

ENGINEERING



2013-2014

HIGH PERFORMANCE VALVETRAIN



since 1936

**MANUFACTURING
DISTRIBUTING**

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NEW PRODUCTS FOR 2013-2014



Harley-Davidson® Manganese Bronze Valve Guides & High Speed Steel Reamers



Triumph® 650/750 Manganese Bronze Valve Guides 70-0331-M

- Undersize bores
- Easily reamed
- O-Ringed flange design (Only For Harley Davidson®)
- Good durability
- Excellent heat transfer
- Good lubricity

These Engine Builder valve guides have been designed with the price conscious builder in mind. Expect the same exacting KPML® tolerances, but with a reduced toughness / wear-ability when compared to premium "C630" Nickel Aluminum Bronze valve guides. The softer Manganese guides are easily reamed, and then can be delicately finished with our high quality ball hones. Now, with any battery operated or electric drill you can ream and hone manganese valve guides in less time and in the absence of expensive honing equipment required to properly size "tough" Nickel Bronze guides.



Arctic Cat® H2 1000™ V-Twin Lightweight Racing Spring Kit 88-88000

Want to get more Horsepower out of your torque monster? KPML® Engineers have designed a high performance system to increase the performance potential and the durability of the popular Arctic Cat 1000 V-Twin engine.

The KPML® spring kit includes dual springs designed with attention paid to natural frequencies to avoid cam harmonics, FEA designed lightweight titanium retainers to reduce reciprocating mass, and hardened steel bases to keep the spring where it belongs. This kit is capable of handling high RPM and up to .450" valve lift!

Don't miss an opportunity to upgrade the heads on your Arctic Cat with this system!



Can Am® Maverick™ Lightweight Racing Spring Kit 91-91200

Looking to move ahead of the other Mavericks in your class?

Improving the performance on this engine is no small order, but the team at KPML® has evaluated cam profiles and cylinder heads to put together a system that will help you do just that.

The KPML® spring kit includes dual springs designed with attention paid to natural frequencies to avoid cam harmonics, FEA designed lightweight titanium retainers to reduce reciprocating mass, and hardened steel bases to keep the spring where it belongs. This kit offers more pressure than stock, and is capable of handling higher RPM and aggressive cam profiles with up to .470" valve lift!

Don't get bogged down, get out front with this KPML® high performance system!



NEW PRODUCTS FOR 2013-2014



Kawasaki® ZX-10R™ Lightweight Racing Spring Kit 40-40850

If you're not riding the only ZX10R at the races, you've got some serious competition. How are you going to gain an advantage over the other Green Machines?

The KPMI® R&D and Engineering groups teamed up to create a dual spring kit with enough travel and pressure to control the valves at .445" lift; a full millimeter more than stock.

This kit contains Lightweight FEA designed titanium retainers, dual valve springs engineered to handle harmonics of a more aggressive cam profile at higher RPM, and steel bases to keep the springs in place. Add this kit to your combination and the guy next to you will be wondering if his throttle is opening all the way!

If you're looking for an advantage over the other green liter bikes, be sure you make this KPMI® kit part of your Performance package!



Kawasaki® Ninja™ 650R Lightweight Racing Spring Kit 40-40800

This KPMI® spring kit includes dual springs designed with attention paid to natural frequencies to avoid cam harmonics, FEA designed lightweight titanium retainers to reduce reciprocating mass, and hardened steel bases to keep the spring where it belongs. This lightweight performance kit offers more pressure than stock, and is capable of handling higher RPM and aggressive cam profiles with up to .400" valve lift.



Suzuki® GSX-1300R™ Cylinder Studs, Washers and Nuts 60-60825 / 60-60830 / 60-60820

These High Performance Cylinder studs are made from fine grain, heat treated, premium grade material.

Threads are rolled after heat treating to insure maximum compressive stresses are retained, insuring 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. Even as the aluminum case expands at high temperature.

Studs are centerless ground to insure concentricity, and finished with a premium black oxide treatment for excellent corrosion resistance.



Kawasaki® Various Model Brute Force™ / Teryx™ / Teryx4™ Lightweight Racing Spring Kit 40-40900

At curb weights of 685# and 1600# the Brute Force and Teryx4 are no flyweights! Add riders and gear... even those factory revised power plants are straining to get you to the front of the pack. KPMI® offers a complete system of components to help you step up the performance of your Brute Force or Teryx so you can Go Hard instead of Going Home.

Our complete lightweight racing valve spring kit includes dual springs wound from Kobe super-clean chrome silicon wire that has been heat treated and shot peened, lightweight FEA designed titanium retainers, and heat treated steel bases.

This kit allows more valve lift, and supplies more pressure than stock to handle the quicker opening and closing rates of high performance cams, as well as the higher RPM generated by modified race engines.

The springs are designed with natural frequencies to avoid the nasty harmonics created by some of the aggressive cam profiles, and close attention has been paid to wire stress and fatigue life calculations.

Whether you're racing in the dunes, the desert, or cross country, build your top end with a KPMI® High Performance System and leave the competition choking on your dust.

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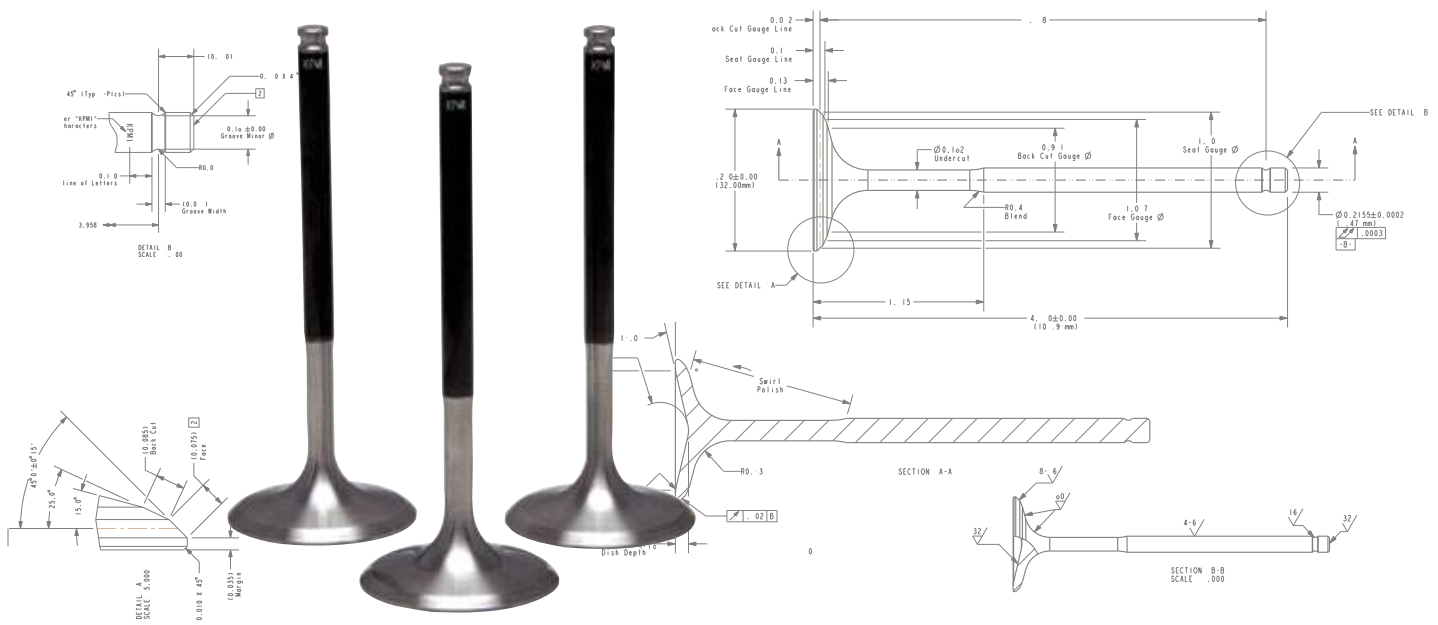
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ENGINEERING & CUSTOM WORK



Working With Design Constraints

The KPMI® Mechanical Engineers pride themselves in the Development Flow, System-Design-Approach used for valvetrain development here at KPMI®. Many times this may mean achieving very specific component strength given a weight constraint. This photo above is shown how weight reduction and required mechanical properties can exist in harmony.



Fryberger Lotus 11

Hundreds of times over the course of a year, the KPMI® Custom Work Department is asked to create unique valve shapes... (Tulips). In this case a customer of KPMI® provided specifications to one of our Application Engineers for a feasibility study. When the study was completed the customer signed off on the quote and drawings generated by our CWD. The photo above is the detail of the shape created for the customer.

PRESIDENT LETTER

Our mission at Kibblewhite® Precision Machining, Inc. is to become your primary source for all of your valvetrain needs. With three staffed mechanical engineers and five locations we are prepared to design, develop, prototype, machine pre-production samples, and run production for the world's next speed record attempt or even a drone plane. Whatever it may be we are eager to entertain your designs or ideas. Please contact us for non valvetrain related development projects as well.

KPMI® has been making the best products possible for over 77-years, and we are looking forward to the next 77-years! As these images (here at the right) show in a small snapshot, KPMI® has been and continues to develop leading edge components for every racing discipline. We are proud of the partnerships we have built over all these years with the builders, racing teams, distributors and dealers.

These past few years mark an exciting time of growth for Kibblewhite®. We have been working on a wide variety of new products and updating others as well. As you will see in our up-dated website www.kpmi.us, KPMI® is on the move....expanding our capabilities (new equipment), customer service, product line and work force.

So, we invite you to visit our website or contact us directly with whatever inquiry you may have. When you are searching for the highest quality product and services, look no further than Kibblewhite®.

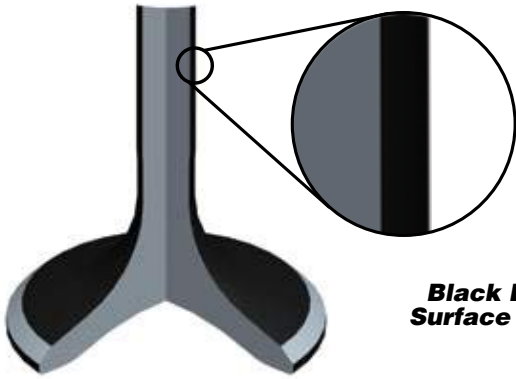
William F. Kibblewhite
President / Owner



PAST TO PRESENT



PRODUCT FEATURES



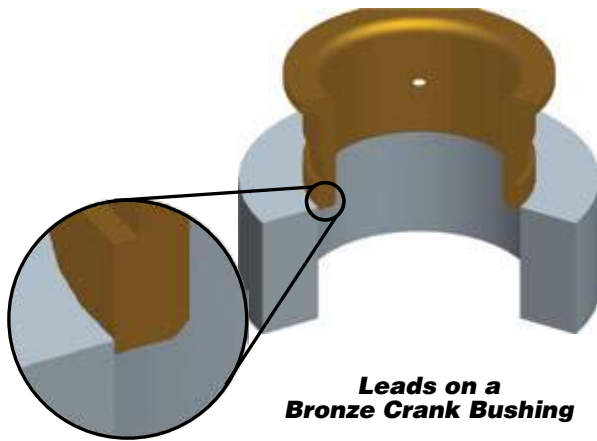
**Black Diamond™
Surface Treatment**

Black Diamond™ Treatment:

Our Black Diamond™ valves undergo a proprietary post production heat treatment process that hardens the surface of the valve to a depth of about .002", while leaving a ductile core.

This makes the valve stems almost impervious to wear, without creating a brittle part. The valves go through an oxidizing and polishing process which allows us to create an extremely smooth surface finish that is easy on the valve guide, and in many cases can be run with tighter clearances than a plated valve.

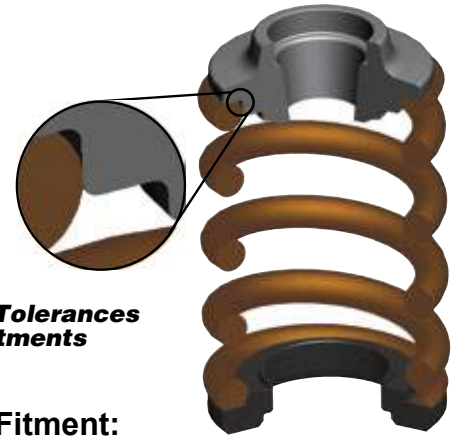
Because this is not a coating or plating, there is nothing to flake off, and no danger of accelerated wear or seizure due to a coating flaking off and becoming trapped between the valve and guide.



**Leads on a
Bronze Crank Bushing**

Bushing Leads:

Another example of KPMI's attention to detail: Many of our bushing designs included a small reduced diameter lead to aid in the installation of the bushing. This lead allows the bushing to sit square in the hole reducing the risk of the bushing shifting during installation, damaging either the bushing or receiving component.



**Precision Tolerances
and Fitments**

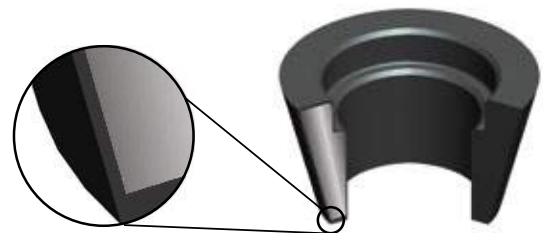
Component Fitment:

KPMI® designs all of our components to work together as a system, every part is manufactured to exacting tolerances to ensure that a precise fitment is achieved. Special attention is paid to areas such as the interface between the spring and the retainer shoulders. Achieving a precise fitment between these parts guarantees that the valvetrain is controlled thru the most severe conditions.

Spring Design:

All KPMI® valve springs are designed in house using sophisticated, proprietary design and simulation software programs. Our engineers, software, and 75 years of experience enable us to determine critical characteristics including stress, natural frequency, system harmonics, required spring force, and fatigue life.

Our spring manufacturing partners are U.S based companies that are ISO certified. The Super-Clean Chrome-Silicon valve spring wire we use is traceable back to Kobe Japan where some of the best spring wire in the world is manufactured. Each spring goes through a rigidly controlled heat treatment, stress relief, and shot peening process. Combining our design, simulation, and manufacturing protocols with this premium quality valve spring wire allows KPMI® to supply you with the best possible valve springs period!



**Heat Treatment
Depth**

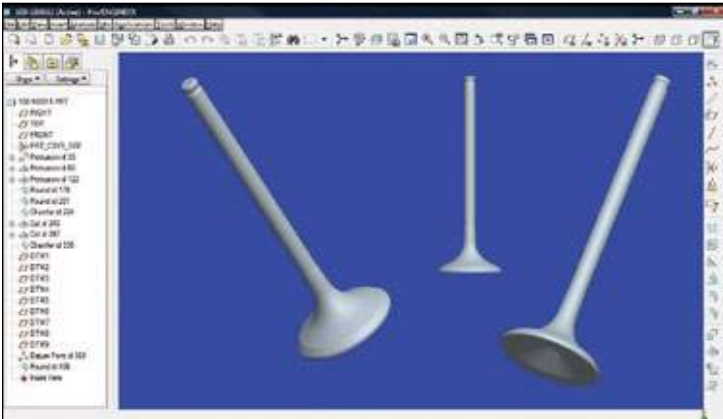
Heat Treated Components:

In many instances KPMI's goal is to reduce the reciprocating mass of the valve trains system without sacrificing longevity. In cases where light weight components are not a priority, many can be manufactured from high tensile strength steel and then heat treated. Specialized heat treatment processes are selected to achieve a hard wear-resistant surface on the outside, while still retaining a strong and durable core.



ENGINEERING

For 70 years KPMI® has continued to be at the forefront of innovation, manufacturing, and development of high performance valve train. KPMI® is constantly investing in new technologies in order to maintain our position as one of the foremost authorities in valve train development.



Software

Utilizing the advances in power, speed, and user interface of modern software, KPMI® employs an arsenal of software programs to plan, design, simulate, fabricate and test all aspects of development and production.

- **3D Modeling/FEA:** Every KPMI® component is designed using the latest in 3D modeling technologies, allowing KPMI® engineers to assemble entire valve train systems virtually to verify fitment and clearances. Once assembled, each system is subject to a rigorous Finite Element Analysis (FEA) that allows KPMI® engineers to validate designs and isolate areas of stress concentration. This FEA analysis ensures that KPMI® parts are both light and strong enough to stand up to the rigorous environment inside a modern racing engine.
- **Valve train Simulation:** Once a KPMI design has been modeled and refined the entire system is simulated using valve train simulation software. This allows KPMI® engineers to "tune" each system to ensure that it will work harmoniously in the engine.
- **Spring Design:** Each of KPMI's valve springs are designed using advanced spring design software that allow KPMI® engineers to balance designs for the perfect blend of performance and longevity.

Prototyping

KPMI® has integrated the use of 3D rapid prototyping technologies into the many aspects of design process. This technology allows KPMI® engineers to almost instantaneously create working plastic prototypes of designs that can be used to check fitment, clearances and design validity.



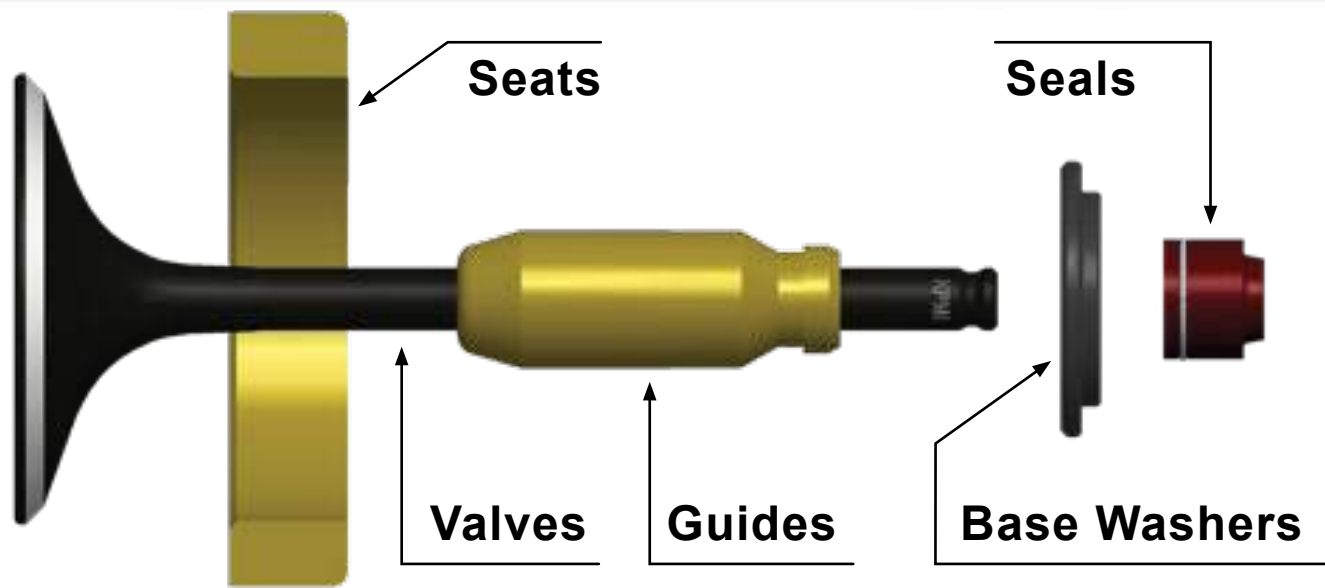
Flow Testing

Before a design is complete, test valves are made with different tulip profiles and each design is flow tested on our FlowData 700 computerized flow bench to optimize airflow characteristics for that application. This often leads to improvements not only in flow characteristics, but in weight reduction as well.

Testing

When it comes to testing our product, KPMI® does not hold back. We pride ourselves in supplying the consumer with a product that works right the first time, keeping this in mind when it comes time to test, KPMI® looks at every aspect of the design under several different criterion. The springs are brought to failure under fatigue testing and shake table dynamics, whereas the heat-treated materials are destructively tested to insure that they did not become brittle during the manufacturing process; we do not, however, stop there. When we are sure that our product lives up to the name, we go one step further and supply the product to our test riders to see how it performs under real world riding conditions. Only once all of this information has been compiled and we are sure that the product is ready for sale, is it released to our vast network of world-wide dealers and distributors.

THE KPMI® SYSTEM



Valves

Light and strong with optimum airflow

A combination of FEA stress analysis and flow bench testing of prototype valves allows KPMI® engineers to optimally balance valve mass, strength, and airflow characteristics. A unique tulip and dish are designed for each application.

Stellite tips for rocker applications

Stellite is welded to the valve tips in rocker actuated applications for resistance to the impact and abrasive wear common in rocker arm systems. This welded stellite can never come loose.

Black Diamond™ Valves

KPMI® Black Diamond™ one piece forged stainless steel valves are impregnated by a special German process to improve wear properties and reduce friction. This process provides resistance to corrosion and wear that is superior to that of hard chromium and electrolysis nickel plating.

White Diamond® Valves

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.

Tensilite® Valves

KPMI® Tensilite® titanium valves are one piece forgings made from 6AL4V or 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.

Seats

Repair /Modify

Seats are tall, offered in several sizes, and have ample material on the ID for shaping, making them universal in application. They allow the builder to repair damaged seat bores, or to increase the seat size for larger racing valves.

Ease of installation

Seat ODs are ground for a smooth uniform surface finish to insure good contact with the cylinder head for optimal heat transfer and smooth installation. Seats also have a generous radius on the leading edge to prevent galling during installation.

Powdered metal seats

With the latest in powdered metal technology, KPMI's R&D team was able to create a high density seat with exceptional wear resistance, resistance to micro welding, and good thermal qualities. This material is compatible with all types of fuel blends, resists corrosion and burning, and is machinable with standard tooling.

Nickel aluminum bronze seats

The product of a two year KPMI® R&D effort, this proprietary high copper, beryllium free bronze alloy is designed specifically for use with titanium valves in high performance applications.

Guides

Superior airflow

Guide profiles are designed to have as little effect on the airstream as possible, while maintaining critical cross sectional thickness in high temperature areas. Promoting both high performance and endurance.

Tight tolerances

High concentricity tolerances are held to insure the best possible geometry between the seat and guide is maintained when the guides are replaced. This means minimal material removal from the seat, time savings, and consistent chamber volumes, when valve jobs are performed.

Oversize ODs

Available in +.001", .002", and .010"

C630 bronze guides

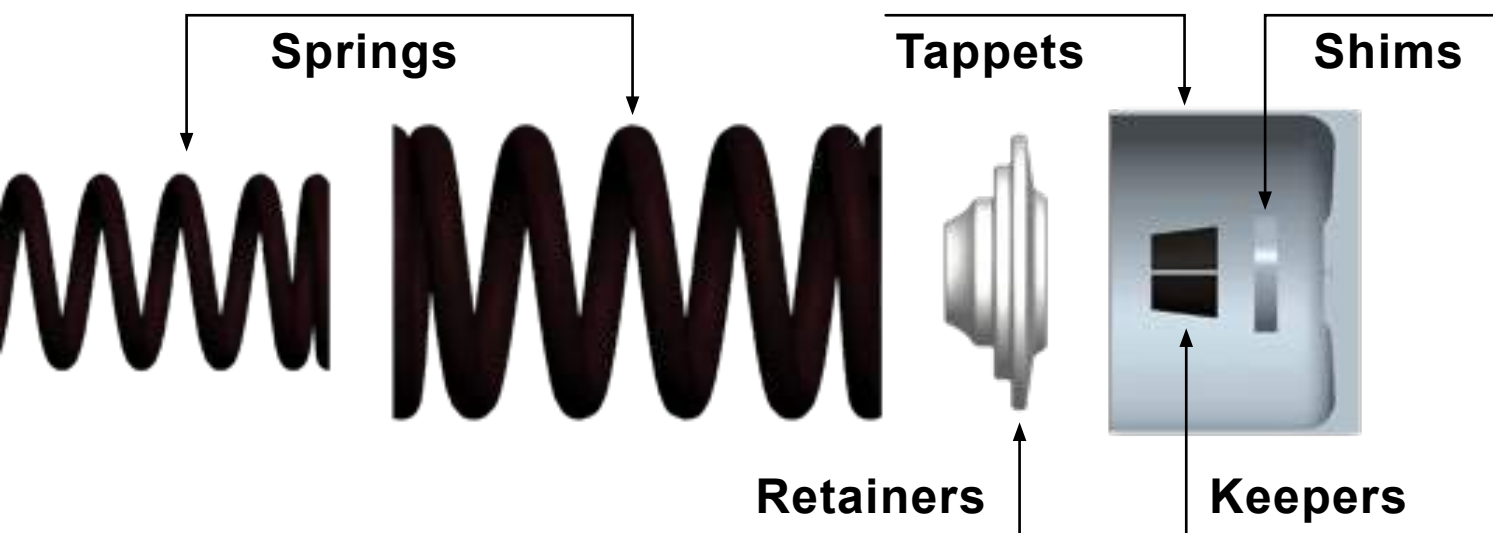
C630 is a blend of copper, nickel, and aluminum. The high copper content gives excellent thermal qualities, the nickel makes the guide tough and wear resistant, and the aluminum brings work hardening characteristics. This bronze alloy allows for tighter clearances than other materials, creating better valve and seat sealing, as well as superior oil control. The expansion qualities of C630 bronze make it especially compatible with aluminum cylinder heads.

Cast iron guides

KPMI® R&D has produced a proprietary cast iron blend that thrives in the tough operating conditions of today's engine. KPMI's certified cast iron provides excellent wear resistance and a superior guide bore finish that is easy on valve stems.



THE KPMI® SYSTEM



Seals

High operating temperature

KPMI® Red Viton® seals operate at a higher temperature than other seal materials.

Chemical resistance

Viton® seals are resistant to petroleum products, and by-products of combustion. Retaining pliability in situations where other materials would become hard and lose their sealing capability.

Springs

Advanced spring design

Springs are engineered for each specific application using proprietary advanced spring design, simulation, and analysis software. Engineers pay special attention to cam and spring harmonics, stress, mass, and operating rpm.

Premium grade, super clean ground chrome silicon wire

X-Rayed at regular intervals to check for inclusions, heat treated, and shot peened. Insuring maximum spring life.

Base Washers

Proprietary heat treatment process

Creates a hard outer shell with a non-brittle core, resisting wear and maximizing toughness.

Tight tolerance for precise fit

Manufactured to tolerances that allow no excessive lateral movement. Correct fitment promotes longer component life and optimizes performance of the entire valve train.

Retainers

Engineered with advanced computer software

FEA stress analysis allows engineers to lighten retainer without sacrificing strength.

Tight tolerance for precise fit

KPMI® Engineers specify tight tolerances that allow no excessive lateral movement. Correct fitment promotes longer component life and optimizes performance of the entire valve train.

Heat treated steel retainers

KPMI's proprietary heat treatment process creates a hard outer shell with a non-brittle core, resisting wear and maximizing toughness.

Titanium retainers

To further reduce reciprocating mass, KPMI® offers titanium retainers as an alternative to steel.

Custom retainers available

KPMI® is ready to design a custom retainer to your specifications.

Keepers

Wide variety of styles

KPMI® offers radius bead, triple radius bead, and square bead steel keepers. See keeper section in back of catalog for full selection.

High tensile heat treated steel

Forged or single point machined.

Tappets

Machined from aircraft quality solid steel bar stock

Proprietary heat treatment process

Creates a hard outer shell with a non-brittle core, resisting wear and maximizing toughness.

Engineered with advanced computer software

FEA stress analysis allows engineers to lighten tappet without sacrificing strength.

Racing performance

KPMI® tappets are run in high performance automotive and motorcycle racing applications including Motocross, Flat track racing, Road racing, Drag racing, and at the Bonneville Salt Flats.

Many stock sizes available

See KPMI® Tappet Section (Pg. 183) in back of catalog for full selection.

Custom tappets available

Send KPMI® your requirements so we can develop your next tappet.

Shims

Ground to a precise height

KPMI® offers valve adjustment shims in 7.5mm, 9.5mm, and 13mm diameters, with heights increasing in increments of 0.05 mm. See KPMI® Shim Section in back of catalog for full selection.

KPMI® RACING TEAMS

Kibblewhite® Racing

.....

Cole Crowley
2009 District 36 250cc Champion



Larry "Spiderman" McBride
10 Time Top Fuel World Champion



Brad Baker
2012 AMA Flat Track Finals
Flat Track Racer



Ton Pels
European SuperTwin Top Fuel Championship
7 Time 1st / 2nd Finisher



KPMI® RACING TEAMS

For the latest racing news, videos and updates on all of the Kibblewhite® Sponsored Racers, please go online to the KPMI® Sponsorship Section of the www.kpmi.us for complete team coverage!

Ian King
7 Time European Top Fuel Champion



Sammy Halbert
2012 AMA Flat Track Fianls/ Expert Singles Champion



Sims Motorsports
2012 New record
with APS-1350-G/ M-2000-G Class



Mike Martin
2012 AMA Flat Track Finals
Flat Track Racer



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ARCTIC CAT® • H2™ 1000 V-TWIN • 2008-2013



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

**NEW
PRODUCT**



88-88020

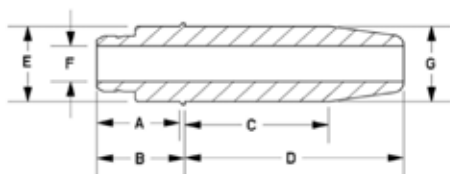


88-88012



88-88000

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.420" | D | 1.110" |
| B | 0.445" | E | 0.415" |
| C | 0.730" | F | 0.1955" |

Intake / Exhaust - **G** (Std. 0.4163")

C630 Bronze

| | |
|-----------------|----------|
| 88-88020 | Std. |
| 88-88021 | + 0.001" |
| 88-88022 | + 0.002" |
| 88-88029 | + 0.010" |

O. E. M. Replacement Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 88-88000 | .450" Valve Lift OK 49# Seated Pressure 159 lb. @ .450" lift | 88-88001 Titanium | Use O.E.M. | 88-88003 Chrome Silicon | 88-88005 H.T. Steel |

Black Diamond™ Valves • Black Nitro Neg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 88-88012 | IN | 31.62mm / 1.245" | 0.1960" | 14° | 3.695" | Standard |
| 88-88013 | IN | 32.62mm / 1.284" | 0.1960" | 14° | 3.695" | Oversize |
| 88-88016 | EX | 27.94mm / 1.100" | 0.1955" | 20° | 3.670" | Standard |
| 88-88017 | EX | 28.94mm / 1.139" | 0.1955" | 20° | 3.670" | Oversize |



ARCTIC CAT • VARIOUS 1056cc TWINS • 2008-2013



88-88100

Bearcat™ Z1 XT • 2009-'13 (Incl. Limited)

Jaguar™ Z1 • 2008

ProCross™ F & XF 1100 • 2012-'13

(All Models Incl. Turbo)

ProClimb™ M 1100 • 2008-'13

(All Models Incl. Turbo)

TZ1™ • 2008-'13 (All Models Incl. Turbo)

Z1™ • 2009-'11 (All Models Incl. Turbo)

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

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Tappets |
|------------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|-------------------------------|
| 88-88100* | .380" Valve Lift OK 70# Seat Pressure/184lb. @ .380" lift | 88-88101 Titanium | Use O.E.M. | 88-88103 Chrome Silicon | 88-88105 H.T. Steel | 88-88109 H.T. Steel |

"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.

High Performance Turbo Racing Valve Spring Kit

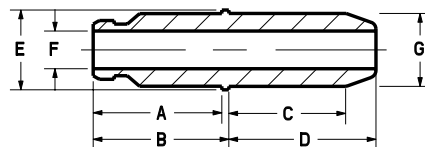
| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|------------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 88-88050* | .380" Valve Lift OK 70# Seat Pressure/184lb. @ .380" lift | 88-88051 Titanium | Use O.E.M. | 88-88053 Chrome Silicon | 88-88055 H.T. Steel |

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

Black Diamond™ Valves • Black Nitroneq Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 88-88062 | IN | 36.00mm / 1.417" | 0.2160" | 10° | 3.880" | Standard |
| 88-88063 | IN | 37.00mm / 1.457" | 0.2160" | 10° | 3.880" | Oversize |
| 88-88066 | EX | 33.00mm / 1.299" | 0.2155" | 20° | 3.525" | Standard |
| 88-88067 | EX | 34.00mm / 1.339" | 0.2155" | 20° | 3.525" | Oversize |

Valve Guides



| | | | |
|--------------------------------|--------|----------|---------|
| A | 0.620" | D | 0.825" |
| B | 0.655" | E | 0.460" |
| C | 0.645" | F | 0.2155" |
| Intake / Exhaust - G (0.4167") | | | |

C630 Bronze

| | |
|-----------------|----------|
| 88-88070 | Std. |
| 88-88071 | + 0.001" |
| 88-88072 | + 0.002" |
| 88-88079 | + 0.010" |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|--------------------------------|-----------|
| 700-100016 | In/Ex • Style 4 Solid Viton | Pkg. of 1 |

Replacement Tappets

| KPMI No. | Year | Quantity |
|-----------------|------|-----------|
| 88-88057 | All | Pkg. of 8 |



BMW® • R60™ / 2 • 1960-1969

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 **Motorcycle Valvetrain Components.**



90-9070

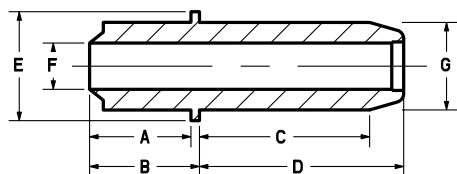


90-9081



90-9060

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.600" | D | 1.200" |
| B | 0.650" | E | 0.620" |
| C | 1.000" | F | 0.2730" |

Intake / Exhaust - G (0.5140")

C630 Bronze

| | |
|----------------|----------|
| 90-9070 | Std. |
| 90-9071 | + 0.001" |
| 90-9072 | + 0.002" |
| 90-9074 | + 0.004" |
| 90-9080 | + 0.010" |

O. E. M. Replacement Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|--|------------------------------|------------------------------|----------------------------------|------------------------------|
| 90-9081 | .450" Valve Lift OK 58# Seat Pressure/152lb. @ .450" lift | 90-9083 Titanium | 90-9085 H.T. Steel | 90-9086 Chrome Silicon | 90-9087 H.T. Steel |
| 90-9082 | .450" Valve Lift OK 58# Seat Pressure/152lb. @ .450" lift | 90-9084 H.T. Steel | 90-9085 H.T. Steel | 90-9086 Chrome Silicon | 90-9087 H.T. Steel |

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 these kits can be purchased individually as OEM replacements.

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 90-9060 | IN | 34.00mm / 1.339" | 0.2730" | 23° | 3.425" | Standard |
| 90-9062 | EX | 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.



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

**See All Our
Vintage Parts
On The Web!**



90-9034

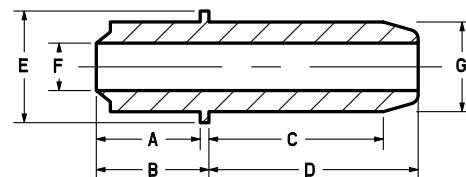


90-9035



90-9000

Valve Guides

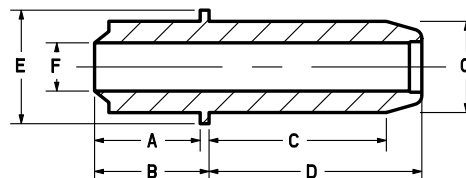


| | | | |
|----------|--------|----------|---------|
| A | 0.600" | D | 1.400" |
| B | 0.650" | E | 0.640" |
| C | 0.980" | F | 0.3120" |

Intake - G (Std. 0.5540")

C630 Bronze

| | |
|----------------|----------|
| 90-9000 | Std. |
| 90-9001 | + 0.001" |
| 90-9002 | + 0.002" |
| 90-9003 | + 0.003" |
| 90-9004 | + 0.004" |
| 90-9009 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.600" | D | 1.300" |
| B | 0.650" | E | 0.620" |
| C | 0.980" | F | 0.3125" |

Exhaust - G (Std. 0.5540")

C630 Bronze

| | |
|----------------|----------|
| 90-9020 | Std. |
| 90-9021 | + 0.001" |
| 90-9022 | + 0.002" |
| 90-9023 | + 0.003" |
| 90-9024 | + 0.004" |
| 90-9029 | + 0.010" |

Wrist Pin Bushings

(Machined from solid bar stock)

| KPMI No. | Models | Remark |
|----------------|----------------|-------------------|
| 90-9030 | Fits All Years | Sold Individually |

O. E. M. Replacement Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|---|----------------------------|---------------|----------------------------------|------------------------------|
| 90-9034 | .500" Valve Lift OK 101# Seat Pressure/214lb. @ .450" lift | 90-9032 Titanium | Use O.E.M. | 90-9031 Chrome Silicon | 90-9033 H.T. Steel |

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.

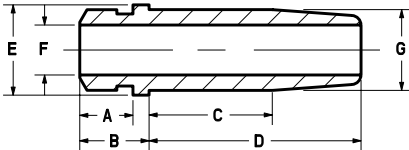
Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 90-9035 | IN | 42.00mm / 1.654" | 0.3130" | 23° | 3.885" | Standard |
| 90-9054 | IN | 44.00mm / 1.732" | 0.3125" | 23° | 3.885" | Standard |
| 90-9037 | EX | 34.00mm / 1.339" | 0.3125" | 29° | 3.885" | Standard |
| 90-9036 | EX | 38.00mm / 1.496" | 0.3130" | 29° | 3.885" | Standard |
| 90-9045 | EX | 40.00mm / 1.575" | 0.3125" | 29° | 3.885" | Standard |



Custom Valves Available By Request

Valve Guides



| | | | |
|--|--------|----------|---------|
| A | 0.330" | D | 1.030" |
| B | 0.570" | E | 0.560" |
| C | 0.630" | F | 0.3095" |
| Intake / Exhaust - G (Std. 0.5010") | | | |

C630 Bronze

| | |
|-----------------|--------|
| 10-10320 | Std. |
| 10-10321 | +0.001 |
| 10-10322 | +0.002 |
| 10-10324 | +0.004 |
| 10-10329 | +0.010 |

Valve Guide Seals

| P/N | Seal Type | Quantity |
|-----------------|---------------------------|-----------|
| 10-10340 | In / Ex • Style 1 • Viton | Pkg. of 1 |

One seal supplied with each guide.



10-10312



10-10320



10-10300

Lightweight Racing Valve Spring Kit

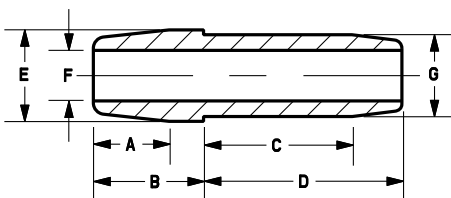
| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 10-10300 | .500" Valve Lift OK 80# Seated Pressure 223 lb. @ .400" lift | 10-10301 Titanium | Use O.E.M. | 10-10303 Chrome Silicon | 10-10305 H.T. Steel |

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.

Black Diamond™ Valves • Black Nitroleg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 10-10312 | IN | 36.91mm / 1.453" | 0.310" | 27° | 3.660" | Standard |
| 10-10313 | IN | 37.91mm / 1.493" | 0.310" | 27° | 3.660" | Oversize |
| 10-10316 | EX | 33.40mm / 1.315" | 0.3095" | 24° | 3.645" | Standard |
| 10-10317 | EX | 34.40mm / 1.354" | 0.3095" | 24° | 3.645" | Oversize |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.465" | D | 1.215" |
| B | 0.675" | E | 0.560" |
| C | 0.910" | F | 0.3095" |

Intake - **G** (Std. 0.5010")

C630 Bronze

| | |
|----------------|----------|
| 10-0347 | Std. |
| 10-0348 | + 0.002" |
| 10-0349 | + 0.004" |
| 10-0350 | + 0.006" |
| 10-4055 | + 0.050" |

No seal required.



10-0347

BSA® • A10™ / A50™ • 1971-1973



10-5020

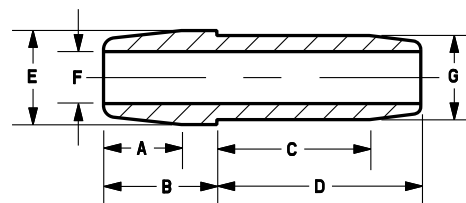


10-10352



10-4132

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.585" | D | 1.335" |
| B | 0.765" | E | 0.620" |
| C | 0.675" | F | 0.3105" |

Intake/Exhaust - **G** (Std. 0.5632")

C630 Bronze

| | |
|----------------|----------|
| 10-4132 | Std. |
| 10-4133 | + 0.002" |
| 10-4134 | + 0.004" |

Seal not required.

Crankshaft Bushings

| KPMI No. | Description | Quantity |
|----------------|----------------|-----------|
| 10-5020 | Std. ID 1.372" | Pkg. of 1 |
| 10-5021 | -0.010" | Pkg. of 1 |
| 10-5022 | -0.020" | Pkg. of 1 |
| 10-5023 | -0.030" | Pkg. of 1 |
| 10-5024 | -0.040" | Pkg. of 1 |
| 10-5025 | -0.050" | Pkg. of 1 |

Machined from high quality mill certified bearing bronze (custom sizes available).

Wrist Pin Bushings

| KPMI No. | Description | Retainers |
|-----------------|-------------|-----------|
| 10-10350 | 0.8775" OD | Standard |
| 10-10352 | 0.8795" OD | +0.002" |

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

For all the applications available for Kibblewhite's BSA® line of products, please refer online to the BSA® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.

BSA® • B50 GOLDSTAR™ • 1971-1973

Lightweight Racing Valve Spring Kit

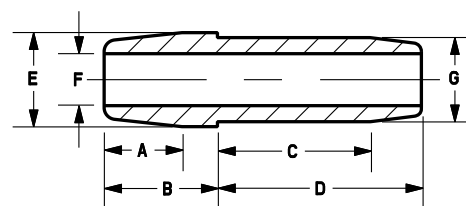
| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 10-10050 | .500" Valve Lift OK 80# Seated Pressure 258 lb. @ .500" lift | 10-10051 Titanium | Use O.E.M. | 10-10053 Chrome Silicon | 10-10055 H.T. Steel |

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.

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|---------------------|---------------|-------|--------|----------|
| 10-10062 | IN | 44.45mm / 1.750" | 0.3100" | 20° | 4.080" | Standard |
| 10-10063 | IN | 45.97mm / 1.810" | 0.3100" | 20° | 4.060" | Oversize |
| 10-10066 | EX | 38.86mm / 1.530" | 0.3095" | 24° | 4.025" | Standard |
| 10-10067 | EX | 40.39mm / 1.590" | 0.3095" | 24° | 4.005" | Oversize |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.675" | D | 1.215" |
| B | ----- | E | 0.560" |
| C | 0.910" | F | 0.3095" |

Intake/Exhaust - **G** (Std. 0.5010")

C630 Bronze

| | |
|-----------------|----------|
| 10-10070 | Std. |
| 10-10072 | + 0.002" |
| 10-10074 | + 0.004" |
| 10-10076 | + 0.006" |
| 10-10079 | + 0.050" |

Seal not required.



10-4135



Crankshaft Bushings .090" Flange

| KPMI No. | Description | Quantity |
|-----------------|----------------|-----------|
| 10-5010 | Std. ID 1.501" | Pkg. of 1 |
| 10-5011 | -0.010" | Pkg. of 1 |
| 10-5012 | -0.020" | Pkg. of 1 |
| 10-5013 | -0.030" | Pkg. of 1 |
| 10-5014 | -0.040" | Pkg. of 1 |
| 10-5015 | -0.050" | Pkg. of 1 |
| 10-10000 | Std. | 1.835" OD |

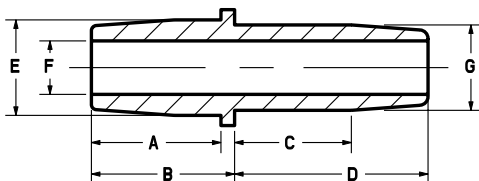
Machined from solid bar stock (custom sizes available).

Wrist Pin Bushings Machined from solid bar stock

| KPMI No. | Nominal Size | Remark |
|-----------------|--------------|----------|
| 10-10350 | 0.8775" OD | Standard |
| 10-10352 | 0.8795" OD | +0.002" |

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

Valve Guides



| | | | |
|--|--------|----------|---------|
| A | 0.760" | D | 1.135" |
| B | 0.840" | E | 0.680" |
| C | 0.685" | F | 0.3105" |
| Intake / Exhaust - G (Std. 0.5010") | | | |

C630 Bronze

| | |
|----------------|--------|
| 10-4135 | Std. |
| 10-4136 | +0.002 |
| 10-4137 | +0.004 |

Seal not required.



10-4148



10-4150



10-5010



10-10350

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|----------|--------|-----------------|
| 10-4148 | IN | 1.600" / 40.64mm | 0.3112" | 1.500" R | 3.600" | Standard |
| 10-10100 | IN | 1.659" / 42.14mm | 0.3112" | 1.500" R | 3.580" | +1.5mm Oversize |
| 10-4150 | EX | 1.410" / 35.81mm | 0.3107" | 25° | 3.555" | Standard |
| 10-10104 | EX | 1.469" / 37.31mm | 0.3107" | 25° | 3.535" | +1.5mm Oversize |

BSA® • ROCKET III™ • 1969-1972



10-10200



10-10220



10-10212

Lightweight Racing Valve Spring Kit

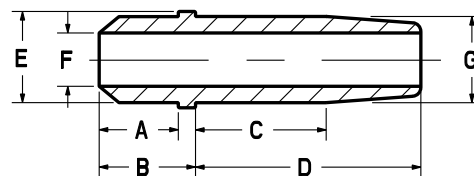
| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|------------|--------------------------------------|-------------------------------|
| 10-10200 | .400" Valve Lift OK 94# Seated Pressure 240 lb. @ .400" lift | 10-10201 Titanium | Use O.E.M. | 10-10203 Chrome Silicon | 10-10205 H.T. Steel |

Black Diamond™ Valves • Black Nitroleg Stems For 1971 - 1973 Models

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|--------|--------|----------|
| 10-10212 | IN | 1.530" / 38.86mm | 0.3097" | 1.5" R | 3.975" | Standard |
| 10-10213 | IN | 1.590" / 40.39mm | 0.3097" | 1.5" R | 3.950" | Oversize |
| 10-10216 | EX | 1.315" / 33.40mm | 0.3092" | 25° | 3.915" | Standard |
| 10-10217 | EX | 1.400" / 35.56mm | 0.3092" | 25° | 3.890" | Oversize |

TRIPLE

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.460" | D | 1.310" |
| B | 0.560" | E | 0.560" |
| C | 0.760" | F | 0.3105" |

Intake/Exhaust - G (Std. 0.5010")

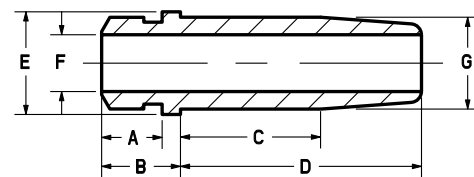
C630 Bronze

| | |
|-----------------|----------|
| 10-10220 | Std. |
| 10-10222 | + 0.002" |
| 10-10230 | + 0.015" |

Valve Seal Guides

| KPMI No. | Seal Type | Quantity |
|----------|-------------------|----------|
| | Seal not required | |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.330" | D | 1.315" |
| B | 0.430" | E | 0.560" |
| C | 0.765" | F | 0.3105" |

Intake/Exhaust - G (Std. 0.5010")

C630 Bronze

| | |
|-----------------|----------|
| 10-10240 | Std. |
| 10-10242 | + 0.002" |
| 10-10244 | + 0.004" |
| 10-10246 | + 0.006" |
| 10-10250 | + 0.015" |

Valve Guide Seals

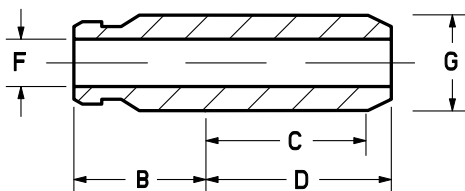
| KPMI No. | Seal Type | Quantity |
|----------------|----------------------------|-----------|
| 70-4009 | In/Ex • Style 1 • Viton | Pkg. of 1 |

Machined for seal. One seal supplied with each guide.

CAN AM® • DS 450™ • 2008-2012

450X/ 450XXC / 450XXM / 450 EFI

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.485" | D | 0.870" |
| B | 0.485" | E | 0.435 |
| C | 0.770" | F | 0.2350" |

Intake / Exhaust - **G** (Std. 0.4363")

C630 Bronze

| | |
|-----------------|----------|
| 91-91120 | Std. |
| 91-91121 | + 0.001" |
| 91-91122 | + 0.002" |
| 91-91129 | + 0.010" |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-----------------|-------------------------------------|-----------|
| 91-91140 | In/Ex • Style 5 Steel Clad Viton | Pkg. of 4 |



91-91100



Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|-------------------------------|
| 91-91100 | In -.450" Valve Lift OK 75# Seated Pressure 235 lb. @ .450" lift | 91-91101 Titanium | Use O.E.M. | 91-91103 Chrome Silicon | 91-91105 H.T. Steel | 91-91107 H.T. Steel |
| | Ex -.450" Valve Lift OK 75# Seated Pressure 235 lb. @ .450" lift | 91-91101 Titanium | Use O.E.M. | 91-91103 Chrome Silicon | 91-91105 H.T. Steel | ----- |

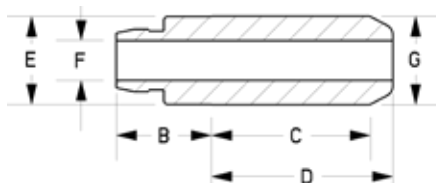
Black Diamond™ Valves • Black Nitroeneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 91-91112 | IN | 38.00mm / 1.496" | 0.2350" | 20° | 3.550" | Standard |
| 91-91113 | IN | 39.00mm / 1.535" | 0.2350" | 20° | 3.550" | Oversize |
| 91-91116 | EX | 31.00mm / 1.220" | 0.2347" | 29° | 3.565" | Standard |
| 91-91117 | EX | 32.00mm / 1.260" | 0.2347" | 29° | 3.565" | Oversize |

CAN AM® • MAVERICK™ • 2013-2014

**NEW
PRODUCT**

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | ----- | D | 0.935" |
| B | 0.515" | E | 0.433 |
| C | 0.745" | F | 0.2155" |

Intake / Exhaust - **G** (Std. 0.4161")

C630 Bronze

| | |
|-----------------|----------|
| 91-91220 | Std. |
| 91-91221 | + 0.001" |
| 91-91222 | + 0.002" |
| 91-91229 | + 0.010" |



91-91200



Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|-----------------|---------------------|-----------------------------|---------------|-----------------------------------|-------------------------------|---------------|
| 91-91200 | .470" Valve Lift OK | 91-91201 Titanium | Use O.E.M. | 91-91203 Chrome Silicon | 91-91205 H.T. Steel | Use O.E.M. |

Black Diamond™ Valves • Black Nitroeneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 91-91212 | IN | 36.50mm / 1.437" | 0.2160" | 14° | 3.620" | Standard |
| 91-91213 | IN | 37.50mm / 1.476" | 0.2160" | 14° | 3.620" | Oversize |
| 91-91216 | EX | 31.00mm / 1.220" | 0.2155" | 25° | 3.515" | Standard |
| 91-91217 | EX | 32.00mm / 1.260" | 0.2155" | 25° | 3.515" | Oversize |



CAN AM® • 400 / 500 / 650 / 800 / 1000 • 2006-2013

Renegade™ / Outlander™ / Commander™



Renegade



Outlander



91-91150

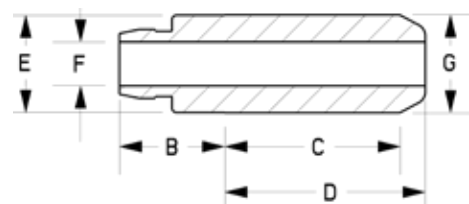


91-91156



91-91170

Valve Guides

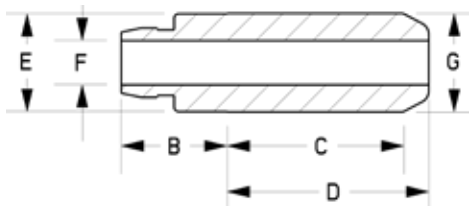


| | | | |
|----------|--------|----------|---------|
| A | 0.470" | D | 0.895" |
| B | 0.470" | E | 0.433" |
| C | 0.780" | F | 0.1958" |

Intake - G (Std. 0.4362")

C630 Bronze

| | |
|-----------------|----------|
| 91-91170 | Std. |
| 91-91171 | + 0.001" |
| 91-91172 | + 0.002" |
| 91-91179 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.470" | D | 0.895" |
| B | 0.470" | E | 0.433" |
| C | 0.680" | F | 0.1953" |

Exhaust - G (Std. 0.4362")

C630 Bronze

| | |
|-----------------|----------|
| 91-91180 | Std. |
| 91-91181 | + 0.001" |
| 91-91182 | + 0.002" |
| 91-91189 | + 0.010" |

Lightweight Racing Valve Spring Kit For Outlander 500 2007-2013

Outlander 650 2006-2013 / Outlander 800 2007-2013

Outlander 1000 2013 / Renegade 500 2008-2013

Renegade 800 2007-2013 / Renegade 1000 2012-2013

Commander 800 2012-2013 / Commander 1000 2012-2013

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|--------------------------------------|-------------------------------|
| 91-91150 | .445" Valve Lift OK 58# Seated Pressure 171 lb. @ .445" lift | 91-91151 Titanium | Use O.E.M. | 91-91153 Chrome Silicon | 91-91155 H.T. Steel |

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

Lightweight Racing Valve Spring Kit For Outlander 400 2006-2013

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|--------------------------------------|-------------------------------|
| 91-91156 | .445" Valve Lift OK 58# Seated Pressure 171 lb. @ .445" lift | 91-91157 Titanium | Use O.E.M. | 91-91159 Chrome Silicon | 91-91161 H.T. Steel |

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

Black Diamond™ Valves • Black Nitro Neg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 91-91162 | IN | 31.12mm / 1.225" | 0.1958" | 22° | 3.585" | Standard |
| 91-91163 | IN | 32.12mm / 1.264" | 0.1958" | 22° | 3.585" | Oversize |
| 91-91166 | EX | 27.00mm / 1.063" | 0.1953" | 16° | 3.520" | Standard |
| 91-91167 | EX | 28.00mm / 1.102" | 0.1953" | 16° | 3.520" | Oversize |



DUCATI® • GT™ 750 / 850 / 880 / 900 / 916 • 1970-1990

DUCATI

H

W

E

B

11

11

11

11

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 **Motorcycle Valvetrain Components**.



92-9600

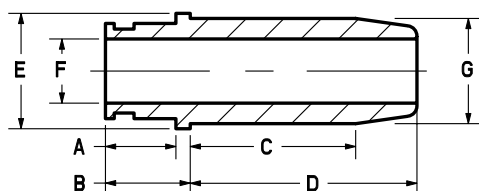


92-9640



92-9620

Valve Guides - GT 750 • 1970



| | | | |
|----------|--------|----------|---------|
| A | 0.345" | D | 1.110" |
| B | 0.415" | E | 0.644" |
| C | 0.810" | F | 0.3140" |

Intake/Exhaust - G (Std. 0.5152")

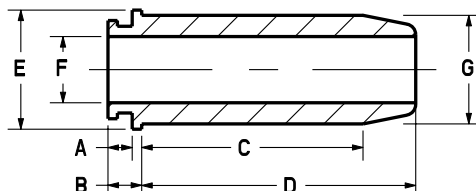
C630 Bronze

| | |
|----------------|----------|
| 92-9600 | Std. |
| 92-9601 | + 0.001" |
| 92-9602 | + 0.002" |
| 92-9604 | + 0.004" |
| 92-9610 | + 0.010" |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|----------|------------|----------|
| | Use O.E.M. | |

Valve Guides - 750 / 900 • 1988 - 1990



| | | | |
|----------|--------|----------|---------|
| A | 0.115" | D | 1.300" |
| B | 0.160" | E | 0.560" |
| C | 1.050" | F | 0.3140" |

Intake/Exhaust - G (Std. 0.5152")

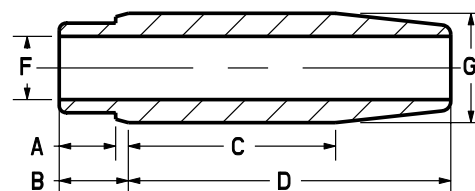
C630 Bronze

| | |
|----------------|----------|
| 92-9640 | Std. |
| 92-9641 | + 0.001" |
| 92-9642 | + 0.002" |
| 92-9644 | + 0.004" |
| 92-9650 | + 0.010" |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|----------|------------|----------|
| | Use O.E.M. | |

Valve Guides - 850 / 880 / 916 • 1988 - 1990



| | | | |
|----------|--------|----------|---------|
| A | 0.245" | D | 1.400" |
| B | 0.300" | E | ----- |
| C | 0.900" | F | 0.2745" |

Intake/Exhaust - G (Std. 0.4745")

C630 Bronze

| | |
|----------------|----------|
| 92-9620 | Std. |
| 92-9621 | + 0.001" |
| 92-9622 | + 0.002" |
| 92-9624 | + 0.004" |
| 92-9630 | + 0.010" |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|----------|------------|----------|
| | Use O.E.M. | |

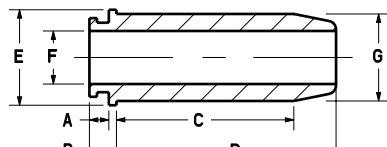
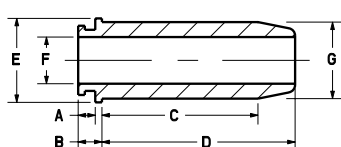


DUCATI® • 800 / 900 • 2000-2007

Black Diamond™™ Valves • Black Nitroleg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------|------|------------------|---------------|-------|--------|----------|
| 92-92012 | IN | 43.00mm / 1.693" | 0.3140" | 22° | 3.825" | Standard |
| 92-92013 | IN | 44.00mm / 1.732" | 0.3140" | 22° | 3.825" | Oversize |
| 92-92016 | EX | 38.00mm / 1.496" | 0.3135" | 22° | 3.730" | Standard |
| 92-92017 | EX | 39.00mm / 1.535" | 0.3135" | 22° | 3.730" | Oversize |

Valve Guides



| | | | | | | | |
|---------------------------|----------|----------|---------|----------------------------|----------|----------|---------|
| A | 0.165" | D | 1.290" | A | 0.125" | D | 1.250" |
| B | 0.205" | E | 0.560" | B | 0.165" | E | 0.560" |
| C | 0.855" | F | 0.3145" | C | 0.855" | F | 0.3140" |
| Intake - G (Std. 0.5147") | | | | Exhaust - G (Std. 0.5147") | | | |
| C630 Bronze | | | | C630 Bronze | | | |
| 92-92020 | Std. | | | 92-92030 | Std. | | |
| 92-92021 | + 0.001" | | | 92-92031 | + 0.001" | | |
| 92-92022 | + 0.002" | | | 92-92032 | + 0.002" | | |
| 92-92029 | + 0.010" | | | 92-92039 | + 0.010" | | |

Use O.E.M. valve guide seals.



92-92012



92-92016



92-92020



92-92030

DUCATI® • SHIM KIT

Ducati Shim Kit

| KPMI No. | Models/Years | Quantity |
|----------|--|--|
| 92-92300 | Fits all years and two valve models except 1000cc, 1100cc, and Multistrada | Single Kit / 37 pcs. ----- 15 Closers / 21 Openers |

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.



**NEW
PRODUCT**

**37 Piece Kit
Multiple Openers / Closers**



DUCATI® • SHIM KIT

**NEW
PRODUCT**



KPMI® Closer



KPMI® Opener

- 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 with black oxide for corrosion resistance and durability.

Individual Closers

| KPMI No. | Size Range |
|----------|------------|
| 92-92255 | 5.50mm |
| 92-92256 | 5.60mm |
| 92-92257 | 5.70mm |
| 92-92258 | 5.80mm |
| 92-92259 | 5.90mm |
| 92-92260 | 6.00mm |
| 92-92261 | 6.10mm |
| 92-92262 | 6.20mm |
| 92-92263 | 6.30mm |
| 92-92264 | 6.40mm |
| 92-92265 | 6.50mm |
| 92-92266 | 6.60mm |
| 92-92267 | 6.70mm |
| 92-92268 | 6.80mm |
| 92-92269 | 6.90mm |
| 92-92270 | 7.00mm |
| 92-92271 | 7.10mm |
| 92-92272 | 7.20mm |
| 92-92273 | 7.30mm |
| 92-92274 | 7.40mm |
| 92-92275 | 7.50mm |
| 92-92276 | 7.60mm |
| 92-92277 | 7.70mm |
| 92-92278 | 7.80mm |
| 92-92279 | 7.90mm |
| 92-92280 | 8.00mm |

Individual Openers

| KPMI No. | Size Range |
|----------|------------|
| 92-92120 | 2.00mm |
| 92-92121 | 2.10mm |
| 92-92122 | 2.20mm |
| 92-92123 | 2.30mm |
| 92-92124 | 2.40mm |
| 92-92125 | 2.50mm |
| 92-92126 | 2.60mm |
| 92-92127 | 2.70mm |
| 92-92128 | 2.80mm |
| 92-92129 | 2.90mm |
| 92-92130 | 3.00mm |
| 92-92131 | 3.10mm |
| 92-92132 | 3.20mm |
| 92-92133 | 3.30mm |
| 92-92134 | 3.40mm |
| 92-92135 | 3.50mm |
| 92-92136 | 3.60mm |
| 92-92137 | 3.70mm |
| 92-92138 | 3.80mm |
| 92-92139 | 3.90mm |
| 92-92140 | 4.00mm |
| 92-92141 | 4.10mm |
| 92-92142 | 4.20mm |
| 92-92143 | 4.30mm |
| 92-92144 | 4.40mm |
| 92-92145 | 4.50mm |

Individual Openers

| KPMI No. | Size Range |
|----------|------------|
| 92-92146 | 4.60mm |
| 92-92147 | 4.70mm |
| 92-92148 | 4.80mm |
| 92-92149 | 4.90mm |
| 92-92150 | 5.00mm |
| 92-92151 | 5.10mm |
| 92-92152 | 5.20mm |
| 92-92153 | 5.30mm |
| 92-92154 | 5.40mm |
| 92-92155 | 5.50mm |
| 92-92156 | 5.60mm |
| 92-92157 | 5.70mm |
| 92-92158 | 5.80mm |
| 92-92159 | 5.90mm |
| 92-92160 | 6.00mm |
| 92-92161 | 6.10mm |
| 92-92162 | 6.20mm |
| 92-92163 | 6.30mm |

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 **Motorcycle Valvetrain Components**.

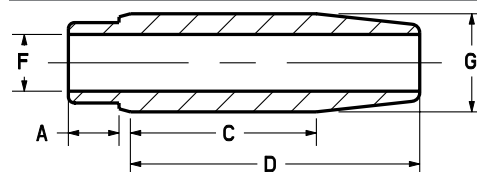


Hypermotard™ 1100 / Monster™ 1000 / Multistrada™ 1000 Sport GT™ 1000 / Supersport™ 1000



KIBBLEWHITE
AMERICAN MADE & TESTED

Valve Guides

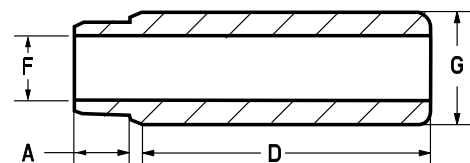


| | | | |
|----------|--------|----------|---------|
| A | 0.235" | D | 1.270" |
| B | ----- | E | 0.383" |
| C | 1.010" | F | 0.2750" |

Intake - G (Std. 0.4744")

C630 Bronze

| | |
|-----------------|----------|
| 92-92070 | Std. |
| 92-92071 | + 0.001" |
| 92-92072 | + 0.002" |
| 92-92079 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.235" | D | 1.280" |
| B | ----- | E | ----- |
| C | ----- | F | 0.2745" |

Exhaust - G (Std. 0.4744")

C630 Bronze

| | |
|-----------------|----------|
| 92-92080 | Std. |
| 92-92081 | + 0.001" |
| 92-92082 | + 0.002" |
| 92-92089 | + 0.010" |

Use O.E.M. valve guide seals.



92-92070



92-92062
Groove
Detail



92-92062

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 92-92062 | IN | 45.00mm / 1.772" | 0.2746" | 22° | 3.830" | Standard |
| 92-92063 | IN | 46.00mm / 1.811" | 0.2746" | 22° | 3.830" | Oversize |
| 92-92066 | EX | 40.00mm / 1.575" | 0.2741" | 22° | 3.770" | Standard |
| 92-92067 | EX | 41.00mm / 1.614" | 0.2741" | 22° | 3.770" | Oversize |



HARLEY-DAVIDSON® • FLATHEAD™ • 1930-1973

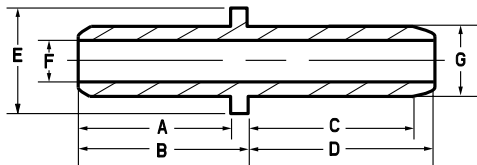


20-20750
45" Models



20-20760
74"-80" Models

Valve Guides 45" Flathead Models



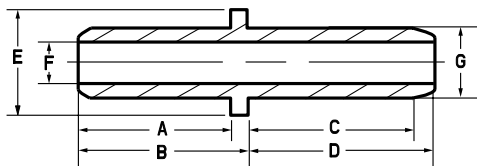
| | | | |
|----------|--------|----------|---------|
| A | 1.200" | D | 1.470" |
| B | 1.330" | E | 0.855" |
| C | 1.310" | F | 0.3395" |

Intake / Exhaust - **G** (Std. 0.5647")

Cast Iron

| | |
|-----------------|----------|
| 20-20750 | Std. |
| 20-20751 | + 0.001" |
| 20-20752 | + 0.002" |
| 20-20759 | + 0.010" |

Valve Guides 74"-80" Flathead Models



| | | | |
|----------|--------|----------|---------|
| A | 1.120" | D | 1.860" |
| B | 1.275" | E | 0.935" |
| C | 1.630" | F | 0.3715" |

Intake / Exhaust - **G** (Std. 0.5952")

Cast Iron

| | |
|-----------------|----------|
| 20-20760 | Std. |
| 20-20761 | + 0.001" |
| 20-20762 | + 0.002" |
| 20-20769 | + 0.010" |



For years, we've made custom flathead components for builders restoring and racing their engines. Now, we have the most popular valves and guides on the shelf ready to go.

The One Piece forged KPMI® Black Diamond valves made from 21-4N stainless, with their hard, smooth surface finish, are particularly well suited for the high temps and poor oiling that exist in the top ends of these engines. These valves are fully machined and held to the same tight tolerancing as all KPMI® valves.

And our guides are made from our proprietary cast iron blend, and held to tight ID, OD and concentricity call outs.



20-20480



20-20740



20-20742

O.E.M. Replacement Valve Spring Kit for 74" and 80" Models

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shim |
|-----------------|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------------|-------------------------------|
| 20-20480 | .375" Valve Lift OK 60#-65# seat pressure 130#-135# @ .375" lift | 20-20481 H.T. Steel | 20-20489 H.T. Steel | 20-20483 Chrome Silicon | 20-20485 H.T. Steel | 20-20487 H.T. Steel |

Some models may require shim# 20-20487 to achieve recommended installed ht.

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|-------|------------------|---------------|---------|--------|--------------|
| 20-20740 | IN/EX | 1.625" / 41.28mm | 0.3395" | R 0.540 | 5.585" | 45" Standard |
| 20-20742 | IN/EX | 1.930" / 49.02mm | 0.3715" | 7° | 6.280" | UL 74"-80" |
| 20-20743 | IN/EX | 2.050" / 52.07mm | 0.3715" | 7° | 6.280" | UL 74"-80" |
| 20-20744 | IN/EX | 1.930" / 49.02mm | 0.3715" | 7° | 5.940" | VL 74"-80" |
| 20-20745 | IN/EX | 2.050" / 52.07mm | 0.3715" | 7° | 5.940" | VL 74"-80" |



HARLEY-DAVIDSON® • KNUCKLEHEAD™ • 1936-1947

HARLEY-DAVIDSON



20-20414

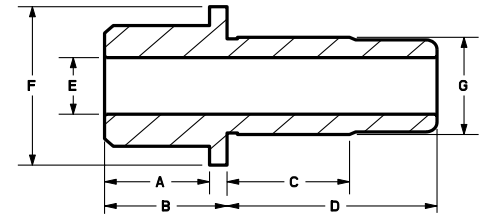


20-4096C



20-20170

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.600" | D | 1.200" |
| B | 0.700" | E | 1.050" |
| C | 0.700" | F | 0.3755" |

Intake / Exhaust - G (Std. 0.6440")

Cast Iron

| | |
|-----------------|----------|
| 20-4095C | Std. |
| 20-4096C | + 0.002" |
| 20-4097C | + 0.004" |
| 20-4098C | + 0.006" |
| 20-4099C | + 0.008" |
| 20-4100C | + 0.025" |

Clutch Springs

| KPMI No. | Description | Quantity |
|----------------|-------------------|------------|
| 20-0788 | Replaces 38075-41 | Pkg. of 10 |

High Performance Wrist Pin Bushings Knucklehead • Panhead Shovelhead • Evolution

| KPMI No. | Size | Quantity |
|----------------|---------|-----------|
| 20-0645 | Std. OD | Pkg. of 1 |

Kibblewhite® 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.

Engine Builder Series Wrist Pin Bushings

| KPMI No. | Size | Quantity |
|-----------------|------------|-----------|
| 20-20570 | Std. OD | Pkg. of 2 |
| 20-20572 | +0.002" OD | Pkg. of 2 |
| 20-20580 | Std. OD | Pkg. of 1 |
| 20-20582 | +0.002" OD | 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.

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-------------------------------|-------------------------------|-----------------------------------|-----------------|
| 20-20170 | .480" Valve Lift OK 150-160lb. Seat Pressure 340-350 lb. @ .480" lift | 20-20171 H.T. Steel | 20-20172 H.T. Steel | 20-20174 Chrome Silicon | 20-20173 |

Spring kit must be used with Kibblewhite® guides, or the tops of your guides must be machined to use this kit. Machining Instructions included with kit, or check our website www.kpmi.us for current info.

O.E.M. Replacement Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------------|
| 20-20425 | .415" Valve Lift OK 125-135lb. Seat Pressure 265-275lb. @ .415" lift | 20-20426 H.T. Steel | 20-20429 H.T. Steel | 20-20427 Chrome Silicon | 20-20428 H.T. Steel |

All components are the quality you can expect from Kibblewhite®, manufactured to exact O.E.M. specifications. These O.E.M. replacements parts may be purchased separately using the above part numbers.

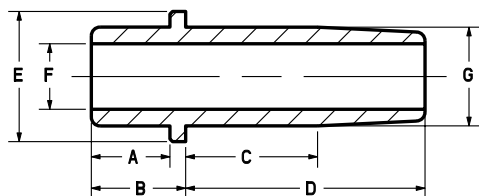
Black Diamond™ Valves • Black Nitroleg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|---------------------|
| 20-4101 | IN | 1.750" / 44.45mm | 0.3765" | 23° | 3.590" | Std. (OEM 18071-36) |
| 20-20414 | IN | 1.940" / 49.28mm | 0.3765" | 23° | 3.590" | Oversize |
| 20-4102 | EX | 1.750" / 44.45mm | 0.3760" | 27° | 3.670" | Std. (OEM 18081-36) |



HARLEY-DAVIDSON® • PANHEAD™ • 1948-1965

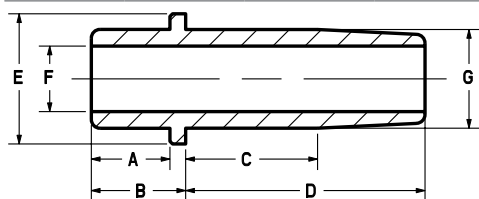
Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.450" | D | 1.370" |
| B | 0.540" | E | 0.745" |
| C | 0.755" | F | 0.3745" |

Intake - G (Std. 0.5650")

| C630 Bronze | Cast Iron | *Manganese | |
|-------------|-----------|------------|----------|
| 20-2020 | 20-2020C | 20-2020M | Std. |
| 20-2021 | 20-2021C | 20-2021M | + 0.001" |
| 20-2022 | 20-2022C | 20-2022M | + 0.002" |
| 20-2023 | 20-2023C | 20-2023M | + 0.003" |
| 20-2024 | 20-2024C | 20-2024M | + 0.004" |
| 20-2026 | 20-2026C | 20-2026M | + 0.006" |
| 20-2028 | 20-2028C | 20-2028M | + 0.008" |
| 20-2029 | 20-2029C | 20-2029M | + 0.010" |
| 20-20HS | 20-20HSC | 20-20HSM | + 0.025" |



| | | | |
|----------|--------|----------|---------|
| A | 0.450" | D | 1.315" |
| B | 0.540" | E | 0.745" |
| C | 0.855" | F | 0.3735" |

Exhaust - G (Std. 0.5650")

| C630 Bronze | Cast Iron | *Manganese | |
|-------------|-----------|------------|----------|
| 20-2030 | 20-2030C | 20-2030M | Std. |
| 20-2031 | 20-2031C | 20-2031M | + 0.001" |
| 20-2032 | 20-2032C | 20-2032M | + 0.002" |
| 20-2033 | 20-2033C | 20-2033M | + 0.003" |
| 20-2034 | 20-2034C | 20-2034M | + 0.004" |
| 20-2036 | 20-2036C | 20-2036M | + 0.006" |
| 20-2038 | 20-2038C | 20-2038M | + 0.008" |
| 20-2039 | 20-2039C | 20-2039M | + 0.010" |
| 20-30HS | 20-30HSC | 20-30HSM | + 0.025" |

* See KPMI® Ball Hone and Reamer (Pg.179) section in back of catalog for more information.



20-20430

20-20100

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------|--|------------------------|------------------------|----------------------------|------------------------|
| *20-20100 | .600" Valve Lift OK 150-160 lb. Seat Pressure 395-405 lb. @ .600" lift | 20-20101 Titanium | 20-20102 H.T. Steel | 20-20103 Chrome Silicon | 20-20104 H.T. Steel |
| *20-20445 | .600" Valve Lift OK 155-165 lb. Seat Pressure 395-405 lb. @ .600" lift | 20-20446 H.T. Steel | 20-20102 H.T. Steel | 20-20103 Chrome Silicon | 20-20104 H.T. Steel |

*These spring kits are designed to work with factory covers with no clearance issues.

O.E.M. Replacement Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------|--|------------------------|------------------------|----------------------------|------------------------|
| 20-20455 | .415" Valve Lift OK 125-135 lb. Seat Pressure 265-275 lb. @ .415" lift | 20-20105 Titanium | 20-20434 H.T. Steel | 20-20432 Chrome Silicon | 20-20433 H.T. Steel |
| 20-20430 | .415" Valve Lift OK 125-135 lb. Seat Pressure 265-275 lb. @ .415" lift | 20-20431 H.T. Steel | 20-20434 H.T. Steel | 20-20432 Chrome Silicon | 20-20433 H.T. Steel |

All components are the quality you can expect from Kibblewhite®, manufactured to exact O.E.M. specifications. These O.E.M. replacements parts may be purchased separately using the above part numbers.

Black Diamond™ Valves • Black Nitroleg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------|------|------------------|---------------|-------|--------|------------------------|
| 20-4257 | IN | 1.750" / 44.45mm | 0.3765" | 23° | 3.800" | Std. (OEM 18071-48) |
| 20-4195 | EX | 1.750" / 44.45mm | 0.3760" | 29° | 3.820" | Std. (OEM 18082-57) |

Recommended Valve Guide Seals

| KPMI No. | Type of Seal | Guide Top Diameter | Quantity |
|----------|---|--------------------|-----------|
| 20-2016 | In / Ex • Style 5 • Steel Clad Viton | 0.565" | Pkg. of 4 |
| 20-2002 | In / Ex • Style 6 Solid White PC-Styled Seal | 0.565" | Pkg. of 4 |



HARLEY-DAVIDSON® • PANHEAD™ • 1948-1965

HARLEY-DAVIDSON



20-2020



20-2020C



20-2020M



20-20570



20-0788



10-SC510



20-20631 20-20639 20-20623

Exhaust Spigot

| KPMI No. | Models | Quantity |
|----------------|----------------|-----------|
| 20-2104 | Fits All Years | 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.

Clutch Springs

| KPMI No. | Description | Quantity |
|----------------|-------------------|------------|
| 20-0788 | Replaces 38075-41 | Pkg. of 10 |

Engine Builder Series Wrist Pin Bushings

| KPMI No. | Size | Quantity |
|-----------------|------------|-----------|
| 20-20570 | Std. OD | Pkg. of 2 |
| 20-20572 | +0.002" OD | Pkg. of 2 |
| 20-20580 | Std. OD | Pkg. of 1 |
| 20-20582 | +0.002" OD | 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.

Recommended Valve Seats (Powdered Metal)

| KPMI No. | OD ±.0002 | ID ±.0005 | HT ±.0005 | Type |
|-----------------|--------------|--------------|--------------|---------|
| 10-SC510 | 2.0070" | 1.562" | 0.450" | In / Ex |

Kibblewhite'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. See page 197 for a complete listing of Kibblewhite® valve seats.

High Performance Wrist Pin Bushings Knucklehead • Panhead Shovelhead • Evolution

| KPMI No. | Size | Quantity |
|----------------|---------|-----------|
| 20-0645 | Std. OD | Pkg. of 1 |

Kibblewhite® 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.

O.E.M. Replacement Seals

| KPMI No. | Guide Ø | Stem Ø | Quantity |
|---------------------|---------|--------|-------------|
| 20-20623 | 0.562" | 0.375" | Pkg. of 1 |
| 20-20623-25 | 0.562" | 0.375" | Pkg. of 25 |
| 20-20623-100 | 0.562" | 0.375" | Pkg. of 100 |

Seal Installation Tools

| KPMI No. | Fits | Quantity |
|-----------------|----------|-----------|
| 20-20631 | 20-20623 | Pkg. of 1 |

Installation Protectors

| KPMI No. | Stem Diameter | Quantity |
|-----------------|---------------|-----------|
| 20-20639 | 0.375" | Pkg. of 1 |
| 20-20636 | 0.375" | Pkg. of 2 |

Replacement Lower Collars (H.T. Steel)

| KPMI No. | Type | Quantity |
|----------------|--------------|-----------|
| 20-2111 | O.E.M. Style | Pkg. of 4 |

Machined to fit .725" Ø seal. Lower collar counter bored to allow for greater retainer to seal clearance.



HARLEY-DAVIDSON® • SPORTSTER™ • 1957-1969

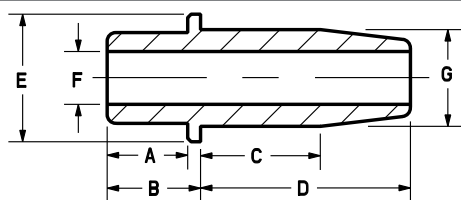


20-20440



HARLEY-DAVIDSON

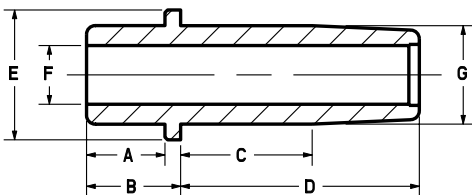
Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.470" | D | 1.225" |
| B | 0.545" | E | 0.745" |
| C | 0.700" | F | 0.3085" |

Intake - G (Std. 0.5650")

| C630 Bronze | | Cast Iron | |
|----------------|----------|-----------------|----------|
| 20-2320 | Std. | 20-2320C | Std. |
| 20-2321 | + 0.001" | 20-2321C | + 0.001" |
| 20-2322 | + 0.002" | 20-2322C | + 0.002" |
| 20-2329 | + 0.010" | 20-2329C | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.470" | D | 1.225" |
| B | 0.545" | E | 0.745" |
| C | 0.600" | F | 0.3375" |

Exhaust - G (Std. 0.5650")

| C630 Bronze | | Cast Iron | |
|----------------|----------|-----------------|----------|
| 20-2330 | Std. | 20-2330C | Std. |
| 20-2331 | + 0.001" | 20-2331C | + 0.001" |
| 20-2332 | + 0.002" | 20-2332C | + 0.002" |
| 20-2339 | + 0.010" | 20-2339C | + 0.010" |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|--|------------------------------|------------------------------|----------------------------------|------------------------------|
| 20-2210 | .480" Valve Lift OK Seat Pressure 155-165 lb. 340-350 lb. @ .480" lift | 20-2211 H.T. Steel | 20-2213 H.T. Steel | 20-2214 Chrome Silicon | 20-2212 H.T. Steel |

May require "R" model valves to achieve installed height. Kibblewhite® recommends using valves with a longer OL. **Part numbers # 20-4167 (Intake) and 20-4168 (Exhaust).**

OEM Replacement Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-------------------------------|------------------------------|----------------------------------|-------------------------------|
| 20-20440 | .400" Valve Lift OK Seat Pressure 90-100 lb. 330-340 lb. @ .400" lift | 20-20441 H.T. Steel | 20-4275 H.T. Steel | 20-2215 Chrome Silicon | 20-20085 H.T. Steel |

All components are the quality you can expect from Kibblewhite®, manufactured to exact O.E.M. specifications. These O.E.M. replacements parts may be purchased separately using the above part numbers.

Black Diamond™ Valves • Black Nitroleg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|-------|--------|-----------------------------|
| 20-4258 | IN | 1.825" / 46.36mm | 0.3095" | 23° | 3.565" | Standard (OEM 18071-58) |
| 20-4197 | EX | 1.570" / 39.88mm | 0.3384" | 29° | 3.510" | Standard (OEM 18080-58R) |
| 20-4197-1 | EX | 1.630" / 41.40mm | 0.3384" | 29° | 3.510" | Oversize |

For all the applications available for Kibblewhite's Harley-Davidson® line of products, please refer online to the Harley-Davidson® section of the

www.kpmi.us website,
under **Motorcycle Valvetrain Components.**



HARLEY-DAVIDSON® • SPORTSTER™ • 1957-1969

HARLEY-DAVIDSON

B

L

E

W

H

A

M

E

20



20-2331



20-2320C



20-0644



20-4197



20-4258



20-2106



20-20630



20-20637



20-20638



20-20621



20-20622

Rocker Arm Bushings

| KPMI No. | Models | Size | Quantity |
|----------|----------------|--------------|-----------|
| 20-2106 | All Sportsters | OD - 0.6795" | Pkg. of 8 |

Made from US Mill Certified SAE 660 Bearing Bronze Bar Stock.

High Performance Wrist Pin Bushings 1957-1983 Ironhead Sportster

| KPMI No. | Size | Quantity |
|----------|-------------------|-----------|
| 20-0644 | Std. OD - 0.8972" | Pkg. of 1 |

Kibblewhite® 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.

Recommended Valve Seats (Powdered Metal)

| KPMI No. | OD ±.0002 | ID ±.0005 | HT ±.0005 | Type |
|----------|--------------|--------------|--------------|------|
| 10-SC541 | 2.1320" | 1.690" | 0.450" | In |
| 10-SC446 | 1.7570" | 1.375" | 0.450" | Ex |

Kibblewhite'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. See page 184 for a complete listing of Kibblewhite® valve seats.

Installation Protectors

| KPMI No. | Stem Diameter | Type | Quantity |
|----------|---------------|------|-----------|
| 20-20637 | 0.3125" | IN | Pkg. of 1 |
| 20-20634 | 0.3125" | IN | Pkg. of 2 |
| 20-20638 | 0.3437" | EX | Pkg. of 1 |
| 20-20635 | 0.3437" | EX | Pkg. of 2 |

O.E.M. Replacement Seals

| KPMI No. | Guide Ø | Stem Ø | Quantity |
|--------------|---------|---------|-------------|
| 20-20621 | 0.530" | 0.3125" | Pkg. of 1 |
| 20-20621-25 | 0.530" | 0.3125" | Pkg. of 25 |
| 20-20621-100 | 0.530" | 0.3125" | Pkg. of 100 |
| 20-20622 | 0.530" | 0.3437" | Pkg. of 1 |
| 20-20622-25 | 0.530" | 0.3437" | Pkg. of 25 |
| 20-20622-100 | 0.530" | 0.3437" | Pkg. of 100 |

Seal Installation Tools

| KPMI No. | Fits | Quantity |
|----------|----------------------|-----------|
| 20-20630 | 20-20621 20-20622 | Pkg. of 1 |



HARLEY-DAVIDSON® • SPORTSTER™ • 1970-1983

HARLEY-DAVIDSON



20-2321

20-2321C

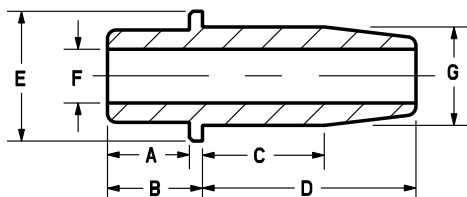


20-2210



20-20440

Valve Guides



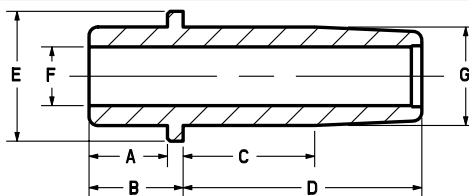
| | | | |
|----------|--------|----------|---------|
| A | 0.470" | D | 1.225" |
| B | 0.545" | E | 0.745" |
| C | 0.700" | F | 0.3085" |

Intake - G (Std. 0.5650")

C630 Bronze

Cast Iron

| | | | |
|---------|----------|----------|----------|
| 20-2320 | Std. | 20-2320C | Std. |
| 20-2321 | + 0.001" | 20-2321C | + 0.001" |
| 20-2322 | + 0.002" | 20-2322C | + 0.002" |
| 20-2329 | + 0.010" | 20-2329C | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.470" | D | 1.225" |
| B | 0.545" | E | 0.745" |
| C | 0.600" | F | 0.3375" |

Exhaust - G (Std. 0.5650")

C630 Bronze

Cast Iron

| | | | |
|---------|----------|----------|----------|
| 20-2330 | Std. | 20-2330C | Std. |
| 20-2331 | + 0.001" | 20-2331C | + 0.001" |
| 20-2332 | + 0.002" | 20-2332C | + 0.002" |
| 20-2339 | + 0.010" | 20-2339C | + 0.010" |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------|---|-----------------------|-----------------------|---------------------------|-----------------------|
| 20-2210 | .480" Valve Lift OK Seat Pressure 155-165 lb. 340-350 lb @ .480" lift | 20-2211 H.T. Steel | 20-2213 H.T. Steel | 20-2214 Chrome Silicon | 20-2212 H.T. Steel |

May require "R" model valves to achieve installed height. Kibblewhite® recommends using valves with a longer OL. Part numbers # 20-4167 (Intake) and # 20-4168 (Exhaust).

OEM Replacement Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------|--|------------------------|-----------------------|---------------------------|------------------------|
| 20-20440 | .400" Valve Lift OK Seat Pressure 90-100 lb. 330-340 lb @ .400" lift | 20-20441 H.T. Steel | 20-4275 H.T. Steel | 20-2215 Chrome Silicon | 20-20085 H.T. Steel |

All components are the quality you can expect from Kibblewhite®, manufactured to exact O.E.M. specifications. These O.E.M. replacements parts may be purchased separately using the above part numbers.

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------|------|------------------|---------------|-------|--------|-----------------------------|
| 20-4196 | IN | 1.935" / 49.15mm | 0.3090" | 23° | 3.620" | Standard (OEM 18070-70) |
| 20-4167 | IN | 1.950" / 49.53mm | 0.3090" | 23° | 3.690" | Standard (OEM 18069-65R) |
| 20-4196-1 | IN | 2.000" / 50.80mm | 0.3090" | 23° | 3.620" | Oversize |
| 20-4197 | EX | 1.570" / 39.88mm | 0.3384" | 29° | 3.510" | Standard (OEM 18080-58R) |
| 20-4197-1 | EX | 1.630" / 41.40mm | 0.3384" | 29° | 3.510" | Oversize |
| 20-4168 | EX | 1.750" / 44.45mm | 0.3384" | 29° | 3.620" | Standard (OEM 18080-70R) |

For all the applications available for Kibblewhite's Harley-Davidson® line of products, please refer online to the Harley-Davidson® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.



HARLEY-DAVIDSON® • SPORTSTER™ • 1970-1983

HARLEY-DAVIDSON

**Check Out
Our Complete
Line of Parts
On The Web!**



20-0787



10-SC446



20-2106

**NEW
PRODUCT**



20-20630



20-20637



20-20638



20-20621



20-20622

Clutch Springs

| KPMI No. | Description | Quantity |
|----------------|-------------------|-----------|
| 20-0787 | Replaces 38075-68 | Pkg. of 1 |

Recommended Valve Seats (Powdered Metal)

| KPMI No. | OD ±.0002 | ID ±.0005 | HT ±.0005 | Type |
|-----------------|--------------|--------------|--------------|------|
| 10-SC541 | 2.1320" | 1.690" | 0.450" | In |
| 10-SC446 | 1.7570" | 1.375" | 0.450" | Ex |

Kibblewhite'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. See page 184 for a complete listing of Kibblewhite® valve seats.

High Performance Wrist Pin Bushings

1957-1983 Ironhead Sportster

| KPMI No. | Size | Quantity |
|----------------|-------------------|-----------|
| 20-0644 | Std. OD - 0.8972" | Pkg. of 1 |

Kibblewhite® 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.

Rocker Arm Bushings

| KPMI No. | Models | Size | Quantity |
|----------------|----------------|--------------|-----------|
| 20-2106 | All Sportsters | OD - 0.6795" | Pkg. of 8 |

Made from US Mill Certified SAE 660 Bearing Bronze Bar Stock.

O.E.M. Replacement Seals

| KPMI No. | Guide Ø | Stem Ø | Quantity |
|---------------------|---------|---------|-------------|
| 20-20621 | 0.530" | 0.3125" | Pkg. of 1 |
| 20-20621-25 | 0.530" | 0.3125" | Pkg. of 25 |
| 20-20621-100 | 0.530" | 0.3125" | Pkg. of 100 |
| 20-20622 | 0.530" | 0.3437" | Pkg. of 1 |
| 20-20622-25 | 0.530" | 0.3437" | Pkg. of 25 |
| 20-20622-100 | 0.530" | 0.3437" | Pkg. of 100 |

Seal Installation Tools

| KPMI No. | Fits | Quantity |
|-----------------|----------------------|-----------|
| 20-20630 | 20-20621 20-20622 | Pkg. of 1 |

Installation Protectors

| KPMI No. | Stem Diameter | Type | Quantity |
|-----------------|---------------|------|-----------|
| 20-20637 | 0.3125" | IN | Pkg. of 1 |
| 20-20634 | 0.3125" | IN | Pkg. of 2 |
| 20-20638 | 0.3437" | EX | Pkg. of 1 |
| 20-20635 | 0.3437" | EX | Pkg. of 2 |

From Motosport.com Forum

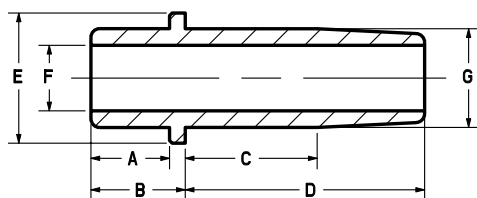
These valves are great. When first installed they have around a 5 hr break in period. After the valves settle and seat they are by far the best valves i have ever installed. I installed them in my 05 CRF 450 that has many motor mods because i kept stretching titanium valves. There is no power difference what so ever and with 20 hours on the new valves they have not stretched even .001 inch. GREAT PRODUCT!



HARLEY-DAVIDSON® • SHOVELHEAD™ 74" • 1966-1977

**NEW
PRODUCT**

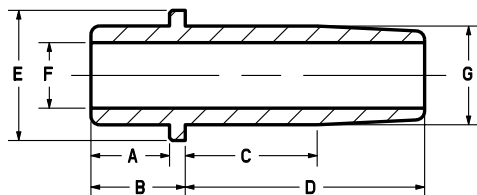
Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.450" | D | 1.370" |
| B | 0.540" | E | 0.745" |
| C | 0.755" | F | 0.3745" |

Intake - G (Std. 0.5650")

| C630 Bronze | Cast Iron | *Manganese | |
|----------------|--------------|------------|----------|
| 20-2020 | 20-2020C | 20-2020M | Std. |
| 20-2021 | 20-2021C | 20-2021M | + 0.001" |
| 20-2022 | 20-2022C | 20-2022M | + 0.002" |
| 20-2023 | 20-2023C | 20-2023M | + 0.003" |
| 20-2024 | 20-2024C | 20-2024M | + 0.004" |
| 20-2026 | 20-2026C | 20-2026M | + 0.006" |
| 20-2028 | 20-2028C | 20-2028M | + 0.008" |
| 20-2029 | 20-2029C | 20-2029M | + 0.010" |
| 20-20HS | 20-20HSC | 20-20HSM | + 0.025" |



| | | | |
|----------|--------|----------|---------|
| A | 0.450" | D | 1.315" |
| B | 0.540" | E | 0.745" |
| C | 0.855" | F | 0.3735" |

Exhaust - G (Std. 0.5650")

| C630 Bronze | Cast Iron | *Manganese | |
|----------------|--------------|------------|----------|
| 20-2030 | 20-2030C | 20-2030M | Std. |
| 20-2031 | 20-2031C | 20-2031M | + 0.001" |
| 20-2032 | 20-2032C | 20-2032M | + 0.002" |
| 20-2033 | 20-2033C | 20-2033M | + 0.003" |
| 20-2034 | 20-2034C | 20-2034M | + 0.004" |
| 20-2036 | 20-2036C | 20-2036M | + 0.006" |
| 20-2038 | 20-2038C | 20-2038M | + 0.008" |
| 20-2039 | 20-2039C | 20-2039M | + 0.010" |
| 20-30HS | 20-30HSC | 20-30HSM | + 0.025" |

* See KPML® Ball Hone and Reamer (Pg.179) section in back of catalog for more information.



20-20435



20-2020



20-2020C



20-2020M

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------|--|-------------------------|-----------------------|---------------------------|-----------------|
| 20-2110 | .600" Valve Lift OK Seat Pressure 155-165 lb. 390-400 lb. @ .600" lift | 20-4248 H.A. 7075-T6 | 20-2100 H.T. Steel | 20-2000 Chrome Silicon | * Use O.E.M. |
| 20-2115 | .600" Valve Lift OK Seat Pressure 155-165 lb. 390-400 lb. @ .600" lift | 20-2116 Titanium | 20-2100 H.T. Steel | 20-2000 Chrome Silicon | * Use O.E.M. |
| 20-20450 | .600" Valve Lift OK Seat Pressure 155-165 lb. 390-400 lb. @ .600" lift | 20-20451 H.T. Steel | 20-2100 H.T. Steel | 20-2000 Chrome Silicon | * Use O.E.M. |

OEM Replacement Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------|--|------------------------|------------------------|----------------------------|------------------------|
| 20-20435 | .415" Valve Lift OK Seat Pressure 125-135 lb. 265-275 lb. @ .415" lift | 20-20436 H.T. Steel | 20-20439 H.T. Steel | 20-20437 Chrome Silicon | 20-20438 H.T. Steel |
| 20-20460 | .415" Valve Lift OK Seat Pressure 125-135 lb. 265-275 lb. @ .415" lift | 20-20105 Titanium | 20-20439 H.T. Steel | 20-20437 Chrome Silicon | 20-20438 H.T. Steel |

All components are the quality you can expect from Kibblewhite®, manufactured to exact O.E.M. specifications. These O.E.M. replacement parts may be purchased separately using the above part numbers.

Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------|------|------------------|---------------|-------|--------|----------------------------|
| 20-4194 | IN | 1.950" / 49.53mm | 0.3765" | 23° | 3.885" | Standard (OEM 18078-80) |
| 20-4256 | IN | 2.000" / 50.80mm | 0.3765" | 23° | 3.885" | Oversize |
| 20-4195 | EX | 1.750" / 44.45mm | 0.3760" | 29° | 3.820" | Standard (OEM 18082-57) |
| 20-4195S | EX | 1.780" / 45.21mm | 0.3760" | 29° | 3.820" | Oversize |
| 20-4195-1 | EX | 1.812" / 46.02mm | 0.3760" | 29° | 3.820" | Oversize |

Recommended Valve Guide Seals

| KPMI No. | Type of Seal | Guide Top Diameter | Quantity |
|----------|---|--------------------|-----------|
| 20-2016 | In / Ex • Style 5 • Steel Clad Viton | 0.565" | Pkg. of 4 |
| 20-2002 | In / Ex • Style 6 Solid White PC-Styled Seal | 0.565" | Pkg. of 4 |



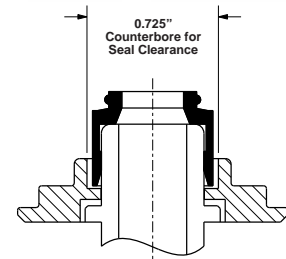
HARLEY-DAVIDSON® • SHOVELHEAD™ 74" • 1966-1977



20-2107



20-20570



20-2111



10-SC550



20-0789



20-20631



20-20639



20-20623



Kicker Shaft Bushings & Seal

| KPMI No. | Type | Quantity |
|----------------|--------------|---------------|
| 20-2107 | Std. 0.9355" | Pkg. of 1pair |
| 20-2108 | +0.005" O.D. | Pkg. of 1pair |

Single package include 2 bushings & 1 seal.

Recommended Valve Seats (Powdered Metal)

| KPMI No. | OD ±.0002 | ID ±.0005 | HT ±.0005 | Type |
|-----------------|--------------|--------------|--------------|------|
| 10-SC550 | 2.1640" | 1.750" | 0.450" | In |
| 10-SC523 | 2.0600" | 1.562" | 0.450" | Ex |

Kibblewhite'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. See page184 for a complet listing of Kibblewhite® valve seats.

Rocker Arm Bushings

| KPMI No. | Models | Size | Quantity |
|----------------|--------|--------------|-----------|
| 20-2106 | All | OD - 0.6795" | Pkg. of 8 |

Made from US Mill Certified SAE 660 Bearing Bronze Bar Stock.

High Performance Wrist Pin Bushings Knucklehead • Panhead Shovelhead • Evolution

| KPMI No. | Size | Quantity |
|----------------|---------|-----------|
| 20-0645 | Std. OD | Pkg. of 1 |

Kibblewhite® 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.

Engine Builder Series Wrist Pin Bushings

| KPMI No. | Size | Quantity |
|-----------------|------------|-----------|
| 20-20570 | Std. OD | Pkg. of 2 |
| 20-20572 | +0.002" OD | Pkg. of 2 |
| 20-20580 | Std. OD | Pkg. of 1 |
| 20-20582 | +0.002" OD | 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.

Clutch Springs

| KPMI No. | Description | Quantity |
|----------------|-------------------|------------|
| 20-0789 | Replaces 38075-68 | Pkg. of 10 |

O.E.M. Replacement Seals

| KPMI No. | Guide Ø | Stem Ø | Quantity |
|---------------------|---------|--------|-------------|
| 20-20623 | 0.562" | 0.375" | Pkg. of 1 |
| 20-20623-25 | 0.562" | 0.375" | Pkg. of 25 |
| 20-20623-100 | 0.562" | 0.375" | Pkg. of 100 |

Seal Installation Tools

| KPMI No. | Fits | Quantity |
|-----------------|----------|-----------|
| 20-20631 | 20-20623 | Pkg. of 1 |

Installation Protectors

| KPMI No. | Stem Diameter | Quantity |
|-----------------|---------------|-----------|
| 20-20639 | 0.375" | Pkg. of 1 |
| 20-20636 | 0.375" | Pkg. of 2 |

Replacement Lower Collars (H.T. Steel)

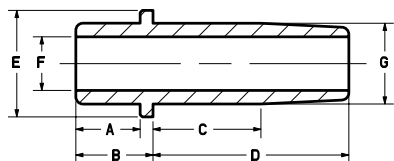
| KPMI No. | Type | Quantity |
|----------------|--------------|-----------|
| 20-2111 | O.E.M. Style | Pkg. of 4 |

Machined to fit .725" Ø seal. Lower collar counter bored to allow for greater retainer to seal clearance.



HARLEY-DAVIDSON® • SHOVELHEAD™ 80" • 1978-1983

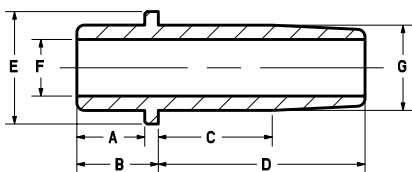
Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.450" | D | 1.305" |
| B | 0.550" | E | 0.745" |
| C | 0.755 | F | 0.3745" |

Intake - G (Std. 0.6250")

| C630 Bronze | Cast Iron | *Manganese | |
|-------------|-----------|------------|----------|
| 20-2050 | 20-2050C | 20-2050M | Std. |
| 20-2051 | 20-2051C | 20-2051M | + 0.001" |
| 20-2052 | 20-2052C | 20-2052M | + 0.002" |
| | 20-2053C | | + 0.003" |
| 20-2054 | 20-2054C | 20-2054M | + 0.004" |
| | 20-2055C | | + 0.005" |
| 20-2056 | 20-2056C | 20-2056M | + 0.006" |
| | 20-2058C | | + 0.008" |
| | 20-2059C | | + 0.010" |
| 20-50HS | 20-50HSC | 20-50HSM | + 0.025" |



| | | | |
|----------|--------|----------|---------|
| A | 0.450" | D | 1.305" |
| B | 0.550" | E | 0.745" |
| C | 0.755" | F | 0.3735" |

Exhaust - G (Std. 0.6250")

| C630 Bronze | Cast Iron | *Manganese | |
|-------------|-----------|------------|--------|
| 20-2060 | 20-2060C | 20-2060M | 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 |

* See KPMI® Ball Hone and Reamer (Pg.179) section in back of catalog for more information.

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------|--|-------------------------|-----------------------|---------------------------|-----------------|
| 20-2110 | .600" Valve Lift OK Seat Pressure 155-165 lb. 390-400 lb. @ .600" lift | 20-4248 H.A. 7075-T6 | 20-2100 H.T. Steel | 20-2000 Chrome Silicon | * Use O.E.M. |
| 20-2115 | .600" Valve Lift OK Seat Pressure 155-165 lb. 390-400 lb. @ .600" lift | 20-2116 Titanium | 20-2100 H.T. Steel | 20-2000 Chrome Silicon | * Use O.E.M. |
| 20-20450 | .600" Valve Lift OK Seat Pressure 155-165 lb. 390-400 lb. @ .600" lift | 20-20451 H.T. Steel | 20-2100 H.T. Steel | 20-2000 Chrome Silicon | * Use O.E.M. |

OEM Replacement Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------|--|------------------------|------------------------|----------------------------|------------------------|
| 20-20435 | .415" Valve Lift OK Seat Pressure 125-135 lb. 265-275 lb. @ .415" lift | 20-20436 H.T. Steel | 20-20439 H.T. Steel | 20-20437 Chrome Silicon | 20-20438 H.T. Steel |
| 20-20460 | .415" Valve Lift OK Seat Pressure 125-135 lb. 265-275 lb. @ .415" lift | 20-20105 Titanium | 20-20439 H.T. Steel | 20-20437 Chrome Silicon | 20-20438 H.T. Steel |

All components are the quality you can expect from KPMI®, manufactured to exact O.E.M. specifications. These O.E.M. replacement parts may be purchased separately using the above part numbers.

Black Diamond™ Valves • Black Nitroleg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------|------|------------------|---------------|-------|--------|----------------------------|
| 20-4194 | IN | 1.950" / 49.53mm | 0.3765" | 23° | 3.885" | Standard (OEM 18078-80) |
| 20-4256 | IN | 2.000" / 50.80mm | 0.3765" | 23° | 3.885" | Oversize |
| 20-4195 | EX | 1.750" / 44.45mm | 0.3760" | 29° | 3.810" | Standard (OEM 18082-57) |
| 20-4195S | EX | 1.780" / 45.21mm | 0.3760" | 29° | 3.820" | Oversize |
| 20-4195-1 | EX | 1.812" / 46.02mm | 0.3760" | 29° | 3.820" | Oversize |

Black Diamond™ Valves • Large Stem • Black Nitroleg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------|------|------------------|---------------|-------|--------|----------------------------|
| 20-4294 | IN | 1.950" / 49.53mm | 0.3780" | 23° | 3.885" | Standard (OEM 18075-81) |
| 20-4295 | EX | 1.750" / 44.45mm | 0.3760" | 29° | 3.820" | Standard (OEM 18086-81) |

Recommended Valve Guide Seals

0.565" Seal cutter required for installation

| KPMI No. | Type of Seal | Guide Top Diameter | Quantity |
|----------|---|--------------------|-----------|
| 20-2016 | In / Ex • Style 5 • Steel Clad Viton | 0.565" | Pkg. of 4 |
| 20-2002 | In / Ex • Style 6 Solid White PC-Styled Seal | 0.565" | Pkg. of 4 |



HARLEY-DAVIDSON® • SHOVELHEAD™ 80" • 1978-1983



20-2050 20-2050C 20-2050M



20-20460

Kicker Shaft Bushings & Seal

| KPMI No. | Type | Quantity |
|----------------|--------------|---------------|
| 20-2107 | Std. 0.9355" | Pkg. of 1pair |
| 20-2108 | +0.005" O.D. | Pkg. of 1pair |

Single package include 2 bushings & 1 seal.

Recommended Valve Seats (Powdered Metal)

| KPMI No. | OD ±.0002 | ID ±.0005 | HT ±.0005 | Type |
|-----------------|--------------|--------------|--------------|------|
| 10-SC550 | 2.1640" | 1.750" | 0.450" | In |
| 10-SC523 | 2.0600" | 1.562" | 0.450" | Ex |

Kibblewhite'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. See page184 for a complete listing of Kibblewhite® valve seats.

Rocker Arm Bushings

| KPMI No. | Models | Size | Quantity |
|----------------|--------|--------------|-----------|
| 20-2106 | All | OD - 0.6795" | Pkg. of 8 |

Made from US Mill Certified SAE 660 Bearing Bronze Bar Stock.



10-SC550



20-0789

High Performance Wrist Pin Bushings Knucklehead • Panhead Shovelhead • Evolution

| KPMI No. | Size | Quantity |
|----------------|---------|-----------|
| 20-0645 | Std. OD | Pkg. of 1 |

Kibblewhite® 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.

Engine Builder Series Wrist Pin Bushings

| KPMI No. | Size | Quantity |
|-----------------|------------|-----------|
| 20-20570 | Std. OD | Pkg. of 2 |
| 20-20572 | +0.002" OD | Pkg. of 2 |
| 20-20580 | Std. OD | Pkg. of 1 |
| 20-20582 | +0.002" OD | 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.

Clutch Springs

| KPMI No. | Description | Quantity |
|----------------|-------------------|------------|
| 20-0789 | Replaces 38075-68 | Pkg. of 10 |



20-20570



20-20630 20-20639 20-20624

O.E.M. Replacement Seals

| KPMI No. | Guide Ø | Stem Ø | Quantity |
|---------------------|---------|--------|-------------|
| 20-20624 | 0.625" | 0.375" | Pkg. of 1 |
| 20-20624-25 | 0.625" | 0.375" | Pkg. of 25 |
| 20-20624-100 | 0.625" | 0.375" | Pkg. of 100 |

Seal Installation Tools

| KPMI No. | Fits | Quantity |
|-----------------|----------|-----------|
| 20-20630 | 20-20624 | Pkg. of 1 |

Installation Protectors

| KPMI No. | Stem Diameter | Quantity |
|-----------------|---------------|-----------|
| 20-20639 | 0.375" | Pkg. of 1 |
| 20-20636 | 0.375" | Pkg. of 2 |

For all the applications available for Kibblewhite's Harley-Davidson® line of products, please refer online to the Harley-Davidson® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.

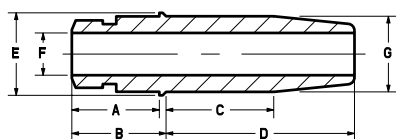


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HARLEY-DAVIDSON

Valve Guides

Shouldered Guide w/ Viton Seal
Shortened for .600" Lift

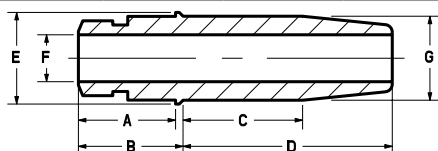


| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.400" |
| B | 0.700" | E | 0.615" |
| C | 0.800" | F | 0.3098" |

Intake - **G** (Std. 0.5620")

C630 Bronze

| | |
|----------------|----------|
| 20-2160 | Std. |
| 20-2161 | + 0.001" |
| 20-2162 | + 0.002" |
| 20-2164 | + 0.004" |
| 20-2169 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.450" |
| B | 0.700" | E | 0.615" |
| C | 1.150" | F | 0.3098" |

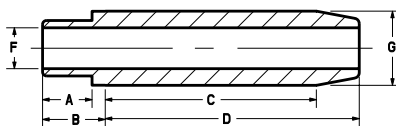
Exhaust - **G** (Std. 0.5620")

C630 Bronze

| | |
|----------------|----------|
| 20-2170 | Std. |
| 20-2171 | + 0.001" |
| 20-2172 | + 0.002" |
| 20-2174 | + 0.004" |
| 20-2179 | + 0.010" |

Valve Guides

OEM Style - .420" Top



| | | | |
|----------|--------|----------|---------|
| A | 0.375" | D | 2.025" |
| B | 0.375" | E | ---- |
| C | 1.700" | F | 0.3098" |

Intake / Exhaust - **G** (Std. 0.5620")

C630 Bronze

Cast Iron

| | | | |
|----------------|----------|-----------------|----------|
| 20-4320 | Std. | 20-4320C | Std. |
| 20-4321 | + 0.001" | 20-4321C | + 0.001" |
| 20-4322 | + 0.002" | 20-4322C | + 0.002" |
| 20-4323 | + 0.003" | 20-4323C | + 0.003" |
| 20-4324 | + 0.004" | 20-4324C | + 0.004" |
| 20-4329 | + 0.010" | 20-4329C | + 0.010" |



20-20650



20-20650

"Performance Rebuild" Ovate Wire Beehive Valve Spring Kits

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-------------------------------|---------------|-----------------------------------|-------------------------------|
| 20-20650 | .600" Valve Lift OK 175lb Seat Pressure 355 lb. @ .600" lift | 20-20651 H.T. Steel | Use O.E.M. | 20-20654 Chrome Silicon | 20-20653 H.T. Steel |
| 20-20660 | .630" Valve Lift OK 175lb Seat Pressure 365 lb. @ .630" lift | 20-20661 H.T. Steel | Use O.E.M. | 20-20664 Chrome Silicon | 20-20663 H.T. Steel |

Note: #20-20660 - Not recommended for lifts over .630".

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|----------------|--|------------------------------|------------------------------|----------------------------------|------------------------------|----------------------------------|
| 20-2080 | .550" Valve Lift OK 150-160lb Seat Pressure 380 lb. @ .550" lift | 20-2081 Titanium | 20-2091 H.T. Steel | 20-2090 Chrome Silicon | 20-2094 H.T. Steel | 20-2088 20-2089 |
| 20-2085 | .550" Valve Lift OK 150-160lb Seat Pressure 380 lb. @ .550" lift | 20-2086 H.T. Steel | 20-2091 H.T. Steel | 20-2090 Chrome Silicon | 20-2094 H.T. Steel | 20-2088 20-2089 |

Lightweight Racing Valve Spring Kit

| KPMI No. | KPMI No. | Retainers | Keepers | Spring | Lower collars |
|-----------------|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------------|
| 20-20122 | .600" Valve Lift OK 170-180lb Seat Pressure 380 lb. @ .600" lift | 20-20123 Titanium | 20-20126 H.T. Steel | 20-20127 Chrome Silicon | 20-20128 H.T. Steel |
| 20-20132 | .600" Valve Lift OK 170-180lb Seat Pressure 380 lb. @ .600" lift | 20-20124 H.T. Steel | 20-20126 H.T. Steel | 20-20127 Chrome Silicon | 20-20128 H.T. Steel |
| 20-20060 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ .655" lift | 20-20061 Titanium | 20-20062 H.T. Steel | 20-20063 Chrome Silicon | 20-20064 H.T. Steel |
| 20-20081 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ .655" lift | 20-20069 H.T. Steel | 20-20062 H.T. Steel | 20-20063 Chrome Silicon | 20-20064 H.T. Steel |



HARLEY-DAVIDSON® • EVOLUTION™ • 1984-1999

HARLEY-DAVIDSON



20-2160

20-2120

20-2120C

20-2120M

Black Diamond™ Valves

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------|------|------------------|---------------|-------|--------|-----------------------------|
| 20-4170 | EX | 1.615" / 41.02mm | 0.3096" | 29° | 4.520" | Standard (OEM 18082-83) |
| 20-4171 | IN | 1.840" / 46.74mm | 0.3100" | 23° | 4.445" | Standard (OEM 18074-83B) |

Black Diamond™ Valves Specially Designed for HD Racing Applications

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------|------|------------------|---------------|---------|--------|-------------------------------|
| 20-4169 | IN | 1.940" / 49.28mm | 0.3100" | 23° | 4.400" | Replacement (Branch Heads) |
| 20-20108 | IN | 2.000" / 50.80mm | 0.3100" | 23° | 4.445" | Oversize (STD Heads) |
| 20-4171R | IN | 1.900" / 48.26mm | 0.3100" | 28° | 4.420" | Oversize (Racing Profile) |
| 20-4270K | EX | 1.630" / 41.40mm | 0.3096" | 40° | 4.520" | Oversize (* Inconel) |
| 20-B101 | EX | 1.615" / 41.02mm | 0.3096" | R01.625 | 4.460" | Replacement (Branch Heads) |
| 20-4170R | EX | 1.630" / 41.40mm | 0.3096" | 40° | 4.520" | Oversize (Racing Profile) |
| 20-4170M | EX | 1.650" / 41.91mm | 0.3095" | 24° | 4.480" | Oversize (STD Heads) |
| 20-4170S | EX | 1.750" / 44.45mm | 0.3095" | 24° | 4.480" | Oversize (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.

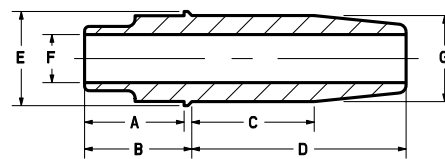
Recommended Valve Guide Seals

| KPMI No. | Type of Seal | Guide Top Diameter | Quantity |
|----------|--|--------------------|-----------|
| 20-2015 | In / Ex • Style 5 • Steel Clad Viton | 0.420" | Pkg. of 4 |
| 20-2009 | In / Ex • Style 6 Solid White PC Style Seal | 0.415" | Pkg. of 4 |

Please see #20-20620 O.E.M. Seals on Pg.29 / Seal, #20-2009 May require use of a seal cutter



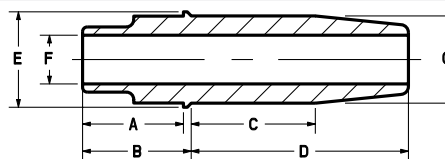
Valve Guides Shouldered Guide - .420" Top Shortened for .600" Lift



| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.400" |
| B | 0.700" | E | 0.615" |
| C | 0.800" | F | 0.3098" |

Intake - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | Std. |
|-------------|-----------|------------|----------|
| 20-2120 | 20-2120C | 20-2120M | Std. |
| 20-2121 | 20-2121C | 20-2121M | + 0.001" |
| 20-2122 | 20-2122C | 20-2122M | + 0.002" |
| 20-2123 | 20-2123C | 20-2123M | + 0.003" |
| 20-2124 | 20-2124C | 20-2124M | + 0.004" |
| 20-2129 | 20-2129C | 20-2129M | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.450" |
| B | 0.700" | E | 0.615" |
| C | 1.150" | F | 0.3098" |

Exhaust - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | Std. |
|-------------|-----------|------------|--------|
| 20-2130 | 20-2130C | 20-2130M | Std. |
| 20-2131 | 20-2131C | 20-2131M | +0.001 |
| 20-2132 | 20-2132C | 20-2132M | +0.002 |
| 20-2133 | 20-2133C | 20-2133M | +0.003 |
| 20-2134 | 20-2134C | 20-2134M | +0.004 |
| 20-2139 | 20-2139C | 20-2139M | +0.010 |

* See KPMI® **Ball Hone** and **Reamer (Pg.179)** section in back of catalog for more information.



HARLEY-DAVIDSON® • EVOLUTION™ • 1984-1999

From harleytechtalk.org Forum

We use Kibblewhite® C630 bronze guides exclusively.

They're tough.



20-2098



20-2106



20-2099



20-2096



20-20632 20-20637 20-20620

Recommended Valve Seats (Powdered Metal)

| KPMI No. | - A - ±.0002 | - B - ±.0005 | - C - ±.0005 | Remark |
|-----------------|-----------------|-----------------|-----------------|--------|
| 10-SC500 | 1.9690" | 1.535" | 0.453" | In |
| 10-SC510 | 2.0070" | 1.562" | 0.450" | In |
| 10-SC541 | 2.1320" | 1.690" | 0.450" | In |
| 10-SC446 | 1.7570" | 1.375" | 0.450" | Ex |

Kibblewhite'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. See page 184 for a complete listing of Kibblewhite® valve seats.

Cylinder Studs

| KPMI No. | Models | Quantity |
|----------------|---------------------|-----------|
| 20-2098 | Fits All Evolutions | 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.

High Performance Wrist Pin Bushings

KNUCKLEHEAD • PANHEAD • SHOVELHEAD • EVOLUTION

| KPMI No. | Size | Quantity |
|----------------|---------|-----------|
| 20-0645 | Std. OD | Pkg. of 1 |

Kibblewhite® 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.

Engine Builder Series Wrist Pin Bushings

| KPMI No. | Size | Quantity |
|-----------------|------------|-----------|
| 20-20570 | Std. OD | Pkg. of 2 |
| 20-20572 | +0.002" OD | Pkg. of 2 |
| 20-20580 | Std. OD | Pkg. of 1 |
| 20-20582 | +0.002" OD | 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

| KPMI No. | Years | Size | Quantity |
|----------------|-----------|--------------|-----------|
| 20-2106 | 1984-1999 | OD - 0.6795" | Pkg. of 8 |

Made from US Mill Certified SAE 660 Bearing Bronze Bar Stock.

O.E.M. Replacement Seals

| KPMI No. | Guide Ø | Stem Ø | Quantity |
|---------------------|---------|---------|-------------|
| 20-20620 | 0.420" | 0.3125" | Pkg. of 1 |
| 20-20620-25 | 0.420" | 0.3125" | Pkg. of 25 |
| 20-20620-100 | 0.420" | 0.3125" | Pkg. of 100 |

Seal Installation Tools

| KPMI No. | Fits | Quantity |
|-----------------|----------|-----------|
| 20-20632 | 20-20620 | Pkg. of 1 |

Installation Protectors

| KPMI No. | Stem Diameter | Quantity |
|-----------------|---------------|-----------|
| 20-20637 | 0.3125" | Pkg. of 1 |
| 20-20634 | 0.3125" | Pkg. of 2 |

Replacement Keeper Set

| KPMI No. | Models | Quantity |
|----------------|--------------|----------|
| 20-2096 | O.E.M. Style | 4 Pr. |

Cylinder Dowels

| KPMI No. | Models | O.D. | Quantity |
|----------------|---------------|---------|-----------|
| 20-2099 | Fits All Evos | 0.5575" | Pkg. of 4 |

HARLEY-DAVIDSON



HARLEY-DAVIDSON® • EVO SPORTSTER™ 883cc • 1986-2003

Plus 883cc to 1200cc Conversion 1986-'03

"Performance Rebuild" Ovate Wire Beehive Valve Spring Kits

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-------------------------------|---------------|-----------------------------------|-------------------------------|
| 20-20650 | .600" Valve Lift OK 175lb Seat Pressure 355 lb. @ .600" lift | 20-20651 H.T. Steel | Use O.E.M. | 20-20654 Chrome Silicon | 20-20653 H.T. Steel |
| 20-20660 | .630" Valve Lift OK 175lb Seat Pressure 365 lb. @ .630" lift | 20-20661 H.T. Steel | Use O.E.M. | 20-20664 Chrome Silicon | 20-20663 H.T. Steel |

Note: #20-20660 - Not recommended for lifts over .630".

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------------------|
| 20-2080 | .550" Valve Lift OK 150-160lb Seat Pressure 380 lb. @ .550" lift | 20-2081 Titanium | 20-2091 H.T. Steel | 20-2090 Chrome Silicon | 20-2094 H.T. Steel | 20-2088 20-2089 |
| 20-2085 | .550" Valve Lift OK 150-160lb Seat Pressure 380 lb. @ .550" lift | 20-2086 H.T. Steel | 20-2091 H.T. Steel | 20-2090 Chrome Silicon | 20-2094 H.T. Steel | 20-2088 20-2089 |
| 20-20122 | .600" Valve Lift OK 170-180lb Seat Pressure 380 lb. @ .600" lift | 20-20123 Titanium | 20-20126 H.T. Steel | 20-20127 Chrome Silicon | 20-20128 H.T. Steel | ---- |
| 20-20132 | .600" Valve Lift OK 170-180lb Seat Pressure 380 lb. @ .600" lift | 20-20124 H.T. Steel | 20-20126 H.T. Steel | 20-20127 Chrome Silicon | 20-20128 H.T. Steel | ---- |
| 20-20060 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ .655" lift | 20-20061 Titanium | 20-20062 H.T. Steel | 20-20063 Chrome Silicon | 20-20064 H.T. Steel | ---- |
| 20-20081 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ .655" lift | 20-20069 H.T. Steel | 20-20062 H.T. Steel | 20-20063 Chrome Silicon | 20-20064 H.T. Steel | ---- |

Black Diamond™™ Valves • Black Nitronex Stems for 883cc 1986-2003 Model

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------------------------|
| 20-20090 | IN | 1.585" / 40.26mm | 0.3100" | 23° | 4.550" | Standard (OEM 18031-86) |
| 20-20092 | EX | 1.350" / 34.29mm | 0.3095" | 17° | 4.640" | Standard (OEM 18030-86) |

Black Diamond™™ Valves • Black Nitronex Stems Special Conversion Valves for 883cc / 1200cc 1986-2003 Model

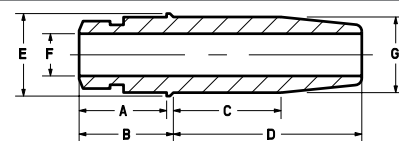
| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|------------------|
| 20-2010 | IN | 1.715" / 43.56mm | 0.3100" | 23° | 4.550" | Conversion Valve |
| 20-2012 | EX | 1.480" / 37.59mm | 0.3096" | 40° | 4.625" | Conversion Valve |

Recommended Valve Guide Seals

| KPMI No. | Type of Seal | Guide Top Diameter | Quantity |
|----------------|---|--------------------|-----------|
| 20-2015 | In / Ex • Style 5 • Steel Clad Viton | 0.420" | Pkg. of 4 |
| 20-2009 | In / Ex • Style 6 • Solid White PC Style Seal | 0.415" | Pkg. of 4 |

Seal, #20-2009 may require use of a seal cutter

Valve Guides Shouldered Guide w/ Viton Seal Shortened for .600" Lift

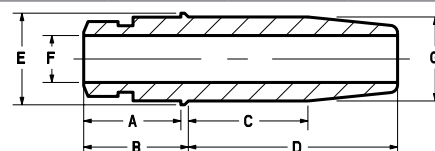


| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.400" |
| B | 0.700" | E | 0.615" |
| C | 0.800" | F | 0.3098" |

Intake - G (Std. 0.5620")

C630 Bronze

| | |
|----------------|----------|
| 20-2160 | Std. |
| 20-2161 | + 0.001" |
| 20-2162 | + 0.002" |
| 20-2164 | + 0.004" |
| 20-2169 | + 0.010" |



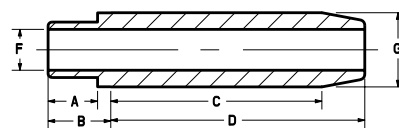
| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.450" |
| B | 0.700" | E | 0.615" |
| C | 1.150" | F | 0.3098" |

Exhaust - G (Std. 0.5620")

C630 Bronze

| | |
|----------------|----------|
| 20-2170 | Std. |
| 20-2171 | + 0.001" |
| 20-2172 | + 0.002" |
| 20-2174 | + 0.004" |
| 20-2179 | + 0.010" |

Valve Guides OEM Style - .420" Top



| | | | |
|----------|--------|----------|---------|
| A | 0.375" | D | 2.025" |
| B | 0.375" | E | ---- |
| C | 1.700" | F | 0.3098" |

Intake / Exhaust - G (Std. 0.5620")

C630 Bronze Cast Iron

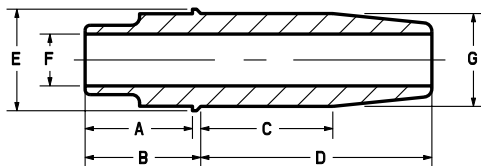
| | | | |
|----------------|----------|-----------------|----------|
| 20-4320 | Std. | 20-4320C | Std. |
| 20-4321 | + 0.001" | 20-4321C | + 0.001" |
| 20-4322 | + 0.002" | 20-4322C | + 0.002" |
| 20-4323 | + 0.003" | 20-4323C | + 0.003" |
| 20-4324 | + 0.004" | 20-4324C | + 0.004" |
| 20-4329 | + 0.010" | 20-4329C | + 0.010" |



HARLEY-DAVIDSON® • EVO SPORTSTER™ 883cc • 1986-2003



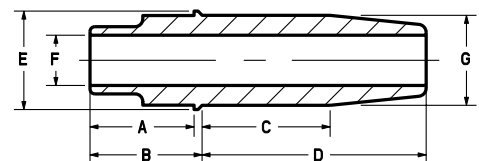
Valve Guides Shouldered Guide - .420" Top Shortened for .600" Lift



| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.400" |
| B | 0.700" | E | 0.615" |
| C | 0.800" | F | 0.3098" |

Intake - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|----------------|--------------|------------|----------|
| 20-2120 | 20-2120C | 20-2120M | Std. |
| 20-2121 | 20-2121C | 20-2121M | + 0.001" |
| 20-2122 | 20-2122C | 20-2122M | + 0.002" |
| 20-2123 | 20-2123C | 20-2123M | + 0.003" |
| 20-2124 | 20-2124C | 20-2124M | + 0.004" |
| 20-2129 | 20-2129C | 20-2129M | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.450" |
| B | 0.700" | E | 0.615" |
| C | 1.150" | F | 0.3098" |

Exhaust - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|----------------|--------------|------------|--------|
| 20-2130 | 20-2130C | 20-2130M | Std. |
| 20-2131 | 20-2131C | 20-2131M | +0.001 |
| 20-2132 | 20-2132C | 20-2132M | +0.002 |
| 20-2133 | 20-2133C | 20-2133M | +0.003 |
| 20-2134 | 20-2134C | 20-2134M | +0.004 |
| 20-2139 | 20-2139C | 20-2139M | +0.010 |

* See KPMI® Ball Hone and Reamer (Pg.179) section in back of catalog for more information.



20-2120M 20-2120 20-2120C

Rocker Arm Bushings

| KPMI No. | Years | Size | Quantity |
|----------|-----------|--------------|-----------|
| 20-2106 | 1986-2011 | OD - 0.6795" | Pkg. of 8 |

Made from US Mill Certified SAE 660 Bearing Bronze Bar Stock.

Engine Builder Series Wrist Pin Bushings

| KPMI No. | Size | Quantity |
|----------|------------|-----------|
| 20-20570 | Std. OD | Pkg. of 2 |
| 20-20572 | +0.002" OD | Pkg. of 2 |
| 20-20580 | Std. OD | Pkg. of 1 |
| 20-20582 | +0.002" OD | 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 Dowels

| KPMI No. | Models | O.D. | Quantity |
|----------|---------------|---------|-----------|
| 20-2099 | Fits All Evos | 0.5575" | Pkg. of 4 |

Cylinder Studs

| KPMI No. | Models | Quantity |
|----------|-----------|-----------|
| 20-2097 | 1986-2011 | 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.



20-20632 20-20637 20-20620

O.E.M. Replacement Seals

| KPMI No. | Guide Ø | Stem Ø | Quantity |
|--------------|---------|---------|-------------|
| 20-20620 | 0.420" | 0.3125" | Pkg. of 1 |
| 20-20620-25 | 0.420" | 0.3125" | Pkg. of 25 |
| 20-20620-100 | 0.420" | 0.3125" | Pkg. of 100 |

Seal Installation Tools

| KPMI No. | Fits | Quantity |
|----------|----------|-----------|
| 20-20632 | 20-20620 | Pkg. of 1 |

Installation Protectors

| KPMI No. | Stem Diameter | Quantity |
|----------|---------------|-----------|
| 20-20637 | 0.3125" | Pkg. of 1 |
| 20-20634 | 0.3125" | Pkg. of 2 |

High Performance Wrist Pin Bushings

KNUCKLEHEAD • PANHEAD • SHOVELHEAD • EVOLUTION

| KPMI No. | Size | Quantity |
|----------|---------|-----------|
| 20-0645 | Std. OD | Pkg. of 1 |

Kibblewhite® 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.

Replacement Keeper Set 1986-2003 Models

| KPMI No. | Type | Quantity |
|----------|--------------|----------|
| 20-2096 | O.E.M. Style | 4 Prs. |



HARLEY-DAVIDSON® • EVO SPORTSTER™ 883cc • 2004-2011

Plus 883cc to 1200cc Conversion • 2004-2011



20-20670

"Performance Rebuild" Ovate Wire Beehive Valve Spring Kits

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Valve Seals |
|-----------------|--|-------------------------------|---------------|-----------------------------------|-------------------------------|-------------------------------------|
| 20-20670 | .600" Valve Lift OK 175lb Seat Pressure 355 lb. @ .600" lift | 20-20671 H.T. Steel | Use O.E.M. | 20-20674 Chrome Silicon | 20-20673 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20680 | .630" Valve Lift OK 175lb Seat Pressure 365lb. @.630" lift | 20-20681 H.T. Steel | Use O.E.M. | 20-20684 Chrome Silicon | 20-20683 H.T. Steel | 20-20590 Steel Clad Viton |

Note: #20-20680 - Not recommended for lifts over .630".

Lightweight Racing Valve Spring Kit

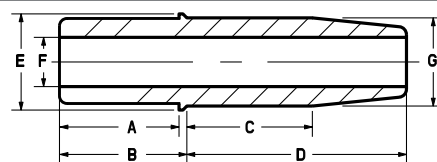
| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Valve Seals |
|-----------------|--|-------------------------------|---------------|-----------------------------------|--|-------------------------------------|
| 20-20360 | .600" Valve Lift OK 170-180lb Seat Pressure 375-385 lb. @ .600" lift | 20-20361 Titanium | Use O.E.M. | 20-20362 Chrome Silicon | 20-20363 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20364 | .600" Valve Lift OK 170-180lb Seat Pressure 375-385 lb. @ .600" lift | 20-20366 H.T. Steel | Use O.E.M. | 20-20362 Chrome Silicon | 20-20363 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20350 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ .655" lift | 20-20351 Titanium | Use O.E.M. | 20-20352 Chrome Silicon | 20-20417 20-20353 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20355 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ .655" lift | 20-20356 H.T. Steel | Use O.E.M. | 20-20357 Chrome Silicon | 20-20417 20-20358 H.T. Steel | 20-20590 Steel Clad Viton |

Lower Collars, #20-20353 and #20-20358, are designed to work with KPMI® Intake/ Exhaust guides and OEM Intake guides. #20 20417 Lower Collar is designed to work with OEM Exhaust guides.

Black Diamond™ Valves • Black Nitroneg Stems Special Conversion Valves for 883cc to 1200cc 2004-2011

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|------------------|
| 20-20550 | IN | 1.715" / 43.56mm | 0.2755 | 23° | 4.580" | Conversion Valve |
| 20-20555 | EX | 1.480" / 37.59mm | 0.2755 | 40° | 4.660" | Conversion Valve |

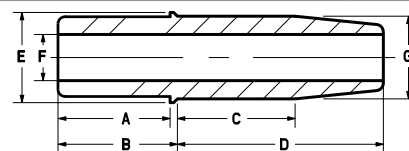
Valve Guides Shouldered Guide Use O.E.M. Style or Kibblewhite® Style Seals / 7.0mm ID



| | | | |
|----------|--------|----------|---------|
| A | 0.690" | D | 1.280" |
| B | 0.740" | E | 0.615" |
| C | 0.800" | F | 0.2750" |

Intake - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|-----------------|------------------|------------------|----------|
| 20-20690 | 20-20690C | 20-20690M | Std. |
| 20-20691 | 20-20691C | 20-20691M | + 0.001" |
| 20-20692 | 20-20692C | 20-20692M | + 0.002" |
| 20-20699 | 20-20699C | 20-20699M | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.690" | D | 1.280" |
| B | 0.740" | E | 0.615" |
| C | 1.030" | F | 0.2750" |

Exhaust - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|-----------------|------------------|------------------|----------|
| 20-20700 | 20-20700C | 20-20700M | Std. |
| 20-20701 | 20-20701C | 20-20701M | + 0.001" |
| 20-20702 | 20-20702C | 20-20702M | + 0.002" |
| 20-20709 | 20-20709C | 20-20709M | + 0.010" |

* See KPMI® Ball Hone and Reamer (Pg.179) section in back of catalog for more information.



HARLEY-DAVIDSON® • EVO SPORTSTER™ 883cc • 2004-2011



20-20690



20-20690C



20-20690M



20-2106



20-2097



20-20550



20-20550
Groove Detail



20-20601



20-20570

Rocker Arm Bushings

| KPMI No. | Years | Size | Quantity |
|----------------|-----------|--------------|-----------|
| 20-2106 | 1986-2011 | OD - 0.6795" | Pkg. of 8 |

Made from US Mill Certified SAE 660 Bearing Bronze Bar Stock.

Cylinder Studs

| KPMI No. | Models | Quantity |
|----------------|-----------|-----------|
| 20-2097 | 1986-2011 | 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.

7.0mm Valve Guide Seals

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

| KPMI No. | Type of Seal | Guide Top Diameter | Quantity |
|------------------|------------------------------------|--------------------|------------|
| 20-20601 | In / Ex • Style 3 Tophat | 0.562" | Pkg. of 1 |
| 20-20604 | In / Ex • Style 3 Tophat | 0.562" | Pkg. of 4 |
| 20-20612 | In / Ex • Style 3 Tophat | 0.562" | Pkg. of 12 |
| 20-20640 | In / Ex • Style 3 Tophat | 0.562" | Pkg. of 40 |
| 20-20590* | In / Ex • Style 5 Steel Clad Viton | 0.565" | Pkg. of 4 |

OEM Replacement Keepers For All 7mm Harley Models

| KPMI No. | Models | Quantity |
|-------------------|-----------|----------|
| 500-100016 | 2004-2011 | 1 Pr. |

Engine Builder Series Wrist Pin Bushings

| KPMI No. | Size | Quantity |
|-----------------|------------|-----------|
| 20-20570 | Std. OD | Pkg. of 2 |
| 20-20572 | +0.002" OD | Pkg. of 2 |
| 20-20580 | Std. OD | Pkg. of 1 |
| 20-20582 | +0.002" OD | 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 Dowels

| KPMI No. | Models | O.D. | Quantity |
|-----------------|---------------|-----------|-----------|
| 20-20413 | All Twin Cams | 0.4365 OD | Pkg. of 4 |

Made from US Heat Treated Steel.



HARLEY-DAVIDSON® • XL™ 1100cc • 1986-1987

"Performance Rebuild" Ovale Wire Beehive Valve Spring Kits

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-------------------------------|---------------|-----------------------------------|-------------------------------|
| 20-20650 | .600" Valve Lift OK 175lb Seat Pressure 355 lb. @ .600" lift | 20-20651 H.T. Steel | Use O.E.M. | 20-20654 Chrome Silicon | 20-20653 H.T. Steel |
| 20-20660 | .630" Valve Lift OK 175lb Seat Pressure 365 lb. @ .630" lift | 20-20661 H.T. Steel | Use O.E.M. | 20-20664 Chrome Silicon | 20-20663 H.T. Steel |

Note: #20-20660 - Not recommended for lifts over .630".

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|---|-------------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------------------|
| 20-2080 | .550" Valve Lift OK 150-160lb Seat Pressure 380 lb. @ 550" lift | 20-2081 Titanium | 20-2091 H.T. Steel | 20-2090 Chrome Silicon | 20-2094 H.T. Steel | 20-2088 20-2089 |
| 20-2085 | .550" Valve Lift OK 150-160lb Seat Pressure 380 lb. @ 550" lift | 20-2086 H.T. Steel | 20-2091 H.T. Steel | 20-2090 Chrome Silicon | 20-2094 H.T. Steel | 20-2088 20-2089 |
| 20-20122 | .600" Valve Lift OK 170-180lb Seat Pressure 380 lb. @ 600" lift | 20-20123 Titanium | 20-20126 H.T. Steel | 20-20127 Chrome Silicon | 20-20128 H.T. Steel | ---- |
| 20-20132 | .600" Valve Lift OK 170-180lb Seat Pressure 380 lb. @ 600" lift | 20-20124 H.T. Steel | 20-20126 H.T. Steel | 20-20127 Chrome Silicon | 20-20128 H.T. Steel | ---- |
| 20-20060 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ 655" lift | 20-20061 Titanium | 20-20062 H.T. Steel | 20-20063 Chrome Silicon | 20-20064 H.T. Steel | ---- |
| 20-20081 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ 655" lift | 20-20069 H.T. Steel | 20-20062 H.T. Steel | 20-20063 Chrome Silicon | 20-20064 H.T. Steel | ---- |

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

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------------------------|
| 20-4249 | IN | 1.850" / 47.00mm | 0.3105" | 23° | 4.490" | Standard (OEM 18023-86) |
| 20-4250 | IN | 1.940" / 49.28mm | 0.3105" | 23° | 4.440" | Oversize |
| 20-4251 | EX | 1.615" / 41.02mm | 0.3096" | 40° | 4.575" | Standard (OEM 18024-86) |

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

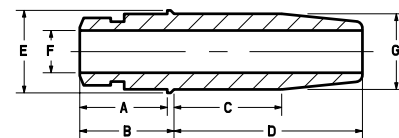
| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------------------------|
| 20-2013 | IN | 1.715" / 43.56mm | 0.3100" | 23° | 4.480" | Standard (OEM 18023-87) |
| 20-2014 | EX | 1.480" / 37.59mm | 0.3096" | 40° | 4.560" | Standard (OEM 18024-87) |

Recommended Valve Guide Seals

| KPMI No. | Type of Seal | Guide Top Diameter | Quantity |
|----------------|---|--------------------|-----------|
| 20-2015 | In / Ex • Style 5 • Steel Clad Viton | 0.420" | Pkg. of 4 |
| 20-2009 | In / Ex • Style 6 • Solid White PC Style Seal | 0.415" | Pkg. of 4 |

Seal, #20-2009, may require use of a seal cutter

Valve Guides Shouldered Guide w/ Viton Seal Shortened for .600" Lift

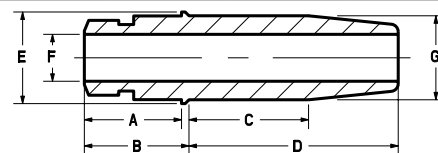


| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.400" |
| B | 0.700" | E | 0.615" |
| C | 0.800" | F | 0.3098" |

Intake - G (Std. 0.5620")

C630 Bronze

| | |
|----------------|----------|
| 20-2160 | Std. |
| 20-2161 | + 0.001" |
| 20-2162 | + 0.002" |
| 20-2164 | + 0.004" |
| 20-2169 | + 0.010" |



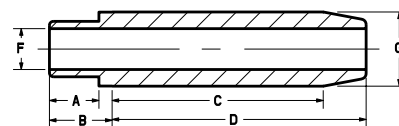
| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.450" |
| B | 0.700" | E | 0.615" |
| C | 1.150" | F | 0.3098" |

Exhaust - G (Std. 0.5620")

C630 Bronze

| | |
|----------------|----------|
| 20-2170 | Std. |
| 20-2171 | + 0.001" |
| 20-2172 | + 0.002" |
| 20-2174 | + 0.004" |
| 20-2179 | + 0.010" |

Valve Guides OEM Style - .420" Top



| | | | |
|----------|--------|----------|---------|
| A | 0.375" | D | 2.025" |
| B | 0.375" | E | ---- |
| C | 1.700" | F | 0.3098" |

Intake / Exhaust - G (Std. 0.5620")

C630 Bronze

Cast Iron

| | | | |
|----------------|----------|-----------------|----------|
| 20-4320 | Std. | 20-4320C | Std. |
| 20-4321 | + 0.001" | 20-4321C | + 0.001" |
| 20-4322 | + 0.002" | 20-4322C | + 0.002" |
| 20-4323 | + 0.003" | 20-4323C | + 0.003" |
| 20-4324 | + 0.004" | 20-4324C | + 0.004" |
| 20-4329 | + 0.010" | 20-4329C | + 0.010" |



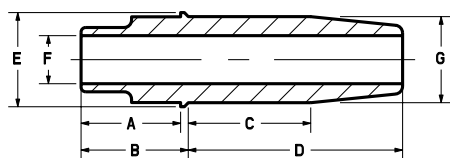
HARLEY-DAVIDSON® • XL™ 1100cc • 1986-1987

HARLEY-DAVIDSON



20-2120 20-2120C 20-2120M

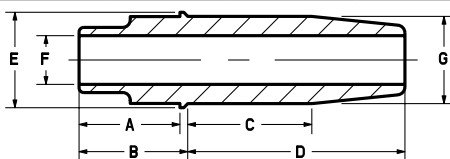
Valve Guides Shouldered Guide - .420" Top Shortened for .600" Lift



| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.400" |
| B | 0.700" | E | 0.615" |
| C | 0.800" | F | 0.3098" |

Intake - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|----------------|--------------|------------|----------|
| 20-2120 | 20-2120C | 20-2120M | Std. |
| 20-2121 | 20-2121C | 20-2121M | + 0.001" |
| 20-2122 | 20-2122C | 20-2122M | + 0.002" |
| 20-2123 | 20-2123C | 20-2123M | + 0.003" |
| 20-2124 | 20-2124C | 20-2124M | + 0.004" |
| 20-2129 | 20-2129C | 20-2129M | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.450" |
| B | 0.700" | E | 0.615" |
| C | 1.150" | F | 0.3098" |

Exhaust - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|----------------|--------------|------------|--------|
| 20-2130 | 20-2130C | 20-2130M | Std. |
| 20-2131 | 20-2131C | 20-2131M | +0.001 |
| 20-2132 | 20-2132C | 20-2132M | +0.002 |
| 20-2133 | 20-2133C | 20-2133M | +0.003 |
| 20-2134 | 20-2134C | 20-2134M | +0.004 |
| 20-2139 | 20-2139C | 20-2139M | +0.010 |

* See KPMI® Ball Hone and Reamer (Pg.179) section in back of catalog for more information.



20-20632 20-20637 20-20620

O.E.M. Replacement Seals

| KPMI No. | Guide Ø | Stem Ø | Quantity |
|--------------|---------|---------|-------------|
| 20-20620 | 0.420" | 0.3125" | Pkg. of 1 |
| 20-20620-25 | 0.420" | 0.3125" | Pkg. of 25 |
| 20-20620-100 | 0.420" | 0.3125" | Pkg. of 100 |

Seal Installation Tools

| KPMI No. | Fits | Quantity |
|----------|----------|-----------|
| 20-20632 | 20-20620 | Pkg. of 1 |

Installation Protectors

| KPMI No. | Stem Diameter | Quantity |
|----------|---------------|-----------|
| 20-20637 | 0.3125" | Pkg. of 1 |
| 20-20634 | 0.3125" | Pkg. of 2 |

High Performance Wrist Pin Bushings

KNUCKLEHEAD • PANHEAD • SHOVELHEAD • EVOLUTION

| KPMI No. | Size | Quantity |
|----------|---------|-----------|
| 20-0645 | Std. OD | Pkg. of 1 |

Kibblewhite® 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.

Rocker Arm Bushings

| KPMI No. | Years | Size | Quantity |
|----------|-----------|--------------|-----------|
| 20-2106 | 1986-2011 | OD - 0.6795" | Pkg. of 8 |

Made from US Mill Certified SAE 660 Bearing Bronze Bar Stock.

Recommended Valve Seats (Powdered Metal)

| KPMI No. | OD ±.0002 | ID ±.0005 | HT ±.0005 | Remark |
|----------|--------------|--------------|--------------|--------|
| 10-SC500 | 1.9690" | 1.535" | 0.453" | In |
| 10-SC510 | 2.0070" | 1.562" | 0.450" | In |
| 10-SC541 | 2.1320" | 1.690" | 0.450" | In |
| 10-SC446 | 1.7570" | 1.375" | 0.450" | Ex |

For 1986 XL 1100 and 2004-2011 XL 1200. Proprietary seat material is compatible with leaded/unleaded and methanol/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. See page 195 for a complete listing of Kibblewhite® Valve Seats.

Engine Builder Series Wrist Pin Bushings

| KPMI No. | Size | Quantity |
|----------|------------|-----------|
| 20-20570 | Std. OD | Pkg. of 2 |
| 20-20572 | +0.002" OD | Pkg. of 2 |
| 20-20580 | Std. OD | Pkg. of 1 |
| 20-20582 | +0.002" OD | 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.

Replacement Keeper Set 1986-2003 Models

| KPMI No. | Type | Quantity |
|----------|--------------|----------|
| 20-2096 | O.E.M. Style | 4 Prs. |

Cylinder Dowels

| KPMI No. | Models | O.D. | Quantity |
|----------|---------------|---------|-----------|
| 20-2099 | Fits All Evos | 0.5575" | Pkg. of 4 |

Cylinder Studs

| KPMI No. | Models | Quantity |
|----------|-----------|-----------|
| 20-2097 | 1986-2011 | 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.



HARLEY-DAVIDSON® • EVO SPORTSTER™ 1200cc • 1988-2003



20-2085



20-2160

"Performance Rebuild" Ovate Wire Beehive Valve Spring Kits

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-------------------------------|---------------|-----------------------------------|-------------------------------|
| 20-20650 | .600" Valve Lift OK 175lb Seat Pressure 355 lb. @ .600" lift | 20-20651 H.T. Steel | Use O.E.M. | 20-20654 Chrome Silicon | 20-20653 H.T. Steel |
| 20-20660 | .630" Valve Lift OK 175lb Seat Pressure 365 lb. @ .630" lift | 20-20661 H.T. Steel | Use O.E.M. | 20-20664 Chrome Silicon | 20-20663 H.T. Steel |

Note: #20-20660 - Not recommended for lifts over .630".

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|---|-------------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------------------|
| 20-2080 | .550" Valve Lift OK 150-160lb Seat Pressure 380 lb. @ 550" lift | 20-2081 Titanium | 20-2091 H.T. Steel | 20-2090 Chrome Silicon | 20-2094 H.T. Steel | 20-2088 20-2089 |
| 20-2085 | .550" Valve Lift OK 150-160lb Seat Pressure 380 lb. @ 550" lift | 20-2086 H.T. Steel | 20-2091 H.T. Steel | 20-2090 Chrome Silicon | 20-2094 H.T. Steel | 20-2088 20-2089 |
| 20-20122 | .600" Valve Lift OK 170-180lb Seat Pressure 380 lb. @ 600" lift | 20-20123 Titanium | 20-20126 H.T. Steel | 20-20127 Chrome Silicon | 20-20128 H.T. Steel | ----- |
| 20-20132 | .600" Valve Lift OK 170-180lb Seat Pressure 380 lb. @ 600" lift | 20-20124 H.T. Steel | 20-20126 H.T. Steel | 20-20127 Chrome Silicon | 20-20128 H.T. Steel | ----- |
| 20-20060 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ 655" lift | 20-20061 Titanium | 20-20062 H.T. Steel | 20-20063 Chrome Silicon | 20-20064 H.T. Steel | ----- |
| 20-20081 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ 655" lift | 20-20069 H.T. Steel | 20-20062 H.T. Steel | 20-20063 Chrome Silicon | 20-20064 H.T. Steel | ----- |

Black Diamond™ Valves • Black Nitro Neg Stems for 1200cc 1988-2003 Model

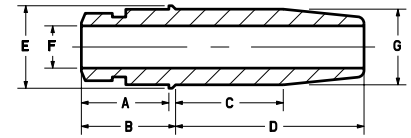
| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------------------------|
| 20-2013 | IN | 1.715" / 43.56mm | 0.3100" | 23° | 4.480" | Standard (OEM 18023-87) |
| 20-2014 | EX | 1.480" / 37.59mm | 0.3096" | 40° | 4.560" | Standard (OEM 18024-87) |

Recommended Valve Guide Seals

| KPMI No. | Type of Seal | Guide Top Diameter | Quantity |
|----------------|---|--------------------|-----------|
| 20-2015 | In / Ex • Style 5 • Steel Clad Viton | 0.420" | Pkg. of 4 |
| 20-2009 | In / Ex • Style 6 • Solid White PC Style Seal | 0.415" | Pkg. of 4 |

Seal, #20-2009 may require use of a seal cutter

Valve Guides Shouldered Guide w/ Viton Seal Shortened for .600" Lift

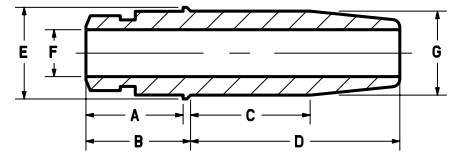


| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.400" |
| B | 0.700" | E | 0.615" |
| C | 0.800" | F | 0.3098" |

Intake - G (Std. 0.5620")

C630 Bronze

| | |
|----------------|----------|
| 20-2160 | Std. |
| 20-2161 | + 0.001" |
| 20-2162 | + 0.002" |
| 20-2164 | + 0.004" |
| 20-2169 | + 0.010" |



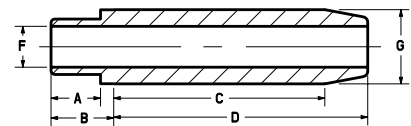
| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.450" |
| B | 0.700" | E | 0.615" |
| C | 1.150" | F | 0.3098" |

Exhaust - G (Std. 0.5620")

C630 Bronze

| | |
|----------------|----------|
| 20-2170 | Std. |
| 20-2171 | + 0.001" |
| 20-2172 | + 0.002" |
| 20-2174 | + 0.004" |
| 20-2179 | + 0.010" |

Valve Guides OEM Style - .420" Top



| | | | |
|----------|--------|----------|---------|
| A | 0.375" | D | 2.025" |
| B | 0.375" | E | ----- |
| C | 1.700" | F | 0.3098" |

Intake / Exhaust - G (Std. 0.5620")

C630 Bronze Cast Iron

| | | | |
|----------------|----------|-----------------|----------|
| 20-4320 | Std. | 20-4320C | Std. |
| 20-4321 | + 0.001" | 20-4321C | + 0.001" |
| 20-4322 | + 0.002" | 20-4322C | + 0.002" |
| 20-4323 | + 0.003" | 20-4323C | + 0.003" |
| 20-4324 | + 0.004" | 20-4324C | + 0.004" |
| 20-4329 | + 0.010" | 20-4329C | + 0.010" |



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HARLEY-DAVIDSON



20-2120 20-2120C 20-2120M



20-2097



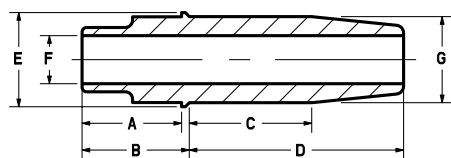
20-2099



20-20632 20-20637 20-20620



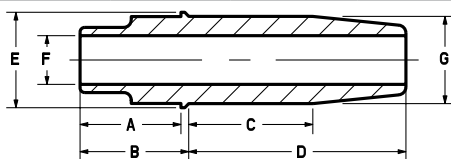
Valve Guides Shouldered Guide - .420" Top Shortened for .600" Lift



| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.400" |
| B | 0.700" | E | 0.615" |
| C | 0.800" | F | 0.3098" |

Intake - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|----------------|-----------------|-----------------|----------|
| 20-2120 | 20-2120C | 20-2120M | Std. |
| 20-2121 | 20-2121C | 20-2121M | + 0.001" |
| 20-2122 | 20-2122C | 20-2122M | + 0.002" |
| 20-2123 | 20-2123C | 20-2123M | + 0.003" |
| 20-2124 | 20-2124C | 20-2124M | + 0.004" |
| 20-2129 | 20-2129C | 20-2129M | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.450" |
| B | 0.700" | E | 0.615" |
| C | 1.150" | F | 0.3098" |

Exhaust - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|----------------|-----------------|-----------------|--------|
| 20-2130 | 20-2130C | 20-2130M | Std. |
| 20-2131 | 20-2131C | 20-2131M | +0.001 |
| 20-2132 | 20-2132C | 20-2132M | +0.002 |
| 20-2133 | 20-2133C | 20-2133M | +0.003 |
| 20-2134 | 20-2134C | 20-2134M | +0.004 |
| 20-2139 | 20-2139C | 20-2139M | +0.010 |

* See KPMI® Ball Hone and Reamer (Pg.179) section in back of catalog for more information.

Cylinder Studs

| KPMI No. | Models | Quantity |
|----------|--------|----------|
|----------|--------|----------|

| | | |
|----------------|-----------|-----------|
| 20-2097 | 1986-2011 | 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

| KPMI No. | Models | O.D. | Quantity |
|----------|--------|------|----------|
|----------|--------|------|----------|

| | | | |
|----------------|---------------|---------|-----------|
| 20-2099 | Fits All Evos | 0.5575" | Pkg. of 4 |
|----------------|---------------|---------|-----------|

Rocker Arm Bushings

| KPMI No. | Years | Size | Quantity |
|----------|-------|------|----------|
|----------|-------|------|----------|

| | | | |
|----------------|-----------|--------------|-----------|
| 20-2106 | 1986-2011 | OD - 0.6795" | Pkg. of 8 |
|----------------|-----------|--------------|-----------|

Made from US Mill Certified SAE 660 Bearing Bronze Bar Stock.

High Performance Wrist Pin Bushings

KNUCKLEHEAD • PANHEAD • SHOVELHEAD • EVOLUTION

| KPMI No. | Size | Quantity |
|----------|------|----------|
|----------|------|----------|

| | | |
|----------------|---------|-----------|
| 20-0645 | Std. OD | Pkg. of 1 |
|----------------|---------|-----------|

Kibblewhite® 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.

Replacement Keeper Set 1986-2003 Models

| KPMI No. | Type | Quantity |
|----------|------|----------|
|----------|------|----------|

| | | |
|----------------|--------------|--------|
| 20-2096 | O.E.M. Style | 4 Prs. |
|----------------|--------------|--------|

O.E.M. Replacement Seals

| KPMI No. | Guide Ø | Stem Ø | Quantity |
|----------|---------|--------|----------|
|----------|---------|--------|----------|

| | | | |
|-----------------|--------|---------|-----------|
| 20-20620 | 0.420" | 0.3125" | Pkg. of 1 |
|-----------------|--------|---------|-----------|

| | | | |
|--------------------|--------|---------|------------|
| 20-20620-25 | 0.420" | 0.3125" | Pkg. of 25 |
|--------------------|--------|---------|------------|

| | | | |
|---------------------|--------|---------|-------------|
| 20-20620-100 | 0.420" | 0.3125" | Pkg. of 100 |
|---------------------|--------|---------|-------------|

Seal Installation Tools

| KPMI No. | Fits | Quantity |
|----------|------|----------|
|----------|------|----------|

| | | |
|-----------------|----------|-----------|
| 20-20632 | 20-20620 | Pkg. of 1 |
|-----------------|----------|-----------|

Installation Protectors

| KPMI No. | Stem Diameter | Quantity |
|----------|---------------|----------|
|----------|---------------|----------|

| | | |
|-----------------|---------|-----------|
| 20-20637 | 0.3125" | Pkg. of 1 |
|-----------------|---------|-----------|

| | | |
|-----------------|---------|-----------|
| 20-20634 | 0.3125" | Pkg. of 2 |
|-----------------|---------|-----------|

Engine Builder Series Wrist Pin Bushings

| KPMI No. | Size | Quantity |
|----------|------|----------|
|----------|------|----------|

| | | |
|-----------------|---------|-----------|
| 20-20570 | Std. OD | Pkg. of 2 |
|-----------------|---------|-----------|

| | | |
|-----------------|------------|-----------|
| 20-20572 | +0.002" OD | Pkg. of 2 |
|-----------------|------------|-----------|

| | | |
|-----------------|---------|-----------|
| 20-20580 | Std. OD | Pkg. of 1 |
|-----------------|---------|-----------|

| | | |
|-----------------|------------|-----------|
| 20-20582 | +0.002" OD | 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.

For all the applications available for Kibblewhite's Harley-Davidson® line of products, please refer online to the Harley-Davidson® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.



HARLEY-DAVIDSON® • EVO SPORTSTER™ 1200cc • 2004-2011

HARLEY-DAVIDSON



20-20670

"Performance Rebuild" Ovate Wire Beehive Valve Spring Kits

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Valve Seals |
|-----------------|--|-------------------------------|---------------|-----------------------------------|-------------------------------|-------------------------------------|
| 20-20670 | .600" Valve Lift OK 175lb Seat Pressure 355 lb. @ .600" lift | 20-20671 H.T. Steel | Use O.E.M. | 20-20674 Chrome Silicon | 20-20673 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20680 | .630" Valve Lift OK 175lb Seat Pressure 365lb. @.630" lift | 20-20681 H.T. Steel | Use O.E.M. | 20-20684 Chrome Silicon | 20-20683 H.T. Steel | 20-20590 Steel Clad Viton |

Note: #20-20680 - Not recommended for lifts over .630".

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Valve Seals |
|-----------------|--|-------------------------------|---------------|-----------------------------------|--|-------------------------------------|
| 20-20360 | .600" Valve Lift OK 170-180lb Seat Pressure 375-385 lb. @ .600" lift | 20-20361 Titanium | Use O.E.M. | 20-20362 Chrome Silicon | 20-20363 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20364 | .600" Valve Lift OK 170-180lb Seat Pressure 375-385 lb. @ .600" lift | 20-20366 H.T. Steel | Use O.E.M. | 20-20362 Chrome Silicon | 20-20363 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20350 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ .655" lift | 20-20351 Titanium | Use O.E.M. | 20-20352 Chrome Silicon | 20-20417 20-20353 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20355 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ .655" lift | 20-20356 H.T. Steel | Use O.E.M. | 20-20357 Chrome Silicon | 20-20417 20-20358 H.T. Steel | 20-20590 Steel Clad Viton |

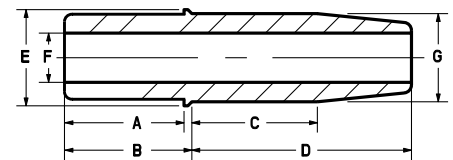
Lower Collars, #20-20353 and #20-20358, are designed to work with KPMI® Intake/ Exhaust guides and OEM Intake guides. #20 20417 Lower Collar is designed to work with OEM Exhaust guides.

Black Diamond™™ Valves • Black Nitroreg Stems for 2004 - 2011 Models

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 20-20260 | IN | 1.805" / 45.85mm | 0.2760" | 28° | 4.525" | Standard |
| 20-20262 | IN | 1.900" / 48.26mm | 0.2760" | 28° | 4.500" | Oversize |
| 20-20265 | EX | 1.575" / 40.00mm | 0.2755" | 34° | 4.610" | Standard |
| 20-20266 | EX | 1.615" / 41.02mm | 0.2755" | 34° | 4.590" | Oversize |

Valve Guides

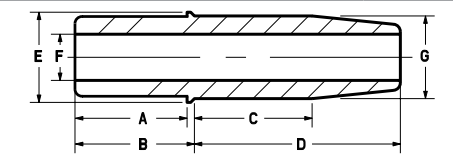
Shouldered Guide Use O.E.M. Style or Kibblewhite® Style Seals / 7.0mm ID



| | | | |
|----------|--------|----------|---------|
| A | 0.690" | D | 1.280" |
| B | 0.740" | E | 0.615" |
| C | 0.800" | F | 0.2750" |

Intake - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|-----------------|------------------|------------------|----------|
| 20-20690 | 20-20690C | 20-20690M | Std. |
| 20-20691 | 20-20691C | 20-20691M | + 0.001" |
| 20-20692 | 20-20692C | 20-20692M | + 0.002" |
| 20-20699 | 20-20699C | 20-20699M | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.690" | D | 1.280" |
| B | 0.740" | E | 0.615" |
| C | 1.030" | F | 0.2750" |

Exhaust - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|-----------------|------------------|------------------|----------|
| 20-20700 | 20-20700C | 20-20700M | Std. |
| 20-20701 | 20-20701C | 20-20701M | + 0.001" |
| 20-20702 | 20-20702C | 20-20702M | + 0.002" |
| 20-20709 | 20-20709C | 20-20709M | + 0.010" |

* See KPMI® Ball Hone and Reamer (Pg.179) section in back of catalog for more information.



HARLEY-DAVIDSON® • EVO SPORTSTER™ 1200cc • 2004-2011

HARLEY-DAVIDSON



20-20690 20-20690C 20-20690M

**NEW
PRODUCT**



20-20413



20-2097



20-20700 20-20700C 20-20700M



20-20601

**NEW
PRODUCT**



20-2106

Cylinder Dowels

| KPMI No. | Models | O.D. | Quantity |
|----------|--------|------|----------|
|----------|--------|------|----------|

20-20413 All Twin Cams 0.4365 OD Pkg. of 4

Made from US Heat Treated Steel.

Cylinder Studs

| KPMI No. | Models | Quantity |
|----------|--------|----------|
|----------|--------|----------|

20-2097 1986-2011 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.

7.0mm Valve Guide Seals

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

| KPMI No. | Type of Seal | Guide Top Diameter | Quantity |
|----------|--------------|--------------------|----------|
|----------|--------------|--------------------|----------|

20-20601 In / Ex • Style 3 Tophat 0.562" Pkg. of 1

20-20604 In / Ex • Style 3 Tophat 0.562" Pkg. of 4

20-20612 In / Ex • Style 3 Tophat 0.562" Pkg. of 12

20-20640 In / Ex • Style 3 Tophat 0.562" Pkg. of 40

20-20590* In / Ex • Style 5 Steel Clad Viton 0.565" Pkg. of 4

OEM Replacement Keepers For All 7mm Harley Models

| KPMI No. | Models | Quantity |
|----------|--------|----------|
|----------|--------|----------|

500-100016 2004-2011 1 Pr.

Rocker Arm Bushings

| KPMI No. | Years | Size | Quantity |
|----------|-------|------|----------|
|----------|-------|------|----------|

20-2106 1986-2011 OD - 0.6795" Pkg. of 8

Made from US Mill Certified SAE 660 Bearing Bronze Bar Stock.

Engine Builder Series Wrist Pin Bushings

| KPMI No. | Size | Quantity |
|----------|------|----------|
|----------|------|----------|

20-20570 Std. OD Pkg. of 2

20-20572 +0.002" OD Pkg. of 2

20-20580 Std. OD Pkg. of 1

20-20582 +0.002" OD 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.



HARLEY-DAVIDSON® • TWIN CAM™ 88" • 1999-2004

For All 5/16" Stem Valves



20-20122



20-20650

"Performance Rebuild" Ovale Wire Beehive Valve Spring Kits

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-------------------------------|---------------|-----------------------------------|-------------------------------|
| 20-20650 | .600" Valve Lift OK 175lb Seat Pressure 355 lb. @ .600" lift | 20-20651 H.T. Steel | Use O.E.M. | 20-20654 Chrome Silicon | 20-20653 H.T. Steel |
| 20-20660 | .630" Valve Lift OK 175lb Seat Pressure 365 lb. @ .630" lift | 20-20661 H.T. Steel | Use O.E.M. | 20-20664 Chrome Silicon | 20-20663 H.T. Steel |

Note: #20-20660 - Not recommended for lifts over .630".

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|--|-------------------------------|-------------------------------|-----------------------------------|-------------------------------|----------------------------------|
| 20-2080 | .550" Valve Lift OK 150-160lb Seat Pressure 380 lb. @ .550" lift | 20-2081 Titanium | 20-2091 H.T. Steel | 20-2090 Chrome Silicon | 20-2094 H.T. Steel | 20-2088 20-2089 |
| 20-2085 | .550" Valve Lift OK 150-160lb Seat Pressure 380 lb. @ .550" lift | 20-2086 H.T. Steel | 20-2091 H.T. Steel | 20-2090 Chrome Silicon | 20-2094 H.T. Steel | 20-2088 20-2089 |
| 20-20122 | .600" Valve Lift OK 170-180lb Seat Pressure 380 lb. @ .600" lift | 20-20123 Titanium | 20-20126 H.T. Steel | 20-20127 Chrome Silicon | 20-20128 H.T. Steel | ---- |
| 20-20132 | .600" Valve Lift OK 170-180lb Seat Pressure 380 lb. @ .600" lift | 20-20124 H.T. Steel | 20-20126 H.T. Steel | 20-20127 Chrome Silicon | 20-20128 H.T. Steel | ---- |
| 20-20060 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ .655" lift | 20-20061 Titanium | 20-20062 H.T. Steel | 20-20063 Chrome Silicon | 20-20064 H.T. Steel | ---- |
| 20-20081 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ .655" lift | 20-20069 H.T. Steel | 20-20062 H.T. Steel | 20-20063 Chrome Silicon | 20-20064 H.T. Steel | ---- |

Black Diamond™™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|-----------------------------|
| 20-20055 | IN | 1.840" / 46.74mm | 0.3100" | 23° | 4.445 | Standard (OEM 18074-83A) |
| 20-20056 | IN | 1.900" / 48.26mm | 0.3100" | 28° | 4.420" | Oversize |
| 20-20108 | IN | 2.000" / 50.80mm | 0.3100" | 23° | 4.445" | Oversize |
| 20-20057 | EX | 1.565" / 39.75mm | 0.3100" | 17° | 4.505" | Standard (OEM 18085-991) |

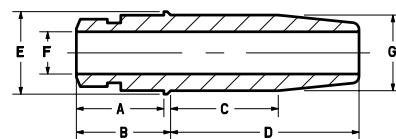
See Evo 1984-'99 for Special Application Racing Valves that may be fit into these heads..

Recommended Valve Guide Seals

| KPMI No. | Type of Seal | Guide Top Diameter | Quantity |
|----------------|---|--------------------|-----------|
| 20-2015 | In / Ex • Style 5 • Steel Clad Viton | 0.420" | Pkg. of 4 |
| 20-2009 | In / Ex • Style 6 • Solid White PC Style Seal | 0.415" | Pkg. of 4 |

Seal, #20-2009, may require use of a seal cutter

Valve Guides Shouldered Guide w/ Viton Seal Shortened for .600" Lift

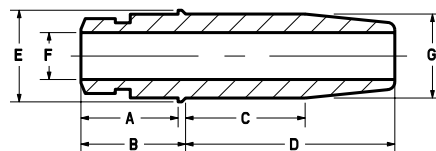


| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.400" |
| B | 0.700" | E | 0.615" |
| C | 0.800" | F | 0.3098" |

Intake - G (Std. 0.5620")

C630 Bronze

| | |
|----------------|----------|
| 20-2160 | Std. |
| 20-2161 | + 0.001" |
| 20-2162 | + 0.002" |
| 20-2164 | + 0.004" |
| 20-2169 | + 0.010" |



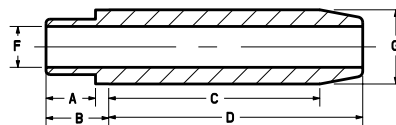
| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.450" |
| B | 0.700" | E | 0.615" |
| C | 1.150" | F | 0.3098" |

Exhaust - G (Std. 0.5620")

C630 Bronze

| | |
|----------------|----------|
| 20-2170 | Std. |
| 20-2171 | + 0.001" |
| 20-2172 | + 0.002" |
| 20-2174 | + 0.004" |
| 20-2179 | + 0.010" |

Valve Guides OEM Style - .420" Top



| | | | |
|----------|--------|----------|---------|
| A | 0.375" | D | 2.025" |
| B | 0.375" | E | ---- |
| C | 1.700" | F | 0.3098" |

Intake / Exhaust - G (Std. 0.5620")

C630 Bronze

Cast Iron

| | | | |
|----------------|----------|-----------------|----------|
| 20-4320 | Std. | 20-4320C | Std. |
| 20-4321 | + 0.001" | 20-4321C | + 0.001" |
| 20-4322 | + 0.002" | 20-4322C | + 0.002" |
| 20-4323 | + 0.003" | 20-4323C | + 0.003" |
| 20-4324 | + 0.004" | 20-4324C | + 0.004" |
| 20-4329 | + 0.010" | 20-4329C | + 0.010" |

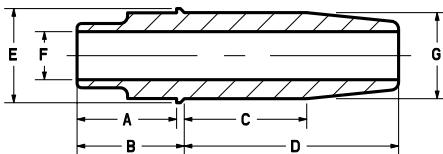


HARLEY-DAVIDSON® • TWIN CAM™ 88" • 1999-2004



20-2120 20-2120C 20-2120M

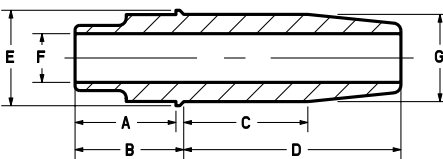
Valve Guides Shouldered Guide - .420" Top Shortened for .600" Lift



| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.400" |
| B | 0.700" | E | 0.615" |
| C | 0.800" | F | 0.3098" |

Intake - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|----------------|-----------------|-----------------|----------|
| 20-2120 | 20-2120C | 20-2120M | Std. |
| 20-2121 | 20-2121C | 20-2121M | + 0.001" |
| 20-2122 | 20-2122C | 20-2122M | + 0.002" |
| 20-2123 | 20-2123C | 20-2123M | + 0.003" |
| 20-2124 | 20-2124C | 20-2124M | + 0.004" |
| 20-2129 | 20-2129C | 20-2129M | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.450" |
| B | 0.700" | E | 0.615" |
| C | 1.150" | F | 0.3098" |

Exhaust - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|----------------|-----------------|-----------------|--------|
| 20-2130 | 20-2130C | 20-2130M | Std. |
| 20-2131 | 20-2131C | 20-2131M | +0.001 |
| 20-2132 | 20-2132C | 20-2132M | +0.002 |
| 20-2133 | 20-2133C | 20-2133M | +0.003 |
| 20-2134 | 20-2134C | 20-2134M | +0.004 |
| 20-2139 | 20-2139C | 20-2139M | +0.010 |

* See KPMI® Ball Hone and Reamer (Pg.179) section in back of catalog for more information.



10-SC500



20-2097

20-2099

Cylinder Dowels

| KPMI No. | Models | O.D. | Quantity |
|-----------------|---------------|--------|-----------|
| 20-20413 | All Twin Cams | 0.4365 | Pkg. of 4 |

Made from US Heat Treated Steel.

Cylinder Studs

| KPMI No. | Models | Quantity |
|-----------------|---------------|-----------|
| 20-20412 | All Twin Cams | 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.

Recommended Valve Seats (Powdered Metal)

| KPMI No. | OD ±.0002 | ID ±.0005 | HT ±.0005 | Remark |
|-----------------|--------------|--------------|--------------|--------|
| 10-SC500 | 1.9690" | 1.535" | 0.453" | In |
| 10-SC510 | 2.0070" | 1.562" | 0.450" | In |
| 10-SC541 | 2.1320" | 1.690" | 0.450" | In |
| 10-SC446 | 1.7570" | 1.375" | 0.450" | Ex |

For 1986 XL 1100 and 2004-2011 XL 1200. Proprietary seat material is compatible with leaded/unleaded and methanol/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. See page184 for a complete listing of Kibblewhite® Valve Seats.



20-2096



20-20632 20-20637 20-20620

O.E.M. Replacement Seals

| KPMI No. | Guide Ø | Stem Ø | Quantity |
|---------------------|---------|---------|-------------|
| 20-20620 | 0.420" | 0.3125" | Pkg. of 1 |
| 20-20620-25 | 0.420" | 0.3125" | Pkg. of 25 |
| 20-20620-100 | 0.420" | 0.3125" | Pkg. of 100 |

Seal Installation Tools

| KPMI No. | Fits | Quantity |
|-----------------|----------|-----------|
| 20-20632 | 20-20620 | Pkg. of 1 |

Installation Protectors

| KPMI No. | Stem Diameter | Quantity |
|-----------------|---------------|-----------|
| 20-20637 | 0.3125" | Pkg. of 1 |
| 20-20634 | 0.3125" | Pkg. of 2 |

Replacement Keeper Set

| KPMI No. | Type | Quantity |
|----------------|--------------|----------|
| 20-2096 | O.E.M. Style | 4 Prs. |

Rocker Arm Bushings

| KPMI No. | Years | Size | Quantity |
|----------------|-----------|--------------|-----------|
| 20-2106 | 1986-2011 | OD - 0.6795" | Pkg. of 8 |

Made from US Mill Certified SAE 660 Bearing Bronze Bar Stock.



HARLEY-DAVIDSON® • TWIN CAM™ 88"-103" • 2005-2010

For All 7.0mm Stem Valves

"Performance Rebuild" Ovate Wire Beehive Valve Spring Kits

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Valve Seals |
|-----------------|--|-------------------------------|---------------|-----------------------------------|-------------------------------|-------------------------------------|
| 20-20670 | .600" Valve Lift OK 175lb Seat Pressure 355 lb. @ .600" lift | 20-20671 H.T. Steel | Use O.E.M. | 20-20674 Chrome Silicon | 20-20673 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20680 | .630" Valve Lift OK 175lb Seat Pressure 365lb. @.630" lift | 20-20681 H.T. Steel | Use O.E.M. | 20-20684 Chrome Silicon | 20-20683 H.T. Steel | 20-20590 Steel Clad Viton |

Note: #20-20680 - Not recommended for lifts over .630".

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Valve Seals |
|-----------------|--|-------------------------------|---------------|-----------------------------------|---|-------------------------------------|
| 20-20360 | .600" Valve Lift OK 170-180lb Seat Pressure 375-385 lb. @ .600" lift | 20-20361 Titanium | Use O.E.M. | 20-20362 Chrome Silicon | 20-20363 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20364 | .600" Valve Lift OK 170-180lb Seat Pressure 375-385 lb. @ .600" lift | 20-20366 H.T. Steel | Use O.E.M. | 20-20362 Chrome Silicon | 20-20363 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20350 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ .655" lift | 20-20351 Titanium | Use O.E.M. | 20-20352 Chrome Silicon | 20-20417* 20-20353 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20355 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ .655" lift | 20-20356 H.T. Steel | Use O.E.M. | 20-20357 Chrome Silicon | 20-20417* 20-20358 H.T. Steel | 20-20590 Steel Clad Viton |

*20-20353 and 20-20358 Basewashers are designed to work with KPMI In./Ex. guides and OEM In. guides 20 20417 Basewashers are designed to work with OEM Ex. Guides.

Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|---------|--------|----------------------------|
| 20-20322 | IN | 1.805" / 45.85mm | 0.2755" | 1.700"R | 4.420" | Standard (OEM 18074-05) |
| 20-20323R | IN | 1.900" / 48.26mm | 0.2755" | 28° | 4.420" | Oversize |
| 20-20325 | EX | 1.575" / 40.00mm | 0.2755" | 22° | 4.520" | Standard (OEM 18085-05) |
| 20-20326R | EX | 1.630" / 41.40mm | 0.2755" | 34° | 4.520" | Oversize |

Cylinder Studs

| KPMI No. | Models | Quantity |
|-----------------|---------------|-----------|
| 20-20412 | All Twin Cams | 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

| KPMI No. | Models | O.D. | Quantity |
|-----------------|---------------|--------|-----------|
| 20-20413 | All Twin Cams | 0.4365 | Pkg. of 4 |

Made from US Heat Treated Steel

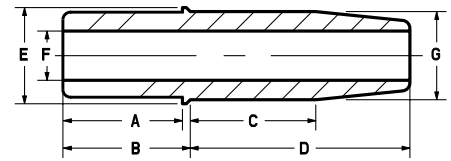
Recommended Valve Seats (Powdered Metal)

| KPMI No. | OD ±.0002 | ID ±.0005 | HT ±.0005 | Remark |
|-----------------|--------------|--------------|--------------|--------|
| 10-SC500 | 1.9690" | 1.535" | 0.453" | In |
| 10-SC510 | 2.0070" | 1.562" | 0.450" | In |
| 10-SC541 | 2.1320" | 1.690" | 0.450" | In |
| 10-SC446 | 1.7570" | 1.375" | 0.450" | Ex |

Kibblewhite'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. See page184 for a complet listing of Kibblewhite® valve seats.

Valve Guides

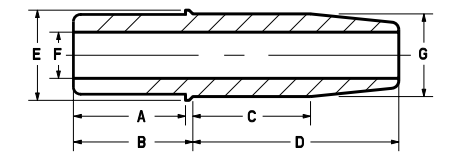
Shouldered Guide Use O.E.M. Style or Kibblewhite® Style Seals / 7.0mm ID



| | | | |
|----------|--------|----------|---------|
| A | 0.690" | D | 1.280" |
| B | 0.740" | E | 0.615" |
| C | 0.800" | F | 0.2750" |

Intake - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|-----------------|------------------|------------------|----------|
| 20-20690 | 20-20690C | 20-20690M | Std. |
| 20-20691 | 20-20691C | 20-20691M | + 0.001" |
| 20-20692 | 20-20692C | 20-20692M | + 0.002" |
| 20-20699 | 20-20699C | 20-20699M | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.690" | D | 1.280" |
| B | 0.740" | E | 0.615" |
| C | 1.030" | F | 0.2750" |

Exhaust - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|-----------------|------------------|------------------|----------|
| 20-20700 | 20-20700C | 20-20700M | Std. |
| 20-20701 | 20-20701C | 20-20701M | + 0.001" |
| 20-20702 | 20-20702C | 20-20702M | + 0.002" |
| 20-20709 | 20-20709C | 20-20709M | + 0.010" |

* See KPMI® Ball Hone and Reamer (Pg.179) section in back of catalog for more information.

7.0mm Valve Guide Seals

| KPMI No. | Type of Seal | Guide Top Diameter | Quantity |
|-----------------|---------------------------------------|--------------------|-----------|
| 20-20601 | O.E.M. • In / Ex Style 3 • Tophat | 0.565" | Pkg. of 1 |
| 20-20590 | In / Ex • Style 5 Steel Clad Viton | 0.565" | Pkg. of 4 |

Seals, #20-20590, use with KPMI® Spring Kits on O.E.M. or KPMI® Guides

OEM Replacement Keepers For All 7mm Harley Models

| KPMI No. | Models | Quantity |
|-------------------|-----------|----------|
| 500-100016 | 2004-2011 | 1 Pr. |



HARLEY-DAVIDSON® • BUELL® XB9™ • 2003-2007

HARLEY-DAVIDSON



20-20690 20-20690C 20-20690M



20-20700 20-20700C 20-20700M

**NEW
PRODUCT**



20-20670



20-20350

"Performance Rebuild" Ovate Wire Beehive Valve Spring Kits

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Valve Seals |
|----------|--|------------------------|---------------|----------------------------|------------------------|------------------------------|
| 20-20670 | .600" Valve Lift OK 175lb Seat Pressure 355 lb. @ .600" lift | 20-20671 H.T. Steel | Use O.E.M. | 20-20674 Chrome Silicon | 20-20673 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20680 | .630" Valve Lift OK 175lb Seat Pressure 365lb. @.630" lift | 20-20681 H.T. Steel | Use O.E.M. | 20-20684 Chrome Silicon | 20-20683 H.T. Steel | 20-20590 Steel Clad Viton |

Note: #20-20680 - Not recommended for lifts over .630".

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Valve Seals |
|----------|--|------------------------|---------------|----------------------------|-------------------------------------|------------------------------|
| 20-20360 | .600" Valve Lift OK 170-180lb Seat Pressure 375-385 lb. @ .600" lift | 20-20361 Titanium | Use O.E.M. | 20-20362 Chrome Silicon | 20-20363 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20364 | .600" Valve Lift OK 170-180lb Seat Pressure 375-385 lb. @ .600" lift | 20-20366 H.T. Steel | Use O.E.M. | 20-20362 Chrome Silicon | 20-20363 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20350 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ .655" lift | 20-20351 Titanium | Use O.E.M. | 20-20352 Chrome Silicon | 20-20417* 20-20353 H.T. Steel | 20-20590 Steel Clad Viton |
| 20-20355 | .655" Valve Lift OK 185-195lb Seat Pressure 450-460 lb. @ .655" lift | 20-20356 H.T. Steel | Use O.E.M. | 20-20357 Chrome Silicon | 20-20417* 20-20358 H.T. Steel | 20-20590 Steel Clad Viton |

*20-20353 and 20-20358 Basewashers are designed to work with KPMI® In./Ex. guides and OEM In. guides 20 20417 Basewashers are designed to work with OEM Ex. Guides.

Black Diamond™ Valves • Black Nitroleg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------|------|------------------|---------------|-------|--------|----------|
| 20-20260 | IN | 1.805" / 45.85mm | 0.2760" | 28° | 4.525" | Standard |
| 20-20262 | IN | 1.900" / 48.26mm | 0.2760" | 28° | 4.500" | Oversize |
| 20-20265 | EX | 1.575" / 40.00mm | 0.2755" | 34° | 4.610" | Standard |
| 20-20266 | EX | 1.615" / 41.02mm | 0.2755" | 34° | 4.590" | Oversize |

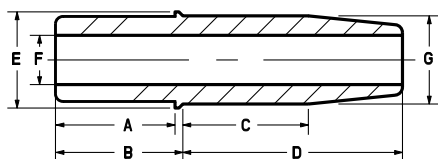
7.0mm Valve Guide Seals

| KPMI No. | Type of Seal | Guide Top Diameter | Quantity |
|-----------|--------------------------------------|--------------------|-----------|
| 20-20601 | O.E.M. • In / Ex • Style 3 • Tophat | 0.565" | Pkg. of 1 |
| *20-20590 | In / Ex • Style 5 • Steel Clad Viton | 0.565" | Pkg. of 4 |

Seal, 20-20590, uses with Kibblewhite® Spring Kits on O.E.M. or Kibblewhite® Guides.

Valve Guides

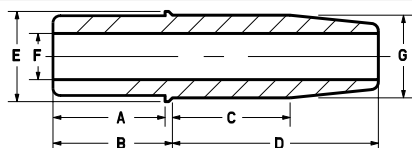
Shouldered Guide Use O.E.M. Style or Kibblewhite® Style Seals / 7.0mm ID



| | | | |
|----------|--------|----------|---------|
| A | 0.690" | D | 1.280" |
| B | 0.740" | E | 0.615" |
| C | 0.800" | F | 0.2750" |

Intake - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|-------------|-----------|------------|----------|
| 20-20690 | 20-20690C | 20-20690M | Std. |
| 20-20691 | 20-20691C | 20-20691M | + 0.001" |
| 20-20692 | 20-20692C | 20-20692M | + 0.002" |
| 20-20699 | 20-20699C | 20-20699M | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.690" | D | 1.280" |
| B | 0.740" | E | 0.615" |
| C | 1.030" | F | 0.2750" |

Exhaust - G (Std. 0.5620")

| C630 Bronze | Cast Iron | *Manganese | |
|-------------|-----------|------------|----------|
| 20-20700 | 20-20700C | 20-20700M | Std. |
| 20-20701 | 20-20701C | 20-20701M | + 0.001" |
| 20-20702 | 20-20702C | 20-20702M | + 0.002" |
| 20-20709 | 20-20709C | 20-20709M | + 0.010" |

* See KPMI® Ball Hone and Reamer (Pg.179) section in back of catalog for more information.



HARLEY-DAVIDSON® • V-ROD™ • 2005

HARLEY-DAVIDSON



20-20140



20-20157

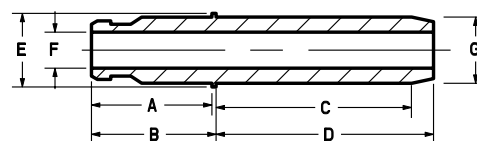


20-20147



20-20330

Valve Guides

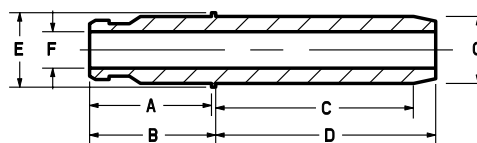


| | | | |
|----------|--------|----------|---------|
| A | 0.720" | D | 1.180" |
| B | 0.745" | E | 0.440" |
| C | 1.050" | F | 0.2345" |

Intake - G (Std. 0.3959")

C630 Bronze

| | |
|-----------------|----------|
| 20-20330 | Std. |
| 20-20331 | + 0.001" |
| 20-23339 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.720" | D | 1.300" |
| B | 0.745" | E | 0.440" |
| C | 1.170" | F | 0.2345" |

Exhaust - G (Std. 0.3959")

C630 Bronze

| | |
|-----------------|----------|
| 20-20340 | Std. |
| 20-20341 | + 0.001" |
| 20-20349 | + 0.010" |

Use O.E.M. seals

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|---------------|
| 20-20140 | .500" Valve Lift OK 72# Seat Pressure 230 lb. @ .500" lift | 20-20141 Titanium | Use O.E.M. | 20-20145 Chrome Silicon | Use O.E.M. |

Black Diamond™ Valves • Black Nitromeg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 20-20147 | IN | 1.575" / 40.00mm | 0.2350" | 10° | 4.580" | Standard |
| 20-20152 | EX | 1.360" / 34.54mm | 0.2345" | 25° | 4.620" | Standard |

OEM Replacement Tappets and Oversizes

| KPMI No. | Models | Quantity |
|-----------------|----------------|-----------|
| 20-20157 | Fits All Years | Pkg. of 8 |

Refer to **KPMI® Tappet Section (Pg. 183)**, in back of catalog, when selecting oversize tappets.



HONDA® • XR™ 50 • 2000-2003

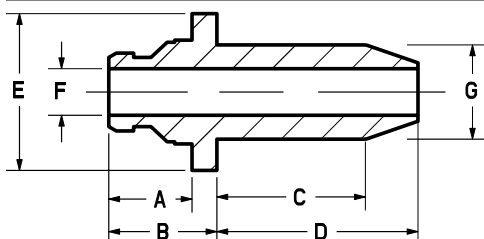


30-30510



HONDA

Valve Guides



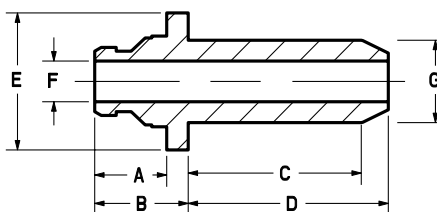
| | | | |
|----------|--------|----------|---------|
| A | 0.245" | D | 0.865" |
| B | 0.335" | E | 0.645" |
| C | 0.695" | F | 0.1960" |

Intake - **G** (Std. 0.3963")

C630 Bronze

| | |
|-----------------|----------|
| 30-30510 | Std. |
| 30-30512 | + 0.002" |
| 30-30519 | + 0.010" |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.245" | D | 0.865" |
| B | 0.335" | E | 0.645" |
| C | 0.790" | F | 0.1960" |

Exhaust - **G** (Std. 0.3963")

C630 Bronze

| | |
|-----------------|----------|
| 30-30520 | Std. |
| 30-30522 | + 0.002" |
| 30-30529 | + 0.010" |

Custom Valves
Available By Request

From Thumpertalk.com

Finally got em!!!! Finally, finally, finally! They arrived yesterday and the appointments been made to have them installed. Quoted for 2 hours labor if I bring my head to the local shop!! Dropping it off Friday morning and suppose to pick it up by Saturday morn at the latest. Can't wait and hope they hold up good like the forum says they will.....

iv'e got them in my klx450, stock valves wore out had no more adjustment, so far so good engine runs great

First 4 hours on new valves and bike is running great. First log hop attempted after valve job, bike stood straight up and tried to leave me behind.....

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100015 | In / Ex • Style 4 • Viton | Pkg. of 1 |



HONDA® • XR™ 75 / 80 • 1985-2003



Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Spring Shims |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-----------------|
| 30-30235 | .360" Valve Lift OK 48# Seat Pressure/ 120# @ .300" lift | 30-30236 Titanium | Use O.E.M. | 30-30237 Chrome Silicon | 30-30246 |

Replacement Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|---------------------|-----------------------|
| 30-4062 | .400" Valve Lift OK | Use O.E.M. |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30238 | IN | 24.00mm / 0.945" | 0.2145" | 20° | 3.115" | Standard |
| 30-30239 | IN | 26.00mm / 1.024" | 0.2145" | 20° | 3.115" | Oversize |
| 30-30241 | EX | 20.50mm / 0.807" | 0.2140" | 20° | 3.100" | Standard |
| 30-30242 | EX | 22.00mm / 0.866" | 0.2140" | 20° | 3.100" | Oversize |

Valve Guide Seals

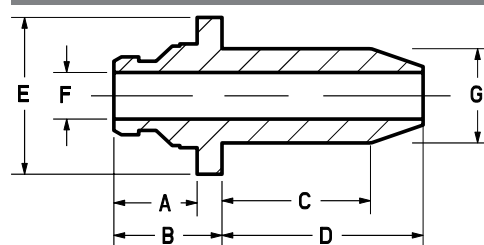
| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |



30-30250

30-30260

Valve Guides

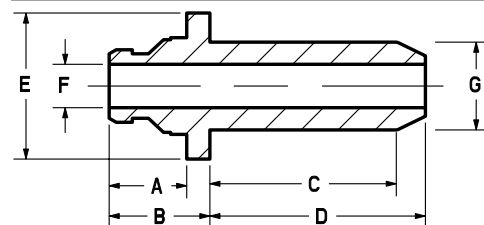


| | | | |
|----------|--------|----------|---------|
| A | 0.385" | D | 0.930" |
| B | 0.500" | E | 0.725" |
| C | 0.690" | F | 0.2145" |

Intake - G (Std. 0.4356")

C630 Bronze

| | |
|-----------------|----------|
| 30-30250 | Std. |
| 30-30251 | + 0.001" |
| 30-30252 | + 0.002" |
| 30-30259 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.385" | D | 1.070" |
| B | 0.500" | E | 0.725" |
| C | 0.930" | F | 0.2145" |

Exhaust - G (Std. 0.4356")

C630 Bronze

| | |
|-----------------|----------|
| 30-30260 | Std. |
| 30-30261 | + 0.001" |
| 30-30262 | + 0.002" |
| 30-30269 | + 0.010" |



HONDA® • XR™ 100R • 1985-2003

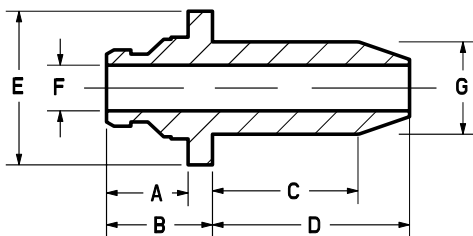
HONDA



30-30250

30-30260

Valve Guides

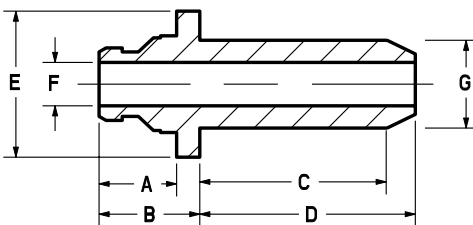


| | | | |
|----------|--------|----------|---------|
| A | 0.385" | D | 0.930" |
| B | 0.500" | E | 0.725" |
| C | 0.690" | F | 0.2145" |

Intake - **G** (Std. 0.4356")

C630 Bronze

| | |
|-----------------|----------|
| 30-30250 | Std. |
| 30-30251 | + 0.001" |
| 30-30252 | + 0.002" |
| 30-30259 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.385" | D | 1.070" |
| B | 0.500" | E | 0.725" |
| C | 0.930" | F | 0.2145" |

Exhaust - **G** (Std. 0.4356")

C630 Bronze

| | |
|-----------------|----------|
| 30-30260 | Std. |
| 30-30261 | + 0.001" |
| 30-30262 | + 0.002" |
| 30-30269 | + 0.010" |



30-30238
Groove Detail



30-30238



30-30235

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Spring Shims |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-----------------|
| 30-30235 | .360" Valve Lift OK 48# Seat Pressure/ 120# @ .300" lift | 30-30236 Titanium | Use O.E.M. | 30-30237 Chrome Silicon | 30-30246 |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30238 | IN | 24.00mm / 0.945" | 0.2145" | 20° | 3.115" | Standard |
| 30-30239 | IN | 26.00mm / 1.024" | 0.2145" | 20° | 3.115" | Oversize |
| 30-30241 | EX | 20.50mm / 0.807" | 0.2140" | 20° | 3.100" | Standard |
| 30-30242 | EX | 22.00mm / 0.866" | 0.2140" | 20° | 3.100" | Oversize |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |



HONDA® • CRF™ 150R • 2007-2014



Brian Martinez Racing

A young Brian Martinez winning another TT on his CRF150R. This bike featured a Kibblewhite® race prepped and equipped CRF150R head with Black Diamond Valves, Kibblewhite® Spring Kit and Guides. This year, Brian will be racing a CRF450R with a Kibblewhite® prepped head using KPMI® Valves, Spring Kit and Guides.



30-30880



30-30890

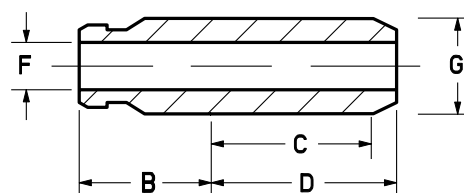


30-30910



30-30910
Groove Detail

Valve Guides

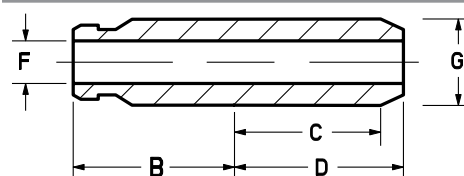


| | | | |
|----------|--------|----------|---------|
| A | ----- | D | 0.710" |
| B | 0.550" | E | 0.350" |
| C | 0.570" | F | 0.1760" |

Intake - G (Std. 0.3566")

C630 Bronze

| | |
|-----------------|----------|
| 30-30890 | Std. |
| 30-30891 | + 0.001" |
| 30-30892 | + 0.002" |
| 30-30899 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | ----- | D | 0.710" |
| B | 0.790" | E | 0.350" |
| C | 0.600" | F | 0.1760" |

Exhaust - G (Std. 0.3566")

C630 Bronze

| | |
|-----------------|----------|
| 30-30900 | Std. |
| 30-30901 | + 0.001" |
| 30-30902 | + 0.002" |
| 30-30909 | + 0.010" |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-30880 | .350" Valve Lift OK 45# Seat Pressure/143# @ .350" lift | 30-30881 Titanium | Use O.E.M. | 30-30882 Chrome Silicon | 30-30883 H.T. Steel |
| | .350" Valve Lift OK 45# Seat Pressure/143# @ .350" lift | 30-30885 Titanium | Use O.E.M. | 30-30886 Chrome Silicon | 30-30887 H.T. Steel |

Black Diamond™ Valves • Black Nitro Neg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|---------------------|---------------|-------|--------|----------|
| 30-30910 | IN | 26.00mm / 1.024" | 0.1765" | 19° | 3.065" | Standard |
| 30-30911 | IN | 27.00mm / 1.063" | 0.1765" | 19° | 3.065" | Oversize |
| 30-30913 | EX | 22.50mm / 0.886" | 0.1760" | 19° | 3.145" | Standard |
| 30-30914 | EX | 23.50mm / 0.925" | 0.1760" | 19° | 3.145" | Oversize |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100014 | In / Ex • Style 4 • Viton | Pkg. of 1 |



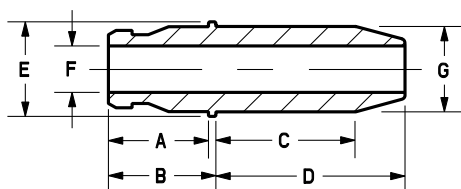
HONDA® • CB™ 160 • 1965-1969



30-30810

30-30820

Valve Guides

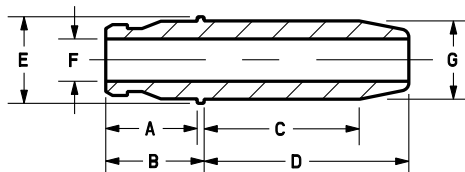


| | | | |
|----------|--------|----------|---------|
| A | 0.415" | D | 0.880" |
| B | 0.450" | E | 0.440" |
| C | 0.650" | F | 0.2150" |

Intake - **G** (Std. 0.3975")

C630 Bronze

| | |
|-----------------|----------|
| 30-30810 | Std. |
| 30-30811 | + 0.001" |
| 30-30812 | + 0.002" |
| 30-30819 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.415" | D | 1.040" |
| B | 0.450" | E | 0.440" |
| C | 0.790" | F | 0.2150" |

Exhaust - **G** (Std. 0.3975")

C630 Bronze

| | |
|-----------------|----------|
| 30-30820 | Std. |
| 30-30821 | + 0.001" |
| 30-30822 | + 0.002" |
| 30-30829 | + 0.010" |

The components on this page have been designed to work together, **and must be used as a complete system.**

This combination of parts offers the builder the best solution available for the stresses these engines endure during racing conditions.



30-30910



CB160 and 175 have become the rage in vintage Road Racing. Here, Jennifer Bromme of WerkStatt Motorcycles in San Francisco, takes a lap on her KPMI® equipped CB160 Café Racer



30-30800

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|--------------------------------|-----------------------------------|-------------------------------|
| 30-30800 | .354" Valve Lift OK 48# Seat Pressure/133# @ .354" lift | 30-30801 Titanium | *30-30802 H.T. Steel | 30-30803 Chrome Silicon | 30-30804 H.T. Steel |

Designed for use with Kibblewhite® valves only. 30-30802 keepers which are supplied with this kit are designed to work with Kibblewhite® valves utilizing a radius groove keeper design.

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30830 | IN | 25.00mm / 0.984" | 0.2157" | 21° | 2.980" | Standard |
| 30-30831 | IN | 26.00mm / 1.024" | 0.2157" | 21° | 2.980" | Oversize |
| 30-30833 | EX | 22.00mm / 0.866" | 0.2152" | 15° | 2.975" | Standard |
| 30-30834 | EX | 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 #30-30802, which are supplied with Kibblewhite® Spring Kit #30-30800.

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |



HONDA® • CB™ 175 • 1970-1975



The components on this page have been designed to work together, **and must be used as a complete system.**

This combination of parts offers the builder the best solution available for the stresses these engines endure during racing conditions.



30-30840



30-30870



**30-30870
Groove Detail**

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|--------------------------------|-----------------------------------|-------------------------------|
| 30-30840 | .354" Valve Lift OK 48# Seat Pressure/133# @ .354" lift | 30-30841 Titanium | *30-30842 H.T. Steel | 30-30843 Chrome Silicon | 30-30844 H.T. Steel |

Designed for use with Kibblewhite® valves only. **#30-30842 Keepers** which are supplied with this kit are designed to work with Kibblewhite® valves utilizing a radius groove keeper design.

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30870 | IN | 28.00mm / 1.102" | 0.2158" | 21° | 2.920" | Standard |
| 30-30871 | IN | 29.00mm / 1.141" | 0.2158" | 21° | 2.920" | Oversize |
| 30-30873 | EX | 24.00mm / 0.945" | 0.2152" | 21° | 2.895" | Standard |
| 30-30874 | EX | 25.00mm / 0.984" | 0.2152" | 21° | 2.895" | Oversize |

Not recommended for O.E.M. replacement. These valves have been designed to work with Kibblewhite® Radius Groove Keepers **#30-30842**, which are supplied with Kibblewhite® Spring Kit **#30-30840**.

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |

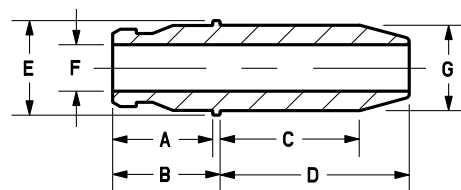


30-30850



30-30860

Valve Guides

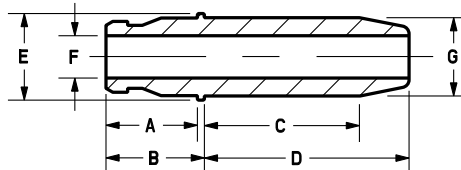


| | | | |
|----------|--------|----------|---------|
| A | 0.415" | D | 0.880" |
| B | 0.450" | E | 0.440" |
| C | 0.650" | F | 0.2150" |

Intak e - G (Std. 0.3975")

C630 Bronze

| | |
|-----------------|----------|
| 30-30850 | Std. |
| 30-30851 | + 0.001" |
| 30-30852 | + 0.002" |
| 30-30859 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.415" | D | 1.040" |
| B | 0.450" | E | 0.440" |
| C | 0.790" | F | 0.2150" |

Exhaust - G (Std. 0.3975")

C630 Bronze

| | |
|-----------------|----------|
| 30-30860 | Std. |
| 30-30861 | + 0.001" |
| 30-30862 | + 0.002" |
| 30-30869 | + 0.010" |



HONDA® • ATC™ 185 / 200 • 1981-1987



30-4021



30-4069



30-30120

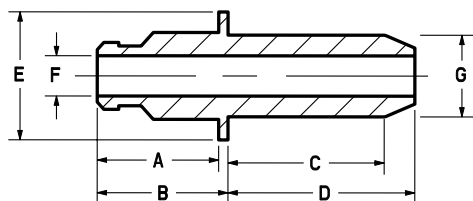


30-30120
Groove Detail



30-4016

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.550" | D | 1.050" |
| B | 0.650" | E | 0.685" |
| C | 0.890" | F | 0.2155" |

Intake/Exhaust - **G** (Std. 0.4372")

C630 Bronze

| | |
|----------------|----------|
| 30-4069 | Std. |
| 30-4159 | + 0.004" |
| 30-4160 | + 0.015" |

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

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|---|----------------------------|---------------|----------------------------------|------------------------------|
| 30-4021 | .450" Valve Lift OK 65-70# Seat Pressure/202# @ .450" lift | 30-4027 Titanium | Use O.E.M. | 30-4025 Chrome Silicon | 30-4022 H.T. Steel |

High Performance Spring Only Kit

| KPMI No. | Description | Retainers | Shims |
|----------------|---|------------|----------------|
| 30-4016 | .450" Valve Lift OK 55-60# Seat Pressure/195# @ .450" lift | Use O.E.M. | 30-4017 |

Black Diamond™ Valves • Black Nitronex Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|---------------------|---------------|-------|--------|----------|
| 30-30120 | IN | 30.00mm / 1.181" | 0.2145" | 23° | 3.605" | Standard |
| 30-30121 | IN | 31.00mm / 1.220" | 0.2148" | 23° | 3.625" | Oversize |
| 30-30122 | EX | 25.00mm / 0.984" | 0.2140" | 29° | 3.585" | Standard |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |



HONDA® • XL™ 200R / XR™ 200R • 1980-2002

(Excluding XR™ 200R • 1984-1985 4V)

From DirtBikeWorld.net

There's a world shortage of pro X valves, so I wouldn't bother trying to compare them. I ordered some Kibblewhite®s today, there is a lot of crf riders that swear by them.

reply --- Just put kibblewhites in mine and 13:5:1 je piston, has way more punch and apparently the best combo from all my research.



30-30077



30-30120



30-3100

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-30077 | .355" Valve Lift OK 55# Seat Pressure 150# @ .355" lift | 30-30079 Titanium | Use O.E.M. | 30-30078 Chrome Silicon | 30-30080 H.T. Steel |

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers | Shims |
|----------------|---|-----------------------|----------------|
| 30-4016 | .450" Valve Lift OK 55-60# Seat Pressure/195# @ .450" lift | Use O.E.M. | 30-4017 |

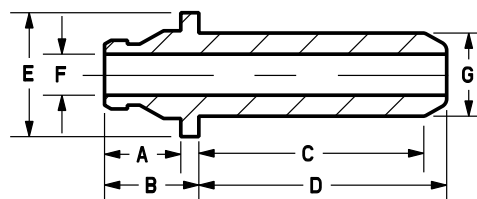
Black Diamond™ Valves • Black Nitroleg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|---------------------|---------------|-------|--------|----------|
| 30-30120 | IN | 30.00mm / 1.181" | 0.2145" | 23° | 3.605" | Standard |
| 30-30121 | IN | 31.00mm / 1.220" | 0.2148" | 23° | 3.625" | Oversize |
| 30-30122 | EX | 25.00mm / 0.984" | 0.2140" | 29° | 3.585" | Standard |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.400" | D | 1.300" |
| B | 0.495" | E | 0.650" |
| C | 1.185" | F | 0.2155" |

Intake/Exhaust - G (Std. 0.4355")

C630 Bronze

| | |
|----------------|----------|
| 30-3100 | Std. |
| 30-3102 | + 0.002" |
| 30-3110 | + 0.010" |

For all the applications available for Kibblewhite's Honda® line of products, please refer online to the Honda® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.

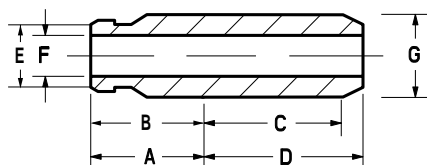


HONDA® • CRF™ 250R 2004-'07 / CRF™ 250X 2004-'13



30-30590

Valve Guides

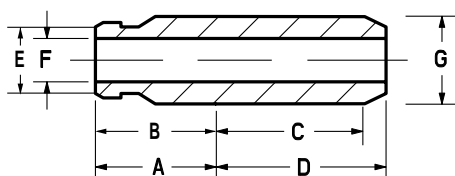


| | | | |
|----------|--------|----------|---------|
| A | 0.540" | D | 0.770" |
| B | 0.540" | E | 0.394" |
| C | 0.710" | F | 0.1960" |

Intake - **G** (Std. 0.3965")

C630 Bronze

| | |
|-----------------|----------|
| 30-30610 | Std. |
| 30-30611 | + 0.001" |
| 30-30612 | + 0.002" |
| 30-30619 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.740" | D | 0.775" |
| B | 0.740" | E | 0.394" |
| C | 0.675" | F | 0.1955" |

Exhaust - **G** (Std. 0.3965")

C630 Bronze

| | |
|-----------------|----------|
| 30-30620 | Std. |
| 30-30621 | + 0.001" |
| 30-30622 | + 0.002" |
| 30-30624 | + 0.004" |
| 30-30629 | + 0.010" |



30-30610



30-30631T



30-30630



Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|------------------------------------|
| 30-30590 | In-.350" Valve Lift OK 50# Seat Pressure 145# @ .350" lift | 30-30591 Titanium | Use O.E.M. | 30-30592 Chrome Silicon | 30-30593 H.T. Steel | 30-30594 Style 4 • Viton |
| | Ex-.350" Valve Lift OK 50# Seat Pressure 145# @ .350" lift | 30-30598 Titanium | Use O.E.M. | 30-30599 Chrome Silicon | 30-30600 H.T. Steel | 30-30601 Style 4 • Viton |

High-Lift Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|------------------------------------|
| 30-31300 | In-.385" Valve Lift OK 50# Seat Pressure 162# @ .385" lift | 30-31301 Titanium | Use O.E.M. | 30-31303 Chrome Silicon | 30-31305 H.T. Steel | 30-31307 Style 4 • Viton |
| | Ex-.385" Valve Lift OK 50# Seat Pressure 162# @ .385" lift | 30-31302 Titanium | Use O.E.M. | 30-31304 Chrome Silicon | 30-31306 H.T. Steel | 30-31308 Style 4 • Viton |

Intake Only Steel Valve Conversion Kits

Please see **#30-31200** Honda CRF250R/X Intake Only Spring Kits Section in back of catalog (Pg. 178).

Black Diamond™™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30630 | IN | 31.00mm / 1.220" | 0.1961" | 20° | 3.280" | Standard |
| 30-30631 | IN | 32.00mm / 1.260" | 0.1961" | 20° | 3.280" | Oversize |
| 30-30633 | EX | 26.00mm / 1.024" | 0.1956" | 20° | 3.235" | Standard |
| 30-30634 | EX | 27.00mm / 1.063" | 0.1956" | 20° | 3.235" | Oversize |

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

Tensilite® Valves • Chromium Nitride PVD Coated Titanium

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|-------|--------|----------|
| 30-30630T | IN | 31.00mm / 1.220" | 0.1961" | 20° | 3.280" | Standard |
| 30-30631T | IN | 32.00mm / 1.260" | 0.1961" | 20° | 3.280" | Oversize |
| 30-30633T | EX | 26.00mm / 1.024" | 0.1956" | 19° | 3.232" | Standard |
| 30-30634T | EX | 27.00mm / 1.063" | 0.1956" | 19° | 3.232" | Oversize |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-----------------|----------------------|-----------|
| 30-30594 | In • Style 4 • Viton | Pkg. of 2 |
| 30-30601 | Ex • Style 4 • Viton | Pkg. of 2 |



HONDA® • CRF™ 250R • 2008-2009



**30-31200
Intake Only
Conversion Kit**

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|------------------------------------|
| 30-31150 | In-.350" Valve Lift OK 50# Seat Pressure 145# @ .350" lift | 30-31151 Titanium | Use O.E.M. | 30-31153 Chrome Silicon | 30-31155 H.T. Steel | 30-31190 Style 4 • Viton |
| | Ex-.350" Valve Lift OK 50# Seat Pressure 145# @ .350" lift | 30-31152 Titanium | Use O.E.M. | 30-31154 Chrome Silicon | 30-31156 H.T. Steel | 30-31191 Style 4 • Viton |

Lightweight High-Lift Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|------------------------------------|
| 30-31310 | In-.385" Valve Lift OK 50# Seat Pressure 154# @ .363" lift | 30-31311 Titanium | Use O.E.M. | 30-31313 Chrome Silicon | 30-31315 H.T. Steel | 30-31317 Style 4 • Viton |
| | Ex-.385" Valve Lift OK 50# Seat Pressure 154# @ .363" lift | 30-31312 Titanium | Use O.E.M. | 30-31314 Chrome Silicon | 30-31316 H.T. Steel | 30-31318 Style 4 • Viton |

Intake Only Steel Valve Conversion Kits

Please see **#30-31200 Honda CRF250R Intake Only Spring Kits Section** in back of catalog (Pg. 178).

Black Diamond™ Valves • Black Nitroreng Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-31162 | IN | 31.00mm / 1.220" | 0.1961" | 20° | 3.280" | Standard |
| 30-31163 | IN | 32.00mm / 1.260" | 0.1961" | 20° | 3.280" | Oversize |
| 30-31166 | EX | 26.00mm / 1.024" | 0.1760" | 20° | 3.235" | Standard |
| 30-31167 | EX | 27.00mm / 1.063" | 0.1760" | 20° | 3.235" | Oversize |

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

Tensilite® Valves • Chromium Nitride PVD Coated Titanium

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|-------|--------|----------|
| 30-31162T | IN | 31.00mm / 1.220" | 0.1961" | 20° | 3.280" | Standard |
| 30-31163T | IN | 32.00mm / 1.260" | 0.1961" | 20° | 3.280" | Oversize |
| 30-31166T | EX | 26.00mm / 1.024" | 0.1760" | 20° | 3.235" | Standard |
| 30-31167T | EX | 27.00mm / 1.063" | 0.1760" | 20° | 3.235" | Oversize |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100014 | In / Ex • Style 4 • Viton | Pkg. of 1 |

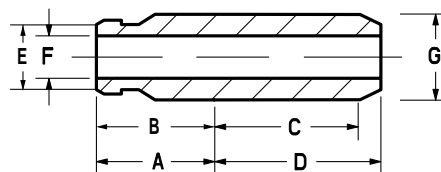


30-31166



30-31170

Valve Guides

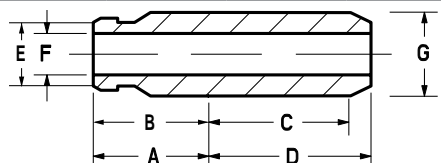


| | | | |
|----------|--------|----------|---------|
| A | 0.540" | D | 0.770" |
| B | 0.540" | E | 0.394" |
| C | 0.710" | F | 0.1960" |

Intake - G (Std. 0.3965")

C630 Bronze

| | |
|-----------------|----------|
| 30-31170 | Std. |
| 30-31171 | + 0.001" |
| 30-31172 | + 0.002" |
| 30-31179 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.740" | D | 0.850" |
| B | 0.740" | E | 0.394" |
| C | 0.750" | F | 0.1760" |

Exhaust - G (Std. 0.3965")

C630 Bronze

| | |
|-----------------|----------|
| 30-31180 | Std. |
| 30-31181 | + 0.001" |
| 30-31182 | + 0.002" |
| 30-31189 | + 0.010" |



HONDA® • CRF™ 250R • 2010-2014

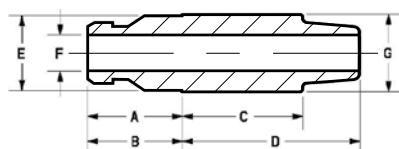


30-31470



30-31480

Valve Guides

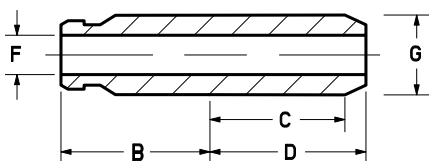


| | | | |
|----------|--------|----------|---------|
| A | 0.610" | D | 0.965" |
| B | 0.610" | E | 0.394" |
| C | 0.745" | F | 0.1960" |

Intake - G (Std. 0.3965")

C630 Bronze

| | |
|-----------------|----------|
| 30-31470 | Std. |
| 30-31471 | + 0.001" |
| 30-31472 | + 0.002" |
| 30-31479 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.820" | D | 0.770" |
| B | 0.820" | E | 0.394" |
| C | 0.650" | F | 0.1760" |

Exhaust - G (Std. 0.3965")

C630 Bronze

| | |
|-----------------|----------|
| 30-31480 | Std. |
| 30-31481 | + 0.001" |
| 30-31482 | + 0.002" |
| 30-31489 | + 0.010" |

From CRFsOnly.com Forum

I just bought the kibble set up. They did the work for me.
What an incredible set of valves and springs.



30-31462



30-31450

Lightweight High-Lift Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|------------------------------------|
| 30-31450 | In-.385" Valve Lift OK 50# Seat Pressure 162# @ .365" lift | 30-31451 Titanium | Use O.E.M. | 30-31453 Chrome Silicon | 30-31455 H.T. Steel | 30-31457 Style 4 • Viton |
| | Ex-.385" Valve Lift OK 50# Seat Pressure 162# @ .365" lift | 30-31452 Titanium | Use O.E.M. | 30-31454 Chrome Silicon | 30-31456 H.T. Steel | 30-31458 Style 4 • Viton |

Intake Only Steel Valve Conversion Kits

Please see **#30-31500 Honda CRF250R Intake Only Spring Kits Section** in back of catalog (Pg. 178).

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-31462 | IN | 30.50mm / 1.201" | 0.1961" | 20° | 3.504" | Standard |
| 30-31463 | IN | 31.50mm / 1.240" | 0.1961" | 20° | 3.504" | Oversize |
| 30-31466 | EX | 25.00mm / 0.984" | 0.1760" | 20° | 3.310" | Standard |
| 30-31467 | EX | 26.00mm / 1.024" | 0.1760" | 20° | 3.310" | Oversize |

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

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-----------------|----------------------|-----------|
| 30-31457 | In • Style 4 • Viton | Pkg. of 2 |
| 30-31458 | Ex • Style 4 • Viton | Pkg. of 2 |



HONDA® • TRX™ 250X • 1987-1992

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Spring Shims |
|----------------|---|----------------------------|---------------|----------------------------------|----------------|
| 30-3041 | .400" Valve Lift OK 65# Seat Pressure 180# @ .400" lift | 30-3043 Titanium | Use O.E.M. | 30-3042 Chrome Silicon | 30-3044 |

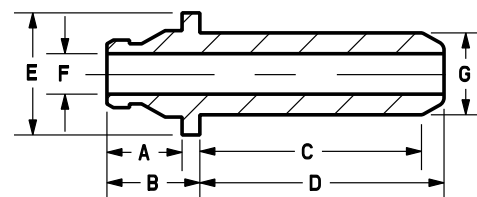
Black Diamond™™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30088 | IN | 25.50mm / 1.004" | 0.2155" | 23° | 3.680" | Standard |
| 30-30089 | IN | 26.50mm / 1.043" | 0.2155" | 23° | 3.660" | Oversize |
| 30-30090 | EX | 22.50mm / 0.886" | 0.2150" | 29° | 3.655" | Standard |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.400" | D | 1.300" |
| B | 0.495" | E | 0.800" |
| C | 1.185" | F | 0.2155" |

Intake/Exhaust - **G** (Std. 0.4355")

C630 Bronze

| | |
|----------------|----------|
| 30-3030 | Std. |
| 30-3032 | + 0.002" |
| 30-3040 | + 0.010" |

HONDA® • XR™ / XL™ 250 RFVC • 1984-1995

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-30077 | .355" Valve Lift OK 55# Seat Pressure 150# @ .355" lift | 30-30079 Titanium | Use O.E.M. | 30-30078 Chrome Silicon | 30-30080 H.T. Steel |

Black Diamond™™ Valves • Black Nitroneg Stems For 1986-1996 Models

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30081 | IN | 28.50mm / 1.122" | 0.2160" | 23° | 3.805" | Standard |
| 30-30082 | IN | 29.50mm / 1.161" | 0.2160" | 23° | 3.805" | Oversize |
| 30-30083 | EX | 23.50mm / 0.925" | 0.2155" | 29° | 3.775" | Standard |

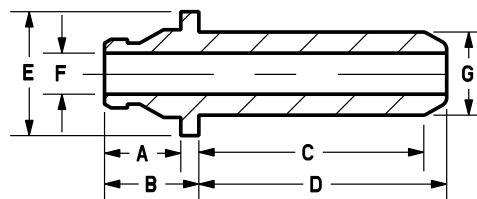
Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |



30-3100

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.400" | D | 1.300" |
| B | 0.495" | E | 0.650" |
| C | 1.185" | F | 0.2155" |

Intake/Exhaust - **G** (Std. 0.4355")

C630 Bronze

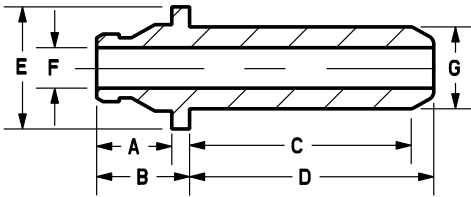
| | |
|----------------|----------|
| 30-3100 | Std. |
| 30-3102 | + 0.002" |
| 30-3110 | + 0.010" |

For all the applications available for Kibblewhite's Honda® line of products, please refer online to the Honda® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.



HONDA® • XR™ 250L • 1991-1996

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.400" | D | 1.300" |
| B | 0.495" | E | 0.800" |
| C | 1.185" | F | 0.2155" |

Intake/Exhaust - **G** (Std. 0.4355")

C630 Bronze

| | |
|----------------|----------|
| 30-3030 | Std. |
| 30-3032 | + 0.002" |
| 30-3040 | + 0.010" |

Custom Valves
Available For All Models



30-3030



Valve Guide Seals

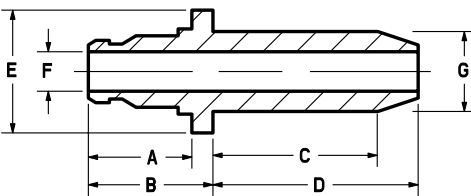
| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |

HONDA® • XR™ 250 RFVC • 1996-2004



30-30070

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.565" | D | 1.120" |
| B | 0.680" | E | 0.670" |
| C | 0.900" | F | 0.1955" |

Intake/Exhaust - **G** (Std. 0.4363")

C630 Bronze

| | |
|-----------------|----------|
| 30-30060 | Std. |
| 30-30061 | + 0.001" |
| 30-30062 | + 0.002" |
| 30-30069 | + 0.010" |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|---------------|
| 30-30070 | .465" Valve Lift OK 55# Seat Pressure 180# @ .465" lift | 30-30072 Titanium | Use O.E.M. | 30-30071 Chrome Silicon | Use O.E.M. |

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|---|-----------------------|
| 30-4154 | .460" Valve Lift OK 55# Seat Pressure 170# @ .460" lift | Use O.E.M. |

Black Diamond™™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30073 | IN | 28.50mm / 1.122" | 0.1960" | 23° | 3.805" | Standard |
| 30-30074 | IN | 29.50mm / 1.161" | 0.1960" | 23° | 3.805" | Oversize |
| 30-30075 | EX | 23.50mm / 0.925" | 0.1955" | 29° | 3.765" | Standard |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |



HONDA® • TRX™ 300EX / X • 1993-2009



30-3041



30-30088

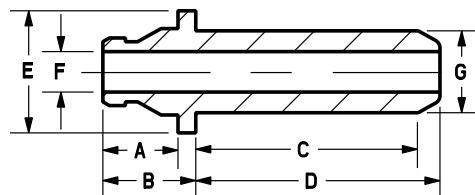
Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Spring Shims |
|----------------|---|----------------------------|---------------|----------------------------------|----------------|
| 30-3041 | .400" Valve Lift OK 65# Seat Pressure 180# @ .400" lift | 30-3043 Titanium | Use O.E.M. | 30-3042 Chrome Silicon | 30-3044 |

Black Diamond™ Valves • Black Nitroleg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30088 | IN | 25.50mm / 1.004" | 0.2155" | 23° | 3.680" | Standard |
| 30-30089 | IN | 26.50mm / 1.043" | 0.2155" | 23° | 3.660" | Oversize |
| 30-30090 | EX | 22.50mm / 0.886" | 0.2150" | 29° | 3.655" | Standard |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.400" | D | 1.300" |
| B | 0.495" | E | 0.800" |
| C | 1.185" | F | 0.2155" |

Intake/Exhaust - **G** (Std. 0.4355")

C630 Bronze

| | |
|----------------|----------|
| 30-3030 | Std. |
| 30-3032 | + 0.002" |
| 30-3040 | + 0.010" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|------------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |

HONDA® • 350 RFVC • 1983-1985



30-4083



30-3100

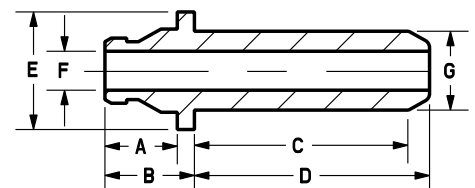
High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|---------------------|-----------------------|
| 30-4083 | .460" Valve Lift OK | Use O.E.M. |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.400" | D | 1.300" |
| B | 0.495" | E | 0.650" |
| C | 1.185" | F | 0.2155" |

Intake/Exhaust - **G** (Std. 0.4355")

C630 Bronze

| | |
|----------------|----------|
| 30-3100 | Std. |
| 30-3102 | + 0.002" |
| 30-3110 | + 0.010" |



HONDA® • CB 350 TWIN™ CL / K2 • 1968-1973

From SingleOver-HeadCam4.net

The Kibblewhite® valves are stainless with the Black Diamond coating...
IMO they are the best out there,
BUT you have to pay for the best.

I prefer Kibblewhite® parts for all these CB's... that's my experience after installing hundreds of guides and valves.

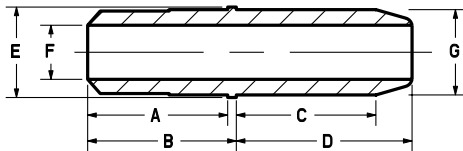


30-0359



30-0363

Valve Guides

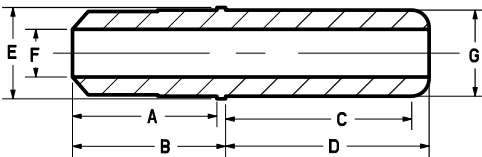


| | | | |
|----------|--------|----------|---------|
| A | 0.830" | D | 1.020" |
| B | 0.880" | E | 0.525" |
| C | 0.810" | F | 0.2745" |

Intake - G (Std. 0.4950")

C630 Bronze

| | |
|----------------|----------|
| 30-0359 | Std. |
| 30-0360 | + 0.002" |
| 30-0400 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.830" | D | 1.170" |
| B | 0.880" | E | 0.525" |
| C | 1.090" | F | 0.2740" |

Exhaust - G (Std. 0.4950")

C630 Bronze

| | |
|----------------|----------|
| 30-0363 | Std. |
| 30-0364 | + 0.002" |
| 30-0401 | + 0.010" |

No seal required.



30-30104



30-30361



30-30365

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|-------------------------------|-----------------------------------|-------------------------------|
| 30-30104 | .465" Valve Lift OK 100# Seat Pressure 270# @ .460" lift | 30-30105 Titanium | 30-30106 H.T. Steel | 30-30107 Chrome Silicon | 30-30108 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30361 | IN | 34.00mm / 1.339" | 0.2745" | 15° | 3.910" | Standard |
| 30-30362 | IN | 35.00mm / 1.378" | 0.2745" | 15° | 3.900" | Oversize |
| 30-30364 | EX | 28.00mm / 1.102" | 0.2740" | 23° | 3.850" | Standard |
| 30-30365 | EX | 29.00mm / 1.142" | 0.2740" | 23° | 3.840" | Oversize |

These valves have been designed with a lightweight, high flow racing profile.



HONDA® • CB350 TWIN™ CL / K2 • 1968-1973

Lightweight 5.00mm Conversion System



30-30320

30-30326
Groove Detail

30-30326

30-30330

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Spring Shims |
|----------|---|----------------------|------------------------|----------------------------|------------------------|
| 30-30320 | .460" Valve Lift OK 63# Seat Pressure 205# @ .460" lift | 30-30321 Titanium | 30-30322 H.T. Steel | 30-30323 Chrome Silicon | 30-30324 H.T. Steel |

Black Diamond™™ Valves • Black Nitroneg Stems

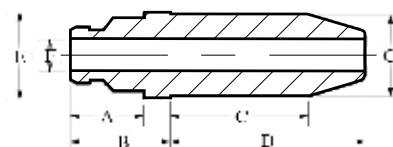
| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------|------|------------------|---------------|-------|--------|----------|
| 30-30326 | IN | 34.00mm / 1.339" | 0.1965" | 20° | 3.835" | Standard |
| 30-30327 | IN | 35.00mm / 1.378" | 0.1965" | 20° | 3.825" | Oversize |
| 30-30328 | EX | 28.00mm / 1.102" | 0.1960" | 23° | 3.775" | Standard |
| 30-30329 | EX | 29.00mm / 1.142" | 0.1960" | 23° | 3.765" | Oversize |

Must use Kibblewhite® Lash Caps #30-30360 (Pkg. of 4). Valves have been shortened to fit lash caps.

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|------------|---------------------------|-----------|
| 700-100015 | In / Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guides

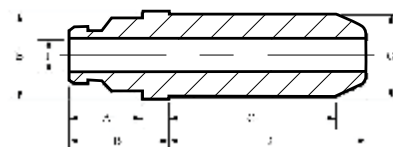


| | | | |
|---|--------|---|---------|
| A | 0.440" | D | 1.165" |
| B | 0.600" | E | 0.525" |
| C | 0.825" | F | 0.1960" |

Intake - G (Std. 0.4953")

C630 Bronze

| | |
|----------|----------|
| 30-30330 | Std. |
| 30-30331 | + 0.001" |
| 30-30332 | + 0.002" |
| 30-30339 | + 0.010" |



| | | | |
|---|--------|---|---------|
| A | 0.440" | D | 1.180" |
| B | 0.600" | E | 0.525" |
| C | 1.000" | F | 0.1960" |

Exhaust - G (Std. 0.4953")

C630 Bronze

| | |
|----------|----------|
| 30-30340 | Std. |
| 30-30341 | + 0.001" |
| 30-30342 | + 0.002" |
| 30-30349 | + 0.010" |

One seal supplied with each guide.

HONDA® • CB™ 350F / 450F • 1972-1977

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------|---------------------|-----------------------|
| 30-1032 | .400" Valve Lift OK | Use O.E.M. |

For all the applications available for Kibblewhite's Honda® line of products, please refer online to the Honda® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.

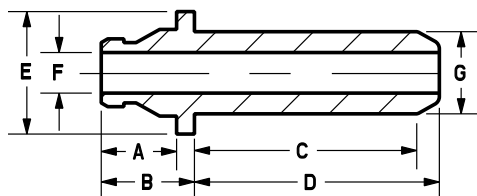


30-1032



HONDA® • TRX™ 400X / 400EX • 1999-2013

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.550" | D | 1.300" |
| B | 0.645" | E | 0.715" |
| C | 1.020" | F | 0.2150" |

Intake/Exhaust - **G** (Std. 0.4355")

C630 Bronze

| | |
|----------------|----------|
| 30-3120 | Std. |
| 30-3121 | + 0.001" |
| 30-3122 | + 0.002" |
| 30-3130 | + 0.010" |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|----------------------------|-----------|
| 700-100016 | In / Ex Style 4 • Viton | Pkg. of 1 |



30-3111



30-3115



30-3115
Groove Detail

Lightweight Racing Valve Spring Kit

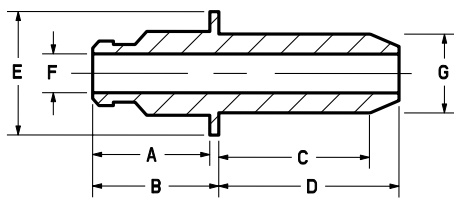
| KPMI No. | Description | Retainers | Keepers | Springs |
|----------------|---|----------------------------|---------------|----------------------------------|
| 30-3111 | .465" Valve Lift OK 70# Seat Pressure/210 lb. @ .460" lift | 30-3112 Titanium | Use O.E.M. | 30-3113 Chrome Silicon |

Black Diamond™ Valves • Black Nitroeneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 30-3115 | IN | 33.00mm / 1.300" | 0.2156" | 20° | 4.040" | Standard |
| 30-3116 | IN | 34.00mm / 1.340" | 0.2150" | 20° | 4.020" | Oversize |
| 30-3117 | EX | 29.00mm / 1.142" | 0.2150" | 29° | 3.980" | Standard |
| 30-3118 | EX | 30.00mm / 1.181" | 0.2150" | 29° | 3.960" | Oversize |

HONDA® • XR™ 400 RFVC • 1996-2004

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.550" | D | 1.300" |
| B | 0.645" | E | 0.715" |
| C | 1.020" | F | 0.2150" |

Intake/Exhaust - **G** (Std. 0.4355")

C630 Bronze

| | |
|----------------|----------|
| 30-3120 | Std. |
| 30-3121 | + 0.001" |
| 30-3122 | + 0.002" |
| 30-3130 | + 0.010" |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|----------------------------|-----------|
| 700-100016 | In / Ex Style 4 • Viton | Pkg. of 1 |



30-3120



30-30085



30-3115



30-3115
Groove Detail

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs |
|-----------------|---|-----------------------------|------------|-----------------------------------|
| 30-30085 | .465" Valve Lift OK 70# Seat Pressure/210 lb. @ .465" lift | 30-30087 Titanium | Use O.E.M. | 30-30086 Chrome Silicon |

Black Diamond™ Valves • Black Nitroeneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 30-3115 | IN | 33.00mm / 1.299" | 0.2156" | 20° | 4.040" | Standard |
| 30-3116 | IN | 34.00mm / 1.339" | 0.2150" | 20° | 4.020" | Oversize |
| 30-3117 | EX | 29.00mm / 1.142" | 0.2150" | 29° | 3.980" | Standard |
| 30-3118 | EX | 30.00mm / 1.181" | 0.2150" | 29° | 3.960" | Oversize |



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

5.00mm Conversion System



30-30306



30-30306
Groove Detail



30-30300

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------|---|----------------------|------------------------|----------------------------|------------------------|
| 30-30300 | .460" Valve Lift OK 70# Seat Pressure/190 lb. @ .460" lift | 30-30301 Titanium | 30-30302 H.T. Steel | 30-30303 Chrome Silicon | 30-30304 H.T. Steel |

Black Diamond™™ Valves • Black Nitroneg Stems

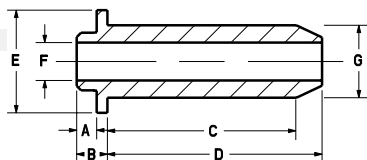
| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------|------|------------------|---------------|-------|--------|----------|
| 30-30306 | IN | 38.00mm / 1.496" | 0.1960" | 20° | 3.855" | Standard |
| 30-30307 | IN | 39.00mm / 1.535" | 0.1960" | 20° | 3.845" | Oversize |
| 30-30308 | EX | 33.00mm / 1.299" | 0.1955" | 18° | 3.715" | Standard |
| 30-30309 | EX | 34.00mm / 1.339" | 0.1955" | 18° | 3.695" | Oversize |

Valves shortened for lash caps. Use **Kibblewhite® Lash Caps #30-30482** (Pkg. of 4). Using these valves as O.E.M. replacements requires **Kibblewhite® 5.0mm Conversion Guides and Keepers**.

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|------------|---------------------------|-----------|
| 700-100015 | In / Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guides for Stock Valve Stem Diameters for Honda CB™ 450 / CB™ 500 Twin



| | | | |
|----------|--------|----------|---------|
| A | 0.130" | D | 1.468" |
| B | 0.210" | E | 0.702" |
| C | 1.293" | F | 0.2760" |

Intake/Exhaust - G (Std. 0.4955")

C630 Bronze

| | |
|---------|----------|
| 30-0367 | Std. |
| 30-0368 | + 0.002" |
| 30-0369 | + 0.004" |
| 30-0370 | + 0.006" |

Custom Valves
Available By Request

Use OEM seals.

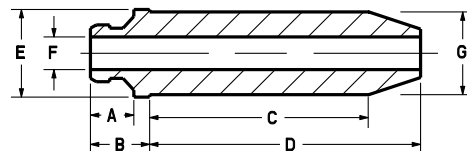


30-30690



30-30700

Valve Guides

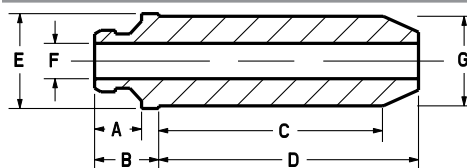


| | | | |
|----------|--------|----------|---------|
| A | 0.259" | D | 1.621" |
| B | 0.354" | E | 0.524" |
| C | 1.311" | F | 0.1955" |

Intake - G (Std. 0.4951")

C630 Bronze

| | |
|----------|----------|
| 30-30690 | Std. |
| 30-30691 | + 0.001" |
| 30-30692 | + 0.002" |
| 30-30699 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.259" | D | 1.436" |
| B | 0.354" | E | 0.524" |
| C | 1.241" | F | 0.1955" |

Exhaust - G (Std. 0.4591")

C630 Bronze

| | |
|----------|----------|
| 30-30700 | Std. |
| 30-30701 | + 0.001" |
| 30-30702 | + 0.002" |
| 30-30709 | + 0.010" |

One seal supplied with each guide.

5.0mm Conversion Keepers

| KPMI No. | Type | Quantity |
|------------------------|--------------------------|-----------|
| 30-30710 H.T. Steel | Fits O.E.M. Retainers | Pkg. of 8 |

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



HONDA® • CRF™ 450R • 2002-2008

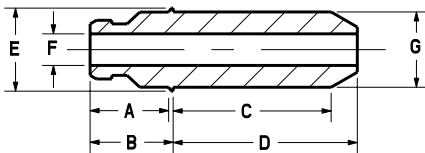


30-30640



30-31210
Intake Only
Conversion Kit

Valve Guides

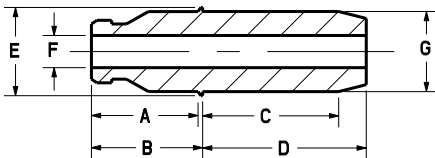


| | | | |
|----------|--------|----------|---------|
| A | 0.495" | D | 0.760" |
| B | 0.520" | E | 0.480" |
| C | 0.650" | F | 0.2155" |

Intake - **G** (Std. 0.4360")

C630 Bronze

| | |
|-----------------|----------|
| 30-30200 | Std. |
| 30-30201 | + 0.001" |
| 30-30202 | + 0.002" |
| 30-30204 | + 0.004" |
| 30-30209 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.580" | D | 0.890" |
| B | 0.605" | E | 0.480" |
| C | 0.740" | F | 0.1955" |

Exhaust - **G** (Std. 0.4360")

C630 Bronze

| | |
|-----------------|----------|
| 30-30210 | Std. |
| 30-30211 | + 0.001" |
| 30-30212 | + 0.002" |
| 30-30214 | + 0.004" |
| 30-30219 | + 0.010" |

High Performance Tappets

| KPMI No. | Models | Quantity |
|-----------------|----------------|-----------|
| 30-30648 | Fits All Years | Pkg. of 2 |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-30640 | In- .440" Valve Lift OK 40# Seat Pressure/148lb. @ .440" lift | 30-30641 Titanium | Use O.E.M. | 30-30642 Chrome Silicon | 30-30643 H.T. Steel |
| | Ex- .440" Valve Lift OK 70# Seat Pressure/205lb. @ .440" lift | 30-30644 Titanium | Use O.E.M. | 30-30645 Chrome Silicon | 30-30646 H.T. Steel |

Intake Only Steel Valve Conversion Kits

Please see **#30-31210** Honda CRF450R Intake Only Spring Kits Section in back of catalog (Pg. 178).

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|---------------------------|
| 30-30220 | IN | 36.00mm / 1.417" | 0.2158" | 20° | 3.315" | Standard |
| 30-30221 | IN | 37.00mm / 1.457" | 0.2158" | 20° | 3.325" | Oversize |
| 30-30222 | IN | 38.00mm / 1.496" | 0.2158" | 20° | 3.325" | Oversize |
| 30-30223 | EX | 31.00mm / 1.220" | 0.1957" | 20° | 3.310" | Standard |
| 30-30224 | EX | 32.00mm / 1.260" | 0.1957" | 20° | 3.320" | Oversize |
| 30-30225 | EX | 30.00mm / 1.181" | 0.1957" | 20° | 3.310" | 2007-2008 Standard |

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

Tensilite Valves • Chromium Nitride PVD Coated Titanium

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|-------|--------|----------|
| 30-30220T | IN | 36.00mm / 1.417" | 0.2158" | 20° | 3.315" | Standard |
| 30-30221T | IN | 37.00mm / 1.457" | 0.2158" | 20° | 3.325" | Oversize |
| 30-30222T | IN | 38.00mm / 1.496" | 0.2158" | 20° | 3.325" | Oversize |

If the above sizes are not what you need, we can make any size custom valve. Please call for more information.

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|----------|
| 700-100016 | Intake • Style 4 • Viton | Pkg of 1 |
| 700-100015 | Exhaust • Style 4 • Viton | Pkg of 1 |

For all the applications available for Kibblewhite's Honda® line of products, please refer online to the Honda® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.



HONDA® • CRF™ 450R • 2009-2012



**TOP
SELLER**

30-31250

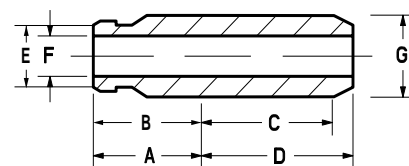


**30-31262
Intake Valve**



30-31270

Valve Guides

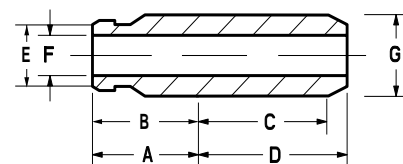


| | | | |
|----------|--------|----------|---------|
| A | 0.535" | D | 0.670" |
| B | 0.535" | E | 0.433" |
| C | 0.590" | F | 0.1965" |

Intake - G (Std. 0.4360")

C630 Bronze

| | |
|-----------------|----------|
| 30-31270 | Std. |
| 30-31271 | + 0.001" |
| 30-31272 | + 0.002" |
| 30-31279 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.630" | D | 0.870" |
| B | 0.630" | E | 0.433" |
| C | 0.730" | F | 0.1960" |

Exhaust - G (Std. 0.4360")

C630 Bronze

| | |
|-----------------|----------|
| 30-31280 | Std. |
| 30-31281 | + 0.001" |
| 30-31282 | + 0.002" |
| 30-31289 | + 0.010" |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-31250 | .440" Valve Lift OK - In 40# Seat Pressure/148lb. @ .440" lift | 30-31251 Titanium | Use O.E.M. | 30-31253 Chrome Silicon | 30-31255 H.T. Steel |
| | .440" Valve Lift OK - Ex 70# Seat Pressure/205lb. @ .440" lift | 30-31252 Titanium | Use O.E.M. | 30-31254 Chrome Silicon | 30-31256 H.T. Steel |

Intake Only Steel Valve Conversion Kits

Please see **#30-31240** Honda CRF450R Intake Only Spring Kits Section in back of catalog (Pg. 178).

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-31262 | IN | 36.00mm / 1.417" | 0.1960" | 20° | 3.095" | Standard |
| 30-31263 | IN | 37.00mm / 1.457" | 0.1960" | 20° | 3.105" | Oversize |
| 30-31266 | EX | 30.00mm / 1.181" | 0.1955" | 20° | 3.175" | Standard |
| 30-31267 | EX | 31.00mm / 1.220" | 0.1955" | 20° | 3.185" | Oversize |

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

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100015 | In / Ex • Style 4 • Viton | Pkg. of 1 |

High Performance Tappets

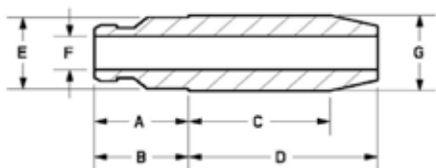
| KPMI No. | Models | Quantity |
|-----------------|-----------|-----------|
| 30-31292 | 2009-2012 | Pkg. of 2 |



HONDA® • CRF™ 450R • 2013-2014



Valve Guides

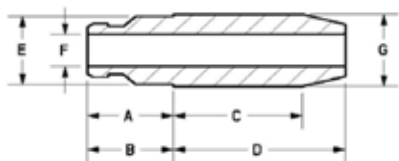


| | | | |
|----------|--------|----------|---------|
| A | 0.535" | D | 0.670" |
| B | 0.535" | E | 0.433" |
| C | 0.590" | F | 0.1955" |

Intake - G (Std. 0.4365")

C630 Bronze

| | |
|-----------------|----------|
| 30-31620 | Std. |
| 30-31621 | + 0.001" |
| 30-31622 | + 0.002" |
| 30-31629 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.630" | D | 0.870" |
| B | 0.630" | E | 0.433" |
| C | 0.730" | F | 0.1960" |

Exhaust - G (Std. 0.4365")

C630 Bronze

| | |
|-----------------|----------|
| 30-31630 | Std. |
| 30-31631 | + 0.001" |
| 30-31632 | + 0.002" |
| 30-31639 | + 0.010" |

High Performance Tappets

| KPMI No. | Models | Quantity |
|-----------------|--------|-----------|
| 30-31642 | All | Pkg. of 2 |



30-31612
Intake Valve



30-31600

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-31600 | .440" Valve Lift OK - In 40# Seat Pressure/148lb. @ .440" lift | 30-31601 Titanium | Use O.E.M. | 30-31603 Chrome Silicon | 30-31605 H.T. Steel |
| | .440" Valve Lift OK - Ex 70# Seat Pressure/205lb. @ .440" lift | 30-31602 Titanium | Use O.E.M. | 30-31604 Chrome Silicon | 30-31606 H.T. Steel |

Intake Only Steel Valve Conversion Kits

Please see **#30-31580** Honda CRF450R Intake Only Spring Kits Section in back of catalog (Pg. 178).

Black Diamond™™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-31612 | IN | 36.00mm / 1.417" | 0.1960" | 20° | 3.095" | Standard |
| 30-31613 | IN | 37.00mm / 1.457" | 0.1960" | 20° | 3.095" | Oversize |
| 30-31616 | EX | 31.00mm / 1.220" | 0.1957" | 20° | 3.175" | Standard |
| 30-31617 | EX | 32.00mm / 1.260" | 0.1957" | 20° | 3.175" | Oversize |

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

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100015 | In / Ex • Style 4 • Viton | Pkg. of 1 |



HONDA® • CRF™ 450X • 2005-2014



30-31062



30-31050

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-31050 | In-.440" Valve Lift OK 40# Seat Pressure/ 148lb. @ .440" lift | 30-31051 Titanium | Use O.E.M. | 30-31053 Chrome Silicon | 30-31055 H.T. Steel |
| | Ex-.440" Valve Lift OK 70# Seat Pressure/ 205lb. @ .440" lift | 30-31052 Titanium | Use O.E.M. | 30-31054 Chrome Silicon | 30-31056 H.T. Steel |

Intake Only Steel Valve Conversion Kits

Please see #30-31230 Honda CRF450X Intake Only Spring Kits Section in back of catalog (Pg. 178).

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-31062 | IN | 35.00mm / 1.378" | 0.2158" | 20° | 3.315" | Standard |
| 30-31063 | IN | 36.00mm / 1.417" | 0.2158" | 20° | 3.315" | Oversize |
| 30-31066 | EX | 30.00mm / 1.181" | 0.1957" | 20° | 3.310" | Standard |
| 30-31067 | EX | 31.00mm / 1.220" | 0.1957" | 20° | 3.310" | Oversize |

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

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | Intake • Style 4 • Viton | Pkg. of 1 |
| 700-100015 | Exhaust • Style 4 • Viton | Pkg. of 1 |

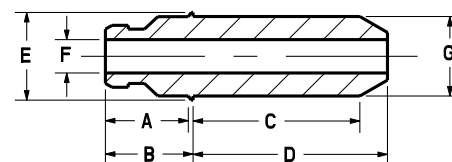


30-31292



30-31070

Valve Guides

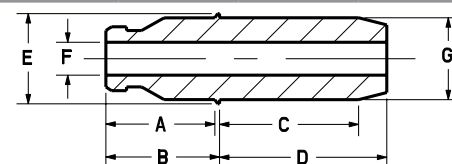


| | | | |
|----------|--------|----------|---------|
| A | 0.495" | D | 0.760" |
| B | 0.520" | E | 0.480" |
| C | 0.650" | F | 0.2155" |

Intake - **G** (Std. 0.4360")

C630 Bronze

| | |
|-----------------|----------|
| 30-31070 | Std. |
| 30-31071 | + 0.001" |
| 30-31072 | + 0.002" |
| 30-31074 | + 0.004" |
| 30-31079 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.580" | D | 0.890" |
| B | 0.605" | E | 0.480" |
| C | 0.740" | F | 0.1955" |

Exhaust - **G** (Std. 0.4360")

C630 Bronze

| | |
|-----------------|----------|
| 30-31080 | Std. |
| 30-31081 | + 0.001" |
| 30-31082 | + 0.002" |
| 30-31084 | + 0.004" |
| 30-31089 | + 0.010" |

High Performance Tappets

| KPMI No. | Models | Quantity |
|-----------------|----------------|-----------|
| 30-31092 | Fits All Years | Pkg. of 2 |



HONDA® • TRX™ 450R • 2004-2005

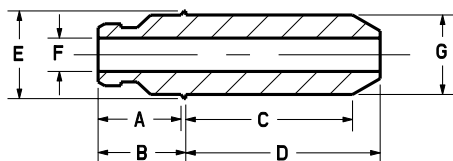


30-30730



30-30740

Valve Guides

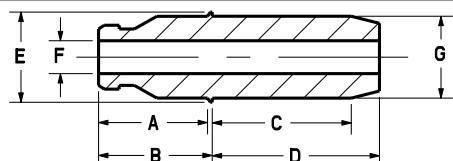


| | | | |
|----------|--------|----------|---------|
| A | 0.495" | D | 0.760" |
| B | 0.520" | E | 0.480" |
| C | 0.650" | F | 0.2155" |

Intake - G (Std. 0.4360")

C630 Bronze

| | |
|-----------------|----------|
| 30-30730 | Std. |
| 30-30731 | + 0.001" |
| 30-30732 | + 0.002" |
| 30-30734 | + 0.004" |
| 30-30739 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.495" | D | 0.830" |
| B | 0.520" | E | 0.480" |
| C | 0.705" | F | 0.2150" |

Exhaust - G (Std. 0.4360")

C630 Bronze

| | |
|-----------------|----------|
| 30-30740 | Std. |
| 30-30741 | + 0.001" |
| 30-30742 | + 0.002" |
| 30-30744 | + 0.004" |
| 30-30749 | + 0.010" |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|------------------------------|----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg of 1 |



30-30720



30-30750



30-30750T

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-30720 | In-.440" Valve Lift OK 40# Seat Pressure/148lb. @ .440" lift | 30-30721 Titanium | Use O.E.M. | 30-30723 Chrome Silicon | 30-30722 H.T. Steel |
| | Ex-.440" Valve Lift OK 70# Seat Pressure/205lb. @ .440" lift | 30-30724 Titanium | Use O.E.M. | 30-30726 Chrome Silicon | 30-30725 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30750 | IN | 36.00mm / 1.417" | 0.2158" | 20° | 3.315" | Standard |
| 30-30751 | IN | 37.00mm / 1.457" | 0.2158" | 20° | 3.325" | Oversize |
| 30-30752 | IN | 38.00mm / 1.496" | 0.2158" | 20° | 3.325" | Oversize |
| 30-30753 | EX | 30.00mm / 1.181" | 0.2151" | 20° | 3.315" | Standard |
| 30-30754 | EX | 31.00mm / 1.220" | 0.2151" | 20° | 3.325" | Oversize |
| 30-30755 | EX | 32.00mm / 1.260" | 0.2151" | 20° | 3.325" | Oversize |

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

Tensilite Valves • Chromium Nitride PVD Coated Titanium

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|----------------|---------------|-------|--------|----------|
| 30-30750T | IN | 36.00mm/1.418" | .2158" | 20° | 3.315" | Standard |
| 30-30751T | IN | 37.00mm/1.457" | .2158" | 20° | 3.325" | Oversize |
| 30-30752T | IN | 38.00mm/1.496" | .2158" | 20° | 3.325" | Oversize |

High Performance Tappets

| KPMI No. | Models | Quantity |
|-----------------|----------------|-----------|
| 30-30728 | Fits All Years | Pkg. of 2 |



HONDA® • TRX™ 450X / ER • 2006-2013

**TOP
SELLER**



30-30950



30-30950T



30-30920

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-30920 | In- .440" Valve Lift OK 40# Seat Pressure/ 148lb. @ .440" lift | 30-30921 Titanium | Use O.E.M. | 30-30923 Chrome Silicon | 30-30922 H.T. Steel |
| | Ex- .440" Valve Lift OK 70# Seat Pressure/ 205lb. @ .440" lift | 30-30924 Titanium | Use O.E.M. | 30-30926 Chrome Silicon | 30-30925 H.T. Steel |

Black Diamond™ Valves • Black Nitro Neg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30950 | IN | 36.00mm / 1.417" | 0.2158" | 20° | 3.315" | Standard |
| 30-30951 | IN | 37.00mm / 1.457" | 0.2158" | 20° | 3.325" | Oversize |
| 30-30952 | IN | 38.00mm / 1.496" | 0.2158" | 20° | 3.325" | Oversize |
| 30-30953 | EX | 30.00mm / 1.181" | 0.1957" | 20° | 3.310" | Standard |
| 30-30954 | EX | 31.00mm / 1.220" | 0.1957" | 20° | 3.310" | Oversize |
| 30-30955 | EX | 32.00mm / 1.260" | 0.1957" | 20° | 3.320" | Oversize |

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

Tensilite Valves • Chromium Nitride PVD Coated Titanium

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|----------------|---------------|-------|--------|----------|
| 30-30950T | IN | 36.00mm/1.418" | .2158" | 20° | 3.315" | Standard |
| 30-30951T | IN | 37.00mm/1.457" | .2158" | 20° | 3.325" | Oversize |
| 30-30952T | IN | 38.00mm/1.496" | .2158" | 20° | 3.325" | Oversize |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | Intake • Style 4 • Viton | Pkg. of 1 |
| 700-100015 | Exhaust • Style 4 • Viton | Pkg. of 1 |

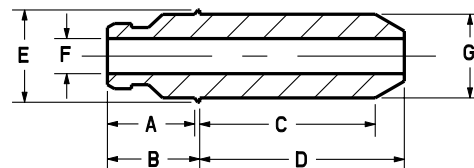


30-30930



30-30940

Valve Guides

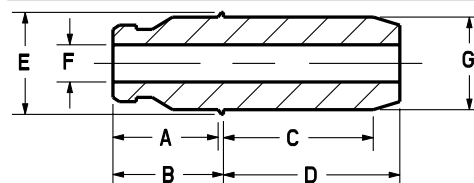


| | | | |
|----------|--------|----------|---------|
| A | 0.495" | D | 0.760" |
| B | 0.520" | E | 0.480" |
| C | 0.650" | F | 0.2155" |

Intake - **G** (Std. 0.4360")

C630 Bronze

| | |
|-----------------|----------|
| 30-30930 | Std. |
| 30-30931 | + 0.001" |
| 30-30932 | + 0.002" |
| 30-30934 | + 0.004" |
| 30-30939 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.580" | D | 0.890" |
| B | 0.605" | E | 0.480" |
| C | 0.740" | F | 0.1955" |

Exhaust - **G** (Std. 0.4360")

C630 Bronze

| | |
|-----------------|----------|
| 30-30940 | Std. |
| 30-30941 | + 0.001" |
| 30-30942 | + 0.002" |
| 30-30944 | + 0.004" |
| 30-30949 | + 0.010" |

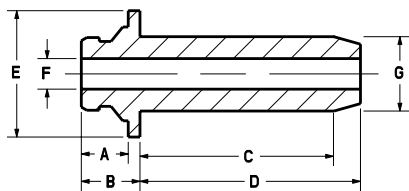
High Performance Tappets

| KPMI No. | Models | Quantity |
|-----------------|----------------|-----------|
| 30-30648 | Fits All Years | Pkg. of 2 |



HONDA® • GB™ 500 • 1989-1990

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.300" | D | 1.410" |
| B | 0.375" | E | 0.808" |
| C | 1.240" | F | 0.2590" |

Intake/Exhaust - **G** (Std. 0.4755")

C630 Bronze

| | |
|----------------|----------|
| 30-3050 | Std. |
| 30-3052 | + 0.002" |
| 30-3060 | + 0.010" |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|----------------------------|-----------|
| 700-100018 | In / Ex Style 4 • Viton | Pkg. of 1 |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-----------------|
| 30-30015 | .465" Valve Lift OK 80# Seat Pressure/220lb. @ .465" lift | 30-30016 Titanium | Use O.E.M. | 30-30017 Chrome Silicon | 30-30018 |

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|-----------------------|
| 30-4081 | .465" Valve Lift OK 70# Seat Pressure/210lb. @ .465" lift | Use O.E.M. |

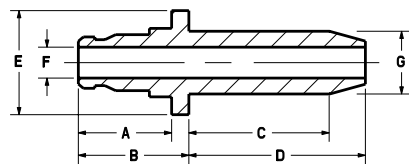
Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 30-3003 | IN | 36.00mm / 1.417" | 0.2590" | 23° | 4.165" | Standard |
| 30-3004 | EX | 31.00mm / 1.220" | 0.2585" | 29° | 4.095" | Standard |

For all the applications available for Kibblewhite's Honda® line of products, please refer online to the Honda® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.

HONDA® • CB™ 500 / 4 - CB™ 550 / 4 • 1974-1978

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.495" | D | 1.230" |
| B | 0.595" | E | 0.725" |
| C | 0.720" | F | 0.2145" |

Intake/Exhaust - **G** (Std. 0.4372")

C630 Bronze

| | |
|----------------|----------|
| 30-3150 | Std. |
| 30-3151 | + 0.001" |
| 30-3152 | + 0.002" |
| 30-3154 | + 0.004" |
| 30-3160 | + 0.010" |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|----------------------------|-----------|
| 700-100016 | In / Ex Style 4 • Viton | Pkg. of 1 |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Spring Shims |
|-----------------|--|-----------------------------|---------------|-----------------------------------|---------------|
| 30-31550 | .440" Valve Lift OK 70# Seat Pressure/203lb. @ .440" lift | 30-31551 Titanium | Use O.E.M. | 30-31553 Chrome Silicon | Use O.E.M. |

OEM Replacement Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|-----------------------|
| 30-4045 | .440" Valve Lift OK 60# Seat Pressure/195lb. @ .440" lift | Use O.E.M. |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|----------------|---------------|-------|--------|----------|
| 30-31330 | IN | 27.50mm/1.083" | 0.2150" | 20° | 3.680" | Standard |
| 30-31331 | IN | 28.50mm/1.122" | 0.2150" | 20° | 3.680" | Oversize |
| 30-31334 | EX | 23.00mm/0.905" | 0.2145" | 30° | 3.650" | Standard |
| 30-31335 | EX | 24.00mm/0.945" | 0.2145" | 30° | 3.650" | Oversize |



HONDA® • XL™ 500 S / XR™ 500 / 500R • 1979-1984

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-30015 | .465" Valve Lift OK 80# Seat Pressure/ Open Pressure 220lb. @ .465" lift | 30-30016 Titanium | Use O.E.M. | 30-30017 Chrome Silicon | 30-30018 H.T. Steel |

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|-----------------------|
| 30-4081 | .465" Valve Lift OK 70# Seat Pressure/210lb. @ .465" lift | Use O.E.M. |

Black Diamond™ Valves for 1983-1984 Models Only

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 30-3003 | IN | 36.00mm / 1.417" | 0.2590" | 23° | 4.165" | Standard |
| 30-3004 | EX | 31.00mm / 1.220" | 0.2585" | 29° | 4.095" | Standard |

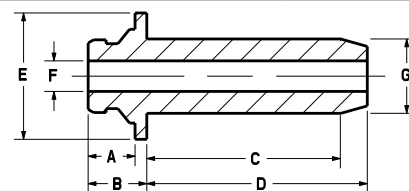
Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100018 | In / Ex • Style 4 • Viton | Pkg. of 1 |



30-3050

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.300" | D | 1.410" |
| B | 0.375" | E | 0.808" |
| C | 1.240" | F | 0.2590" |

Intake/Exhaust - G (Std. 0.4755")

C630 Bronze

| | |
|----------------|----------|
| 30-3050 | Std. |
| 30-3052 | + 0.002" |
| 30-3060 | + 0.010" |

HONDA® • CBR™ 600 F2 / F3 • 1991-1996

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 30-3024 | IN | 25.50mm / 1.004" | 0.1566" | 19° | 3.115" | Standard |
| 30-3025 | IN | 26.50mm / 1.043" | 0.1566" | 19° | 3.115" | Oversize |
| 30-3022 | EX | 22.00mm / 0.866" | 0.1561" | 20° | 3.120" | Standard |
| 30-3023 | EX | 23.00mm / 0.905" | 0.1561" | 20° | 3.120" | Oversize |

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

OEM Replacement Spring Only Kitt

| KPMI No. | Description | Recommended Retainers |
|----------------|--|----------------------------|
| 30-3020 | .420" Valve Lift OK 50# Seat Pressure/140lb. @ .400" lift | 30-3021 Titanium |

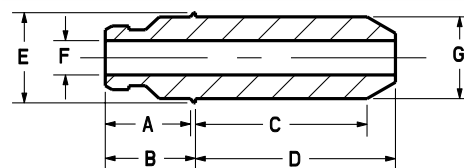
Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|----------------------------|-----------|
| 700-100013 | In / Ex Style 2 • Viton | Pkg. of 1 |

High Performance Tappets

| KPMI No. | Models | Quantity |
|-----------------|-----------|------------|
| 30-30019 | See Above | Pkg. of 16 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.385" | D | .0895" |
| B | 0.410" | E | 0.365" |
| C | 0.795" | F | 0.1560" |

Intake/Exhaust - G (Std. 0.3370")

C630 Bronze

| | |
|----------------|----------|
| 30-3010 | Std. |
| 30-3012 | + 0.002" |
| 30-3019 | + 0.010" |



HONDA® • CBR™ 600 F4 • 2001-2004



30-30290



30-30019

High Performance Tappets

| KPMI No. | Model | Quantity |
|-----------------|-----------|------------|
| 30-30019 | 1994-2004 | Pkg. of 16 |

Valve Guide Seals

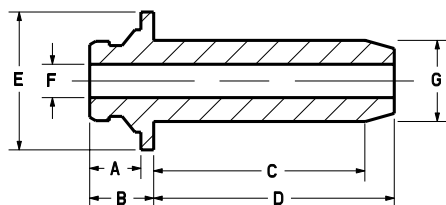
| KPMI No. | Seal Type | Quantity |
|-------------------|----------------------------|-----------|
| 700-100013 | In / Ex • Style 2 Viton | Pkg. of 1 |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-30290 | In- .440" Valve Lift OK 50# Seat Pressure/165lb. @ .440" lift | 30-30291 Titanium | Use O.E.M. | 30-30292 Chrome Silicon | 30-30293 H.T. Steel |
| | Ex- .440" Valve Lift OK 50# Seat Pressure/165lb. @ .440" lift | 30-30291 Titanium | Use O.E.M. | 30-30292 Chrome Silicon | 30-30294 H.T. Steel |

HONDA® • XL™ / XR™ 600 • 1983-2000

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.300" | D | 1.410" |
| B | 0.375" | E | 0.808" |
| C | 1.240" | F | 0.2590" |

Intake/Exhaust - **G** (Std. 0.4755")

C630 Bronze

| | |
|----------------|----------|
| 30-3050 | Std. |
| 30-3052 | + 0.002" |
| 30-3060 | + 0.010" |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|----------------------------|-----------|
| 700-100018 | In / Ex • Style 4 Viton | Pkg. of 1 |



30-3050



30-30015



30-3003

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Spring Shims |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-----------------|
| 30-30015 | .465" Valve Lift OK 80# Seat Pressure/220lb. @ .465" lift | 30-30016 Titanium | Use O.E.M. | 30-30017 Chrome Silicon | 30-30018 |

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|---|-----------------------|
| 30-4081 | .465" Valve Lift OK 70# Seat Pressure/ 210lb. @ .465" lift | Use O.E.M. |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 30-3003 | IN | 36.00mm / 1.417" | 0.2590" | 23° | 4.165" | Standard |
| 30-3004 | EX | 31.00mm / 1.220" | 0.2585" | 29° | 4.095" | Standard |



HONDA® • HAWK NT™ 650 • 1988-1991



30-3070

| Lightweight Racing Valve Spring Kit | | | | | | |
|-------------------------------------|--|----------------------------|---------------|----------------------------------|------------------------------|----------------------------------|
| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
| 30-3070 | In- .500" Valve Lift OK 45# Seat Pressure/166lb. @ .400" lift | 30-3071 Titanium | Use O.E.M. | 30-3073 Chrome Silicon | 30-3074 H.T. Steel | 30-3076 |
| | Ex- .500" Valve Lift OK 74# Seat Pressure/217lb. @ .440" lift/ 217# Open Pressure | 30-3072 Titanium | Use O.E.M. | 30-3077 Chrome Silicon | Use O.E.M. | 30-3078 30-3079 |

HONDA® • XR™ / XL™ 650L • 1993-2013



30-30015



30-3003
Groove Detail



30-3003



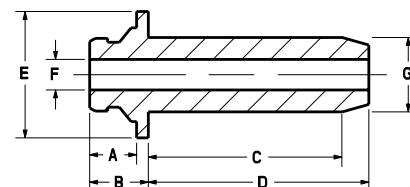
30-3050

| Lightweight Racing Valve Spring Kit | | | | | |
|-------------------------------------|--|-----------------------------|---------------|-----------------------------------|-----------------|
| KPMI No. | Description | Retainers | Keepers | Springs | Spring Shims |
| 30-30015 | .465" Valve Lift OK 80# Seat Pressure/220lb. @ .465" lift | 30-30016 Titanium | Use O.E.M. | 30-30017 Chrome Silicon | 30-30018 |

| High Performance Spring Only Kit | | |
|----------------------------------|---|-----------------------|
| KPMI No. | Description | Recommended Retainers |
| 30-4081 | .465" Valve Lift OK 70# Seat Pressure/ 210lb. @ .465" lift | Use O.E.M. |

| Black Diamond™ Valves • Black Nitrone® Stems | | | | | | |
|--|------|------------------|---------------|-------|--------|----------|
| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
| 30-3003 | IN | 36.00mm / 1.417" | 0.2590" | 23° | 4.165" | Standard |
| 30-3004 | EX | 31.00mm / 1.220" | 0.2585" | 29° | 4.095" | Standard |

| Valve Guide Seals | | |
|-------------------|---------------------------|-----------|
| KPMI No. | Seal Type | Quantity |
| 700-100018 | In / Ex • Style 4 • Viton | Pkg. of 1 |



| | | | |
|----------|--------|----------|---------|
| A | 0.300" | D | 1.410" |
| B | 0.375" | E | 0.808" |
| C | 1.240" | F | 0.2590" |

Intake/Exhaust - G (Std. 0.4755")

C630 Bronze

| | |
|----------------|----------|
| 30-3050 | Std. |
| 30-3052 | + 0.002" |
| 30-3060 | + 0.010" |

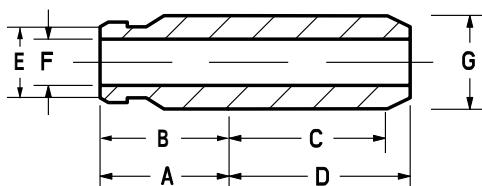


HONDA® • XR™ 650R • 2000-2007



30-30170

Valve Guides

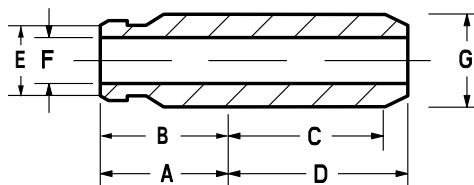


| | | | |
|----------|--------|----------|---------|
| A | 0.600" | D | 1.075" |
| B | 0.600" | E | 0.475" |
| C | 0.805" | F | 0.2590" |

Intake - **G** (Std. 0.4753")

C630 Bronze

| | |
|-----------------|----------|
| 30-30170 | Std. |
| 30-30171 | + 0.001" |
| 30-30172 | + 0.002" |
| 30-30179 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.600" | D | 1.230" |
| B | 0.600" | E | 0.475" |
| C | 1.000" | F | 0.2590" |

Exhaust - **G** (Std. 0.4753")

C630 Bronze

| | |
|-----------------|----------|
| 30-30180 | Std. |
| 30-30181 | + 0.001" |
| 30-30182 | + 0.002" |
| 30-30189 | + 0.010" |



30-30166
Groove Detail



30-30166



30-30161

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-30161 | .440" Valve Lift OK 70# Seat Pressure/197 lb. @ .440" lift | 30-30162 Titanium | Use O.E.M. | 30-30163 Chrome Silicon | 30-30164 H.T. Steel |

Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30166 | IN | 37.00mm / 1.457" | 0.2590" | 19° | 4.025" | Standard |
| 30-30167 | IN | 38.00mm / 1.496" | 0.2590" | 19° | 4.040" | Oversize |
| 30-30168 | EX | 32.00mm / 1.260" | 0.2585" | 19° | 4.065" | Standard |
| 30-30169 | EX | 33.00mm / 1.300" | 0.2585" | 19° | 4.080" | Oversize |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100018 | In / Ex • Style 4 • Viton | Pkg. of 1 |



HONDA® • TRX™ 700XX • 2008-2009



30-31370



30-31350

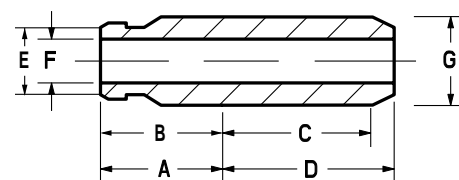


30-31366



30-31366
Groove Detail

Valve Guides

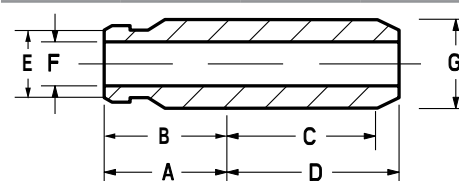


| | | | |
|----------|--------|----------|---------|
| A | 0.600" | D | 1.075" |
| B | 0.600" | E | 0.472" |
| C | 0.805" | F | 0.2590" |

Intake - G (Std. 0.4753")

C630 Bronze

| | |
|-----------------|----------|
| 30-31370 | Std. |
| 30-31371 | + 0.001" |
| 30-31372 | + 0.002" |
| 30-31379 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.600" | D | 1.230" |
| B | 0.600" | E | 0.475" |
| C | 1.000" | F | 0.2590" |

Exhaust - G (Std. 0.4753")

C630 Bronze

| | |
|-----------------|----------|
| 30-31380 | Std. |
| 30-31381 | + 0.001" |
| 30-31382 | + 0.002" |
| 30-31389 | + 0.010" |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-31350 | .375" Valve Lift OK 71# Seat Pressure/160lb. @ .375" lift | 30-31351 Titanium | Use O.E.M. | 30-31353 Chrome Silicon | 30-31355 H.T. Steel |

Black Diamond™ Valves • Black Nitro Neg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-31362 | IN | 36.00mm / 1.417" | 0.2590" | 19° | 4.025" | Standard |
| 30-31363 | IN | 37.00mm / 1.457" | 0.2590" | 19° | 4.025" | Oversize |
| 30-31366 | EX | 32.00mm / 1.260" | 0.2585" | 19° | 4.065" | Standard |
| 30-31367 | EX | 33.00mm / 1.299" | 0.2585" | 19° | 4.080" | Oversize |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-----------------|---------------------------|-----------|
| 30-31390 | In / Ex • Style 4 • Viton | Pkg. of 4 |



HONDA® • CB™ 750 SOHC • 1969-1976

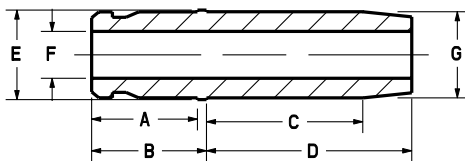
Excluding F2™ Models



30-0379

30-0383

Valve Guides

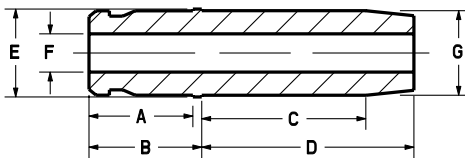


| | | | |
|----------|--------|----------|---------|
| A | 0.585" | D | 1.135" |
| B | 0.635" | E | 0.495" |
| C | 0.865" | F | 0.2590" |

Intake - G (Std. 0.4762")

C630 Bronze

| | |
|----------------|----------|
| 30-0379 | Std. |
| 30-0380 | + 0.002" |
| 30-4034 | + 0.015" |



| | | | |
|----------|--------|----------|---------|
| A | 0.585" | D | 1.195" |
| B | 0.635" | E | 0.495" |
| C | 0.925" | F | 0.2590" |

Exhaust - G (Std. 0.4762")

C630 Bronze

| | |
|----------------|----------|
| 30-0383 | Std. |
| 30-0384 | + 0.002" |
| 30-4035 | + 0.015" |



30-4186
Groove Detail



30-4186



30-0307

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|----------------------------|
| 30-0307 | .500" Valve Lift OK 80# Seat Pressure/255lb. @ .500" lift | 30-0308 Titanium |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 30-4186 | IN | 32.00mm / 1.260" | 0.2590" | 23° | 4.020" | Standard |
| 30-4187 | IN | 33.50mm / 1.319" | 0.2590" | 23° | 4.040" | Oversize |
| 30-4188 | EX | 28.00mm / 1.102" | 0.2580" | 29° | 4.020" | Standard |
| 30-4189 | EX | 28.50mm / 1.122" | 0.2580" | 29° | 4.040" | Oversize |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100018 | In / Ex • Style 4 • Viton | Pkg. of 1 |



HONDA® • CB™ 750 SOHC • 1969-1976

5.0mm Conversion System



30-31350



30-30157



30-30157
Groove Detail

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|---|-----------------------------|-------------------------------|-----------------------------------|-------------------------------|-----------------|
| 30-30150 | .460" Valve Lift OK 70# Seat Pressure 210lb. @ .460" lift | 30-30152 Titanium | 30-30153 H.T. Steel | 30-30151 Chrome Silicon | 30-30154 H.T. Steel | 30-30155 |

Black Diamond™ Valves • Black Nitrone® Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30157 | IN | 32.00mm / 1.260" | 0.1960" | 20° | 3.935" | Standard |
| 30-30158 | IN | 34.00mm / 1.339" | 0.1960" | 20° | 3.935" | Oversize |
| 30-30159 | EX | 27.00mm / 1.063" | 0.1955" | 23° | 3.940" | Standard |
| 30-30160 | EX | 28.00mm / 1.102" | 0.1955" | 23° | 3.940" | Oversize |

Must use **Kibblewhite® Lash Caps #30-30156** (requires 2 Pkgs. of 4). Valves shortened for lash caps.

Must use 5.00mm conversion guides and spring kit with these valves.

Valve Guide Seals

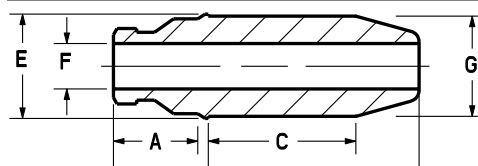
| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100015 | In / Ex • Style 4 • Viton | Pkg. of 1 |

For all the applications available for Kibblewhite's Honda® line of motorcycle products, please refer online to the Honda® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.



30-0379-5

Valve Guides

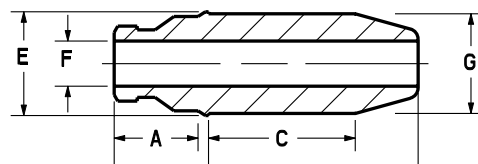


| | | | |
|----------|--------|----------|---------|
| A | 0.400" | D | 1.380" |
| B | 0.440" | E | 0.510" |
| C | 0.980" | F | 0.1958" |

Intake - **G** (Std. 0.4762")

C630 Bronze

| | |
|------------------|----------|
| 30-0379-5 | Std. |
| 30-0380-5 | + 0.002" |
| 30-4034-5 | + 0.015" |



| | | | |
|----------|--------|----------|---------|
| A | 0.400" | D | 1.430" |
| B | 0.440" | E | 0.510" |
| C | 1.030" | F | 0.1958" |

Exhaust - **G** (Std. 0.4762")

C630 Bronze

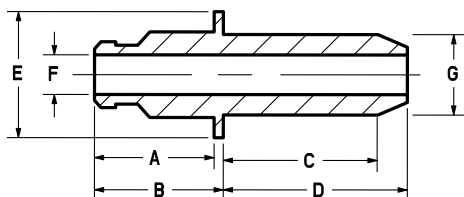
| | |
|------------------|----------|
| 30-0383-5 | Std. |
| 30-0384-5 | + 0.002" |
| 30-4035-5 | + 0.015" |



HONDA® • CB™ 750 C / F / K / SC DOHC • 1979-1983

Custom Valves Available By Request

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.550" | D | 1.050" |
| B | 0.650" | E | 0.685" |
| C | 0.890" | F | 0.2155" |

Intake/Exhaust - **G** (Std. 0.4372")

C630 Bronze

| | |
|----------------|----------|
| 30-4071 | Std. |
| 30-4161 | + 0.004" |
| 30-4162 | + 0.015" |



30-1020

High Performance Tappets

| KPMI No. | Models | Retainers |
|----------------|----------------|------------|
| 30-1020 | Fits All Years | Pkg. of 16 |

Requires use of **Kibblewhite® "Shim Under" Style Retainer # 30-1019** (Pkg. of 16). Accepts 9.0mm OD adjustment shim. See **Kibblewhite® Adjustment Shim Section** in back of catalog (Pg. 187) for more information.



30-4071



30-1017

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|---|-----------------------------|
| 30-1017 | .500" Valve Lift OK 60# Seat Pressure 210#. @ .500" lift | 30-1019* Titanium |

*Requires use of **Kibblewhite® "Shim Under" Style Retainer # 30-1020** (Pkg. of 16). Accepts 5.0mm OD adjustment shim. See **Kibblewhite® Adjustment Shim Section** in back of catalog for more information.

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |

From Motosport.com

These valves are great. When first installed they have around a 5 hr break in period. After the valves settle and seat they are by far the best valves i have ever installed. I installed them in my 05 CRF 450 that has many motor mods because i kept stretching titanium valves. There is no power difference what so ever and with 20 hours on the new valves they have not stretched even .001 inch. GREAT PRODUCT!



HONDA® • CBR™ 900RR • 1993-1999



30-6068



30-30227



30-30050

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|----------------------------|
| 30-6068 | .480" Valve Lift OK 45# Seat Pressure/155lb. @ .480" lift | 30-6067 Titanium |

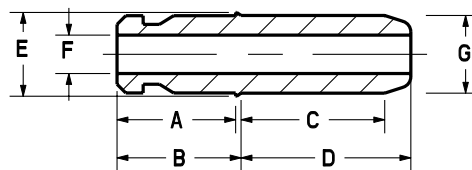
High Performance Tappets

| KPMI No. | Models | Quantity |
|-----------------|-----------|------------|
| 30-30227 | 1992-1997 | Pkg. of 16 |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100014 | In / Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.545" | D | 0.780" |
| B | 0.570" | E | 0.385" |
| C | 0.660" | F | 0.1765" |

Intake/Exhaust - **G** (Std. 0.3570")

C630 Bronze

| | |
|-----------------|----------|
| 30-30050 | Std. |
| 30-30051 | + 0.001" |
| 30-30052 | + 0.002" |
| 30-30059 | + 0.010" |

HONDA® • CB™ 900 / 1000 / 1100F DOHC • 1980-1983



Custom Valves
Available By Request

High Performance Tappets

| KPMI No. | Models | Retainers |
|----------------|----------------|------------|
| 30-1020 | Fits All Years | Pkg. of 16 |

Requires use of Kibblewhite® "Shim Under" Style Retainer # 30-1020 (pkg. of 16). Accepts 9.0mm OD adjustment shim. See Kibblewhite® Adjustment Shim Section in back of catalog (Pg. 187) for more information.

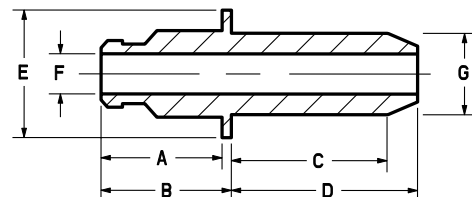
High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|---|----------------------------|
| 30-1017 | .500" Valve Lift OK 60# Seat Pressure 210lb. @ .500" lift | 30-1019 Titanium |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.550" | D | 1.050" |
| B | 0.650" | E | 0.685" |
| C | 0.890" | F | 0.2155" |

Intake/Exhaust - **G** (Std. 0.4372")

C630 Bronze

| | |
|----------------|----------|
| 30-4071 | Std. |
| 30-4161 | + 0.004" |
| 30-4162 | + 0.015" |



HONDA® • CBX™ 6 CYLINDER • 1979-1982



30-4071

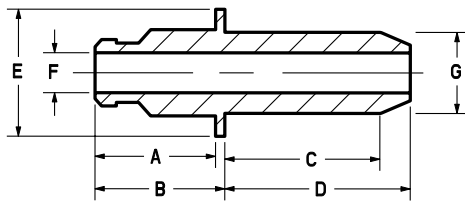


30-1022



30-1018

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.550" | D | 1.050" |
| B | 0.650" | E | 0.685" |
| C | 0.890" | F | 0.2155" |

Intake/Exhaust - **G** (Std. 0.4372")

C630 Bronze

| | |
|----------------|----------|
| 30-4071 | Std. |
| 30-4161 | + 0.004" |
| 30-4162 | + 0.015" |

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|-----------------------------|
| 30-1018 | .500" Valve Lift OK 60# Seat Pressure / 210lb. @ .500" lift | 30-1021* Titanium |

Requires **Shim on Bottom Retainers #30-1021** (Pkg. of 24). Retainers accept 9.0mm OD adjustment shim. See **Kibblewhite® Adjustment Shim Section** in back of catalog. See **Kibblewhite® Adjustment Shim Section** in back of catalog (Pg. 187) for more information.

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |

Replacement Tappets

| KPMI No. | Models | Quantity |
|----------------|----------------|------------|
| 30-1022 | Fits All Years | Pkg. of 24 |

HONDA® • CBR™ 1000 • 2004-2005

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-30760 | .385" Valve Lift OK 45# Seat Pressure/138lb. @ .385" lift | 30-30761 Titanium | Use O.E.M. | 30-30762 Chrome Silicon | 30-30763 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-30790 | IN | 29.00mm / 1.142" | 0.1570" | 10° | 3.735" | Standard |
| 30-30791 | IN | 30.00mm / 1.181" | 0.1570" | 10° | 3.735" | Oversize |
| 30-30793 | EX | 24.00mm / 0.945" | 0.1565" | 20° | 3.755" | Standard |
| 30-30794 | EX | 25.00mm / 0.984" | 0.1565" | 20° | 3.755" | Oversize |



30-30760

High Performance Tappets

| KPMI No. | Models | Quantity |
|-----------------|----------------|------------|
| 30-30766 | Fits All Years | Pkg. of 16 |



HONDA® • CBR™ 1100XX- BLACKBIRD™ • 1997-2003



30-30100

For all the applications available for Kibblewhite's Honda® line of motorcycle products, please refer online to the Honda® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-30100 | .440" Valve Lift OK 60# Seat Pressure/170lb. @ .440" lift | 30-30102 Titanium | Use O.E.M. | 30-30101 Chrome Silicon | 30-30103 H.T. Steel |

HONDA® • VTX™ 1800 • 2002-2007



30-30427

From Ronald Berends on Kibblewhite®'s Facebook Wall

What a great company. I was in need of there valve guide seals for a dual spring setup. But here in the Netherlands, I cannot get them. 1 email later, they are shipping them with no costs at all to me. Now that's what I call service.....

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-30427 | .450" Valve Lift OK 65# Seat Pressure/188lb. @ .450" lift | 30-30428 Titanium | Use O.E.M. | 30-30430 Chrome Silicon | 30-30431 H.T. Steel |
| | .450" Valve Lift OK 80# Seat Pressure/205lb. @ .450" lift | 30-30429 Titanium | Use O.E.M. | 30-30430 Chrome Silicon | 30-30432 H.T. Steel |

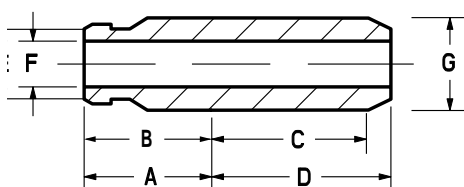


HONDA® • AQUATRAX™ • 2008-2009



30-31420

Valve Guides

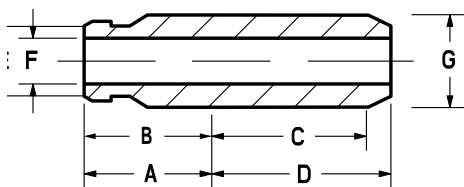


| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 0.925" |
| B | | E | 0.433" |
| C | 0.675" | F | 0.1960" |

Intake - **G** (Std. 0.4357")

C630 Bronze

| | |
|-----------------|----------|
| 30-31420 | Std. |
| 30-31421 | + 0.001" |
| 30-31422 | + 0.002" |
| 30-31424 | + 0.004" |
| 30-31429 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 1.045" |
| B | ----- | E | 0.433" |
| C | 0.775" | F | 0.1955" |

Exhaust - **G** (Std. 0.4357")

C630 Bronze

| | |
|-----------------|----------|
| 30-31430 | Std. |
| 30-31431 | + 0.001" |
| 30-31432 | + 0.002" |
| 30-31434 | + 0.004" |
| 30-31439 | + 0.010" |



30-31412



30-31400

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 30-31400 | .308" Valve Lift OK 68# Seat Pressure/150lb. @ .350" lift | 30-31401 Titanium | Use O.E.M. | 30-31403 Chrome Silicon | 30-31405 H.T. Steel |

Black Diamond™ Valves • Black Nitroeneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 30-31412 | IN | 30.00mm / 1.181" | 0.1961 | 20° | 3.535" | Standard |
| 30-31413 | IN | 31.00mm / 1.220" | 0.1961 | 20° | 3.535" | Oversize |
| 30-31416 | EX | 26.95mm / 1.061" | 0.1956 | 20° | 3.545" | Standard |
| 30-31417 | EX | 27.95mm / 1.100" | 0.1956 | 20° | 3.545" | Oversize |

For all the applications available for Kibblewhite's Honda® line of PWC products, please refer online to the Honda® section of the www.kpmi.us website, under **PWC Valvetrain Components**.



HUSQVARNA® • 350 / 410 • 1991-2000

(Excluding TE 410E 1999)



93-93000



93-93010



93-93020

Lightweight Racing Valve Spring Kit

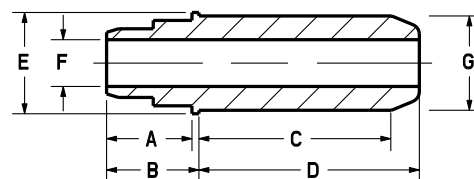
| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------|--|----------------------|---------------|----------------------------|------------------------|
| 93-93020 | .400" Valve Lift OK 350# Seat Pressure 190lb. @ .400" lift | 93-93021 Titanium | Use O.E.M. | 93-93022 Chrome Silicon | 93-93023 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------|------|------------------|---------------|-------|--------|----------|
| 93-93010 | IN | 1.280" / 32.51mm | 0.2352" | 23° | 4.020" | Standard |
| 93-93011 | EX | 1.065" / 27.05mm | 0.2347" | 29° | 4.020" | Standard |

For all the applications available for Kibblewhite's Husqvarna® line of products, please refer online to the Husqvarna® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.430" | D | 1.110" |
| B | 0.465" | E | 0.510" |
| C | 0.970" | F | 0.2350" |

Intake/Exhaust - **G** (Std. 0.4750")

C630 Bronze

| | |
|----------|----------|
| 93-93000 | Std. |
| 93-93009 | + 0.010" |

Use O.E.M. Seal

HUSQVARNA® • VARIOUS 510-610cc MODELS • 1983-2001

TX 510 1983-'88 / TE 510 1983-'90
TC 510 1987-'90 / WXE 610 1991-'96
WMX 610 1991 / TE 610 1992-'00
TC 610 1992-'00 / WXC 610 1992-'96
SM 610R 2000-2001



93-93000

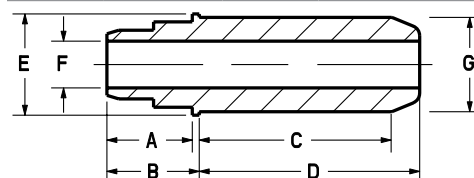


93-93012

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------|------|------------------|---------------|-------|--------|----------|
| 93-93012 | IN | 35.00mm / 1.378" | 0.2352" | 23° | 3.970" | Standard |
| 93-93013 | IN | 36.06mm / 1.420" | 0.2352" | 23° | 3.970" | Oversize |
| 93-93014 | EX | 30.00mm / 1.181" | 0.2347" | 29° | 3.970" | Standard |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.430" | D | 1.110" |
| B | 0.465" | E | 0.510" |
| C | 0.970" | F | 0.2350" |

Intake/Exhaust - **G** (Std. 0.4750")

C630 Bronze

| | |
|----------|----------|
| 93-93000 | Std. |
| 93-93009 | + 0.010" |

Use O.E.M. Seal

HUSQVARNA® • VARIOUS 450-510cc MODELS • 2006-2008

TE/ TC/ TXC 450-510 / SM 450R-510R/ SM 450RR 2006

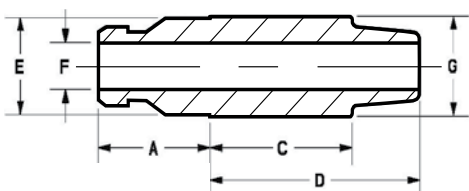


93-93070
Intake Guide



93-93080
Exhaust Guide

Valve Guides

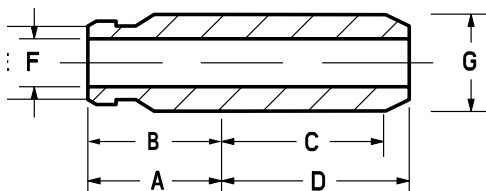


| | | | |
|----------|--------|----------|---------|
| A | 0.515" | D | 1.290" |
| B | ---- | E | 0.432" |
| C | 0.660" | F | 0.2160" |

Intake - G (Std. 0.4355")

C630 Bronze

| | |
|-----------------|----------|
| 93-93070 | Std. |
| 93-93071 | + 0.001" |
| 93-93072 | + 0.002" |
| 93-93079 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.650" | D | 0.990" |
| B | ---- | E | 0.412" |
| C | 0.700" | F | 0.1958" |

Exhaust - G (Std. 0.4156")

C630 Bronze

| | |
|-----------------|----------|
| 93-93080 | Std. |
| 93-93081 | + 0.001" |
| 93-93082 | + 0.002" |
| 93-93089 | + 0.010" |

Use O.E.M seal.



93-93050

93-93062

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 93-93050 | In-.440" Valve Lift OK 50# Seat Pressure/160lb. @ .440" lift | 93-93051 Titanium | Use O.E.M. | 93-93053 Chrome Silicon | 93-93055 H.T. Steel |
| | Ex-.440" Valve Lift OK 40# Seat Pressure/150lb. @ .440" lift | 93-93052 Titanium | Use O.E.M. | 93-93054 Chrome Silicon | 93-93056 H.T. Steel |

Black Diamond™ Valves • Black Nitro Neg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 93-93062 | IN | 37.00mm / 1.457" | 0.2160" | 20° | 3.955" | Standard |
| 93-93063 | IN | 38.00mm / 1.496" | 0.2160" | 20° | 3.955" | Oversize |
| 93-93066 | EX | 31.00mm / 1.220" | 0.1958" | 20° | 3.565" | Standard |
| 93-93067 | EX | 32.00mm / 1.260" | 0.1958" | 20° | 3.565" | Oversize |

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

KAWASAKI • MOJAVE™ 250F • 1987-2004



40-4158



40-4190



40-4190
Groove Detail



40-4390

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|--|-----------------------------|-------------------------------|-----------------------------------|---------------|
| 40-4158 | .400" Valve Lift OK 53# Seat Pressure/174lb. @ .400" lift | 40-40001 Titanium | 40-40002 H.T. Steel | 40-40000 Chrome Silicon | Use O.E.M. |

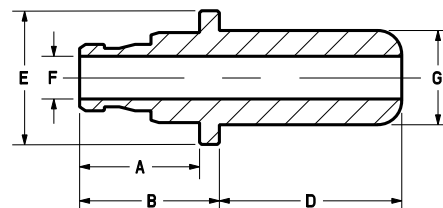
Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 40-4190 | IN | 29.00mm / 1.142" | 0.2155" | 20° | 3.510" | Standard |
| 40-4191 | IN | 30.50mm / 1.201" | 0.2155" | 20° | 3.530" | Oversize |
| 40-4192 | EX | 24.50mm / 0.965" | 0.2150" | 25° | 3.530" | Standard |
| 40-4193 | EX | 25.00mm / 0.984" | 0.2150" | 25° | 3.440" | Oversize |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|-------------------------|-----------|
| 700-100016 | In/Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.605" | D | 0.920" |
| B | 0.705" | E | 0.674" |
| C | 0.800" | F | 0.2155" |

Intake/Exhaust - **G** (Std. 0.4755")

C630 Bronze

| | |
|----------------|----------|
| 40-4390 | Std. |
| 40-4392 | + 0.002" |

Competition CNC

9 time AMA/Prostar Champion Drag Racer Rickey Gadson ready for an assault on the Competition CNC prepped and KPMI Equipped ZX14. Connecticut based Competition CNC specifies KPMI valvetrain for All Serious Racers.



KAWASAKI® • KX250F™ • 2003-2013



40-40120



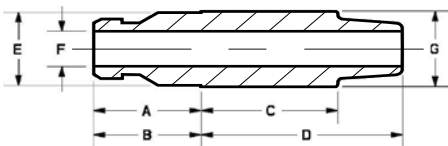
40-40350



40-40100

KAWASAKI

Valve Guides

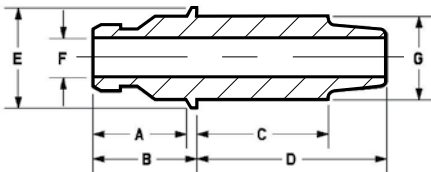


| | | | |
|----------|--------|----------|---------|
| A | 0.465" | D | 0.870" |
| B | 0.465" | E | 0.374" |
| C | 0.565" | F | 0.1765" |

Intake - G (Std. 0.3765")

C630 Bronze - 2007/2012

| | |
|-----------------|----------|
| 40-40520 | Std. |
| 40-40521 | + 0.001" |
| 40-40522 | + 0.002" |
| 40-40529 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.440" | D | 0.850" |
| B | 0.465" | E | 0.410" |
| C | 0.590" | F | 0.1765" |

Exhaust - G (Std. 0.3765")

C630 Bronze - 2007/2012

| | |
|-----------------|----------|
| 40-40120 | Std. |
| 40-40121 | + 0.001" |
| 40-40122 | + 0.002" |
| 40-40129 | + 0.010" |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 40-40100 | .445" Valve Lift OK 46# Seat Pressure/155lb. @ .445" lift | 40-40101 Titanium | Use O.E.M. | 40-40104 Chrome Silicon | 40-40103 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-40140 | IN | 31.00mm / 1.220" | 0.1765" | 20° | 3.120" | Standard |
| 40-40141 | IN | 32.00mm / 1.260" | 0.1765" | 20° | 3.130" | Oversize |
| 40-40143 | EX | 25.00mm / 0.985" | 0.1756" | 25° | 3.125" | Standard |
| 40-40144 | EX | 26.00mm / 1.024" | 0.1756" | 25° | 3.135" | Oversize |

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

Tensilite® Valves • Chromium Nitride PVD Titanium

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|-------|--------|----------|
| 40-40140T | IN | 31.00mm / 1.220" | 0.1765" | 20° | 3.120" | Standard |
| 40-40143T | EX | 25.00mm / 0.985" | 0.1756" | 25° | 3.135" | Standard |

Intake Only Steel Valve Conversion Kits

Please see **#40-40350 Kawasaki KX250F Intake Only Spring Kits** Section in back of catalog (Pg. 178).

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|----------------------------|-----------|
| 700-100013 | In / Ex Style 2 • Viton | Pkg. of 1 |

Replacement Tappets

| KPMI No. | Type | Quantity |
|-----------------|---------|-----------|
| 40-40106 | Intake | Pkg. of 2 |
| 40-40107 | Exhaust | Pkg. of 2 |



KAWASAKI® • KLX™ 300R/ 250R/S/SF • 1994-2014

KAWASAKI



From kawieriders.com

x2 on the Black Diamond Kibblewhite®s. I send alot of nitrous through my motor and they have held up great. I adjusted once after install but no problems. !!!!NITROUS BRED AND BOTTLE FED!!!!



40-40008



40-4372H



40-4420

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|----------|--|----------------------|---------------|----------------------------|------------------------|--------------|
| 40-40008 | .440" ValveLift OK 49# Seat Pressure 156lb. @ .440" lift | 40-40010 Titanium | Use O.E.M. | 40-40009 Chrome Silicon | 40-40011 H.T. Steel | 40-40012 |

High Performance Spring Kit for O.E.M. Retainers

| KPMI No. | Description | Retainers | Springs | Lower Collars | Spring Shims |
|----------|--|---------------|---------------------------|-----------------------|--------------|
| 40-4431 | .430" Valve Lift OK 51# Seat Pressure/155lb. @ .430" lift | Use O.E.M. | 40-4432 Chrome Silicon | 40-4433 H.T. Steel | 40-4435 |

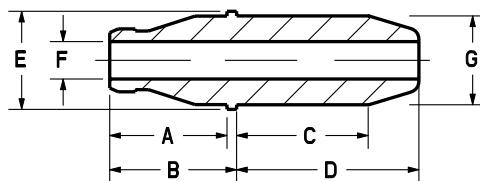
White Diamond™ Valves • Hard Chrome Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------|------|------------------|---------------|-------|--------|----------|
| 40-4372H | IN | 29.00mm / 1.142" | 0.1755" | 19° | 3.360" | Standard |
| 40-4374H | IN | 30.00mm / 1.181" | 0.1755" | 19° | 3.360" | Oversize |
| 40-4373H | EX | 25.00mm / 0.985" | 0.1755" | 17° | 3.375" | Standard |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|------------|-------------------------|-----------|
| 700-100014 | In/Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guides



| | | | |
|---|--------|---|---------|
| A | 0.550" | D | 0.855" |
| B | 0.595" | E | 0.460" |
| C | 0.620" | F | 0.1760" |

Intake/Exhaust - G (Std. 0.4165")

C630 Bronze

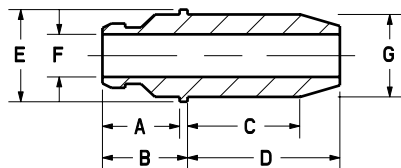
| | |
|---------|----------|
| 40-4420 | Std. |
| 40-4430 | + 0.010" |

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 **Motorcycle Valvetrain Components.**



KAWASAKI® • KLX™ / KFX™ 400 • 2001-2006

Valve Guides



| | | | |
|----------|--------|----------|--------|
| A | 0.390" | D | 0.770" |
| B | 0.430" | E | 0.466" |
| C | 0.570" | F | 0.190" |

Intake/Exhaust - **G** (Std. 0.4167")

C630 Bronze

| | |
|-----------------|----------|
| 40-40170 | Std. |
| 40-40171 | + 0.001" |
| 40-40172 | + 0.002" |
| 40-40174 | + 0.004" |
| 40-40179 | + 0.010" |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|--------------------------|-----------|
| 700-100015 | In/Ex Style 4 • Viton | Pkg. of 1 |



40-40170



40-40188



40-40148

Lightweight Racing Valve Spring Kit

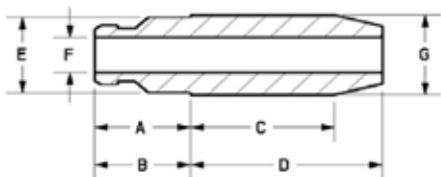
| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 40-40148 | .440" Valve Lift OK 57# Seat Pressure/17lb. @ .440" lift | 40-40149 Titanium | Use O.E.M. | 40-40152 Chrome Silicon | 40-40151 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-40188 | IN | 36.00mm / 1.417" | 0.1960" | 30° | 3.245" | Standard |
| 40-40189 | IN | 37.00mm / 1.457" | 0.1960" | 30° | 3.245" | Oversize |
| 40-40191 | EX | 29.00mm / 1.142" | 0.1953" | 17° | 3.210" | Standard |
| 40-40192 | EX | 30.00mm / 1.181" | 0.1953" | 17° | 3.210" | Oversize |

KAWASAKI® • KLX™ 450R • 2008-2013

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.390" | D | 0.895" |
| B | 0.390" | E | 0.434" |
| C | 0.550" | F | 0.2150" |

Intake/Exhaust - **G** (Std. 0.4365")

C630 Bronze

| | |
|-----------------|----------|
| 40-40720 | Std. |
| 40-40721 | + 0.001" |
| 40-40722 | + 0.002" |
| 40-40729 | + 0.010" |

Replacement Tappets

| KPMI No. | Type | Quantity |
|-----------------|-------|-----------|
| 40-40342 | In/Ex | Pkg. of 4 |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 40-40700 | In-.415" Valve Lift OK 51# Seat Pressure/155lb. @ .415" lift | 40-40701 Titanium | Use O.E.M. | 40-40703 Chrome Silicon | 40-40705 H.T. Steel |
| | Ex-.415" Valve Lift OK 52# Seat Pressure/146lb. @ .415" lift | 40-40702 Titanium | Use O.E.M. | 40-40704 Chrome Silicon | 40-40706 H.T. Steel |

To achieve .385" and greater lift use **O.E.M. Seals #92049-1062**. Always check clearances!

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-40712 | IN | 35.00mm / 1.378" | 0.2155 | 20° | 3.280" | Standard |
| 40-40713 | IN | 36.00mm / 1.417" | 0.2155 | 20° | 3.280" | Oversize |
| 40-40716 | EX | 30.00mm / 1.181" | 0.2150 | 20° | 3.230" | Standard |
| 40-40717 | EX | 31.00mm / 1.221" | 0.2150 | 20° | 3.230" | Oversize |

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

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|-------------------------|-----------|
| 700-100016 | In/Ex • Style 4 • Viton | Pkg. of 1 |



KAWASAKI® • KX™ 450F • 2006-2008

KAWASAKI



40-40300

40-40360

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 40-40300 | In-.415" Valve Lift OK 51# Seat Pressure/155lb. @ .415" lift | 40-40301 Titanium | Use O.E.M. | 40-40303 Chrome Silicon | 40-40305 H.T. Steel |
| | Ex-.415" Valve Lift OK 52# Seat Pressure/146lb. @ .415" lift | 40-40302 Titanium | Use O.E.M. | 40-40304 Chrome Silicon | 40-40306 H.T. Steel |

Intake Only Steel Valve Conversion Kits

Please see **#40-40360** Kawasaki KX450F Intake Only Spring Kits Section in back of catalog (Pg. 178).

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-40312 | IN | 36.00mm / 1.417" | 0.2155" | 20° | 3.280" | Standard |
| 40-40313 | IN | 37.00mm / 1.457" | 0.2155" | 20° | 3.280" | Oversize |
| 40-40316 | EX | 31.00mm / 1.220" | 0.2150" | 20° | 3.230" | Standard |
| 40-40317 | EX | 32.00mm / 1.260" | 0.2150" | 20° | 3.230" | Oversize |

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

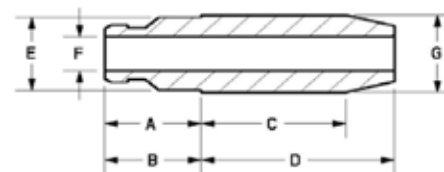


40-40320



40-40312

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.390" | D | 0.895" |
| B | 0.390" | E | 0.434" |
| C | 0.550" | F | 0.2150" |

Intake/Exhaust - G (Std. 0.4365")

C630 Bronze

| | |
|-----------------|----------|
| 40-40320 | Std. |
| 40-40321 | + 0.001" |
| 40-40322 | + 0.002" |
| 40-40329 | + 0.010" |

Replacement Tappets

| KPMI No. | Type | Quantity |
|-----------------|-------|-----------|
| 40-40342 | In/Ex | Pkg. of 4 |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|-------------------------|-----------|
| 700-100016 | In/Ex • Style 4 • Viton | Pkg. of 1 |



KAWASAKI® • KX™ 450F • 2009-2013

**NEW
PRODUCT**

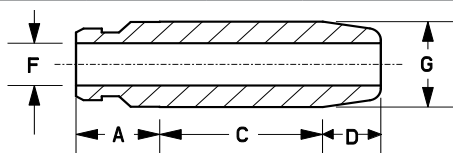


40-40320



40-40312

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.380" | D | 0.760" |
| B | ---- | E | 0.434" |
| C | 0.525" | F | 0.2150" |

Intake/Exhaust - **G** (Std. 0.4365")

C630 Bronze

| | |
|-----------------|----------|
| 40-40670 | Std. |
| 40-40671 | + 0.001" |
| 40-40672 | + 0.002" |
| 40-40679 | + 0.010" |

Use O.E.M Seal.

Replacement Tappets

| KPMI No. | Type | Quantity |
|-----------------|-------|-----------|
| 40-40690 | In/Ex | Pkg. of 4 |



40-40380



40-40660

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 40-40660 | Intake - .415" Valve Lift OK 64# Seat Pressure/169lb. @ .415" lift | 40-40661 Titanium | Use O.E.M. | 40-40663 Chrome Silicon | 40-40665 H.T. Steel |
| | Exhaust - .415" Valve Lift OK 65# Seat Pressure/170lb. @ .415" lift | 40-40662 Titanium | Use O.E.M. | 40-40664 Chrome Silicon | 40-40666 H.T. Steel |

Intake Only Steel Valve Conversion Kits

Please see **#40-40380 Kawasaki KX450F Intake Only Spring Kits Section** in back of catalog (Pg. 178).

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-40652 | IN | 36.00mm / 1.417" | 0.2154" | 20° | 3.280" | Standard |
| 40-40653 | IN | 37.00mm / 1.457" | 0.2154" | 20° | 3.280" | Oversize |
| 40-40656 | EX | 31.00mm / 1.220" | 0.2149" | 20° | 3.230" | Standard |
| 40-40657 | EX | 32.00mm / 1.260" | 0.2149" | 20° | 3.230" | Oversize |

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



KAWASAKI® • KFX™ 450R • 2008-2013



KFX™ 450 Quad



40-40550



40-40562



Groove Detail



40-40570

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 40-40550 | In- .415" Valve Lift OK 51# Seat Pressure/155lb. @ .415" lift | 40-40551 Titanium | Use O.E.M. | 40-40553 Chrome Silicon | 40-40555 H.T. Steel |
| | Ex-.415" Valve Lift OK 52# Seat Pressure/146lb. @ .415" lift | 40-40552 Titanium | Use O.E.M. | 40-40554 Chrome Silicon | 40-40556 H.T. Steel |

Black Diamond™ Valves • Black Nitroreg Stems

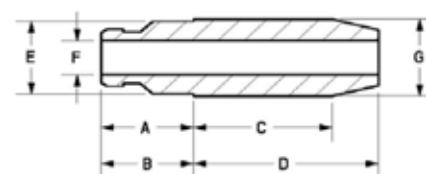
| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-40562 | IN | 36.00mm / 1.417" | 0.2155" | 20° | 3.280" | Standard |
| 40-40563 | IN | 37.00mm / 1.457" | 0.2155" | 20° | 3.280" | Oversize |
| 40-40566 | EX | 31.00mm / 1.220" | 0.2150" | 20° | 3.230" | Standard |
| 40-40567 | EX | 32.00mm / 1.260" | 0.2150" | 20° | 3.230" | Oversize |

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

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|-------------------------|-----------|
| 700-100016 | In/Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.390" | D | 0.895" |
| B | 0.390" | E | 0.434" |
| C | 0.550" | F | 0.2150" |

Intake/Exhaust - **G** (Std. 0.4365")

C630 Bronze

| | |
|-----------------|----------|
| 40-40570 | Std. |
| 40-40571 | + 0.001" |
| 40-40572 | + 0.002" |
| 40-40579 | + 0.010" |

Replacement Tappets

| KPMI No. | Type | Quantity |
|-----------------|-------|-----------|
| 40-40592 | In/Ex | Pkg. of 4 |



KAWASAKI® • NINJA™ 500R • 1987-2009

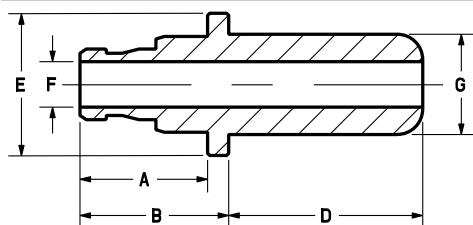


40-4390



40-4190

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.605" | D | 0.920" |
| B | 0.705" | E | 0.674" |
| C | 0.800" | F | 0.2155" |

Intake/Exhaust - **G** (Std. 0.4755")

C630 Bronze

| | |
|----------------|----------|
| 40-4390 | Std. |
| 40-4392 | + 0.002" |



40-4333

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|--|----------------------------|------------------------------|----------------------------------|---------------|
| 40-4333 | .490" Valve Lift OK 58# Seat Pressure/175lb. @ .400" lift | 40-4334 Titanium | 40-4336 H.T. Steel | 40-4335 Chrome Silicon | Use O.E.M. |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 40-4190 | IN | 29.00mm / 1.142" | 0.2155" | 20° | 3.510" | Standard |
| 40-4191 | IN | 30.50mm / 1.201" | 0.2155" | 20° | 3.530" | Oversize |
| 40-4192 | EX | 24.50mm / 0.965" | 0.2155" | 29° | 3.430" | Standard |
| 40-4193 | EX | 25.00mm / 0.984" | 0.2155" | 29° | 3.445" | Oversize |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|-------------------------|-----------|
| 700-100016 | In/Ex • Style 4 • Viton | Pkg. of 1 |

KAWASAKI® • KLR™ 600 / 650 • 1984-2008

High Performance Spring Kit for O.E.M. Retainers

| KPMI No. | Description | Retainers | Springs | Lower Collars |
|----------------|--|------------|----------------------------------|------------------------------|
| 40-4350 | .460" Valve Lift OK 75# Seat Pressure/175lb. @ .340" lift | Use O.E.M. | 40-4346 Chrome Silicon | 40-4347 H.T. Steel |



40-4350

KAWASAKI® • KLX™ 600 • 1993-1996

High Performance Spring Kit Only

| KPMI No. | Description | Recommended Retainers |
|----------------|--|-----------------------|
| 40-4089 | .450" Valve Lift OK 75# Seat Pressure/175lb. @ .340" lift | Use O.E.M. |



40-4089



KAWASAKI® • KLX™ 650 / 650R • 1985-2003



40-40051

Lightweight Racing Valve Spring Kit w/Shim Under Conversions

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Tappets | Adj. Shims |
|-----------------|---|-----------------------------|-------------------------------|-----------------------------------|-------------------------------|-------------------------------|-----------------|
| 40-40051 | .470" Valve Lift OK 75# Seat Pressure 175lb. @ .340" lift | 40-40052 Titanium | 40-40057 H.T. Steel | 40-40053 Chrome Silicon | 40-40054 H.T. Steel | 40-40055 H.T. Steel | 40-40056 |

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 (Pg. 183).



40-4349



40-4089

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|---|----------------------------|---------------|----------------------------------|------------------------------|
| 40-4349 | .400" Valve Lift OK 75# Seat Pressure 175lb. @ .340" lift | 40-4351 Titanium | Use O.E.M. | 40-4352 Chrome Silicon | 40-4353 H.T. Steel |

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|---|-----------------------|
| 40-4089 | .450" Valve Lift OK 75# Seat Pressure 175lb. @ .340" lift | Use O.E.M. |

KAWASAKI® • KZ™ 650 / 750 • 1976-1985



40-0893

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|---|----------------------------|
| 40-0893 | .500" Valve Lift OK 90# Seat Pressure 280lb. @ .500" lift | 40-1008 Titanium |

Retainers are Shim On Bottom.

Replacement Tappets

| KPMI No. | Model | Quantity |
|----------------|--------|-----------|
| 40-1013 | KZ 650 | Pkg. of 8 |



KAWASAKI® • NINJA™ 650R • 2006-2011



**NEW
PRODUCT**



40-40820

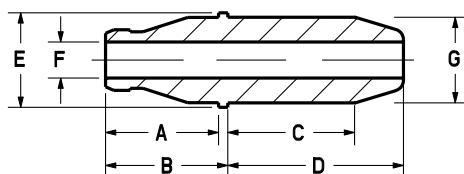


40-40812



40-40800

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.450" | D | 0.790" |
| B | 0.550" | E | 0.675" |
| C | 0.590" | F | 0.1955" |

Intake/Exhaust - **G** (Std. 0.4160")

C630 Bronze

40-40820 Std.

40-40829 + 0.010"

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|----------------------------|-----------|
| 700-100014 | In / Ex Style 4 • Viton | Pkg. of 1 |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 40-40800 | .400" Valve Lift OK 39# Seat Pressure 136lb. @ .400" lift | 40-40801 Titanium | Use O.E.M. | 40-40803 Chrome Silicon | 40-40805 H.T. Steel |

Black Diamond™ Valves • Black Nitronex Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-40812 | IN | 33.35mm / 1.313" | 0.1765" | 10° | 3.815" | Standard |
| 40-40813 | IN | 34.35mm / 1.352" | 0.1765" | 10° | 3.815" | Oversize |
| 40-40816 | EX | 28.27mm / 1.113" | 0.1760" | 22° | 3.830" | Standard |
| 40-40817 | EX | 29.27mm / 1.152" | 0.1760" | 22° | 3.830" | Oversize |

Replacement Tappets

| KPMI No. | Year | Quantity |
|------------------|------|-----------|
| *40-40807 | All | Pkg. of 8 |

*NOTE: Shims of less than 1.90mm may cause clearance issues between tappet and retainer. Always check clearances before installing smaller than OEM shims.



KAWASAKI • VARIOUS • 2005-2013



KFX™ 700 • 2005-2009

Brute Force™ 650 • 2005-2013

Brute Force™ 650I • 2006-2012

Prairie™ 700 • 2005-2006

Brute Force™ 750I • 2005-2012

Teryx™ 750 • 2008-2012

(Excluding Teryx 4)



40-40400



40-40420

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|-----------------|
| 40-40400 | .500" Valve Lift OK 59# Seat Pressure 210lb. @ .500" lift | 40-40401 Titanium | Use O.E.M. | 40-40403 Chrome Silicon | 40-40405 H.T. Steel | 40-40409 |

KPMI® Guides must be installed when using cams greater than .430" valve lift.

Black Diamond™ Valves • Black Nitro Neg Stems

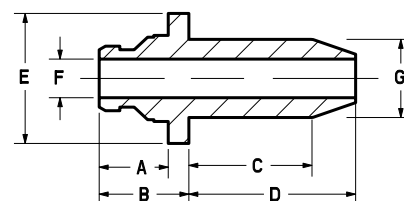
| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-40412 | IN | 30.00mm / 1.181" | 0.1960" | 10° | 3.600" | Standard |
| 40-40413 | IN | 31.00mm / 1.220" | 0.1960" | 10° | 3.600" | Oversize |
| 40-40416 | EX | 26.00mm / 1.024" | 0.1955" | 10° | 3.655" | Standard |
| 40-40417 | EX | 27.00mm / 1.063" | 0.1955" | 10° | 3.655" | Oversize |

Custom oversize's available +3 and +4 mm, call for availability.

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|-------------------------|-----------|
| 700-100015 | In/Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.450" | D | 0.790" |
| B | 0.550" | E | 0.675" |
| C | 0.590" | F | 0.1955" |

Intake/Exhaust - **G** (Std. 0.4160")

C630 Bronze

| | |
|-----------------|----------|
| 40-40420 | Std. |
| 40-40421 | + 0.001" |
| 40-40422 | + 0.002" |
| 40-40429 | + 0.010" |



KAWASAKI • VARIOUS • 2012-2013

Brute Force™ 650I • 2013

Brute Force™ 750I • 2013

Teryx™ • 2013

Teryx 4™ • 2012-2013



KAWASAKI

**NEW
PRODUCT**



40-40910

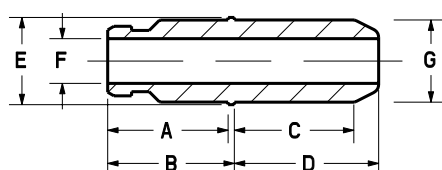


40-40920



40-40900

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.480" | D | 0.790" |
| B | 0.550" | E | 0.510" |
| C | 0.590" | F | 0.1955" |

Intake/Exhaust - G (Std. 0.4161")

C630 Bronze

| | |
|-----------------|----------|
| 40-40910 | Std. |
| 40-40911 | + 0.001" |
| 40-40912 | + 0.002" |
| 40-40919 | + 0.010" |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|-----------------|
| 40-40900 | .500" Valve Lift OK 59# Seat Pressure 210lb. @ .500" lift | 40-40901 Titanium | Use O.E.M. | 40-40903 Chrome Silicon | 40-40905 H.T. Steel | 40-40907 |

Note: KPMI Guides must be installed when using cams greater than 0.430" valve lift.

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-40920 | IN | 30.00mm / 1.181" | 0.1960" | 10° | 3.610" | Standard |
| 40-40921 | IN | 31.00mm / 1.220" | 0.1960" | 10° | 3.610" | Oversize |
| 40-40924 | EX | 26.00mm / 1.024" | 0.1955" | 10° | 3.655" | Standard |
| 40-40925 | EX | 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 Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|-------------------------|-----------|
| 700-100014 | In/Ex • Style 4 • Viton | Pkg. of 1 |



KAWASAKI • KZ™ / Z1™ 900 • 1973-1977

KAWASAKI



40-0449



40-1013



40-4180H



Groove Detail

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|---|--------------------------------------|
| 40-0449 | .425" Valve Lift OK 90# Seat Pressure / 245lb. @ .425" lift | 40-1008M Ti (O.E.M. Style) |
| 40-1016 | .475" Valve Lift OK 90# Seat Pressure / 265lb. @ .475" lift | *40-1008 Titanium |
| 40-1007 | .500" Valve Lift OK 90# Seat Pressure / 280lb. @ .500" lift | *40-1008 Titanium |
| 40-1014 | .565" Valve Lift OK 105# Seat Pressure / 305lb. @ .550" lift | *40-1008 Titanium |

* Use with Kibblewhite® "Shim Under" Style Tappets # 40-1013 with this retainer.

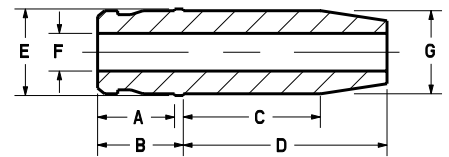
White Diamond™ Valves • Hard Chrome Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|---------------------------------|
| 40-4180H | IN | 36.00mm / 1.417" | 0.2745" | 23° | 3.615" | Standard |
| 40-4181H | IN | 37.50mm / 1.476" | 0.2745" | 23° | 3.615" | Oversize (max w/ stock seat) |
| 40-4183H | EX | 30.00mm / 1.181" | 0.2745" | 29° | 3.555" | Standard |
| 40-4184H | EX | 31.00mm / 1.220" | 0.2745" | 29° | 3.555" | Oversize (max w/ stock seat) |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|-------------------------|-----------|
| 700-100019 | In/Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guides

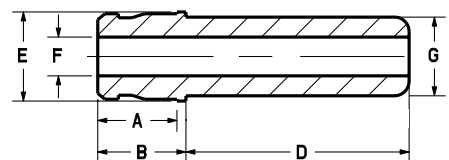


| | | | |
|----------|--------|----------|---------|
| A | 0.440" | D | 1.165" |
| B | 0.490" | E | 0.495" |
| C | 0.785" | F | 0.2745" |

Intake - G (Std. 0.4752")

C630 Bronze

| | |
|----------------|----------|
| 40-0478 | Std. |
| 40-0479 | + 0.002" |
| 40-0480 | + 0.004" |
| 40-0481 | + 0.006" |
| 40-0436 | + 0.015" |
| 40-0499 | + 0.027" |



| | | | |
|----------|--------|----------|---------|
| A | 0.440" | D | 1.240" |
| B | 0.490" | E | 0.495" |
| C | ----- | F | 0.2745" |

Exhaust - G (Std. 0.4752")

C630 Bronze

| | |
|----------------|----------|
| 40-0482 | Std. |
| 40-0483 | + 0.002" |
| 40-0484 | + 0.004" |
| 40-0485 | + 0.006" |
| 40-0437 | + 0.015" |

Replacement Tappets

| KPMI No. | Type | Quantity |
|----------------|----------|-----------|
| 40-1013 | Standard | Pkg. of 8 |
| 40-4202 | +0.020" | Pkg. of 1 |
| 40-4203 | +0.040" | Pkg. of 1 |
| 40-4035 | 35 mm | Pkg. of 1 |

Use Kibblewhite® Shim On Bottom Retainers # 40-1008 (Pkg. of 8). Large tappets available, see Kibblewhite® Tappet Section (Pg. 183) in back of catalog.



KAWASAKI® • KZ™ / Z1™ 900 • 1973-1977

High Performance Replacement Retainers

| KPMI No. | Type | Quantity |
|----------------|---|-----------|
| 40-4006 | Titanium "Shim Under" Style supplied with 15° Jumbo Keepers for radius groove valves. | Pkg. of 8 |



40-4006

Replacement Keeper Set

| KPMI No. | Type | Quantity |
|-------------------|--|----------------|
| 40-4026 | 7° O.E.M. Style | Pkg. of 8 prs. |
| 500-100008 | 7° Radius Style / .040" Shorter Above Bead | Pkg. of 1 pr. |

15° Jumbo Keepers are designed for high spring loads in racing applications.



500-100008

KAWASAKI® • NINJA™ 900 • 1984-1986



40-4390

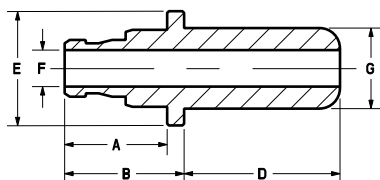


40-4190



40-4102

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.605" | D | 0.920" |
| B | 0.705" | E | 0.674" |
| C | ----- | F | 0.2155" |

Intake/Exhaust - **G** (Std. 0.4755")

C630 Bronze

| | |
|----------------|----------|
| 40-4390 | Std. |
| 40-4392 | + 0.002" |

Replacement Keeper Set

| KPMI No. | Type | Quantity |
|----------------|------|------------|
| 40-4164 | 15° | Pkg. of 16 |

Radius Style - Use with KPMI® Retainers # 40-4151.

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Spring Shims |
|----------------|---|----------------------------|------------------------------|----------------------------------|---------------|
| 40-4102 | .400" Valve Lift OK 58# Seat Pressure / 175lb. @ .400" lift | 40-4151 Titanium | 40-4164 H.T. Steel | 40-4149 Chrome Silicon | Use O.E.M. |

This KPMI® Spring Kit # 40-4102 has been designed to be the cure for the "Pull Through" problem, so common with O.E.M. components.

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 40-4190 | IN | 29.00mm / 1.142" | 0.2155" | 20° | 3.510" | Standard |
| 40-4191 | IN | 30.50mm / 1.201" | 0.2155" | 20° | 3.530" | Oversize |
| 40-4192 | EX | 24.50mm / 0.965" | 0.2150" | 30° | 3.430" | Standard |
| 40-4193 | EX | 25.00mm / 0.984" | 0.2150" | 30° | 3.440" | Oversize |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|-------------------------|-----------|
| 700-100016 | In/Ex • Style 4 • Viton | Pkg. of 1 |



KAWASAKI • KZ™ / Z1™ POLICE 1000 • 1977-2005

KAWASAKI

B

L

E

W



40-4181H



40-4181H
Groove Detail



40-0478



40-0482

White Diamond™ Valves • Hard Chrome Stems

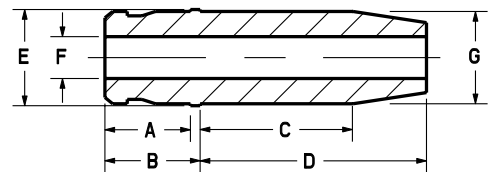
| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|---------------------------------|
| 40-4180H | IN | 36.00mm / 1.417" | 0.2745" | 23° | 3.615" | Standard |
| 40-4181H | IN | 37.50mm / 1.476" | 0.2745" | 23° | 3.615" | Oversize (max w/ stock seat) |
| 40-4183H | EX | 30.00mm / 1.181" | 0.2745" | 29° | 3.555" | Standard |
| 40-4184H | EX | 31.00mm / 1.220" | 0.2745" | 29° | 3.555" | Oversize (max w/ stock seat) |

White Diamond™ Valves • J Model Valves • Hard Chrome Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-4281H | IN | 38.50mm / 1.516" | 0.2745" | 23° | 3.560" | Oversize |
| 40-4285H | EX | 32.00mm / 1.260" | 0.2745" | 29° | 3.515" | Standard |

KIBBLEWHITE
AMERICAN MADE & TESTED

Valve Guides

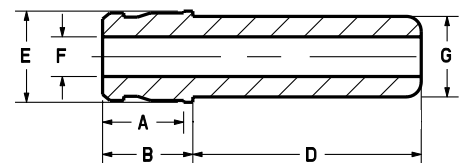


| | | | |
|----------|--------|----------|---------|
| A | 0.440" | D | 1.165" |
| B | 0.490" | E | 0.495" |
| C | 0.785" | F | 0.2745" |

Intake - G (Std. 0.4752")

C630 Bronze

| | |
|----------------|----------|
| 40-0478 | Std. |
| 40-0479 | + 0.002" |
| 40-0480 | + 0.004" |
| 40-0481 | + 0.006" |
| 40-4036 | + 0.015" |
| 40-0499 | + 0.027" |



| | | | |
|----------|--------|----------|---------|
| A | 0.410" | D | 1.240" |
| B | 0.490" | E | 0.495" |
| C | ----- | F | 0.2745" |

Exhaust - G (Std. 0.4745")

C630 Bronze

| | |
|----------------|----------|
| 40-0482 | Std. |
| 40-0483 | + 0.002" |
| 40-0484 | + 0.004" |
| 40-0485 | + 0.006" |
| 40-4037 | + 0.015" |

Valve Seal Guides

| KPMI No. | Type of Seal | Quantity |
|-------------------|--------------------------|-----------|
| 700-100019 | In/Ex Style 4 • Viton | Pkg. of 1 |



KAWASAKI® • KZ™ / Z1™ POLICE 1000 • 1977-2005

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|---|--------------------------------------|
| 40-0449 | .425" Valve Lift OK 90# Seat Pressure / 245lb. @ .425" lift | 40-1008M Ti (O.E.M. Style) |
| 40-1016 | .475" Valve Lift OK 90# Seat Pressure / 265lb. @ .475" lift | *40-1008 Titanium |
| 40-1007 | .500" Valve Lift OK 90# Seat Pressure / 280lb. @ .500" lift | *40-1008 Titanium |
| 40-1014 | .565" Valve Lift OK 105# Seat Pressure / 305lb. @ .550" lift | *40-1008 Titanium |

* Use with Kibblewhite® "Shim Under" Style Tappets # 40-1013 with this retainer.



40-0449

High Performance Replacement Retainers

| KPMI No. | Type | Quantity |
|----------------|--|-----------|
| 40-4006 | Titanium "Shim Under" Style supplied with 15° Jumbo Keepers for radius groove valves. | Pkg. of 8 |



40-4006

Replacement Keeper Set

| KPMI No. | Type | Quantity |
|-------------------|--|----------------|
| 40-4026 | 7° O.E.M. Style | Pkg. of 8 prs. |
| 500-100008 | 7° Radius Style / .040" Shorter Above Bead | Pkg. of 1 pr. |

15° Jumbo Keepers are designed for high spring loads in racing applications.



500-100008

Replacement Tappets

| KPMI No. | Type | Quantity |
|----------------|----------|-----------|
| 40-1013 | Standard | Pkg. of 8 |
| 40-4202 | +0.020" | Pkg. of 1 |
| 40-4203 | +0.040" | Pkg. of 1 |
| 40-4035 | 35 mm | Pkg. of 1 |

Use Kibblewhite® Shim On Bottom Retainers # 40-1008 (Pkg. of 8). Large tappets available, see the Kibblewhite® Tappet Section in back of catalog (Pg. 183).



40-1013

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 **Motorcycle Valvetrain Components**

KAWASAKI • NINJA™ 1000R • 1986-1987



40-4102



40-4164

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs |
|----------------|---|----------------------------|------------------------------|----------------------------------|
| 40-4102 | .400" Valve Lift OK 58# Seat Pressure 175lb. @ .400" lift | 40-4151 Titanium | 40-4164 H.T. Steel | 40-4149 Chrome Silicon |

This **Kibblewhite® Spring Kit # 40-4102** has been designed to be the cure for the "Pull Through" problem, so common with O.E.M. components.

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 40-4190 | IN | 29.00mm / 1.142" | 0.2155" | 20° | 3.510" | Standard |
| 40-4191 | IN | 30.50mm / 1.201" | 0.2155" | 20° | 3.530" | Oversize |
| 40-4192 | EX | 24.50mm / 0.965" | 0.2150" | 30° | 3.430" | Standard |
| 40-4193 | EX | 25.00mm / 0.984" | 0.2150" | 30° | 3.440" | Oversize |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|-------------------------|-----------|
| 700-100016 | In/Ex • Style 4 • Viton | Pkg. of 1 |



40-4190

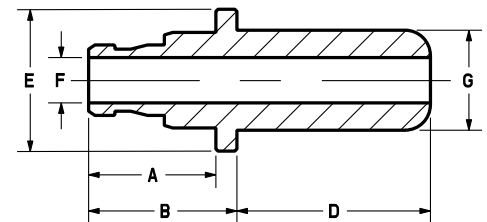


40-4190 Groove Detail



40-4390

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.605" | D | 0.920" |
| B | 0.705" | E | 0.674" |
| C | ---- | F | 0.2155" |

Intake/Exhaust - **G** (Std. 0.4755")

C630 Bronze

| KPMI No. | Std. |
|----------------|----------|
| 40-4390 | Std. |
| 40-4392 | + 0.002" |

Replacement Keeper Set

| KPMI No. | Type | Quantity |
|----------------|------|------------|
| 40-4164 | 15° | Pkg. of 16 |

Radius Style - Use with **Kibblewhite® Retainers # 40-4151**.



KAWASAKI® • GPZ™ 1100 • 1981-1982

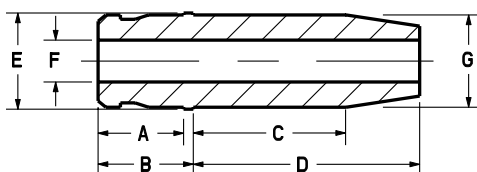


40-4281H



40-0449

Valve Guides

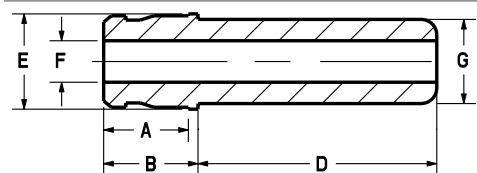


| | | | |
|----------|--------|----------|---------|
| A | 0.440" | D | 1.165" |
| B | 0.490" | E | 0.495" |
| C | 0.785" | F | 0.2745" |

Intake - G (Std. 0.4752")

C630 Bronze

| | |
|----------------|----------|
| 40-0478 | Std. |
| 40-0479 | + 0.002" |
| 40-0480 | + 0.004" |
| 40-0481 | + 0.006" |
| 40-4036 | + 0.015" |
| 40-0499 | + 0.027" |



| | | | |
|----------|--------|----------|---------|
| A | 0.440" | D | 1.240" |
| B | 0.490" | E | 0.495" |
| C | ----- | F | 0.2745" |

Exhaust - G (Std. 0.4752")

C630 Bronze

| | |
|----------------|----------|
| 40-0482 | Std. |
| 40-0483 | + 0.002" |
| 40-0484 | + 0.004" |
| 40-0485 | + 0.006" |
| 40-4037 | + 0.015" |

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|---|--------------------------------------|
| 40-0449 | .425" Valve Lift OK 90# Seat Pressure / 245lb. @ .425" lift | 40-1008M Ti (O.E.M. Style) |
| 40-1016 | .475" Valve Lift OK 90# Seat Pressure / 265lb. @ .475" lift | * 40-1008 Titanium |
| 40-1007 | .500" Valve Lift OK 90# Seat Pressure / 280lb. @ .500" lift | * 40-1008 Titanium |
| 40-1014 | .565" Valve Lift OK 105# Seat Pressure / 305lb. @ .550" lift | * 40-1008 Titanium |

* Use Kibblewhite® "Shim Under" Style Tappets # 40-1013 with this retainer.

White Diamond™ Valves • J Model Valves • Hard Chrome Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-4281H | IN | 38.50mm / 1.516" | 0.2745" | 23° | 3.560" | Oversize |
| 40-4285H | EX | 32.00mm / 1.260" | 0.2745" | 29° | 3.515" | Standard |

High Performance Replacement Retainers

| KPMI No. | Type | Quantity |
|----------------|--|-----------|
| 40-4006 | Titanium "Shim Under" Style supplied with 15° Jumbo Keepers for radius groove valves. | Pkg. of 8 |

Replacement Keeper Set

| KPMI No. | Type | Quantity |
|-------------------|--|----------------|
| 40-4026 | 7° O.E.M. Style | Pkg. of 8 prs. |
| 500-100008 | 7° Radius Style / .040" Shorter Above Bead | Pkg. of 1 pr. |

15° Jumbo Keepers are designed for high spring loads in racing applications.

Replacement Tappets

| KPMI No. | Type | Quantity |
|----------------|----------|-----------|
| 40-1013 | Standard | Pkg. of 8 |
| 40-4202 | +0.020" | Pkg. of 1 |
| 40-4203 | +0.040" | Pkg. of 1 |
| 40-4035 | 35 mm | Pkg. of 1 |

Use Shim On Bottom Retainers # 40-1008 (Pkg. of 8). Large tappets available, see the Kibblewhite® Tappet Section in back of catalog (Pg. 183).

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|-------------------------|-----------|
| 700-100019 | In/Ex • Style 4 • Viton | Pkg. of 1 |



KAWASAKI® • VULCAN™ 1500 • 1986-2008



40-40004

| Lightweight Racing Valve Spring Kit | | | | | | |
|-------------------------------------|--|-----------------------------|---------------|-----------------------------------|---------------|-----------------|
| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
| 40-40004 | .450" Valve Lift OK 70# Seat Pressure / 230lb. @ .450" lift | 40-40006 Titanium | Use O.E.M. | 40-40005 Chrome Silicon | Use O.E.M. | 40-40007 |

KAWASAKI® • VULCAN™ 1500 (Mean Steak) • 2002-2003



40-40060

| Lightweight Racing Valve Spring Kit | | | | |
|-------------------------------------|--|-----------------------------|---------------|-----------------------------------|
| KPMI No. | Description | Retainers | Keepers | Springs |
| 40-40060 | .450" Valve Lift OK 70# Seat Pressure / 230lb. @ .450" lift | 40-40061 Titanium | Use O.E.M. | 40-40062 Chrome Silicon |

KAWASAKI® • ZX-7R™ • 1991-1995



40-4385



40-4400

| Lightweight Racing Valve Spring Kit | | | | | |
|-------------------------------------|--|----------------------------|---------------|----------------------------------|------------------------------|
| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
| 40-4385 | .425" Valve Lift OK 55# Seat Pressure / 165lb. @ .425" lift | 40-4386 Titanium | Use O.E.M. | 40-4387 Chrome Silicon | 40-4388 H.T. Steel |

| Valve Guides | | | |
|--|--------|----------|---------|
| | | | |
| A | 0.550" | D | 0.855" |
| B | 0.595" | E | 0.460" |
| C | 0.620" | F | 0.1760" |
| Intake/Exhaust - G (Std. 0.4165") | | | |

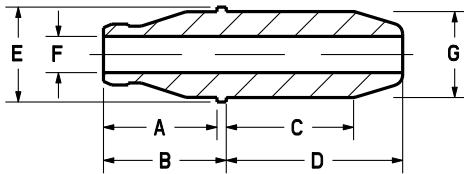
| C630 Bronze | |
|----------------|----------|
| 40-4400 | Std. |
| 40-4410 | + 0.010" |

| Valve Seal Guides | | |
|-------------------|--------------------|-----------|
| KPMI No. | Type of Seal | Quantity |
| 700-100013 | In / Ex Style 2 | Pkg. of 1 |



KAWASAKI® • ZX-7R™ • 1996-2003

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.550" | D | 0.855" |
| B | 0.595" | E | 0.460" |
| C | 0.620" | F | 0.1760" |

Intake/Exhaust - **G** (Std. 0.4165")

C630 Bronze

| | |
|----------------|----------|
| 40-4400 | Std. |
| 40-4410 | + 0.010" |

Valve Seal Guides

| KPMI No. | Type of Seal | Quantity |
|-------------------|-----------------------|-----------|
| 700-100013 | In/Ex Style 2 • Viton | Pkg. of 1 |

Custom Valves
Available By Request



40-4400



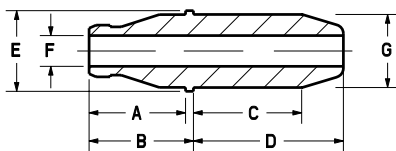
40-4395

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|--|----------------------------|---------------|----------------------------------|------------------------------|
| 40-4395 | .460" Valve Lift OK 55# Seat Pressure / 165lb. @ .425" lift | 40-4396 Titanium | Use O.E.M. | 40-4397 Chrome Silicon | 40-4398 H.T. Steel |

KAWASAKI® • ZX-9R™ • 1994-2003

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.550" | D | 0.855" |
| B | 0.595" | E | 0.460" |
| C | 0.620" | F | 0.1760" |

Intake/Exhaust - **G** (Std. 0.4165")

C630 Bronze

| | |
|----------------|----------|
| 40-4400 | Std. |
| 40-4410 | + 0.010" |

Valve Seal Guides

| KPMI No. | Type of Seal | Quantity |
|-------------------|-----------------|-----------|
| 700-100013 | In / Ex Style 2 | Pkg. of 1 |



40-4400



40-4500

Lightweight Racing Valve Spring Kit For 1994-1997 Models

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|--|----------------------------|---------------|----------------------------------|------------------------------|
| 40-4385 | .425" Valve Lift OK 55# Seat Pressure / 165lb. @ .425" lift | 40-4386 Titanium | Use O.E.M. | 40-4387 Chrome Silicon | 40-4388 H.T. Steel |

Lightweight Racing Valve Spring Kit For 1998-2003 Models

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|--|----------------------------|---------------|----------------------------------|------------------------------|
| 40-4500 | .470" Valve Lift OK 40# Seat Pressure / 160lb. @ .470" lift | 40-4501 Titanium | Use O.E.M. | 40-4502 Chrome Silicon | 40-4503 H.T. Steel |



KAWASAKI® • ZX-10R™ • 1988-1990

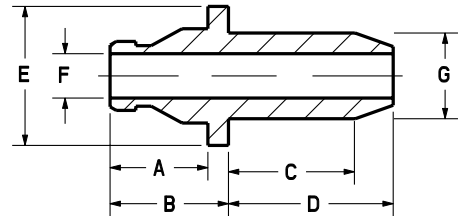


40-4611



40-4600

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.475" | D | 0.800" |
| B | 0.575" | E | 0.675" |
| C | 0.615" | F | 0.1940" |

Intake/Exhaust - **G** (Std. 0.4163")

C630 Bronze

| | |
|----------------|----------|
| 40-4600 | Std. |
| 40-4604 | + 0.004" |
| 40-4610 | + 0.010" |

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|---|----------------------------|
| 40-4611 | .500" Valve Lift OK 43# Seat Pressure /160lb. @ .425" lift | 40-4612 Titanium |

Valve Seal Guides

| KPMI No. | Type of Seal | Quantity |
|-------------------|-----------------------|-----------|
| 700-100015 | In/Ex Style 4 • Viton | Pkg. of 1 |

KAWASAKI® • ZX-10™ • 2011-2013

**NEW
PRODUCT**



40-40450

**Custom
Tensilite®
Valves
Available
By Request**

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Shims |
|-----------------|-------------------------|-----------------------------|------------|------------------------------------|-------------------------------|-------------------------------|
| 40-40850 | In- .445" Valve Lift OK | 40-40851 Titanium | Use O.E.M. | 40-40853 Chrome Silicon | 40-40855 H.T. Steel | 40-40859 H.T. Steel |
| | Ex- .445" Valve Lift OK | 40-40852 Titanium | Use O.E.M. | 40-40854 Chrome Silicon\ | 40-40856 H.T. Steel | N/A |



KAWASAKI® • ZX-10R™ • 2004-2007



KAWASAKI

H

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3

1

105



40-40462



40-40462
Groove Detail



600-100050



40-40450

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 40-40450 | In-.445" Valve Lift OK 50# Seat Pressure /162lb. @ .445" lift | 40-40451 Titanium | Use O.E.M. | 40-40453 Chrome Silicon | 40-40455 H.T. Steel |
| | Ex-.445" Valve Lift OK 44# Seat Pressure /153lb. @ .445" lift | 40-40452 Titanium | Use O.E.M. | 40-40454 Chrome Silicon | 40-40456 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-40462 | IN | 30.00mm / 1.181" | 0.1765" | 11° | 3.580" | Standard |
| 40-40463 | IN | 31.00mm / 1.220" | 0.1765" | 11° | 3.580" | Oversize |

Replacement Tappets

| KPMI No. | Type | Quantity |
|-------------------|---------|-----------|
| 600-100050 | In / Ex | Pkg. of 1 |

For the most up to date listings on current Kibblewhite® Kawasaki® products and accessories, be sure to go online to www.kpmi.us.

FX: 650-359-8574



WWW.KPMI.US

KAWASAKI® • ZX-11™ / ZRX™ 1100/1200 • 1999-2005

From soh4.net

I don't know anything about the specific parts you're talking about but in general, Kibblewhite® offers stuff built to a higher quality standard than most riders will ever need.



40-4611



40-4012H



40-4012H
Groove Detail



40-4600

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|----------------------------|
| 40-4611 | .500" Valve Lift OK 43# Seat Pressure / 160lb. @ .425" lift | 40-4612 Titanium |

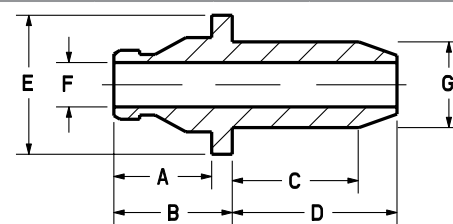
White Diamond™ Valves • Hard Chrome Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-4012H | IN | 31.50mm / 1.240" | 0.1960" | 11° | 3.515" | Standard |
| 40-4014H | IN | 32.50mm / 1.280" | 0.1960" | 11° | 3.510" | Oversize |
| 40-4011H | EX | 27.00mm / 1.063" | 0.1950" | 14° | 3.500" | Standard |

Valve Guide Seals

| KPMI No. | Seal Type | Quantity |
|-------------------|-------------------------|-----------|
| 700-100015 | In/Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.475" | D | 0.800" |
| B | 0.575" | E | 0.675" |
| C | 0.615" | F | 0.1950" |

Intake/Exhaust - **G** (Std. 0.4163")

C630 Bronze

| | |
|----------------|----------|
| 40-4600 | Std. |
| 40-4604 | + 0.004" |
| 40-4610 | + 0.010" |



KAWASAKI® • ZX-12R™ • 2000-2005



From Crfsonly.com

There is no reason to buy a new head.

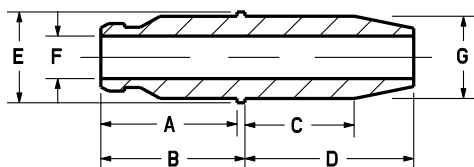
You have to match the head seats to the valves anyway; the steel valves, which are larger, won't fit the stock seats.

Just send the head out to a head shop, request the Kibblewhite® valve upgrade, and be done with it.



40-40040

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.690" | D | 0.855" |
| B | 0.730" | E | 0.460" |
| C | 0.555" | F | 0.1960" |

Intake/Exhaust - **G** (Std. 0.4165")

C630 Bronze

| | |
|-----------------|----------|
| 40-40040 | Std. |
| 40-40041 | + 0.001" |
| 40-40042 | + 0.002" |
| 40-40050 | + 0.010" |

Valve Seal Guides

| KPMI No. | Type of Seal | Quantity |
|-------------------|--------------------------|-----------|
| 700-100015 | In/Ex Style 4 • Viton | Pkg. of 1 |



40-40030



40-40025

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|-------------------------------|
| 40-40025 | .420" ValveLift OK 56# Seat Pressure 171lb. @ .383" lift | 40-40027 Titanium | Use O.E.M. | 40-40026 Chrome Silicon | 40-40029 H.T. Steel | 40-40028 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-40030 | IN | 33.40mm / 1.315" | 0.1960" | 10° | 3.850" | Standard |
| 40-40031 | IN | 34.40mm / 1.354" | 0.1960" | 10° | 3.850" | Oversize |
| 40-40032 | EX | 28.24mm / 1.112" | 0.1955" | 15° | 3.875" | Standard |
| 40-40033 | EX | 29.24mm / 1.151" | 0.1955" | 15° | 3.875" | Oversize |



KAWASAKI® • ZX-14™ • 2006-2011

**TOP
SELLER**



**Seven Time World Champion
Rickey Gadson**



40-40267



40-40273



40-40280

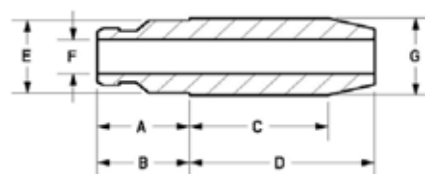
Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 40-40267 | .405" Valve Lift OK 64# Seat Pressure /165lb. @ .405" lift | 40-40268 Titanium | Use O.E.M. | 40-40269 Chrome Silicon | 40-40270 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|----------------|---------------|-------|--------|-----------|
| 40-40273 | IN | 33.40mm/1.315" | 0.1960" | 10° | 3.575" | Standard |
| 40-40274 | IN | 34.40mm/1.354" | 0.1960" | 10° | 3.575" | Oversized |
| 40-40276 | EX | 28.25mm/1.112" | 0.1955" | 10° | 3.585" | Standard |
| 40-40277 | EX | 29.25mm/1.152" | 0.1955" | 10° | 3.585" | Oversized |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.460" | D | 0.780" |
| B | 0.460" | E | 0.413" |
| C | 0.500" | F | 0.1950" |

Intake/Exhaust - **G** (Std. 0.4162")

C630 Bronze

| | |
|-----------------|----------|
| 40-40280 | Std. |
| 40-40281 | + 0.001" |
| 40-40282 | + 0.002" |
| 40-40289 | + 0.010" |

Valve Seal Guides

| KPMI No. | Type of Seal | Quantity |
|-------------------|--------------------------|-----------|
| 700-100015 | In/Ex Style 4 • Viton | Pkg. of 1 |



KAWASAKI • PWC™ • 2007-2010

Ultra 250X™ • 2007-2008

Ultra LX™ • 2007-2008

STX-15F™ • 2007-2008

Ultra 260X™ • 2009-2010

Ultra 260LX™ • 2009-2010

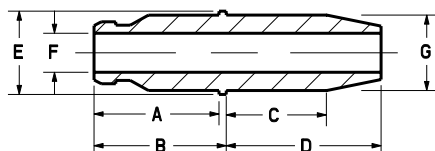


KAWASAKI



40-40770

Valve Guides



A 0.690" **D** 0.855"

B 0.730" **E** 0.460"

C 0.555" **F** 0.1960"

Intake/Exhaust - **G** (Std. 0.4165")

C630 Bronze

40-40770 Std.

40-40771 + 0.001"

40-40772 + 0.002"

40-40779 + 0.010"

Valve Seal Guides

| KPMI No. | Type of Seal | Quantity |
|-------------------|--------------------------|-----------|
| 700-100015 | In/Ex Style 4 • Viton | Pkg. of 1 |



40-40762



40-40750

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|-----------------|
| 40-40750 | .385" Valve Lift OK 56# Seat Pressure 171lb. @ .383" lift | 40-40751 Titanium | Use O.E.M. | 40-40753 Chrome Silicon | 40-40755 H.T. Steel | 40-40759 |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 40-40762 | IN | 33.40mm / 1.315" | 0.1960" | 10° | 3.850" | Standard |
| 40-40763 | IN | 34.40mm / 1.354" | 0.1960" | 10° | 3.850" | Oversize |
| 40-40766 | EX | 28.24mm / 1.112" | 0.1955" | 15° | 3.875" | Standard |
| 40-40767 | EX | 29.24mm / 1.151" | 0.1955" | 15° | 3.875" | Oversize |



KTM® • 250 • 2005-2007



FOR KTM RC4 Engines

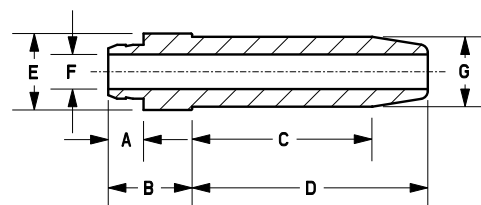


96-96110



96-96120

Valve Guides

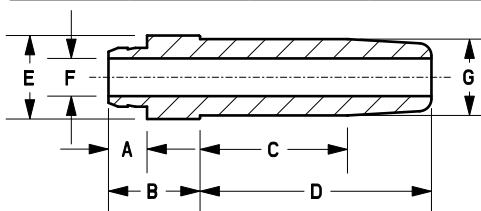


| | | | |
|----------|--------|----------|---------|
| A | 0.200" | D | 1.335" |
| B | 0.475" | E | 0.470" |
| C | 1.020" | F | 0.1960" |

Intake - G (Std. 0.3958")

C630 Bronze

| | |
|-----------------|----------|
| 96-96110 | Std. |
| 96-96111 | + 0.001" |
| 96-96112 | + 0.002" |
| 96-96119 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.200" | D | 1.200" |
| B | 0.475" | E | 0.470" |
| C | 0.765" | F | 0.1955" |

Exhaust - G (Std. 0.3958")

C630 Bronze

| | |
|-----------------|----------|
| 96-96120 | Std. |
| 96-96121 | + 0.001" |
| 96-96122 | + 0.002" |
| 96-96129 | + 0.010" |

Use O.E.M seal.



96-96090



96-96102

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 96-96090 | 425" Valve Lift OK 60# Seat Pressure 170lb. @ .425" lift | 96-96091 Titanium | Use O.E.M. | 96-96093 Chrome Silicon | 96-96095 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|-----------------|---------------|-------|--------|----------|
| 96-96102 | IN | 30.95mm/1.218" | 0.1960" | 15° | 3.910" | Standard |
| 96-96103 | IN | 31.95mm /1.258" | 0.1960" | 15° | 3.910" | Oversize |
| 96-96106 | EX | 26.60mm/1.047" | 0.1955" | 30° | 3.665" | Standard |
| 96-96107 | EX | 27.60mm /1.087" | 0.1955" | 30° | 3.665" | Oversize |

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



KTM® • 250 • 2008-2011

FOR KTM RC4 Engines

**TOP
SELLER**



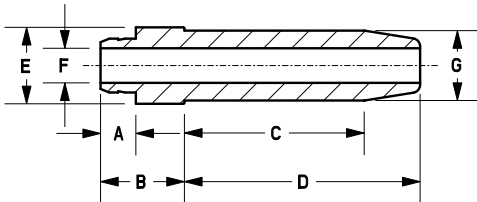
96-96270



96-96280



Valve Guides

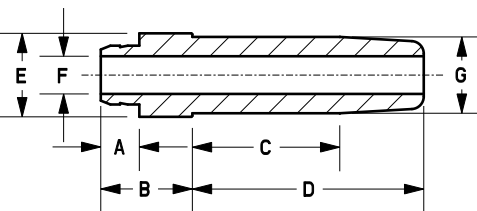


| | | | |
|----------|--------|----------|---------|
| A | 0.200" | D | 1.335" |
| B | 0.475" | E | 0.433" |
| C | 1.020" | F | 0.1960" |

Intake - **G** (Std. 0.3958")

C630 Bronze

| | |
|-----------------|----------|
| 96-96270 | Std. |
| 96-96271 | + 0.001" |
| 96-96272 | + 0.002" |
| 96-96279 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.200" | D | 1.200" |
| B | 0.475" | E | 0.433" |
| C | 0.765" | F | 0.1955" |

Exhaust - **G** (Std. 0.3958")

C630 Bronze

| | |
|-----------------|----------|
| 96-96280 | Std. |
| 96-96281 | + 0.001" |
| 96-96282 | + 0.002" |
| 96-96289 | + 0.010" |

Use O.E.M seal.



96-96263



96-96250

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 96-96250 | .425" Valve Lift OK 60# Seat Pressure 170lb. @ .425" lift | 96-96251 Titanium | Use O.E.M. | 96-96253 Chrome Silicon | 96-96255 H.T. Steel |

Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|-----------------|---------------|-------|--------|----------|
| 96-96262 | IN | 30.95mm/1.218" | 0.1960" | 15° | 3.910" | Standard |
| 96-96263 | IN | 31.95mm /1.258" | 0.1960" | 15° | 3.910" | Oversize |
| 96-96266 | EX | 26.60mm/1.047" | 0.1955" | 30° | 3.665" | Standard |
| 96-96267 | EX | 27.60mm /1.087" | 0.1955" | 30° | 3.665" | Oversize |

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



KTM® • 250 • 2012

**NEW
PRODUCT**

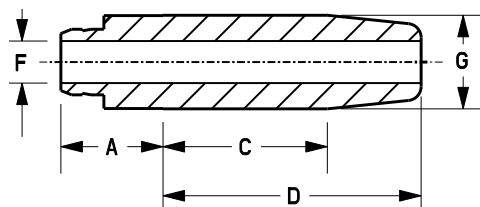


96-96290



96-96300

Valve Guides

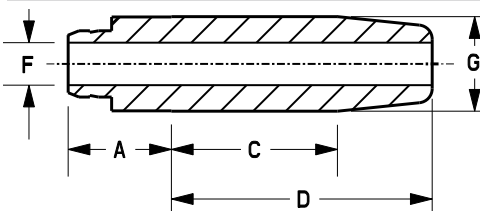


| | | | |
|----------|--------|----------|---------|
| A | 0.475" | D | 1.335" |
| B | ---- | E | ---- |
| C | 1.020" | F | 0.1960" |

Intake - G (Std. 0.4352")

C630 Bronze

| | |
|-----------------|----------|
| 96-96290 | Std. |
| 96-96291 | + 0.001" |
| 96-96292 | + 0.002" |
| 96-96299 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.475" | D | 1.200" |
| B | ---- | E | ---- |
| C | 0.765" | F | 0.1955" |

Exhaust - G (Std. 0.4352")

C630 Bronze

| | |
|-----------------|----------|
| 96-96300 | Std. |
| 96-96301 | + 0.001" |
| 96-96302 | + 0.002" |
| 96-96309 | + 0.010" |

Use O.E.M seal.



96-96263



96-96250

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 96-96250 | .425" Valve Lift OK 60# Seat Pressure 170lb. @ .425" lift | 96-96251 Titanium | Use O.E.M. | 96-96253 Chrome Silicon | 96-96255 H.T. Steel |

Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|-----------------|---------------|-------|--------|----------|
| 96-96262 | IN | 30.95mm/1.218" | 0.1960" | 15° | 3.910" | Standard |
| 96-96263 | IN | 31.95mm /1.258" | 0.1960" | 15° | 3.910" | Oversize |
| 96-96266 | EX | 26.60mm/1.047" | 0.1955" | 30° | 3.665" | Standard |
| 96-96267 | EX | 27.60mm /1.087" | 0.1955" | 30° | 3.665" | Oversize |

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



KTM® • ALL RFS ENGINES 400cc-560cc • 2000-2009



96-96010



96-96020

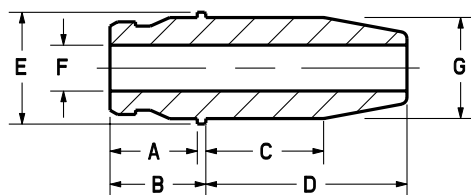


96-96000



96-96004

Valve Guides

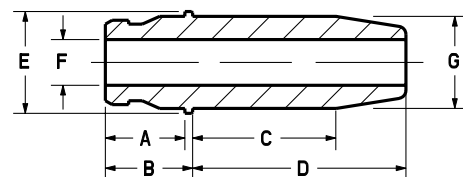


| | | | |
|----------|--------|----------|---------|
| A | 0.410" | D | 0.945" |
| B | 0.450" | E | 0.525" |
| C | 0.555" | F | 0.2360" |

Intake - G (Std. 0.4745")

C630 Bronze

| | |
|-----------------|----------|
| 96-96010 | Std. |
| 96-96011 | + 0.001" |
| 96-96012 | + 0.002" |
| 96-96019 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.410" | D | 1.100" |
| B | 0.450" | E | 0.525" |
| C | 0.740" | F | 0.2360" |

Exhaust - G (Std. 0.4745")

C630 Bronze

| | |
|-----------------|----------|
| 96-96020 | Std. |
| 96-96021 | + 0.001" |
| 96-96022 | + 0.002" |
| 96-96029 | + 0.010" |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|-------------------------------|
| 96-96000 | .435" Valve Lift OK 75# Seat Pressure 200lb. @ .395" lift | 96-96001 Titanium | Use O.E.M. | 96-96002 Chrome Silicon | 96-96003 H.T. Steel | 96-96035 H.T. Steel |

Intake Only Steel Valve Conversion Kits

Please see the **#96-96070 All RFS Engines 400cc-560cc 2000-2009 Intake Only Spring Kit** in the Intake Kit Section on Pg. 178 for more information.

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 96-96004 | IN | 35.00mm / 1.378" | 0.2350" | 20° | 3.815" | Standard |
| 96-96005 | IN | 36.00mm / 1.417" | 0.2350" | 20° | 3.815" | Oversize |
| 96-96007 | EX | 30.00mm / 1.181" | 0.2342" | 24° | 3.815" | Standard |
| 96-96008 | EX | 31.00mm / 1.220" | 0.2342" | 24° | 3.815" | Oversize |

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

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|--------------------------------------|-----------|
| 700-100029 | In / Ex • Style 5 • Steel Clad Viton | Pkg. of 1 |



MOTO GUZZI® • ALL 2-VALVE "BIG-BLOCKS" • 1971-2012



90-90000

From Wild Guzzi Forums

Does anyone have any experience with Kibblewhite® valves?

RE: I've been using them for over 20 years in Nortons, Guzzis and BMWs. They are excellent and as good or better than most factory valves. Their guides are also very good and available oversized (OD) if your guides have been replaced multiple times.

RE: Good stuff. Wouldn't hesitate putting them in anything. Never had custom sizes done, but I know they can make just about anything.

Great people to deal with as well!



90-9101



90-9100



90-4067

Lightweight Racing Valve Spring Kit

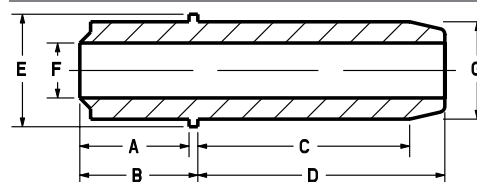
| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 90-90000 | .575" Valve Lift OK 110# Seat Pressure 205lb. @ .375" lift | 90-90002 Titanium | Use O.E.M. | 90-90001 Chrome Silicon | 90-90003 H.T. Steel |

Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------------------|
| 90-9100 | IN | 41.00mm / 1.614" | 0.3145" | 23° | 4.200" | Std. (OEM #13036000) |
| 90-9102 | IN | 44.00mm / 1.732" | 0.3145" | 23° | 4.185" | Std. (OEM #14036050) |
| 90-9101 | EX | 36.00mm / 1.417" | 0.3140" | 27° | 4.130" | Std. (OEM #13033100) |
| 90-9103 | EX | 37.10mm / 1.461" | 0.3140" | 27° | 4.100" | Std. (OEM #14036150) |

For all the applications available for Kibblewhite's Moto Guzzi® line of products, please refer online to the Moto Guzzi® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.645" | D | 1.405" |
| B | 0.695" | E | 0.620" |
| C | 1.205" | F | 0.3145" |

Intake/Exhaust - **G** (Std. 0.5538")

C630 Bronze

| | |
|----------------|----------|
| 90-4067 | Std. |
| 90-4068 | + 0.002" |
| 90-4175 | + 0.015" |

Seal not required.



NORTON® • 750 • 1968-1973

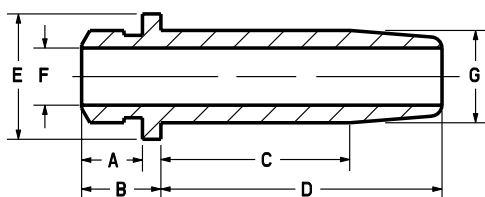


50-0403



50-0410

Valve Guides

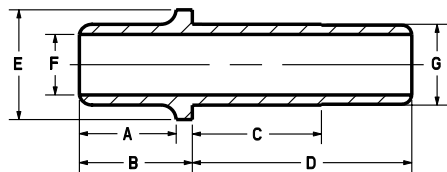


| | | | |
|----------|--------|----------|---------|
| A | 0.330" | D | 1.525" |
| B | 0.430" | E | 0.680" |
| C | 1.025" | F | 0.3105" |

Intake - G (Std. 0.5010")

C630 Bronze

| | |
|----------------|----------|
| 50-0403 | Std. |
| 50-0404 | + 0.002" |
| 50-0405 | + 0.004" |
| 50-0406 | + 0.006" |



| | | | |
|----------|--------|----------|---------|
| A | 0.470" | D | 1.345" |
| B | 0.655" | E | 0.682" |
| C | 0.785" | F | 0.3105" |

Exhaust - G (Std. 0.5010")

C630 Bronze

| | |
|----------------|----------|
| 50-0410 | Std. |
| 50-0411 | + 0.002" |
| 50-0412 | + 0.004" |
| 50-0413 | + 0.006" |



50-0460



50-50000

O.E.M. Replacement Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-------------------------------|---------------|-----------------------------------|-------------------------------|
| 50-50000 | .410" Valve Lift OK 93# Seated Pressure 170 lb. @ .320" lift | 50-50001 H.T. Steel | USE O.E.M. | 50-50004 Chrome Silicon | 50-50003 H.T. Steel |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|---|--------------------------------|------------------------------|----------------------------------|------------------------------|
| 50-0460 | .500" Valve Lift OK 105# Seated Pressure 185 lb. @ .320" lift | 50-0461 H.A. 7075-T6 | 50-0462 H.T. Steel | 50-0463 Chrome Silicon | 50-0464 H.T. Steel |

Black Diamond™ Valves • Black Nitron™ Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|--------|--------|----------|
| 50-4092 | IN | 38.10mm / 1.500" | 0.3107" | 1.5" R | 4.065" | Standard |
| 50-4092-1 | IN | 39.62mm / 1.560" | 0.3107" | 1.5" R | 4.055" | Oversize |
| 50-4091 | EX | 33.02mm / 1.300" | 0.3107" | 27° | 4.015" | Standard |
| 50-4091-1 | EX | 34.54mm / 1.360" | 0.3107" | 27° | 4.005" | Oversize |

Valve Guide Seals

| KPMI No. | Type | Quantity |
|---------------------------|---------------------------|-----------|
| 700-100012 | Intake Style 1 • Viton | Pkg. of 1 |
| Exhaust Seal Not Required | | |



Push Rods

| KPMI No. | Type | Quantity |
|-----------------|---------|-----------|
| 50-50010 | In / Ex | Pkg. of 4 |



NORTON® • 850 • 1973-1977

**NEW
PRODUCT**



50-50000



50-4092

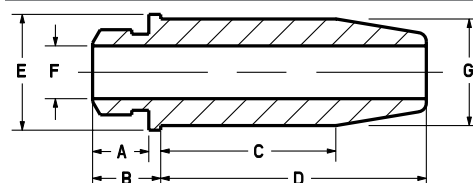


50-0648



50-0652

Valve Guides

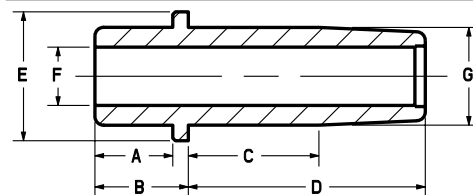


| | | | |
|----------|--------|----------|---------|
| A | 0.330" | D | 1.560" |
| B | 0.400" | E | 0.680" |
| C | 1.030" | F | 0.3105" |

Intake - G (Std. 0.6260")

C630 Bronze

| | |
|----------------|----------|
| 50-0648 | Std. |
| 50-0649 | + 0.002" |
| 50-0650 | + 0.004" |
| 50-0651 | + 0.006" |



| | | | |
|----------|--------|----------|---------|
| A | 0.525" | D | 1.420" |
| B | 0.580" | E | 0.680" |
| C | 0.955" | F | 0.3105" |

Exhaust - G (Std. 0.6260")

C630 Bronze

| | |
|----------------|----------|
| 50-0652 | Std. |
| 50-0653 | + 0.002" |
| 50-0654 | + 0.004" |
| 50-0655 | + 0.006" |

Push Rods

| KPMI No. | Type | Quantity |
|-----------------|---------|-----------|
| 50-50010 | In / Ex | Pkg. of 4 |

O.E.M. Replacement Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-------------------------------|---------------|-----------------------------------|-------------------------------|
| 50-50000 | .410" Valve Lift OK 93# Seated Pressure 170 lb. @ .320" lift | 50-50001 H.T. Steel | USE O.E.M. | 50-50004 Chrome Silicon | 50-50003 H.T. Steel |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|---|--------------------------------|------------------------------|----------------------------------|------------------------------|
| 50-0460 | .500" Valve Lift OK 105# Seated Pressure 185 lb. @ .320" lift | 50-0461 H.A. 7075-T6 | 50-0462 H.T. Steel | 50-0463 Chrome Silicon | 50-0464 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|--------|--------|----------|
| 50-4092 | IN | 38.10mm / 1.500" | 0.3107" | 1.5" R | 4.065" | Standard |
| 50-4092-1 | IN | 39.62mm / 1.560" | 0.3107" | 1.5" R | 4.055" | Oversize |
| 50-4091 | EX | 33.02mm / 1.300" | 0.3107" | 27° | 4.015" | Standard |
| 50-4091-1 | EX | 34.54mm / 1.360" | 0.3107" | 27° | 4.005" | Oversize |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---|-----------|
| 700-100012 | Intake • Style 1 • Viton Exhaust Seal Not Required | Pkg. of 1 |



POLARIS® • 425 / 500 • 1996-2013



82-82000

Scrambler™ / Sportsman™ / Magnum™ / Xpedition™

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 82-82000 | .440" Valve Lift OK 40# Seated Pressure 140 lb. @ .440" lift, | 82-82001 Titanium | Use O.E.M. | 82-82002 Chrome Silicon | 82-82003 H.T. Steel |

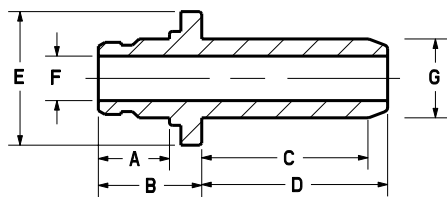
Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 82-82005 | IN | 31.00mm / 1.220" | 0.2345" | 14° | 3.970" | Standard |
| 82-82008 | EX | 27.00mm / 1.063" | 0.2340" | 25° | 3.985" | Standard |

POLARIS® • PREDATOR™ / OUTLAW™ 500 • 2003-2007

KIBBLEWHITE
AMERICAN MADE & TESTED

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.375" | D | 0.980" |
| B | 0.545" | E | 0.704" |
| C | 0.880" | F | 0.2345" |

Intake/Exhaust - **G** (Std. 0.4160")

C630 Bronze

| | |
|-----------------|----------|
| 82-82030 | Std. |
| 82-82031 | + 0.001" |
| 82-82039 | + 0.010" |

Replacement Tappets

| KPMI No. | Type | Quantity |
|-------------------|----------|-----------|
| 600-100650 | Standard | Pkg. of 1 |



82-82012



82-82052



82-82030

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs |
|-----------------|---|-----------------------------|------------|-----------------------------------|
| 82-82012 | .440" Valve Lift OK 65# Seated Pressure 185 lb. @ .335" lift, | 82-82013 Titanium | Use O.E.M. | 82-82014 Chrome Silicon |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 82-82052 | IN | 37.00mm / 1.457" | 0.2345" | 20° | 4.035" | Standard |
| 82-82053 | IN | 38.00mm / 1.496" | 0.2345" | 20° | 4.035" | Oversize |
| 82-82055 | EX | 32.00mm / 1.260" | 0.2345" | 20° | 4.035" | Standard |
| 82-82056 | EX | 33.00mm / 1.300" | 0.2345" | 20° | 4.035" | Oversize |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|------------------------------------|-----------|
| 700-100017 | In/Ex • Style 5 • Steel Clad Viton | Pkg. of 1 |



POLARIS® • SPORTSMAN™ 800 • 2006-2013



**NEW
PRODUCT**



82-82060



82-82362

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|---|
| 82-82060 | In-.500" Valve Lift OK 65# Seated Pressure 205lb. @ .500" lift, | 82-82061 Titanium | Use O.E.M. | 82-82062 Chrome Silicon | 82-82063 H.T. Steel | * 82-82099 Solid Viton w/ Metal Jacket |
| | Ex-.500" Valve Lift OK 65# Seated Pressure 205lb. @ .500" lift, | 82-82061 Titanium | Use O.E.M. | 82-82062 Chrome Silicon | 82-82064 H.T. Steel | N/A |

*These seals are designed to work with the **KPMI® Spring Kit** and OEM intake Valve Guides. Use the recommended **#82-82390** seals when using KPMI Valve Guides.

Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|-----------------|
| 82-82065 | IN | 35.00mm / 1.378" | 0.2357" | 25° | 4.510" | Standard |
| 82-82066 | IN | 36.00mm / 1.417" | 0.2357" | 25° | 4.510" | Oversize (+1mm) |
| 82-82068 | EX | 30.00mm / 1.181" | 0.2352" | 11° | 4.555" | Standard |
| 82-82069 | EX | 31.00mm / 1.220" | 0.2352" | 11° | 4.555" | Oversize (+1mm) |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---|-----------|
| * 82-82091 | In/Ex • Style 5 • Solid Viton w/ Metal Jacket | Pkg. of 4 |

*These seals are designed to work with the **KPMI® Guides**.

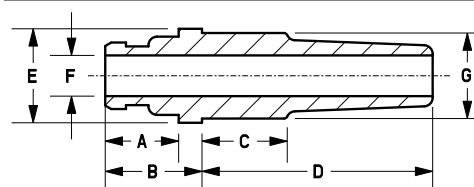


82-82070



82-82080

Valve Guides

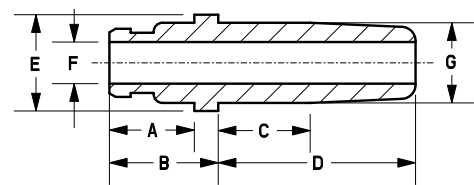


| | | | |
|----------|--------|----------|---------|
| A | 0.470" | D | 1.335" |
| B | 0.560" | E | 0.544" |
| C | 0.495" | F | 0.2360" |

Intake - G (Std. 0.4950")

C630 Bronze

| | |
|-----------------|----------|
| 82-82070 | Std. |
| 82-82071 | + 0.001" |
| 82-82072 | + 0.002" |
| 82-82079 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.525" | D | 1.115" |
| B | 0.615" | E | 0.544" |
| C | 0.520" | F | 0.2355" |

Exhaust - G (Std. 0.4531")

C630 Bronze

| | |
|-----------------|----------|
| 82-82080 | Std. |
| 82-82081 | + 0.001" |
| 82-82082 | + 0.002" |
| 82-82089 | + 0.010" |



POLARIS® • RZR™ 800 • 2008-2010

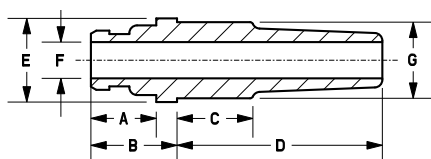


82-82220



82-82230

Valve Guides

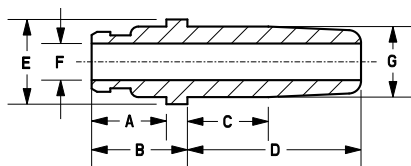


| | | | |
|----------|--------|----------|---------|
| A | 0.470" | D | 1.335" |
| B | 0.560" | E | 0.544" |
| C | 0.495" | F | 0.2360" |

Intake - **G** (Std. 0.4950")

C630 Bronze

| | |
|-----------------|----------|
| 82-82220 | Std. |
| 82-82221 | + 0.001" |
| 82-82222 | + 0.002" |
| 82-82229 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.525" | D | 1.115" |
| B | 0.615" | E | 0.544" |
| C | 0.520" | F | 0.2355" |

Exhaust - **G** (Std. 0.4531")

C630 Bronze **Cast Iron**

| | |
|-----------------|----------|
| 82-82230 | Std. |
| 82-82231 | + 0.001" |
| 82-82232 | + 0.002" |
| 82-82239 | + 0.010" |

For all the applications available for Kibblewhite's Polaris® line of products, please refer online to the Polaris® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.



Polaris RZR 800™



82-82200



82-82212

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|---------------------------------|
| 82-82200 | In-.500" Valve Lift OK 65# Seated Pressure 205lb. @ .500" lift, | 82-82201 Titanium | Use O.E.M. | 82-82203 Chrome Silicon | 82-82205 H.T. Steel | *82-82207 Solid Viton |
| | Ex-.500" Valve Lift OK 65# Seated Pressure 205lb. @ .500" lift, | 82-82201 Titanium | Use O.E.M. | 82-82203 Chrome Silicon | 82-82206 H.T. Steel | N/A |

*These seals are designed to work with the **KPMI® Spring Kit** and OEM intake Valve Guides. Use the recommended **#82-82240** seals when using KPMI Valve Guides.

Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 82-82212 | IN | 35.00mm / 1.378" | 0.2357" | 25° | 4.510" | Standard |
| 82-82213 | IN | 36.00mm / 1.417" | 0.2357" | 25° | 4.510" | Oversize |
| 82-82216 | EX | 30.00mm / 1.181" | 0.2352" | 11° | 4.555" | Standard |
| 82-82217 | EX | 31.00mm / 1.220" | 0.2352" | 11° | 4.555" | Oversize |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|------------------|---|-----------|
| *82-82240 | In/Ex • Style 5 • Solid Viton w/ Metal Jacket | Pkg. of 4 |

*These seals are designed to work with the **KPMI® Guides**.



POLARIS® • RZR™ 800 • 2011-2013

**NEW
PRODUCT**



KIBBLEWHITE
AMERICAN MADE & TESTED



82-82300



82-82065



82-82320

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|--|
| 82-82300 | In-.500" Valve Lift OK 65# Seated Pressure 205lb. @ .500" lift, | 82-82301 Titanium | Use O.E.M. | 82-82303 Chrome Silicon | 82-82305 H.T. Steel | *82-82307 Solid Viton w/ Metal Jacket |
| | Ex-.500" Valve Lift OK 65# Seated Pressure 205lb. @ .500" lift, | 82-82301 Titanium | Use O.E.M. | 82-82303 Chrome Silicon | 82-82305 H.T. Steel | N/A |

*These seals are designed to work with the **KPMI® Spring Kit** and OEM intake Valve Guides.
Use the recommended **#82-82340** seals when using KPMI® Valve Guides.

Black Diamond™ Valves • Black Nitronex Stems

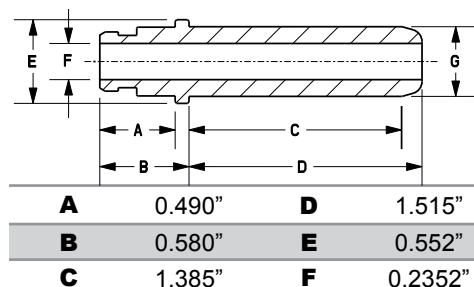
| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|-----------------|
| 82-82312 | IN | 35.00mm / 1.378" | 0.2357" | 25° | 4.510" | Standard |
| 82-82313 | IN | 36.00mm / 1.417" | 0.2357" | 25° | 4.510" | Oversize (+1mm) |
| 82-82316 | EX | 30.00mm / 1.181" | 0.2352" | 11° | 4.555" | Standard |
| 82-82317 | EX | 31.00mm / 1.220" | 0.2352" | 11° | 4.555" | Oversize (+1mm) |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|------------------|---|-----------|
| *82-82340 | In/Ex • Style 5 • Solid Viton w/ Metal Jacket | Pkg. of 4 |

*These seals are designed to work with the **KPMI® Guides**.

Valve Guides



Intake/ Exhaust - G (Std. 0.4531")

C630 Bronze

| | |
|-----------------|----------|
| 82-82320 | Std. |
| 82-82321 | + 0.001" |
| 82-82322 | + 0.002" |
| 82-82329 | + 0.010" |

For all the applications available for Kibblewhite's Polaris® line of products, please refer online to the Polaris® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.



POLARIS® • RZR™ XP 900 • 2011-2012



**Polaris
RZR XP 900**

**TOP
SELLER**



**82-82190
Kibblewhite® RZR XP
900™ Turbo Kit**



**82-82160
Kibblewhite® RZR XP 900™
Lightweight Kit**

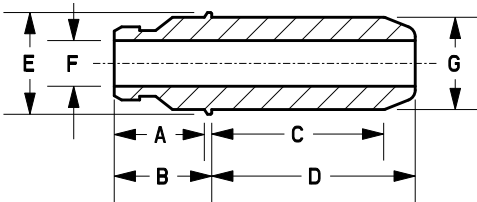


82-82170



82-82156

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.425" | D | 0.960" |
| B | 0.460" | E | 0.480" |
| C | 0.815" | F | 0.2155" |

Intake/Exhaust - G (Std. 0.4353")

C630 Bronze

| | |
|-----------------|----------|
| 82-82170 | Std. |
| 82-82171 | + 0.001" |
| 82-82172 | + 0.002" |
| 82-82174 | + 0.004" |
| 82-82179 | + 0.010" |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 82-82160 | .445" Valve Lift OK 48# Seated Pressure 131 lb. @ .445" lift, | 82-82161 Titanium | Use O.E.M. | 82-82163 Chrome Silicon | 82-82165 H.T. Steel |

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.

High Performance "Turbo" Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 82-82190 | .445" Valve Lift OK 65# Seated Pressure 200 lb. @ .445" lift, | 82-82191 Titanium | Use O.E.M. | 82-82193 Chrome Silicon | 82-82195 H.T. Steel |

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.

Black Diamond™ Valves • Black Nitrone® Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 82-82155 | IN | 37.72mm / 1.485" | 0.2160" | 17° | 3.775" | Standard |
| 82-82156 | IN | 38.72mm / 1.524" | 0.2160" | 17° | 3.775" | Oversize |
| 82-82158 | EX | 32.44mm / 1.277" | 0.2155" | 25° | 3.815" | Standard |
| 82-82159 | EX | 33.44mm / 1.317" | 0.2155" | 25° | 3.815" | Oversize |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-----------------|--------------------------------|-----------|
| 82-82181 | In/Ex • Style 4 Solid Viton | Pkg. of 1 |

Replacement Tappets

| KPMI No. | Type | Quantity |
|-----------------|---------|-----------|
| 82-82185 | IN / EX | Pkg. of 8 |



POLARIS® • RANGER™ 900 XP • 2012

**NEW
PRODUCT**



82-82290
Kibblewhite® RZR XP
900™ Turbo Kit



82-82260
Kibblewhite® RZR XP 900™
Lightweight Kit

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 82-82260 | .445" Valve Lift OK 48# Seated Pressure 150 lb. @ .445" lift, | 82-82261 Titanium | Use O.E.M. | 82-82263 Chrome Silicon | 82-82265 H.T. Steel |

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.

High Performance "Turbo" Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 82-82290 | .445" Valve Lift OK 65# Seated Pressure 200 lb. @ .445" lift, | 82-82291 Titanium | Use O.E.M. | 82-82293 Chrome Silicon | 82-82295 H.T. Steel |

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.

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 82-82255 | IN | 37.72mm / 1.485" | 0.2160" | 17° | 3.775" | Standard |
| 82-82256 | IN | 38.72mm / 1.524" | 0.2160" | 17° | 3.775" | Oversize |
| 82-82258 | EX | 32.44mm / 1.277" | 0.2155" | 25° | 3.815" | Standard |
| 82-82259 | EX | 33.44mm / 1.317" | 0.2155" | 25° | 3.815" | Oversize |

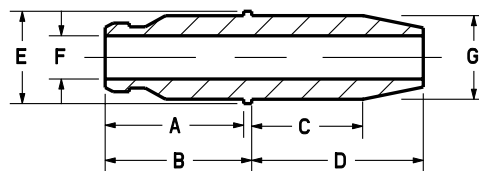


82-82256



82-82270

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.425" | D | 0.960" |
| B | 0.460" | E | 0.480" |
| C | 0.815" | F | 0.2155" |

Intake/Exhaust - **G** (Std. 0.4353")

C630 Bronze

| | |
|-----------------|----------|
| 82-82270 | Std. |
| 82-82271 | + 0.001" |
| 82-82272 | + 0.002" |
| 82-82274 | + 0.004" |
| 82-82279 | + 0.010" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-----------------|--------------------------------|-----------|
| 82-82281 | In/Ex • Style 4 Solid Viton | Pkg. of 1 |

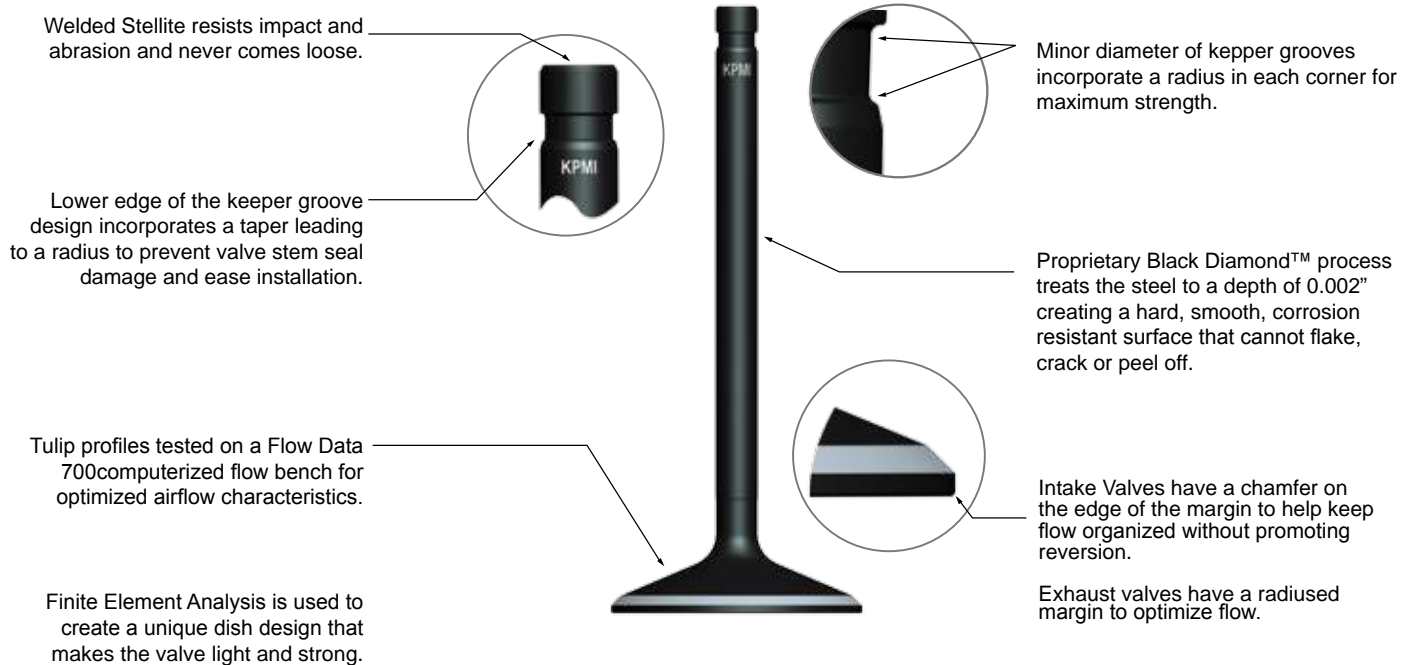
Replacement Tappets

| KPMI No. | Type | Quantity |
|-----------------|---------|-----------|
| 82-82285 | IN / EX | Pkg. of 8 |



KPMI® BLACK DIAMOND™ VALVE

Performance Features - Black Diamond™ Valve



Larry "Spiderman" McBride / McBride Racing

Larry "Spiderman" McBride, first motorcycle racer to break the 5 second barrier in the 1/4 mile his KPMI equipped Top Fuel Bike. Spiderman is the perennial top fuel world champion and a world record holder. Spiderman always specifies KPMI Tensilite® Titanium Valves.



BRP® • SEADOO GTX™ ALL MODELS • 2006-2012



91-91051



91-91062

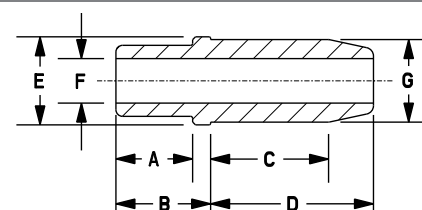


91-91070



91-91080

Valve Guides

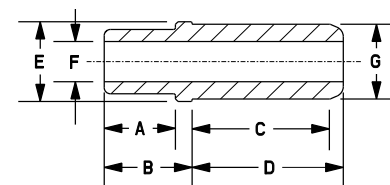


| | | | |
|----------|--------|----------|---------|
| A | 0.405" | D | 0.860" |
| B | 0.500" | E | 0.465" |
| C | 0.625" | F | 0.2350" |

Intake - G (Std. 0.4360")

C630 Bronze

| | |
|-----------------|----------|
| 91-91070 | Std. |
| 91-91071 | + 0.001" |
| 91-91072 | + 0.002" |
| 91-91074 | + 0.004" |
| 91-91079 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.405" | D | 0.860" |
| B | 0.500" | E | 0.465" |
| C | 0.785" | F | 0.2345" |

Exhaust - G (Std. 0.4360")

C630 Bronze

| | |
|-----------------|----------|
| 91-91080 | Std. |
| 91-91081 | + 0.001" |
| 91-91082 | + 0.002" |
| 91-91084 | + 0.004" |
| 91-91089 | + 0.010" |

Use O.E.M seal.

High Performance Spring Only Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|------------|------------|-----------------------------------|---------------|
| 91-91051 | .390" Valve Lift OK 75# Seated Pressure 185 lb. @ .390" lift, | Use O.E.M. | Use O.E.M. | 91-91051 Chrome Silicon | Use O.E.M. |

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 providing the correct pressure and harmonic range for this high performance supercharged power plant.

Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 91-91062 | IN | 38.00mm / 1.496" | 0.2350" | 20° | 3.555" | Standard |
| 91-91063 | IN | 39.00mm / 1.535" | 0.2350" | 20° | 3.555" | Oversize |
| 91-91066 | EX | 31.00mm / 1.220" | 0.2346" | 25° | 3.575" | Standard |
| 91-91067 | EX | 32.00mm / 1.260" | 0.2346" | 25° | 3.575" | Oversize |

For all the applications available for Kibblewhite's BRP® line of products, please refer online to the BRP® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.



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

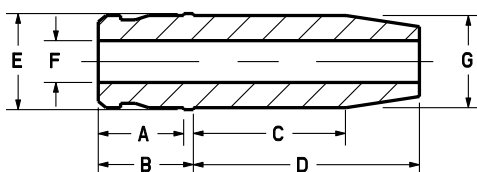


91-0478



91-0482

Valve Guides

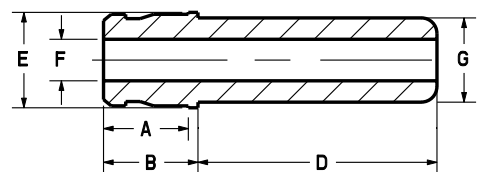


| | | | |
|----------|--------|----------|---------|
| A | 0.440" | D | 1.165" |
| B | 0.490" | E | 0.495" |
| C | 0.785" | F | 0.2745" |

Intake - G (Std. 0.4752")

C630 Bronze

| | |
|---------|----------|
| 91-0478 | Std. |
| 91-0479 | + 0.002" |
| 91-0480 | + 0.004" |
| 91-0481 | + 0.006" |
| 91-4036 | + 0.015" |
| 91-0499 | + 0.027" |



| | | | |
|----------|--------|----------|---------|
| A | 0.440" | D | 1.240" |
| B | 0.490" | E | 0.495" |
| C | ---- | F | 0.2745" |

Exhaust - G (Std. 0.4752")

C630 Bronze

| | |
|---------|----------|
| 91-0482 | Std. |
| 91-0483 | + 0.002" |
| 91-0484 | + 0.004" |
| 91-0485 | + 0.006" |
| 91-4037 | + 0.015" |



91-9400

Custom Valves
Available By Request



700-100019



91-9411

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------|---|---------------------|---------------|---------------------------|-----------------------|
| 91-9400 | .450" Valve Lift OK 106# Seated Pressure 266 lb. @ .450" lift | 91-9402 Titanium | Use O.E.M. | 91-9401 Chrome Silicon | 91-9403 H.T. Steel |

Water Cooled Replacement Tappets

| KPMI No. | Years | Quantity |
|----------|-------|-----------|
| 91-9411 | 2000 | Pkg. of 1 |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|------------|---------------------------------|-----------|
| 700-100019 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |



BRP® • CAN AM® • DS™ 650 • 2000-2007

BRP • ROTAX



91-91010



91-91000

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 91-91010 | .500" Valve Lift OK 65# Seated Pressure 205 lb. @ .400" lift | 91-91011 Titanium | Use O.E.M. | 91-91012 Chrome Silicon | 91-91013 H.T. Steel |

Lightweight Racing Valve Spring Kit w/ Shim Under Conversion

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Tappets | Adj. Shims |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|-------------------------------|-----------------|
| 91-91000 | .500" Valve Lift OK 74# Seated Pressure 216 lb. @ .400" lift | 91-91001 Titanium | Use O.E.M. | 91-91002 Chrome Silicon | 91-91003 H.T. Steel | 91-91005 H.T. Steel | 91-91006 |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 91-91015 | IN | 36.00mm / 1.417" | 0.2350" | 23° | 3.565" | Standard |
| 91-91016 | IN | 37.00mm / 1.457" | 0.2350" | 23° | 3.565" | Oversize |
| 91-91017 | EX | 31.00mm / 1.220" | 0.2342" | 29° | 3.565" | Standard |
| 91-91018 | EX | 32.00mm / 1.260" | 0.2342" | 29° | 3.565" | Oversize |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---|-----------|
| 700-100025 | In / Ex • Style 5 • Solid Viton w/ Metal Jacket | Pkg. of 1 |



91-91018



91-91018
Groove Detail



700-100025

For all the applications available for Kibblewhite's BRP® line of products, please refer online to the BRP® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.



SUZUKI® • DR™ 250 / 350S / SE • 1990-1999



60-6030

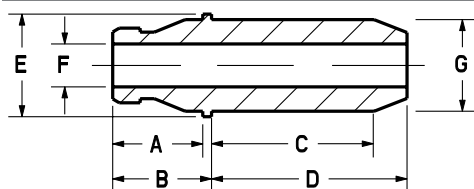


700-100015



60-6041

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.410" | D | 0.890" |
| B | 0.450" | E | 0.467" |
| C | 0.740" | F | 0.1955" |

Intake/Exhaust - G (Std. 0.4170")

C630 Bronze

| | |
|----------------|----------|
| 60-6030 | Std. |
| 60-6031 | + 0.001" |
| 60-6032 | + 0.002" |
| 60-6033 | + 0.003" |
| 60-6040 | + 0.010" |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|---|----------------------------|---------------|----------------------------------|------------------------------|
| 60-6041 | .350" Valve Lift OK 61# Seat Pressure /129lb. @ .300" lift | 60-6042 Titanium | Use O.E.M. | 60-6043 Chrome Silicon | 60-6044 H.T. Steel |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100015 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |

From Ronald Berends on Kibblewhite®'s Facebook Wall

What a great company. I was in need of there valve guide seals for a dual spring setup. But here in the Netherlands, I cannot get them. 1 email later, they are shipping them with no costs at all to me. Now that's what I call service.....

SUZUKI® • RM-Z250™ • 2004-2006

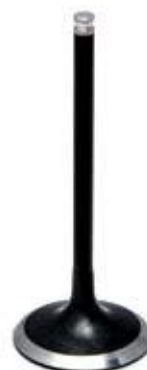


Suzuki® RM-Z250™

**TOP
SELLER**



60-60170



60-60211



60-60213



60-60190



60-60210T

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 60-60170 | .445" Valve Lift OK 46# Seat Pressure /156lb. @ .445" lift | 60-60171 Titanium | Use O.E.M. | 60-60174 Chrome Silicon | 60-60173 H.T. Steel |

Intake Only Steel Valve Conversion Kits

Please see the **#60-60450 Suzuki RM-Z250 2004-2006 Intake Only Spring Kit** in the Intake Kit Section on Pg. 178 for more information.

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-60210 | IN | 31.00mm / 1.220" | 0.1765" | 20° | 3.120" | Standard |
| 60-60211 | IN | 32.00mm / 1.260" | 0.1765" | 20° | 3.130" | Oversize |
| 60-60213 | EX | 25.00mm / 0.984" | 0.1756" | 25° | 3.125" | Standard |
| 60-60214 | EX | 26.00mm / 1.024" | 0.1756" | 25° | 3.135" | Oversize |

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

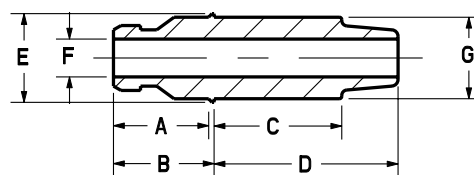
Tensilite® Valves • Chromium Nitride PVD Coated Titanium

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|-------|--------|----------|
| 60-60210T | IN | 31.00mm / 1.220" | 0.1765" | 20° | 3.120" | Standard |
| 60-60213T | EX | 25.00mm / 0.984" | 0.1756" | 25° | 3.125" | Standard |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------|-----------|
| 700-100013 | In / Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.440" | D | 0.850" |
| B | 0.465" | E | 0.410" |
| C | 0.590" | F | 0.1765" |

Intake/Exhaust - **G** (Std. 0.3765")

C630 Bronze

| | |
|-----------------|----------|
| 60-60190 | Std. |
| 60-60191 | + 0.001" |
| 60-60192 | + 0.002" |
| 60-60199 | + 0.010" |

O.E.M. Replacement Tappets

| KPMI No. | Type | Quantity |
|-----------------|---------|-----------|
| 60-60176 | Intake | Pkg. of 2 |
| 60-60177 | Exhaust | Pkg. of 2 |



SUZUKI® • RM-Z250™ • 2007-2013



60-60500



60-60520



60-60513

**GET MORE
POWER!**



**60-60470
Intake Only
Conversion Kit**



SUZUKI

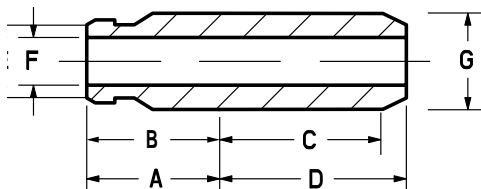
Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 60-60500 | .445" Valve Lift OK 51# Seat Pressure/160lb. @ .445" lift | 60-60501 Titanium | Use O.E.M. | 60-60503 Chrome Silicon | 60-60505 H.T. Steel |

Intake Only Steel Valve Conversion Kits

Please see the **#60-60470 Suzuki RM-Z250 2007-2013 Intake Only Spring Kit** in the Intake Kit Section on Pg. 178 for more information.

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.545" | D | 0.700" |
| B | ----- | E | 0.374" |
| C | 0.530" | F | 0.1765" |

Intake/Exhaust - **G** (Std. 0.3778")

C630 Bronze

| | |
|-----------------|----------|
| 60-60520 | Std. |
| 60-60521 | + 0.001" |
| 60-60522 | + 0.002" |
| 60-60529 | + 0.010" |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-60512 | IN | 31.00mm / 1.220" | 0.1765" | 15° | 3.175" | Standard |
| 60-60513 | IN | 32.00mm / 1.260" | 0.1765" | 15° | 3.185" | Oversize |
| 60-60516 | EX | 25.00mm / 0.985" | 0.1760" | 25° | 3.185" | Standard |
| 60-60517 | EX | 26.00mm / 1.024" | 0.1760" | 25° | 3.195" | Oversize |

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

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------|-----------|
| 700-100013 | In / Ex • Style 2 • Viton | Pkg. of 1 |



SUZUKI® DR-Z400™ E/ S/ SM/ LT-Z400™ / 400Z™ • 2000-'13



From Donald Kunkel on Kibblewhite's Facebook Wall

Great go fast parts keeping my bikes running strong!



60-60045



60-60050



60-60053



60-60060

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 60-60045 | .440" Valve Lift OK 60# Seat Pressure/175lb. @ .440" lift | 60-60046 Titanium | Use O.E.M. | 60-60047 Chrome Silicon | 60-60048 H.T. Steel |

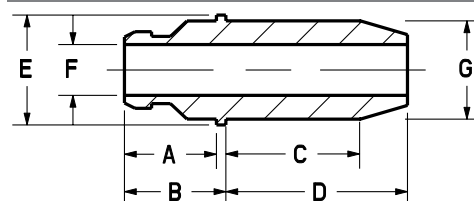
Black Diamond™ Valves • Black Nitroneg Stems (SPECIAL INDUCTION HARDENED FACES)

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-60050 | IN | 36.00mm / 1.418" | 0.1960" | 20° | 3.245" | Standard |
| 60-60051 | IN | 37.00mm / 1.457" | 0.1960" | 20° | 3.245" | Oversize |
| 60-60053 | EX | 29.00mm / 1.142" | 0.1953" | 17° | 3.200" | Standard |
| 60-60054 | EX | 30.00mm / 1.182" | 0.1953" | 17° | 3.200" | Oversize |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100015 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.390" | D | 0.770" |
| B | 0.430" | E | 0.466" |
| C | 0.570" | F | 0.1960" |

Intake/Exhaust - G (Std. 0.4167")

C630 Bronze

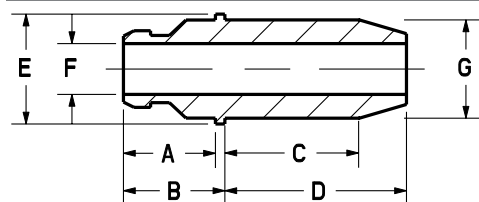
| | |
|-----------------|----------|
| 60-60060 | Std. |
| 60-60061 | + 0.001" |
| 60-60062 | + 0.002" |
| 60-60064 | + 0.004" |
| 60-60069 | + 0.010" |



SUZUKI® • LTR™ 450 / 450Z • 2006-2009



Valve Guides

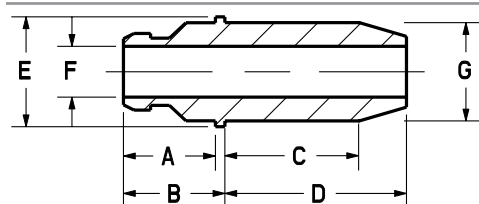


| | | | |
|----------|--------|----------|---------|
| A | 0.375" | D | 0.820" |
| B | 0.410" | E | 0.460" |
| C | 0.600" | F | 0.2155" |

Intake - G (Std. 0.4170")

C630 Bronze

| | |
|-----------------|----------|
| 60-60290 | Std. |
| 60-60291 | + 0.001" |
| 60-60292 | + 0.002" |
| 60-60294 | + 0.004" |
| 60-60299 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.375" | D | 0.820" |
| B | 0.410" | E | 0.460" |
| C | 0.600" | F | 0.2155" |

Exhaust - G (Std. 0.4170")

C630 Bronze

| | |
|-----------------|----------|
| 60-60300 | Std. |
| 60-60301 | + 0.001" |
| 60-60302 | + 0.002" |
| 60-60304 | + 0.004" |
| 60-60309 | + 0.010" |

**TOP
SELLER**



60-60300



60-60290



60-60310



60-60280

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 60-60280 | In -.415" Valve Lift OK 62# Seat Pressure/164lb. @ .400" lift | 60-60281 Titanium | Use O.E.M. | 60-60283 Chrome Silicon | 60-60285 H.T. Steel |
| | Ex -.415" Valve Lift OK 56# Seat Pressure/153lb. @ .400" lift | 60-60282 Titanium | Use O.E.M. | 60-60284 Chrome Silicon | 60-60286 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-60310 | IN | 36.00mm / 1.418" | 0.2160" | 20° | 3.225" | Standard |
| 60-60311 | IN | 37.00mm / 1.457" | 0.2160" | 20° | 3.225" | O.S. |
| 60-60313 | EX | 29.00mm / 1.142" | 0.2150" | 20° | 3.190" | Standard |
| 60-60314 | EX | 30.00mm / 1.182" | 0.2150" | 20° | 3.190" | O.S. |

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

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |



SUZUKI® • RM-Z450™ • 2005-2006

**TOP
SELLER**



60-60240



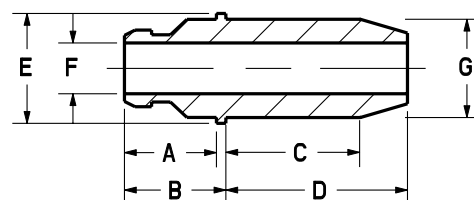
60-60460
Intake Only Conversion Kit

60-60270



60-60320

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.375" | D | 0.800" |
| B | 0.410" | E | 0.460" |
| C | 0.580" | F | 0.1955" |

Intake/Exhaust - **G** (Std. 0.417")

C630 Bronze

| | |
|-----------------|----------|
| 60-60320 | Std. |
| 60-60321 | + 0.001" |
| 60-60322 | + 0.002" |
| 60-60329 | + 0.010" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|----------------------------------|-----------|
| 700-100015 | In / Ex • Style 4 Solid Viton | Pkg. of 1 |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 60-60240 | In-.415" Valve Lift OK 57# Seat Pressure/150lb. @ .360" lift | 60-60241 Titanium | Use O.E.M. | 60-60243 Chrome Silicon | 60-60245 H.T. Steel |
| | Ex-.415" Valve Lift OK 50# Seat Pressure/130lb. @ .360" lift | 60-60242 Titanium | Use O.E.M. | 60-60244 Chrome Silicon | 60-60246 H.T. Steel |

Intake Only Steel Valve Conversion Kits

Please see the **#60-60460 Suzuki RM-Z450 2005-2006 Intake Only Spring Kit** in the Intake Kit Section on Pg. 178 for more information.

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-60270 | IN | 36.00mm / 1.418" | 0.1960" | 20° | 3.245" | Standard |
| 60-60271 | IN | 37.00mm / 1.457" | 0.1960" | 20° | 3.245" | Oversize |
| 60-60273 | EX | 29.00mm / 1.142" | 0.1953" | 17° | 3.200" | Standard |
| 60-60274 | EX | 30.00mm / 1.182" | 0.1953" | 17° | 3.200" | Oversize |

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



SUZUKI® • RM-Z450™ • 2008-2013



60-60700

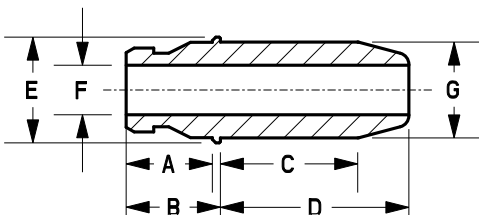


60-60730



60-60712

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.375" | D | 0.820" |
| B | 0.410" | E | 0.460" |
| C | 0.600" | F | 0.2155" |

Intake/Exhaust - G (Std. 0.4170")

C630 Bronze

| | |
|-----------------|----------|
| 60-60730 | Std. |
| 60-60731 | + 0.001" |
| 60-60732 | + 0.002" |
| 60-60734 | + 0.004" |
| 60-60739 | + 0.010" |

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 **Motorcycle Valvetrain Components**.



SUZUKI

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 60-60700 | In-.415" Valve Lift OK 62# Seat Pressure/168lb. @ .400" lift | 60-60701 Titanium | Use O.E.M. | 60-60703 Chrome Silicon | 60-60705 H.T. Steel |
| | Ex-.415" Valve Lift OK 56# Seat Pressure/157lb. @ .400" lift | 60-60702 Titanium | Use O.E.M. | 60-60704 Chrome Silicon | 60-60706 H.T. Steel |

Intake Only Steel Valve Conversion Kits

Please see the **#60-60720 Suzuki RM-Z450 2008-2012 Intake Only Spring Kit** in the Intake Kit Section on Pg. 178 for more information.

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-60712 | IN | 36.00mm / 1.418" | 0.2155" | 20° | 3.210" | Standard |
| 60-60713 | IN | 37.00mm / 1.457" | 0.2155" | 20° | 3.210" | Oversize |
| 60-60718 | EX | 31.00mm / 1.220" | 0.2150" | 20° | 3.195" | Standard |

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

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |



SUZUKI® • GS 500 E / F™ • 1989-2009



60-60120

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|---|-----------------------------|-------------------------------|-----------------------------------|-------------------------------|-----------------|
| 60-60120 | .500" Valve Lift OK 85# Seat Pressure 230lb. @ .420" lift | 60-60121 Titanium | 60-60122 H.T. Steel | 60-60123 Chrome Silicon | 60-60124 H.T. Steel | 60-60125 |

KPMI® INTAKE ONLY KITS

What you need to know about KPMI®

" Intake Only " stainless steel valve conversion systems



Suzuki® RM-Z450
60-60460
Intake Only
S.S. Conversion Kit



Honda® CRF 250
30-31210
Intake Only
S.S. Conversion Kit



KTM® RFS 400cc-560cc
96-96070
Intake Only
S.S. Conversion Kit

Since the introduction of Titanium intake valves in production off-road bikes, riders and builders have been faced with solving the problem of premature intake valve face recession. For an overwhelming majority, the solution has been installing a KPMI® "Intake Only" kit. These Black Diamond™ stainless steel valves and accompanying spring kits can extend the life expectancy of the intakes by as much as 4x over than the stock intake pieces.

KPMI's Intake Only Kits have been designed as a stainless steel valve conversion system to replace factory titanium intake valves and components. KPMI's engineers use our proprietary design and simulation softwares to create these systems. Our design, simulation, and manufacturing processes insure compatibility of the valve spring's force and natural frequency with the cam profile, the mass of the system, and the engine RPM. Literally, thousands of riders have converted to these kits to extend the life of their intake valves.

These "Intake Only" kits are designed for applications with low hours, where the other intake components and the exhaust components meet factory service time and wear specifications.

KPMI® does not advise partial conversions on race bikes or engines with valvetrain components that have reached factory advertised service/wear limits. For these situations, KPMI® offers a full line of intake and exhaust components. Check the application listing for your bike to see all of the available KPMI® parts.

Always consult with qualified professionals suited to inspect your machine.
(Please see Intake Only S.S. Conversion Kits on Pg. 178)



SUZUKI® • GSX-R™ 600 • 1997-2000

Custom Valves
Available By Request

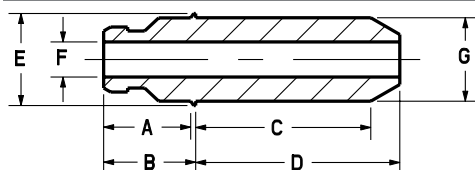


60-6130



60-1006

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.435" | D | 1.020" |
| B | 0.460" | E | 0.460" |
| C | 0.875" | F | 0.1750" |

Intake/Exhaust - **G** (Std. 0.4170")

C630 Bronze

| | |
|----------------|----------|
| 60-6130 | Std. |
| 60-6131 | + 0.001" |
| 60-6140 | + 0.010" |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|--|----------------------------|---------------|----------------------------------|------------------------------|
| 60-1006 | .420" Valve Lift OK 55# Seat Pressure/135lb. @ .315" lift | 60-6114 Titanium | Use O.E.M. | 60-6115 Chrome Silicon | 60-6116 H.T. Steel |

Replacement Retainer Set

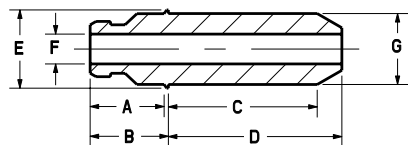
| KPMI No. | Type | Quantity |
|----------------|----------|------------|
| 60-6156 | Titanium | Pkg. of 16 |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100014 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |

SUZUKI® • SV™ 650 • 1999-2009

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.435" | D | 1.020" |
| B | 0.460" | E | 0.460" |
| C | 0.875" | F | 0.1755" |

Intake/Exhaust - **G** (Std. 0.4170")

C630 Bronze

| | |
|-----------------|----------|
| 60-60080 | Std. |
| 60-60081 | + 0.001" |
| 60-60089 | + 0.010" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|----------------------------------|-----------|
| 700-100014 | In / Ex • Style 4 Solid Viton | Pkg. of 1 |



60-60030

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|-----------------|
| 60-60030 | .405" Valve Lift OK 66# @ 1.285" 168lb. @ .405" lift | 60-60031 Titanium | Use O.E.M. | 60-60032 Chrome Silicon | 60-60033 H.T. Steel | 60-60034 |



SUZUKI® • DR™ 750 / 800 BIG • 1988-1998

**See All Our
Vintage Parts
On The Web!**



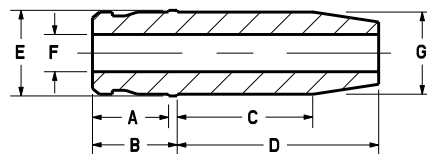
60-60090

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------|-----------|
| 700-100019 | In / Ex • Style 4 • Viton | Pkg. of 1 |

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 **Motorcycle Valvetrain Components**.

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.440" | D | 1.165" |
| B | 0.490" | E | 0.495" |
| C | 0.785" | F | 0.2745" |

Intake/Exhaust - G (Std. 0.4752")

C630 Bronze

| | |
|-----------------|----------|
| 60-60090 | Std. |
| 60-60092 | + 0.002" |
| 60-60094 | + 0.004" |
| 60-60099 | + 0.015" |

SUZUKI® • GS™ 750 • PRE-1980



60-0891



60-0860



60-0864

High Performance Spring Kit

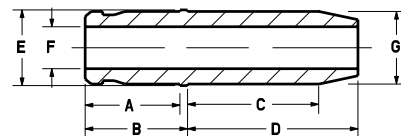
| KPMI No. | Description | Recommended Retainers |
|----------------|---|------------------------------|
| 60-0891 | .480" Valve Lift OK 78# Seat Pressure 250lb. @ .480" lift | * 60-6106 Titanium |

* Retainers Supplied with KPMI® Keepers.

Valve Seal Guides

| KPMI No. | Seal Type | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100019 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |

Valve Guides

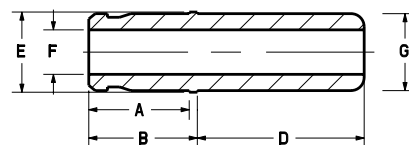


| | | | |
|----------|--------|----------|---------|
| A | 0.620" | D | 1.115" |
| B | 0.670" | E | 0.495" |
| C | 0.860" | F | 0.2745" |

Intake - G (Std. 0.4752")

C630 Bronze

| | |
|----------------|----------|
| 60-0860 | Std. |
| 60-0861 | + 0.002" |
| 60-4090 | + 0.015" |



| | | | |
|----------|--------|----------|---------|
| A | 0.620" | D | 1.115" |
| B | 0.670" | E | 0.495" |
| C | ----- | F | 0.2745" |

Exhaust - G (Std. 0.4752")

C630 Bronze

| | |
|----------------|----------|
| 60-0864 | Std. |
| 60-0865 | + 0.002" |
| 60-4107 | + 0.015" |



SUZUKI® • GS™ 750 E/ ES/ L/ T • 1980-1986

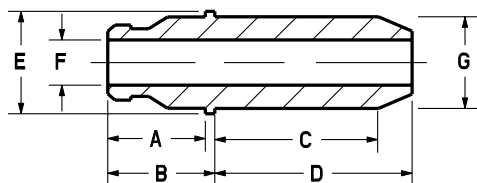


60-4031



60-1029

Valve Guides



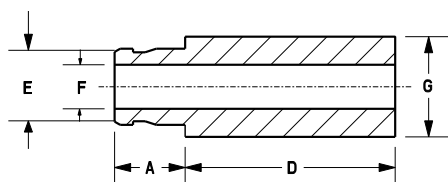
| | | | |
|----------|--------|----------|---------|
| A | 0.465" | D | 0.940" |
| B | 0.510" | E | 0.488" |
| C | 0.780" | F | 0.2160" |

Intake/Exhaust - **G** (Std. 0.4365")

C630 Bronze

| | |
|----------------|----------|
| 60-1029 | Std. |
| 60-1030 | + 0.002" |
| 60-4030 | + 0.015" |
| 60-1052 | + 0.065" |

Special Blank



| | | | |
|----------|--------|----------|--------|
| A | 0.465" | D | ---- |
| B | ---- | E | 0.435" |
| C | ---- | F | 0.210" |

Intake/Exhaust (Std. 0.6250")

C630 Bronze

| | | |
|---------|------|---------|
| 60-4031 | Std. | |
| 0.465" | D | ---- |
| ---- | E | 0.488" |
| ---- | F | 0.1950" |

Special 5.0mm Conversion Guide

Intake/Exhaust - **G** (Std. 0.4365")

C630 Bronze

| | |
|----------------|------|
| 60-4298 | Std. |
|----------------|------|



60-1028



60-60220



60-4300

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|-----------------------------|
| 60-1028 | .390" Valve Lift OK 50# Seat Pressure/138lb. @ .390" lift | 60-1034T Titanium |

Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-60220 | IN | 27.50mm / 1.083" | 0.2145" | 27° | 3.380" | Standard |
| 60-4301 | IN | 28.50mm / 1.122" | 0.2155" | 23° | 3.435" | Oversize |
| 60-4311 | IN | 29.50mm / 1.161" | 0.2155" | 23° | 3.435" | Oversize |
| 60-4302 | IN | 31.00mm / 1.220" | 0.2155" | 23° | 3.435" | Oversize |
| 60-4300 | EX | 23.50mm / 0.925" | 0.2145" | 27° | 3.385" | Standard |
| 60-4304 | EX | 24.50mm / 0.965" | 0.2145" | 27° | 3.415" | Oversize |
| 60-4305 | EX | 25.00mm / 0.984" | 0.2145" | 27° | 3.415" | Oversize |

Replacement Retainers

| KPMI No. | Type | Quantity |
|-----------------|----------|------------|
| 60-1034T | Titanium | Pkg. of 16 |

Fits O.E.M. Springs.

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Viton | Pkg. of 1 |

Valve Guide Seals - Special 5.0mm Conversion Guide

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100015 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |



SUZUKI® • GSX-R™ 750 • 1986-1992



60-1002



60-6153

High Performance Spring Kit For 1986-1990 Models

| KPMI No. | Description | Recommended Retainers |
|----------------|--|----------------------------|
| 60-1002 | .440" Valve Lift OK 55# Seat Pressure/170lb. @ .440" lift | 60-4155 Titanium |

High Performance Spring Kit For 1991-1992 Models

| KPMI No. | Description | Recommended Retainers |
|----------------|--|----------------------------|
| 60-1003 | .440" Valve Lift OK 50# Seat Pressure/164lb. @ .440" lift | 60-6153 Titanium |

Replacement Retainer Set For 1991-1992 Models

| KPMI No. | Type | Quantity |
|----------------|----------|------------|
| 60-6153 | Titanium | Pkg. of 16 |

Fits O.E.M. Springs.

Valve Guide Seals - Special In / Ex Blank

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100015 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |

KIBBLEWHITE
AMERICAN MADE & TESTED

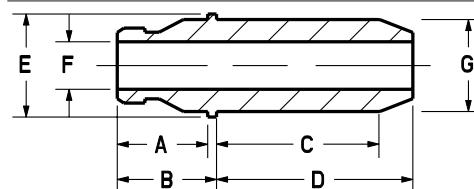


60-4156-1



60-4297

Valve Guides



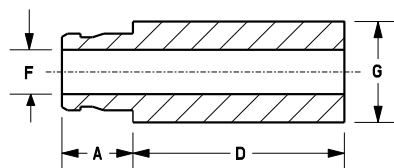
| | | | |
|----------|--------|----------|---------|
| A | 0.410" | D | 0.890" |
| B | 0.450" | E | 0.467" |
| C | 0.740" | F | 0.1955" |

C630 Bronze

Intake/Exhaust - G (Std. 0.4170")

| | |
|------------------|----------|
| 60-4156-1 | Std. |
| 60-4157-1 | + 0.002" |
| 60-4159-1 | + 0.006" |
| 60-4160-1 | + 0.085" |

Special Blank



| | | | |
|----------|--------|----------|---------|
| A | 0.410" | D | 0.1340" |
| B | ---- | E | ---- |
| C | ---- | F | 0.1950" |

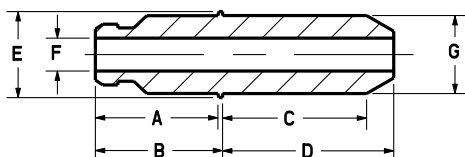
Intake/Exhaust - G (Std. 0.6250")

| | |
|----------------|------|
| 60-4297 | Std. |
|----------------|------|



SUZUKI® • GSX-R™ 750 • 1993-1995

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.655" | D | 0.915" |
| B | 0.680" | E | 0.460" |
| C | 0.770" | F | 0.1750" |

Intake/Exhaust - **G** (Std. 0.4170")

C630 Bronze

| | |
|----------------|----------|
| 60-6000 | Std. |
| 60-6002 | + 0.002" |
| 60-6010 | + 0.010" |

Valve Seal Guides

| KPMI No. | Seal Type | Quantity |
|-------------------|----------------------------|-----------|
| 700-100014 | In / Ex Style 2 • Viton | Pkg. of 1 |



60-6000



60-6154



60-60040

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 60-60040 | .430" Valve Lift OK 50# Seat Pressure/155lb. @ .430" lift | 60-60041 Titanium | Use O.E.M. | 60-60042 Chrome Silicon | 60-60043 H.T. Steel |

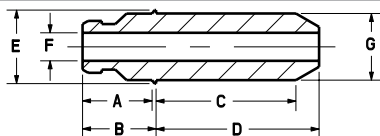
Replacement Retainer Set

| KPMI No. | Type | Quantity |
|----------------|----------|------------|
| 60-6154 | Titanium | Pkg. of 16 |

Valves available custom only, POR.

SUZUKI® • GSX-R™ 750 SRAD • 1996-1999

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.435" | D | 1.020" |
| B | 0.460" | E | 0.460" |
| C | 0.875" | F | 0.1750" |

Intake/Exhaust - **G** (Std. 0.4170")

C630 Bronze

| | |
|----------------|----------|
| 60-6130 | Std. |
| 60-6131 | + 0.001" |
| 60-6140 | + 0.010" |

Valve Seal Guides

| KPMI No. | Seal Type | Quantity |
|-------------------|----------------------------|-----------|
| 700-100014 | In / Ex Style 2 • Viton | Pkg. of 1 |



60-6130



60-6154



60-1005

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|--|----------------------------|---------------|----------------------------------|------------------------------|
| 60-1005 | .430" Valve Lift OK 55# Seat Pressure/135lb. @ .315" lift | 60-6114 Titanium | Use O.E.M. | 60-6115 Chrome Silicon | 60-6116 H.T. Steel |

Replacement Retainer Set

| KPMI No. | Type | Quantity |
|----------------|----------|------------|
| 60-6155 | Titanium | Pkg. of 16 |

Fits O.E.M. Springs.



SUZUKI® • GS™ 850 • 1979-1983



60-0891

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|------------------------------|
| 60-0891 | .480" Valve Lift OK 78# Seat Pressure/250lb. @ .480" lift | * 60-6106 Titanium |

* Retainers supplied with keepers.

SUZUKI® • GS™ 1000 • PRE-1981



60-0891



60-6106

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|------------------------------|
| 60-0891 | .480" Valve Lift OK 78# Seat Pressure/250lb. @ .480" lift | * 60-6106 Titanium |

* Retainers supplied with keepers.

Special Shim On Bottom Retainer Set

| KPMI No. | Type | Quantity |
|----------------|----------|-----------|
| 60-6106 | Titanium | Pkg. of 8 |

Supplied with Jumbo 15° keepers.

Replacement Tappets / Oversizes

| KPMI No. | Type | Quantity |
|----------------|----------|-----------|
| 60-1026 | Standard | Pkg. of 8 |
| 60-4220 | + 0.020 | Pkg. of 1 |

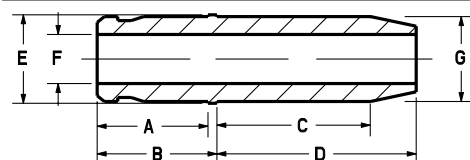
Requires Kibblewhite® Shim On Bottom Retainers # 60-6106 (Pkg. of 8).

Valve Guide Seals

| KPMI No. | Type | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100019 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |

Custom Valves Available By Request

Valve Guides

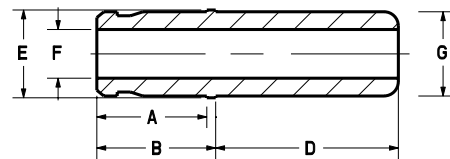


| | | | |
|----------|--------|----------|---------|
| A | 0.620" | D | 1.115" |
| B | 0.670" | E | 0.495" |
| C | 0.860" | F | 0.2745" |

Intake/Exhaust - G (Std. 0.4752")

C630 Bronze

| | |
|----------------|----------|
| 60-0860 | Std. |
| 60-0861 | + 0.002" |
| 60-4090 | + 0.015" |



| | | | |
|----------|--------|----------|---------|
| A | 0.620" | D | 1.115" |
| B | 0.670" | E | 0.495" |
| C | ----- | F | 0.2745" |

Intake/Exhaust - G (Std. 0.4752")

C630 Bronze

| | |
|----------------|----------|
| 60-0864 | Std. |
| 60-0865 | + 0.002" |
| 60-4107 | + 0.015" |



SUZUKI® • GSX-R™ 1000 • 2001-2004

SUZUKI

W

E

L

B

141



60-60146



60-60150



60-60141
Intake Valve



60-60141
Groove Detail

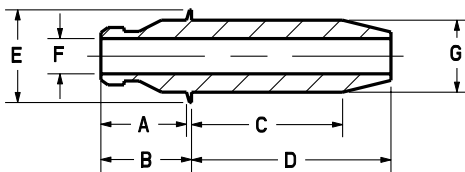


60-60143
Exhaust Valve



60-60143
Groove Detail

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.425" | D | 0.990" |
| B | 0.450" | E | 0.385" |
| C | 0.750" | F | 0.1570" |

Intake/Exhaust - **G** (Std. 0.3573")

C630 Bronze

| | |
|-----------------|----------|
| 60-60150 | Std. |
| 60-60151 | + 0.001" |
| 60-60152 | + 0.002" |
| 60-60159 | + 0.010" |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 60-60146 | .440" Valve Lift OK 46# Seat Pressure/155lb. @ .440" lift | 60-60147 Titanium | Use O.E.M. | 60-60148 Chrome Silicon | 60-60149 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-60140 | IN | 29.00mm / 1.142" | 0.1568" | 18° | 3.740" | Standard |
| 60-60141 | IN | 30.00mm / 1.181" | 0.1568" | 18° | 3.740" | Oversize |
| 60-60143 | EX | 24.00mm / 0.945" | 0.1560" | 20° | 3.755" | Standard |
| 60-60144 | EX | 25.00mm / 0.984" | 0.1560" | 20° | 3.755" | Oversize |



SUZUKI® • GSX-R™ 1000 • 2007-2008



From Sam Key on Kibblewhite®'s Facebook Wall

You guys hotting up your bike, these are the people to get in touch with! The best there is anywhere at any price!



60-60600



60-60612



60-60616



60-60620

Lightweight Racing/Stainless Steel Conversion Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|---------------------|-----------------------------|------------|-----------------------------------|-------------------------------|------------------------------------|
| 60-60600 | .445" Valve Lift OK | 60-60601 Titanium | Use O.E.M. | 60-60603 Chrome Silicon | 60-60605 H.T. Steel | 60-60609 60-60610 |

For racing application with cams up to .445" lift using **Titanium Valves** set up at **44# seat pressure / 135lb @ .370" lift**. To convert to **Stainless Valves** with cams up to .380" lift set up at **66# seat pressure / 157lb @ .370" lift**.

Black Diamond™ Valves • Black Nitroneg Stems

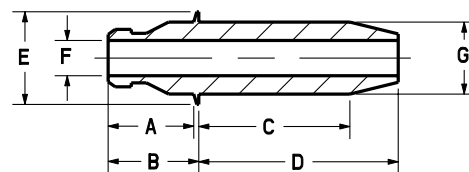
| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-60612 | IN | 30.00mm / 1.181" | 0.1760" | 25° | 3.760" | Standard |
| 60-60616 | EX | 24.00mm / 0.945" | 0.1755" | 20° | 3.770" | Standard |

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

Valve Guide Seals

| KPMI No. | Type | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100014 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.520" | D | 0.945" |
| B | 0.545" | E | 0.410" |
| C | 0.730" | F | 0.1760" |

Intake/Exhaust - **G** (Std. 0.3773")

C630 Bronze

| | |
|-----------------|----------|
| 60-60620 | Std. |
| 60-60621 | + 0.001" |
| 60-60622 | + 0.002" |
| 60-60629 | + 0.010" |



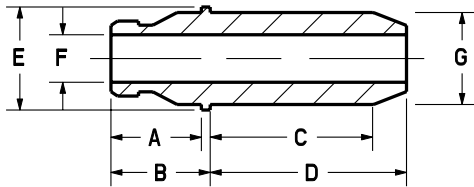
SUZUKI® • GS™ 1100 E / ES / S • 1980-1986

KIBBLEWHITE
AMERICAN MADE & TESTED



60-1029

Valve Guides

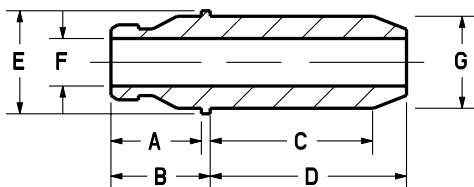


| | | | |
|----------|--------|----------|---------|
| A | 0.465" | D | 0.940" |
| B | 0.510" | E | 0.488" |
| C | 0.780" | F | 0.2160" |

Intake/Exhaust - **G** (Std. 0.4365")

C630 Bronze

| | |
|----------------|----------|
| 60-1029 | Std. |
| 60-1030 | + 0.002" |
| 60-4030 | + 0.015" |
| 60-1052 | + 0.065" |



Special 5.0mm Conversion Guide

| | | | |
|----------|--------|----------|---------|
| A | 0.465" | D | 0.940" |
| B | 0.510" | E | 0.488" |
| C | 0.780" | F | 0.1950" |

Intake - **G** (Std. 0.4365")

| | |
|----------------|-----|
| 60-4298 | Std |
|----------------|-----|



60-1028



60-60220



60-4300

High Performance Spring Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|-----------------------------|
| 60-1028 | .390" Valve Lift OK 50# Seat Pressure/138lb. @ .390" lift | 60-1034T Titanium |

Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-60220 | IN | 27.50mm / 1.083" | 0.2145" | 27° | 3.380" | Standard |
| 60-4301 | IN | 28.50mm / 1.122" | 0.2155" | 23° | 3.435" | Oversize |
| 60-4311 | IN | 29.50mm / 1.161" | 0.2155" | 23° | 3.435" | Oversize |
| 60-4302 | IN | 31.00mm / 1.220" | 0.2155" | 23° | 3.435" | Oversize |
| 60-4300 | EX | 23.50mm / 0.925" | 0.2145" | 27° | 3.385" | Standard |
| 60-4304 | EX | 24.50mm / 0.965" | 0.2145" | 27° | 3.415" | Oversize |
| 60-4305 | EX | 25.00mm / 0.984" | 0.2145" | 27° | 3.415" | Oversize |

Replacement Retainers

| KPMI No. | Type | Quantity |
|-----------------|----------|------------|
| 60-1034T | Titanium | Pkg. of 16 |

Fits O.E.M. Springs.

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |

Valve Guide Seals - Special 5.0mm Conversion Guide

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100015 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |



SUZUKI® • GSX-R™ 1100 • 1986-1990



60-1002



60-4155



60-4215H

From suzukicentral.com

Yup. I've run KW in all my builds and never had any issues with premature wear. I've seen far too many stock valves destroy motors to even roll those dice.

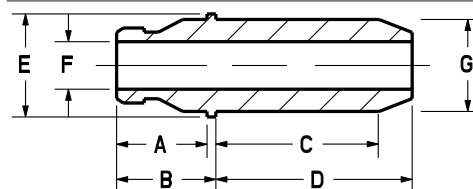


60-4156-1



60-4297

Valve Guides



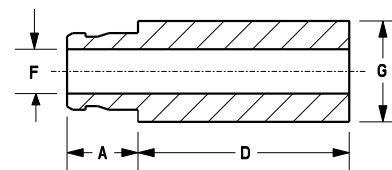
| | | | |
|----------|--------|----------|---------|
| A | 0.410" | D | 0.890" |
| B | 0.450" | E | 0.467" |
| C | 0.740" | F | 0.1955" |

C630 Bronze

Intake/Exhaust - G (Std. 0.4170")

| | |
|------------------|----------|
| 60-4156-1 | Std. |
| 60-4157-1 | + 0.002" |
| 60-4159-1 | + 0.006" |
| 60-4160-1 | + 0.085" |

Special Blank



| | | | |
|----------|--------|----------|--------|
| A | 0.410" | D | 0.930" |
| B | ---- | E | ---- |
| C | ---- | F | 0.195" |

Intake/Exhaust - G (Std. 0.6250")

| | |
|----------------|-----|
| 60-4297 | Std |
|----------------|-----|

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|----------------------------|
| 60-1002 | .440" Valve Lift OK 55# Seat Pressure/170lb. @ .440" lift | 60-4155 Titanium |

White Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-4216H | IN | 28.50mm / 1.122" | 0.1958" | 19° | 3.390" | Standard |
| 60-4218H | IN | 30.00mm / 1.181" | 0.1958" | 19° | 3.390" | Oversize |
| 60-4215H | EX | 25.00mm / 0.984" | 0.1948" | 17° | 3.360" | Standard |
| 60-4217H | EX | 26.00mm / 1.024" | 0.1948" | 17° | 3.360" | Oversize |
| 60-4219H | EX | 27.00mm / 1.063" | 0.1948" | 17° | 3.360" | Oversize |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100015 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |



SUZUKI® • GSX-R™ 1100 • 1991-1992

SUZUKI



60-6091H



60-6092H

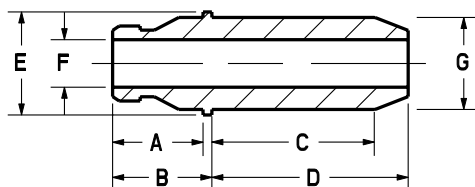


60-6153



60-1003

Valve Guides



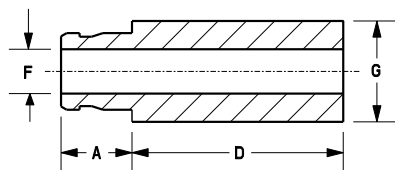
| | | | |
|----------|--------|----------|---------|
| A | 0.410" | D | 0.890" |
| B | 0.450" | E | 0.467" |
| C | 0.740" | F | 0.1955" |

C630 Bronze

Intake/Exhaust - G (Std. 0.4170")

| | |
|-----------|----------|
| 60-4156-1 | Std. |
| 60-4157-1 | + 0.002" |
| 60-4159-1 | + 0.006" |
| 60-4160-1 | + 0.085" |

Special Blank



| | | | |
|----------|--------|----------|--------|
| A | 0.410" | D | 0.930" |
| B | ---- | E | ---- |
| C | ---- | F | 0.195" |

Intake/Exhaust - G (Std. 0.6250")

| | |
|---------|-----|
| 60-4297 | Std |
|---------|-----|

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------|--|-----------------------|
| 60-1003 | .440" Valve Lift OK 50# Seat Pressure/164lb. @ .440" lift | 60-6153 Titanium |

OEM Replacement Retainer Set

| KPMI No. | Type | Quantity |
|----------|----------|------------|
| 60-6153 | Titanium | Pkg. of 16 |

Fits O.E.M. Springs.

White Diamond™ Valves • Hard Chrome Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------|------|------------------|---------------|-------|--------|----------|
| 60-6091H | IN | 28.50mm / 1.122" | 0.1958" | 19° | 3.450" | Standard |
| 60-6092H | EX | 25.00mm / 0.984" | 0.1948" | 17° | 3.420" | Standard |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|------------|---------------------------------|-----------|
| 700-100015 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |



SUZUKI® • GSX-R™ 1100 • 1993-1998

Water Cooled



60-60040



60-6000



60-6021H



60-6022H



60-6022H
Groove Detail

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 60-60040 | .430" Valve Lift OK 50# Seat Pressure/155lb. @ .430" lift | 60-60041 Titanium | Use O.E.M. | 60-60042 Chrome Silicon | 60-60043 H.T. Steel |

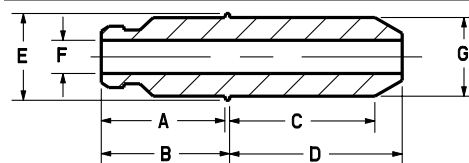
White Diamond™ Valves • Hard Chrome Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-6022H | IN | 31.00mm / 1.220" | 0.1756" | 19° | 3.732" | Standard |
| 60-6023H | IN | 32.00mm / 1.260" | 0.1756" | 19° | 3.732" | Oversize |
| 60-6020H | EX | 27.00mm / 1.063" | 0.1756" | 17° | 3.720" | Standard |
| 60-6021H | EX | 28.00mm / 1.102" | 0.1756" | 17° | 3.720" | Oversize |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100014 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.655" | D | 0.915" |
| B | 0.680" | E | 0.460" |
| C | 0.770" | F | 0.1750" |

Intake/Exhaust - **G** (Std. 0.4170")

C630 Bronze

| | |
|----------------|----------|
| 60-6000 | Std. |
| 60-6002 | + 0.002" |
| 60-6010 | + 0.010" |

Replacement Retainer Set

| KPMI No. | Type | Quantity |
|----------------|----------|------------|
| 60-6154 | Titanium | Pkg. of 16 |

Fits O.E.M. Springs.



SUZUKI® • GS™ 1150 • 1984-1986



60-1029



60-1028



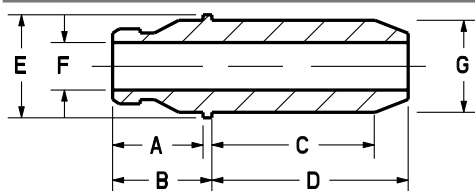
60-60220



60-4300

SUZUKI

Valve Guides

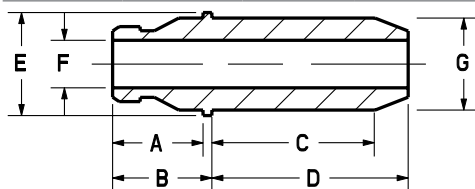


| | | | |
|----------|--------|----------|---------|
| A | 0.465" | D | 0.940" |
| B | 0.510" | E | 0.488" |
| C | 0.780" | F | 0.2160" |

Intake/Exhaust - **G** (Std. 0.4365")

C630 Bronze

| | |
|----------------|----------|
| 60-1029 | Std. |
| 60-1030 | + 0.002" |
| 60-4030 | + 0.015" |
| 60-1052 | + 0.065" |



Special 5.0mm Conversion Guide

| | | | |
|----------|--------|----------|---------|
| A | 0.465" | D | 0.940" |
| B | 0.510" | E | 0.488" |
| C | 0.780" | F | 0.1950" |

Intake - **G** (Std. 0.4365")

| | |
|-----------------|-----|
| 60-4298. | Std |
|-----------------|-----|

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 **Motorcycle Valvetrain Components**.

High Performance Spring Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|-----------------------------|
| 60-1028 | .390" Valve Lift OK 50# Seat Pressure/138lb. @ .390" lift | 60-1034T Titanium |

Black Diamond™ Valves • Black Nitro-neq Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-60220 | IN | 27.50mm / 1.083" | 0.2145" | 27° | 3.380" | Standard |
| 60-4301 | IN | 28.50mm / 1.122" | 0.2155" | 23° | 3.435" | Oversize |
| 60-4311 | IN | 29.50mm / 1.161" | 0.2155" | 23° | 3.435" | Oversize |
| 60-4302 | IN | 31.00mm / 1.220" | 0.2155" | 23° | 3.435" | Oversize |
| 60-4300 | EX | 23.50mm / 0.925" | 0.2145" | 27° | 3.385" | Standard |
| 60-4304 | EX | 24.50mm / 0.965" | 0.2145" | 27° | 3.415" | Oversize |
| 60-4305 | EX | 25.00mm / 0.984" | 0.2145" | 27° | 3.415" | Oversize |

Replacement Retainers

| KPMI No. | Type | Quantity |
|-----------------|----------|------------|
| 60-1034T | Titanium | Pkg. of 16 |

Fits O.E.M. Springs.

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100016 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |

Valve Guide Seals - Special 5.0mm Conversion Guide

| KPMI No. | Type of Seal | Quantity |
|-------------------|---------------------------------|-----------|
| 700-100015 | In / Ex • Style 4 • Solid Viton | Pkg. of 1 |



SUZUKI® • GSX-1300R™ • 1999-2013

World's Fastest Production Motorcycle - 200+ mph



Sims Motorsport's Hayabusa™ used Kibblewhite® Black Diamond™ Valves on this bike as they set the mark of 213mph!



Suzuki GSX-1300R™ "Hayabusa"



Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-60008 | IN | 33.00mm / 1.299" | 0.1962" | 18° | 3.740" | Standard |
| 60-60009 | IN | 34.00mm / 1.339" | 0.1962" | 18° | 3.750" | Oversize |
| 60-60010 | EX | 27.50mm / 1.083" | 0.1953" | 17° | 3.735" | Standard |
| 60-60011 | EX | 28.50mm / 1.122" | 0.1953" | 17° | 3.725" | Oversize |

These valves are forged from a unique stainless steel alloy particularly suited for this application. This alloy is especially receptive to our proprietary face hardening process, and is designed to give long life in maximum performance, high RPM applications. Must use **Kibblewhite® Lightweight Valve Spring Kits** when installing **Black Diamond™ Valves**.

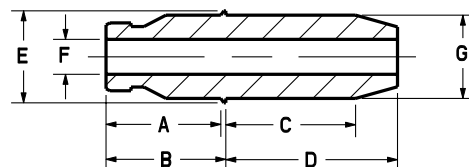
Black Diamond™ Valves • Triple Grooves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 60-60770 | IN | 33.00mm / 1.299" | 0.1962" | 18° | 3.740" | Standard |
| 60-60771 | IN | 34.00mm / 1.339" | 0.1962" | 18° | 3.750" | Oversize |
| 60-60772 | EX | 27.50mm / 1.083" | 0.1953" | 17° | 3.735" | Standard |
| 60-60773 | EX | 28.50mm / 1.122" | 0.1953" | 17° | 3.725" | Oversize |

Studs (Includes 10 Stainless Steel Washers)

| KPMI No. | Description | Washer | Quantity |
|-----------------|-----------------|-----------------|------------|
| 60-60825 | Studs (Std.) | 60-60840 | Pkg. of 10 |
| 60-60830 | Studs (+0.200") | 60-60840 | Pkg. of 10 |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.560" | D | 0.860" |
| B | 0.585" | E | 0.461" |
| C | 0.650" | F | 0.1962" |

Intake/Exhaust - **G** (Std. 0.4170")

C630 Bronze *Manganese

| | | |
|-----------------|-------------------|----------|
| 60-60020 | 60-60020-M | Std. |
| 60-60021 | 60-60021-M | + 0.001" |
| 60-60022 | 60-60022-M | + 0.002" |
| 60-60024 | 60-60024-M | + 0.004" |
| 60-60029 | 60-60029-M | + 0.010" |

* See KPMI® **Ball Hone** and **Reamer** (Pg.179) section in back of catalog for more information.

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|-------------------------------|-----------|
| 700-100015 | In / Ex • Style 4 Solid Viton | Pkg. of 1 |



SUZUKI® • GSX-1300R™ • 1999-2013



60-60830 and 60-60840
Studs and washers



60-60780



60-60820



60-60800



60-60757 and 60-60787
"Shim in Tappet" Detail

Spacers

| KPMI No. | Description | Quantity |
|-----------------|---|------------|
| 60-60835 | Thickness 0.100" Custom Applications | Pkg. of 10 |
| 60-60840 | Thickness 2.0mm O.E.M. Replacement | Pkg. of 10 |

Stud Nuts

| KPMI No. | Description | Quantity |
|-----------------|-------------|------------|
| 60-60820 | M10 x 1.25 | Pkg. of 10 |

Replacement Tappets

| KPMI No. | Year | Quantity |
|--------------------------|------|------------|
| 60-60014 (Std.) | All | Pkg. of 16 |
| 60-60035 (+.50mm) | All | Pkg. of 1 |

Spring Kit Only

| KPMI No. | Description | Quantity |
|-----------------|--|------------|
| 60-60560 | .490" Valve Lift OK 65# Seated Pressure 155 lb. @ .300" lift | Pkg. of 16 |

This spring set fits the stock retainers and bases on all 1999-'09 'Busa models. It is the street/strip tuner's answer for high performance valve springs.

"Shim in Tappet" Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Tappets |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|-------------------------------|
| 60-60750 | .490" Valve Lift OK 65# Seat Pressure/195lb. @ .415" lift | 60-60751 Titanium | Use O.E.M. | 60-60753 Chrome Silicon | 60-60755 H.T. Steel | 60-60757 H.T. Steel |

This high lift kit is designed for maximum performance applications on 1999-2011 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.

"Shim in Tappet" Lightweight Racing Valve Spring Kit w/ Triple Groove Keeper

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Tappets |
|-----------------|--|-----------------------------|-------------------------------|-----------------------------------|-------------------------------|-------------------------------|
| 60-60780 | .490" Valve Lift OK 65# Seat Pressure/195lb. @ .415" lift | 60-60781 Titanium | 60-60789 H.T. Steel | 60-60783 Chrome Silicon | 60-60785 H.T. Steel | 60-60787 H.T. Steel |

This high lift kit is designed for maximum performance applications on 1999-2011 models. It includes KPMI® "Shim in Tappet" design tappets that solve the issues of retainer counter-bore ovaling and adjustment shims becoming dislodged.

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 60-60760 | .490" Valve Lift OK 65# Seat Pressure/195lb. @ .415" lift | 60-60761 Titanium | Use O.E.M. | 60-60763 Chrome Silicon | 60-60765 H.T. Steel |

This high lift kit is designed for maximum performance applications on 1999-2011 models, and includes lightweight titanium retainers as well as high lift, super-clean chrome silicon wire dual valve springs.

Lightweight Racing Valve Spring Kit w/ Triple Groove Keeper

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|-------------------------------|-----------------------------------|-------------------------------|
| 60-60800 | .490" Valve Lift OK 65# Seat Pressure/195lb. @ .415" lift | 60-60801 Titanium | 60-60807 H.T. Steel | 60-60803 Chrome Silicon | 60-60805 H.T. Steel |

This high lift kit is designed for maximum performance applications on 1999-2011 models, and includes triple groove keepers, lightweight titanium retainers as well as high lift, super-clean chrome silicon wire dual valve springs



TRIUMPH® • 500 TWIN • 1958-1973



70-0646



70-0817



70-70030



70-4290



70-0339

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|--------------|-----------------------------------|-------------------------------|
| 70-70030 | .455" Valve Lift OK 70# Seated Pressure 185 lb. @ .400" lift | 70-70031 Titanium | Use O.E.M | 70-70032 Chrome Silicon | 70-70033 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

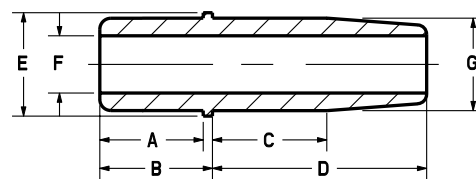
| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 70-4290 | IN | 1.540" / 39.12mm | 0.3102" | 23° | 3.480" | Standard |
| 70-4292 | IN | 1.600" / 40.64mm | 0.3102" | 23° | 3.500" | Oversize |
| 70-4291 | EX | 1.325" / 33.66mm | 0.3095" | 27° | 3.425" | Standard |
| 70-4293 | EX | 1.375" / 34.93mm | 0.3095" | 27° | 3.445" | Oversize |

Crankshaft Bushings

| KPMI No. | Description | Quantity |
|----------------|----------------|-----------|
| 70-0817 | Std. ID 1.439" | Pkg. of 1 |
| 70-0818 | -0.010" | Pkg. of 1 |
| 70-0819 | -0.020" | Pkg. of 1 |
| 70-0820 | -0.030" | Pkg. of 1 |

Made from US Mill Certified Bearing Bronze Bar Stock.

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.560" | D | 1.160" |
| B | 0.610" | E | 0.550" |
| C | 0.620" | F | 0.3105" |

Intake/Exhaust - G (Std. 0.5010")

C630 Bronze

| | |
|----------------|----------|
| 70-0339 | Std. |
| 70-0340 | + 0.002" |
| 70-0341 | + 0.004" |
| 70-0342 | + 0.006" |
| 70-4031 | + 0.015" |

No seal required.

Fork Bushings

| KPMI No. | Type | Quantity |
|----------------|--------|-----------|
| 70-0646 | Top | Pkg. of 1 |
| 70-0647 | Bottom | Pkg. of 1 |

Fits 1963-1970 Triumph 500 Twin's.



TRIUMPH® • 650 / 750 • 1963-1983

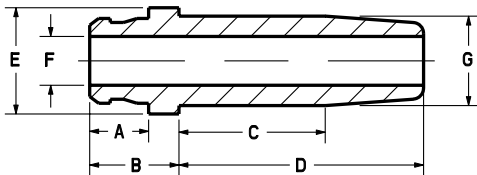


70-70530



70-70550

6.0mm • Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.330" | D | 1.370" |
| B | 0.500" | E | 0.685" |
| C | 0.820" | F | 0.2350" |

Intake/Exhaust - **G** (Std. 0.5010")

C630 Bronze

70-70530 Std.

70-70532 + 0.002"

70-70545 + 0.015"

One seal supplied with each guide.

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 **Motorcycle Valvetrain Components**.

Lightweight 6.00mm Conversion System



70-70510

6.0mm • Beehive Valve Spring Kit for Triumph 650 / Must use 6.0mm Valves and Guides

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|-------------------------------|-----------------------------------|-------------------------------|
| 70-70510 | .460" Valve Lift OK 90# Seated Pressure 189 lb. @ .350" lift | 70-70511 Titanium | 70-70517 H.T. Steel | 70-70513 Chrome Silicon | 70-70515 H.T. Steel |

6.0mm • Beehive Valve Spring Kit for Triumph 750 / Must use 6.0mm Valves and Guides

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|-------------------------------|-----------------------------------|-------------------------------|
| 70-70520 | .460" Valve Lift OK 90# Seated Pressure 189 lb. @ .350" lift | 70-70521 Titanium | 70-70527 H.T. Steel | 70-70523 Chrome Silicon | 70-70525 H.T. Steel |

6.0mm • Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 70-70550 | IN | 1.600" / 40.64mm | 0.2355" | 23° | 3.850" | Standard |
| 70-70551 | IN | 1.660" / 42.16mm | 0.2355" | 23° | 3.830" | Oversize |
| 70-70553 | EX | 1.440" / 36.58mm | 0.2350" | 29° | 3.780" | Standard |
| 70-70554 | EX | 1.500" / 38.10mm | 0.2350" | 29° | 3.760" | Oversize |

Welded tips (no lash caps required).

6.0mm • Tensilite® Valves • Chromium Nitride PVD Coated Titanium

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|-------|--------|----------|
| 70-70550T | IN | 1.600" / 40.64mm | 0.2355" | 23° | 3.810" | Standard |
| 70-70551T | IN | 1.660" / 42.16mm | 0.2355" | 23° | 3.790" | Oversize |
| 70-70553T | EX | 1.440" / 36.58mm | 0.2350" | 29° | 3.740" | Standard |
| 70-70554T | EX | 1.500" / 38.10mm | 0.2350" | 29° | 3.720" | Oversize |

These valves have been shortened for lash caps. Must use hardened lash caps **#70-70560** (pkg. of 4)

6.0mm • Valve Guide Seals

| KPMI No. | Description | Quantity |
|-------------------|---------------------------|-----------|
| 700-100017 | In / Ex • Style 5 • Viton | Pkg. of 1 |



TRIUMPH® • 650 / 750 • 1963-1983

Lightweight Racing Beehive Valve Spring Kit for Triumph 650 / Use with O.E.M. Valve and Guide

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|------------|-----------------------------------|-------------------------------|
| 70-70270 | .460" Valve Lift OK 90# Seated Pressure 189 lb. @ .350" lift | 70-70271 Titanium | Use O.E.M. | 70-70273 Chrome Silicon | 70-70275 H.T. Steel |

Lightweight Racing Beehive Valve Spring Kit for Triumph 750 / Use with O.E.M. Valve and Guide

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|------------|-----------------------------------|-------------------------------|
| 70-70280 | .460" Valve Lift OK 90# Seated Pressure 189 lb. @ .350" lift | 70-70281 Titanium | Use O.E.M. | 70-70283 Chrome Silicon | 70-70285 H.T. Steel |

Lightweight Racing Valve Spring Kit • Triumph 650 / 750

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|---------------------------|---|--------------------------------|-------------------------------|------------------------------------|-------------------------------|
| 70-0300 | .500" Valve Lift OK 105# Seated Pressure 210 lb. @ .400" lift | 70-4002 H.A. 7075-T6 | 70-4003 H.T. Steel | 70-0300SO Chrome Silicon | 70-4004 H.T. Steel |
| 70-70170 | .500" Valve Lift OK 105# Seated Pressure 210 lb. @ .400" lift | 70-70171 Titanium | 70-70177 H.T. Steel | 70-70173 Chrome Silicon | 70-70175 H.T. Steel |
| *70-70400 650cc | .460" Valve Lift OK 90# Seated Pressure 200 lb. @ .400" lift | 70-70401 Titanium | Use O.E.M. | 70-70403 Chrome Silicon | 70-70405 H.T. Steel |
| 70-70450 750cc | .460" Valve Lift OK 90# Seated Pressure 200 lb. @ .400" lift | 70-70451 Titanium | Use O.E.M. | 70-70453 Chrome Silicon | 70-70455 H.T. Steel |

* O.E.M. Replacement keepers available in pairs **PT#70-70150**.

O.E.M. Replacement Valve Spring Kit • Triumph 650

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-------------------------------|------------|-----------------------------------|-------------------------------|
| 70-70140 | .350" Valve Lift OK 68# Seated Pressure 145 lb. @ .350" lift | 70-70141 H.T. Steel | Use O.E.M. | 70-70143 Chrome Silicon | 70-70145 H.T. Steel |

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#70-70150**.

Replacement Valve Spring Kit • Triumph 750 Only

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-------------------------------|------------|-----------------------------------|-------------------------------|
| 70-70250 | .350" Valve Lift OK 68# Seated Pressure 145 lb. @ .350" lift | 70-70251 H.T. Steel | Use O.E.M. | 70-70253 Chrome Silicon | 70-70255 H.T. Steel |

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.



70-70270



70-70140



70-70400



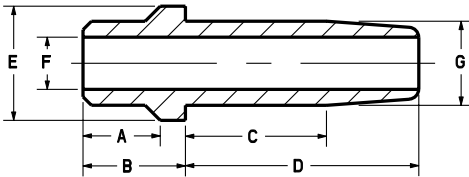
70-70250



TRIUMPH® • 650 / 750 • 1963-1983

KIBBLEWHITE
AMERICAN MADE & TESTED

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.460" | D | 1.390" |
| B | 0.610" | E | 0.680" |
| C | 0.840" | F | 0.3105" |

Intake/Exhaust - **G** (Std. 0.5010")

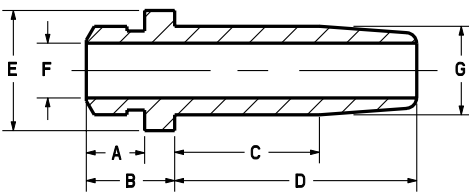
C630
Bronze

*Manganese

| | | |
|----------------|------------------|----------|
| 70-0331 | 70-0331-M | Std. |
| 70-0332 | 70-0332-M | + 0.002" |
| 70-0333 | 70-0333-M | + 0.004" |
| 70-0334 | 70-0334-M | + 0.006" |
| 70-0840 | 70-0840-M | + 0.015" |
| 70-4033 | 70-4033-M | + 0.050" |

No seal required.

* See KPMI® **Ball Hone and Reamer**
(Pg.179) section in back of catalog for more
information.



| | | | |
|----------|--------|----------|---------|
| A | 0.315" | D | 1.370" |
| B | 0.405" | E | 0.680" |
| C | 0.820" | F | 0.3105" |

Intake/Exhaust - **G** (Std. 0.5010")

C630 Bronze

| | |
|-----------------|----------|
| 70-0331S | Std. |
| 70-0332S | + 0.002" |
| 70-0333S | + 0.004" |
| 70-0334S | + 0.006" |
| 70-0840S | + 0.015" |
| 70-4033S | + 0.050" |

Machined for seal, seals sold separately.

NEW
PRODUCT



70-0331-M



70-0331



70-0331S



70-4228



70-4230

Black Diamond™ Valves • Black Nitroleg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|--------|--------|----------|
| 70-4228 | IN | 1.600" / 40.64mm | 0.3105" | 1.5" R | 3.850" | Standard |
| 70-4229 | IN | 1.660" / 42.16mm | 0.3105" | 1.5" R | 3.830" | Oversize |
| 70-4230 | EX | 1.440" / 36.58mm | 0.3100" | 24° | 3.780" | Standard |
| 70-4231 | EX | 1.500" / 38.10mm | 0.3100" | 24° | 3.760" | Oversize |

O.E.M. Replacement (Raw) Untreated Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|--------|--------|----------|
| 70-70500 | IN | 1.600" / 40.64mm | 0.3105" | 1.5" R | 3.850" | Standard |
| 70-70501 | IN | 1.660" / 42.16mm | 0.3105" | 1.5" R | 3.830" | Oversize |
| 70-70504 | EX | 1.440" / 36.58mm | 0.3100" | 24° | 3.780" | Standard |
| 70-70505 | EX | 1.500" / 38.10mm | 0.3100" | 24° | 3.760" | Oversize |

Valve Guide Seals

| KPMI No. | Description | Quantity |
|----------------|---------------------------|-----------|
| 70-4009 | In / Ex • Style 1 • Viton | Pkg. of 1 |



TRIUMPH® • 650 / 750 • 1963-1983



70-0448



70-0474



70-70150



70-0505



70-0477



70-0816



70-0301



70-0646



70-0647



70-0124

Racing Tappet Blocks For 1966-1983 Models

| KPMI No. | Type | Quantity |
|----------------|------|-----------|
| 70-0448 | All | Pkg. of 1 |

Made from Nickel Aluminum Bronze and designed to accept more lift.

For modification information, see the Triumph 650/750 Instruction Sheet #999-101330 online.

Push Rods Alloy Tube

| KPMI No. | Type | Quantity |
|----------------|---------|-----------|
| 70-0301 | For 650 | Pkg. of 4 |
| 70-0447 | For 750 | 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.

Thrust Washer

| KPMI No. | Type | Quantity |
|----------------|--------------------------------------|-----------|
| 70-0474 | Transmission | Pkg. of 1 |
| 70-0476 | Clutch I.D. 2.018" / O.D. 2.2020" | Pkg. of 1 |
| 70-0477 | Clutch I.D. 1.835" / O.D. 2.2020" | Pkg. of 1 |

Clutch Push Rod

| KPMI No. | Type | Quantity |
|----------------|--------------------------|-----------|
| 70-0505 | Drill rod (H.T. Tips) | Pkg. of 1 |

Lash Caps

| KPMI No. | Type | Quantity |
|-----------------|------------|-----------|
| 70-0816N | H.T. Steel | Pkg. of 4 |
| 70-0816 | H.T. Steel | Pkg. of 4 |

Made from hardened Steel.

Fork Bushings

| KPMI No. | Type | Quantity |
|----------------|--------|-----------|
| 70-0646 | Top | Pkg. of 1 |
| 70-0647 | Bottom | Pkg. of 1 |

Fits 1963-1970 Triumph 650's.

O.E.M. Replacement Keeper Set (H.T. Steel)

| KPMI No. | Type | Quantity |
|-----------------|------|--------------|
| 70-70150 | 7° | Pkg. of 1 pr |

Camshaft Bushings

| KPMI No. | Type | Quantity |
|----------------|------------------------|-----------|
| 70-0458 | Outer (Timing Side) | Pkg. of 1 |
| 70-0467 | Inner (Drive Side) | Pkg. of 1 |

Wrist Pin Bushings

| KPMI No. | Type | Quantity |
|----------------|--------------------|-----------|
| 70-0459 | Rod (Small End) | Pkg. of 1 |

Made from US Mill Certified Bearing Bronze Bar Stock.

Clutch Springs

| KPMI No. | Type | Quantity |
|----------------|---------------------------|-----------|
| 70-0124 | 3 Clutch Spring Models | Pkg. of 3 |
| 70-0465 | 4 Clutch Spring Models | Pkg. of 4 |



TRIUMPH® • TRIDENT™ • 1971-1976

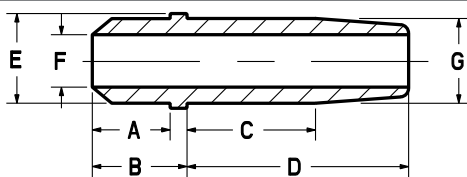


70-0343



70-0812

Valve Guides



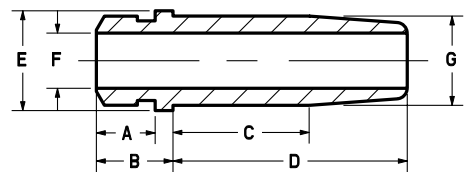
| | | | |
|----------|--------|----------|---------|
| A | 0.460" | D | 1.310" |
| B | 0.560" | E | 0.560" |
| C | 0.760" | F | 0.3105" |

Intake/Exhaust - **G** (Std. 0.5010")

C630 Bronze

| | |
|----------------|----------|
| 70-0343 | Std. |
| 70-0344 | + 0.002" |
| 70-4153 | + 0.015" |

No seal required.



| | | | |
|----------|--------|----------|---------|
| A | 0.330" | D | 1.315" |
| B | 0.430" | E | 0.560" |
| C | 0.765" | F | 0.3105" |

Intake/Exhaust - **G** (Std. 0.5010")

C630 Bronze

| | |
|----------------|----------|
| 70-0812 | Std. |
| 70-0813 | + 0.002" |
| 70-0814 | + 0.004" |
| 70-0815 | + 0.006" |
| 70-4039 | + 0.015" |

One seal supplied with each guide.



70-70350



70-1009

Lightweight Racing Valve Spring Kit • Triumph Trident™

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 70-70350 | .400" Valve Lift OK 94# Seated Pressure 240 lb. @ .400" lift | 70-70351 Titanium | Use O.E.M. | 70-70353 Chrome Silicon | 70-70355 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems For 1971-1973 Models

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|--------|--------|----------|
| 70-1009 | IN | 1.530" / 38.86mm | 0.3097" | 1.5" R | 3.975" | Standard |
| 70-1010 | IN | 1.590" / 40.39mm | 0.3097" | 1.5" R | 3.950" | Oversize |
| 70-1011 | EX | 1.315" / 33.40mm | 0.3092" | 25° | 3.915" | Standard |
| 70-1012 | EX | 1.400" / 35.56mm | 0.3092" | 25° | 3.890" | Oversize |

Black Diamond™ Valves • Black Nitroneg Stems For 1973-1976 Models

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|--------|--------|----------|
| 70-0885 | IN | 1.530" / 38.86mm | 0.3097" | 1.5" R | 3.735" | Standard |
| 70-0852 | IN | 1.590" / 40.39mm | 0.3097" | 1.5" R | 3.710" | Oversize |
| 70-0886 | EX | 1.315" / 33.40mm | 0.3092" | 25° | 3.680" | Standard |
| 70-0853 | EX | 1.400" / 35.56mm | 0.3092" | 25° | 3.655" | Oversize |

Valve Guide Seals

| KPMI No. | Description | Retainers |
|----------------|---------------------------|-----------|
| 70-4009 | In / Ex • Style 1 • Viton | Pkg. of 1 |



TRIUMPH® • T509 885cc • 1991-1999

Triple



70-70026

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|--|-----------------------------|-------------------------------|-----------------------------------|-------------------------------|-----------------|
| 70-70026 | .440" Valve Lift OK 65# Seated Pressure 204 lb. @ .440" lift | 70-70027 Titanium | 70-70024 H.T. Steel | 70-70028 Chrome Silicon | 70-70025 H.T. Steel | 70-70041 |

Lightweight Racing Valve Spring Kit For Shim Under Conversion

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Tappets | Spring Shims |
|-----------------|--|-----------------------------|-------------------------------|-----------------------------------|-------------------------------|-------------------------------|---|
| 70-70035 | .440" Valve Lift OK 65# Seated Pressure 204 lb. @ .440" lift | 70-70036 Titanium | 70-70037 H.T. Steel | 70-70038 Chrome Silicon | 70-70039 H.T. Steel | 70-70040 H.T. Steel | 70-70041 H.T. Steel 9.5mm OD |



70-70035

Spring Kit requires 9.5mm adjustment shims. See **Kibblewhite® Adjustment Shim Section** in back of catalog (Pg. 187) for more information.

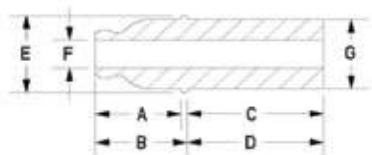
Ton Pels • Zodiac Racing

Roel Koedam aboard the Supercharged Zodiac Racing Top Fuel Harley. KPMI supplies custom designed and manufactured valvetrain components to Ton and Vincent Pels for the Zodiac Team's assault on the European Championship.



TRIUMPH® • 865 • 2001-2010

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.625" | D | 0.995" |
| B | 0.670" | E | 0.590" |
| C | 0.995" | F | 0.2150" |

Intake / Exhaust - **G** (Std. 0.5338")

C630 Bronze

| | |
|-----------------|----------|
| 70-70320 | Std. |
| 70-70321 | + 0.001" |
| 70-70322 | + 0.002" |
| 70-70329 | + 0.010" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|--------------------------|-----------|
| 700-100016 | In/Ex Style 4 • Viton | Pkg. of 1 |



70-70120



70-70300

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 70-70120 | .450" Valve Lift OK 50# Seated Pressure 165 lb. @ .450" lift | 70-70121 Titanium | Use O.E.M. | 70-70123 Chrome Silicon | 70-70125 H.T. Steel |

Lightweight Racing Valve Spring Kit For Shim Under Conversion

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Tappets | Adj. Shims |
|-----------------|--|-----------------------------|-------------------------------|-----------------------------------|-------------------------------|-------------------------------|---|
| 70-70300 | .450" Valve Lift OK 55# Seated Pressure 190 lb. @ .450" lift | 70-70301 Titanium | 70-70307 H.T. Steel | 70-70303 Chrome Silicon | 70-70305 H.T. Steel | 70-70310 H.T. Steel | 70-70309 H.T. Steel 9.5mm OD |

TRIUMPH® • T595 / 955I / 955cc • 1997-2000

Triple



70-70035

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|--|-----------------------------|-------------------------------|-----------------------------------|-------------------------------|-----------------|
| 70-70026 | .440" Valve Lift OK 65# Seated Pressure 204 lb. @ .440" lift | 70-70027 Titanium | 70-70024 H.T. Steel | 70-70028 Chrome Silicon | 70-70025 H.T. Steel | 70-70041 |

Lightweight Racing Valve Spring Kit For Shim Under Conversion

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Tappets | Spring Shims |
|-----------------|--|-----------------------------|-------------------------------|-----------------------------------|-------------------------------|-------------------------------|---|
| 70-70035 | .440" Valve Lift OK 65# Seated Pressure 204 lb. @ .440" lift | 70-70036 Titanium | 70-70037 H.T. Steel | 70-70038 Chrome Silicon | 70-70039 H.T. Steel | 70-70040 H.T. Steel | 70-70041 H.T. Steel 9.5mm OD |

Spring Kit requires 9.5mm adjustment shims. See **Kibblewhite® Adjustment Shim Section** in back of catalog (Pg. 187) for more information.



70-70026

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 **Motorcycle Valvetrain Components**.



YAMAHA® • RAPTOR™ 250 • 2008-2013

**TOP
SELLER**

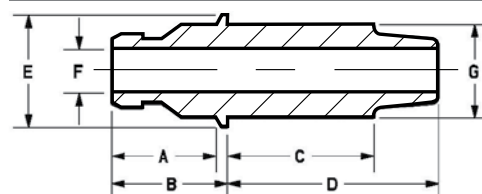


KIBBLEWHITE
AMERICAN MADE & TESTED



80-80570

Valve Guides

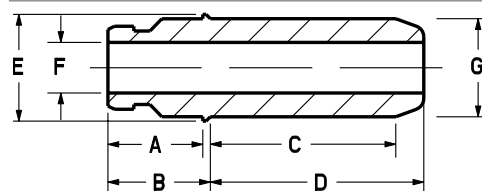


| | | | |
|----------|--------|----------|---------|
| A | 0.455" | D | 1.245" |
| B | 0.490" | E | 0.480" |
| C | 0.845" | F | 0.2360" |

Intake - G (Std. 0.4552")

C630 Bronze

| | |
|-----------------|----------|
| 80-80570 | Std. |
| 80-80572 | + 0.002" |
| 80-80579 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.455" | D | 1.295" |
| B | 0.490" | E | 0.480" |
| C | 0.975" | F | 0.2355" |

Exhaust - G (Std. 0.4552")

C630 Bronze

| | |
|-----------------|----------|
| 80-80580 | Std. |
| 80-80582 | + 0.002" |
| 80-80589 | + 0.010" |



80-80550



80-80562

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 80-80550 | .440" Valve Lift OK 65# Seat Pressure / 192lb. @ .440" lift | 80-80551 Titanium | Use O.E.M. | 80-80553 Chrome Silicon | 80-80555 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 80-80562 | IN | 34.00mm / 1.339" | 0.2355" | 15° | 3.690" | Standard |
| 80-80563 | IN | 35.00mm / 1.378" | 0.2355" | 15° | 3.670" | Oversize |
| 80-80566 | EX | 28.50mm / 1.122" | 0.2350" | 23° | 3.640" | Standard |

Valve Guide Seals

| KPMI No. | Description | Quantity |
|-----------------|--------------------------------------|-----------|
| 80-80590 | In / Ex • Style 5 • Steel Clad Viton | Pkg. of 1 |



YAMAHA® • SR™ / TT™ / XT™ 250 / 350 • 1976-2000



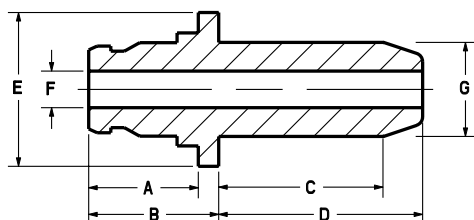
80-8100

Custom Valves
Available For All Models



80-8030

Valve Guides SR • TT • XT 250 • 1976-1981



| | | | |
|----------|--------|----------|---------|
| A | 0.645" | D | 1.200" |
| B | 0.765" | E | 0.905" |
| C | 0.970" | F | 0.3135" |

Intake / Exhaust - **G** (Std. 0.5535")

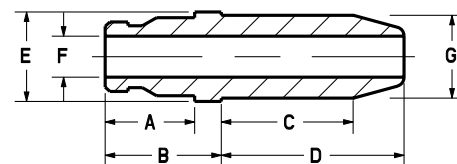
C630 Bronze

| | |
|----------------|----------|
| 80-8100 | Std. |
| 80-8101 | + 0.001" |
| 80-8110 | + 0.010" |

From
Crfsonly.com

The main thing when buying a new head with Kibblewhite® valves is to make sure you are not only getting all Kibblewhite® valves but also the Kibblewhite® high performance spring kit. There are many out there who are offering these as a Kibblewhite® head and yet will use cheap springs, steel retainers, etc. You won't get the same Kibblewhite® longevity, reliability and performance without the Kibblewhite® spring kit.

Valve Guides SRX 250 • XT 250/350 • 1984-2000



| | | | |
|----------|--------|----------|---------|
| A | 0.470" | D | 0.850" |
| B | 0.610" | E | 0.470" |
| C | 0.585" | F | 0.2160" |

Intake / Exhaust - **G** (Std. 0.4350")

C630 Bronze

| | |
|----------------|----------|
| 80-8030 | Std. |
| 80-8032 | + 0.002" |
| 80-8039 | + 0.015" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|--------------------------|-----------|
| 700-100016 | In/Ex Style 4 • Viton | Pkg. of 1 |

YAMAHA® • TTR™ 250 • 1999-2006

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 80-80000 | .380" Valve Lift OK 32# Seat Pressure /75lb. @ .380" lift | 80-80001 Titanium | Use O.E.M. | 80-80002 Chrome Silicon | 80-80003 H.T. Steel |

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.



80-80000



YAMAHA® • WR™ / YZ™ 250F • 2001-2013

**TOP
SELLER**



80-80090



80-80066



80-80077

Lightweight Racing Valve Spring Kit

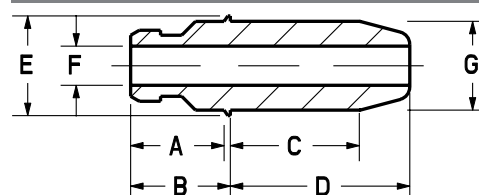
| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|----------------------------|
| 80-80066 | In -.380" Valve Lift OK 40# Seat Pressure 86lb. @ .380" lift | 80-80067 Titanium | Use O.E.M. | 80-80069 Chrome Silicon | 80-80070 H.T. Steel | Use O.E.M. |
| | Ex -.380" Valve Lift OK 40# Seat Pressure 86lb. @ .380" lift | 80-80068 Titanium | Use O.E.M. | 80-80069 Chrome Silicon | 80-80071 H.T. Steel | 80-80072 Style 4 |

Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|-------------------|
| 80-80073 | IN | 23.00mm / 0.906" | 0.1568" | 25° | 3.150" | Standard |
| 80-80075 | IN | 23.00mm / 0.906" | 0.1568" | 25° | 3.095" | Standard (center) |
| 80-80077 | EX | 24.50mm / 0.965" | 0.1758" | 25° | 3.070" | Standard |

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

Valve Guides

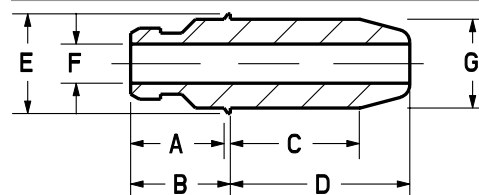


| | | | |
|----------|--------|----------|---------|
| A | 0.375" | D | 0.720" |
| B | 0.400" | E | 0.400" |
| C | 0.520" | F | 0.1570" |

Intake - **G** (Std. 0.3563")

C630 Bronze

| | |
|-----------------|----------|
| 80-80080 | Std. |
| 80-80081 | + 0.001" |
| 80-80082 | + 0.002" |
| 80-80089 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.405" | D | 0.790" |
| B | 0.430" | E | 0.440" |
| C | 0.590" | F | 0.1760" |

Exhaust - **G** (Std. 0.3958")

C630 Bronze

| | |
|-----------------|----------|
| 80-80090 | Std. |
| 80-80091 | + 0.001" |
| 80-80092 | + 0.002" |
| 80-80099 | + 0.010" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-----------------|----------------------------|-----------|
| 80-80072 | Exhaust Style 4 • Viton | Pkg. of 2 |
| Use O.E.M. | Intake | ----- |



YAMAHA® • YFM™ 350 / 400 • 1987-2013



YAMAHA

BIG BEAR™
BRUIN™
GRIZZLY™
KODIAK™
RAPTOR™
WARRIOR™
WOLVERINE™



80-80012

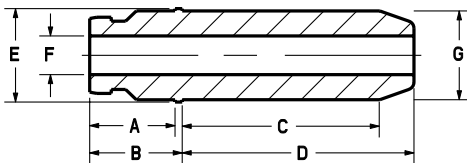


80-8010



80-8000

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.475" | D | 1.290" |
| B | 0.515" | E | 0.520" |
| C | 1.100" | F | 0.2745" |

Intake/ Exhaust - **G** (Std. 0.4942")

C630 Bronze

| | |
|----------------|----------|
| 80-8010 | Std. |
| 80-8012 | + 0.002" |
| 80-8020 | + 0.010" |

Seals- Use O.E.M.

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------------|---|----------------------------|----------------------------|----------------------------------|------------------------------|
| 80-8000 | .530" Valve Lift OK 90# Seat Pressure 205lb. @ .325" lift | 80-8001 Titanium | 80-8004 Titanium | 80-8002 Chrome Silicon | 80-8003 H.T. Steel |

Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 80-80012 | IN | 40.00mm / 1.575" | 0.2750" | 23° | 4.035" | Standard |
| 80-80013 | IN | 41.00mm / 1.614" | 0.2750" | 23° | 4.035" | Oversize |
| 80-80014 | EX | 34.00mm / 1.339" | 0.2745" | 29° | 3.960" | Standard |

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



YAMAHA® • WR™ / YZ™ 400F / 426F • 1998-2002



80-80100



80-8055H

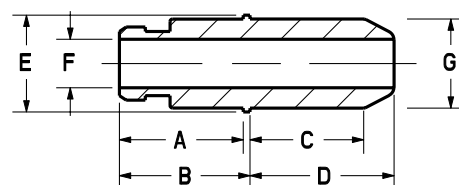


80-80110



80-80120

Valve Guides

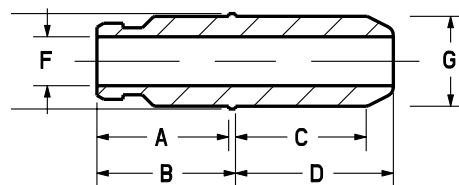


| | | | |
|----------|--------|----------|---------|
| A | 0.550" | D | 0.640" |
| B | 0.580" | E | 0.430" |
| C | 0.510" | F | 0.1765" |

Intake - G (Std. 0.3957")

C630 Bronze

| | |
|-----------------|----------|
| 80-80110 | Std. |
| 80-80112 | + 0.002" |
| 80-80119 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.580" | D | 0.695" |
| B | 0.610" | E | 0.420" |
| C | 0.580" | F | 0.1960" |

Exhaust - G (Std. 0.3957")

C630 Bronze

| | |
|-----------------|----------|
| 80-80120 | Std. |
| 80-80122 | + 0.002" |
| 80-80129 | + 0.010" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-----------------|-----------------------|-----------|
| 80-80107 | In Style 4 • Viton | Pkg. of 3 |
| 80-80108 | Ex Style 4 • Viton | Pkg. of 2 |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|----------------------------|
| 80-80100 | In-.380" Valve Lift OK 40# Seat Pressure 86lb. @ .380" lift | 80-80101 Titanium | Use O.E.M. | 80-80103 Chrome Silicon | 80-80104 H.T. Steel | 80-80107 Style 4 |
| | Ex-.380 Valve Lift OK 40# Seat Pressure 86lb. @ .380" lift | 80-80102 Titanium | Use O.E.M. | 80-80103 Chrome Silicon | 80-80105 H.T. Steel | 80-80108 Style 4 |

White Diamond™ Valves • Hard Chrome Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------------------|
| 80-8055H | IN | 27.00mm / 1.063" | 0.1765" | 15° | 3.320" | Standard |
| 80-8056H | IN | 27.00mm / 1.063" | 0.1765" | 15° | 3.280" | Standard (center) |
| 80-8057H | EX | 28.00mm / 1.102" | 0.1955" | 25° | 3.220" | Standard |

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



YAMAHA® • YFZ™ 450 2004-'09 / 450X 2008-'11/ 450R 2009-'13

YAMAHA

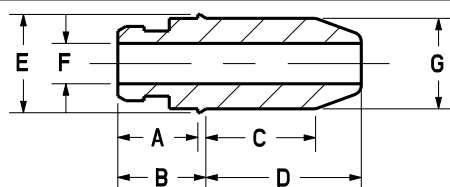


80-80220



80-80230

Valve Guides

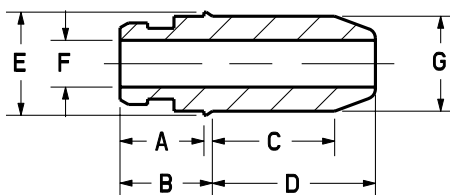


| | | | |
|----------|--------|----------|---------|
| A | 0.350" | D | 0.680" |
| B | 0.385" | E | 0.430" |
| C | 0.480" | F | 0.1768" |

Intake - G (Std. 0.3957")

C630 Bronze

| | |
|-----------------|----------|
| 80-80220 | Std. |
| 80-80221 | + 0.001" |
| 80-80222 | + 0.002" |
| 80-80229 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.350" | D | 0.680" |
| B | 0.385" | E | 0.430" |
| C | 0.510" | F | 0.1961" |

Exhaust - G (Std. 0.3957")

C630 Bronze

| | |
|-----------------|----------|
| 80-80230 | Std. |
| 80-80231 | + 0.001" |
| 80-80232 | + 0.002" |
| 80-80239 | + 0.010" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-----------------|----------------------|-----------|
| 80-80211 | In • Style 4 • Viton | Pkg. of 3 |
| 80-80212 | Ex • Style 4 • Viton | Pkg. of 2 |



80-80213H



80-80213H
Groove Detail



80-80206

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|-----------------|--|-----------------------------|---------------|--------------------------------------|-------------------------------|----------------------------|
| 80-80206 | In-.380 Valve Lift OK 40# Seat Pressure 86lb. @ .380" lift | 80-80207 Titanium | Use O.E.M. | 80-80209 Chrome Silicon | 80-80210 H.T. Steel | 80-80211 Style 4 |
| | Ex-.380 Valve Lift OK 40# Seat Pressure 86lb. @ .380" lift | 80-80208 Titanium | Use O.E.M. | 80-80209 Chrome Silicon | 80-80210 H.T. Steel | 80-80212 Style 4 |

White Diamond™ Valves • Hard Chrome Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|-------|--------|----------------------|
| 80-80213H | IN | 27.00mm / 1.063" | 0.1765" | 15° | 3.040" | Standard |
| 80-80214H | IN | 28.00mm / 1.102" | 0.1765" | 15° | 3.030" | Oversize |
| 80-80215H | IN | 27.00mm / 1.063" | 0.1765" | 15° | 3.000" | Standard (Center) |
| 80-80216H | IN | 28.00mm / 1.102" | 0.1765" | 15° | 2.990" | Oversize (Center) |
| 80-80217H | EX | 28.00mm / 1.102" | 0.1956" | 20° | 2.955" | Standard |
| 80-80218H | EX | 29.00mm / 1.142" | 0.1956" | 20° | 2.945" | Oversize |

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

Tensilite® Valves • Chromium Nitride PVD Coated Titanium

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|-------|--------|----------------------|
| 80-80213T | IN | 27.00mm / 1.063" | 0.1765" | 15° | 3.040" | Standard |
| 80-80214T | IN | 28.00mm / 1.102" | 0.1765" | 15° | 3.030" | Oversize |
| 80-80215T | IN | 27.00mm / 1.063" | 0.1765" | 15° | 3.000" | Standard (center) |
| 80-80216T | IN | 28.00mm / 1.102" | 0.1765" | 15° | 2.990" | Oversize (Center) |
| 80-80217T | EX | 28.00mm / 1.102" | 0.1956" | 20° | 2.955" | Standard |
| 80-80218T | EX | 29.00mm / 1.142" | 0.1956" | 20° | 2.945" | Oversize |



YAMAHA® • WR™ 450 • 2003-2013 / YZ™ 450F • 2003-2009



80-80206



80-80213H

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|-----------------|--|-----------------------------|---------------|--------------------------------------|-------------------------------|----------------------------|
| 80-80206 | In-.380 Valve Lift OK 40# Seat Pressure 86lb. @ .380" lift | 80-80207 Titanium | Use O.E.M. | 80-80209 Chrome Silicon | 80-80210 H.T. Steel | 80-80211 Style 4 |
| | Ex-.380 Valve Lift OK 40# Seat Pressure 86lb. @ .380" lift | 80-80208 Titanium | Use O.E.M. | 80-80209 Chrome Silicon | 80-80210 H.T. Steel | 80-80212 Style 4 |

White Diamond™ Valves • Hard Chrome Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|-------|--------|----------------------|
| 80-80213H | IN | 27.00mm / 1.063" | 0.1765" | 15° | 3.040" | Standard |
| 80-80214H | IN | 28.00mm / 1.102" | 0.1765" | 15° | 3.030" | Oversize |
| 80-80215H | IN | 27.00mm / 1.063" | 0.1765" | 15° | 3.000" | Standard (Center) |
| 80-80216H | IN | 28.00mm / 1.102" | 0.1765" | 15° | 2.990" | Oversize (Center) |
| 80-80217H | EX | 28.00mm / 1.102" | 0.1956" | 20° | 2.955" | Standard |
| 80-80218H | EX | 29.00mm / 1.142" | 0.1956" | 20° | 2.945" | Oversize |

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

Tensilite® Valves • Chromium Nitride PVD Coated Titanium

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|-------|--------|----------------------|
| 80-80213T | IN | 27.00mm / 1.063" | 0.1765" | 15° | 3.040" | Standard |
| 80-80214T | IN | 28.00mm / 1.102" | 0.1765" | 15° | 3.030" | Oversize |
| 80-80215T | IN | 27.00mm / 1.063" | 0.1765" | 15° | 3.000" | Standard (center) |
| 80-80216T | IN | 28.00mm / 1.102" | 0.1765" | 15° | 2.990" | Oversize (Center) |
| 80-80217T | EX | 28.00mm / 1.102" | 0.1956" | 20° | 2.955" | Standard |
| 80-80218T | EX | 29.00mm / 1.142" | 0.1956" | 20° | 2.945" | Oversize |

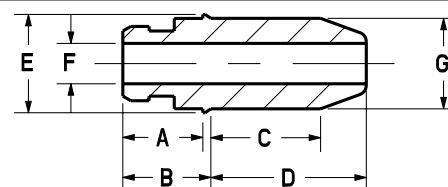


80-80220



80-80230

Valve Guides

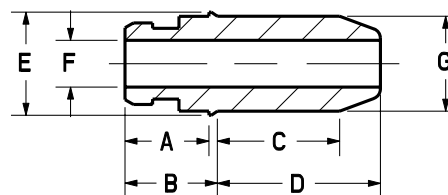


| | | | |
|----------|--------|----------|---------|
| A | 0.350" | D | 0.680" |
| B | 0.385" | E | 0.430" |
| C | 0.480" | F | 0.1768" |

Intake - G (Std. 0.3957")

C630 Bronze

| | |
|-----------------|----------|
| 80-80220 | Std. |
| 80-80221 | + 0.001" |
| 80-80222 | + 0.002" |
| 80-80229 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.350" | D | 0.680" |
| B | 0.385" | E | 0.430" |
| C | 0.510" | F | 0.1961" |

Exhaust - G (Std. 0.3957")

C630 Bronze

| | |
|-----------------|----------|
| 80-80230 | Std. |
| 80-80231 | + 0.001" |
| 80-80232 | + 0.002" |
| 80-80239 | + 0.010" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-----------------|----------------------|-----------|
| 80-80211 | In • Style 4 • Viton | Pkg. of 3 |
| 80-80212 | Ex • Style 4 • Viton | Pkg. of 2 |



YAMAHA® • YZ™ 450F • 2010-2013



80-80780

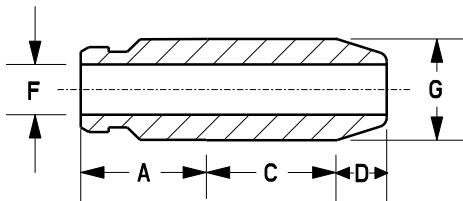


Yamaha YZ™ 450



YAMAHA

Valve Guides

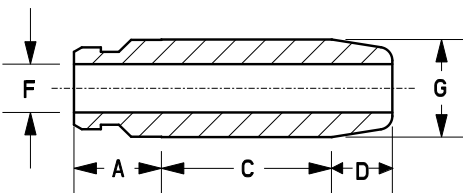


| | | | |
|----------|--------|----------|---------|
| A | 0.540" | D | 0.775" |
| B | ---- | E | ---- |
| C | 0.560" | F | 0.2160" |

Intake - G (Std. 0.4352")

C630 Bronze

| | |
|-----------------|----------|
| 80-80770 | Std. |
| 80-80771 | + 0.001" |
| 80-80772 | + 0.002" |
| 80-80779 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.390" | D | 1.030" |
| B | ---- | E | ---- |
| C | 0.760" | F | 0.2155" |

Exhaust - G (Std. 0.4352")

C630 Bronze

| | |
|-----------------|----------|
| 80-80780 | Std. |
| 80-80781 | + 0.001" |
| 80-80782 | + 0.002" |
| 80-80789 | + 0.010" |

Use O.E.M seal.



80-80762



80-80750

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 80-80750 | In- .450 Valve Lift OK 46# Seat Pressure 155lb. @ .450" lift | 80-80751 Titanium | Use O.E.M. | 80-80753 Chrome Silicon | 80-80755 H.T. Steel |
| | Ex- .450 Valve Lift OK 46# Seat Pressure 155lb. @ .450" lift | 80-80752 Titanium | Use O.E.M. | 80-80754 Chrome Silicon | 80-80756 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 80-80762 | IN | 36.00mm / 1.417" | 0.2155" | 20° | 3.290" | Standard |
| 80-80763 | IN | 37.00mm / 1.457" | 0.2155" | 20° | 3.290" | Oversize |
| 80-80766 | EX | 30.00mm / 1.181" | 0.2155" | 20° | 3.385" | Standard |
| 80-80767 | EX | 31.00mm / 1.220" | 0.2155" | 20° | 2.385" | Oversize |

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



YAMAHA® • SR™ / TT™ / XT™ 500 • 1976-1981

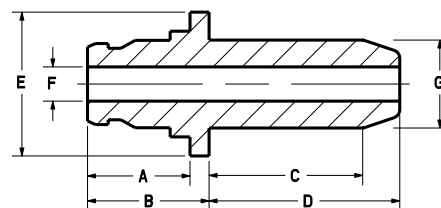


Custom Valves
Available By Request



80-8100

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.645" | D | 1.200" |
| B | 0.765" | E | 0.905" |
| C | 0.970" | F | 0.3135" |

Intake / Exhaust - **G** (Std. 0.5535")

C630 Bronze

| | |
|----------------|----------|
| 80-8100 | Std. |
| 80-8101 | + 0.001" |
| 80-8110 | + 0.010" |

Use O.E.M seal.



80-0514

Replacement Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|---|---------------------------------|
| 80-0514 | .560" Valve Lift OK 140# Seat Pressure / 305lb. @ .560" lift | * 80-80350 H.T. Steel |

*Available separately as O.E.M. replacement using above part number. Supplied with 15° Kibblewhite® H.T. Steel Keepers # 80-4004.

YAMAHA® • SRX™ / TT™ / XT™ 550 / 600 • 1982-1995



80-80241

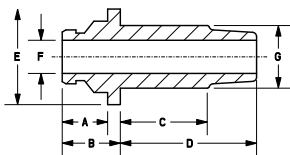
Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|--------------------------------|
| 80-80241 | .438" Valve Lift OK 70# Seat Pressure 197lb. @ .440" lift | 80-80242 Titanium | Use O.E.M. | 80-80243 Chrome Silicon | 80-80244 H. T. Steel |



YAMAHA® • XS™ 650 • 1970-1983

Valve Guides

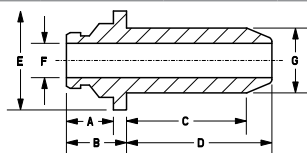


| | | | |
|----------|--------|----------|---------|
| A | 0.430" | D | 1.290" |
| B | 0.550" | E | 0.905" |
| C | 0.840" | F | 0.3140" |

Intake - **G** (Std. 0.5930")

C630 Bronze

| | |
|-----------------|----------|
| 80-80370 | Std. |
| 80-80371 | + 0.001" |
| 80-80372 | + 0.002" |
| 80-80379 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.430" | D | 1.550" |
| B | 0.550" | E | 0.905" |
| C | 1.150" | F | 0.3140" |

Exhaust - **G** (Std. 0.5930")

C630 Bronze

| | |
|-----------------|----------|
| 80-80360 | Std. |
| 80-80361 | + 0.001" |
| 80-80362 | + 0.002" |
| 80-80369 | + 0.010" |

Use O.E.M seal.



80-80360



80-80380



80-80340

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|-------------------------------|-----------------------------------|-------------------------------|
| 80-80340 | .515" Valve Lift OK 100# Seat Pressure 230lb. @ .500" lift | 80-80341 Titanium | 80-80346 H.T. Steel | 80-80344 Chrome Silicon | 80-80343 H.T. Steel |

Must use **Kibblewhite® Guides** with high lift cams. This kit is supplied with radiused bead keepers and must be used with radius groove valves

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 80-80380 | IN | 41.00mm / 1.614" | 0.3145" | 23° | 4.105" | Standard |
| 80-80381 | IN | 42.00mm / 1.654" | 0.3145" | 23° | 4.085" | Oversize |
| 80-80383 | EX | 35.00mm / 1.378" | 0.3140" | 23° | 4.030" | Standard |
| 80-80384 | EX | 36.00mm / 1.417" | 0.3140" | 23° | 4.010" | Oversize |

These valves utilize a radiused keeper groove. To install in models prior to 1973, use with radius beaded keepers **#80-80346**

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|--------------------------------|-----------------------------------|---------------|
| 80-80200 | .440" Valve Lift OK 74# Seat Pressure 200lb. @ .440" lift | 80-80201 Titanium | 80-80202 H. T. Steel | 98-98003 Chrome Silicon | Use O.E.M. |

For all the applications available for Kibblewhite's Yamaha® line of products, please refer online to the Yamaha® section of the www.kpmi.us website, under **Motorcycle Valvetrain Components**.



80-80200



YAMAHA® • VARIOUS 660'S • 2001-2008

YAMAHA

B

E

W

168



GRIZZLY™ 2002-'08

RAPTOR™ 2001-'05

RHINO™ 2004-'07



80-80030



80-80060

80-80061

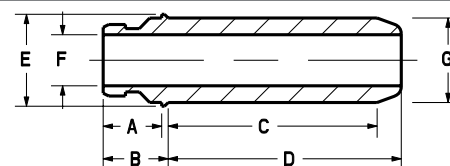


80-80040



80-80050

Valve Guides

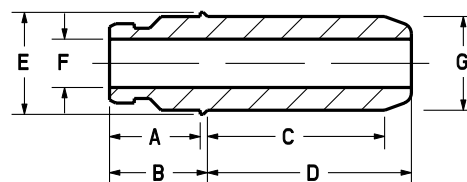


| | | | |
|----------|--------|----------|---------|
| A | 0.315" | D | 1.255" |
| B | 0.350" | E | 0.495" |
| C | 1.125" | F | 0.2345" |

Intake - G (Std. 0.4550")

C630 Bronze

| | |
|-----------------|----------|
| 80-80040 | Std. |
| 80-80041 | + 0.001" |
| 80-80042 | + 0.002" |
| 80-80049 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.440" | D | 0.990" |
| B | 0.475" | E | 0.495" |
| C | 0.860" | F | 0.2345" |

Exhaust - G (Std. 0.4550")

C630 Bronze

| | |
|-----------------|----------|
| 80-80050 | Std. |
| 80-80051 | + 0.001" |
| 80-80052 | + 0.002" |
| 80-80059 | + 0.010" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|----------------------------------|-----------|
| 700-100017 | In/Ex • Style 5 Steel Clad Viton | Pkg. of 1 |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 80-80030 | In - .450" Valve Lift OK 55# Seat Pressure 170lb. @ .450" lift | 80-80031 Titanium | Use O.E.M. | 80-80032 Chrome Silicon | 80-80033 H.T. Steel |
| | Ex -.450" Valve Lift OK 55# Seat Pressure 170lb. @ .450" lift | 80-80031 Titanium | Use O.E.M. | 80-80032 Chrome Silicon | 80-80034 H.T. Steel |

Black Diamond™ Valves • Black Nitro Neg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 80-80060 | IN | 30.00mm / 1.181" | 0.2355" | 15° | 3.960" | Standard |
| 80-80061 | IN | 31.00mm / 1.220" | 0.2355" | 15° | 3.960" | Oversize |
| 80-80062 | IN | 32.00mm / 1.260" | 0.2355" | 15° | 3.960" | Oversize |
| 80-80063 | EX | 32.00mm / 1.260" | 0.2348" | 25° | 3.650" | Standard |
| 80-80064 | EX | 33.00mm / 1.299" | 0.2348" | 25° | 3.650" | Oversize |



YAMAHA® • VARIOUS 700'S • 2006-2013



GRIZZLY™ 2007-'12
RAPTOR™ 2006-'13
RHINO™ 2008-'13



YAMAHA

**TOP
SELLER**



80-80420



80-80410

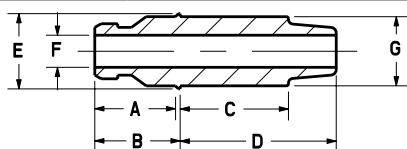


80-80430



80-80433

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.485" | D | 1.110" |
| B | 0.525" | E | 0.495" |
| C | 0.790" | F | 0.2350" |

Intake/Exhaust - **G** (Std. 0.4550")

C630 Bronze

| | |
|-----------------|----------|
| 80-80420 | Std. |
| 80-80421 | + 0.001" |
| 80-80422 | + 0.002" |
| 80-80429 | + 0.010" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|----------------------------------|-----------|
| 700-100017 | In/Ex • Style 5 Steel Clad Viton | Pkg. of 1 |

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 80-80410 | .480" Valve Lift OK 54# Seat Pressure 199lb. @ .480" lift | 80-80411 Titanium | Use O.E.M. | 80-80412 Chrome Silicon | 80-80413 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|-----------------|
| 80-80430 | IN | 38.00mm / 1.496" | 0.2354" | 20° | 4.025" | Standard |
| 80-80431 | IN | 39.00mm / 1.535" | 0.2354" | 20° | 4.010" | Oversize |
| 80-80432 | IN | 40.00mm / 1.575" | 0.2354" | 20° | 4.010" | Oversize (+2mm) |
| 80-80433 | EX | 32.00mm / 1.260" | 0.2349" | 17° | 3.785" | Standard |
| 80-80434 | EX | 33.00mm / 1.299" | 0.2349" | 17° | 3.770" | Oversize |
| 80-80435 | EX | 34.00mm / 1.339" | 0.2349" | 17° | 3.770" | Oversize (+2mm) |



YAMAHA® • FJ 1100 / 1200 • 1984-1993



80-1019



80-1017



80-8120



80-8120
Groove Detail



80-4172

Replacement Spring Only Kit

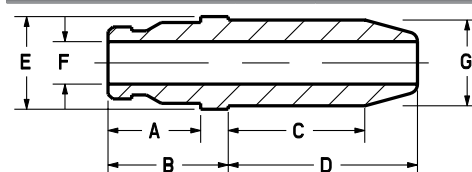
| KPMI No. | Description | Recommended Retainers |
|----------------|--|------------------------------|
| 80-1017 | .500" Valve Lift OK 60# Seat Pressure / 210lb. @ .500" lift | * 80-1019 Titanium |

* Retainer may not be used separately as O.E.M. replacement. Keepers are supplied with retainers. Use PN 80-1020 Tappets with these Shim On Bottom Retainers, also requires 9.5mm shim, see **KPMI® Adjustment Shim Section** in back of catalog (Pg. 187) for more information.

Black Diamond® Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------------|------|------------------|---------------|-------|--------|----------|
| 80-8120 | IN | 29.00mm / 1.142" | 0.2160" | 20° | 3.690" | Standard |
| 80-8122 | IN | 30.50mm / 1.201" | 0.2160" | 20° | 3.700" | Oversize |
| 80-8121 | EX | 25.00mm / 0.984" | 0.2155" | 20° | 3.690" | Standard |
| 80-8123 | EX | 26.00mm / 1.024" | 0.2155" | 20° | 3.700" | Oversize |

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.470" | D | 0.960" |
| B | 0.610" | E | 0.470" |
| C | 0.695" | F | 0.2160" |

Intake/Exhaust - **G** (Std. 0.4350")

C630 Bronze

| | |
|----------------|----------|
| 80-4172 | Std. |
| 80-4173 | + 0.002" |
| 80-4180 | + 0.004" |
| 80-4181 | + 0.006" |
| 80-4174 | + 0.015" |

Valve Seal Guides

| KPMI No. | Type of Seal | Quantity |
|-------------------|--------------------------|-----------|
| 700-100016 | In/Ex Style 4 • Viton | Pkg. of 1 |



YAMAHA® • V-MAX™ • 1985-2007



80-8021

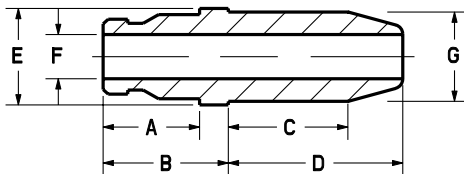


80-8023



Custom Valves
Available By Request

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.470" | D | 0.850" |
| B | 0.610" | E | 0.470" |
| C | 0.585" | F | 0.2160" |

Intake/Exhaust - G (Std. 0.4350")

C630 Bronze

| | |
|----------------|----------|
| 80-8030 | Std. |
| 80-8032 | + 0.002" |
| 80-8039 | + 0.015" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-------------------|--------------------------|-----------|
| 700-100016 | In/Ex Style 4 • Viton | Pkg. of 1 |

High Performance Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|----------------------------|
| 80-8021 | .450" Valve Lift OK 65# Seat Pressure / 198lb. @ .450" lift | 80-8023 Titanium |

Keepers are supplied with retainers. Use # **80-1020** Kibblewhite® Tappets with these Shim On Bottom Retainers, also requires 9.5mm shim. See Kibblewhite® Adjustment Shim Section in back of catalog (Pg. 187) for more information.

Shim on Bottom Retainer Set

| KPMI No. | Type | Quantity |
|----------------|----------|------------|
| 80-8023 | Titanium | Pkg. of 16 |

Shim under style with keepers. Requires 9.5mm shim. See Kibblewhite® Adjustment Shim Section in back of catalog (Pg. 187) for more information.

Shim on Bottom Tappets

| KPMI No. | Type | Quantity |
|----------------|-------|------------|
| 80-8022 | In/Ex | Pkg. of 16 |

YAMAHA® • XS™ 1100 • 1978-1981

Replacement Spring Only Kit

| KPMI No. | Description | Recommended Retainers |
|----------------|--|-----------------------|
| 80-0449 | .440" Valve Lift OK 85# Seat Pressure / 215lb. @ .440" lift | Use O.E.M. |



80-0449



YAMAHA® • YZF™ R1 • 1998-2003

Yamaha YZF-R1



80-80250



80-80394

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|----------|---|----------------------|---------------|----------------------------|------------------------|---------------------|
| 80-80250 | In-.380" Valve Lift OK 40# Seat Pressure 86lb. @ .380" lift | 80-80251 Titanium | Use O.E.M. | 80-80256 Chrome Silicon | 80-80253 H.T. Steel | Use O.E.M. |
| | Ex-.380" Valve Lift OK 40# Seat Pressure 86lb. @ .380" lift | 80-80252 Titanium | Use O.E.M. | 80-80256 Chrome Silicon | 80-80254 H.T. Steel | 80-80255 Style 2 |

Replacement Spring Only Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|----------|---|---------------|---------------|----------------------------|------------------------|
| 80-80394 | In-.350" Valve Lift OK 30# Seat Pressure /90lb. @ .350" lift | Use O.E.M. | Use O.E.M. | 80-80395 Chrome Silicon | Use O.E.M. |
| | Ex-.315" Valve Lift OK 44# Seat Pressure /95lb. @ .315" lift | Use O.E.M. | Use O.E.M. | 80-80396 Chrome Silicon | 80-80397 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|----------|------|------------------|---------------|-------|--------|-------------------|
| 80-80280 | IN | 23.00mm / 0.906" | 0.1568" | 15° | 3.620" | Standard |
| 80-80281 | IN | 23.50mm / 0.925" | 0.1568" | 15° | 3.620" | Oversize |
| 80-80283 | IN | 23.00mm / 0.906" | 0.1568" | 15° | 3.565" | Standard (Center) |
| 80-80284 | IN | 23.50mm / 0.925" | 0.1568" | 15° | 3.565" | Oversize (Center) |
| 80-80286 | EX | 24.50mm / 0.965" | 0.1758" | 23° | 3.505" | Standard |
| 80-80287 | EX | 25.00mm / 0.984" | 0.1758" | 23° | 3.505" | Oversize |

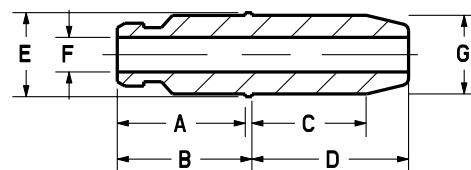


80-80280



80-80190

Valve Guides

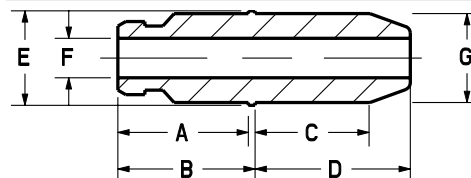


| | | | |
|---|--------|---|---------|
| A | 0.580" | D | 0.710" |
| B | 0.610" | E | 0.381" |
| C | 0.520" | F | 0.1570" |

Intake - G (Std. 0.3563")

C630 Bronze

| | |
|----------|----------|
| 80-80190 | Std. |
| 80-80191 | + 0.001" |
| 80-80199 | + 0.010" |



| | | | |
|---|--------|---|---------|
| A | 0.580" | D | 0.690" |
| B | 0.610" | E | 0.420" |
| C | 0.510" | F | 0.1755" |

Exhaust - G (Std. 0.3955")

C630 Bronze

| | |
|----------|----------|
| 80-80180 | Std. |
| 80-80181 | + 0.001" |
| 80-80189 | + 0.010" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|------------|----------------------|-----------|
| 700-100014 | Ex • Style 4 • Viton | Pkg. of 1 |
| Use O.E.M. | In | ---- |



YAMAHA® • YZF™ R1 • 2004-2006

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 80-80500 | In - .380" Valve Lift OK 48# Seat Pressure 118lb. @ .340" lift | 80-80501 Titanium | Use O.E.M. | 80-80503 Chrome Silicon | 80-80505 H.T. Steel |
| | Ex - .380" Valve Lift OK 48# Seat Pressure 118lb. @ .340" lift | 80-80502 Titanium | Use O.E.M. | 80-80503 Chrome Silicon | 80-80506 H.T. Steel |



80-80500

YAMAHA® • YZF™ R1 • 2007-2008



80-80650

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 80-80650 | In -.400" Valve Lift OK 50# Seat Pressure / 190lb. @ .400" lift | 80-80651 Titanium | Use O.E.M. | 80-80653 Chrome Silicon | 80-80655 H.T. Steel |
| | Ex -.400" Valve Lift OK 67# Seat Pressure / 165lb. @ .400" lift | 80-80652 Titanium | Use O.E.M. | 80-80654 Chrome Silicon | 80-80656 H.T. Steel |

Black Diamond™ Valves • Black Nitroneg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 80-80666 | EX | 25.00mm / 0.985" | 0.1760" | 15° | 3.560" | Standard |
| 80-80667 | EX | 26.00mm / 1.024" | 0.1760" | 15° | 3.560" | Oversize |

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

Tensilite® Valves • Chromium Nitride PVD Coated Titanium

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|------------------|------|------------------|---------------|-------|--------|----------|
| 80-80662T | IN | 31.00mm / 1.220" | 0.1960" | 25° | 3.590" | Standard |
| 80-80663T | IN | 32.00mm / 1.260" | 0.1960" | 25° | 3.590" | Oversize |



80-80666



80-80666
Groove Detail



80-80662T



80-80662T
Groove Detail



YAMAHA® • FX NYTRO™ (ALL MODELS) • 2008-2013

From DWMS Racing

Hello, We just wanted to take a moment to thank you for offering superior products for professionals such as ourselves to utilize, DWMS Racing will continue to use Kibblewhite® products exclusively for all of our future restorations and custom builds!



80-80450



80-80462



80-80470

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|-----------------------------|---------------|--------------------------------------|-------------------------------|
| 80-80450 | .445" Valve Lift OK 52# Seat Pressure / 162lb. @ .445" lift | 80-80451 Titanium | Use O.E.M. | 80-80453 Chrome Silicon | 80-80455 H.T. Steel |

It may be necessary to use KPMI® Shortened Valve Guides # 80-80470, to achieve higher stock lift.

Black Diamond™ Valves • Black Nitroneg Stems

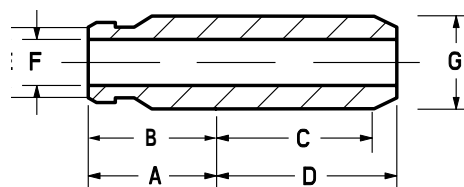
| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|----------|
| 80-80462 | IN | 31.00mm / 1.220" | 0.1765" | 15° | 3.495" | Standard |
| 80-80463 | IN | 32.00mm / 1.260" | 0.1765" | 15° | 3.495" | Oversize |
| 80-80466 | EX | 26.00mm / 1.024" | 0.1760" | 25° | 3.470" | Standard |
| 80-80467 | EX | 27.00mm / 1.063" | 0.1760" | 25° | 3.470" | Oversize |

O.E.M. Replacement Tappets

| KPMI No. | Type | Quantity |
|-----------------|---------|-----------|
| 80-80492 | In / Ex | Pkg. of 1 |

For all the applications available for Kibblewhite's Yamaha® line of products, please refer online to the Yamaha® section of the www.kpmi.us website, under **PWC / Snowmobile Valvetrain Components**.

Valve Guides



| | | | |
|----------|--------|----------|---------|
| A | 0.530" | D | 0.750" |
| B | ----- | E | 0.354" |
| C | 0.585" | F | 0.1760" |

Intake/Exhaust - **G** (Std. 0.3564")

C630 Bronze

| | |
|-----------------|----------|
| 80-80470 | Std. |
| 80-80471 | + 0.001" |
| 80-80472 | + 0.002" |
| 80-80474 | + 0.004" |
| 80-80479 | + 0.010" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-----------------|-----------------------|------------|
| 80-80490 | Ex Style 4 • Viton | Pkg. of 12 |



YAMAHA® • APEX™ / RX-1™ (ALL MODELS) • 2003-2010

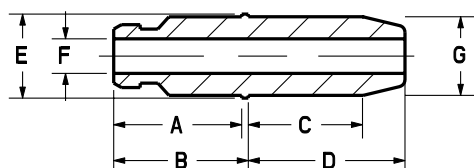


80-80630



80-80612

Valve Guides

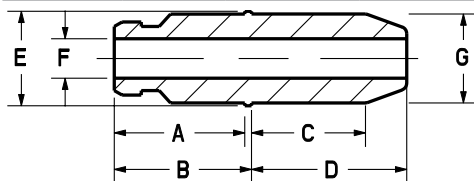


| | | | |
|----------|--------|----------|---------|
| A | 0.580" | D | 0.710" |
| B | 0.610" | E | 0.381" |
| C | 0.520" | F | 0.1570" |

Intake - G (Std. 0.3563")

C630 Bronze

| | |
|-----------------|----------|
| 80-80620 | Std. |
| 80-80621 | + 0.001" |
| 80-80629 | + 0.010" |



| | | | |
|----------|--------|----------|---------|
| A | 0.580" | D | 0.690" |
| B | 0.610" | E | 0.420" |
| C | 0.510" | F | 0.1755" |

Exhaust - G (Std. 0.3955")

C630 Bronze

| | |
|-----------------|----------|
| 80-80630 | Std. |
| 80-80631 | + 0.001" |
| 80-80639 | + 0.010" |

Valve Guide Seals

| KPMI No. | Type of Seal | Quantity |
|-----------------|----------------------|-----------|
| 80-80641 | Ex • Style 4 • Viton | Pkg. of 1 |
| Use O.E.M. | Intake | ----- |



80-80600

80-80394

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Seals |
|-----------------|--|-----------------------------|---------------|-----------------------------------|-------------------------------|--------------------------------|
| 80-80600 | In -.365" Valve Lift OK 40# Seat Pressure 85lb. @ .365" lift | 80-80601 Titanium | Use O.E.M. | 80-80603 Chrome Silicon | 80-80605 H.T. Steel | Use O.E.M. |
| | Ex -.365" Valve Lift OK 40# Seat Pressure 85lb. @ .365" lift | 80-80602 Titanium | Use O.E.M. | 80-80603 Chrome Silicon | 80-80606 H.T. Steel | 80-80641 Solid Viton |

Replacement Spring Only Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|--|---------------|---------------|-----------------------------------|-------------------------------|
| 80-80394 | In-.350" Valve Lift OK 30# Seat Pressure / 90lb. @ .350" lift | Use O.E.M. | Use O.E.M. | 80-80395 Chrome Silicon | Use O.E.M. |
| | Ex-.315" Valve Lift OK 44# Seat Pressure / 95lb. @ .315" lift | Use O.E.M. | Use O.E.M. | 80-80396 Chrome Silicon | 80-80397 H.T. Steel |

Black Diamond™ Valves • Black Nitroreg Stems

| KPMI No. | Type | Head Diameter | Stem Diameter | Tulip | OL | Remarks |
|-----------------|------|------------------|---------------|-------|--------|-------------------|
| 80-80612 | IN | 23.00mm / 0.906" | 0.1568" | 15° | 3.620" | Standard |
| 80-80613 | IN | 23.50mm / 0.925" | 0.1568" | 15° | 3.620" | Oversize |
| 80-80614 | IN | 23.00mm / 0.906" | 0.1568" | 15° | 3.565" | Standard (Center) |
| 80-80615 | IN | 23.50mm / 0.925" | 0.1568" | 15° | 3.565" | Oversize (Center) |
| 80-80616 | EX | 24.50mm / 0.965" | 0.1757" | 25° | 3.505" | Standard |
| 80-80617 | EX | 25.00mm / 0.984" | 0.1757" | 25° | 3.505" | Oversize |



AUTOMOTIVE • BMW® / MITSUBISHI® / PORSCHE®

BMW® • M3™



Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars (O) | Lower Collars (I) |
|-----------------|---------------------|-----------------------------|---------------|-----------------------------------|-------------------------------|-------------------------------|
| 90-90010 | .500" Valve Lift OK | 90-90011 Titanium | Use O.E.M. | 90-90012 Chrome Silicon | 90-90013 H.T. Steel | 90-90014 H.T. Steel |

65# @ 1.430" 205# @ .500" lift

MITSUBISHI® • 3.0L V6 6G72



Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collar |
|-----------------|---------------------|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 97-97040 | .465" Valve Lift OK | 97-97041 Titanium | Use O.E.M. | 97-97042 Chrome Silicon | 97-97043 H.T. Steel |

80# @ 1.300" / 200# @ .400" lift

PORSCHE® • 911 / 930 / 964 / 2V

2.0L / 2.2L / 2.4L / 2.7L / 3.0L / 3.2L / 3.3L



98-98010

Lightweight Racing Valve Spring Kit

| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars |
|-----------------|---------------------|-----------------------------|---------------|-----------------------------------|-------------------------------|
| 98-98000 | .540" Valve Lift OK | 98-98001 Titanium | Use O.E.M. | 98-98002 Chrome Silicon | 98-98003 H.T. Steel |

80# @ 1.485" / 210# @ .500" lift

Lightweight Racing Valve Spring Kit

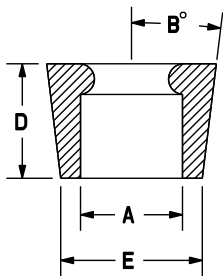
| KPMI No. | Description | Retainers | Keepers | Springs | Lower Collars | Spring Shims |
|-----------------|---------------------|-----------------------------|---------------|-----------------------------|-----------------------------------|-----------------|
| 98-98010 | .540" Valve Lift OK | 98-98011 Titanium | Use O.E.M. | 98-98012 Titanium | 98-98013 Chrome Silicon | 98-98014 |

100# @ 1.450" / 230# @ .500" lift

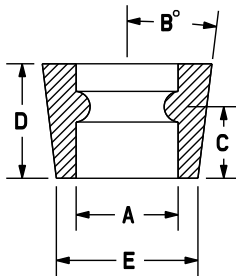


All KPMI® keepers are single-point machined from high tensile strength billet material (with the exception of forged multi-bead styles). What this means is that each keeper is machined from billet high tensile strength material. After machining, the keepers are split, tumbled and then heat treated. At 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.

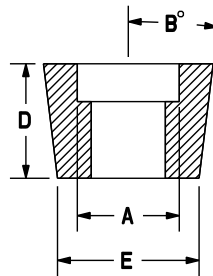
**KEEPER
STYLE 1**



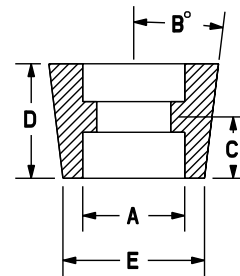
**KEEPER
STYLE 2**



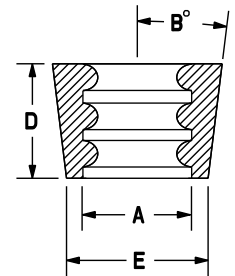
**KEEPER
STYLE 3**



**KEEPER
STYLE 4**



**KEEPER
STYLE 5**



Keepers - (Sold In Pairs)

| KPMI Part No. | Keeper Style | A Stem Diameter | B Keeper Angle | C Bead Height | D Overall Length | E Minor Diameter |
|---------------|--------------|-----------------|----------------|---------------|------------------|------------------|
| 500-100001 | 2 | 0.275" | 7.0° | 0.180" | 0.365" | 0.330" |
| 500-100002 | 2 | 0.215" | 10.0° | 0.076" | 0.240" | 0.285" |
| 500-100003 | 4 | 0.310" | 15.0° | 0.220" | 0.365" | 0.353" |
| 500-100004 | 1 | 0.196" | 7.0° | 0.185" | 0.225" | 0.279" |
| 500-100005 | 3 | 0.375" | 15.0° | ---- | 0.305" | 0.395" |
| 500-100006 | 2 | 0.275" | 15.0° | 0.135" | 0.300" | 0.350" |
| 500-100007 | 3 | 0.310" | 15.0° | ---- | 0.315" | 0.381" |
| 500-100008 | 2 | 0.275" | 7.0° | 0.190" | 0.320" | 0.342" |
| 500-100009 | 3 | 0.371" | 15.0° | ---- | 0.343" | 0.375" |
| 500-100010 | 1 | 0.216" | 10.0° | ---- | 0.237" | 0.288" |
| 500-100011 | 2 | 0.275" | 7.0° | 0.190" | 0.340" | 0.349" |
| 500-100012 | 2 | 0.315" | 15.0° | 0.100" | 0.300" | 0.344" |
| 500-100013 | 2 | 0.235" | 7.0° | 0.155" | 0.250" | 0.300" |
| 500-100014 | 4 | 0.310" | 7.0° | 0.185" | 0.385" | 0.380" |
| 500-100015 | 1 | 0.197" | 10.0° | ---- | 0.200" | 0.370" |
| 500-100016 | 5 | 0.275" | 7.0° | ---- | 0.290" | 0.345" |
| 500-100017 | 3 | 0.310" | 7.0° | ---- | 0.245" | 0.369" |
| 500-100018 | 3 | 0.315" | 15.0° | ---- | 0.315" | 0.379" |

NOTE: All Kibblewhite® Keepers are sold in pairs.



INTAKE ONLY SPRING KITS

Kibblewhite® Intake Only Valve Spring Kits

| KPMI Part No. | Description | Valves | Retainers | Keepers | Springs | Lower Collars | Seals | Shims |
|---|--|----------------------------|----------------------|------------|----------------------------|------------------------|-------------------|----------|
| HONDA CRF 250R • 2004 - 2009 / CRF 250X • 2004 - 2013 | | | | | | | | |
| 30-31200 | .350" Max. Valve Lift 50# Seat Pressure/145lb. @ .350" lift | 30-30630 Black Diamond™ | 30-31201 Titanium | Use O.E.M. | 30-31203 Chrome Silicon | 30-31205 H.T. Steel | 30-31209 Viton | N/A |
| HONDA CRF 250R • 2010 - 2014 | | | | | | | | |
| 30-31500 | .385" Max. Valve Lift 50# Seat Pressure/160lb. @ .385" lift | 30-31462 Black Diamond™ | 30-31501 Titanium | Use O.E.M. | 30-31503 Chrome Silicon | 30-31505 H.T. Steel | 30-31509 Viton | N/A |
| HONDA CRF 450R • 2002 - 2008 | | | | | | | | |
| 30-31210 | .440" Max. Valve Lift 40# Seat Pressure/147lb. @ .440" lift | 30-30220 Black Diamond™ | 30-31211 Titanium | Use O.E.M. | 30-31213 Chrome Silicon | 30-31215 H.T. Steel | Use O.E.M. | N/A |
| HONDA CRF 450R • 2009 - 2012 | | | | | | | | |
| 30-31240 | .440" Max. Valve Lift 40# Seat Pressure/147lb. @ .440" lift | 30-31262 Black Diamond™ | 30-31241 Titanium | Use O.E.M. | 30-31243 Chrome Silicon | 30-31245 H.T. Steel | Use O.E.M. | N/A |
| HONDA CRF 450R • 2013 - 2014 | | | | | | | | |
| 30-31580 | .440" Max. Valve Lift 40# Seat Pressure/148lb. @ .440" lift | 30-31612 Black Diamond™ | 30-31581 Titanium | Use O.E.M. | 30-31583 Chrome Silicon | 30-31585 H.T. Steel | Use O.E.M. | N/A |
| HONDA CRF 450X • 2005 - 2014 | | | | | | | | |
| 30-31230 | .440" Max. Valve Lift 40# Seat Pressure/147lb. @ .440" lift | 30-31062 Black Diamond™ | 30-31231 Titanium | Use O.E.M. | 30-31233 Chrome Silicon | 30-31235 H.T. Steel | Use O.E.M. | N/A |
| KAWASAKI KX 250F • 2003 - 2013 | | | | | | | | |
| 40-40350 | .445" Max. Valve Lift 46# Seat Pressure/155lb. @ .445" lift | 40-40140 Black Diamond™ | 40-40351 Titanium | Use O.E.M. | 40-40353 Chrome Silicon | 40-40355 H.T. Steel | Use O.E.M. | N/A |
| KAWASAKI KX 450F • 2006 - 2008 | | | | | | | | |
| 40-40360 | .415" Max. Valve Lift 50# Seat Pressure/155lb. @ .415" lift | 40-40312 Black Diamond™ | 40-40361 Titanium | Use O.E.M. | 40-40363 Chrome Silicon | 40-40365 H.T. Steel | Use O.E.M. | N/A |
| KAWASAKI KX 450F • 2009 - 2013 | | | | | | | | |
| 40-40380 | .415" Max. Valve Lift 64# Seat Pressure/161lb. @ .415" lift | 40-40652 Black Diamond™ | 40-40381 Titanium | Use O.E.M. | 40-40383 Chrome Silicon | 40-40385 H.T. Steel | Use O.E.M. | N/A |
| KTM RFS 400cc-560cc • 2000 - 2009 | | | | | | | | |
| 96-96070 | .435" Max. Valve Lift 75# Seat Pressure/214lb. @ .435" lift | 96-96004 Black Diamond™ | 96-96071 Titanium | Use O.E.M. | 96-96073 Chrome Silicon | 96-96074 H.T. Steel | Use O.E.M. | 96-96079 |
| SUZUKI RM Z250 • 2004 - 2006 | | | | | | | | |
| 60-60450 | .445" Max. Valve Lift 46# Seat Pressure/156lb. @ .445" lift | 60-60210 Black Diamond™ | 60-60451 Titanium | Use O.E.M. | 60-60453 Chrome Silicon | 60-60455 H.T. Steel | Use O.E.M. | N/A |
| SUZUKI RM Z250 • 2007 - 2013 | | | | | | | | |
| 60-60470 | .445" Max. Valve Lift 51# Seat Pressure/160lb. @ .445" lift | 60-60512 Black Diamond™ | 60-60471 Titanium | Use O.E.M. | 60-60473 Chrome Silicon | 60-60475 H.T. Steel | Use O.E.M. | N/A |
| SUZUKI RM Z450 • 2005 - 2006 | | | | | | | | |
| 60-60460 | .415" Max. Valve Lift 61# Seat Pressure/168lb. @ .415" lift | 60-60270 Black Diamond™ | 60-60461 Titanium | Use O.E.M. | 60-60463 Chrome Silicon | 60-60465 H.T. Steel | Use O.E.M. | N/A |
| SUZUKI RM Z450 • 2008 - 2012 | | | | | | | | |
| 60-60720 | .415" Max. Valve Lift 62# Seat Pressure/168lb. @ .415" lift | 60-60712 Black Diamond™ | 60-60721 Titanium | Use O.E.M. | 60-60723 Chrome Silicon | 60-60725 H.T. Steel | Use O.E.M. | N/A |



REAMERS / BALL HONES / LASH CAPS

Reamers

| KPMI Part No. | Description | Flute Length | Overall Length |
|----------------|-------------------------------|--------------|----------------|
| GR-1970 | 0.1970 HSS valve guide reamer | 2.625 | 7.125 |
| GR-1975 | 0.1975 HSS valve guide reamer | 2.625 | 7.125 |
| GR-2770 | 0.2770 HSS valve guide reamer | 2.625 | 7.125 |
| GR-3100 | 0.3100 HSS valve guide reamer | 2.625 | 7.125 |
| GR-3110 | 0.3110 HSS valve guide reamer | 2.625 | 7.125 |
| GR-3115 | 0.3115 HSS valve guide reamer | 2.625 | 7.125 |
| GR-3770 | 0.3770 HSS valve guide reamer | 2.625 | 7.125 |
| GR-3780 | 0.3780 HSS valve guide reamer | 2.625 | 7.125 |

- Precision valve guide reamers are specifically designed to size C67410 bronze valve guide materials.
- All cutting diameters are ± 0.0002 " and include a 1.000" long pilot



Reamers

Ball Hones - Universal

| Qty. 1 KPMI No. | Description |
|--------------------|--------------------------------|
| GH-1574 | 4.0mm valve guide hone |
| GH-1771 | 4.5mm valve guide hone |
| GH-1968 | 5.0mm valve guide hone |
| GH-2165 | 5.5mm valve guide hone |
| GH-2755 | 7.0mm valve guide hone |
| GH-3125 | 5/16 (.3125") valve guide hone |
| GH-3750 | 3/8 (.3750") valve guide hone |

Precision valve guide hones are durable enough to size C630 bronze and cast iron valve guide materials.



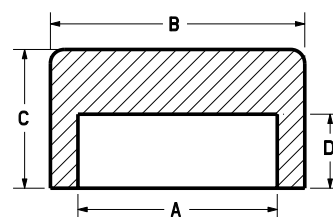
Ball Hones

Lash Caps

| Qty. 1 KPMI No. | A Minor Diameter | B Major Diameter | C OL | D Depth | (C-D) Roof Thickness |
|--------------------|---------------------|---------------------|---------|------------|-------------------------|
| 900-400001 | 7.94mm / 0.3126" | 0.395" | 0.160" | 0.080" | 0.080" |
| 900-400002 | 7.00mm / 0.2756" | 0.355" | 0.160" | 0.080" | 0.080" |
| 900-400003 | 6.50mm / 0.2595" | 0.335" | 0.120" | 0.080" | 0.040" |
| 900-400004 | 5.50mm / 0.2165" | 0.295" | 0.090" | 0.050" | 0.040" |
| 900-400005 | 5.00mm / 0.1969" | 0.277" | 0.090" | 0.050" | 0.040" |
| 900-400006 | 5.00mm / 0.1969" | 0.277" | 0.230" | 0.150" | 0.080" |
| 900-400007 | 5.00mm / 0.1969" | 0.277" | 0.175" | 0.100" | 0.075" |
| 900-400008 | 6.00mm / 0.2282" | 0.315" | 0.120" | 0.080" | 0.040" |



Lash Caps



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 | | | | | |
| 11-10009 | IN | 50.80mm / 2.000" | 0.3145" | 18° | 5.000" |
| 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" |
| 40-4179B | EX | 33.00mm / 1.300" | 0.2745" | 29° | 5.000" |
| 6.5mm Stem Diameter | | | | | |
| 30-30228B | IN | 42.00mm / 1.653" | 0.2590" | 20° | 5.000" |
| 30-30229B | EX | 34.00mm / 1.338" | 0.2582" | 20° | 5.000" |
| 6.0mm Stem Diameter | | | | | |
| 93-93015B | IN | 42.00mm / 1.653" | 0.2352" | 23° | 5.000" |
| 93-93016B | EX | 34.00mm / 1.338" | 0.2347" | 29° | 5.000" |
| 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" | 0.1770" | 18° | 5.000" |
| 11-10005 | IN | 32.00mm / 1.260" | 0.1770" | 18° | 5.000" |
| 11-10006 | EX | 28.00mm / 1.102" | 0.1770" | 20° | 5.000" |
| 11-10007 | EX | 26.00mm / 1.024" | 0.1770" | 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" |



TENSILITE®-TITANIUM / WHITE DIAMOND® VALVE BLANKS

Tensilite® Titanium Valve Blanks

| KPMI Part No. | Type | Head Diameter | Stem Diameter | Tulip Profile | Overall Length |
|---------------------|---------|------------------|---------------|---------------|----------------|
| 5/16" Stem Diameter | | | | | |
| 20-20109T | IN / Ex | 46.74mm / 1.840" | 0.3100" | 23° | 5.000" |
| 7.0mm Stem Diameter | | | | | |
| 40-4244T | IN / Ex | 48.00mm / 1.890" | 0.2745" | 17° | 5.100" |
| 40-4240T | IN / Ex | 44.00mm / 1.732" | 0.2745" | 23° | 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 | | | | | |
| 11-10015T | IN / Ex | 34.00mm / 1.339" | 0.1760" | 15° | 4.300" |
| 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 |
|---------------------|---------|------------------|---------------|---------------|----------------|
| 6.0mm 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 application available for Kibblewhite's individual products, please refer online to the each valve blanks section of the www.kpmi.us website, under **Precision Components and Valve Blanks**

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**

SEALS

"KPMI® continues to offer our white clasp solid PC-Styled seals in a variety of sizes for builders who choose to use a seal design of this type."



STYLE 1
Solid Viton



STYLE 2
Solid Viton
w/ Tension Spring
(O.E.M. Style)



STYLE 3
Solid Viton
w/ Metal Jacket
Integral Spring Base



STYLE 4
Solid Viton
w/ Choker Spring
and Tension Spring
(O.E.M. Style)



STYLE 5
Solid Viton
w/ Metal Jacket
and Choker Spring



STYLE 6
Solid PC-Styled Seal
w/ Metal Band
and Choker Spring



STYLE 7
Solid Teflon with
a metal jacket
(OEM Style)

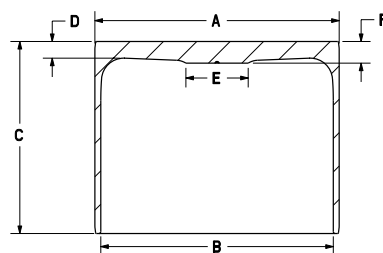
Seals

| Qty. 1 Part Number | Qty. 10 Part Number | Stem Diameter | Seal Style | Guide Diameter | Overall Length | Seal O.D. |
|-----------------------|------------------------|------------------|---------------|-------------------|-------------------|--------------|
| 700-100013 | 700-100013-10 | 4.0 mm | 2 | 0.305" | 0.310" | 0.375" |
| 700-100014 | 700-100014-10 | 4.5 mm | 4 | 0.305" | 0.315" | 0.370" |
| 700-100015 | 700-100015-10 | 5.0 mm | 4 | 0.325" | 0.335" | 0.405" |
| 700-100016 | 700-100016-10 | 5.5 mm | 4 | 0.340" | 0.340" | 0.440" |
| 700-100029 | 700-100029-10 | 6.0 mm | 5 | 0.435" | 0.315" | 0.520" |
| 700-100017 | 700-100017-10 | 6.0 mm | 5 | 0.385" | 0.360" | 0.475" |
| 700-100025 | 700-100025-10 | 6.0 mm | 5 | 0.435" | 0.460" | 0.560" |
| 700-100031 | 700-100031-10 | 6.0 mm | 5 | 0.488" | 0.510" | 0.615" |
| 700-100037 | 700-100037-10 | 6.0 mm | 5 | 0.451" | 0.390" | 0.553" |
| 700-100018 | 700-100018-10 | 6.5 mm | 4 | 0.430" | 0.385" | 0.535" |
| 700-100028 | 700-100028-10 | 7.0 mm | 5 | 0.550" | 0.510" | 0.660" |
| 700-100026 | 700-100026-10 | 7.0 mm | 5 | 0.435" | 0.510" | 0.555" |
| 700-100030 | 700-100030-10 | 7.0 mm | 3 | 0.562" | 0.950" | 0.970" |
| 700-100019 | 700-100019-10 | 7.0 mm | 4 | 0.460" | 0.350" | 0.530" |
| 700-100010 | 700-100010-10 | 0.310" in. | 5 | 0.420" | 0.395" | 0.565" |
| 700-100027 | 700-100027-10 | 0.310" in. | 5 | 0.470" | 0.365" | 0.610" |
| 700-100032 | 700-100032-10 | 0.310" in. | 7 | 0.420" | 0.390" | 0.570" |
| 700-100033 | 700-100033-10 | 0.310" in. | 7 | 0.530" | 0.401" | 0.635" |
| 700-100008 | 700-100008-10 | 0.311" in. | 6 | 0.415" | 0.510" | 0.510" |
| 700-100003 | 700-100003-10 | 0.311" in. | 6 | 0.425" | 0.520" | 0.380" |
| 700-100012 | 700-100012-10 | 0.311" in. | 1 | 0.480" | 0.465" | 0.550" |
| 700-100006 | 700-100006-10 | 0.311" in. | 6 | 0.500" | 0.505" | 0.600" |
| 700-100009 | 700-100009-10 | 0.311" in. | 6 | 0.531" | 0.505" | 0.630" |
| 700-100005 | 700-100005-10 | 0.343" in. | 6 | 0.500" | 0.505" | 0.600" |
| 700-100007 | 700-100007-10 | 0.343" in. | 6 | 0.562" | 0.505" | 0.660" |
| 700-100034 | 700-100034-10 | 0.343" in. | 7 | 0.530" | 0.400" | 0.630" |
| 700-100004 | 700-100004-10 | 0.374" in. | 6 | 0.500" | 0.505" | 0.600" |
| 700-100001 | 700-100001-10 | 0.374" in. | 6 | 0.530" | 0.510" | 0.630" |
| 700-100002 | 700-100002-10 | 0.374" in. | 6 | 0.562" | 0.510" | 0.650" |
| 700-100011 | 700-100011-10 | 0.375" in. | 5 | 0.562" | 0.510" | 0.660" |
| 700-100035 | 700-100035-10 | 0.375" in. | 7 | 0.562" | 0.405" | 0.664" |
| 700-100036 | 700-100036-10 | 0.375" in. | 7 | 0.625" | 0.390" | 0.720" |



Custom Tappets Available By Request

Kibblewhite® tappets are machined from billet and designed using advanced Finite Element Analysis.



Tappets

| Qty.1 Part Number | A | B | C | D | E | F |
|----------------------|-------------------|--------|--------|--------|--------|--------|
| 600-099800 | 24.00mm / 0.9440" | 0.895" | 0.669" | 0.079" | 0.300" | 0.106" |
| 600-100001 | 26.00mm / 1.0232" | 0.970" | 0.790" | 0.080" | 0.236" | 0.115" |
| 600-100050 | 26.50mm / 1.0420" | 0.992" | 0.748" | 0.079" | 0.300" | 0.106" |
| 600-100200 | 28.00mm / 1.1016" | 1.040" | 0.860" | 0.100" | 0.310" | 0.135" |
| 600-100202 | 28.00mm / 1.1020" | 1.038" | 0.765" | 0.075" | 0.320" | 0.098" |
| 600-100250 | 28.50mm / 1.1220" | 1.058" | 0.765" | 0.080" | 0.320" | 0.098" |
| 600-100500 | 31.00mm / 1.2190" | 1.166" | 0.975" | 0.079" | 0.325" | 0.108" |
| 600-100650 | 32.50mm / 1.2785" | 1.216" | 0.910" | 0.079" | 0.325" | 0.100" |
| 600-100700 | 33.00mm / 1.2980" | 1.235" | 1.025" | 0.090" | 0.340" | 0.115" |
| 600-100750 | 33.50mm / 1.3184" | 1.250" | 1.025" | 0.090" | 0.312" | 0.115" |
| 600-100800 | 34.00mm / 1.3380" | 1.258" | 1.025" | 0.090" | 0.312" | 0.115" |
| 600-100900 | 35.00mm / 1.3765" | 1.312" | 1.000" | 0.105" | 0.340" | 0.115" |
| 600-101095 | 36.95mm / 1.4550" | 1.388" | 1.040" | 0.090" | 0.400" | 0.105" |
| 600-101100 | 37.00mm / 1.4562" | 1.390" | 1.040" | 0.135" | 0.400" | 0.115" |
| 600-101300 | 39.00mm / 1.5350" | 1.457" | 1.040" | 0.135" | 0.400" | 0.145" |
| 600-100525 | 31.15mm / 1.2262" | 1.166" | 0.800" | 0.074" | 0.325" | 0.108" |

Kibblewhite® Engineers design out 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 barstock. 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.

For all the application available for Kibblewhite's individual products, please refer online to the tappet section of the www.kpmi.us website, under **Precision Components and Valve Blanks**

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" |



* KPMI New Product



SEATS (NICKEL ALUMINUM BRONZE)

TITANIUM valves require the use of Kibblewhite® Nickel Aluminum Bronze valve seat inserts.

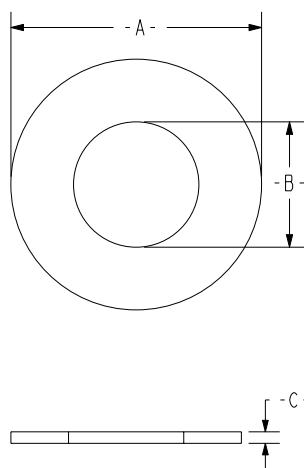
This premium copper based alloy is designed specifically for use with titanium valves. These seats are the product of a 2 year Kibblewhite® R&D effort during which we recorded and verified results with 4&5 valve singles, domestic and foreign sport compacts, multi valve and single cylinder street bikes, 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" |



SHIMS BOOSTER / VALVE SPRING

COMPONENTS



Shims - Booster / Valve Spring

| Qty 10 Part No. | Qty 25 Part No. | Qty 50 Part No. | - A - | - B - | - C - |
|--------------------|--------------------|--------------------|--------|--------|--------|
| 900-200001-10 | -25 | -50 | 1.437" | 0.645" | 0.015" |
| 900-200002-10 | -25 | -50 | 1.437" | 0.645" | 0.030" |
| 900-200003-10 | -25 | -50 | 1.437" | 0.645" | 0.060" |
| 900-200004-10 | -25 | -50 | 0.760" | 0.578" | 0.060" |
| 900-200005-10 | -25 | -50 | 0.760" | 0.578" | 0.030" |
| 900-200006-10 | -25 | -50 | 0.760" | 0.578" | 0.015" |
| 900-200007-10 | -25 | -50 | 0.920" | 0.520" | 0.030" |
| 900-200008-10 | -25 | -50 | 0.920" | 0.520" | 0.060" |
| 900-200009-10 | -25 | -50 | 1.218" | 0.875" | 0.060" |
| 900-200010-10 | -25 | -50 | 1.156" | 0.828" | 0.030" |
| 900-200011-10 | -25 | -50 | 1.020" | 0.735" | 0.125" |
| 900-200012-10 | -25 | -50 | 1.100" | 0.721" | 0.060" |
| 900-200013-10 | -25 | -50 | 1.250" | 0.812" | 0.060" |
| 900-200014-10 | -25 | -50 | 1.250" | 0.812" | 0.030" |
| 900-200015-10 | -25 | -50 | 1.125" | 0.719" | 0.030" |
| 900-200016-10 | -25 | -50 | 1.125" | 0.719" | 0.060" |
| 900-200017-10 | -25 | -50 | 1.312" | 0.765" | 0.030" |
| 900-200018-10 | -25 | -50 | 1.218" | 0.875" | 0.030" |
| 900-200019-10 | -25 | -50 | 1.100" | 0.719" | 0.030" |
| 900-200020-10 | -25 | -50 | 1.000" | 0.688" | 0.060" |
| 900-200021-10 | -25 | -50 | 1.000" | 0.765" | 0.060" |
| 900-200022-10 | -25 | -50 | 1.438" | 1.059" | 0.030" |
| 900-200023-10 | -25 | -50 | 1.000" | 0.688" | 0.030" |
| 900-200024-10 | -25 | -50 | 1.000" | 0.688" | 0.015" |
| 900-200025-10 | -25 | -50 | 1.360" | 1.000" | 0.060" |
| 900-200026-10 | -25 | -50 | 1.360" | 1.000" | 0.030" |
| 900-200027-10 | -25 | -50 | 1.360" | 1.000" | 0.015" |
| 900-200028-10 | -25 | -50 | 1.500" | 1.031" | 0.060" |
| 900-200029-10 | -25 | -50 | 1.500" | 1.031" | 0.030" |
| 900-200030-10 | -25 | -50 | 1.500" | 1.031" | 0.015" |
| 900-200031-10 | -25 | -50 | 1.000" | 0.765" | 0.030" |

Shims - Booster / Valve Spring

| Qty 10 Part No. | Qty 25 Part No. | Qty 50 Part No. | - A - | - B - | - C - |
|--------------------|--------------------|--------------------|--------|--------|--------|
| 900-200032-10 | -25 | -50 | 1.000" | 0.765" | 0.015" |
| 900-200033-10 | -25 | -50 | 1.218" | 0.875" | 0.015" |
| 900-200034-10 | -25 | -50 | 1.100" | 0.719" | 0.015" |
| 900-200035-10 | -25 | -50 | 1.250" | 0.625" | 0.060" |
| 900-200036-10 | -25 | -50 | 1.250" | 0.625" | 0.030" |
| 900-200037-10 | -25 | -50 | 1.250" | 0.625" | 0.015" |
| 900-200038-10 | -25 | -50 | 0.970" | 0.445" | 0.060" |
| 900-200039-10 | -25 | -50 | 0.970" | 0.445" | 0.030" |
| 900-200040-10 | -25 | -50 | 0.970" | 0.445" | 0.015" |
| 900-200041-10 | -25 | -50 | 0.915" | 0.640" | 0.060" |
| 900-200042-10 | -25 | -50 | 0.915" | 0.640" | 0.030" |
| 900-200043-10 | -25 | -50 | 0.915" | 0.640" | 0.015" |
| 900-200044-10 | -25 | -50 | 0.796" | 0.515" | 0.060" |
| 900-200045-10 | -25 | -50 | 0.796" | 0.515" | 0.030" |
| 900-200046-10 | -25 | -50 | 0.796" | 0.515" | 0.015" |
| 900-200047-10 | -25 | -50 | 1.312" | 0.765" | 0.060" |
| 900-200048-10 | -25 | -50 | 1.312" | 0.765" | 0.015" |
| 900-200049-10 | -25 | -50 | 1.480" | 0.703" | 0.060" |
| 900-200050-10 | -25 | -50 | 1.480" | 0.703" | 0.030" |
| 900-200051-10 | -25 | -50 | 1.480" | 0.703" | 0.015" |
| 900-200052-10 | -25 | -50 | 1.640" | 0.635" | 0.060" |
| 900-200053-10 | -25 | -50 | 1.640" | 0.635" | 0.030" |
| 900-200054-10 | -25 | -50 | 1.640" | 0.635" | 0.015" |
| 900-200055-10 | -25 | -50 | 1.500" | 0.765" | 0.060" |
| 900-200056-10 | -25 | -50 | 1.500" | 0.765" | 0.030" |
| 900-200057-10 | -25 | -50 | 1.500" | 0.765" | 0.015" |
| 900-200058-10 | -25 | -50 | 1.500" | 0.562" | 0.060" |
| 900-200059-10 | -25 | -50 | 1.500" | 0.562" | 0.030" |
| 900-200060-10 | -25 | -50 | 1.500" | 0.562" | 0.015" |
| 900-200061-10 | -25 | -50 | 1.247" | 0.518" | 0.060" |
| 900-200062-10 | -25 | -50 | 1.247" | 0.518" | 0.030" |
| 900-200063-10 | -25 | -50 | 1.247" | 0.518" | 0.015" |



SHIMS VALVE ADJUSTMENT

7.5mm Shims

| Part # - Qty 1 | Part # - Qty 10 | Shim Height |
|----------------|-----------------|-------------|
| 900-300075 | 900-300075-10 | 1.20mm |
| 900-300076 | 900-300076-10 | 1.25mm |
| 900-300077 | 900-300077-10 | 1.30mm |
| 900-300078 | 900-300078-10 | 1.35mm |
| 900-300079 | 900-300079-10 | 1.40mm |
| 900-300080 | 900-300080-10 | 1.45mm |
| 900-300081 | 900-300081-10 | 1.50mm |
| 900-300082 | 900-300082-10 | 1.55mm |
| 900-300083 | 900-300083-10 | 1.60mm |
| 900-300084 | 900-300084-10 | 1.65mm |
| 900-300085 | 900-300085-10 | 1.70mm |
| 900-300086 | 900-300086-10 | 1.75mm |
| 900-300087 | 900-300087-10 | 1.80mm |
| 900-300088 | 900-300088-10 | 1.85mm |
| 900-300089 | 900-300089-10 | 1.90mm |
| 900-300090 | 900-300090-10 | 1.95mm |
| 900-300091 | 900-300091-10 | 2.00mm |
| 900-300092 | 900-300092-10 | 2.05mm |
| 900-300093 | 900-300093-10 | 2.10mm |
| 900-300094 | 900-300094-10 | 2.15mm |
| 900-300095 | 900-300095-10 | 2.20mm |
| 900-300096 | 900-300096-10 | 2.25mm |
| 900-300097 | 900-300097-10 | 2.30mm |
| 900-300098 | 900-300098-10 | 2.35mm |
| 900-300099 | 900-300099-10 | 2.40mm |
| 900-300100 | 900-300100-10 | 2.45mm |
| 900-300101 | 900-300101-10 | 2.50mm |
| 900-300102 | 900-300102-10 | 2.55mm |
| 900-300103 | 900-300103-10 | 2.60mm |
| 900-300104 | 900-300104-10 | 2.65mm |
| 900-300105 | 900-300105-10 | 2.70mm |
| 900-300106 | 900-300106-10 | 2.75mm |
| 900-300107 | 900-300107-10 | 2.80mm |
| 900-300108 | 900-300108-10 | 2.85mm |
| 900-300109 | 900-300109-10 | 2.90mm |
| 900-300110 | 900-300110-10 | 2.95mm |
| 900-300111 | 900-300111-10 | 3.00mm |
| 900-300112 | 900-300112-10 | 3.05mm |
| 900-300113 | 900-300113-10 | 3.10mm |
| 900-300114 | 900-300114-10 | 3.15mm |
| 900-300115 | 900-300115-10 | 3.20mm |
| 900-300116 | 900-300116-10 | 3.25mm |
| 900-300117 | 900-300117-10 | 3.30mm |
| 900-300118 | 900-300118-10 | 3.35mm |
| 900-300119 | 900-300119-10 | 3.40mm |
| 900-300120 | 900-300120-10 | 3.45mm |
| 900-300121 | 900-300121-10 | 3.50mm |

9.5mm Shims

| Part # - Qty 1 | Part # - Qty 10 | Shim Height |
|----------------|-----------------|-------------|
| 900-300001 | 900-300001-10 | 1.20mm |
| 900-300002 | 900-300002-10 | 1.25mm |
| 900-300003 | 900-300003-10 | 1.30mm |
| 900-300004 | 900-300004-10 | 1.35mm |
| 900-300005 | 900-300005-10 | 1.40mm |
| 900-300006 | 900-300006-10 | 1.45mm |
| 900-300007 | 900-300007-10 | 1.50mm |
| 900-300008 | 900-300008-10 | 1.55mm |
| 900-300009 | 900-300009-10 | 1.60mm |
| 900-300010 | 900-300010-10 | 1.65mm |
| 900-300011 | 900-300011-10 | 1.70mm |
| 900-300012 | 900-300012-10 | 1.75mm |
| 900-300013 | 900-300013-10 | 1.80mm |
| 900-300014 | 900-300014-10 | 1.85mm |
| 900-300015 | 900-300015-10 | 1.90mm |
| 900-300016 | 900-300016-10 | 1.95mm |
| 900-300017 | 900-300017-10 | 2.00mm |
| 900-300018 | 900-300018-10 | 2.05mm |
| 900-300019 | 900-300019-10 | 2.10mm |
| 900-300020 | 900-300020-10 | 2.15mm |
| 900-300021 | 900-300021-10 | 2.20mm |
| 900-300022 | 900-300022-10 | 2.25mm |
| 900-300023 | 900-300023-10 | 2.30mm |
| 900-300024 | 900-300024-10 | 2.35mm |
| 900-300025 | 900-300025-10 | 2.40mm |
| 900-300026 | 900-300026-10 | 2.45mm |
| 900-300027 | 900-300027-10 | 2.50mm |
| 900-300028 | 900-300028-10 | 2.55mm |
| 900-300029 | 900-300029-10 | 2.60mm |
| 900-300030 | 900-300030-10 | 2.65mm |
| 900-300031 | 900-300031-10 | 2.70mm |
| 900-300032 | 900-300032-10 | 2.75mm |
| 900-300033 | 900-300033-10 | 2.80mm |
| 900-300034 | 900-300034-10 | 2.85mm |
| 900-300035 | 900-300035-10 | 2.90mm |
| 900-300036 | 900-300036-10 | 2.95mm |
| 900-300037 | 900-300037-10 | 3.00mm |
| 900-300038 | 900-300038-10 | 3.05mm |
| 900-300039 | 900-300039-10 | 3.10mm |
| 900-300040 | 900-300040-10 | 3.15mm |
| 900-300041 | 900-300041-10 | 3.20mm |
| 900-300042 | 900-300042-10 | 3.25mm |
| 900-300043 | 900-300043-10 | 3.30mm |
| 900-300044 | 900-300044-10 | 3.35mm |
| 900-300045 | 900-300045-10 | 3.40mm |



9.5mm Shims

| Part # - Qty 1 | Part # - Qty 10 | Shim Height |
|----------------|-----------------|-------------|
| 900-300046 | 900-300046-10 | 3.45mm |
| 900-300047 | 900-300047-10 | 3.50mm |

13mm Shims

| Part # - Qty 1 | Part # - Qty 10 | Shim Height |
|----------------|-----------------|-------------|
| 900-300050 | 900-300050-10 | 2.05mm |
| 900-300051 | 900-300051-10 | 2.10mm |
| 900-300052 | 900-300052-10 | 2.15mm |
| 900-300053 | 900-300053-10 | 2.20mm |
| 900-300054 | 900-300054-10 | 2.25mm |
| 900-300055 | 900-300055-10 | 2.30mm |
| 900-300056 | 900-300056-10 | 2.35mm |
| 900-300057 | 900-300057-10 | 2.40mm |
| 900-300058 | 900-300058-10 | 2.45mm |
| 900-300059 | 900-300059-10 | 2.50mm |
| 900-300060 | 900-300060-10 | 2.55mm |
| 900-300061 | 900-300061-10 | 2.60mm |
| 900-300062 | 900-300062-10 | 2.65mm |
| 900-300063 | 900-300063-10 | 2.70mm |
| 900-300064 | 900-300064-10 | 2.75mm |
| 900-300065 | 900-300065-10 | 2.80mm |
| 900-300066 | 900-300066-10 | 2.85mm |
| 900-300067 | 900-300067-10 | 2.90mm |
| 900-300068 | 900-300068-10 | 2.95mm |
| 900-300069 | 900-300069-10 | 3.00mm |
| 900-300070 | 900-300070-10 | 3.05mm |
| 900-300071 | 900-300071-10 | 3.10mm |



VALVE TRAIN TERMINOLOGY

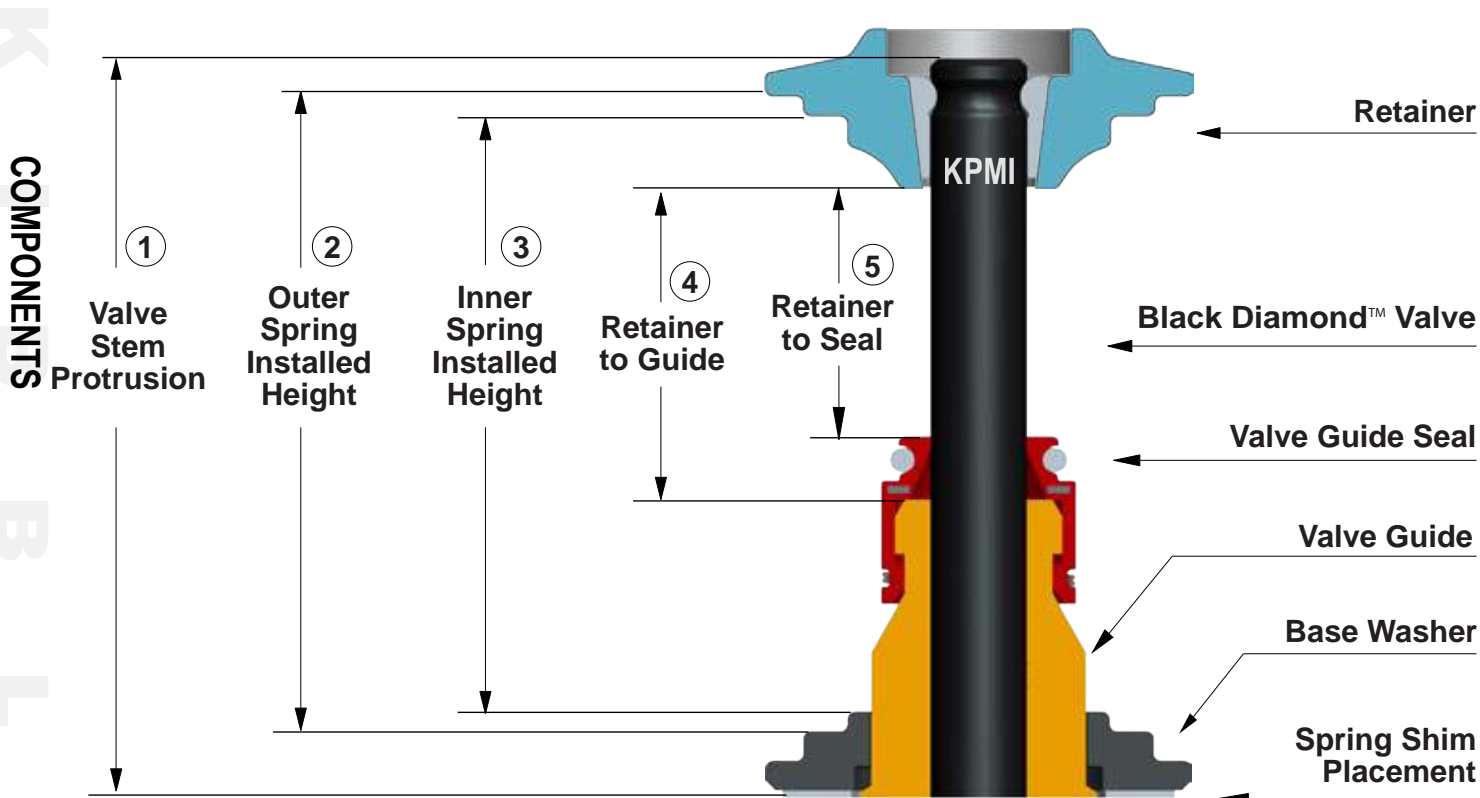


Figure 1

A) Valve Train Terminology

1. Stem Protrusion is measured from the tip of the valve to the cylinder head. **(See Figure 1)**
2. Outer Spring Installed Height is measured from where the outer spring contacts the retainer and the lower collar when assembled. **(See Figure 1)**
3. Inner Spring Installed Height is measured from where the inner spring contact the retainer and the lower collar when assembled. **(See Figure 1)**
4. Retainer to Guide clearance is the distance between the valve guide (w/o seal) and the bottom of retainer, with the valve in the closed position **(See Figure 1 along with Notes 3 & 4)**
5. Retainer to Seal clearance is the distance between the valve stem seal and the bottom of retainer, with the valve in the closed position. **(See Figure 1 along with Notes 3 & 4)**

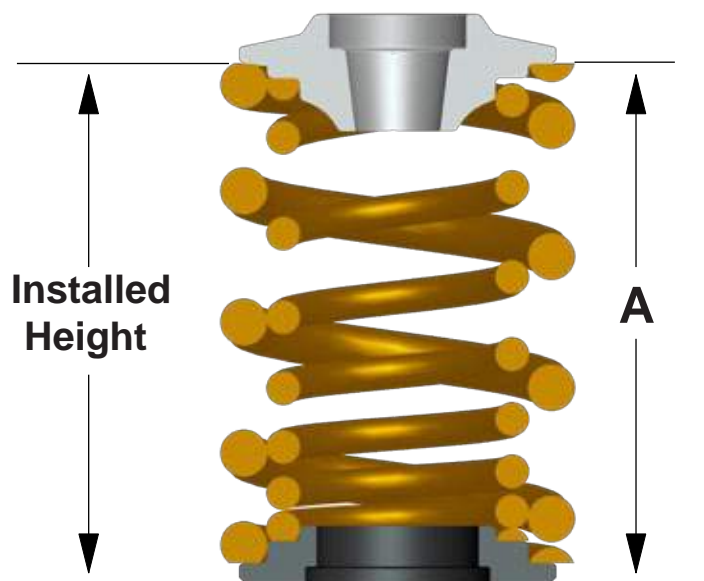


Figure 2

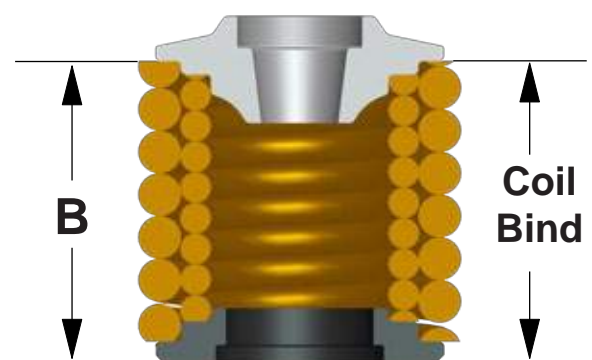


Figure 3

B) Installed Height

1. In Figure 2 the installed height is measured from where the outer spring contacts the retainer and the lower collar. This measurement is taken when the valve, lower collar, retainer and keepers are assembled in the cylinder head.

C) Coil Bind / Solid Height

1. In Figure 3 the coil bind is determined by compressing the springs with the retainer and the lower collar in place, making sure there is no more travel (a vice can be used for this operation). Then measure the distance between the retainer and lower collar where the outer spring contacts them.

D) Notes


1. The difference between the installed height and the coil bind height is considered "Free-Travel".
2. Free-travel should always be gross valve lift +0.060" for safe operation.
3. Retainer to seal or retainer to guide clearance should also be gross valve lift +0.060" for safe operation.
4. Failure to check valve train clearances can result in serious damage to an engine.

KPMI® CUSTOM VALVE ORDER FORM

COMPONENTS

B L E W H I T

190



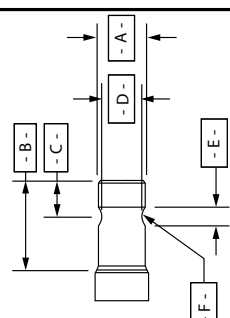
Groove Dimensions

| | | | |
|------------------|---------------|-----|---------------|
| | Radius Groove | | Triple Groove |
| | Square Groove | | Triple Groove |
| Groove Location: | | | |
| Groove Minor Ø: | | | |
| Groove Width: | | | |
| Groove Radius: | | N/A | |
| Groove Spacing: | | N/A | |

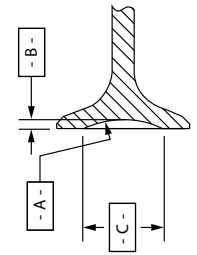
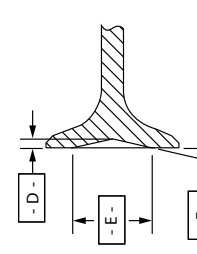
Groove Location is measured from the tip of the valve to the center of the radius or to the top of the square groove (for the triple groove it is measured from the tip of the valve to the center of the middle radius)

Groove Detail (If applicable)

| | | |
|-----|---|--|
| -A- | Undercut Ø: | |
| -B- | Undercut Length: | |
| -C- | Groove Location: | |
| -D- | Groove Ø: | |
| -E- | Groove Width: <small>$\frac{L+2R}{2} \times (D) \times (A/D)$</small> | |
| -F- | Groove Radius: | |



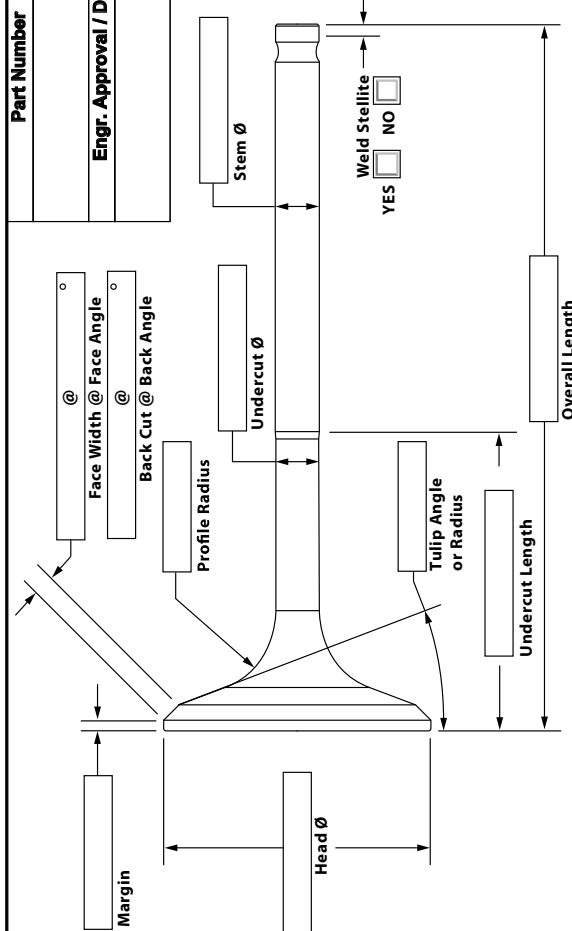
Dish Dimensions

| Radius Dish | | Angle Dish | |
|-------------|--------------|------------|-------------|
| -A- | Dish Radius: | -D- | Dish Depth: |
| -B- | Dish Depth: | -E- | Dish Width: |
| -C- | Dish Width: | -F- | Dish Angle: |

KPMI Custom Valve Order Form

| | |
|-----------------------|--|
| Part Number | |
| Engr. Approval / Date | |



Additional Specifications

| | |
|-------------------------------|------------------------------|
| Rocker Arm | YES <input type="checkbox"/> |
| Rocker Arm (w/ Elephant Foot) | YES <input type="checkbox"/> |
| Cam Follower (Shim & Bucket) | YES <input type="checkbox"/> |
| Using Lash Cap | YES <input type="checkbox"/> |
| Intake Valve | YES <input type="checkbox"/> |
| Exhaust Valve | YES <input type="checkbox"/> |

Customer Information


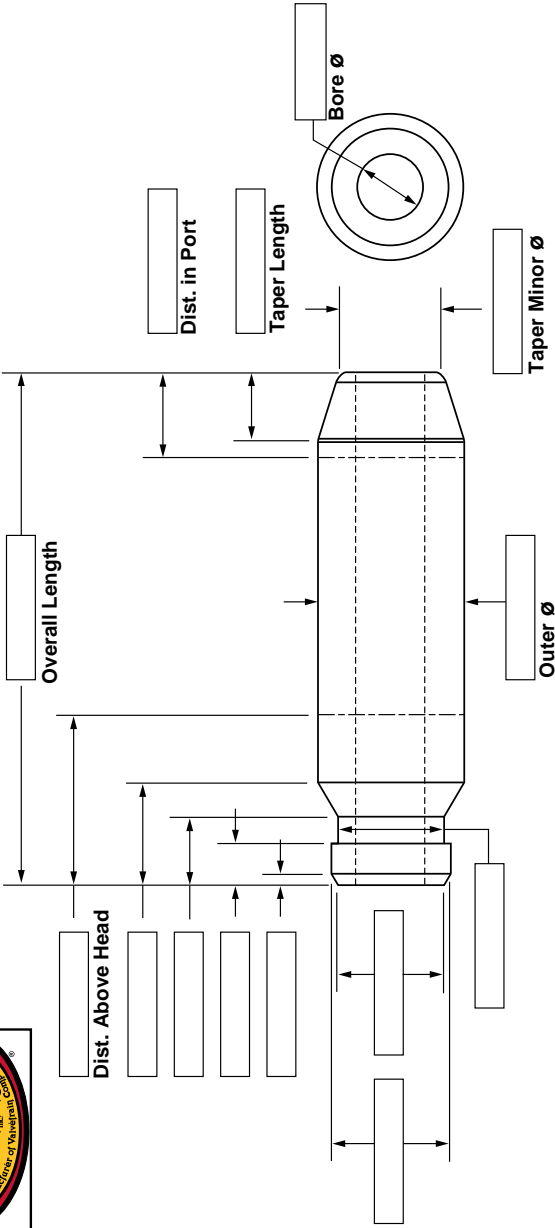
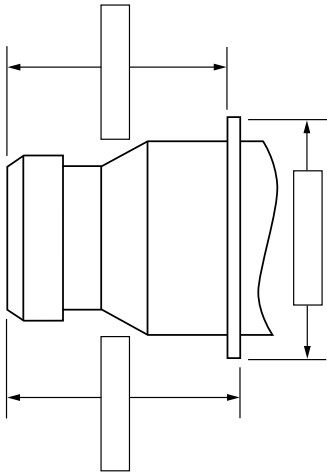
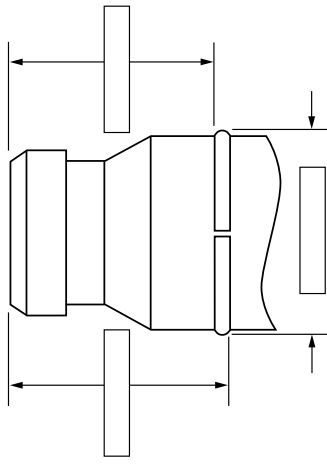
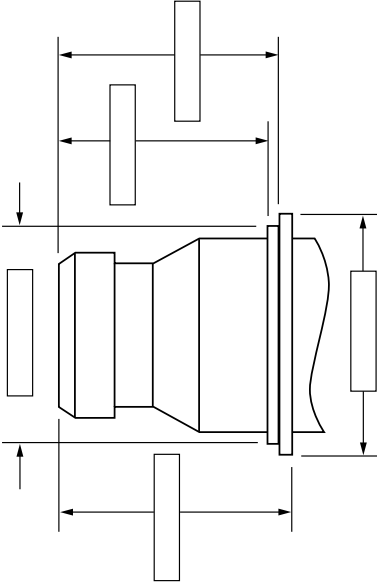
| | | | |
|---------------|--|-------|--------|
| Contact: | | | |
| Company: | | | |
| Phone: | Fax: | Date: | |
| E-Mail: | Make: | Disp: | Years: |
| Model: | | | |
| Material: | <input type="checkbox"/> S.S. <input type="checkbox"/> Ti. <input type="checkbox"/> Other: _____ | | |
| Blank Part #: | | | |

Notes:

Customer Approval:

Date:

KPMI® CUSTOM GUIDE ORDER FORM

|  KPMI Custom Guide Order Form | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|-------|-----------------------|-------|----------------------|--|----------|--|----------|--|--------|--|------|-------|---------|--|-----------|--|--------|--|
| <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  </div> <div style="width: 50%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">Part Number</td> </tr> <tr> <td colspan="2" style="text-align: center;">Engr. Approval / Date</td> </tr> <tr> <td colspan="2" style="text-align: center;">Customer Information</td> </tr> <tr> <td style="width: 50%;">Company:</td> <td style="width: 50%;"></td> </tr> <tr> <td>Contact:</td> <td></td> </tr> <tr> <td>Phone:</td> <td></td> </tr> <tr> <td>Fax:</td> <td>Date:</td> </tr> <tr> <td>E-mail:</td> <td></td> </tr> <tr> <td>Material:</td> <td> <input type="checkbox"/> Cast Iron <input type="checkbox"/> Ni Al Bronze <input type="checkbox"/> Manganese <input type="checkbox"/> </td> </tr> <tr> <td colspan="2">Notes:</td> </tr> </table> </div> </div> | | Part Number | | Engr. Approval / Date | | Customer Information | | Company: | | Contact: | | Phone: | | Fax: | Date: | E-mail: | | Material: | <input type="checkbox"/> Cast Iron <input type="checkbox"/> Ni Al Bronze <input type="checkbox"/> Manganese <input type="checkbox"/> | Notes: | |
| Part Number | | | | | | | | | | | | | | | | | | | | | |
| Engr. Approval / Date | | | | | | | | | | | | | | | | | | | | | |
| Customer Information | | | | | | | | | | | | | | | | | | | | | |
| Company: | | | | | | | | | | | | | | | | | | | | | |
| Contact: | | | | | | | | | | | | | | | | | | | | | |
| Phone: | | | | | | | | | | | | | | | | | | | | | |
| Fax: | Date: | | | | | | | | | | | | | | | | | | | | |
| E-mail: | | | | | | | | | | | | | | | | | | | | | |
| Material: | <input type="checkbox"/> Cast Iron <input type="checkbox"/> Ni Al Bronze <input type="checkbox"/> Manganese <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | |
| Notes: | | | | | | | | | | | | | | | | | | | | | |
| Shouldered Guide  | Snap Ring Guide  | Stepped Shoulder Guide  | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Make:</td> <td style="width: 33%;">Model:</td> <td style="width: 33%;">Disp:</td> </tr> <tr> <td colspan="3">Years:</td> </tr> </table> | | | Make: | Model: | Disp: | Years: | | | | | | | | | | | | | | | |
| Make: | Model: | Disp: | | | | | | | | | | | | | | | | | | | |
| Years: | | | | | | | | | | | | | | | | | | | | | |

KIBBLEWHITE™ PRECISION MACHINING, INC. 580H Crespi Dr. Pacifica, CA 94044 PH: 650-557-2046 FX: 650-359-8574

www.kpmi.us



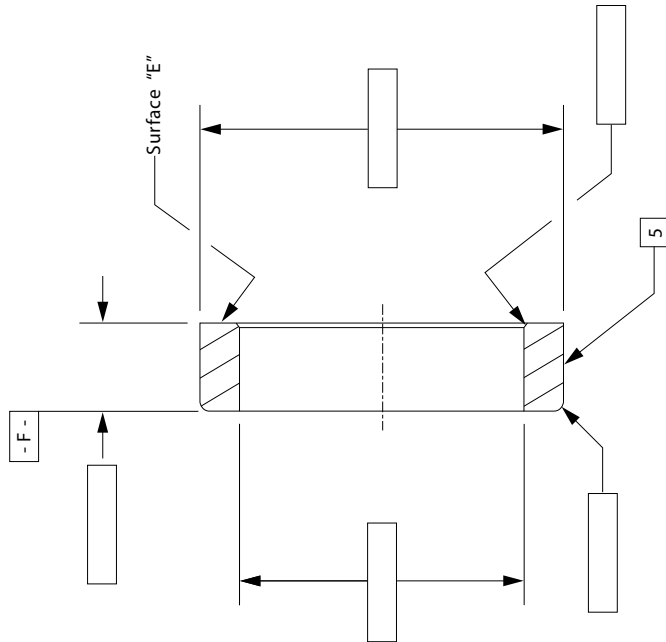
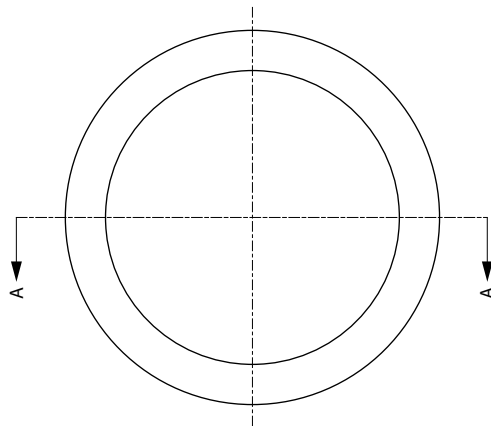
KPMI® CUSTOM SEAT ORDER FORM

COMPONENTS

KPMI Custom Seat Order Form



Part Number:



Customer Information

Contact Name:

Company Name:

Phone:

Make:

Disp:

Date:

Model:

Years:

Customer Approval:

Date:

Seat Information

Additional Notes:

KPMI Blank P/N:

Material:

☐ SAE 630 ☐ G2 Cast Iron

Total Cost Per Seat:

(KPMI use only)

Total Cost:

(KPMI use only)

Qty.

NOTES:

1. Break and deburr all sharp edges 0.010" X 45°
2. Finish O.D. to RMS-16 parallel and round within 0.0004" (For wall thickness less than 0.120", parallel and round within 0.0008")
3. Surface "E" parallel to Datum F within 0.002"
4. I.D. and O.D. must be concentric within 0.010" TIR
5. I.D. and O.D. must be parallel within 0.002"
6. O.D. must be perpendicular to Datum F within 0.002"
7. (U.O.S.) Unless Otherwise Specified

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KPMI[®] PRODUCT ORDER FORM



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ORDER FORM

DATE: _____ BY: _____

CUST #: _____ P.O. #: _____

BILL TO: _____

SHIP TO: _____

CONTACT NAME: _____

STREET: _____

CITY: _____

ZIP CODE: _____ COUNTRY: _____

TELEPHONE: _____ FAX NUMBER: _____

UPS

☐ RED - 1 Day
☐ BLUE - 2 Day
☐ ORANGE - 3 Day
☐ GROUND

FEDEX

☐ RED - 1 Day
☐ BLUE - 2 Day
☐ SAVER - 3 Day

USPS

☐ AIR
☐ PRIORITY
☐ EXPRESS

WEIGHT: _____

☐ CREDIT CARD
☐ WILL CALL
☐ COD
☐ OPEN ACCT.

SHIP CHRG \$: _____

INS \$: _____

COD \$: _____

MISC \$: _____

TOTAL \$: _____

| ITEM # | QTY ORDERED | KPMI PART NO. / DESCRIPTION | PRICE | NOTES |
|--------|-------------|-----------------------------|-------|-------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |

NAME ON CARD: _____

CARD NUMBER: _____

EXP DATE: _____ SEC CODE: _____

CONTACT IF BACK ORDERED: Y _____ N _____

☐ VISA
☐ MASTERCARD
☐ AMER. EXP.
☐ OTHER

COMMENTS: _____



KPMI® DEALER APPLICATION

Kibblewhite® Precision Machining, Inc. Dealer / Credit Application

Page 1 of 2

Company Name _____
Street Address _____ City _____ State _____ Zip _____
Attn: _____ County _____ Country _____
Phone # _____ Fax# _____ Resale# _____
Please check one: ☐ Partnership ☐ Sole Proprietor ☐ LLC ☐ Corporation Date Business Started _____
Type of Business: ☐ Speed Shop ☐ Machine Shop ☐ Parts Store / Warehouse ☐ Other _____
Principal/Owner(s) Name _____ Title _____ Phone Number _____
Address _____ City _____ State _____ Zip _____
Soc. Sec# _____ Fed. ID# _____ WA Contractor # _____ Expires _____
Tres/Controller _____ Years in business under this ownership, at this location _____
If in business less than one year, please submit prior business work history.
Name of Bank _____ Branch _____ Phone _____
Address _____ City _____ State _____ Zip _____
Years at this bank _____ Account# _____

Trade References: Please list two firms within the industry and one firm outside the industry.

1. Company _____ Phone _____ Fax _____
Address _____ City _____ State _____ Zip _____
2. Company _____ Phone _____ Fax _____
Address _____ City _____ State _____ Zip _____
3. Company _____ Phone _____ Fax _____
Address _____ City _____ State _____ Zip _____

From the above information please establish the company in question as a ☐ C.O.D. (Co check OK) or ☐ Credit Card account with KIBBLEWHITE PRECISION MACHINING INC.. I understand that all account balances are payable to KIBBLEWHITE PRECISION MACHINING, Inc. at the address specified on invoices or statements. I also understand that interest will be charged on past due balances at a rate not to exceed the applicable legal maximum.

If establishing a credit card account please indicate the following:

Type of card _____ Card Number _____ Exp. Date _____
Signature _____ Printed _____ Date _____
Title _____

Please provide at least two of the following:

- ☐ Copy of your business license ☐ Copy of your state sales tax certificate ☐ Copy of an ad from any trade Magazine ☐ Copy of Yellow Pages ad

Applicant's Authorization & Agreement

In support of this application KIBBLEWHITE PRECISION MACHINING INC. is hereby authorized to obtain credit and/or financial information from my/our bank(s), other financial institutions or commercial firms with whom I/we have done business. It is understood that any such credit and/or financial information will be held in strict confidence and used only in consideration of this application.

Upon approval of this application, it is agreed that each invoice will be paid in full upon receipt or in accordance with the terms of sale as stated on the invoices(s). Should I/we not pay KIBBLEWHITE PRECISION MACHINING INC. according to term, it is understood that credit privileges may be withdrawn. Should KIBBLEWHITE PRECISION MACHINING INC. find it necessary to obtain assistance in collecting any past due balance, I/we agree to pay interest at the rate of 1.5% per month (or such other rate allowable by State law), reasonable attorney fees, collection fees and/or court costs allowable by law. At KIBBLEWHITE PRECISION MACHINING INC. option, jurisdiction and venue of any suit brought to collect this account shall be had in San Mateo County, CA. A copy of this statement and application has been received.

SIGNATURE _____ TITLE _____ Fax _____
(must be signed by an officer or principal of the firm)

PERSONAL GUARANTEE

The undersigned, [print name] _____, of the applicant corporation/company hereby agrees to the above terms and conditions and assumes personal responsibility for payment of said corporation's/company's account. It is understood that credit would not be extended to said corporation/company without this assumption of liability.

(owner, partner or corporate officer)

CREDIT DEPARTMENT USE ONLY

CUSTOMER# _____ CREDIT LIMIT _____ TERMS CODE _____
CREDIT MANAGER SIGNATURE _____ DATE _____



KPMI® DEALER APPLICATION

Kibblewhite® Precision Machining, Inc. Dealer / Credit Application

Page 2 of 2

The only way to become and sustain KPMI Dealer status is to meet the following requirements:

Minimun Dealer Requirements

| Full Dealer Status (all products available) |
|--|
| <ul style="list-style-type: none">• 400 U\$D Initial Order (Pre - Paid Only)• 100 U\$D minimum orders thereafter• Purchase a minimum of 1,200 U\$D of product per calendar year• Credit based on approval |

Company Name _____

Number of active customers _____ Approximate sales last 12 Months _____

Primary Focus of your business: _____

Types pf equipment served: Motorcycle ☐ Automobile ☐ ATV ☐ Other _____

Percentage of business related to engine components: _____ %

Other engine components marketed regularly: _____

KPMI components would be sold as: KPMI Brand ☐ Bundled with other components ☐ Repackaged in your packaging ☐ Used in OEM applications ☐

Other _____

Geographical areas currently covered in your dealer network:

- | | | | | |
|---|---|---|--|---|
| <input type="checkbox"/> US Northwest | <input type="checkbox"/> US Southwest | <input type="checkbox"/> US Midwest | <input type="checkbox"/> US Southeast | <input type="checkbox"/> US Northeast |
| <input type="checkbox"/> California | <input type="checkbox"/> Canada (NE & Quebec) | <input type="checkbox"/> Canada Ontario | <input type="checkbox"/> Canadian West | <input type="checkbox"/> Canadian Prairie |
| <input type="checkbox"/> Mexico | <input type="checkbox"/> Other South America | <input type="checkbox"/> Brazil | <input type="checkbox"/> Other Central America | <input type="checkbox"/> European Union |
| <input type="checkbox"/> Australia | <input type="checkbox"/> New Zealand | <input type="checkbox"/> Japan | <input type="checkbox"/> Korea | <input type="checkbox"/> Germany |
| <input type="checkbox"/> Other Asia _____ | <input type="checkbox"/> Other _____ | | | |

Vehicle Manufacturers currently supported by your dealer network:

- | | | | | |
|--|--|-------------------------------------|-------------------------------------|----------------------------------|
| <input type="checkbox"/> Harley-Davidson | <input type="checkbox"/> Indian | <input type="checkbox"/> Norton | <input type="checkbox"/> Triumph | <input type="checkbox"/> Honda |
| <input type="checkbox"/> Kawasaki | <input type="checkbox"/> Yamaha | <input type="checkbox"/> Suzuki | <input type="checkbox"/> BMW | <input type="checkbox"/> Rotax |
| <input type="checkbox"/> BSA | <input type="checkbox"/> Ducati | <input type="checkbox"/> Moto Guzzi | <input type="checkbox"/> Bombardier | <input type="checkbox"/> Polaris |
| <input type="checkbox"/> Acura | <input type="checkbox"/> Mitsubishi | <input type="checkbox"/> Ford | <input type="checkbox"/> Dodge | <input type="checkbox"/> Porsche |
| <input type="checkbox"/> Husqvarna | <input type="checkbox"/> Other Not Listed: _____ | | | |

Trade magazines your advertisements appear in: _____

How KPMI product would fit into your business: _____

* No parts manufactured or sold by Kibblewhite Precision Machining, Inc. are licensed manufactured, sponsored, or endorsed by Harley Davidson, Inc. Use of the word Harley Davidson, various model names and designations are provided solely for reference. There is no affiliation between Kibblewhite Precision Machining, Inc. and Harley-Davidson, Inc. nor is any affiliation implied.

** All other brand names, trademarks or registered trademarks used in this document are property of there respective holders





JUST ARRIVED

SNAPBACKS / BEANIES FIND YOUR STYLE TODAY !

The first of its kind Kibblewhite® hats. This newly redesign logo and styling with unique looks will make you stand out. This new series are used by all Kibblewhite® Racing teams.

• SNAPBACKS



- Red, Retail Price \$26.95
- Front patches with embroidery.
- Pro bill.
- No curve.
- 80% acrylic, 20% cotton.



- Black, Retail Price \$26.95
- Front patches with embroidery.
- Pro bill.
- No curve.
- 80% acrylic, 20% cotton.



- Cream, Retail Price \$26.95
- Front patches with embroidery.
- Pro bill.
- No curve.
- 80% acrylic, 20% cotton.



- Black and Red, Retail Price \$26.95
- Front patches with embroidery.
- Pro bill.
- No curve.
- 80% acrylic, 20% cotton.



- Black and White, Retail Price \$26.95
- Trucker Hat
- Front patches with embroidery.
- Medium profile with natural curve bill.
- 6 panel mesh back.
- 47% Cotton, 50% polyester.



- White, Retail Price \$26.95
- Trucker Hat
- Front patches with embroidery.
- Medium profile with natural curve bill.
- 6 panel mesh back.
- 47% Cotton, 50% polyester.

• BEANIES



- Black, Navy, and Red, Retail Price \$21.24
- One Size
- Ribbed knit. Logo Patch
- 100% Acrylic

• STICKERS



| Item Detail | | |
|----------------|------------|--------------|
| Sizes | Quantity | Retail Price |
| 5 in x 1/4 in | Pkg. of 10 | \$6.67 |
| 8.5 in x 1.55 | Pkg. of 4 | \$10.08 |
| 10.5 in x 1.88 | Pkg. of 4 | \$11.88 |



| Item Detail | | |
|----------------|------------|--------------|
| Sizes | Quantity | Retail Price |
| 5 in x 1/4 in | Pkg. of 10 | \$9.00 |
| 8.5 in x 1.55 | Pkg. of 4 | \$12.60 |
| 10.5 in x 1.88 | 1 ea. | \$31.47 |

KPMI® CONTACT PAGES

Here at Kibblewhite®, we are always looking for new ways to reach out and interact with our customers. So, we have enhanced our KPMI® company website with new and updated features and webpages.

We have added new pages for our customers to learn more about what Kibblewhite® is doing with its latest products, what we currently have in development, what is happening with our sponsored racing teams, and more. We have added an enhanced News section, Racers section and Engineering section with new articles and videos and much more.

We have updated our online presence with our Facebook, Twitter and YouTube pages. We constantly add all our newest content and videos onto with all these unified Kibblewhite® locations. We welcome you to come and take a look at all the different ways you can talk to Kibblewhite Precision Machining, Inc. And thank you to all our current and future customers for their ongoing support of KPMI®!



www.kpmi.us

The location for all the most current information about the products that Kibblewhite® offers.



www.facebook.com/kpmusa

The location for all the latest news, releases, and videos related to Kibblewhite® products and Team Kibblewhite® racing results.



[twitter.com/ Kibblewhitepm](https://twitter.com/Kibblewhitepm)

The news feed for our customers to get the fastest news, releases, and videos related to Kibblewhite® products and Team Kibblewhite® racing results.



Since 1936, Kibblewhite® Precision Machining, Inc. (KPMI®), an independent company, has been committed to serving the valvetrain component needs of the powersport industry.

IMPORTANT TRADEMARK NOTICES

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TERMS AND POLICIES

PAYMENTS - All Dealer/ Distributor orders will be shipped C.O.D., certified check / money order or prepaid by Visa®, MasterCard®, American Express® or bank wire transfer. Company checks will be accepted from Dealers or Distributors after completing a KPMI® Survey/ Application and histories warrant. All international orders should be prepaid in U.S. funds to avoid delays. Proforma invoices are available upon request. Terms are granted by arrangement only.

DISCOUNTS - Bank cleared advanced co-check, money order, certified check = \$15.00 discount. Proforma invoices are available upon request.

HANDLING FEES - Handling fees apply to all shipments and / or credit card transactions. Additionally: Drop-ship \$15.00 / Wire transfer \$15.00 / Parcel post \$15.00.

DEALERS - Becoming a KPMI® Dealer requires completing a Dealer Application / Survey. After a successful survey review a Dealer must initiate and maintain KPMI® Dealer status based on the following policies: 400 U\$D Initial Order (Pre-Paid only), 100 U\$D minimum orders thereafter, purchase a minimum of 1,200 U\$D of product per calendar year.

DISTRIBUTORS - Becoming a KPMI® distributor requires contacting KPMI® directly, and requesting a Distributor Application / Survey. Please allow a reasonable amount of time for processing.

WARRANTY - All merchandise and services offered by KPMI® are for racing use only. KPMI® warrants to the original purchaser the racing components listed in this catalog as manufactured by us to be free from defects in material and workmanship under normal use and service.

Our obligation under this warranty shall be limited to the repair or exchange of any part(s) which may thus prove defective under normal use and service within 30 days from date of installation by the original purchaser, and which our examination shall disclose to our satisfaction to be thus defective. This Warranty is expressly in lieu of all other warranties expressed or implied including the warranties of merchantability and fitness for use and all other obligations or liabilities on our part, and we neither assume, nor authorize any person to assume for us, any other liability in connection with the sale of these components. This warranty shall not apply to components or any part thereof which has been subjected to an accident, negligence, alteration, abuse or misuse. We make no warranty whatsoever with regard to accessories or parts not supplied by us. The term "original purchaser," as used in this warranty, shall be deemed to mean that person to whom the components were originally delivered. This warranty shall apply only within the continental United States. Seller makes no warranties which extend beyond that set forth in the preceding paragraph. Subject to applicable State laws.

SHIPPING - We ship by Federal Express (FedEx), United Parcel Service (UPS) and USPS (upon request). Shipping charges are added to invoice total. There is a \$15.00 surcharge for shipments through the U.S. Parcel Post.

BACK ORDERS - We do not cancel back orders unless requested to do so.

RETURNS - We will not accept any returned merchandise without prior consent. All items will be inspected upon receipt. Returns due to shipping error or manufacturing defects will be replaced immediately. No returns after 30 days from invoice date. Parts returned for any other reason will be subject to a 20% or \$5.00 minimum restocking charge. Absolutely no returns on custom manufactured parts.

MACHINE WORK - Anything sent to Kibblewhite® Precision Machining to be machined must be accompanied with complete instructions and return address. Please be sure to include a packing list of the parts being sent to us. Any discrepancy that is not accounted for with the package(s) received will be the responsibility of the sender. Any damage to merchandise at the time of receipt will need to be handled by the sender with the carrier.

CLAIMS - If damage occurs to any item during transit; it is the responsibility of the freight carrier. Responsibility for the goods is passed from the shipper to carrier when the carrier leaves the point of pick-up. All claims must be made with the carrier. We will, however, help you with the claim in any way we can.

PHONE CALLS - We cannot accept collect calls. Our Order and Tech Line phone number is (650) 557-2046. After hours & weekends, please leave a message. Our FAX line operates 24-hours a day;

the number is (650) 359-8574.

HOURS - Monday through Friday 8:30 a.m. – 5 p.m. (Pacific time). After hours or weekends, please leave a message or send a FAX.

COPYRIGHTS - The entire contents of this catalog are copyrighted by KPMI®. All rights are reserved. Trademarks and logos represented in this catalog are the sole property of their owners. Call your dealer or account representative for verification of the latest model year applications.

WARRANTY & LIABILITY LIMITATIONS

Except as may be expressly set forth in the product invoice, KPMI® makes no representations or warranties as to any of its products, express or implied, including, without limitation, any warranties of merchantability or fitness for a particular purpose, under Section 2314 or 2315 of the California Uniform Commercial Code or otherwise. Motorcycles can be dangerous. KPMI® has no control over the usage of any part. KPMI® expects the Dealer and the Dealer's customers to exercise good judgment as to the proper selection, installation, use, and maintenance of any parts. KPMI® assumes no responsibility for damage or injury of any kind because of the misuse or the improper application or installation of any parts in any way by the Dealer, the Dealer's customers or any other person. KPMI® shall not be liable for any indirect or consequential damages whatsoever. All matters shall be interpreted under California law.

CURRENT FITMENT INFORMATION

To the best of our knowledge, all the pictures and application information contained herein are accurate as of the date this catalog was approved for printing (January 2013). Because some models had not yet been released at the time, it was not possible to provide application information for these vehicles. Therefore, whenever a part is listed as fitting "to present" this would apply to models that had been able to verify application for by catalog press date ONLY. Please check with your KPMI® dealer or account representative for verification of the latest 2013 model year applications.

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www.kpmi.us

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OUR BUSINESS IS PERFORMANCE



KIBBLEWHITE PRECISION MACHINING INC.

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