



PRODUCT LINE

PERFORMING IN DEMANDING APPLICATIONS



PRODUCT FAMILIES

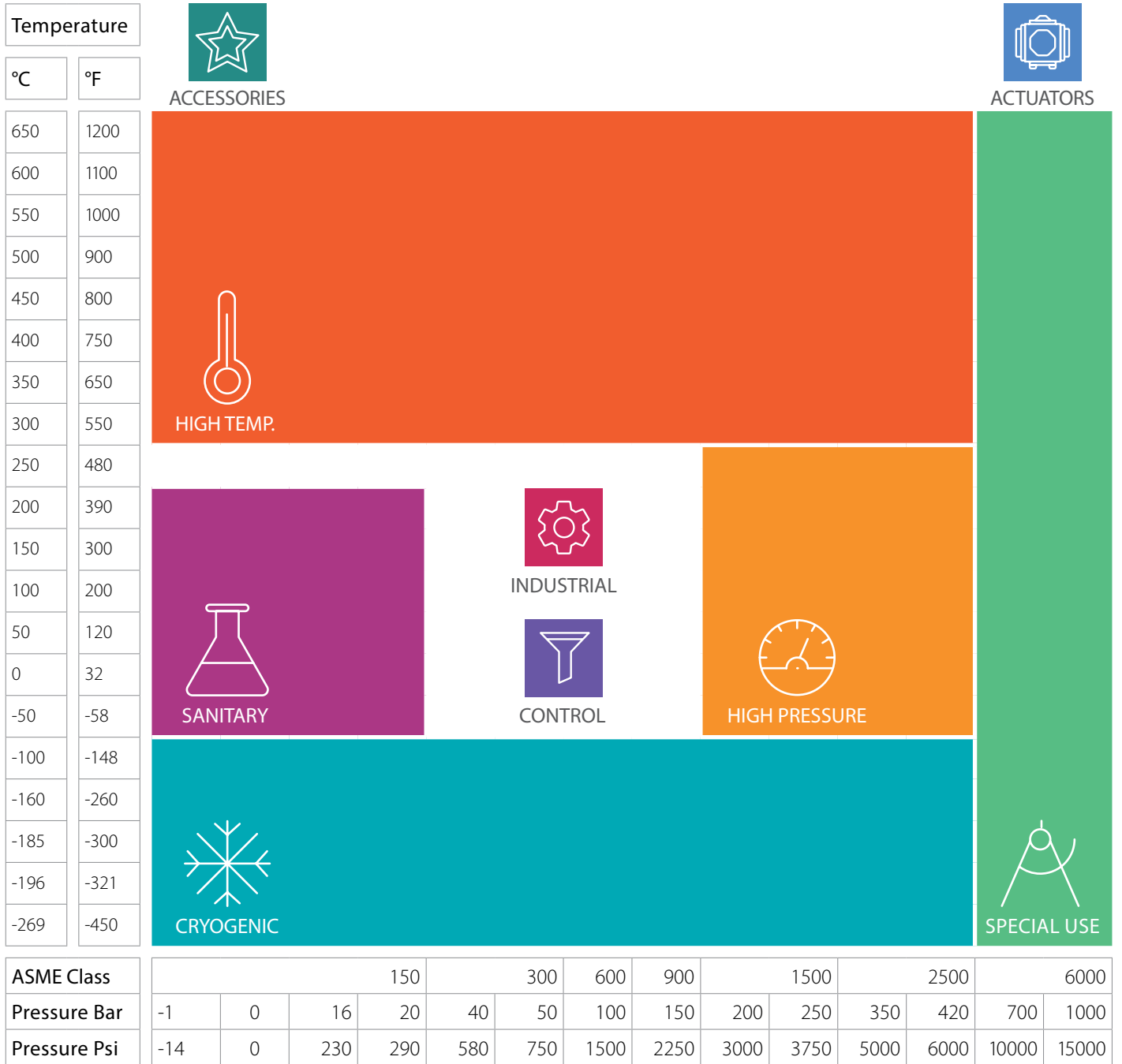


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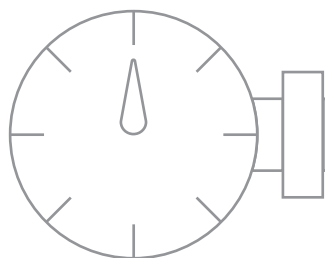
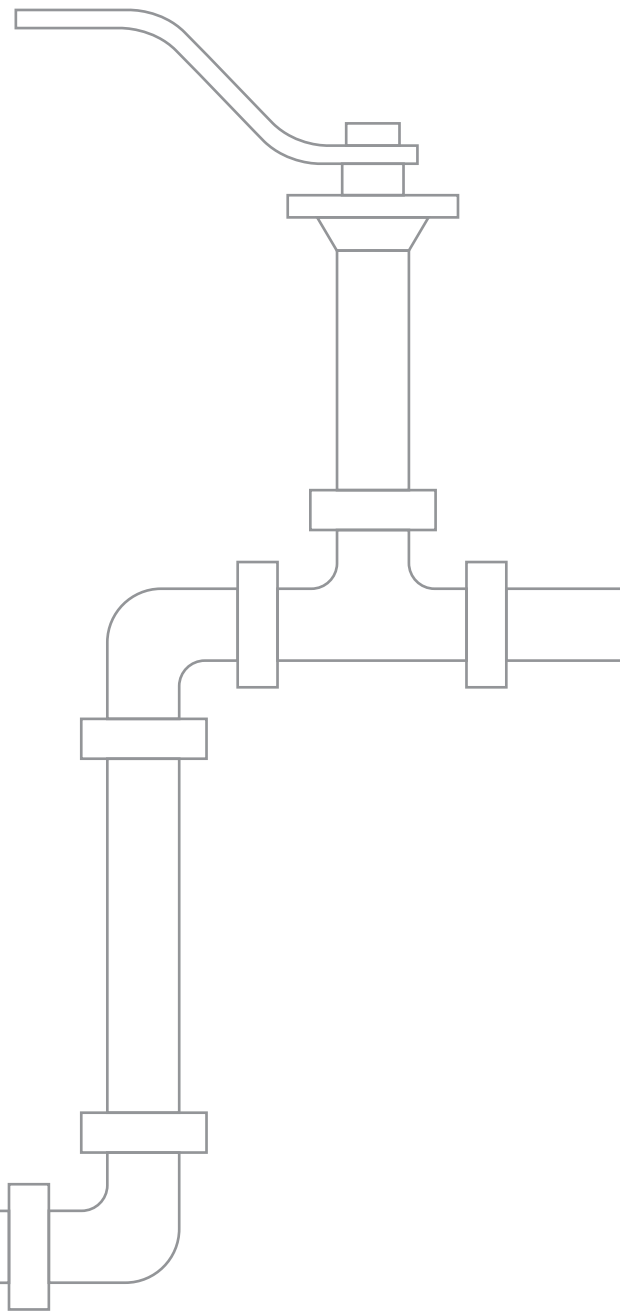
TOTAL HERMETIX INTEGRITY PACKAGE

100%
Materials &
processing
traceability



Quality system approved for
API 6D, PED/TPED, SIL, ISO 9001
#6D-1278

100%
Tested



As a standard, most of HABONIM valves are equipped with the Total HermetiX integrity package comprised of three main elements and a superior inline sealing mechanisms in some of them:

Zero fugitive-emission no maintenance stem sealing

- HermetiX™ stem sealing design with zero fugitive emission sealing capability.
- Tested or certified according to ISO 15848-1 and API641 standards.
- Up to 500,000 cycles of operation with no maintenance guaranteed.
- Field proven for millions of cycles continuous operation.

Double body sealing

- Body-to-ends & body-to-bonnet double sealing for superior atmospheric sealing.
- Selection of sealing materials for diverse applications.
- Fugitive emission prevention.

Fire safe

- Tested and certified according to API 607 & ISO 10497.
- Type-tested and certified by leading certification bodies for marine service.
- Clean fire-safe construction guarantees no graphite contamination of the media flow.

Superior In-line sealing

A variety of implemented mechanisms provide extended in-line sealing capabilities such as:

- Bidirectional sealing
- High pressure full Δp sealing
- High & low pressure sealing
- Others



TOTAL HERMETIX™

Registered EU Design
015025978-0001



CRYOGENIC VALVES

With our legacy wide range field-proven ball valve and control packages product line we have been successfully performing in the industries most demanding and evolving cryogenic applications over the last three decades.

From the most recent Small-Scale LNG systems to the traditional liquefied industrial gases supply, air separation plants, LNG storage, distribution and transportation, aerospace, petrochemical and medical applications, our products offer added values on safety, fugitive emission prevention, reliability, minimal & ease maintenance, space & weight savings and compatibility to regulations and special needs of end-users, governing bodies, OEM's, designers and system builders.

Features

Special mechanical design and construction

- Solid one-piece high torque durable stem.
- Tight stem-to-ball directional engagement, ensures relief hole alignment.
- Strict materials and manufacturing tolerances control.

Efficient heat transfer

- A narrow space between the extension ID and the stem OD allows the stem seal to remain at an ambient temperature.

No-Trap Cavity

- Relief hole on the upstream sphere of the ball to prevent pressure buildup in the cavity.
- Single-side or self-pressure-relief sealing for bidirectional full pressure service.

Flexible bonnet installation angle

- Up to 45° from the vertical axis for the 12" bonnet (per BS6364 guidelines).
- Up to 15° from the vertical axis for the 6" bonnet (not BS6364 compliant).

Flow direction indicators (for valves with preferred flow direction)

- Highly visible arrows on body and bonnet top.
- "T" mark on the stem, showing relief hole direction.

Double isolation / double block and bleed designs available upon request

Clean assembly and packing



Fire Block Valve (FBV)



Total Hermetix™

Port: Standard Port Full Port Tube Size

End Connections: Threaded Flanged Welded

	Ball Valve	Design Type	Series	TH	Port	End Con.	Valve Size (Inches)												MWP (ASME Class / DIN PN)												
							1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12										
Temperature: Cryogenic Down to -269°C (-452°F)	Trunnion Mounted Ball	Top Entry 3 Piece	C52	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	300												300											
			C91	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	300												150											
			C92	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	300												300											
			C93	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	300												600											
			C94	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	300												900											
		C95	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	300												1500												
		C96	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	300												2500												
		2 Piece	C81	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	300												150											
			C82	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	300												300											
			C83	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	300												600											
	Floating Ball		3 Piece	C47	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	600						300																
				C47-BD	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	300						150																
				C26	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	600																						
				C28	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	2500 (Δp up to 103bar/1494psi)																						
			Diverter 3 Pcs.	DC47	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	600																						
			Multiport 3 Pcs.	C61	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	600						300																
			Multiport 3 Pcs.	C62	<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="checkbox"/>	600						300																
			1 Piece	C31	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	150																						
				C32	<input checked="" type="checkbox"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	300																						
			1 Piece	C73	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	150																						
		2 Piece	C74	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	300																							
			C77	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>							PN16																	
			C78	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	PN40																							

ASME Class	150				300				600				900				1500				2500				6000			
Pressure Bar	-1 *	0	16	20	40	50	100	150	200	250	350	420	700	1000														
Pressure psi	-14 *	0	230	290	580	750	1500	2250	3000	3750	5000	6000	10000	15000														

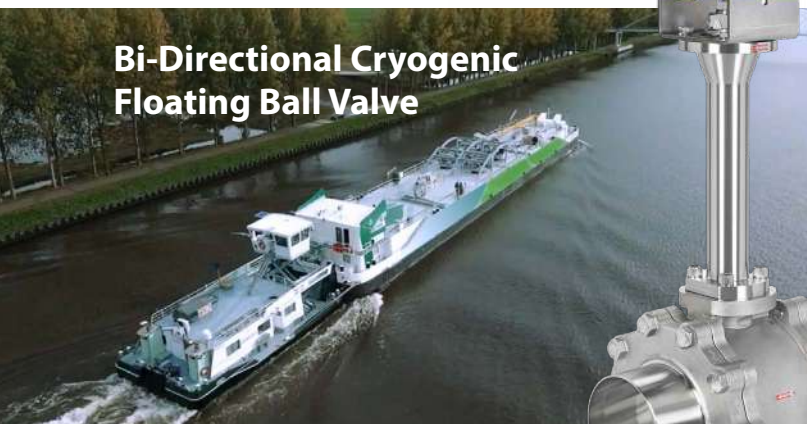
* Vacuum 10^{-6} Tor

Reference standards

- Design, testing & inspection according to BS 6364:1984 (amendment 3)
- Testing EN 14432:2014
- Testing EN 1626:2008 (per request)
- NDT per ASME B16.34 - optional



Bi-Directional Cryogenic Floating Ball Valve





HIGH PRESSURE VALVES

Performing within high pressure systems is a significant part of our daily commitment over the last decades. We design, manufacture and support our high-pressure ball valves and control packages that are specially built for safety, endurance and reliability to cover for gases and fluids control up to Class 2500 pressure ratings and Ultra-High pressures up to 1,000bar (15,000psi).

Our customers trust allows us to offer a comprehensive standard catalog product line alongside flexible tailor-made products offered to the most demanding applications.

Features

Materials

- Forged or rolled bars, sourced and stocked only from high quality mills.

High Δp (differential pressure)

- Up to 414bar (6,000psi) full Δp class 2500 depend on series and size.

Robust design

- Pressure containing parts are in compliance with ASME B16.34.
- A one-size-up stem made of high tensile material complies with ASME B16.34 and API 6D (#6D-1278) for drive train requirements provides a sufficient safety factor during operation.
- A special hybrid seat design provides a higher metal seat stiffness and bubble tight shut-off (Rate A) combined with lower operating torque compared to equivalent similar valve solutions.

Pressure tested

- Designs are burst-proof tested for 4 times the maximal working pressure.

Designed and tested per EN 14432:2014

Type test certified by DNV-GL (for part of the series)



X Total Hermetic™ |
 Port:
 ◎ Standard Port
 ◎ Full Port
 ○ Tube Size |
 End Connections:
 ⬡ Threaded
 ⊕ Flanged
 □ Welded

	Ball Valve	Design Type	Series	TH	Port		End Con.		Valve Size (Inches)													
									MWP (ASME Class / DIN PN)													
									¼	½	¾	1	1¼	1½	2	2½	3	4	6	8	10	12
-60°C - +260°C (-76 °F - +500 °F)	Trunnion Mounted Ball	3 Piece	96	X	◎	◎	◎	◎														
			95	X	◎	◎	◎	◎														
	Floating Ball	3 Piece	28	X	◎	◎	⬡	◎	◎													
			27	X	◎	◎	⬡	◎	◎													
			24	X	◎	◎	⬡	◎	◎													
	ASME Class			150	300	600	900	1500	2500							6000						
Pressure Bar	-1 *	0	16	20	50	100	150	250	400	1000												
Pressure psi	-14 *	0	290	290	725	1450	2175	3600	5800	15000												

* Vacuum 10⁻⁶ Tor

Up to 1,000 bar (15,000 psi)
class 6000 TPED valves





HIGH TEMP. VALVES

Metal To Metal (MTM)

Serving high-end applications with ball valves for High temperature, high pressure and abrasive medium is within our unique expertise, developed over decades, serves high-end applications utilizing ball valves for high temperature, high pressure and abrasive mediums.

Meticulously engineered, constructed and tested, our metal seated ball valve is an important capability we are proud of. Careful metallurgical selection of all valve parts, using special surface finishing and treatments, hard coatings, and thorough analyses of mechanical strength and thermal expansion ensure that our high temperature (Metal To Metal) valves are a proven choice for the industries toughest and most demanding applications.

We offer a very wide range of catalog standard products for high temperature and abrasive mediums using Metal To Metal sealing. In parallel, we offer a flexible tailor-made capability allowing us to offer even more comprehensive support for the O&G, chemical, petrochemical, energy and other industries.

Features

Materials:

- Stainless Steel, alloys, Carbon Steel - selected to meet temperature and application. ASME B16.34 listed cast or forged material for the valve body and ends.
- Surface treatments & coatings - LTPN, HVOF Cr₃ C₂ (Chromium Carbide), HVOF WC-Co (Tungsten Carbide) and Stellite.

Robust design:

- Pressure containing parts are in compliance with ASME B16.34 (with modifications for some series).
- Leak rate to EN12266-1 Rate B (factory tested) is achieved by accurate grinding and lapping processes.
- Constant preloading of ball/seats set obtained by Inconel 718 Belleville spring.

Pressure tested:

- Designs are burst proof tested for 4 times the maximal working pressure.
- Designed and tested per testing & acceptance criteria ANSI/FCI 70-2.



LTPN surface treatment: The ideal solution for severe applications up to 400°C / 752°F



Habonim's unique LTPN surface treatment improves mechanical wear properties of austenitic stainless steels without affecting their corrosion resistance.

⊗ Total Hermetix™

Port: ⊗ Standard Port ⊙ Full Port ○ Tube Size

End Connections: ⊕ Threaded ⊕ Flanged □ Welded

Ball Valve Style		Design Type	Series	Temperature range -60°C (-76°F) up to:							Valve Size (Inches)																
				260°C (500°F)	400°C (752°F)	538°C (1000°F)	650°C (1200°F)	TH	Port	End Con.	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12		
				W	P	T	M				MWP (ANSI Class / DIN PN)																
Trunnion Mounted Ball	3 Piece	Z91	W	P	T				⊗	⊙	⊕	⊕													150		
		Z92																								300	
		Z93																									600
		Z94																									900
		Z95																									1500
		Z96																									2500
Trunnion Mounted Ball	2 Piece	Z81		P	T																					150	
		Z82																									300
		Z83																									600w
	3 Pcs. 2 Piece	Z47	W	P	T	M				⊗	⊙	⊕	⊕														600
		Z28	W	P		M				⊗	⊙	⊕	⊕														2500
		Z73	W	P	T																						
Floating Ball	2 Piece	Z74																								150	
		Z77																									300
		Z78																									40
																											16

ASME Class	150 300 600 900 1500 2500 6000								
Pressure Bar	0	16	20	50	100	150	250	400	1000
Pressure psi	0	290	290	725	1450	2175	3600	5800	15000



LTPN provides austenitic stainless steel, ball and seats with the additional hardness necessary to operate without galling at elevated temperatures.



CONTROL VALVES

Habonim control valves are designed and meet industrial high demands for flow control in various systems and applications.

Accuracy, flexibility, cost effectiveness and maintainability are the added values our control valves provide with excellent performance in the most demanding environments for decades.

Habonim control packages are compact, lightweight, long-life solution with step-less characterized pressure and flow control for fast response times, wide rangeability, and bubble-tight shutoff.

Critical performance features include high pressure drop capacity with straight-through flow, high Cv, and large exhaust capacity. The package design features ensure ease of maintenance and zero backlash.

Features

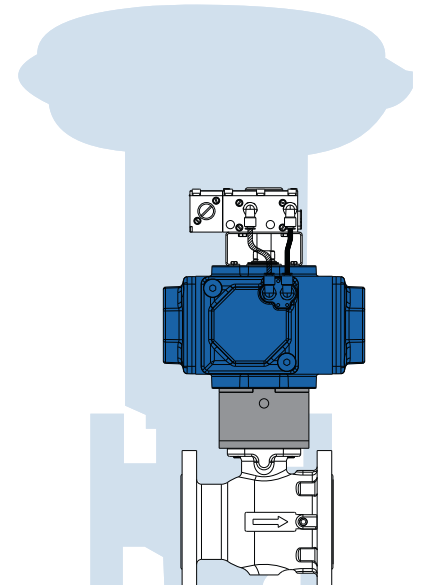
Control valve construction

- Using standard valve construction with minimal adaptation to allow control features.
- V-Port, V-Ball or Slot Port control elements.
- Zero seat leakage - bubble-tight shut-off.
- Higher flow coefficient (Cv) compared with other valve designs.
- Rangeability of about 1:50, stability within 20%-80% open position.
- Line anti-cavity trims are available upon request.

Superior Control Package

- Higher Cv of valve allow smaller valve and pipes size selection with less weight.
- Minimum hysteresis / outstanding repeatability – superior adapter design for zero backlash, and virtually no hysteresis.
- CompAct actuator with superior control capabilities and minimal footprint.
- Overall accurate and cost-effective package designed, assembled & tested.
- Smaller footprint of the control package.

Testing & acceptance criteria ANSI/FCI 70-2



3-way control valve for diverting & mixing



⊗ Total Hermetix™

Port: ◎ Standard Port ○ Full Port ○ Tube Size

End Connections: ⬡ Threaded ⬢ Flanged □ Welded

	Ball Valve	Design Type	Series	TH	Port	End Con.	Valve Size (Inches)													
							¼	⅜	½	¾	1	1¼	1½	2	2½	3	4	6	8	10
Temperature: -60°C - +260°C (-76 °F ÷ +500 °F)	Floating Ball	3 Piece	47	⊗	◎	⬡	900													
		1 Piece	31	⊗	◎	⬢	400													
	1 Piece 2 Piece	32	⊗	◎	⬢	150														
		73	⊗	○	⬢	300														
		74	⊗	○	⬢	150														
		77	⊗	○	⬢	300														
		78	⊗	○	⬢	PN16														
						PN40														
ASME Class		150	300	600	900	1500	2500	6000												
Pressure Bar	0	16	20	50	100	150	250	400	1000											
Pressure psi	0	290	290	725	1450	2175	3600	5800	15000											





SANITARY VALVES

Habonim sanitary ball valves are in service by the thousands for decades in leading biopharmaceutical, pharmaceutical, food and beverages manufacturing and processing facilities around the globe and by the leading companies of these industries.

A wide range of ball valves are offered by Habonim to support ASME BPE, European Sanitary Tubing, FDA and 3A standards and certifications, and are all fully tested and certified for fugitive-emission, fire-safe, PED, ATEX and other required standards that are mandatory in sanitary industry systems.

3A Certified

A specially designed product line certified for the Food & Beverages industry with a 3A mark (#3828)



Features

Standardized designs:

- ASME BPE fully compliant series.
- 3A 68-00 #3828 certified valve series.
- Valves ends per ISO 1127 and DIN EN 10357 (DIN 11850) available.
- HermetiX stem sealing – fugitive emission certified for ISO 15848-1 and API 641.
- Clean Fire-Safe construction – no graphite contamination to media design.
- Non-graphite construction available.

Materials:

- 316L Stainless Steel as forge, cast or bar with controlled sulfur and ferrite levels for body and end connections.
- Mix of cast body and forge end connections is available as standard.
- 316L Stainless Steel for Ball & Stem, bolts, nuts and handle.
- FDA and USP Class VI compliant polymers or elastomers only.
- Hasteloy-C22 castings, AL6XN, Alloy 20, other exotic alloys – upon request.

Sanitary & Cleaning features – available upon request:

- Cavity filler.
- Self-flush body, self-flush ball for Clean-In-Place and in-line cleaning.



Surface finish:

- All body, ball, seat retainer and end connections are polished internally.
- Bar-stock made valves are externally polished.
- Standard polishing level is 0.625 μ-m (25 μ-in) Ra max, Up to 0.375 μ-m (15 μ-in) Ra max level is available.
- Mechanical or electro-polishing is used.

Valve Styles:

- 3 pieces straight.
- Diverters & mixing bottom or side entry.
- Flush tank.
- Multi-ball manifolds.

CompAct actuators tailored to sanitary systems with special painting, coating & material selection.

Testing & acceptance criteria for 48 series - inspection according to ASME –BPE: 2016.

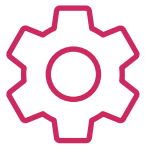
☒ Total Hermetix™ | Port: ☉ Standard Port ☉ Full Port ○ Tube Size | End Connections: ☉ Threaded ☉ Flanged □ Welded

		Valve Size (Inches)													
		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6		
Temperature: -60°C - +260°C (-76 °F ÷ +500 °F)	Floating Ball	3 Piece	48	☒	○	☉	□	300					150		
			Y47	☒	○	☉	□	900			400				
			L47	☒	○	☉	□	300							
	Flush tank	R48			○	☉	□	300					150		

ASME Class	150 300 600 900 1500 2500 6000									
Pressure Bar	-1*	0	16	20	50	100	150	250	400	1000
Pressure psi	-14*	0	290	290	725	1450	2175	3600	5800	15000

* Vacuum 10⁻⁶ Tor





GENERAL USE INDUSTRIAL VALVES

Habonim's wide range of general-use industrial ball valves are in service for many decades and have been evolved to guarantee superb long-lasting performances in demanding applications as well as for general use. The standard basic valve construction offered by Habonim is an all-in-one high-end industrial valve that meets the latest safety, environmental, durability and maintainability requirements of modern industrial systems, piping and equipment.

Habonim's standard valves are supplied with the Total HermetiX integrity package that offers superior valve construction with a higher quality level and a unified design approach to allow minimal variants of valve parts to support a wider range of applications that guarantee higher availability, lower level of spare parts and reduced total cost of ownership.

Features

⊗ Total HermetiX Integrity Package:

- Zero fugitive-emission no maintenance stem sealing.
- Double body sealing.
- Fire safe.
- 100% tested.
- 100% materials & processing back-tracking.
- Quality system approved for API 6D, PED/TPED, SIL, ISO 9001.

End Connections variety:

- Wide range of end connections available for assembly on a generic center section in 3 pieces series, standard or full port.
- Flanged connections comply with ANSI B16.5 with standard or full port and EN 1092 with full port.

Materials:

- Stainless Steel, Carbon Steel, special alloys as cast, forge or bar stock.
- Variety of polymers and elastomers for wide range of applications.

Variety of accessories are available for special handles, locking devices, spring return handles and much more.



⊗ Total Hermetix™

Port: ⊙ Standard Port ○ Full Port ○ Tube Size

End Connections: ⊕ Threaded ⊕ Flanged □ Welded

Ball Valve	Design Type	Series	TH	Port	End Con.	Valve Size (Inches)																
						MWP (ASME Class / DIN PN)																
						1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16
Trunnion Mounted Ball	Top Entry 3 Piece	52	⊗	○	□	300																
		91	⊗	⊙	⊕																	□
		92	⊗	⊙	⊕																	□
		93	⊗	⊙	⊕																	□
		94	⊗	⊙	⊕																	□
	2 Piece	81	⊗	○	⊕	□	300															
		82	⊗	○	⊕	□																
		83	⊗	○	⊕	□																
		84	⊗	○	⊕	□																
		85	⊗	○	⊕	□																
Floating Ball	3 Piece	47	⊗	⊙	⊕	□	900															
		26	⊗	○	⊕	□	400															
	1 Piece	31	⊗	⊙	⊕	□	600															
		32	⊗	⊙	⊕	□	150															
	1 Piece 2 Piece	73	⊗	○	⊕	□	300															
		74	⊗	○	⊕	□	150															
	DS/DBB	77	⊗	○	⊕	□	300															
		78	⊗	○	⊕	□	PN16															
		47DS	⊗	⊙	⊕	□	PN40															
		73DS	⊗	○	⊕	□	600															
	Multiport 3 Pcs.	74DS	⊗	○	⊕	□	150															
		77DS	⊗	○	⊕	□	300															
	Diverter 3 Pcs.	61	○	⊙	⊕	□	PN16															
		62	○	⊙	⊕	□	PN40															
	Side-Entry 3 Pcs.	D47	⊗	⊙	⊕	□	600															
		S47	⊗	⊙	⊕	□	300															
	Diverter 2 Pcs.	D31	⊗	⊙	⊕	□	150															
		D32	⊗	⊙	⊕	□	300															
Side-Entry 2 Piece	S31	⊗	⊙	⊕	□	600																
	S32	⊗	⊙	⊕	□	300																
Flush tank	R47	○	⊙	⊕	□	300																

ASME Class	150		300		600		900		1500		2500		6000	
Pressure Bar	-1*	0	16	50	100	150	250	400	1000					
Pressure psi	-14*	0	290	725	1450	2175	3600	5800	15000					

* Vacuum 10⁻⁶ Tor

Certifications

Type tested certified by leading certification bodies and other on request (for part of the series).





SPECIAL USE

Special use valves are Habonim valves that are specially adapted to be used and serve in applications that have unique requirements on one or more of the valve designs, materials in use, assembly, packing, testing or even certificating. Information on such applications and the valve adaptations are in the following pages. The full valve information is available on each valve series catalog chapter.

Habonim's **Hydrogen Service** ball valves are designed and tested to provide safe and durable use within diverse hydrogen application and address some leading industrial standards. With decades of proven safe and long-lasting use in hydrogen applications Habonim Hydrogen-service ball valves deliver reliability and integrity for industrial demanding applications.

Habonim's **Ammonia Service** ball valves are suited to provide optimal protection and functionality for use in severe ammonia service applications. valves designated for ammonia service are specially prepared and cleaned to meet requirements for the safe operation of ammonia service equipment and media purity.

HABONIM ball valves for **Oxygen Service** are suited to be used with both liquid and gaseous oxygen, cleaned and assembled with required measures for a safe use in oxygen service equipment and avoid valve contamination to the media purity.

HABONIM ball valves for **Chlorine Service** are designed for use with chlorine, cleaned and assembled with required measures for a safe use in chlorine service equipment and avoid valve contamination to the media purity.

Hydrogen & Ultra-High Pressure Hydrogen service valves



Hydrogen Service Valves

X Total Hermetix™ | **Port:** ● Standard Port ○ Full Port ○ Tube Size
End Connections: ⬡ Threaded ⬢ Cone & Thread ⊗ Flanged □ Welded

	Category	Ball Valve	Design Type	Series	TH	Port	End Con.	Valve Size (Inches)												MWP (ANSI Class)																							
								1/4	3/8	1/2	9/16	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16																		
Temperature: -60°C - +260°C (-76 °F ÷ +500 °F)	High Pressure	Trunnion	Threaded body	H99	X		⬡ ⬢	1,000bar (15,000psi)																																			
			3 Piece	H96	X	● ○	⊗ □																									2500											
			3 Piece	H95	X	● ○	⊗ □																																				
		Floating	Threaded body	H29	X		⬡ ⬢ ⊗	1,000bar (15,000psi) with TPED - 700bar (10,000psi)																																			
			Threaded body	H24	X	● ○	⬡ ⬢ ⊗ □																									*500bar (7,250psi) Class 2500											
			3 Piece	See Industrial	X	● ○	⬢ ⊗ □																																				
	3 Piece	X	● ○		⊗ □	900/600/300/150																																					
	Industrial Use	Trunnion	2 Piece	See Industrial	X													● ○	⊗ □	600/300/150																							
			3 Piece		X	● ○	⬡ ⬢ ⊗ □	900/600/400/300/150																																			
		Floating	3 Piece	See Industrial	X	● ○	⬡ ⬢ ⊗ □													300/150/PN40/PN16																							
			2/1 Piece		X	● ○	⬡ ⬢ ⊗ □	600/300/150/PN16																																			
			DS/DBB		X	● ○	⬡ ⬢ ⊗ □																									600/300/150											
			Multiport / Diverter		X	● ○	⬡ ⬢ ⊗ □	900/400/300/150/PN40/PN16																																			
	Control	See Control	X	● ○	⬡ ⬢ ⊗ □																																						

* with TPED - Class 2500





CompAct ACTUATOR

Habonim's unique quarter-turn CompAct actuators have been proven for more than 30 years to have superior performance of double the torque per size, much longer cycling before any maintenance, high opening and closing speed and extraordinary durability in the most demanding industrial environments.

Our CompAct actuators are successfully used to supply control packages in diverse industries and applications that are superior in overall smaller size, with less weight, less compressed-air consumption, much more reliable especially in high cyclic applications and with a very short acting times.

Habonim quarter-turn actuation offering includes:

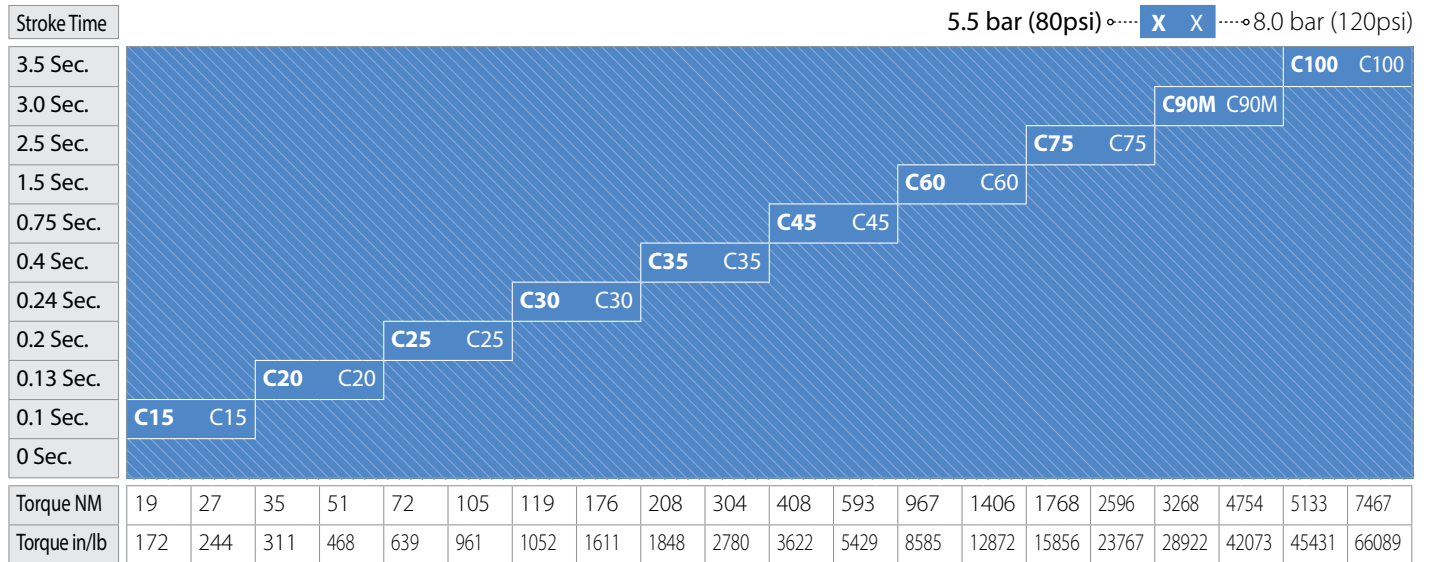
- Double acting actuators (Air-air operated)
- Single acting actuators (air-Spring operated) as normally open/close options
- Shutoff valve and actuation packages
- Control valve and actuation packages
- Emergency Shut Down (ESD) and Fire Block Valve (FBV) packages



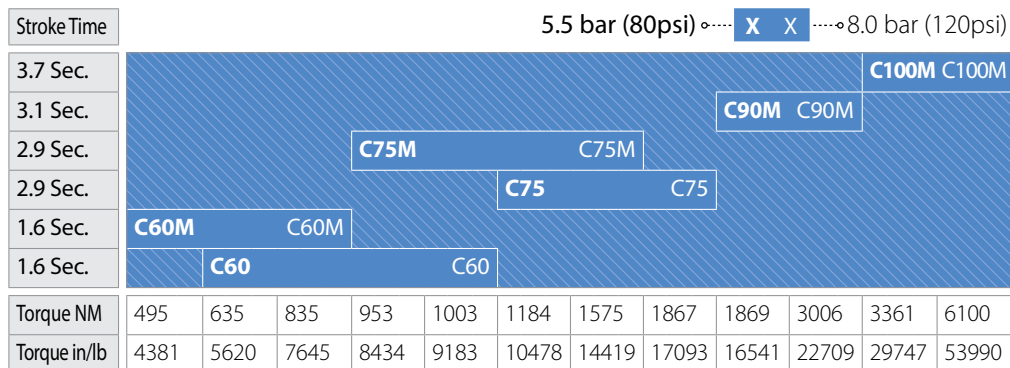
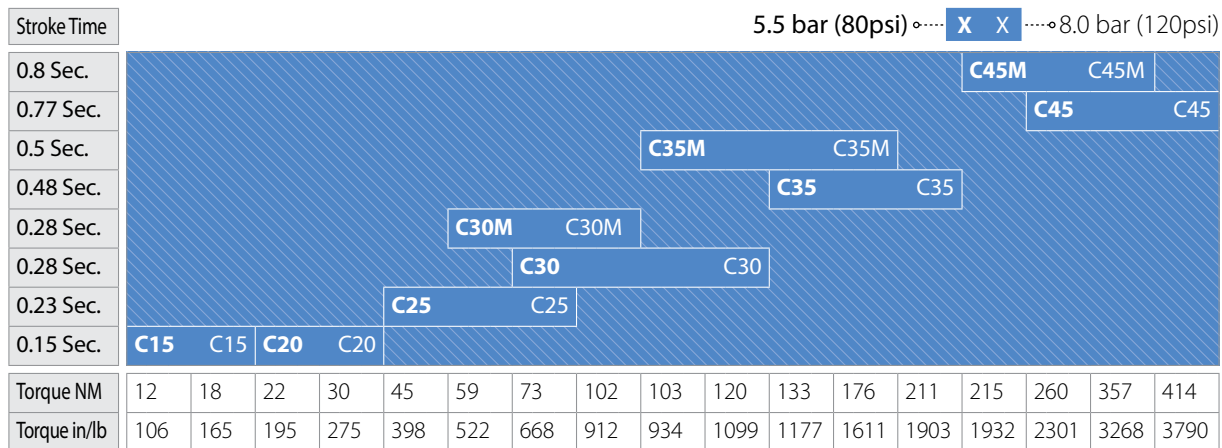
Wide range of accessories for operating, controlling and monitoring actuator and valve operation are offered as auxiliary for actuation packages.

Torque and Stroke Times for CompAct actuators

Double Acting - Torque



Spring Return - Start Torque





CompAct ACTUATOR

Features

Unique design

- Pistons with balanced centralized forces of pistons on pinion
 - Double the torque of same sized regular actuator
 - Less wear & tear on moving parts
 - Longer sealing with no maintenance
- Shorter and smaller pistons with shorter travel distance
 - Compact square shape with minimized footprint
 - Shorter open/close time – allows superior ESD functionality
 - Smaller air consumption
 - Lightweight
- Four short spring sets – up to three nested springs against each cylinder
 - Selection of springs mix to provide flexible spring torques for the available air supply pressure
 - Spring cartridge option provides higher torque with better characteristics for opening or closing
 - Redundancy in case of spring failure – the other three springs will maintain rotation

Meticulous material, treatment and coating selection

- Selection of body and moving parts materials to best support long lasting performance in harsh, controlled and clean environments
- Structure and surface treatments of part and special coatings to ensure long lasting safe operation in harsh environments
- Selection of sealing and greasing material to accommodate to low and high temperatures and application requirements

Standard interfaces:

- Designed and tested in accordance with EN 15714-3 - Industrial valves - Actuators - Part 3: Pneumatic part-turn actuators for industrial valves - Basic requirements
- ISO 5211 Industrial valves - part-turn actuator attachments
- VDI/VDE 3845 (NAMUR) Industrial process control - pneumatic control valves - interfaces of valves and auxiliary equipment

Testing & acceptance criteria: 100% internal & external bubble leak tested.

IMPACT™

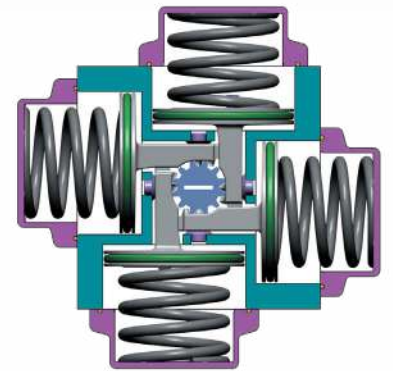
The patented IMPACT™ spring assist is a pneumatic device that increases the spring closing torque on spring return actuators.

The usage of evacuating air pressure while the actuator is closing to assist the springs with pushing the pistons to close, increases the spring end torque by 50% and more.

IMPACT™ is easily installed on the NAMUR interface of the Compact actuator.

Boost the torque of any spring return actuator by 50% and more

- Allows one size down actuator for the same functionality
- Increase system reliability
- No external energy required





POWER CompAct ACTUATOR

PATENTED
US 11661848

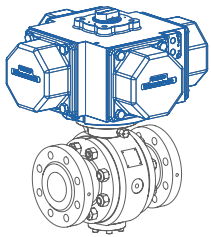
Power CompAct – the four pistons scotch yoke patent pending pneumatic actuators product line is Habonim's technology development for even higher torques with all the CompAct four piston advantages.

Power CompAct provide double output torque, compared to the same size of rack and pinion actuator.

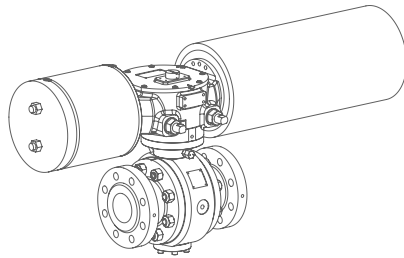
Load distribution between the four pistons instead of one in the traditional scotch yoke design eliminated the need for complicated mechanisms to support the side forces and significantly reduced the overall volume of the actuator.

Features

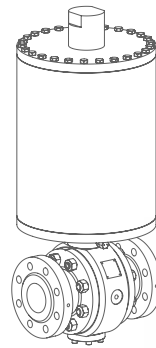
- High torque for smaller size – close to 7,500Nm (66,000InLb) in a 64cm (25inch) body
- High performance and durability – Tested for more than 250,000 cycles without maintenance
- Space saving
- Light weight
- Low air consumption
- Versatile multi optional mounting interface



Power CompAct



Traditional scotch yoke



Helical





CUSTOM MADE SOLUTIONS

Solving the most challenging needs of our customers with ball valves and actuation systems inspired us in Habonim from the early days of the company more than 70 years ago.

We develop, manufacture, test and support custom valves, manifolds and special solutions to meet the most stringent demands of extreme temperature, high pressure, corrosive and abrasive application with great success. At Habonim, we are committed to partner with our customers in their efforts to achieve their most demanding goals.

We are vastly experienced with:

- Complex skids and automated manifold designs.
- Lower weight and reduced volume of existing systems.
- Minimizing leak paths and introduction of fail-safe assemblies in hazardous applications.
- Fast closing (<0.5 sec) automated mechanism for ESD systems of high size, high pressure, high temperatures and more.
- Safety shut-off device for gas feeding systems.

We excel when no commercial product can satisfy your requirements. Our experienced engineering and R&D teams create special solutions that routinely meet the needs of our special customer.

At Habonim we will create a solution, verify and test it, supply it in demanding timelines and will be a partner for you as our customer till the mission completion.



Gas Valve Unit (GVU)



Cost-Effective Replacement Solutions

Gas Valve Unit (GVU)

Special manifold for dual fuel (diesel / LNG) ships reduce the amount of pollution generated by ship engines and increase air quality in harbor cities.

Cost-Effective Replacement Solutions

A custom valve used for diverting flow from a single source to multiple lines was designed to replace larger globe valves for the same application.

Multi-Valve Ensemble (MVE)

Habonim designed the revolutionary Multi-Valve-Ensemble (MVE) as an innovative alternative to large, heavy skid-mounted valve assemblies that take up so much space and are loaded down with complex piping; vulnerable to leakage. The MVE eliminates up to 90% of the piping required on conventional skids, and weighs 30% less.

Cryogenic Double Block & Bleed Valve (DBB)

Habonim's cryogenic DBB valve maximizes safety when handling high-pressure cryogenic liquids at the most critical stages of LNG and CNG processing that require a furnace feed (boiler, gas turbine, LNG or CNG feeder). The Habonim cryogenic DBB valve solution is comprised of a single body, which saves space and reduces the number of body seals, thereby reducing the potential for leakage.



High Speed, High Cycle Manifold



Cryogenic Double Block & Bleed valve



VALVE ACCESSORIES

Locking Device & Lockable Handle

robust device locks the valve handle at open or close position and allow to add a pad lock for misuse prevention. The spring-load construction ensure handle is lock in position at all valve installation orientations and under vibrating conditions. An accidentally push / pull / turn of the handle is prevented.

Spring Return Handle (SRH)

A spring-loaded device that forces the valve into close or open base position, by manually forcing the valve handle it can be temporary turned into the opposite position (close or open respectively). Once handle is released the device will automatically force the valve into its base position.

Features

- compact size, rugged construction, device internals are open to atmosphere (no pressure is build inside)
- In-Line Assembly: The SRH can be fitted on valves in line without shutting down the system or removing the valve from the line
- Fail to close, fail to open options
- Direct mount on top of Habonim valve ISO 5211 pad
- Optional locking device

Fugitive Emission (FE)

Improved Fugitive Emission prevention from valve stem sealing with a secondary sealing on top of the valve integral stem sealing.

Features

- Secondary HermetiX or High temperature graphite sealing arrangement.
- Contains breached media.
- Threaded holes for sensing device installation.
- Standard ISO pad interface to valve.
- Double blowout proof stems.

Extended Bonnet

Extension device allows a larger distance between the handle or actuator and valve body.



Spring Return Handle



Fugitive Emission





About Habonim

Ball Valves & Actuators for the most demanding, challenging and hazardous applications are our passion and profession for the last 70 years.

We believe in designing, manufacturing and supplying control and shutoff components and solutions that improves the overall safety, integrity and sustainability of the systems they are installed in.

Designed, manufactured and tested according to the highest standards, our products allow us to partner within systems that flow and control varied gases and liquids in diverse markets especially where extreme temperatures and pressures are involved, hazardous materials are used and system performances are critical.

We are leading in cryogenic ball valve-based control solutions, emergency shutoff and specially designed solutions.

Believing that supplying and developing the most effective, safe and reliable products for the global leaders in the LNG and Gas distribution market continually challenges us to improve our capabilities and products.

Best coping with our prestigious customers' most challenging requirements technically, operationally and commercially is our promise fulfilled for decades.

Performing in Demanding Applications.



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