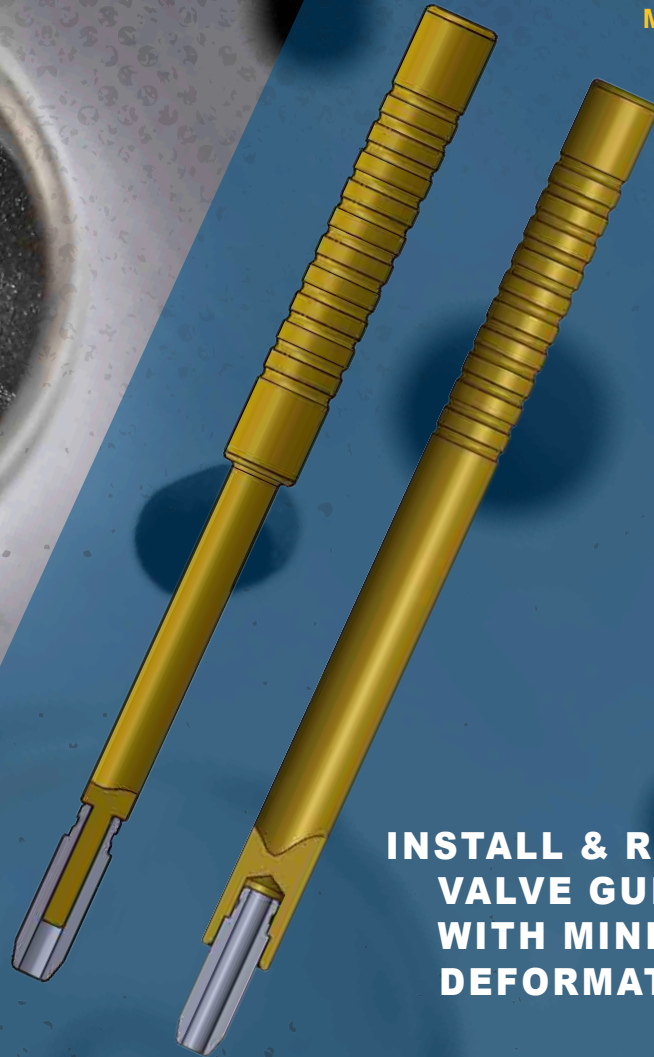


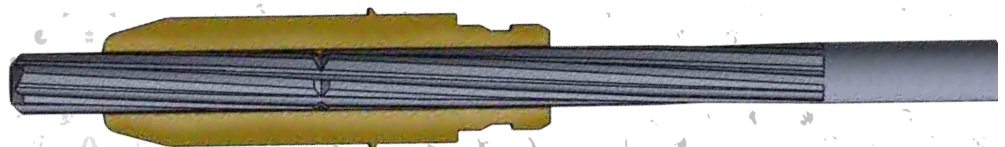


# SUZUKI® HAYABUSA VALVE GUIDE COST SAVING SOLUTION

March 14, 2024



**INSTALL & REMOVE  
VALVE GUIDES  
WITH MINIMAL  
DEFORMATION**



**CUSTOM CARBIDE REAMER FOR ONE SHOT SIZING**

## **THE RIGHT TOOLS FOR THE JOB!**

**[WWW.KPMI.US](http://WWW.KPMI.US)**

## Applications

### Suzuki® Hayabusa Applications

#### Carbide Reamer



- Proprietary design to provide recommended valve clearances
- Solid carbide, straight fluted reamers designed to be the ultimate in long-lasting cutting tools
- Precision ground outer diameter to  $\pm 0.0002$ ", guaranteeing properly sized valve guide bores
- Long Pilot for added stability and accurate alignment
- Single pass guide bore sizing
- Cut guide sizing time in half and improve shop efficiency

In-house, KPMI® designed Solid Carbide Reamers have been created with efficiency and precision as our top objectives. These 6-flute straight cut reamers have a purpose built, extra-long pilot that has been toleranced to provide stability and precision when initiating your sizing pass. Our pilot allows any user to size a bronze or cast iron guide by hand in a single pass without worry of a wandering reamer. This is the one and only Solid Carbide Reamer designed specifically for your Hayabusa valve guide sizing needs.

**Important Note:** Do not attempt to use these reamers to size C630 guides. It is also not advisable to use on a bronze guide after being used on cast iron.

#### Valve Guides • Cast Iron • Manganese Bronze



- Highly pearlitic iron for increased wear resistance and added lubricity
- Proven to last in the harshest conditions from top fuel applications to everyday use
- Economic choice with immense savings over factory guides
- Improved tolerances over OEM parts
- Shortened guides allowing for higher lift
- Undersized bores providing the ability to create desired valve stem clearances (See CR-1971)



- High quality C630 and Manganese Bronze guides with improved tolerances over OEM
- Excellent heat transfer capabilities
- Perfect for high performance applications
- Fine outer diameter surface finish to maximize surface contact with the head and ease installation
- Shortened guides allowing for higher lift
- Undersized bores providing the ability to create desired valve stem clearances (See CR-1971)

#### Valve Guide Seal • Red Viton®



- KPMI® Recommended O.E.M. Replacement Valve Guide Seals
- Exceeds O.E.M. Specifications
- Your High Performance O.E.M. Alternative
- Compatible with O.E.M. and KPMI® Spring Kits and Valve Guides

#### Ball Hone



- Silicon carbide composite for bronze or cast iron guides
- Clean up and improve surface finish on used or reamed guides
- Capable of minor sizing less than 0.001"

## Applications

### Suzuki® Hayabusa Applications

#### Valve Guide Installer • Remover



Figure 1

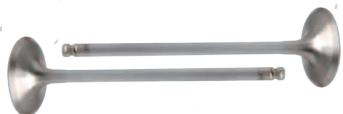


Figure 2



- 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

#### Valves • White Diamond® Inconel® • Tensilite® Titanium



- 1 piece forging with White Diamond™ hard chrome stems for impervious wear resistance
- Inconel® 751 exhaust valves designed to outperform in the most extreme forced induction or racing applications
- Flow bench tested to optimize exhaust profiles
- 100% Quality Controlled



- Dimensionally identical to OEM valves while offering many advantages
- One piece forged titanium and EV8-SS alloys offer uninterrupted grain flow
- Superior tensile strength and stability at and above operating temperatures
- Every surface either fully CNC machined or ground
- Super-finished stem allowing for Formula 1 level coating consistency
- 100% (PVD) Chromium Nitride (CrN) coated
- Material and workmanship that creates outstanding durability and performance
- Competitive pricing allowing for a value conscious rebuild



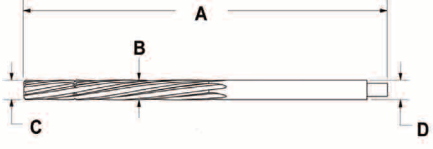
The High Performance Racing Valve Kit for the Suzuki Hayabusa is a specially formulated combination of valve materials and sizes, designed in conjunction with top racers, for maximum performance. The kit includes a +1mm oversize Tensilite Titanium Intake Valve and a White Diamond Inconel Exhaust Valve (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.

**Kit includes:** 8pcs. Titanium +1mm Oversize Intake Valve / 8pcs. Inconel® Std. Exhaust Valve

# SUZUKI® HAYABUSA VALVE GUIDE COST SAVING SOLUTION

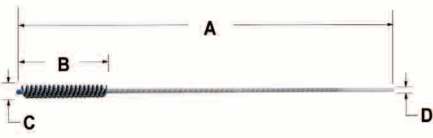
- Everything you need for proper guide installation, removal, and sizing
- Purpose built for the Suzuki® Hayabusa
- Improvement over factory in all aspects

## Recommended High Speed Steel • Solid Carbide Reamer


	KPMI P/N	Description	Overall Length A	Cutting Diameter B	Pilot Diameter C	Shank Diameter D
	<b>GR-1970</b>	0.1970 HSS valve guide reamer	7.125"	0.1970"	0.191"	0.190"
	<b>CR-1971</b>	0.1971 carbide valve guide reamer	7.625"	0.1971"	0.192"	0.190"

**Important Note:** Do not attempt to use these reamers to size C630 guides. It is also not advisable to use on a bronze guide after being used on cast iron.


## Recommended Ball Hone

	KPMI P/N	Description	Overall Length A	Hone Head Length B	Hone Diameter C	Shank Diameter D
	<b>GH-1968</b>	5.0mm valve guide hone	8.055"	1.775"	0.220"	0.085"


## Valve Kit • High Performance Racing

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	<b>60-60910</b>	Intake	34.00mm	1.339"	0.1962"	21°	3.745"	Oversize
		Exhaust	27.50mm	1.083"	0.1956"	17°	3.735"	Standard
<b>Kit Includes</b>		8	Intake Titanium Valves		8	Exhaust Inconel® Valves		


## Valve • Titanium • Tensilite® • Intake NEW PRODUCTS

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	<b>60-60412T</b>	Intake	33.00mm	1.299"	0.1962"	21°	3.745"	Standard
	<b>60-60413T</b>	Intake	34.00mm	1.339"	0.1962"	21°	3.745"	Oversize

## Valves • White Diamond® • Inconel® • Exhaust

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	<b>60-60436K</b>	Exhaust	27.50mm	1.083"	0.1956"	17°	3.735"	Standard
	<b>60-60437K</b>	Exhaust	28.50mm	1.122"	0.1956"	17°	3.735"	Oversize

## Valves • White Diamond® • Hard Chrome Stems

	KPMI P/N	Type	Head Diameter		Stem Diameter	Tulip	O. L.	Remarks
	<b>60-60008H</b>	Intake	33.00mm	1.299"	0.1962"	18°	3.740"	Standard
	<b>60-60009H</b>	Intake	34.00mm	1.339"	0.1962"	18°	3.750"	Oversize
	<b>60-60010H</b>	Exhaust	27.50mm	1.083"	0.1956"	17°	3.735"	Standard
	<b>60-60011H</b>	Exhaust	28.50mm	1.122"	0.1956"	17°	3.725"	Oversize

## Valve Guides • C630 Bronze • Manganese Bronze

		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		

## Valve Guides • Cast Iron

		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 Seals • Viton®

Stem Diameter	O.L.	Seal O.D.	Seal Style	Designed for these guide specs				Type
				A	B	C	D	
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%	

## Valve Guide Installer

	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

Note: Specifically designed for KPMI's Cast Iron, C630 and Manganese Bronze guides This tool can be used on various other applications depending on fitment. Please refer to the diagram and the dimensions provided to determine if you can use this tool outside of the KPMI® designed application(s)

## Valve Guide Remover

	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)

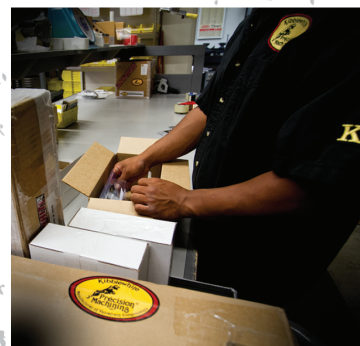
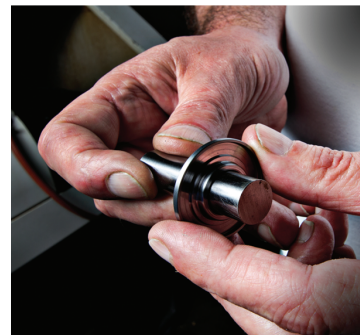
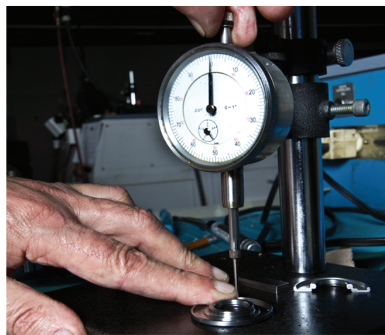
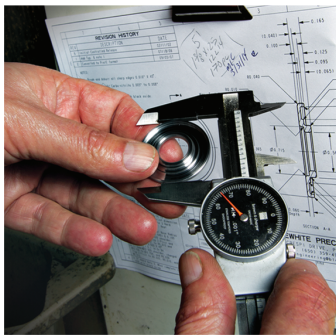
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# Retail Price List

KPMI P/N	Description	Retail
GR-1970	Valve Guide Reamer, HHS, 0.197	\$86.98
CR-1971	Valve Guide Reamer	<b>\$124.80</b>
GH-1968	Valve Guide Hone, 5.0mm	\$40.14
60-60910	Valve Kit, High Performance Racing	\$1,131.57
60-60412T	Valve, Tensilite® Titanium	\$109.33
60-60413T	Valve, Tensilite® Titanium	\$109.33
60-60436K	Valve, White Diamond® Inconel®	\$47.83
60-60437K	Valve, White Diamond® Inconel®	\$47.83
60-60008H	Valve, White Diamond® Hard Chrome Stems	\$26.62
60-60009H	Valve, White Diamond® Hard Chrome Stems	\$26.62
60-60010H	Valve, White Diamond® Hard Chrome Stems	\$26.62
60-60011H	Valve, White Diamond® Hard Chrome Stems	\$26.62
60-60020	Guide, C630, IN/EX STD	\$15.92
60-60021	Guide, C630, IN/EX +0.001	\$15.92
60-60022	Guide, C630, IN/EX +0.002	\$15.92
60-60024	Guide, C630, IN/EX +0.004	\$15.92
60-60029	Guide, C630, IN/EX +0.010	\$15.92
60-60020-M	Guide, Mng. Brz., IN/EX STD	\$5.99
60-60021-M	Guide, Mng. Brz., IN/EX +0.001	\$5.99
60-60022-M	Guide, Mng. Brz., IN/EX +0.002	\$5.99
60-60024-M	Guide, Mng. Brz., IN/EX +0.004	\$5.99
60-60029-M	Guide, Mng. Brz., IN/EX +0.010	\$5.99
60-60020-C	Guide, Cast Iron, IN/EX STD	\$5.57
60-60021-C	Guide, Cast Iron, IN/EX +0.001	\$5.57
60-60022-C	Guide, Cast Iron, IN/EX +0.002	\$5.57
60-60024-C	Guide, Cast Iron, IN/EX +0.004	\$5.57
60-60029-C	Guide, Cast Iron, IN/EX +0.010	\$5.57
71015-100	Seal, Red Viton, 5mm Stem x 0.340" Guide (Pkg. of 100)	\$279.21
71015-16	Seal, Red Viton, 5mm Stem x 0.340" Guide (Pkg. of 16)	\$50.25
71015-4	Seal, Red Viton, 5mm Stem x 0.340" Guide (Pkg. of 4)	\$13.96
71015-50	Seal, Red Viton, 5mm Stem x 0.340" Guide (Pkg. of 50)	\$148.33
71015-8	Seal, Red Viton, 5mm Stem x 0.340" Guide (Pkg. of 8)	\$27.92
60-61400	Tool, Guide Driver, Mng. Brz.	\$31.54
60-61405	Tool, Guide Un-installer, Mng. Brz.	\$31.54