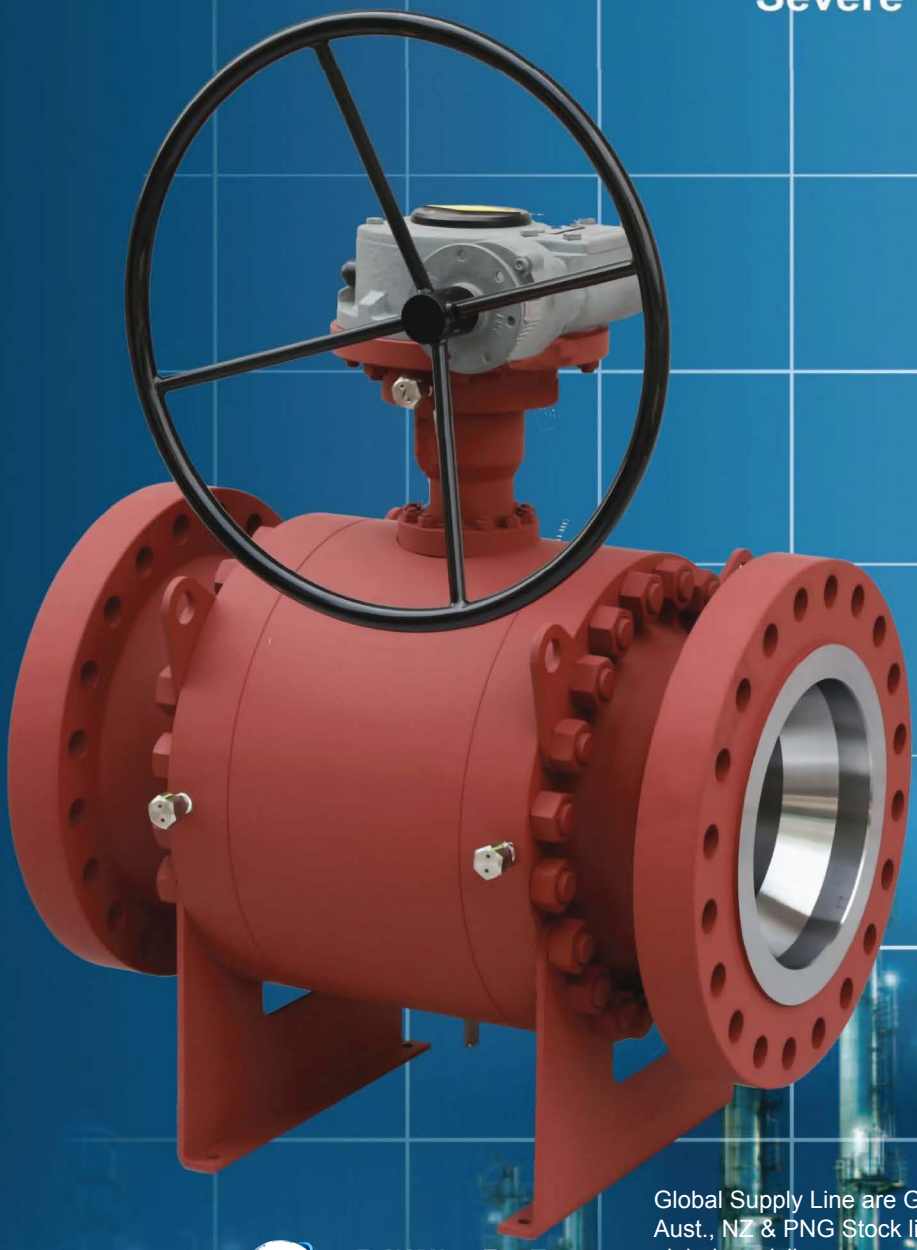
GUIDE VALVE LIMITED

GVS® Trunnion Mounted Soft Seated Ball Valves for Severe Services

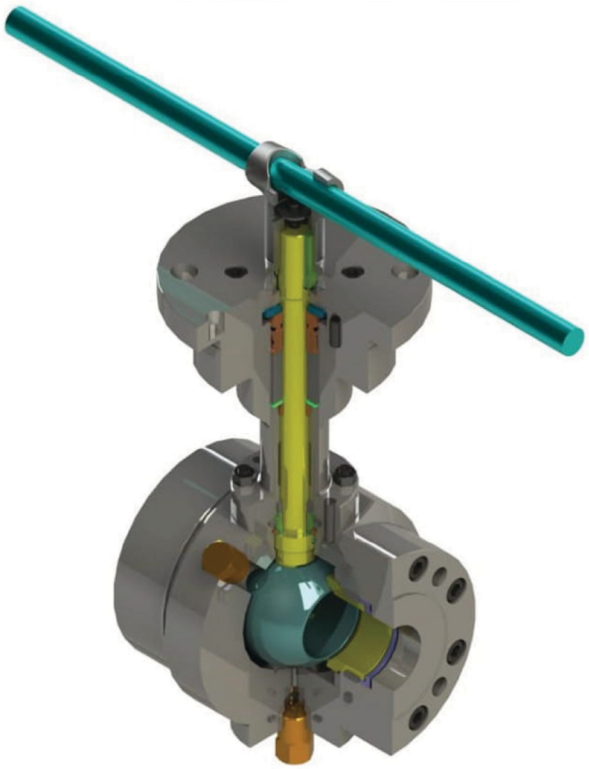


Global Supply Line are Guide Valve stockists, distributing Aust., NZ & PNG Stock lists at our website:
globalsupplyline.com.au
Contact us: sales@globalsupplyline.com.au

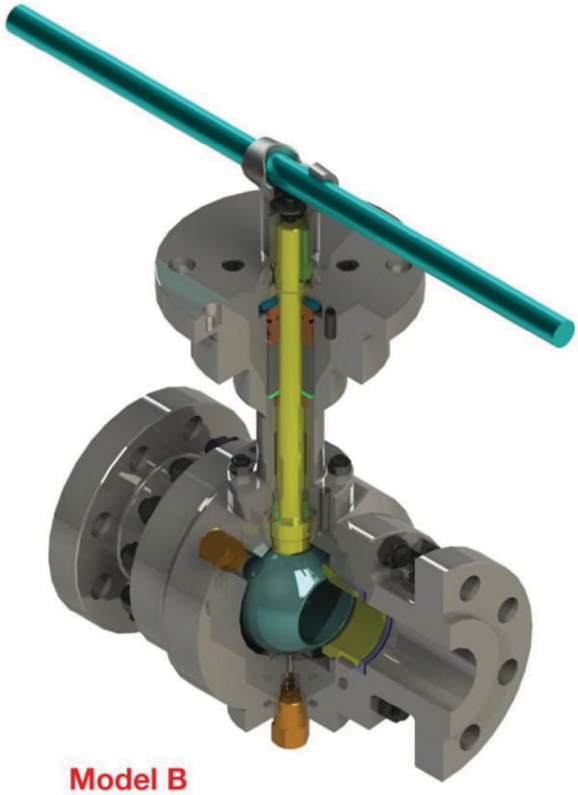
GLOBAL SupplyLine

FUGITIVE EMISSION CERTIFIED

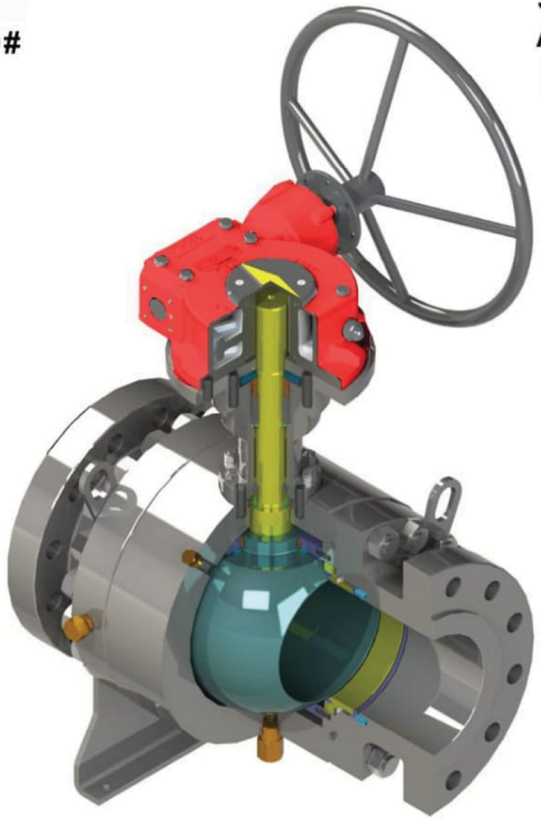
TYPE A SIL 3 CERTIFIED ROUTE 2K



Model B
Sizes: 2" – 4"
ANSI Class 150#

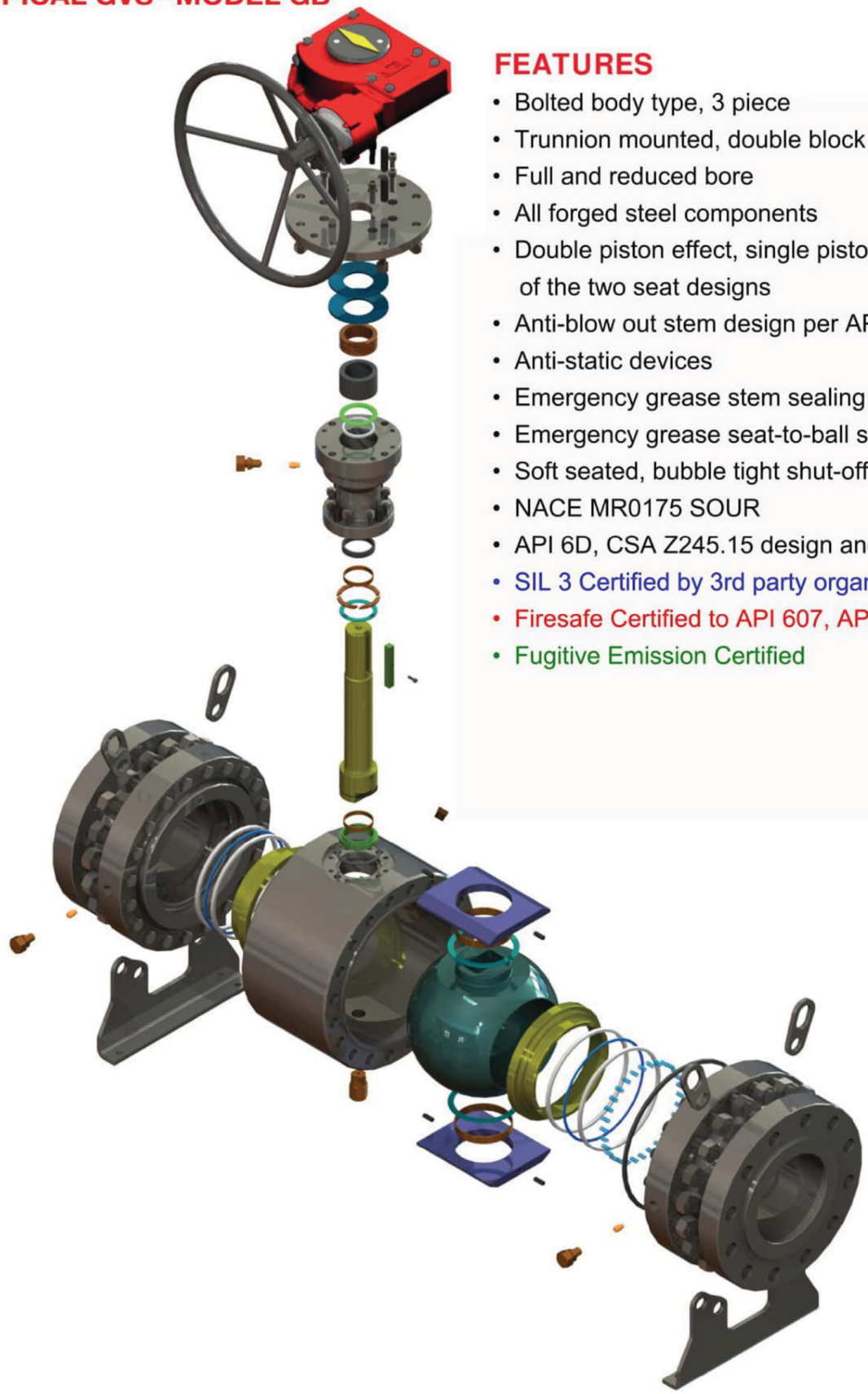


Model B
Sizes: 2" – 4"
ANSI Class 300 – 2500#



Model GB
Sizes: 6" – 36"
ANSI Class 150 – 2500#

TYPICAL GVS® MODEL GB

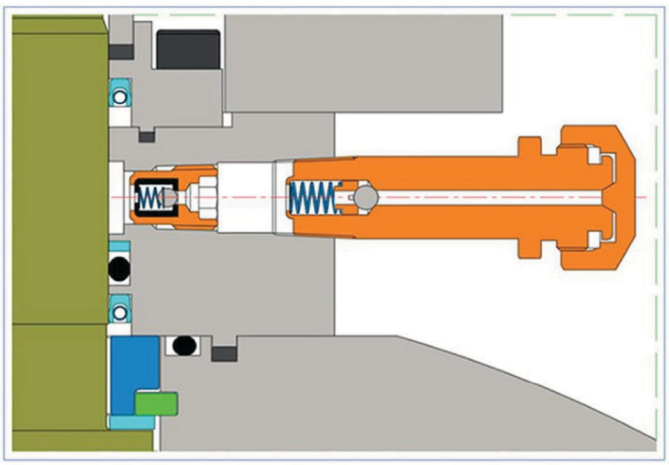


FEATURES

- Bolted body type, 3 piece
- Trunnion mounted, double block and bleed
- Full and reduced bore
- All forged steel components
- Double piston effect, single piston effect, or a combination of the two seat designs
- Anti-blow out stem design per API 608
- Anti-static devices
- Emergency grease stem sealing
- Emergency grease seat-to-ball sealing available.
- Soft seated, bubble tight shut-off class
- NACE MR0175 SOUR
- API 6D, CSA Z245.15 design and available per API 608
- SIL 3 Certified by 3rd party organization: FSES
- Firesafe Certified to API 607, API 6FA
- Fugitive Emission Certified

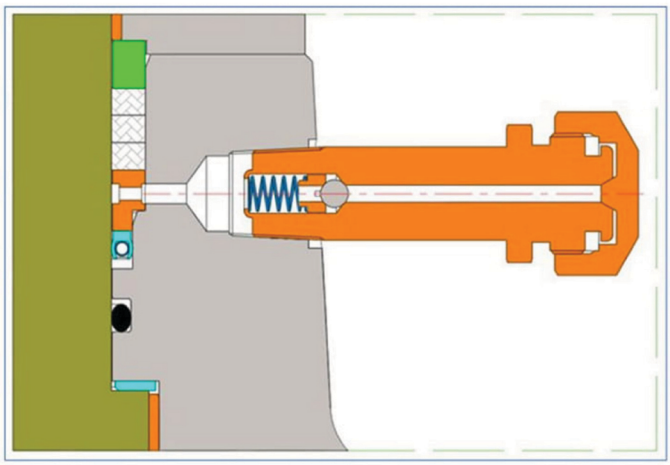
FUGITIVE EMISSION CERTIFIED STEM SEALING OPTIONS

ISO 15848-1
ENDURANCE CLASS CO3 TIGHTNESS CLASS AM



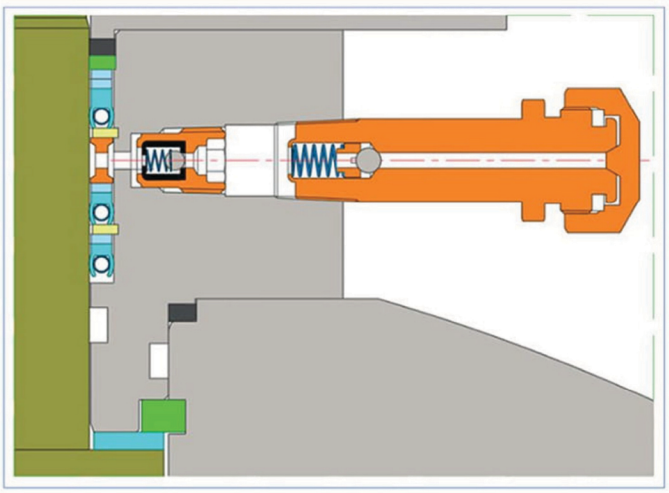
+ 200°C

CERTIFICATION IN PROCESS



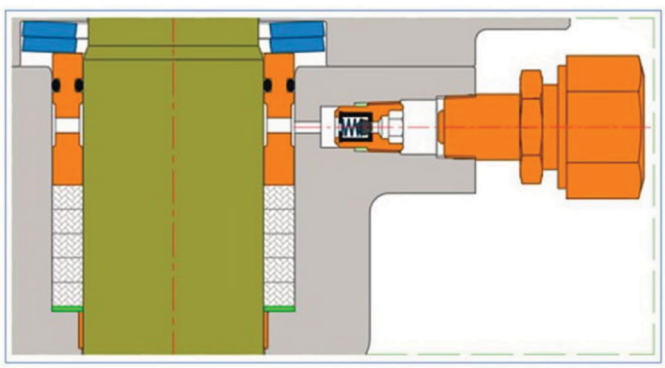
+ 240°C

API STANDARD 641



+ 240°C

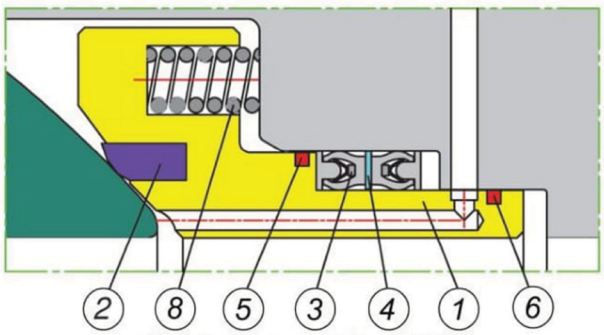
API STANDARD 641
ISO 15848-1
ENDURANCE CLASS CO2 TIGHTNESS CLASS CH



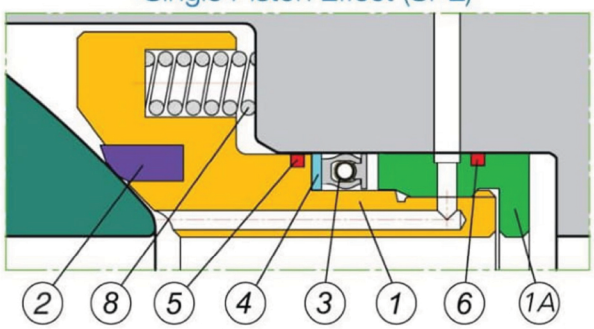
+ 350°C

SEVERE SERVICE SEAT OPTIONS

Double Piston Effect (DPE)

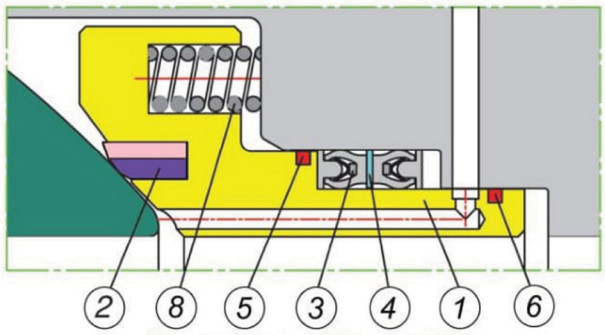


Single Piston Effect (SPE)

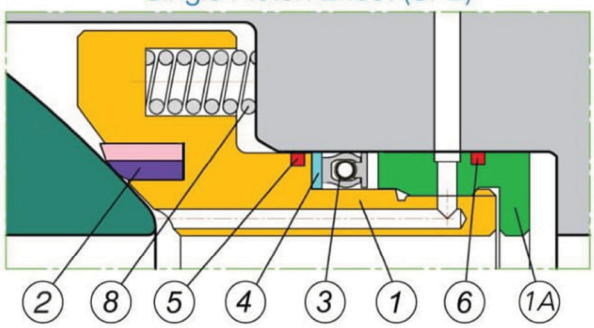


1. Seat
1A. Seat Ring
2. Resin Seat
3. Lip Seal
4. Back-Up Ring
5. Firesafe Seal
6. Grease Seal
8. Spring

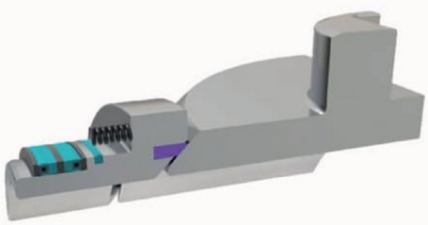
Double Piston Effect (DPE)

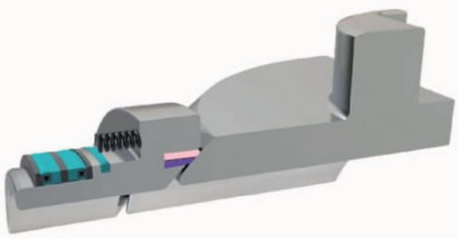


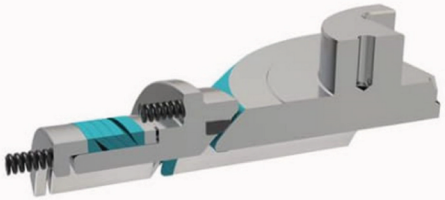
Single Piston Effect (SPE)



1. Seat
1A. Seat Ring
2. Dual Resin Seat
3. Lip Seal
4. Back-Up Ring
5. Firesafe Seal
6. Grease Seal
8. Spring





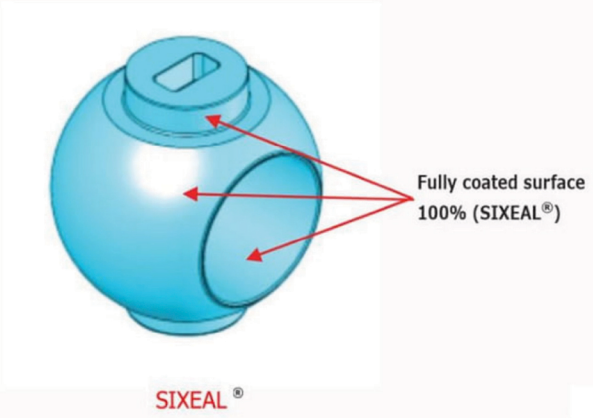


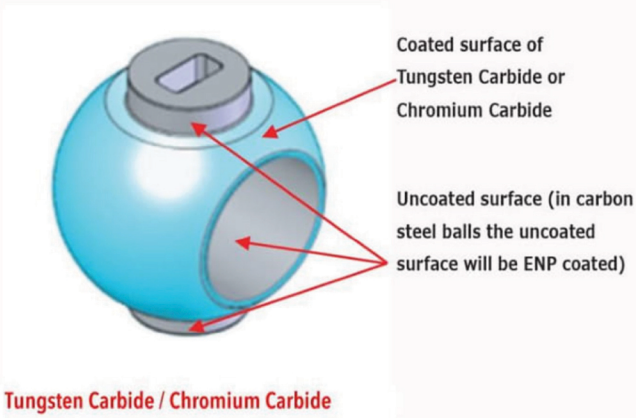
General Applications Include Acid Gas , CO2 , Hydrogen, Slurry, Amine, Etc.

SIXEAL® is recommended for our GVS® Trunnion Mounted Metal to Metal and Severe Service soft seated Ball Valves where high resistance to abrasion, corrosion, and wear is required. For example, in slurry and sandy environments, SIXEAL® is a viable alternative to HVOF coating.

SIXEAL® Technology:

Micro-particles of silicon carbide are added into the ENP bath to obtain a final planting in which the incorporated sub-particles are evenly distributed all over the treated surfaces. The result is a homogeneous hard-faced element strongly incorporated into a nickel matrix, matching the hardness properties of silicon and the chemical resistance of ENP. This uniquely developed process is based on the electroless nickel planting procedure. SIXEAL® coating thickness is maintained equally all over the coated surfaces, creating a "complete ball."





Coatings	ENP	Tungsten Carbide	Chromium Carbide	SIXEAL®
Typical Hardness (Hv)	1000	1050	850	1200
Recommended Operating Temperature (°C)	-196 up to 240	-196 up to 230	-146 up to 550	-196 up to 550
Thickness (µm)	10 - 75	150 - 400	150 - 400	15 - 75
STD Roughness (Ra)	0.20	0.25	0.25	0.20
Superfinishing (Ra)	0.10	0.15	0.15	0.10
Perfect Fit	Excellent	Excellent	Excellent	Excellent
Hardness	Excellent	Excellent	Fair	Excellent
Coating Uniformity On All Surfaces	Yes	No	No	Yes
Constant Torque Performance	Good	Good	Fair	Good
Wearing, Abrasion and Erosion Resistance	Good	Good	Fair	Excellent

Note: Higher temperature coating is available upon request.
Note: Cladding is available upon request.

COMMON PROBLEMS WITH BALL VALVES HANDLING CORROSIVE AND EROSIVE MEDIA

BALL PITTING

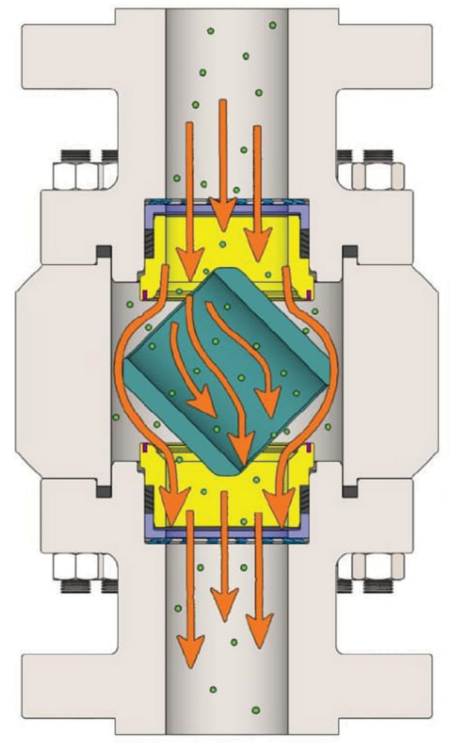
When the valve is in the closed position, the upstream face, which is exposed to the corrosive gases and fluids, tends to pit the area of the ball bounded by the valve seat, causing the critical smooth surface finish to become rough. Any roughness or protrusions caused by a corrosive or erosive attack on the outer ball surface are lost. Continued cycling increases seat damage. Depending on the severity of the service condition, hard resin seats such as Peek may be utilized.

FLUID DEPOSITS

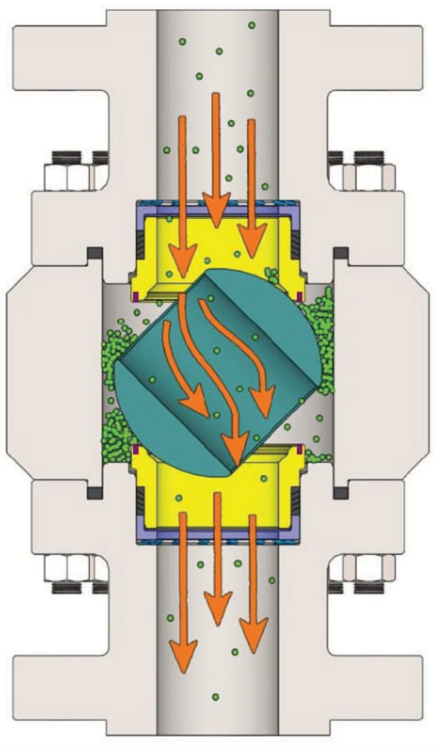
When that handle fluids and gases that tend to deposit crustation or leave residue on the inner valve surfaces, it will become hard to operate. With the ball valve in the closed position for lengthy time periods, the buildup of deposits adheres to the ball's outer surface within the seat boundaries, causing interference with the valve seats during valve cycles. Only a few thousand deposits on the ball face will increase turning torque and damage seats. Excessive crustations or residue on the ball face will make the valve inoperative. Depending on the nature and properties of the crustations or residue, hard resin seats such as Peek may be utilized.

ADVANTAGES OF A VALVE WITH THE RECESSED BALL FEATURE

- Debris build-up on ball surface does not come into contact with the seat surface
- Longer valve in-service life
- Less contact are between ball and seats
- Lower valve running torque



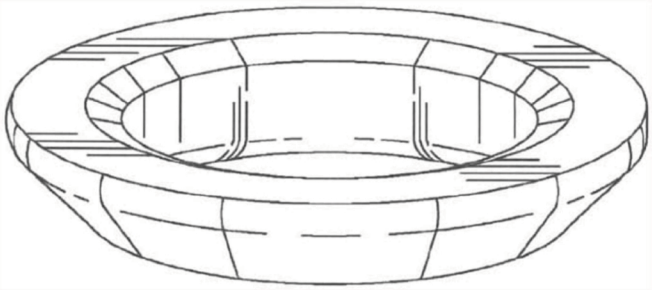
Recessed Ball Valve

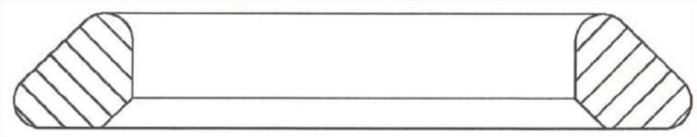


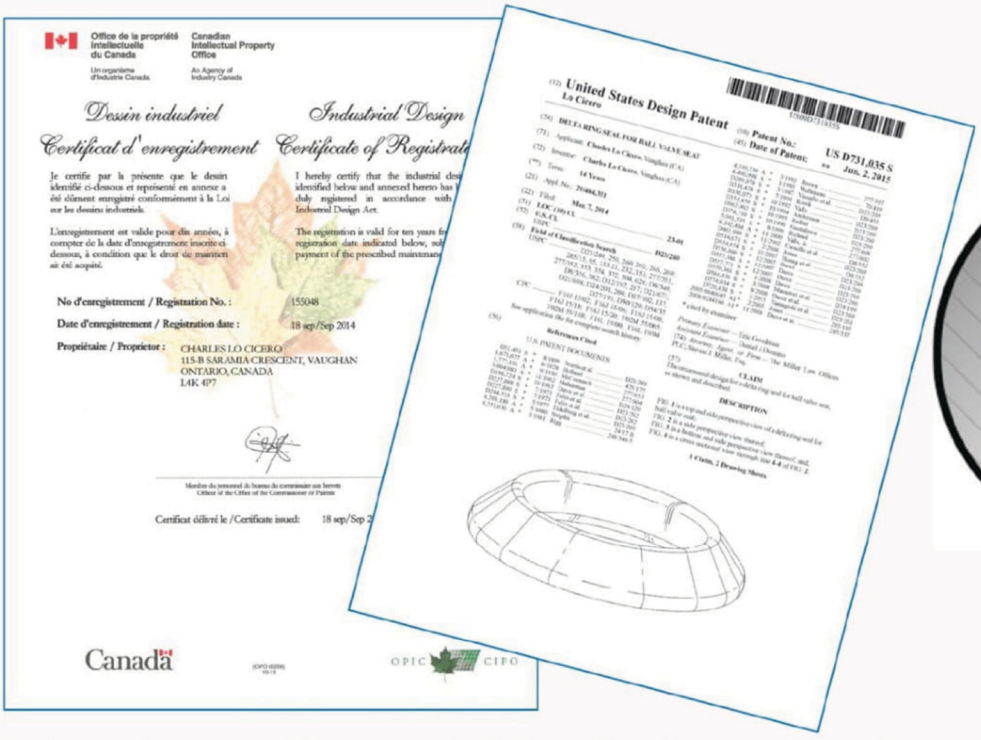
Typical Ball Valve

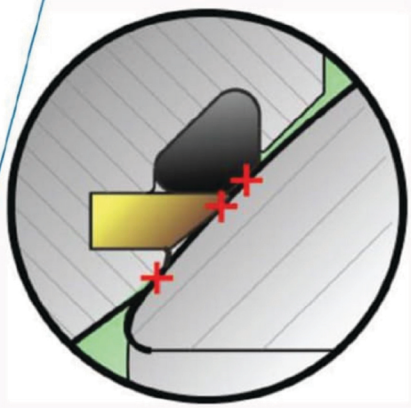
Triple Seat Seal Feature

Triple seat feature is offered by Guide Valve Limited to assure tight sealing at both low pressure and high pressure operation points. Triple sealing is suitable for many applications; in particular for critical condition to guarantee tight sealing in every pressure condition. This is achieved by means of combining Guide Valve's unique seat to ball design, which incorporates our patented special shaped Delta seat with the Protector / Scraper seat and metal seat design.
Triple seat to ball sealing design allows for three different types of seals: resin, elastomeric (Delta), and metal sealing.
he special shaped Delta seat (US design patent#: US 731, 035S, and Canadian design patent#: 155048) ensured zero leakage at very low pressure and continues to provide shut-off at higher pressures.

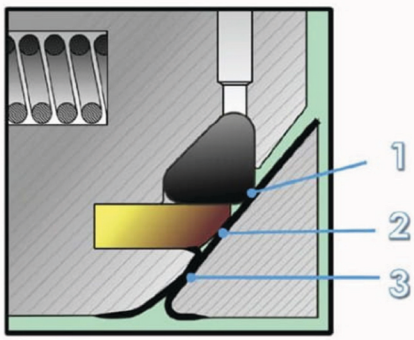






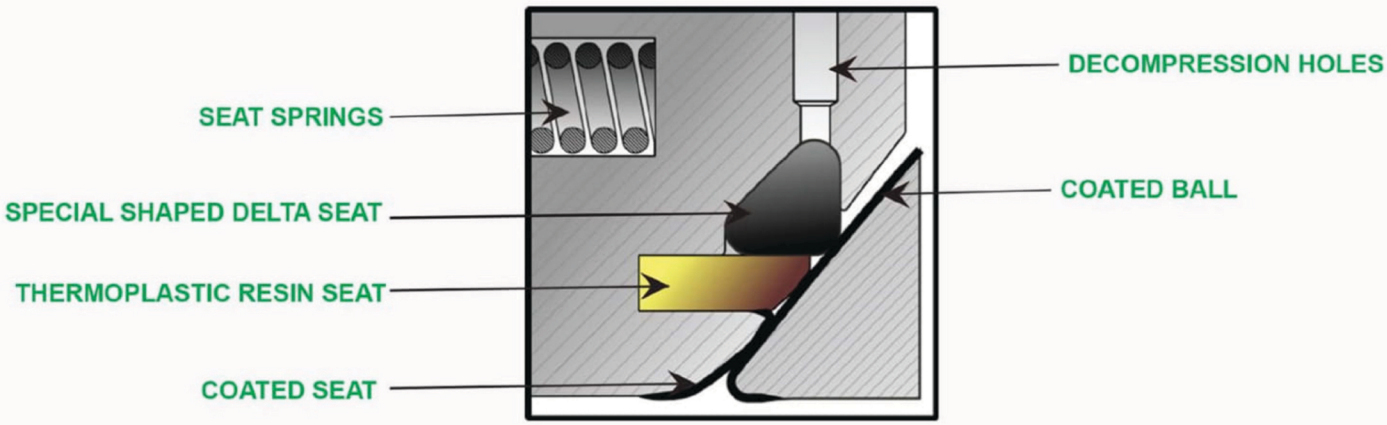


Resin seat insert provides seat to ball shut-off performance as well as protecting the special shaped Delta seat.
Furthermore, the metal contact face of the seat to the ball provides ball to shut-off sealing and protects the resin and elastomeric seats from wearing and scraping.





	1	2	3
ANSI Valve Class	Elastomeric (Delta) sealing working from:	Resin sealing working from:	Metal sealing working from:
150	0 psi	0 psi	0 psi
300			
600			
900			
1500			
2500			



ANTI-EXPLOSIVE DECOMPRESSION SEALS

All of the elastic compounds present permeability to gases at different levels. The pressured gas penetrates below the O-ring surface, forming air pockets in the intermolecular spaces. The quantity of absorbed gas depends on the type of compound, the gas in contact with it, and the temperature and pressure of the gas.

The instance described previously can be the cause of damage to the O-ring if it is followed by an abrupt reduction in pressure and the consequent dilation of the ring. The gas included in the compound has explosive behavior. The explosion of the air pockets contained in the compound causes the laceration of the O-ring surfaces. All GVS® Triple Seated Trunnion Mounted Ball Valves have an AED, or "Anti-Explosive Decompression," O-ring. Therefore, the above "Explosive Decompression" cannot occur.

CANADA

ISO 9001 :2015: 0052985-01

CHINA

API 6D: 6D-1822
API 6A: 6A-2250
API Spec Q1: Q1-3641
ISO 9001 :2015: ISO-3983



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Fax: 905-761-7917

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USA.

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sales@gvs-vci.com
Toll Free: 1-888-824-5693

Distributeur / Agent

Global Supply Line are Guide Valve stockists, distributing Aust., NZ & PNG
Stock lists at our website: globalsupplyline.com.au
Contact us: sales@globalsupplyline.com.au

For further information and technical specifications please contact factory.

GVS-SS-2025