

²XC™ DOUBLE ECCENTRIC C-Ball Valves

CHECK VALVES



A.E. VALVES

Rue de gelée, 20 4800

VERVIERS

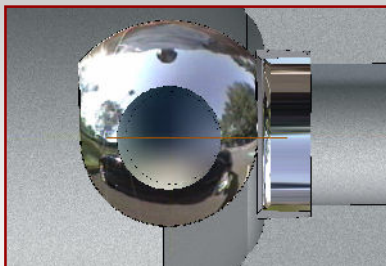
(BELGIUM)

info@ae-valves.com or sales@ae-valves.com

Visit our Web Site : <http://www.ae-valves.com>

²XC™ “no contact type” Rotary Double Eccentric C-Ball

The “no contact type” Rotary Double Eccentric C-Ball is designed to meet the most stringent requirements. The double vector movement (rotation/translation) provided by the double eccentricity design allows to be opened and closed without any friction or wearing at the seat and “**C-BALL**” **contact**. ²XC™ does not have dead cavity like ball valve. There is No risk of trapping overpressure and/or product in the body.



Full open
0°



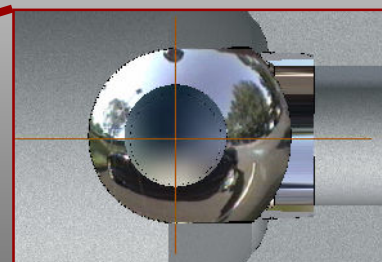
Partial open
45°
NO CONTACT



Partial open
75°
NO CONTACT



Partial open
87°
NO CONTACT



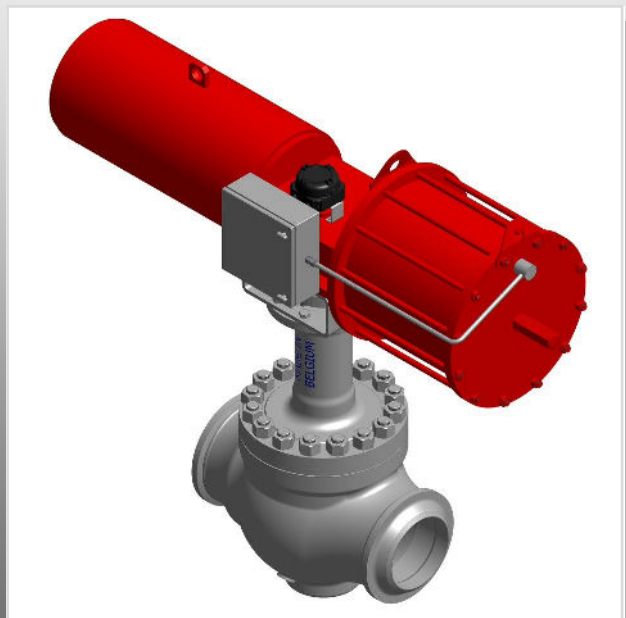
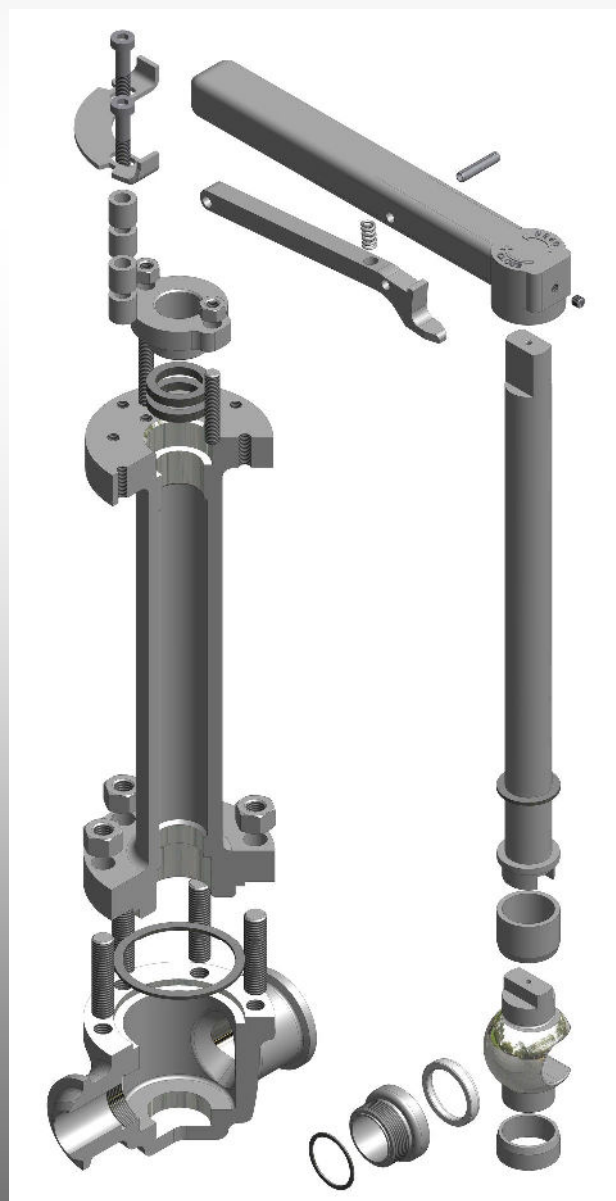
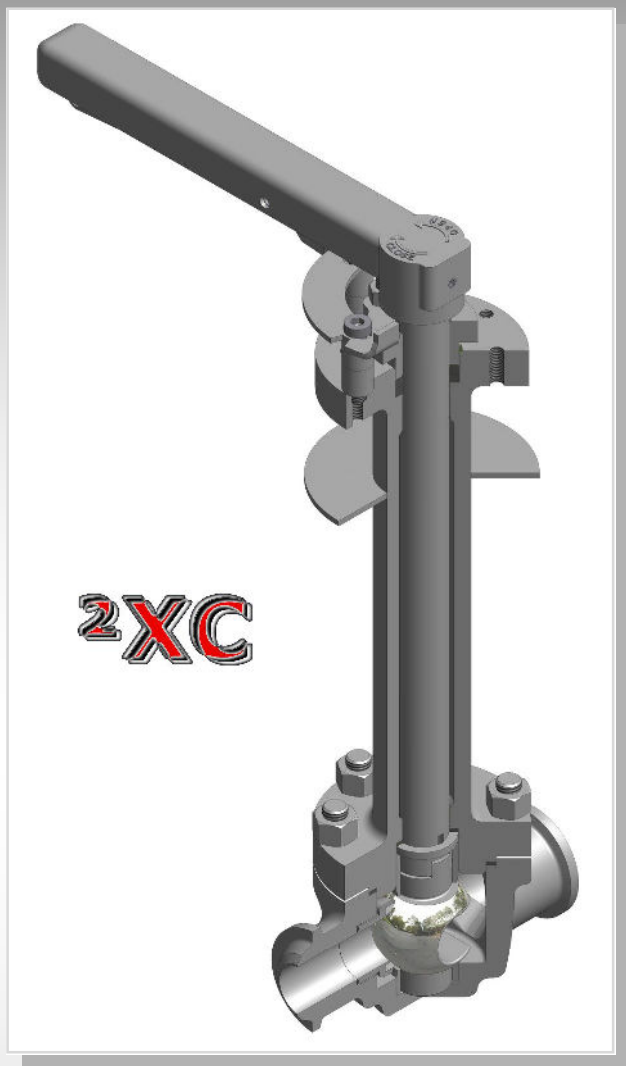
Full closure 90°
Torque seated

SPRING AND DEAD CAVITY FREE

No contact or sliding action between seat and ball during rotation of ball. Sealing by mechanically imposed thrust.

CRYOGENIC DOUBLE ECCENTRIC C-BALL VALVE

- Double Eccentric Design / Friction Free
- Torque Seated
- Cavity Free
- Spring Free
- High Cycling Capability
- Top Entry Design / Easy Maintenance
- Trunnion Mounted
- Extended Bonnet - Full Length For Isolation
- Optional drip plate
- Optional pup-ends
- Manual or Actuated
- Full or Reduced Bore
- Fully Bi-directional / Tight Shut Off



CRYOGENIC DOUBLE ECCENTRIC C-BALL VALVE

Lever Operated

Materials

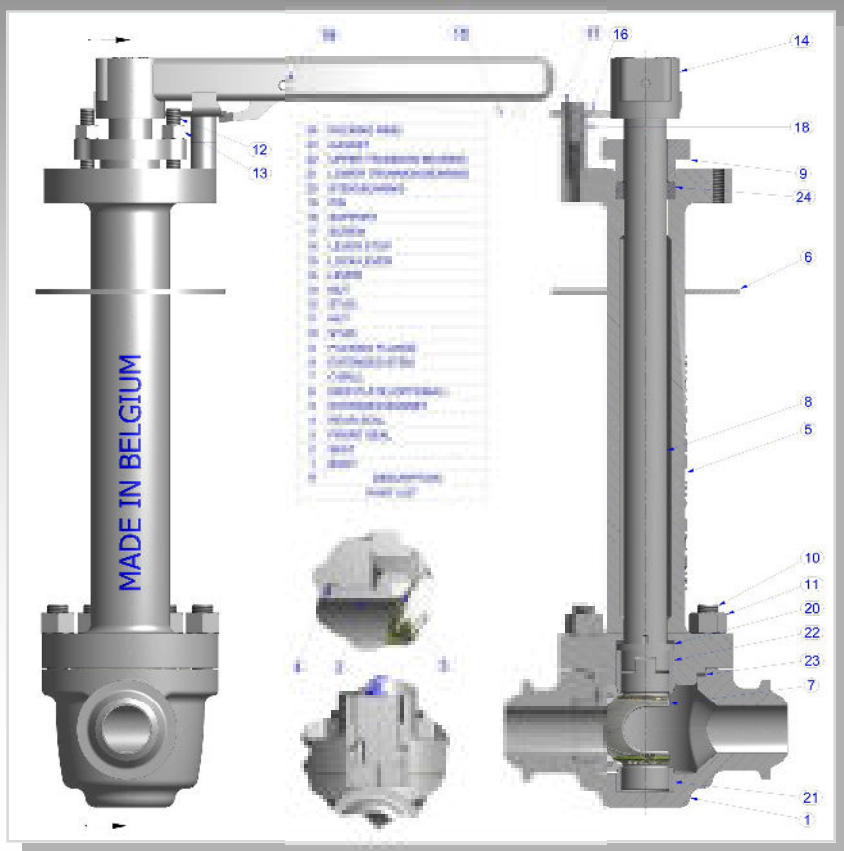
- Body-Bonnet: ASTM A351 CF3 - CF3M - CF8 - CF8M
- Seat : AISI 316
- Dual Seat Contact : Metal + Soft Insert (TFE - PCTFE - PEEK)
- Optional Metal to Metal Seat / Silver Plated Seat / T° range -200°C to +350°C
- Optional Drip Plate : AISI 316
- C-Ball : AISI 316
- Extended Stem : AISI 316 - Nitronic 50 - 17.4 Ph
- Packing Flange : AISI 316
- Bolting : ASTM A320 B8M Cl.2 - ASTM A194 8M
- Trunnion Bearing : Nitronic 60
- Gasket & Packing : Graphite

Construction Codes

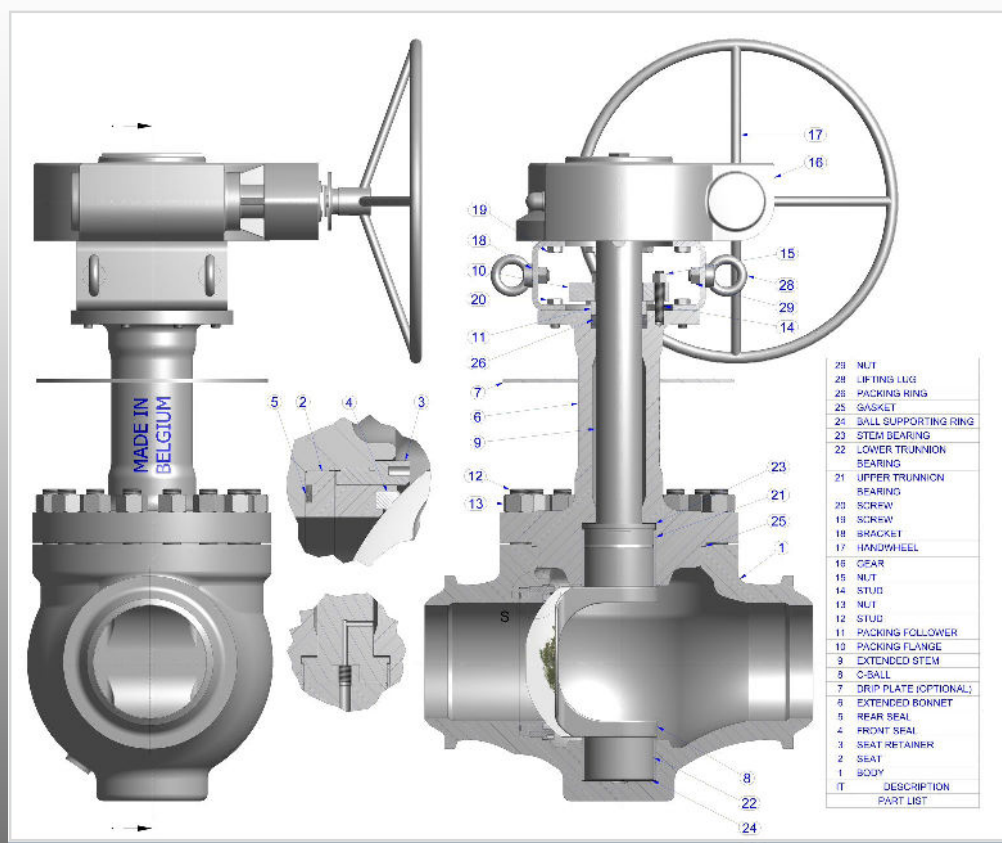
- ASME B16.34
- API 6D
- BS 5351
- EN 13445
- BS 6364

Quality

- Charpy Test : 100% quantity at -196° C
- Standard: X-Ray / LPI / Picking & Passivation



Gear Operated



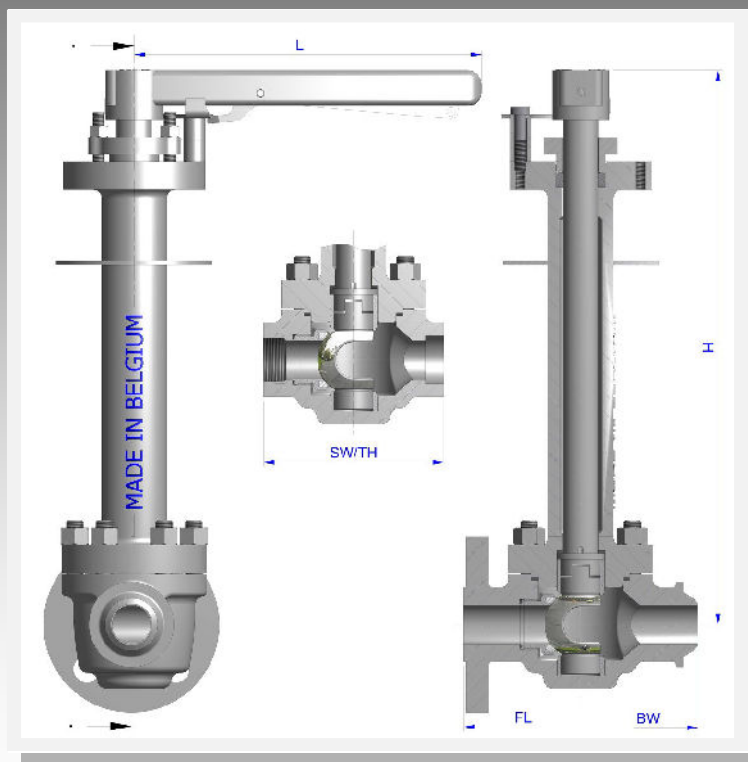
Lever Operated Range

- Flanged ends to ASME B16.5
- Butt weld ends to ASME B16.25
- Socket or Threaded ends to ASME B16.11
- Face To Face to ASME B16.10
- Rating to ASME B16.34
- Extension Length to BS 6364 as a minimum

(*) Other extension lengths available on request

Other ends, face-to-face available on request.

We constantly improve our product to meet the highest requirements of our customers.



Size	FL (mm)	BW (mm)	SW/TH (mm)	FULL BORE					REDUCED BORE				
				H (*) (mm)	L (mm)	WEIGHT			H (*) (mm)	L (mm)	WEIGHT		
						FL (kg)	BW (kg)	SW (kg)			FL (kg)	BW (kg)	SW (kg)
ASME 150 (ISO PN 20)													
1/2"	108	140	127	390	245	6	5	11	390	245	5	5	11
3/4"	117	152	127	390	245	7	6	11	390	245	6	5	11
1"	127	165	127	390	245	9	7,5	11	390	245	8	7	11
1 1/2"	165	191	180	435	330	17	18	16	390	245	15	16	14
2"	178	216	180	435	410	20	18	16	435	330	18	16	14
3"	203	283	-	-	-	-	-	-	435	410	28	25	-
ASME 300 (ISO PN 50)													
1/2"	140	140	127	390	245	7	5	11	390	245	6	5	11
3/4"	152	152	127	390	245	9	6	11	390	245	8	5	11
1"	165	165	127	390	245	11	7,5	11	390	245	10	7	11
1 1/2"	190	190	180	435	330	20	18	16	390	245	18	16	14
2"	216	216	180	455	410	25	20	16	435	330	23	18	14
3"	283	283	-	-	-	-	-	-	455	410	33	26	-
ASME 600 (ISO PN 100)													
1/2"	165	165	127	390	245	8	6	13	390	245	7	5	12
3/4"	190	190	127	390	245	13	11	13	390	245	12	10	12
1"	216	216	127	390	245	20	17	13	390	245	18	15	12
1 1/2"	241	241	180	435	410	23	20	19	390	245	21	18	17
2"	292	292	203	-	-	-	-	-	435	410	25	22	21
ASME 900 (ISO PN 150)													
1/2"	216	216	127	390	245	15	12	15	390	245	14	11	15
3/4"	229	229	127	390	330	21	18	15	390	245	19	16	15
1"	254	254	127	390	410	28	25	15	390	330	25	23	15
1 1/2"	305	305	203	460	410	40	36	23	390	410	36	32	21
2"	368	368	203	-	-	-	-	-	460	410	44	40	25
ASME 1500 (ISO PN 250)													
1/2"	216	216	127	390	245	15	12	15	390	245	14	11	15
3/4"	229	229	127	390	330	21	18	15	390	245	19	16	15
1"	254	254	127	390	410	28	25	15	390	330	25	23	15
1 1/2"	305	305	203	-	-	-	-	-	390	410	36	32	21
ASME 2500 (ISO PN 420)													
1/2"	264	264	152	435	330	22	18	22	435	330	20	16	22
3/4"	273	273	152	435	410	30	25	22	435	330	27	23	22
1"	308	308	152	435	410	35	31	22	435	410	32	28	22
1 1/2"	384	384	241	-	-	-	-	-	435	410	39	34	24

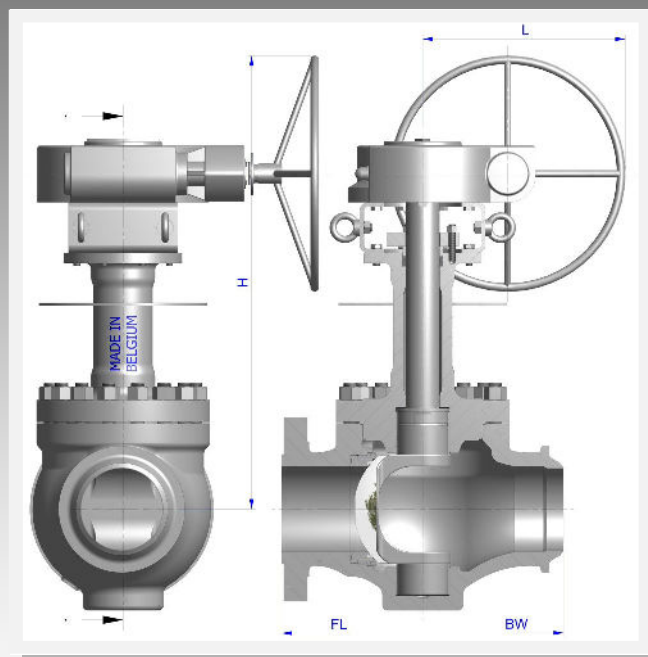
CRYOGENIC DOUBLE ECCENTRIC C-BALL VALVE

Gear Operated Range (class 150 to 600 lbs)

- Flanged ends to ASME B16.5
- Butt weld ends to ASME B16.25
- Socket or Threaded ends to ASME B16.11
- Face To Face to ASME B16.10
- Rating to ASME B16.34
- Extension Length to BS 6364 as a minimum

(*) Other extension lengths available on request

Other ends, face-to-face available on request.



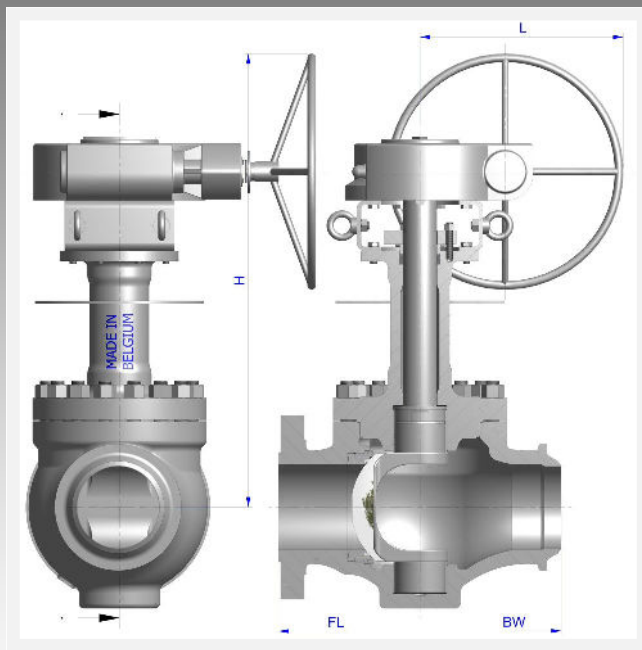
Size	FL (mm)	BW (mm)	FULL BORE				REDUCED BORE			
			H (*) (mm)	L (mm)	WEIGHT		H (*) (mm)	L (mm)	WEIGHT	
					FL (kg)	BW (kg)			FL (kg)	BW (kg)
ASME 150 (ISO PN 20)										
3"	203	283	700	245	55	60	-	-	-	-
4"	229	305	835	305	95	90	700	245	65	60
6"	394	457	980	405	200	190	835	305	120	115
8"	457	521	1000	405	280	265	980	405	170	160
10"	533	559	1050	405	485	460	1000	405	395	375
12"	610	635	1150	425	575	540	1050	405	395	370
14"	111	762	1240	440	850	800	1150	425	745	700
16"	762	838	1280	440	1050	1000	1240	440	865	825
18"	864	914	1500	435	1475	1400	1280	440	1215	1155
20"	914	991	1540	435	2400	2300	1500	435	2165	2075
24"	1067	1143	1650	520	3000	2850	1540	435	2230	2120
ASME 300 (ISO PN 50)										
3"	283	283	700	245	65	60	-	-	-	-
4"	305	305	835	305	110	100	700	245	75	70
6"	403	457	980	405	200	190	835	305	120	115
8"	502	521	1000	405	410	375	980	405	250	230
10"	568	559	1050	405	500	455	1000	405	405	370
12"	648	635	1150	425	810	745	1050	405	555	510
14"	762	762	1240	440	945	860	1150	425	825	750
16"	838	838	1280	440	1550	1400	1240	440	1280	1155
18"	914	914	1500	435	2100	1900	1280	440	1735	1570
20"	991	991	1540	435	3300	3000	1500	435	2145	1950
24"	1143	1143	1650	520	4100	3750	1540	435	2500	2250
ASME 600 (ISO PN 100)										
2"	292	292	650	245	45	40	-	-	-	-
3"	356	356	805	280	75	65	650	245	50	45
4"	432	432	960	350	145	115	805	280	125	100
6"	559	559	1125	465	265	210	960	350	215	170
8"	660	660	1150	465	500	415	1125	465	380	315
10"	787	787	1210	465	750	620	1150	465	600	495
12"	838	838	1325	490	1150	1000	1210	465	920	800
14"	889	889	1425	505	1450	1250	1325	490	1160	1000
16"	991	991	1470	505	1850	1600	1425	505	1480	1280
18"	1092	1092	1725	500	2500	2200	1470	505	2000	1760
20"	1194	1194	1770	500	3700	3250	1725	500	2960	2600
24"	1397	1397	1895	600	4750	4300	1770	500	3800	3440

Gear Operated Range (class 900 to 2500 lbs)

- Flanged ends to ASME B16.5
- Butt weld ends to ASME B16.25
- Socket or Threaded ends to ASME B16.11
- Face To Face to ASME B16.10
- Rating to ASME B16.34
- Extension Length to BS 6364 as a minimum

(*) Other extension lengths available on request

Other ends, face-to-face available on request.

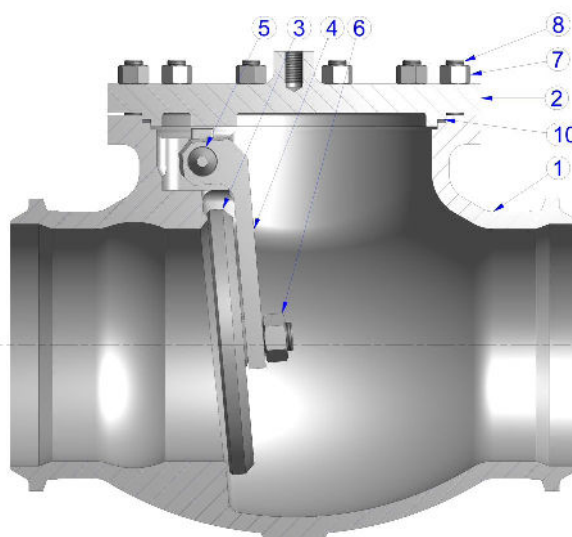


Size	FL (mm)	BW (mm)	FULL BORE				REDUCED BORE			
			H (*) (mm)	L (mm)	WEIGHT		H (*) (mm)	L (mm)	WEIGHT	
					FL (kg)	BW (kg)			FL (kg)	BW (kg)

ASME 900 (ISO PN 150)										
2"	368	368	715	270	100	80	-	-	-	-
3"	381	381	885	310	115	90	715	270	80	65
4"	457	457	1055	385	220	175	885	310	155	125
6"	610	610	1240	510	330	250	1055	385	210	160
8"	737	737	1265	510	700	600	1240	510	500	400
10"	838	838	1330	510	1150	1000	1265	510	1040	905
12"	965	965	1460	540	1300	1075	1330	510	1090	900
14"	1029	1029	1570	555	1600	1350	1460	540	1280	1080
16"	1130	1130	1615	555	2550	2225	1570	555	1990	1735
18"	1219	1219	1900	550	3400	3000	1615	555	2835	2500
20"	1321	1321	1945	550	5000	4400	1900	550	4405	3875
24"	1549	1549	2085	660	6275	5150	1945	550	4700	3855

ASME 1500 (ISO PN 250)										
1"1/2	305	305	650	250	50	40	-	-	-	-
2"	368	368	750	285	100	80	650	250	90	70
3"	470	470	930	325	155	120	750	285	100	75
4"	546	546	1110	405	260	215	930	325	190	155
6"	705	705	1300	535	625	525	1110	405	390	330
8"	832	832	1330	535	1200	1000	1300	535	825	625
10"	991	991	1395	535	2175	1825	1330	535	1925	1615
12"	1130	1130	1535	565	2500	2100	1395	535	1905	1600
14"	1257	1257	1650	585	3150	2650	1535	565	2535	2135
16"	1384	1384	1695	585	5200	4600	1650	585	4280	3785

ASME 2500 (ISO PN 420)										
1"1/2	384	384	685	265	90	70	-	-	-	-
2"	451	451	790	300	180	140	685	265	120	95
3"	578	578	975	340	270	210	790	300	175	135
4"	673	673	1165	425	460	380	975	340	295	245
6"	914	914	1365	560	1090	920	1165	425	780	660
8"	1022	1022	1395	560	2100	1750	1365	560	1715	1430
10"	1270	1270	1465	560	3810	3190	1395	560	3075	2575
12"	1422	1422	1610	595	4380	3680	1465	560	3440	2890



10	GASKET
7	NUT
8	STUD
6	NUT
5	PIN
4	HINGE
3	DISC
2	COVER
1	BODY
IT	DESCRIPTION
	PART LIST

Main Features

- Top Entry Design / Easy Maintenance
- Swivelling disc for the highest performance of leak rate
- Inside pin - No side external plug
- Temperature Range: -200°C to + 400°C
- Range : 1/2in to 24in / Class 150 to 2500 lbs

Materials

- Body-Bonnet: ASTM A351 CF3 - CF3M - CF8 - CF8M
- Seat : Stellite (Renewable Stellite Seat on request)
- Disc : AISI 316 Stellite
- Hinge, Pin, Nut : AISI 316
- Bolting : ASTM A320 B8M Cl.2 - ASTM A194 8M
- Gasket : Graphite

Construction Codes

- ASME B16.34
- API 6D
- BS 1868
- EN 13445
- BS 6364

Quality

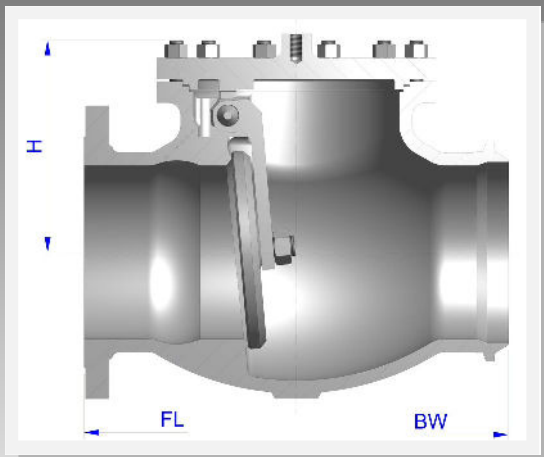
- Charpy Test : 100% quantity at -196°C
- Standard: X-Ray / LPI / Pickling & Passivation

CRYOGENIC SWING CHECK VALVE

- Flanged ends to ASME B16.5
- Butt weld ends to ASME B16.25
- Face To Face to ASME B16.10
- Rating to ASME B16.34

Other ends, face-to-face available on request.

We constantly improve our product to meet the highest requirements of our customers. The mentioned data are therefore only indicative and could be modified. Please contact us for the latest data available.



Size	FL (mm)	BW (mm)	H (mm)	Weight FL (kg)	Weight BW (kg)
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ASME 150 (ISO PN 20)					
1/2"	108	108	75	5	4
3/4"	117	117	80	5	4
1"	127	127	85	7	5
1 1/2"	165	165	120	12	10
2"	203	203	120	20	14
3"	241	241	150	35	25
4"	292	292	195	50	45
6"	356	356	225	85	80
8"	495	495	275	170	160
10"	622	622	300	250	225
12"	699	699	375	350	350
14"	787	787	400	450	425
16"	864	864	450	650	600
18"	978	978	525	800	700
20"	978	978	575	1000	1000
24"	1295	1295	650	1400	1350

ASME 300 (ISO PN 50)					
1/2"	140	140	75	7	6
3/4"	152	152	90	8	7
1"	216	216	85	9	8
1 1/2"	241	241	120	18	14
2"	267	267	130	24	20
3"	318	318	150	45	40
4"	356	356	195	75	65
6"	444	444	255	140	120
8"	533	533	275	180	170
10"	622	622	325	400	375
12"	711	711	450	550	450
14"	838	838	450	750	700
16"	864	864	550	950	850
18"	978	978	625	1200	1150
20"	1016	1016	625	1450	1300
24"	1348	1348	775	2600	2500

ASME 600 (ISO PN 100)					
1/2"	165	165	75	9	8
3/4"	190	190	90	12	10
1"	216	216	95	16	14
1 1/2"	241	241	130	24	20
2"	292	292	140	30	25
3"	356	356	165	65	55
4"	432	432	210	105	90
6"	559	559	270	220	170
8"	660	660	325	400	375
10"	787	787	450	700	650
12"	838	838	450	800	750
14"	889	889	500	1150	1050
16"	991	991	625	1800	1650
18"	1092	1092	675	1950	1750
20"	1194	1194	700	2650	2500
24"	1397	1397	875	4450	3650

Size	FL (mm)	BW (mm)	H (mm)	Weight FL (kg)	Weight BW (kg)
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ASME 900 (ISO PN 150)					
1/2"	216	216	105	25	20
3/4"	229	229	110	30	25
1"	254	254	120	35	30
1 1/2"	305	305	160	55	45
2"	368	368	200	75	60
3"	381	381	210	120	110
4"	457	457	255	160	130
6"	610	610	300	300	225
8"	737	737	350	575	450
10"	838	838	450	850	650
12"	965	965	550	1200	1000
14"	1029	1029	600	1550	1300
16"	1130	1130	700	2100	1700
18"	1219	1219	750	2800	2150
20"	1321	1321	800	3550	2850
24"	1549	1549	1000	4650	4150

ASME 1500 (ISO PN 250)					
1/2"	216	216	105	25	20
3/4"	229	229	110	30	25
1"	254	254	120	35	30
1 1/2"	305	305	160	55	45
2"	368	368	200	75	60
3"	470	470	270	140	120
4"	546	546	315	210	190
6"	705	705	360	475	400
8"	832	832	450	900	850
10"	991	991	550	1250	1150
12"	1130	1130	675	2100	1950
14"	1257	1257	725	3000	2450
16"	1384	1384	875	4150	3550
18"	1537	1537	925	5600	4950
20"	1664	1664	975	6900	5900
24"	1943	1943	1250	7500	6900

ASME 2500 (ISO PN 420)					
1/2"	264	264	130	25	20
3/4"	273	273	190	35	30
1"	308	308	250	50	40
1 1/2"	384	384	310	90	80
2"	451	451	370	150	130
3"	578	578	480	250	225
4"	673	673	540	350	300
6"	914	914	600	800	750
8"	1022	1022	650	1550	1250
10"	1270	1270	725	2100	1900
12"	1422	1422	775	2600	2350



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Visit our Web Site : <http://www.ae-valves.com>



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