

CX20 Series Primary Isolation Valve



Developed specifically for the high performance, low emission requirements of SHELL Specification 77/300 / ISO 15848 Pt.1 The CX range of valves are the ideal solution for the demanding applications within the Oil & Gas Industries of today.

The CX 20 Primary Isolation valve is a one piece, integrally forged double block and bleed valve, comprising of two Isolation Ball valves and one 10mm Vent Isolation ball valve. Supplied in Flange x Flange configuration the CX20 is ideal for the primary isolation of pressure take-offs and can be mounted directly to vessels or pipework in any orientation required.

TECHNICAL DATA

Materials:

Carbon Steel, 316 Stainless Steel, Duplex and all other exotic materials used in the Oil & Gas Industry

Inlet Connection:

ASME B16.5 flanged 1/2" to 2"

Outlet:

ASME B16.5 flanged 1/2" to 2"

Vent:

1/2" NPT Female (As Std)

Pressure Classes:

ASME 150 - 2500

Operating Temperature Range:

-50°C to 200°C (-58°F to 392°F)

Bore Sizes:

10mm & 13mm

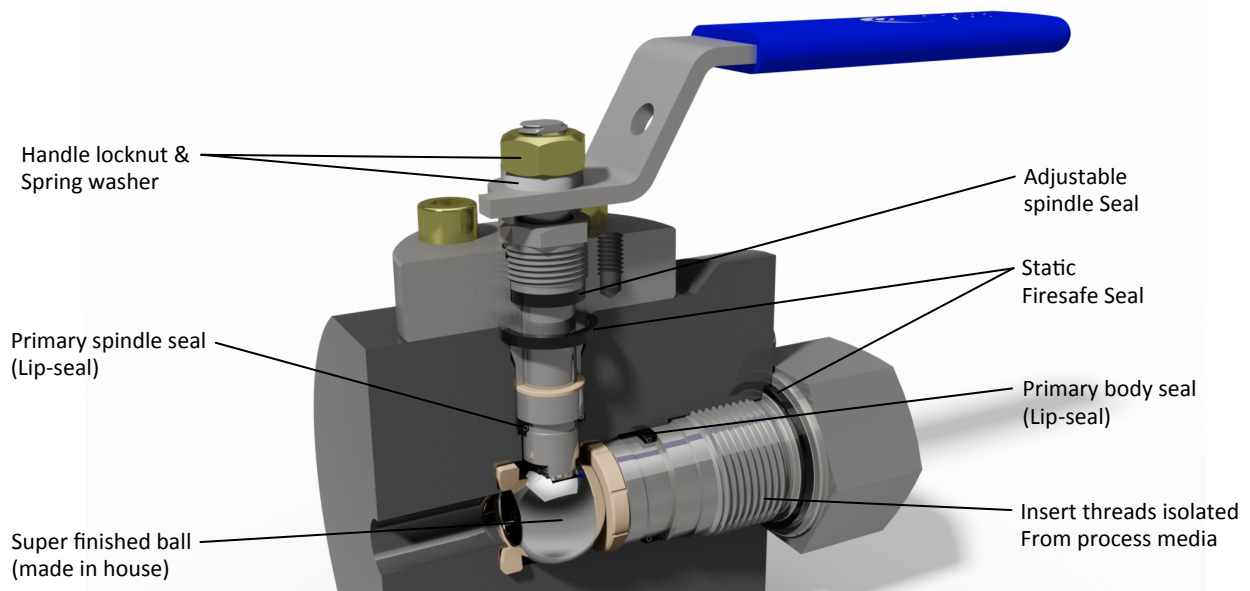
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CX20 Series Primary Isolation Valve

CX 10mm & 13mm Quarter Turn Ball Valve

The 10mm & 13mm bore versions of the CX series valves are supplied with a straight, through fully roddable bore. A low operating torque is achieved using a super finished (made in-house) ball and fully supported, cantilever PEEK seats. Insert threads are isolated from the process media by Lip-seals, which provide sealing capability across a wide range of pressures, temperatures and process media.



Ball Valve Components—Body & Trim Materials

Item	Description	L / QN	S	D
1	Body	A350 LF2 / A105N	A182 F316	A182 F51
2	Handle	UNS S31600	UNS S31600	UNS S31600
3	Stop pin	UNS S31600	UNS S31600	UNS S31600
4	Stem Seal	Graphite - Corrosion Inhibited	Graphite - Corrosion Inhibited	Graphite - Corrosion Inhibited
5	Bonnet Seal	Graphite - Corrosion Inhibited	Graphite - Corrosion Inhibited	Graphite - Corrosion Inhibited
6	Insert Seal	Graphite - Corrosion Inhibited	Graphite - Corrosion Inhibited	Graphite - Corrosion Inhibited
7	Spindle Seal	PTFE - Elgiloy	PTFE - Elgiloy	PTFE - Elgiloy
8	Insert Seal	PTFE - Elgiloy	PTFE - Elgiloy	PTFE - Elgiloy
9	Seat	PEEK - 450G	PEEK - 450G	PEEK - 450G
10	Ball	A479 - UNS S31600	A479 - UNS S31600	A479 - UNS S31803
11	Spindle	A479 - UNS S31600	A479 - UNS S31600	A479 - UNS S31803
12	Insert	A479 - UNS S31600	A479 - UNS S31600	A479 - UNS S31803
13	Bonnet	A479 - UNS S31600	A479 - UNS S31600	A479 - UNS S31803
14	Thrust Washer	PEEK - 450G	PEEK - 450G	PEEK - 450G

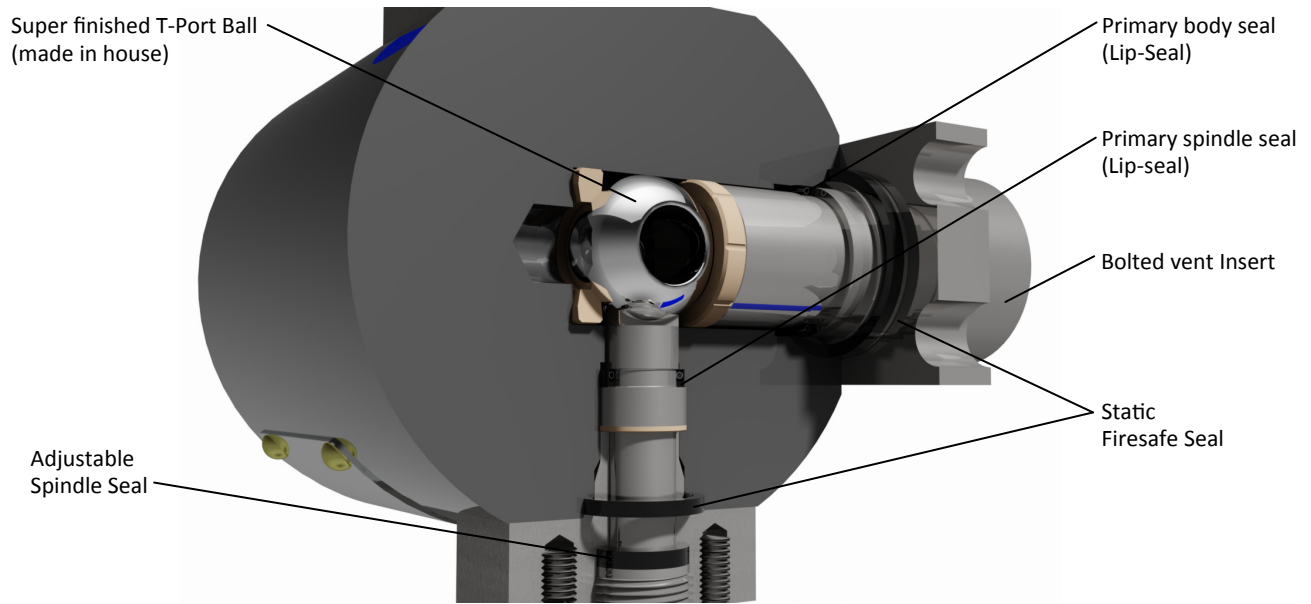
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CX20 Series Primary Isolation Valve

CX20 10mm & 13mm Ball Valve Vent

The 10mm & 13mm versions of the CX15 are supplied with a 10mm bore, in-line ball valve vent. A low operating torque is achieved using a super finished T-Port Ball (made in-house) and full supported, cantilever PEEK seats. The vent insert is of a bolted connection, designed in accordance with ASME B16.34 G.4.1.1, bolting is isolated from process media by Lip-seals, providing a sealing capability across a wide range of pressures, temperatures and process media.

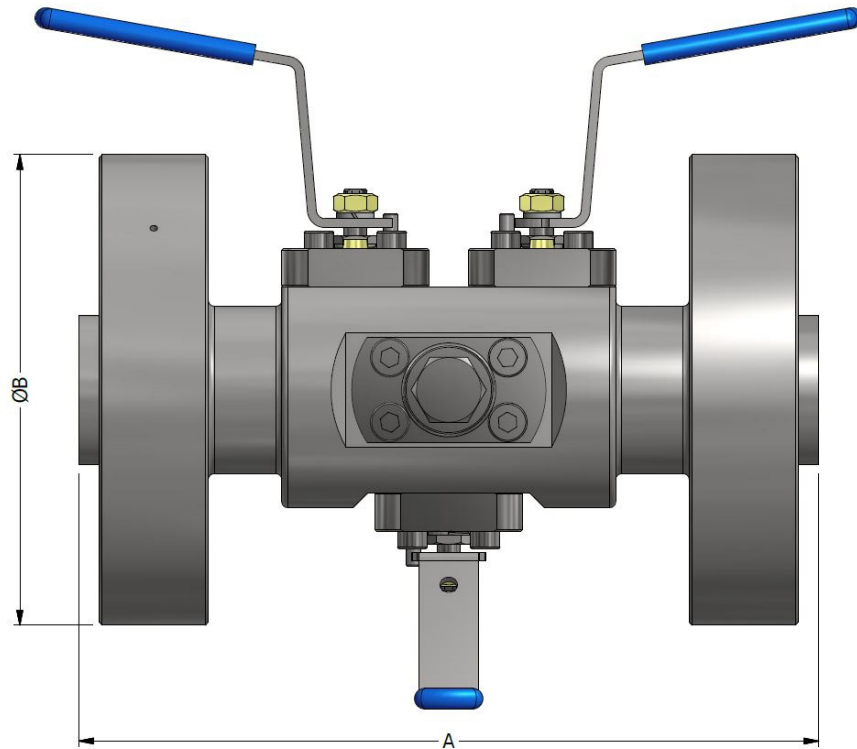


Ball Valve Vent Components—Body & Trim Materials

Item	Description	L / QN	S	D
1	Body	A350 LF2 / A105N	A182 F316	A182 F51
2	Handle	UNS S31600	UNS S31600	UNS S31600
3	Stop pin	UNS S31600	UNS S31600	UNS S31600
4	Stem Seal	Graphite - Corrosion Inhibited	Graphite - Corrosion Inhibited	Graphite - Corrosion Inhibited
5	Bonnet Seal	Graphite - Corrosion Inhibited	Graphite - Corrosion Inhibited	Graphite - Corrosion Inhibited
6	Insert Seal	Graphite - Corrosion Inhibited	Graphite - Corrosion Inhibited	Graphite - Corrosion Inhibited
7	Spindle Seal	PTFE - Elgiloy	PTFE - Elgiloy	PTFE - Elgiloy
8	Insert Seal	PTFE - Elgiloy	PTFE - Elgiloy	PTFE - Elgiloy
9	Seat	PEEK - 450G	PEEK - 450G	PEEK - 450G
10	Ball	A479 - UNS S31600	A479 - UNS S31600	A479 - UNS S31803
11	Spindle	A479 - UNS S31600	A479 - UNS S31600	A479 - UNS S31803
12	Insert	A479 - UNS S31600	A479 - UNS S31600	A479 - UNS S31803
13	Bonnet	A479 - UNS S31600	A479 - UNS S31600	A479 - UNS S31803
14	Thrust Washer	PEEK - 450G	PEEK - 450G	PEEK - 450G

CX20 Series Primary Isolation Valve

CX20 Weights and Dimensions



Note

- Metric Calculations:
mm = in x 25.4
lb = kg x 0.4536

CX20 Series Flanged x Flanged

Size In	Rating lb	Dimensions, inches [mm]						Weight	
		A - RF		A - RJ		ØB	lb	[Kg]	
1/2	150	7.9	[201]	-	-	3.5	[90]	15.2	[6.9]
1/2	300	8.1	[207]	8.6	[219]	3.75	[95]	17.2	[7.8]
1/2	600	8.3	[210]	8.7	[222]	3.75	[95]	17.6	[8.0]
1/2	900/1500	8.9	[226]	9.4	[239]	4.75	[120]	23.1	[10.5]
1/2	2500	9.5	[242]	10.0	[254]	5.25	[135]	29.8	[13.5]
3/4	150	8.0	[204]	-	-	3.88	[100]	16.5	[7.5]
3/4	300	8.3	[210]	8.7	[222]	4.62	[115]	20.5	[9.3]
3/4	600	8.4	[213]	8.9	[225]	4.62	[115]	21.2	[9.6]
3/4	900/1500	9.1	[232]	9.6	[244]	5.12	[130]	26.7	[12.1]
3/4	2500	9.6	[245]	10.1	[257]	5.50	[140]	32.8	[14.9]
1	150	7.8	[197]	8.1	[207]	4.25	[110]	18.1	[8.2]
1	300	8.0	[203]	8.4	[213]	4.88	[125]	20.5	[9.3]
1	600	8.5	[216]	8.5	[216]	4.88	[125]	20.9	[9.5]
1	900/1500	9.4	[239]	9.4	[239]	5.88	[150]	29.8	[13.5]
1	2500	9.9	[251]	9.9	[251]	6.25	[205]	36.6	[16.6]
1 1/2	150	8.0	[203]	8.4	[213]	5.00	[125]	22.3	[10.1]
1 1/2	300	8.3	[210]	8.7	[220]	6.12	[155]	28.0	[12.7]
1 1/2	600	8.9	[226]	8.9	[226]	6.12	[155]	30.0	[13.6]
1 1/2	900/1500	9.6	[245]	9.6	[245]	7.00	[180]	41.9	[19.0]
1 1/2	2500	10.6	[270]	10.7	[272]	8.00	[205]	64.6	[29.3]
2	150	8.1	[206]	8.5	[216]	6.00	[150]	27.8	[12.6]
2	300	8.4	[213]	8.9	[225]	6.50	[165]	32.2	[14.6]
2	600	9.1	[232]	9.2	[234]	6.50	[165]	35.1	[15.9]
2	900/1500	10.2	[258]	10.2	[260]	8.50	[215]	63.3	[28.7]
2	2500	11.1	[283]	11.2	[285]	9.25	[235]	88.0	[39.9]

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CX20 CODING AND ORDERING INFORMATION

CX20 / 10 / 25 CA / 25 CA / 15 NF / S / S / SBH / BCR / LK / BP

Design & Configuration

CX20 - Flanged x Flanged - DB&B - Ball / Ball / Ball

Bore (mm)

10 - 10mm (3/8") 13 - 12.7mm (1/2")

Inlet

15 - 1/2"	40 - 1-1/2"	A - 150lb	E - 900lb	A - RF
20 - 3/4"	50 - 2"	B - 300lb	F - 1500lb	C - RJ
25 - 1"	75 - 3"	C - 600lb	G - 2500lb	Z - FF

Outlet

15 - 1/2"	40 - 1-1/2"	A - 150lb	E - 900lb	A - RF
20 - 3/4"	50 - 2"	B - 300lb	F - 1500lb	C - RJ
25 - 1"	75 - 3"	C - 600lb	G - 2500lb	Z - FF

Vent

15 - 1/2"	40 - 1-1/2"	NF - NPT Female	PM - BSPP Male
20 - 3/4"	50 - 2"	NM - NPT Male	TF - BSPT Female
25 - 1"		PF - BSPP Female	

Body Material

A - NES 833	J - F44 / UNS S31254	Q - A105	U - F55 / UNS S32760
D - F51 / UNS S31803	L - A350 LF2	QN - A105N	V - Inconel 625
H - Hastelloy C276	M - Monel 400	S - A182 F316 / F316L	Y - F53 / UNS S32750
I - Incoloy 825	N - Inconel 600	T - Titanium	X - Alloy 20

Trim Material

A - NES 833	J - UNS S31254	T - Titanium	X - Alloy 20
D - UNS S31803	M - Monel 400	U - UNS S31803	N50 - Nitronic 50
H - Hastelloy C276	N - Inconel 600	V - Inconel 625	
I - Incoloy 825	S - A479 316 / 316L	Y - UNS S32750	

Options

SBH - Slotted bolt holes (77/170)
BCR - Upstream cavity relief (77/170)
AT - Anti-Tamper (NV only)

LHW - Handwheel lock (NV only)
LK - Locking handle (BV only)
Ca6 - 6mm Corrosion allowance

VP - Plugged Vent
BP - Plugged Outlet
BPC - Chained Blank Plug

Sampling & Injection

DOR - Double Oring (NPT Vnt)
TS - Stellite tip (NV only)
EL50 - Extended levers (50mm)
NORSOK - Material to Norsok MDS

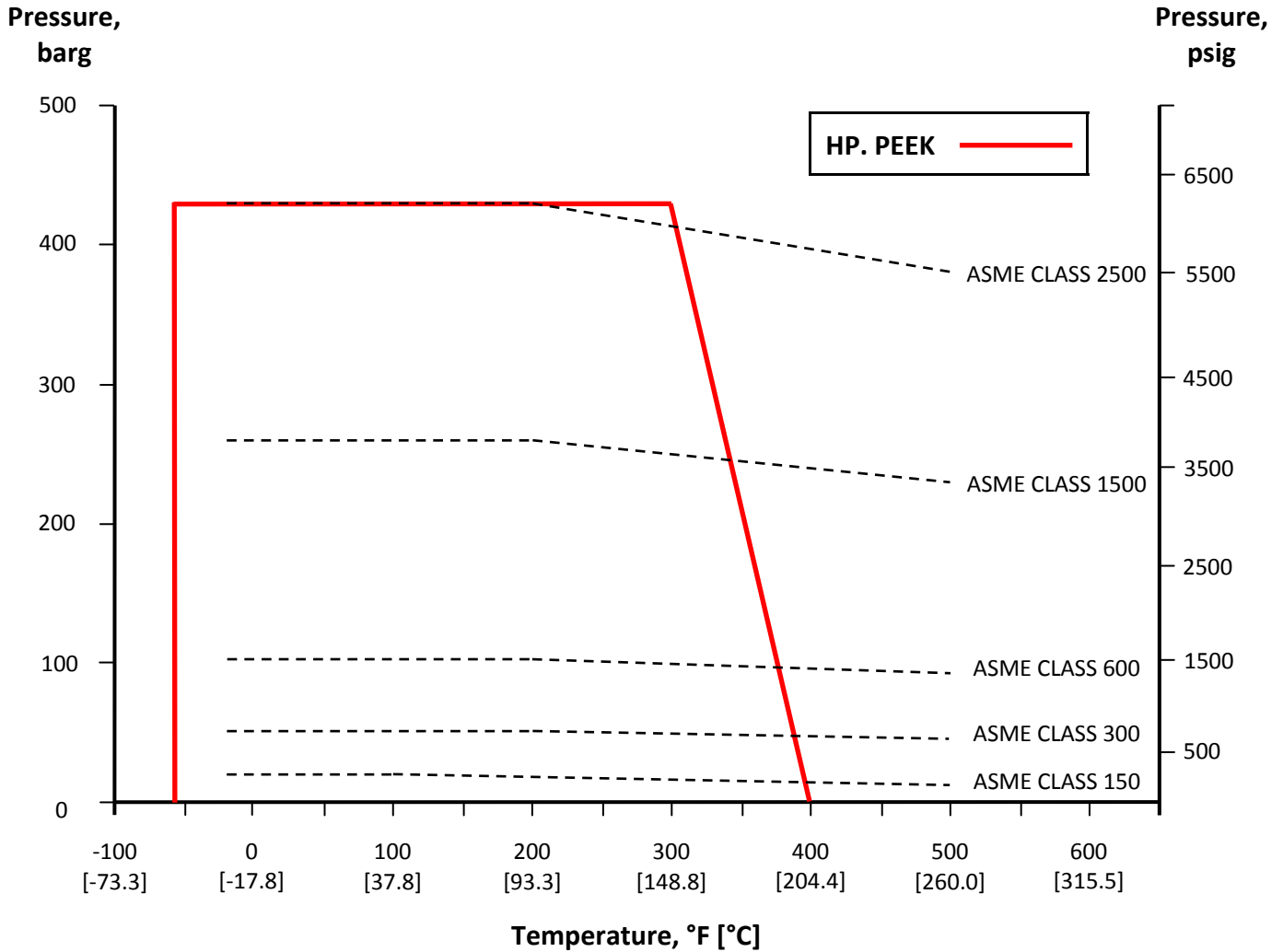
Q1XXX - Quill Straight cut
Q2XXX - Quill Scarf cut (45°)
Q3XXX - Quill c/w nozzle (Nozzle to be stated)
CV - Check Valve

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CX20 Pressure and Temperature Rating



Note:
 ASME Class ratings based on ASME B16.5 Table A-2 - Rated Ceiling Pressure (psi)
 For material specific pressure rating - see relevant tables in ASME B16.5

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