



# PROPEL VALVES



Quality  
Innovation





# ABOUT US

For over 4 decades, PROPEL Valves have been at the forefront of the valve industry. Propel Valves is a leading manufacturer and exporter of various types industrial valves. We have extensive experience and expertise in valve design, development and production thereby ensuring that our PROPEL brand valves are unmatched in quality and reliability.

**We are approved for Design, Development and Production of Valves under the Directorate General of Quality Assurance, Indian Navy - Ministry of Defence. This is considered to be one of the most stringent and top-notch quality credentials in the country.**

## Product Range

- Ball Valves
- Globe Valves & Non Return Valves
- Gate Valves
- Butterfly Valves
- Strainers
- Actuated Valves
- Valves for Sea Water / Chlorine / Cryogenic Applications

## Third Party Inspection

- IRS and ABS Industrial verification services
- Lloyds register
- Aker Kvaerner
- Indian Register of Shipping
- ABS Industrial Verification
- Protech Consultants
- Bureau Veritas

## Material Range

- Stainless Steel & Alloy Steel
- Duplex & Super Duplex Stainless Steel
- Carbon Steel
- Cast Iron
- Aluminum Bronze / Nickel Aluminum Bronze
- Gun Metal
- Titanium Alloys

## Industries Served

- FMCG
- Pharmaceuticals
- Edible Oil and Refineries
- Oil and Gas
- Chemical Processes
- Naval Marine
- Others..

**Our Quality Control Systems and Design are certified as per ISO 9001:2008**

✓ ASA/ASTM/ANSI

✓ BS EN

✓ DIN

✓ GOST

✓ JIS

✓ API

## FROM 1974 ONWARDS...



Total Product Support

Quality & Reliability



Research & Development

Handling Toxic /  
Hazardous Lines

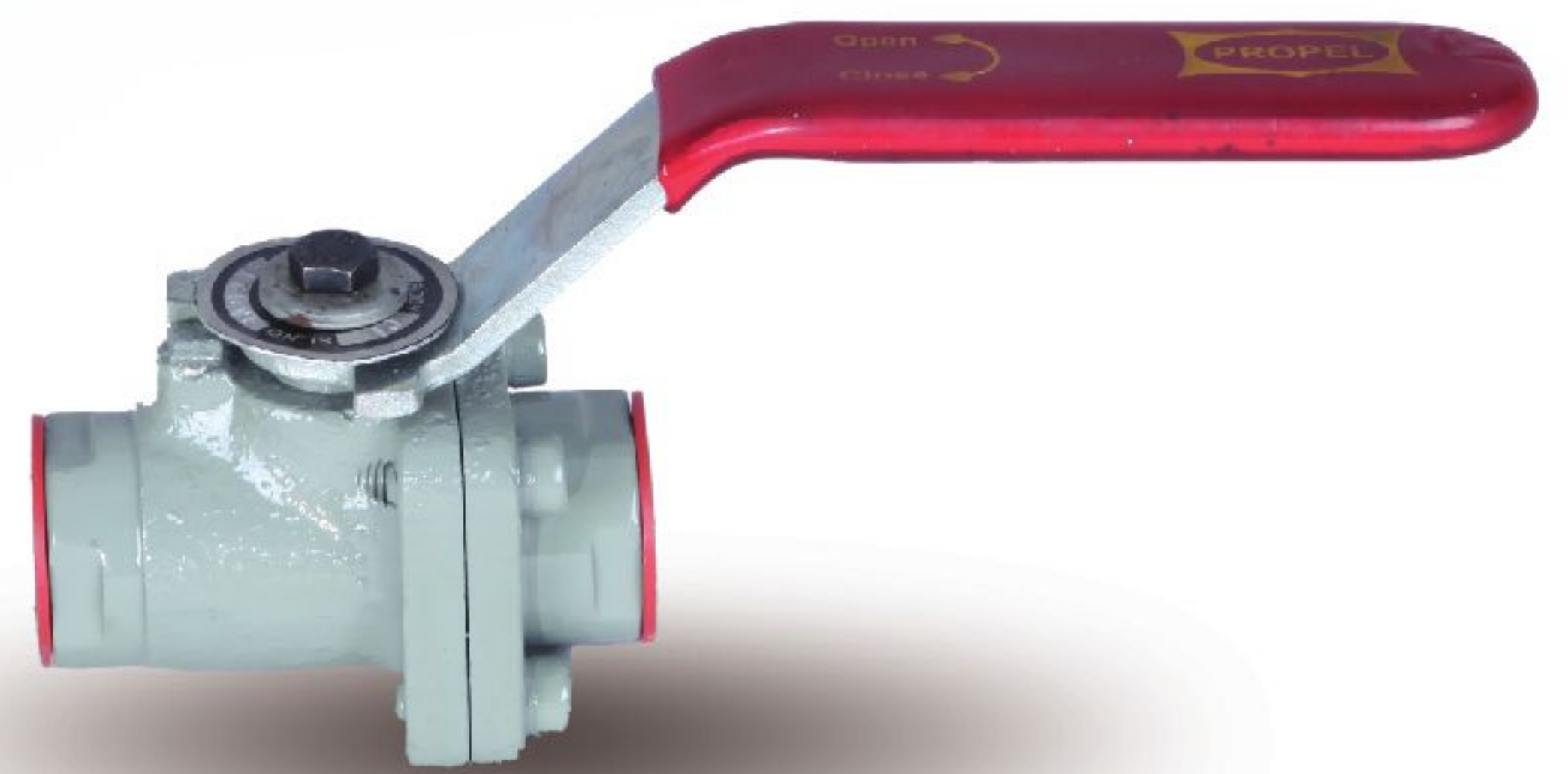
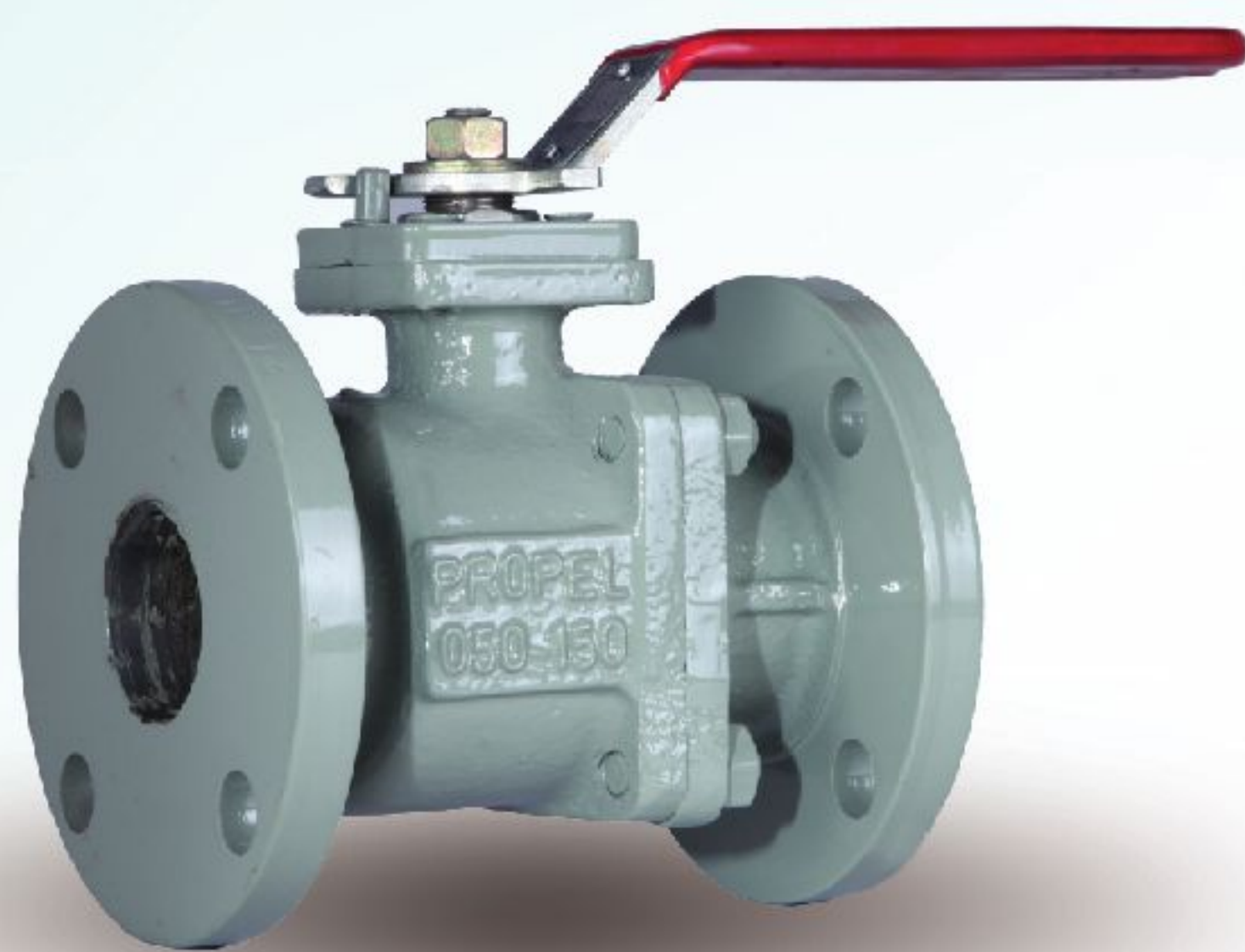
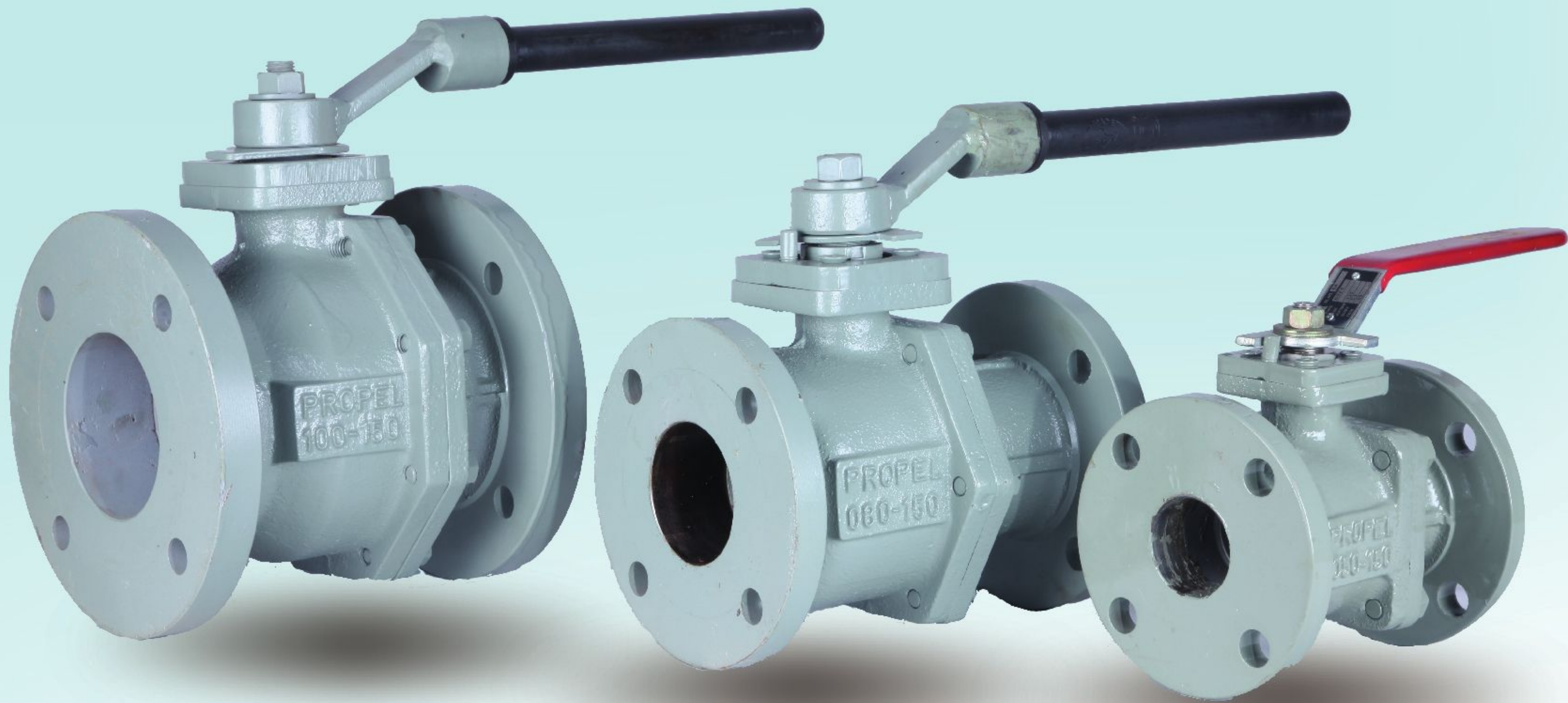


Dedicated Team

Customer Satisfaction







## CAST IRON BALL VALVES

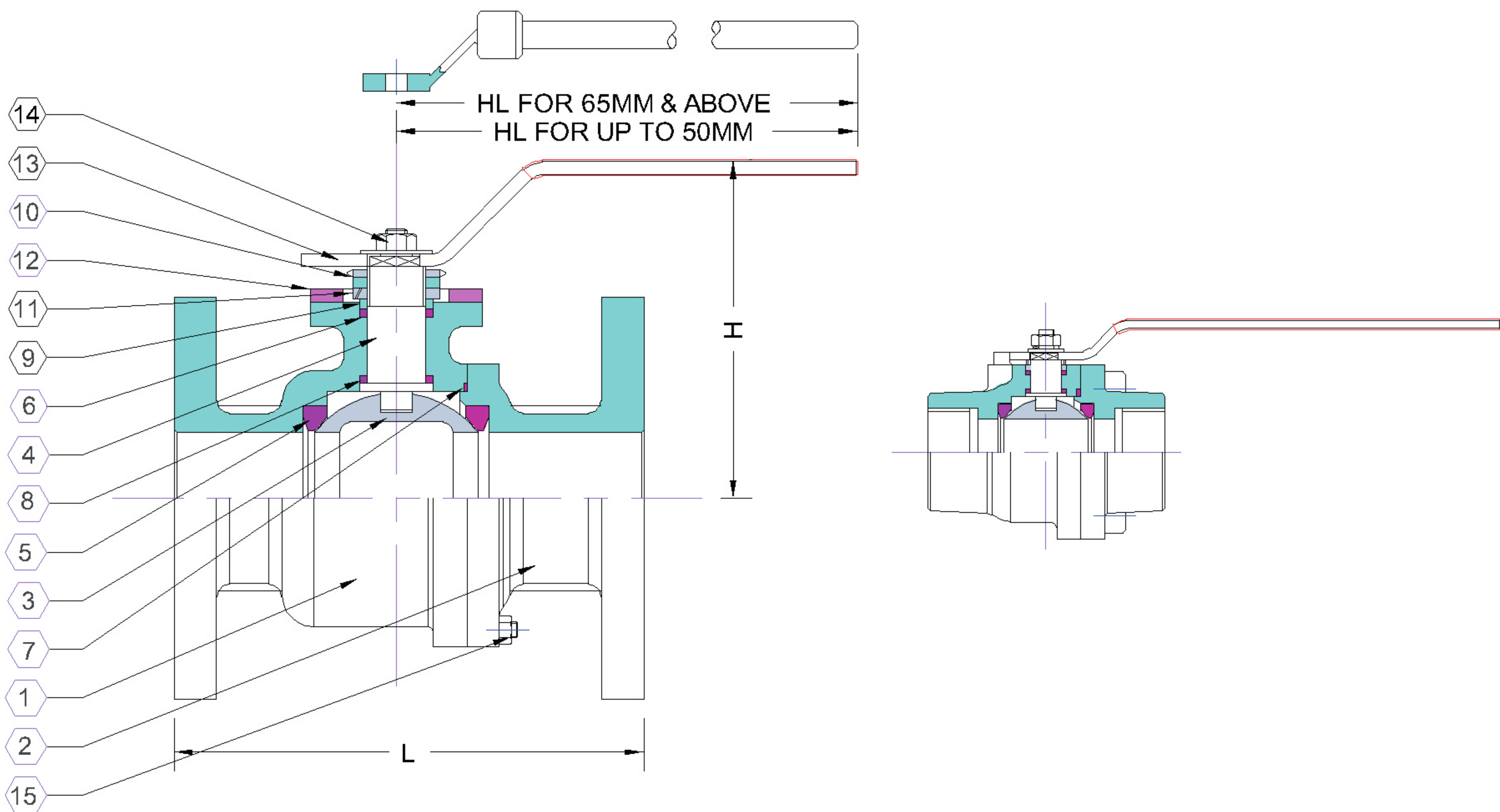
### Cast Iron Ball Valves - Re-Think Cast Iron

We are proud to introduce our next generation Cast Iron Ball Valves which will change your perception of Cast Iron Valves. Best suited for Edible Oil Refineries, Vanaspati Plants, Solvent Extraction Plants and General Demineralized Water Lines.

#### Key Features

- Robust Two Piece Full Port Design
- Stainless Steel Ball and Stem
- Standard ISO 5211 pad for automation
- Wide variety of seat material choices
- Square stem for enhanced strength
- Improved stem seal space
- Break proof internal flanges & stopper pins
- Best in quality epoxy paints for better surface protection in all weather conditions



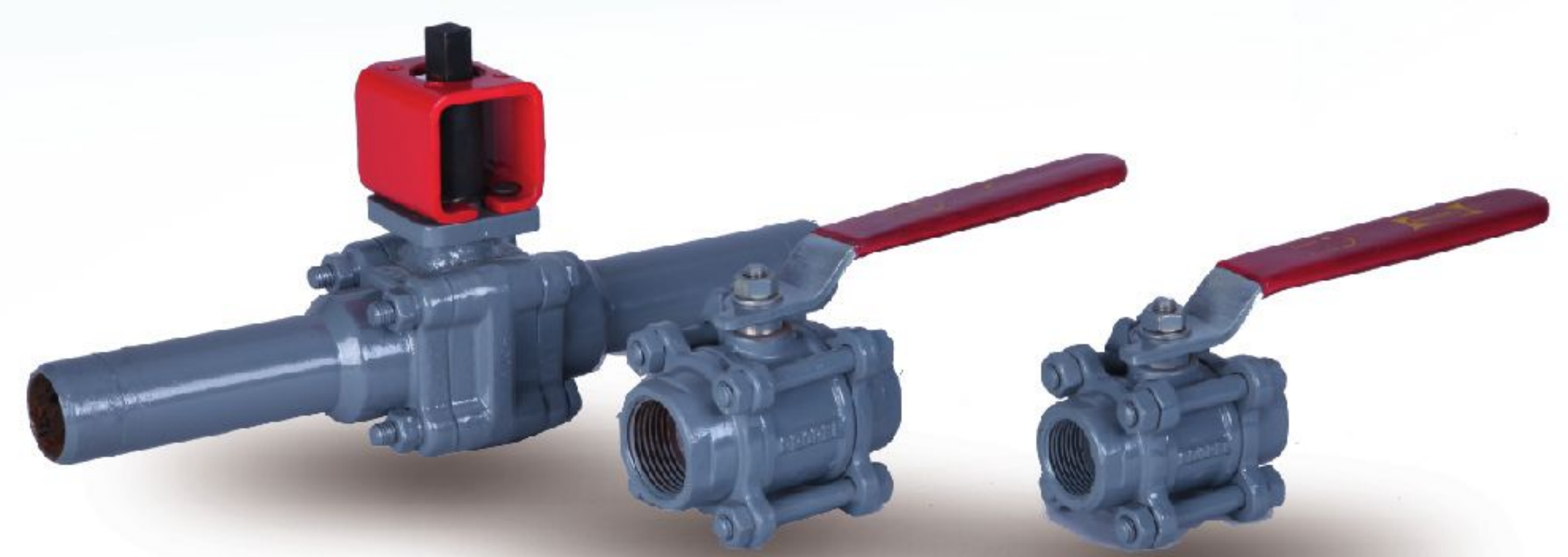
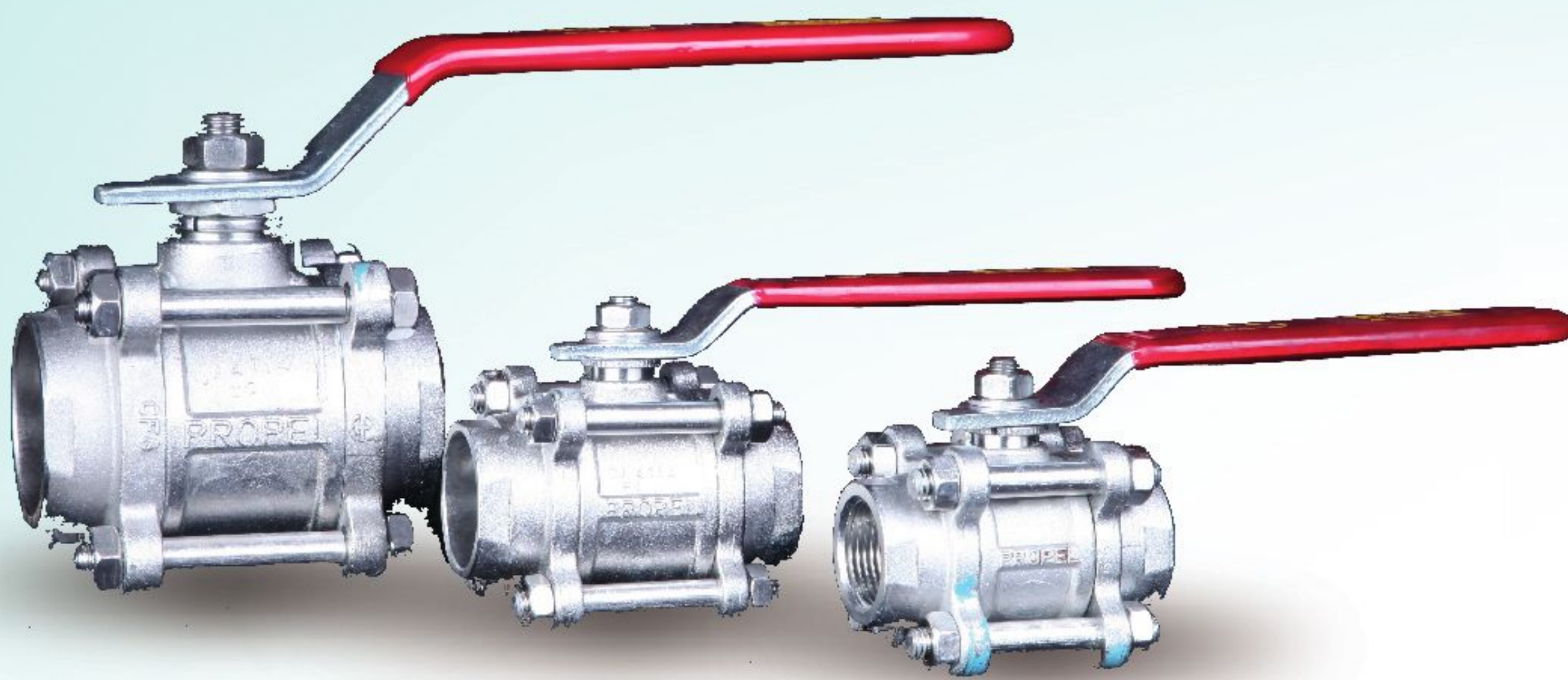


Part No	Description	Material
1	Body	Cast Iron to IS-210 Gr. FG 220
2	End Piece	
3	Ball	SS 304, 316 or Alloy 20
4	Stem	SS 304, 316 or 316L
5	Seat	PTFE / Filled PTFE / PEEK
6	Stem Seal	PTFE / Filled PTFE
7	Body Seal	
8	Thrust Washer	PTFE
9	Stem Seal Follower	SS 410 / 304 / 316 / 316L
10	Lock Nut	
11	Spring Washer	Spring Steel to IS 3063
12	Stopper Pin & Pad	MS Phosphated
13	Hand Lever	Carbon Steel Powder Coated / SS 304
14	Stem Nut	CS / SS 304
15	Body Stud & Nut	

S.NO	Valve Size	Bore Thro Ball	Class 125		
			L	H	HL
1	25	25	127	90	150
2	40	38	165	125	220
3	50	50	178	135	220
4	65	60	190	170	300
5	80	75	203	190	350
6	100	100	229	210	350
7	150	150	267	250	400

- Valves generally conform to BS 5159
- Hydrostatic proof test Body 24 kg/sq. cm., Seat 14 kg/sq. cm
- Ends Flanged as per ANSI B 16.1 125 lbs
- Can replace Gate Valves with ANSI B16.10 Face to Face dimensions





## STEEL BALL VALVES - SCREWED & WELD ENDS

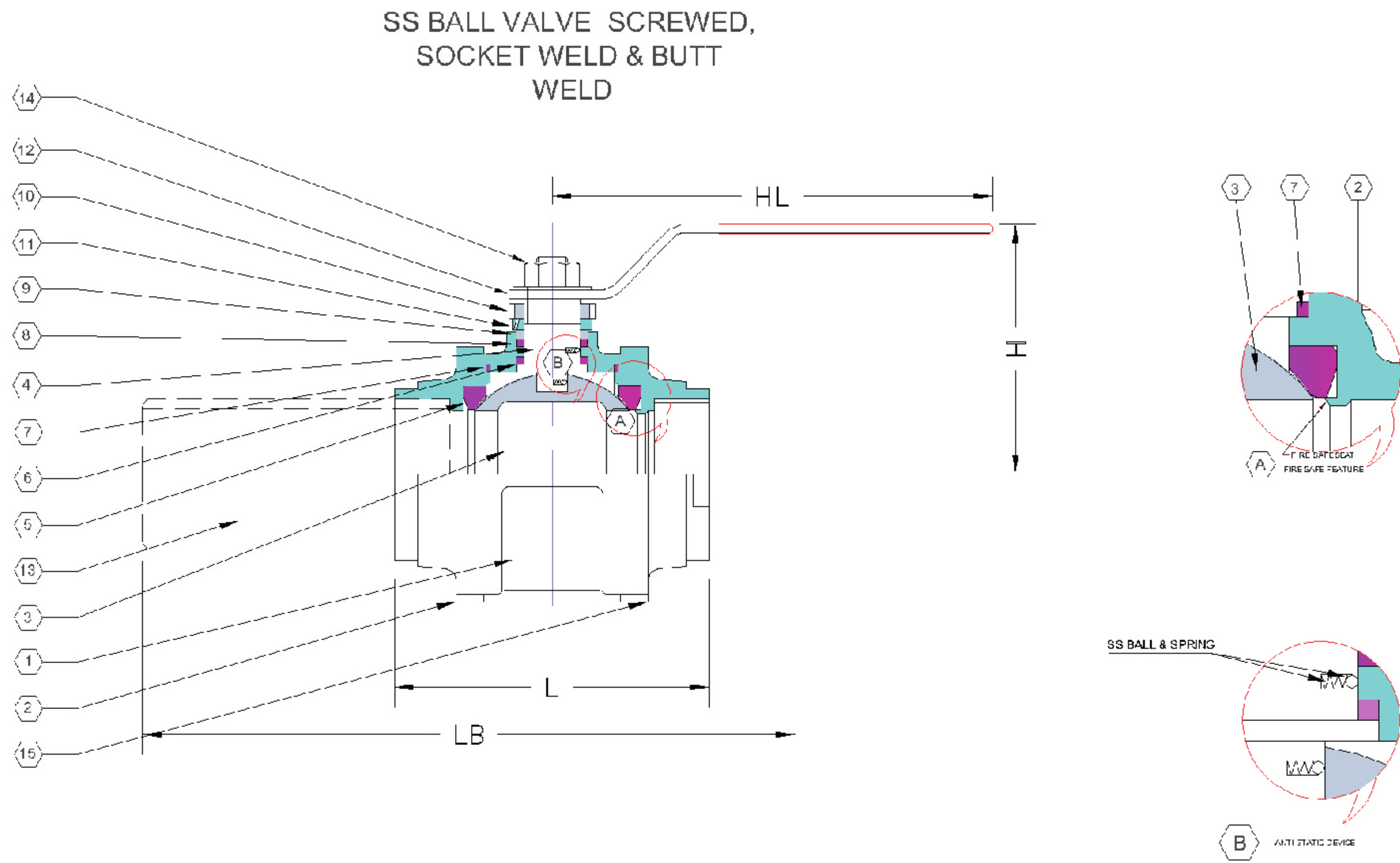
- High Quality Stainless Steel / Other Corrosion Resistant Alloys for Process lines, Carbon Steel Ball Valves for Utility Lines
- Automated Valves with Actuators, Positioners and Limit Switches

### Key Features

- Full Bore for uninterrupted flow and reduced pressure drop / energy consumption
- Investment Casting for better finish
- Fine finished stem in the packing area for better gland life
- Square spindle for better strength and more surface contact for hand lever
- Blow out proof stem
- Wetted areas fully machined and polished
- Optional Fire safe and Anti-Static features
- Mirror finished ball for tight shut off and lower operating torque
- Fool proof hand lever design
- Sturdier and better operator friendly hand lever
- Pressure Relief slots on seats
- Extended pipe for socket weld valves to prevent damage to seat and seal (Optional)







Part No	Description	Material
1	Body	Cast Carbon Steel to ASTM A 216 Gr WCB
2	End Piece	Cast Stainless Steel to ASTM A 351 Gr CF8 / 8M, CF3 / 3M, CN7M, ASTM A494-CW 12 MW (HAC), -N-12MV (HAB) ASTM A890 Gr. CD4M Cu and other Duplex / Super Duplex Alloys
3	Ball	Cast Stainless Steel to ASTM A 351 Gr. CF8 / 8M, CF3 / 3M, CN7M ASTM A494-CW 12 MW (HAC), -N-12MV (HAB) ASTM A890 Gr. CD4M Cu and other Duplex / Super Duplex Alloys
4	Stem	SS 410 / 304 / 304L / 316 / 316L / HAC / HAB / other Nickel Alloys
5	Seat	PTFE / Filled PTFE / Modified PTFE / PEEK
6	Thrust Washer	
7	Body Seal	PTFE / Pure Graphite
8	Stem Seal	
9	Stem Seal Follower	SS 410 / 304 / 304L / 316 / 316L / HAC / HAB / other Nickel Alloys
10	Lock Nut	
11	Spring Washer	Spring Steel to IS 3063 / SS 304
12	Hand Lever/Stopper Plate	Carbon Steel Powder Coated / Galvanized, Stainless Steel
13	Extended Pipe	MS / SS304 / 304L / 316 / 316L / Nickel Alloys
14	Hand Lever Nut	ASTM A193 / ASTM A194 Carbon Steel / Stainless Steel
15	Body Stud & Nut	

S.NO	Valve Size	Bore Thro Ball	Class 150			
			L	LB	H	HL
1	15	12	60	260	65	150
2	20	19	75	275	70	150
3	25	25	85	285	80	150
4	40	38	105	305	95	220
5	50	50	125	325	100	220

- Valves generally conform to BS 5351 / BS EN ISO 17292 / API 6D
- Hydrostatic and Pneumatic testing as per BS 6755 Part 1 / BS EN 12266-1 / API 598
- Ends Screwed to BSP / BSPT / NPT / Socket Weld & with extended pipe suitable for Butt Weld
- Fire-safe design as per BS 6755 Part 2 / BS EN ISO 10497 / API 607





## STEEL BALL VALVES - FLANGED

- High Quality Stainless Steel / Other Corrosion Resistant Alloys for Process Lines, Carbon Steel Ball Valves for Utility Lines
- Automated Valves with Actuators, Positioners and Limit Switches

### Key Features

- Full Bore for uninterrupted flow and reduced pressure drop / energy consumption
- Investment Casting up to 100 mm for better finish
- Fine finished stem in the packing area for better gland life
- Square spindle for better strength and more surface contact for hand lever
- Blow out proof stem
- Wetted areas fully machined and polished
- Optional Fire safe and Anti-Static features
- Mirror finished ball for tight shut off and lower operating torque
- Fool proof hand lever design
- Sturdier and Better operator friendly hand lever
- Pressure Relief slots on seats



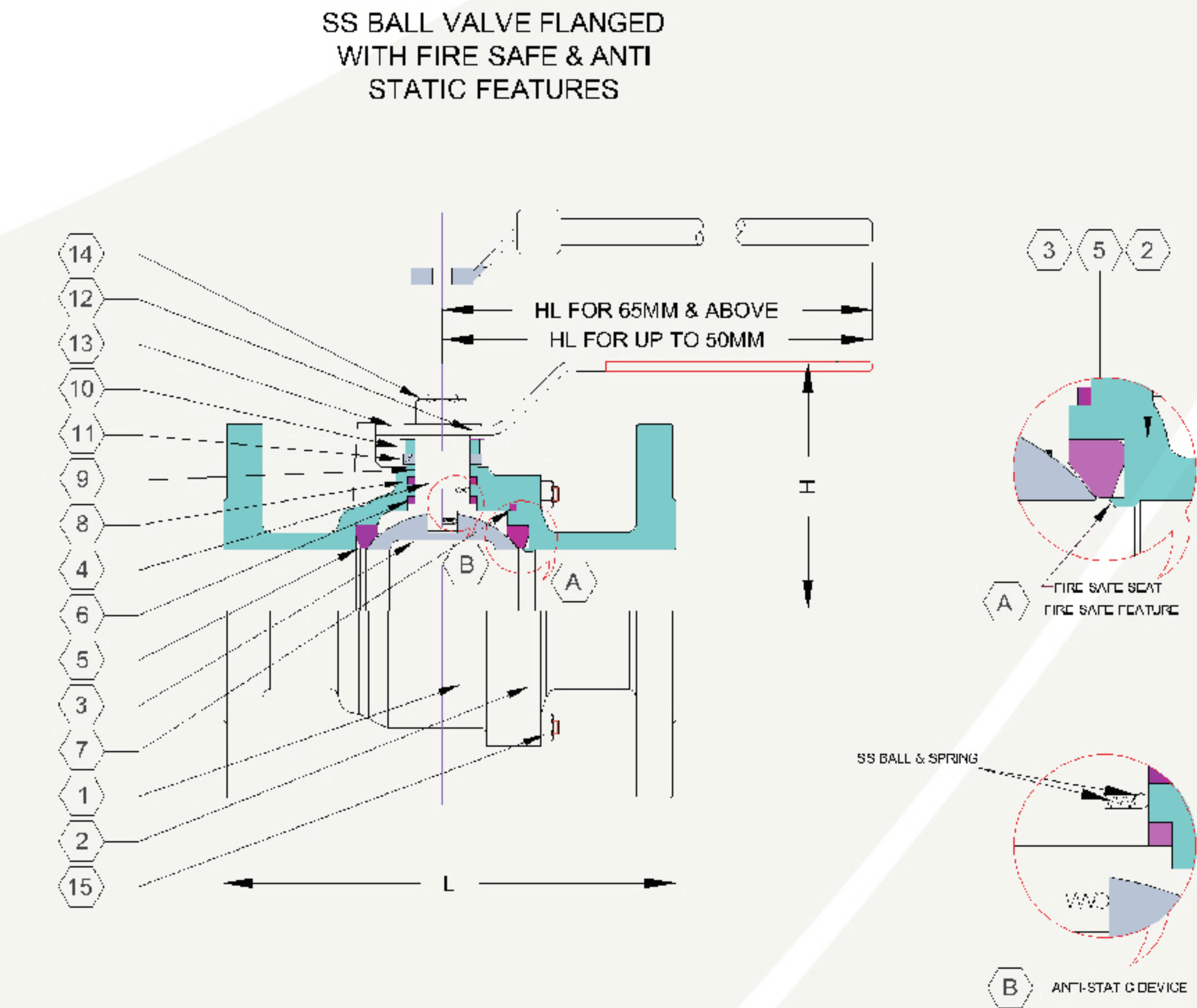


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STEEL BALL - FLANGED

Part No	Description	Material
1	Body	Cast Carbon Steel to ASTM A 216 Gr WCB Cast Stainless Steel to ASTM A 351 Gr CF8 / 8M, CF3 / 3M, CN7M, ASTM A494-CW 12 MW (HAC), -N-12MV (HAB) ASTM A890 Gr. CD4M Cu and other Duplex / Super Duplex Alloys
2	End Piece	
3	Ball	Cast Stainless Steel to ASTM A 351 Gr. CF8 / 8M, CF3 / 3M, CN7M ASTM A494-CW 12 MW (HAC), -N-12MV (HAB) ASTM A890 Gr. CD4M Cu and other Duplex / Super Duplex aAlloys
4	Stem	SS 410 / 304 / 304L / 316 / 316L / HAC / HAB / other Nickel Alloys
5	Seat	PTFE / Filled PTFE / Modified PTFE / PEEK
6	Thrust Washer	
7	Body Seal	PTFE / Pure Graphite
8	Stem Seal	
9	Stem Seal Follower	SS410 / 304 / 304L / 316 / 316L / HAC / HAB / other Nickel Alloys
10	Lock Nut	
11	Spring Washer	Spring Steel to IS 3063 / SS304
12	Hand Lever	Carbon Steel Powder Coated / Galvanized, Stainless Steel
13	Stopper Plate	Carbon Steel Powder Coated / Galvanized, Stainless Steel (For 65mm & above)
14	Stem Nut	ASTM A193 / ASTM A194 Carbon Steel / Stainless Steel
15	Body Stud & Nut	

S.NO	Valve Size	Bore Thro Ball	Class 150			Class 300		
			L	H	HL	L	H	HL
1	15	12	108	90	150	140	90	150
2	20	19	117	125	150	152	125	150
3	25	25	127	135	150	165	135	150
4	40	38	165	170	220	190	170	220
5	50	50	178	190	220	216	190	220
6	65	60	190	210	350	241	210	350
7	80	75	203	250	350	282	250	400
8	100	100	229	275	400	305	275	425
9	150	150	267	325	450*	403	325	500*
10	200	196	457	370	550*	501	370	650*
11	250	245	534	400	675*	568	400	750*
12	300	300	610	425	800*	648	425	900*



\*Actuator recommended

- Valves generally conform to BS 5351 / BS EN ISO 17292 / API 6D
- Hydrostatic and Pneumatic testing as per BS 6755 Part 1 / BS EN 12266-1 / API 598
- Ends Flanged as per ANSI B 16.5 150/300 lbs
- Fire-safe design as per BS 6755 Part 2 / BS EN ISO 10497 / API 607






## GATE VALVES

- Gate Valves – Flanged Ends, Screwed Ends and Socket Weld Ends
- Stainless Steel Gate Valves for Process lines and Special purposes
- Carbon Steel Gate Valves for Steam / Thermic Fluid and Utility Lines

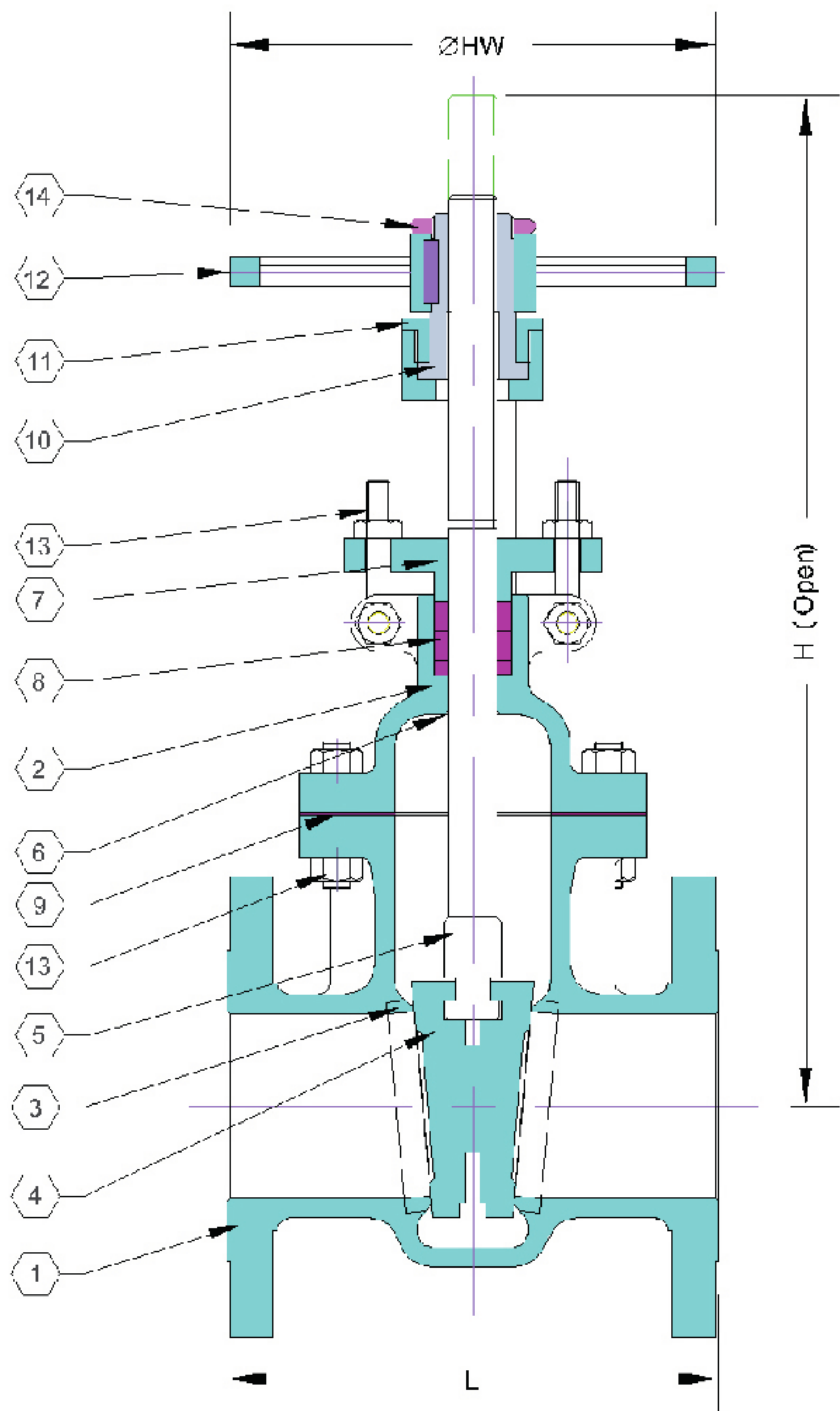
### Key Features

- Suitable for high temperature service
- Low fugitive emission 
- Spindles of high quality stainless steel, ground and polished for a very smooth finish for extended gland life
- Gland packing ranging from Graphite, Braided and Reinforced Graphite with SS wires, PTFE, PTFE Chevron, Braided and Reinforced PTFE with SS wires
- Live load on gland packing for extended low fugitive emission service
- Optional stellite of seats and wedge faces for longer life
- Solid and flexible wedge design options
- Wide range of body-bonnet gasket options like Graphite, Spiral wound SS with Graphite, PTFE and other fillers
- Gear, Electric and Pneumatic Cylinder operators can be provided

### Why fugitive emission is so critical

In a petroleum plant, 60% of fugitive emission happens from valves. Hence it is critical to reduce the fugitive emission from valves as much as possible.





Part No	Description	Material
1	Body	Cast Carbon Steel to ASTM A 216 Gr WCB, ASTM A 352 Gr LCB, ASTM A 351 CF8,CF8M,CF3,CF3M and other Nickel Alloys
2	Bonnet	
3	Seat	
4	Wedge	CS with 13% Cr Deposit / SS 304 / SS 316 / SS 316L / other Nickel Alloys / Stellite (Optional)
5	Stem	SS 410 / 304 / 316 / MONEL / HAC / other Nickel Alloys
6	Back Seat	Integral / Stellite (Optional)
7	Gland Flange	Same as Body & Bonnet
8	Gland Packing	Graphite, Braided and Reinforced Graphite with SS wires, PTFE, PTFE Chevron, Braided and Reinforced Graphite with SS wires
9	Body-Bonnet Gasket	Graphite, Spiral wound SS with Graphite, PTFE and other fillers
10	Stem Bush	EN 1A / Alloy Iron / Al. Bronze
11	Stem Bush Retainer	CS to IS 1570 / SS
12	Hand Wheel	Fabricated MS / Malleable Iron
13	Fasteners	ASTM A193 / ASTM A194 Carbon Steel / Stainless Steel
14	Hand wheel Nut	CS to IS 1570 / Stainless Steel

SIZE	50	65	80	100	150	200	250	300	Class 150
F/F	178	190	203	229	267	292	330	356	
H	420	440	540	625	765	950	1160	1390	
ØHW	200	200	250	300	350	400	450	500	

- Gate Valves generally conform to API 600 / BS 1414 / ISO 10434
- Hydrostatic and Pneumatic testing as per API 598 / EN 12266-1 / BS 6755-1
- Face-to-Face dimensions ASME B16.10 for Flanged Valves






## GLOBE & NON RETURN VALVES

- Globe Valves and Non Return Valves for Steam / Thermic Fluid, Process and Utility Lines supplied with IBR Test Certificate in Form III C also
- Globe Valves in ASA and DIN Standards
- Non Return Valves in ASA and DIN Standards

### Key Features

- Suitable for high temperature service
- Low fugitive emission 
- Spindles of high quality stainless steel, ground and polished for a very smooth finish for extended gland life
- Gland packing ranging from Graphite, Braided and Reinforced Graphite with SS wires, PTFE, PTFE Chevron, Braided and Reinforced PTFE with SS wires
- Live load on gland packing for extended low fugitive emission service
- Optional stelliting of seats and disc faces for longer life
- Conical disc arrangement for control, PTFE disc insert for gaseous applications
- Wide range of body-bonnet gasket options like Graphite, Spiral wound SS with Graphite, PTFE and other fillers
- Gear, Electric and Pneumatic Cylinder operators can be provided

### Why fugitive emission is so critical

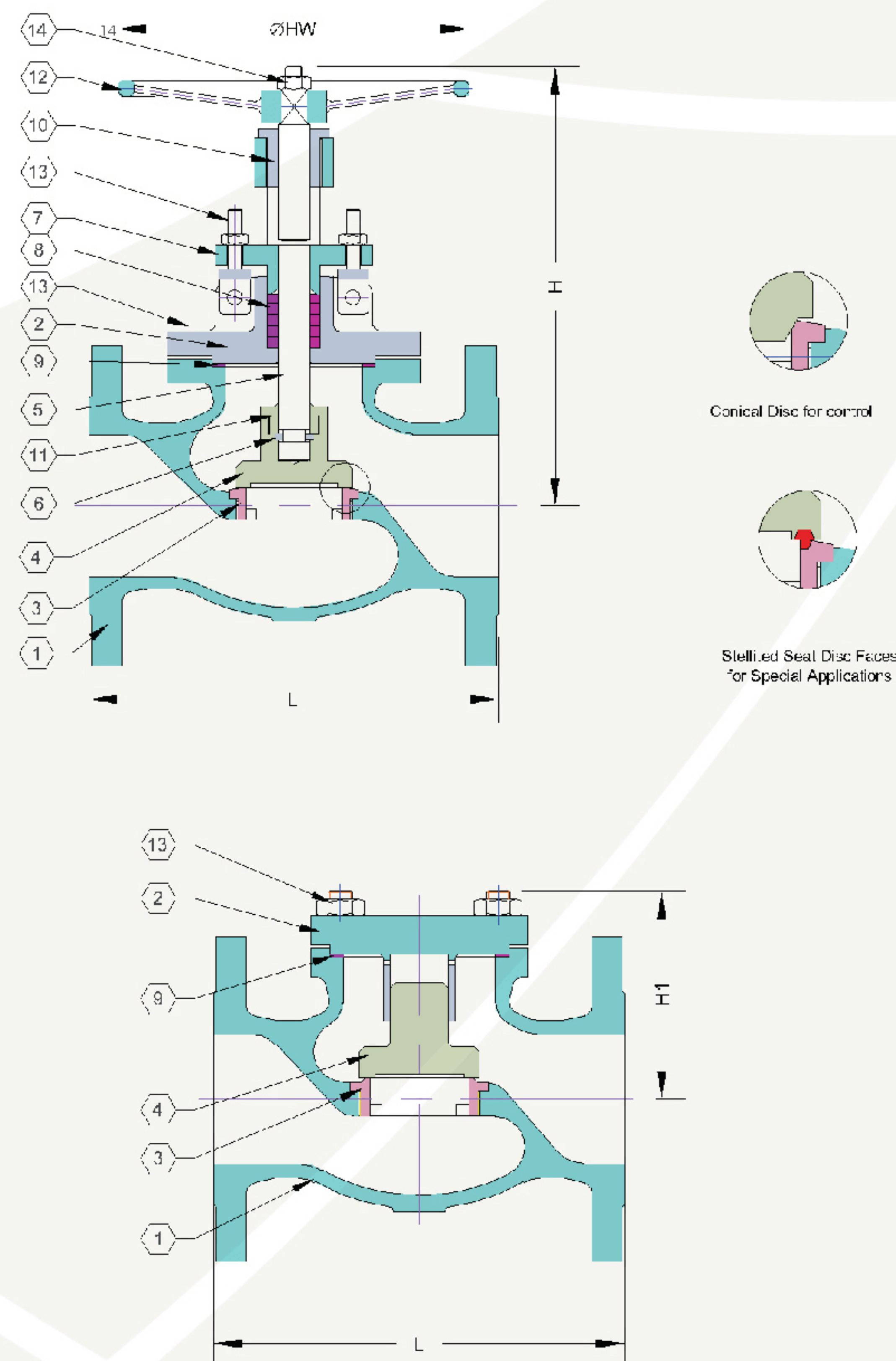
In a petroleum plant, 60% of fugitive emission happens from valves. Hence it is critical to reduce the fugitive emission from valves as much as possible.



Part No	Description	Material
1	Body	Cast Carbon Steel to ASTM A 216 Gr WCB, ASTM A 352 Gr LCB, ASTM A 351 CF8,CF8M,CF3,CF3M and other Nickel Alloys
2	Bonnet / Cover	
3	Seat	CS with 13% Cr Deposit / SS 304 / SS 316 / SS 316L / other Nickel Alloys / Stellite (Optional)
4	Disc	
5	Stem	SS 410 / 304 / 316 / MONEL / HAC / other Nickel Alloys
6	Split Ring	
7	Gland Flange	Same as Body & Bonnet Material
8	Gland Packing	Graphite, Braided and Reinforced Graphite with SS wires, PTFE, PTFE Chevron, Braided and Reinforced PTFE with SS wires
9	Body-Bonnet Gasket	Graphite, Spiral wound SS with Graphite, PTFE and other fillers
10	Stem Bush	EN 1A/Alloy Iron / Al. Bronze
11	Disc Retainer	Same as Disc Material
12	Hand Wheel	Fabricated MS / Malleable Iron
13	Fasteners	ASTM A193 / ASTM A194 Carbon Steel / Stainless Steel
14	Hand wheel Nut	CS to IS 1570 / Stainless Steel

Size	Class 150				Class 300			
	L	H (open)	H1	HW	L	H (open)	H1	HW
25	127	175	25	130	203	190	25	150
40	165	250	40	150	229	255	40	180
50	203	240	50	180	267	350	50	200
65	216	265	65	200	292	375	65	250
80	241	450	80	250	318	425	80	300
100	292	460	100	300	356	480	100	350
150	406	495	150	350	445	650	150	400
200	495	700	200	400	559	780	200	450
250	622	760	250	450	622	880	250	500
300	698	820	300	500	712	930	300	650

- Globe Valves generally conform to BS 1873
- Non Return Valves generally conform to BS 1868
- Hydrostatic and Pneumatic testing as per BS 6755-1, EN 12266
- Face-to-Face dimensions as per ASME B16.10 for Flanged Valves







### Flush Bottom Ball Valves

- Flush Bottom Valves for Tank bottom applications
- Minimal fluid retention in the cavity between valve and reactor



### Drain Valve – Ram Type

- Ram type for zero residue tank bottom services



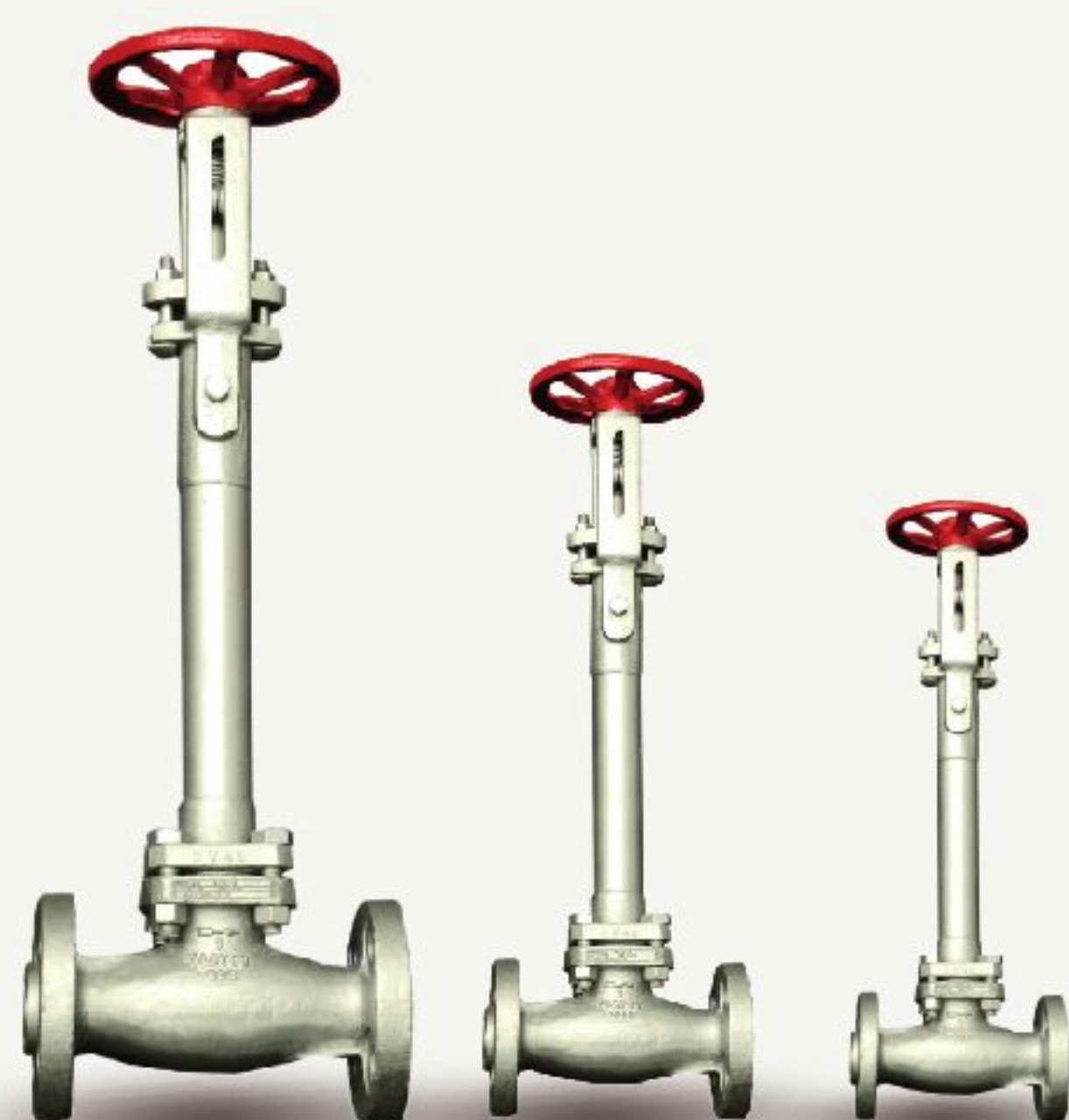
### Titanium Valves

- Titanium Valves for very corrosive services
- Experience in supplying valves for Naval applications



### NAB Valves

- Nickel Aluminium Bronze Valves for sea water applications
- High resistance to corrosion of sea water
- Experience in supplying valves for Naval applications



### Cryogenic Valves

- Cryogenic Globe Valves and Ball Valves for service conditions upto  $-196^{\circ}\text{C}$  for liquid nitrogen, oxygen and other gases





### Actuated Valves

- Pneumatic Actuators
- Pneumatic Cylinders
- Electrical Actuators
- Limit Switches & Accessories



### Strainers

- Type Strainers with suitable elements and mesh sizes
- Basket Type Strainers with suitable elements and mesh sizes



### Butterfly Valves

- Cast Iron Butterfly Valves for the utility lines



### #1500 Ball Valves

- Class 1500 Metal Seated, Trunnion Mounted Ball Valves for high temperature and pressure applications



### #1500 Globe & Non Return Valves

- Class 1500 Globe / Non Return Valves for high temperature and pressure applications



# CLIENTS



Quality  
Innovation





## PROPEL VALVES PRIVATE LIMITED

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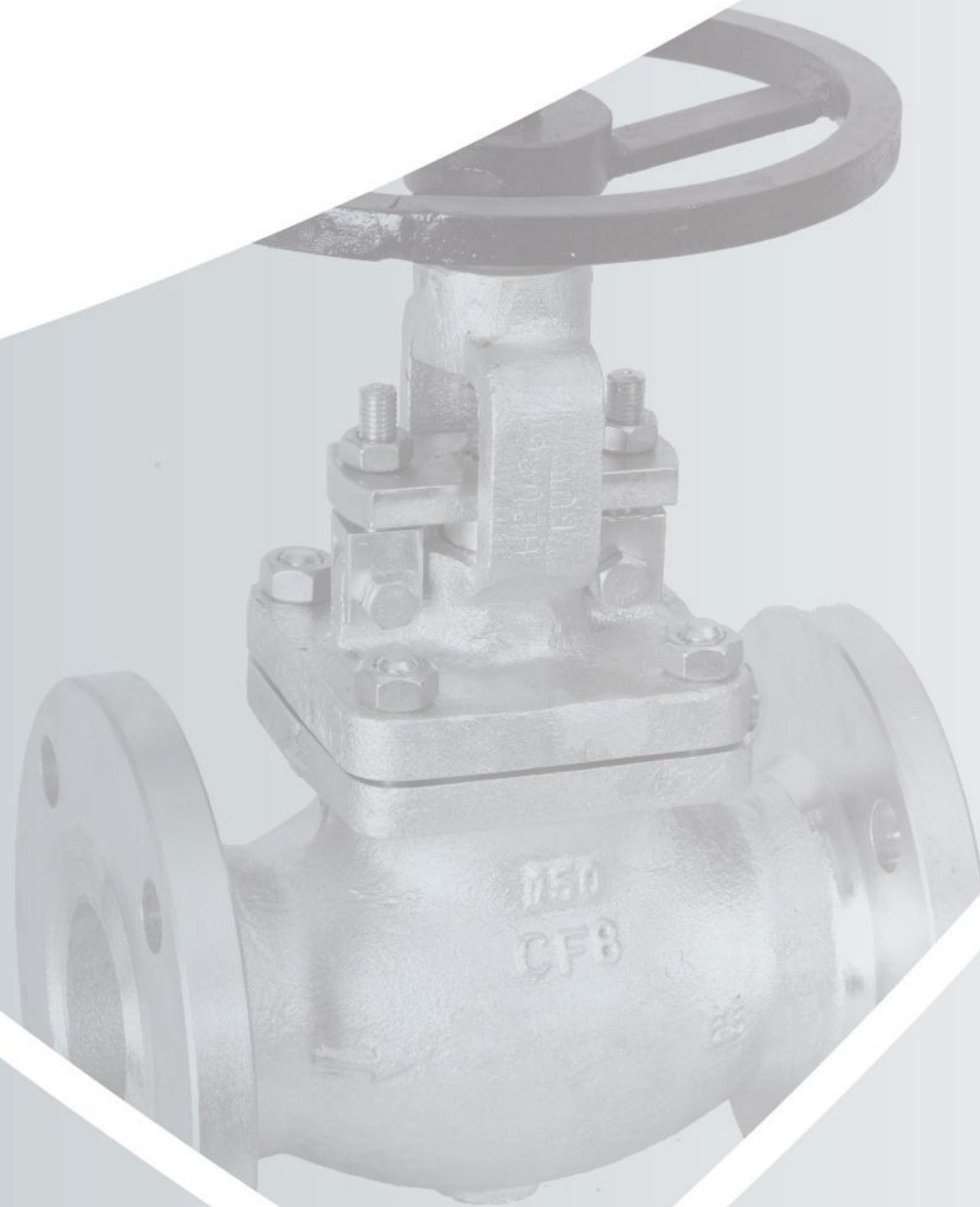
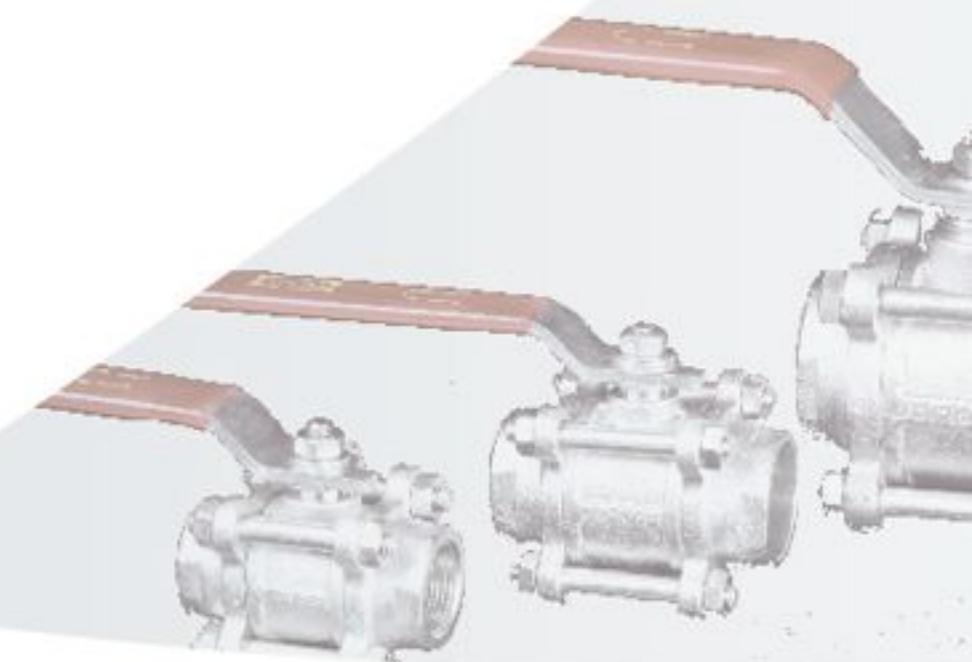
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Eco Friendly Products



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