Large bore valves
Powergeneration / petrochemical industries

Medium & high-pressure valves
in accordance with ASME, EN, BS and API
Key Valve Technologies Ltd. (KVT) was founded in 1998 in Seoul, Korea as a valve engineering company with the aim of engineering and manufacturing high-quality and innovative valves for heavy duty applications in power-generation. Its key staff members in R&D, engineering and management all have more than 15 years experience in power generation and valve engineering.

In 1996, Key Valve Technologies became a member of the ‘high energy’ alliance of manufacturers, led by HP Valves Oldenzaal B.V. from the Netherlands. The goal of our alliance is to build a comprehensive range of high-quality valves for contractors and OEM’s in power generation, combining competitive pricing with a high level of support and service. This is achieved by disintermediation of sales channels and by establishing one project-oriented organization.

In 2008, HP Valves and KVT joined forces in order to expand their product portfolio and to increase service and capacity in the growing power-generation market. KVT became a subsidiary of HP Valves and supported by parent company Indutrade AB, listed on Nasdaq OMX Stockholm Mid Cap list, together both companies have strengthened their position as respected manufacturers of medium and high-pressure valves.

As a well-known and respected manufacturer, HP Valves B.V. is your focal point for this alliance, providing a complete range of valves and complementary services such as technical consultation, project coordination, expediting, documentation, inspection, logistical services and after sales/site services.
Design and R&D  
With extensive experience within the power generation in general and valves for power generation applications in particular, KVT is setting the standard for high-quality innovative valve designs for high-energy applications. Working in close cooperation, the R&D and engineering departments are able to develop new valve designs effectively and quickly, or to customize standard products to suit customer requirements perfectly. Specialist software for CFD, fluidflow & network and FEA (linear, thermal and dynamics) support and validate the design process. For prototype testing, KVT has an in-house flow laboratory.

Quality  
KVT is ISO9001 and PED approved by Bureau Veritas and has been successfully audited by major OEM’s and contractors in power generation.

Production  
By using specialized sub-contractors for machining, production is highly flexible and (cost-)effective. This enables KVT to focus on its core competence in design and engineering as well as on the critical manufacturing processes such as welding and PWHT, assembly and testing.

Capabilities  
-Weld overlays  
Various grades of weld-overlays can be applied in-house to adapt the products to your specific service conditions.

-Welding  
Various welding procedures and qualifications to ASME and EN are available for seat welding, body welding and fitting accessories such as by-pass lines, pipe stubs and overpressure safety devices.

-NDE  
Using specialized and qualified (level II/III) sub-contractors, various non-destructive examinations, such as radiographic and ultrasonic examination, are performed to both ASME/ASTM and EN standards. For MPE and LPE, KVT employs qualified (level II/III) personnel.

-Pneumatic and hydrostatic testing  
Each and every valve is hydrostatically tested to the required standard. Upon request, various additional tests, such as pneumatic tightness testing or vacuum testing, can be conducted.
Operating forces

Typically, operating forces for parallel slide gate valves are lower than for wedge gate valves. These reduced operating forces allow a reduction in size for gearboxes (if any) or actuators. For non-gear operated valves, two thrust bearings support the Al-bronze yoke sleeve.

Stellited backseats

Stellited backseats provide a tight seal between valve stem and backseat in the fully open position.

Bonnet types

Valves in class 900 and higher, as well as valves operating at temperatures in excess of 450°C, are equipped with a pressure-sealed bonnet with high-density graphite gasket (with s.s. caps) for optimum sealing (the higher the pressure, the better the sealing).

Seats

All (wide and flat) seats are seal-welded inside the valve body.

Weld overlays

Different hardfacing on seats (stellite #6) and discs (stellite #12), with a hardness differential of ~5 HRC, minimizes galling and its cumulative effects on the sliding surfaces. This extends the service life of the valves.

Technical benefits

Thermal binding

The design of the parallel slide gate valve eliminates the risk of sticking and thermal binding.

Intermediate positions

KVT’s SPL parallel slide gate valves can be used for intermediate positions in any form of flow condition.

Spring Pack Loaded

The spring-loaded pack provides adequate sealing forces for independent discs and wide flat seats; ensuring better closure and longer service life.

Sealing

Since sealing is obtained by a sliding motion, rather than through compression, the exact position of the discs is not critical for the closing of the valve. Consequently, there is no problem with differences in the thermal expansion coefficients of the different materials. Centralized inconel springs distribute the load uniformly across both seats, compensating for any expansion.

End connections

Although butt weld ends are most commonly used for these valves, various other ends connections, such as flanges and integrally machined clamp connectors, are also available.
# MAIN DIMENSIONS IN MM

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# MATERIALS

- **BODY** (SA216 WCB (SEE BELOW))
- **SEAT RING** A105 + STELLITE #12
- **PARALLEL DISC** A216 WCB + STELLITE #6
- **STEM** A276 410
- **DISC HOLDER** 13CR
- **BELLEVILLE SPRINGS** INCONEL 718
- **DISC GUIDE** 13CR
- **BONNET** (SA216 WCB)
- **GASKET** GRAPHITE/S.S
- **THRUST RING** 13CR
- **SEGMENTAL RING** 13CR
- **BONNET CLAMP** CARBON STEEL
- **BONNET BOLTING** A193-B7 / A194-2H
- **RING** 13CR
- **STEM PACKING** GRAPHITE
- **GLAND** A276 410
- **GLAND FOLLOWER** A105
- **GLAND BOLTING** A193-B7 / A194-2H
- **POSITION INDICATOR** CARBON STEEL
- **YOKE BAR** CARBON STEEL
- **YOKE BOLT** A307-B
- **YOKE FLANGE** CARBON STEEL
- **CLAMP BOLTING** A193-B7 / A194-2H
- **GEARBOX**

# FEATURES

- **DESIGN** CONSTRUCTION PRESSURE SEAL BONNET AND INTEGRAL BACKSEAT
- **OPTIONS** AUXILIARY CONNECTIONS AND/OR PROTECTION AGAINST FLUID THERMAL EXPANSION
- **OPERATION** HANDWHEEL - GEARBOX (RECOMMENDED FOR ITEMS WITH *) - ELECTRIC OR PNEUMATIC ACTUATOR
- **ACCESSORIES** LIMIT SWITCHES - LOCKING DEVICE - POSITION INDICATOR - STEM COVER (OTHERS ON REQUEST)

# STANDARDS

- **DESIGN** ASME B16.34 - EN 12516 - (BS-EN 10434) - API 600
- **BUTTWELDING ENDS** ASME B16.25 - EN 12627 - DIN-EN 9692-1
- **FLANGED ENDS** RAISED FACE OR RING TYPE JOINT ACC. ASME B16.5 - EN 1759-1
- **END-TO-END / FACE-TO-FACE DIM** ASME B16.10 - EN 12992 / EN 558-2
- **PRESSURE TESTING** ASME B16.34 - EN 12266 - API 598

**MAKE** KEY VALVE TECHNOLOGIES LTD.

**ASME CLASS** 600

**HP Valves Oldenzaal BV**

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Website: www.hpvalves.com
**CAST STEEL GATE VALVES, PRESSURE SEAL BONNET – FIG KKP**

**MAKE**  
KEY VALVE TECHNOLOGIES LTD.

**ASME CLASS**  
900

---

**STANDARDS**

- **DESIGN**  
  ASME B16.34 - EN 12516 - BS-EN 10434 - API 600
- **BUTTWELDING ENDS**  
  ASME B16.25 - EN 12627 - DIN-EN 9692-1
- **FLANGED ENDS**  
  RAISED FACE OR RING TYPE JOINT ACC. ASME B16.5 - EN 1759-1
- **END-TO-END / FACE-TO-FACE DIM**  
  ASME B16.10 - EN 12962 / EN 558-2
- **PRESSURE TESTING**  
  ASME B16.34 - EN 12266 - API 598

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**MATERIALS**

- **BODY / BONNET**  
  (S)A216 WCB (SEE BELOW)
- **SEAT RING**  
  A105 + STELLITE #12
- **PARALLEL DISC**  
  A216 WCB + STELLITE #6
- **STEM**  
  A276 410
- **DISC HOLDER**  
  13CR
- **BELLEVILLE SPRINGS**  
  INCONEL 718
- **DISC GUIDE**  
  13CR
- **BONNET**  
  (S)A216 WCB
- **GASKET**  
  GRAPHITE/S.S
- **THRUST RING**  
  13CR
- **SEGMENTAL RING**  
  13CR
- **BONNET CLAMP**  
  CARBON STEEL
- **BONNET BOLTING**  
  A193-B7 / A194-2H
- **STEM PACKING**  
  GRAPHITE
- **GLAND**  
  A276 410
- **GLAND FOLLOWER**  
  A105
- **GLAND BOLTING**  
  A193-B7 / A194-2H
- **POSITION INDICATOR**  
  CARBON STEEL
- **YOKE BAR**  
  CARBON STEEL
- **YOKE BOLT**  
  A307-B
- **YOKE FLANGE**  
  CARBON STEEL
- **CLAMP BOLTING**  
  A193-B7 / A194-2H
- **GEARBOX**

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**FEATURES**

- **DESIGN**  
  CONSTRUCTION PRESSURE SEAL BONNET AND INTEGRAL BACKSEAT
- **OPTIONS**  
  AUXILIARY CONNECTIONS AND/OR PROTECTION AGAINST FLUID THERMAL EXPANSION
- **OPERATION**  
  HANDWHEEL - GEARBOX (RECOMMENDED FOR ITEMS WITH *) - ELECTRIC OR PNEUMATIC ACTUATOR
- **ACCESSORIES**  
  LIMIT SWITCHES - LOCKING DEVICE - POSITION INDICATOR - STEM COVER (OTHERS ON REQUEST)

**MATERIALS**

- **BODY / BONNET**  
  (S)A216 WCB - (S)A217 WC6 - (S)A217 WC9 - (S)A217 C12A (ALSO IN EN MATERIALS) (OTHERS ON REQUEST)

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**MAIN DIMENSIONS IN MM**

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Website: www.hpvalves.com

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MAKE KEY VALVE TECHNOLOGIES LTD.
ASME CLASS 1500

STANDARDS

- DESIGN ASME B16.34 - EN 12516 - (BS-EN 10434) - API 600
- BUTTWELDING ENDS ASME B16.25 - EN 12627 - DIN-EN 9692-1
- FLANGED ENDS RAISED FACE OR RING TYPE JOINT ACC. ASME B16.5 - EN 1759-1
- END-TO-END / FACE-TO-FACE DIM ASME B16.10 - EN 12982 / EN 558-2
- PRESSURE TESTING ASME B16.34 - EN 12266 - API 598

MATERIALS

- BODY / BONNET (S)A216 WCB - (S)A217 WC6 - (S)A217 WC9 - (S)A217 C12A (ALSO IN EN MATERIALS) (OTHERS ON REQUEST)
- SEAT RING A105 + STELLITE #12
- PARALLEL DISC A216 WCB + STELLITE #6
- STEM A276 410
- DISC HOLDER 13CR
- BELLEVILLE SPRINGS INCONEL 718
- DISC GUIDE 13CR
- BONNET CHOOSE WCB
- GASKET GRAPHITE/S.S
- THRUST RING 13CR
- SEGMENTAL RING 13CR
- BONNET CLAMP CARBON STEEL
- BONNET BOLTING A193-B7 / A194-2H
- SLIP RING 13CR
- STEM PACKING GRAPHITE
- GLAND A276 410
- GLAND FOLLOWER A105
- GLAND BOLTING A193-B7 / A194-2H
- POSITION INDICATOR CARBON STEEL
- YOKE BAR CARBON STEEL
- YOKE BOLT A307-B
- YOKE FLANGE CARBON STEEL
- CLAMP BOLTING A193-B7 / A194-2H
- GEARBOX

FEATURES

- DESIGN CONSTRUCTION PRESSURE SEAL BONNET AND INTEGRAL BACKSEAT
- OPTIONS AUXILIARY CONNECTIONS AND/OR PROTECTION AGAINST FLUID THERMAL EXPANSION
- OPERATION HANDWHEEL - GEARBOX (RECOMMENDED FOR ITEMS WITH *) - ELECTRIC OR PNEUMATIC ACTUATOR
- ACCESSORIES LIMIT SWITCHES - LOCKING DEVICE - POSITION INDICATOR - STEM COVER (OTHERS ON REQUEST)

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HP Valves Oldenzaal BV, P.O. Box 151, 7570 AD Oldenzaal, The Netherlands
Phone: +31 (0)541 519555, Fax: +31 (0)541 522045, E-mail: info@hpvalves.com
Website: www.hpvalves.com
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MAKE KEY VALVE TECHNOLOGIES LTD.
ASME CLASS 2500

STANDARDS

DESIGN ASME B16.34 - EN 12516 - (BS-EN 10434) - API 600
BUTTWELDING ENDS ASME B16.25 - EN 12627 - DIN-EN 9692-1
FLANGED ENDS RAISED FACE OR RING TYPE JOINT ACC. ASME B16.5 - EN 1759-1
END-TO-END / FACE-TO-FACE DIM ASME B16.10 - EN 12982 / EN 558-2
PRESSURE TESTING ASME B16.34 - EN 12266 - API 598

FEATURES

DESIGN CONSTRUCTION PRESSURE SEAL BONNET AND INTEGRAL BACKSEAT
OPTIONS AUXILIARY CONNECTIONS AND/OR PROTECTION AGAINST FLUID THERMAL EXPANSION
OPERATION HANDWHEEL - GEARBOX (RECOMMENDED FOR ITEMS WITH *) - ELECTRIC OR PNEUMATIC ACTUATOR
ACCESSORIES LIMIT SWITCHES - LOCKING DEVICE - POSITION INDICATOR - STEM COVER (OTHERS ON REQUEST)

MATERIALS

BODY / BONNET (S)A216 WCB - (S)A217 WC6 - (S)A217 WC9 - (S)A217 C12A (ALSO IN EN MATERIALS) (OTHERS ON REQUEST)

MAIN DIMENSIONS IN MM

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Phone: +31 (0)541 519555, Fax: +31 (0)541 522045, E-mail: info@hpvalves.com
Website: www.hpvalves.com

Member of Indutsrade AB
CAST STEEL CHECK VALVES, PRESSURE SEAL BONNET – FIG KCP

MAKE KEY VALVE TECHNOLOGIES LTD.
ASME CLASS 1500

STANDARDS

- DESIGN: ASME B16.34 - EN 12516 - BS 1868 - API 6D
- BUTTWELDING ENDS: ASME B16.25 - EN 12627 - DIN-EN 9692-1
- FLANGED ENDS: RAISED FACE OR RING TYPE JOINT ACC. ASME B16.5 - EN 1759-1
- END-TO-END / FACE-TO-FACE DIM: ASME B16.10 - EN 12982 / EN 558-2
- PRESSURE TESTING: ASME B16.34 - EN 12266 - API 598

FEATURES

- DESIGN: CONSTRUCTION SWING CHECK VALVE WITH PRESSURE SEAL BONNET
- ALTERNATIVES: TILTING DISC OR SPRING ASSISTED PISTON TYPE CHECK VALVES
- OPTIONS: AUXILIARY CONNECTIONS
- ACCESSORIES: WEIGHT AND DASHPOT (OTHERS ON REQUEST)

MATERIALS

- BODY / BONNET: (S)A216 WCB - (S)A217 WC6 - (S)A217 WC9 - (S)A217 C12A (ALSO IN EN MATERIALS) (OTHERS ON REQUEST)

MAIN DIMENSIONS IN MM

<table>
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<tr>
<th>NOM. SIZE</th>
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<th>D</th>
<th>Cv</th>
<th>KG</th>
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<tr>
<td>8” (200)</td>
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<td>378</td>
<td>1520</td>
<td>560</td>
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<tr>
<td>10” (250)</td>
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<tr>
<td>12” (300)</td>
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<td>1040</td>
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<tr>
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<td>640</td>
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<tr>
<td>18” (450)</td>
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<tr>
<td>24” (600)</td>
<td>1943</td>
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<td>10500</td>
<td>3080</td>
</tr>
</tbody>
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HP Valves Oldenzaal BV, P.O. Box 151, 7570 AD Oldenzaal, The Netherlands
Phone: +31 (0)541 519555, Fax: +31 (0)541 522045, E-mail: info@hpvalves.com
Website: www.hpvalves.com
Forged steel valves

Forged steel valves are rated "special class", widening the range of applications for the valves. Using forged steel valve bodies, for applications in super-critical cool fired power plants F92 material can be offered as well.

Valve bodies in sizes exceeding 14" are produced using 2 or more free forged body parts. Of course, welding and PWHT is conducted in accordance with ASME and/or EN-standards. All full penetration welds are examined radiographically 100 percent.

All seat-welding and subsequent post-weld heat treatment is performed in accordance with ASME and EN-standards. To ensure proper functioning and closure, pressure testing and functional testing are conducted on each and every valve.
FORGED STEEL GATE VALVES, PRESSURE SEAL BONNET – FIG KJP

MAKE KEY VALVE TECHNOLOGIES LTD.
ASME CLASS 1500 / 2500 (3500 & 4500 ALSO AVAILABLE)
EN RATING PN250 - PN500 (B760)

STANDARDS

FEATURES

MATERIALS

DESIGN CONSTRUCTION PRESSURE SEAL BONNET AND INTEGRAL BACKSEAT
OPTIONS AUXILIARY CONNECTIONS AND/OR PROTECTION AGAINST FLUID THERMAL EXPANSION
OPERATION HANDWHEEL - GEARBOX (RECOMMENDED FOR ITEMS WITH *) - ELECTRIC OR PNEUMATIC ACTUATOR
ACCESSORIES LIMIT SWITCHES - LOCKING DEVICE - POSITION INDICATOR - STEM COVER (OTHERS ON REQUEST)

MATERIALS

BODY / BONNET (S)A105N - (S)A182-F11 - (S)A182-F22 - (S)A182-F91 - (S)A182-F92 (OTHERS ON REQUEST)

MAIN DIMENSIONS IN MM

CLASS 1500 2500

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<td>8” (200)</td>
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<tr>
<td>10” (250)</td>
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<tr>
<td>12” (300)</td>
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<td>18” (450)</td>
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<tr>
<td>20” (500)</td>
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<tr>
<td>24” (600)</td>
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Website: www.hpvalves.com

Member of Indutrade AB
STANDARDS

<table>
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<td>END-TO-END / FACE-TO-FACE DIM</td>
<td>ASME B16.10 - EN 12982 / EN 558-2</td>
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<tr>
<td>PRESSURE TESTING</td>
<td>ASME B16.34 - EN 12266 - API 598</td>
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MATERIALS

- **BODY / BONNET (S)**A105N (SEE BELOW)
- **BONNET (S)**A105N
- **COVER** A105
- **BONNET BOLTING** A193-B7 / A194-2H
- **SEGMENTAL RING** 13CR
- **THRUST RING** 13CR
- **GASKET** GRAPHITE/S.S.
- **DISC** A105 + STELLITE
- **DISC NUT** A276 410
- **HINGE** A216 WCB
- **HINGE PIN** A276 410
- **RETLAINER** A276 410
- **BONNET** A105
- **HINGE PIN BEARING** 13CR + STELLITE
- **HINGE PIN GASKET** GRAPHITE
- **NUT** A194 2H
- **PIN** A276 410
- **SEAT RING** A105 + STELLITE
- **LIFT EYE BOLT** CARBON STEEL

MAIN DIMENSIONS IN MM

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<th>CLASS</th>
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<th>D</th>
<th>Cv</th>
<th>KG</th>
<th>C</th>
<th>D</th>
<th>Cv</th>
<th>KG</th>
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<td>3300</td>
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<td>1041</td>
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<td>3760</td>
<td>1720</td>
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<tr>
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<td>1346</td>
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<td>24&quot; (600)</td>
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</table>
Accessories and Pressure equalizing

Special trims for throttling and intermediate positions

Parallel Slide Gate Control Valves
Linear Characteristic

Parallel Slide Gate Control Valves
EQ% Characteristic

Parallel Slide Gate Control Valves
Pressure Let-Down

Bypasses MSS SP 45 Series A

Bypasses are used in steam service for warming up before the main line is opened and for balancing pressure where the lines are of limited volume. Bypasses are attached at the side of the main valve with the stem of both valves parallel, pointing vertically upward.

<table>
<thead>
<tr>
<th>Class</th>
<th>Main Valve (NPS)</th>
<th>X mm</th>
<th>inch</th>
<th>Y mm</th>
<th>inch</th>
<th>Bypass Size (NPS)</th>
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<td>420</td>
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<td>14.57</td>
<td>520</td>
<td>20.47</td>
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<td>570</td>
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<td>670</td>
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<td>25</td>
<td>590</td>
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<td>730</td>
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<td>800</td>
<td>31.50</td>
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Bypass sizes according MSS SP - 45, Series A

Other products available include tilting disc check valves
Under certain process conditions, the force required to ‘unseat’ the discs may increase due to the following phenomena:

<table>
<thead>
<tr>
<th>OVER PRESSURIZATION</th>
<th>PRESSURE LOCKING</th>
<th>THERMAL BINDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over pressurization may result when liquid, entrapped in the center cavity of valves, is heated up. - The trapped fluid expands and the increase in pressure may make the valve inoperable. - Over pressurization may occur in both pressure seal and bolted bonnet type valves and is not restricted to certain valve sizes.</td>
<td>When ( P_1 ) is significantly larger than ( P_a ) or ( P_b ), pressure locking occurs. The potential for pressure locking is somewhat greater in parallel slide gate valves (double disc gate) due to the effective area on which the entrapped pressure acts.</td>
<td>Thermal binding may occur in high temperature wedge type gate valves between the wedge and seats due to temperature differential between inlet and outlet of the valve, when the valve was closed hot and the system cools down. - It may make the valve inoperable. - While wedge type gate valves are susceptible to thermal binding, parallel slide valves are not.</td>
</tr>
</tbody>
</table>

\[
P_1 = \text{Pressure of trapped liquid between seats}
\]

\[
P_a \text{ or } P_b = \text{Line Pressure}
\]

If the evaluation of process and piping-layout demonstrates these potential risks, the solution for over-pressurization and pressure locking is to provide pressure relief from the body cavity. This can be done in several ways. - Figures A en B make the valve uni-directional. - The equalizing valve in Figure C should always be open. - Figures D and E require piping for the auxiliary connection to exhaust safely.

A bypass line (with valve) will allow both sides of the disc(s) to warm up and minimizes the risk of thermal binding. Parallel slide gate valves, however, are not susceptible to thermal binding thanks to the parallel disc design and therefore do not need this provision.

Combined effects of over pressurization, pressure locking and thermal binding can be prevented by one of the options G through J. Please contact us for a more specific recommendation on any of the above mentioned phenomena.
FORGED STOP-CHECK SDNR VALVES, PRESSURE SEAL BONNET – FIG KYP

MAKE: KEY VALVE TECHNOLOGIES LTD.
ASME CLASS: 1500 / 2500 (4500)
EN RATING: PN160 - PN500 (B760)

STANDARDS

DESIGN: ASME B16.34 - EN 12516 - (BS 1873)
BUTTWELDING ENDS: ASME B16.25 - EN 12627 - DIN-EN 9692-1
END-TO-END DIMENSIONS: ASME B16.10 - EN 12982 / EN 558-2 - MANUFACTURERS STANDARD
PRESSURE TESTING: ASME B16.34 - EN 12266 - API 598

MATERIALS

101 BODY (S)A105N (SEE BELOW)
102 BONNET (S)A105N
104 SEAT STELLITE
105 DISC A105 - STELLITE #6
109 STEM A276-410
114 GASKET RING 13Cr SS
117 RETAINER 13Cr SS
118 BONNET CLAMP 13Cr SS
119 STOPPER CARBON STEEL
121 PACKING RING A476-410
122 GLAND A276-410
123 GLAND FLANGE CARBON STEEL
125 YOKE BAR CARBON STEEL
126 YOKE FLANGE CARBON STEEL
003 GASKET GRAPHITE
004 PACKING GRAPHITE
006 NAMEPLATE STAINLESS STEEL
019 GEARBOX MAKE : SAMBO
01A BONNET BOLT A193-B7
02A BONNET NUT A194-2H
01B GLAND BOLT A193-B7
02B GLAND NUT A194-2H
01C H.S.H. BOLT A307-B
01E ACTUATOR BOLT A307-B
01J CLAMP BOLT CARBON STEEL
02J CLAMP NUT CARBON STEEL
003 GASKET GRAPHITE
004 PACKING GRAPHITE
006 NAMEPLATE STAINLESS STEEL
019 GEARBOX MAKE : SAMBO
01A BONNET BOLT A193-B7
02A BONNET NUT A194-2H
01B GLAND BOLT A193-B7
02B GLAND NUT A194-2H
01C H.S.H. BOLT A307-B
01E ACTUATOR BOLT A307-B
01J CLAMP BOLT CARBON STEEL
02J CLAMP NUT CARBON STEEL

FEATURES

DESIGN: CONSTRUCTION PRESSURE SEAL BONNET AND INTEGRAL BACKSEAT
OPTIONS: AUXILIARY CONNECTIONS
OPERATION: GEARBOX WITH HANDWHEEL - ELECTRIC OR PNEUMATIC ACTUATOR
ACCESSORIES: LIMIT SWITCHES - LOCKING DEVICE (OTHERS ON REQUEST)

MATERIALS

BODY / BONNET (S)A105N - (S)A182-F22 - (S)A182-F91 - (S)A182-F92 (OTHERS ON REQUEST)
EN MATERIALS 1.0460 - 13CrMo4.5 - 10CrMo9.10 - 1.4903 - 1.4901

MAIN DIMENSIONS IN MM

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<th>NOM. SIZE</th>
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<th>D</th>
<th>Cv</th>
<th>WEIGHT KG</th>
<th>A</th>
<th>C</th>
<th>D</th>
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