREE • CHROME PLATED WHEEL WEIGHTS

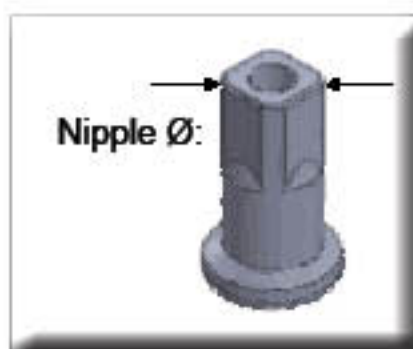


Figure 1



Figure 2



- CNC Machined, Chrome Plated Stainless Steel
- .25oz, .5oz, .75oz, 1oz, 1.25oz and 1.5oz
- Symmetrical Halves Lock Onto the Nipple
- Fits .250" to .350" Nipple Diameters

Refill Packs

	KPMI P/N	Weight	Nipple Size	Quantity
	99-99020	0.25 Oz	(Ø.250 - Ø.300)	10-Wheel Weights 20-Screws
	99-99025	0.25 Oz	(Ø.300 - Ø.350)	10-Wheel Weights 20-Screws
	KPMI P/N	Weight	Nipple Size	Quantity
	99-99030	0.50 Oz	(Ø.250 - Ø.300)	10-Wheel Weights 20-Screws
	99-99035	0.50 Oz	(Ø.300 - Ø.350)	10-Wheel Weights 20-Screws
	KPMI P/N	Weight	Nipple Size	Quantity
	99-99040	0.75 Oz	(Ø.250 - Ø.300)	10-Wheel Weights 20-Screws
	99-99045	0.75 Oz	(Ø.300 - Ø.350)	10-Wheel Weights 20-Screws
	KPMI P/N	Weight	Nipple Size	Quantity
	99-99050	1.00 Oz	(Ø.250 - Ø.300)	10-Wheel Weights 20-Screws
	99-99055	1.00 Oz	(Ø.300 - Ø.350)	10-Wheel Weights 20-Screws
	KPMI P/N	Weight	Nipple Size	Quantity
	99-99060	1.25 Oz	(Ø.250 - Ø.300)	10-Wheel Weights 20-Screws
	99-99065	1.25 Oz	(Ø.300 - Ø.350)	10-Wheel Weights 20-Screws
	KPMI P/N	Weight	Nipple Size	Quantity
	99-99070	1.50 Oz	(Ø.250 - Ø.300)	10-Wheel Weights 20-Screws
	99-99075	1.50 Oz	(Ø.300 - Ø.350)	10-Wheel Weights 20-Screws

Note: See Figure 1 on how to determine your nipple diameter

Spin True® FAQ

Q: Why is maintaining four points of contact with the spoke nipple better than two points or how other wheel weights work?

A: The Spin True® Wheel Weights (unlike other products) maintain at least four points of contact with the spoke nipple creating a secure and balanced fitment (See Figure 2).

Q: What is the finish and is it durable in all-weather / terrains?

A: Spin True® Wheel Weights are chrome plated Stainless Steel and durable for all manners of usage.

Q: Will these fit dirt bikes, Harley's, BMW?

A: These are universal and will fit all motorcycles with spoke wheels using either .250"-.300" or .300"-.350" exposed nipples. Two series of weights tailored to the specific nipple sizes (.250"-.300 and .300"-.350") are available to provide the most complete application coverage.

Q: Are they reusable?

A: They are completely reusable.

Q: Are they larger in physical size compared to other spoke wheel weights?

A: No. There may be small variations in volume due to slightly varying material density, but it's not significant.

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