Large bore valves
Power generation / 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.

Since its foundation, KVT has cooperated closely with HP Valves B.V. Initially this cooperation was limited to small-bore forged-steel and large-bore cast-steel parallel slide gate valves, but since 2005 this includes large-bore forged-steel parallel slide gate and check valves.

In 1996, Key Valve Technologies became a member of the ‘high energy’ alliance of manufacturers, consisting of HP Valves B.V. from the Netherlands as well as the Korean HJ Valve Co. Ltd. and Dongkang Metal Co. Ltd. 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 for all four manufacturers. 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.

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.
Technical benefits

**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.

**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 buttweld ends are most commonly used for these valves, various other ends connections, such as flanges and integrally machined clamp connectors, are also available.
CAST STEEL GATE VALVES, PRESSURE SEAL BONNET – FIG KKP

MAKE: KEY VALVE TECHNOLOGIES LTD.
ASME CLASS: 600

STANDARDS

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<tr>
<th>DESIGN</th>
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MATERIALS

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FEATURES

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MATERIALS

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HP Valves Oldenzaal BV
Phone: +31 (0)541 519555, Fax: +31 (0)541 522045, E-mail: info@hpvalves.com
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

MATERIALS

01 BODY (SA)216 WCB (SEE BELOW)
02 SEAT RING A105 + STELLITE #12
03 PARALLEL DISC A216 WCB + STELLITE #6
04 STEM A276 410
05 DISC HOLDER 13CR
06 BELLEVILLE SPRINGS INCONEL 718
07 DISC GUIDE 13CR
09 BONNET (SA)216 WCB
10 GASKET GRAPHITE/S.S
11 THRUST RING 13CR
12 SEGMENTAL RING 13CR
13 BONNET CLAMP CARBON STEEL
14 BONNET BOLTING A193-B7 / A194-2H
15 RING 13CR
16 GEARBOX
17 STEM PACKING GRAPHITE
18 GLAND A276 410
19 GLAND FOLLOWER A105
20 GLAND BOLTING A193-B7 / A194-2H
22 POSITION INDICATOR CARBON STEEL
23 YOKE BAR CARBON STEEL
24 YOKE BOLT A307-B
25 YOKE FLANGE CARBON STEEL
29 CLAMP BOLTING A193-B7 / A194-2H
35 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)

MATERIALS BODY / BONNET (SA)216 WCB - (SA)217 WC6 - (SA)217 WC9 - (SA)217 C12A (ALSO IN EN MATERIALS) (OTHERS ON REQUEST)

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Website: www.hpvalves.com

Member of Indutrade AB

B06-P15 13-00
**Main Dimensions in MM**

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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 switch - Locking device - Position indicator - Stem cover (Others on request)

**Materials**

- Body / Bonnet: (SA216 WCB - (SA217 WC6 - (SA217 WC9 - (SA217 C12A (Also in EN materials)) (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: ASME B16.10 - EN 12982 / EN 558-2
- Pressure testing: ASME B16.34 - EN 12266 - API 598

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Website: www.hpvalves.com

Member of Indutrade AB
**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 12666 - 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**: (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
- **POSITION INDICATOR**: CARBON STEEL
- **YOKE BAR**: CARBON STEEL
- **YOKE BOLT**: A307-B
- **YOKE FLANGE**: CARBON STEEL
- **CLAMP BOLTING**: A193-B7 / A194-2H
- **GEARBOX**: 13CR

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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)

---

**MAIN DIMENSIONS IN MM**

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<tr>
<th>NOM. SIZE</th>
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<th>G</th>
<th>Cv</th>
<th>KG</th>
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**CAST STEEL GATE VALVES, PRESSURE SEAL BONNET – FIG KKP**

MAKE: KEY VALVE TECHNOLOGIES LTD.

ASME CLASS: 2500

**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 12666 - API 598

**H.P. 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

---

Member of Industrade 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

**BUTT WELDING 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

1. **BODY (S)A216 WCB (SEE BELOW)**
2. **BONNET (S)A216 WCB**
3. **COVER A105**
4. **BONNET BOLTING A193-B7 / A194-2H**
5. **SEGMENTAL RING 13CR**
6. **THRUST RING 13CR**
7. **GASKET GRAPHITE/S.S.**
8. **DISC A216 WCB + STELLITE**
9. **DISC NUT A276 410**
10. **HINGE A216 WCB**
11. **HINGE PIN A276 410**
12. **RETAILER A276 410**
13. **BONNET A105**
14. **HINGE PIN BEARING 13CR + STELLITE**
15. **HINGE PIN GASKET GRAPHITE**
16. **NUT A194 2H**
17. **PIN A276 410**
18. **SEAT RING A105 + STELLITE**
19. **LIFT EYE BOLT CARBON STEEL**

### 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

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<th>KG</th>
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</table>

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

Member of Indutrade AB
Forged steel valves
u/i 36" (DN900) / 4500lbs (PN640)

The advantage of using forgings instead of castings is the elimination of casting defects, which results in a longer guaranteed trouble-free service life. During production, the quality of the material also makes accurate scheduling possible.

Thanks to an ultrasonic examination of the body and bonnet, all 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 up to and including 14” are single-piece free forgings with the grain structure perfectly following the outside shape. This provides optimum strength and transmission of stress.

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
DESIGN ASME B16.34 - EN 12516 - (BS-EN 10434) - API 600
BUTTWELDING ENDS ASME B16.25 - EN 12627 - DIN-EN 9692-1
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
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)
01 BODY (S)A105N (SEE BELOW)
02 SEAT RING A105 + STELLITE #12
03 PARALLEL DISC A105 + STELLITE #6
04 STEM A276 410
05 DISC HOLDER 13CR
06 BELLEVILLE SPRINGS INCONEL 718
07 DISC GUIDE 13CR
09 BONNET (S)A105N
10 GASKET GRAPHITE/S.S
11 THRUST RING 13CR
12 SEGMENTAL RING 13CR
13 BONNET CLAMP CARBON STEEL
14 BONNET BOLTING A193-B7 / A194-2H
16 RING 13CR
17 STEM PACKING GRAPHITE
18 GLAND A276 410
19 GLAND FOLLOWER A105
20 GLAND BOLTING A193-B7 / A194-2H
22 POSITION INDICATOR CARBON STEEL
23 YOKE BAR CARBON STEEL
24 YOKE BOLT A307-B
25 YOKE FLANGE CARBON STEEL
29 CLAMP BOLTING A193-B7 / A194-2H
35 GEARBOX

MAIN DIMENSIONS IN MM

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<td>* 1000</td>
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</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

Member of Indutrade AB B06-P08 15-00
FORGED STEEL CHECK VALVES, PRESSURE SEAL BONNET – FIG KPP

MAKE
KEY VALVE TECHNOLOGIES LTD.

ASME CLASS
1500 / 2500 (3500 & 4500 ALSO AVAILABLE)
EN CLASS
PN250 - PN500 (B760)

STANDARDS

DESIGN
ASME B16.34 - EN 12516 - (BS 1868) - API 6D
BUTTWELDING ENDS
ASME B16.25 - EN 12627 - DIN-EN 9692-1
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

MATERIALS

STANDARDS

DESIGN
ASME B16.34 - EN 12516 - (BS 1868) - API 6D
BUTTWELDING ENDS
ASME B16.25 - EN 12627 - DIN-EN 9692-1
END-TO-END / FACE-TO-FACE DIM
ASME B16.10 - EN 12982 / EN 558-2
PRESSURE TESTING
ASME B16.34 - EN 12266 - API 598

MAIN DIMENSIONS IN MM

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2500

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01 BODY (S)A105N (SEE BELOW)
02 BONNET (S)A105N
03 COVER A105
04 BONNET BOLTING A193-B7 / A194-2H
06 SEGMENTAL RING 13CR
07 THRUST RING 13CR
08 GASKET GRAPHITE/S.S.
09 DISC A105 + STELLITE
11 DISC NUT A276 410
12 HINGE A216 WCB
13 HINGE PIN A276 410
14 RETAINER A276 410
15 BONNET A105
17 HINGE PIN BEARING 13CR + STELLITE
18 HINGE PIN GASKET GRAPHITE
19 NUT A194 2H
22 PIN A276 410
23 SEAT RING A105 + STELLITE
24 LIFT EYE BOLT CARBON STEEL

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

Member of Indutrade AB

B06-P09 13-00
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.

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Other products available include tilting disc check valves
Pressure equalizing

Under certain process conditions, the force required to ‘unseat’ the discs may increase due to the following phenomena

### OVER PRESSURIZATION

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.

**Formula:**

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

**Diagram:**

- **Over-Pressurization**
  - \( P_1 \) = Pressure of trapped liquid between seats

### PRESSURE LOCKING

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.

**Diagram:**

- **Pressure Locking**
  - \( P_1 \) = Pressure of trapped liquid between seats
  - \( P_a \) or \( P_b \) = Line Pressure

### THERMAL BINDING

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.

**Diagram:**

- **Thermal Binding**

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 and 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.

**Diagram:**

- 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.

**Diagram:**

- **By-pass line**

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 (8760)

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

- BODY / BONNET (S)A105N - (S)A182-F22 - (S)A182-F91 - (S)A182-F92 (OTHERS ON REQUEST)
- SEAT STELLITE
- DISC A105 - STELLITE #6
- STEM A276-410
- GASKET RING 13Cr SS
- RETAINER 13Cr SS
- BONNET CLAMP 13Cr SS
- STOPPER CARBON STEEL
- PACKING RING A476-410
- GLAND A276-410
- GLAND FLANGE CARBON STEEL
- YOKE BAR CARBON STEEL
- YOKE FLANGE CARBON STEEL
- GASKET GRAPHITE
- PACKING GRAPHITE
- NAMEPLATE STAINLESS STEEL
- GEARBOX MAKE : SAMBO
- BONNET BOLT A193-B7
- BONNET NUT A194-2H
- GLAND BOLT A193-B7
- GLAND NUT A194-2H
- H.S.H. BOLT A307-B
- ACTUATOR BOLT A307-B
- CLAMP BOLT CARBON STEEL
- CLAMP NUT CARBON STEEL

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>CLASS</th>
<th>1500</th>
<th>2500</th>
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<td>NOM. SIZE</td>
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<td>6&quot; (150)</td>
<td>125</td>
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