

E C2E Bolted-Bonnet Valve 5CB

6 000 psig / Max Cv 27 / Max Bean Size 81

VALVE SPECIFICATIONS ▶

This control-valve option uses a bolted bonnet to retain the flow trim in the valve body. Standard end connections range in size from 2" to 3".

Valve Model	C2E
Body Type	Inline
Body Rating	6 000 PSIG (Maximum C.W.P.)
Inlet Connection	see 'Standard End Connections'
Outlet Connection	see 'Standard End Connections'
Bonnet Type	Bolted
Body / Bonnet Material	see 'Material Options'
Stem Material	see 'Material Options'
Seal Material	see 'Material Options'
Trim Style	Ported Cage with External Sleeve
Balanced / Unbalanced	Semi-Balanced
Flow Characteristic	Equal Percentage
Trim Material	see 'Trim Options'
Design Cv	see 'Trim Options'
Leakage Class	Class V (Standard)

picture not available

TRIM OPTIONS ▶

	Standard Trim Cage & External Sleeve 2 Row / 4 Hole	Multistage Trim	High-Pressure Multi-stage Trim
Material	UNS S17400, Stellite, Tungsten Carbide	Stellite, Tungsten Carbide	Stellite, Tungsten Carbide
Application	Liquid, Gas, Multiphase; Abrasive	Liquid, Gas, Multiphase	Liquid, Gas, Multiphase
Cv	27	7	6
Turns	11	8	8
Travel	1.35"	1.00"	1.00"

STANDARD END CONNECTIONS ▶

Connection Size ▶	Standard Dimensions & Estimated Weights							
	2" Nominal				3" Nominal			
	'F'		Weight		'F'		Weight	
Connection Type ▼	inch	mm	lbs.	kg	inch	mm	lbs.	kg
Threaded	11.25	286	87	40	-	-	-	-
ASME 150 RF	10.00	254	93	42	*12.50	*318	101	46
ASME 300 RF	10.50	267	96	44	12.50	318	101	46
ASME 600 RF	11.25	286	99	45	13.25	337	110	50
ASME 600 RTJ	11.38	289	99	45	13.38	340	110	50
ASME 900 RF	14.75	375	127	58	17.38	441	145	66
ASME 900 RTJ	14.88	378	127	58	17.50	445	145	66
ASME 1500 RT	14.75	375	127	58	18.12	460	168	76
ASME 1500 RTJ	14.88	378	127	58	18.25	464	168	76

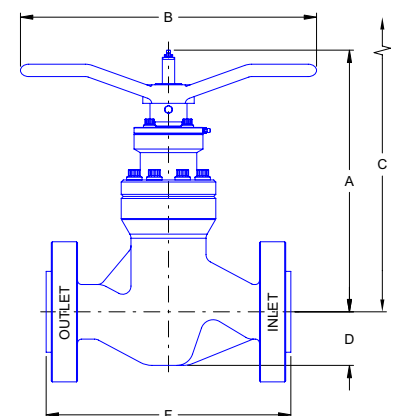
* Not a standard ISA face-to-face dimension.

ENVELOPE DIMENSIONS ▶

Dimensions 'A', 'B', and 'C' apply to manually operated valves and are tabulated below. 'F' (face-to-face) dimension depends on the end connection and is tabulated above. Special dimensions and other end connections are available upon request.

Dimensions		
	inch	mm
A	15.88	403
B	18.00	457
C	21.75	552
D	3.50	89

Note: "C" is the disassembly clearance.



MATERIAL OPTIONS

Temperature Class	Certification Level	API - 6A Material Class Designations						
		AA	BB	CC	DD	EE	FF	HH
PU -20F to 250F	STD / PSL-1	BB	BB	FF	EE	EE	FF	n/a
PX -20F to 350F	PSL-2	EE	EE	FF	EE	EE	FF	n/a
	PSL-3	EE	EE	FF	EE	EE	FF	n/a
LU -50F to 250F -20 to 400	STD / PSL-1	EE	EE	FF	EE	EE	FF	n/a
	PSL-2	EE	EE	FF	EE	EE	FF	n/a
	PSL-3	EE	EE	FF	EE	EE	FF	n/a

	BB-General Service	EE-Sour Service	FF-Sour Service
Body	ASTM A352 LCC / ASTM A216 WCB	ASTM A352 LCC / ASTM A216 WCB	ASTM A351 CF8M
Bonnet	ASTM A350 LF2 or AISI 4130	ASTM A350 LF2 or AISI 4130	UNS S31803
Stem	UNS S17400	UNS S17400	UNS S17400
Bolting	ASTM A320 L7M	ASTM A320 L7M	ASTM A320 L7M
Retaining Sleeve	ASTM A743 CF8M	ASTM A743 CF8M	ASTM A743 CF8M
Seals	Buna - N	Viton	Viton

Other materials available upon request.

OTHER VALVE OPTIONS

	Standard	Optional
Calibration Head / Serial Plaque	Aluminum	Stainless Steel
Outlet Sleeve	-	n/a
Body Bleed Port	-	n/a

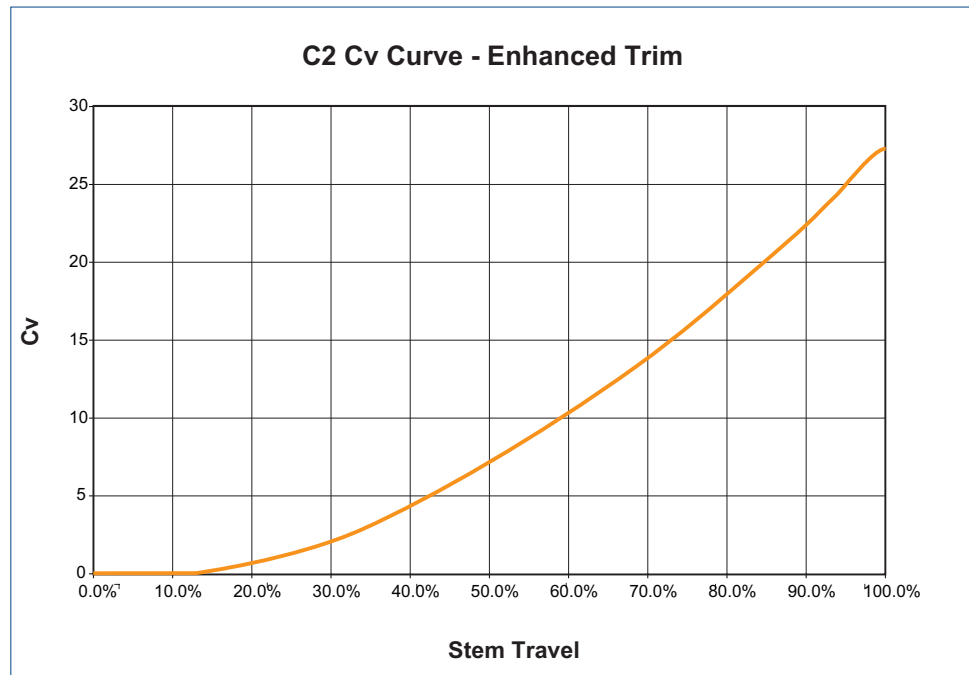
Some limitations may apply.

ACTUATION OPTIONS

Master Flo	Other
Manually Operated (Stemlock is optional)	Rotary Electric
Rotary Stepping (Pneumatic)	
Rotary Stepping (Hydraulic)	

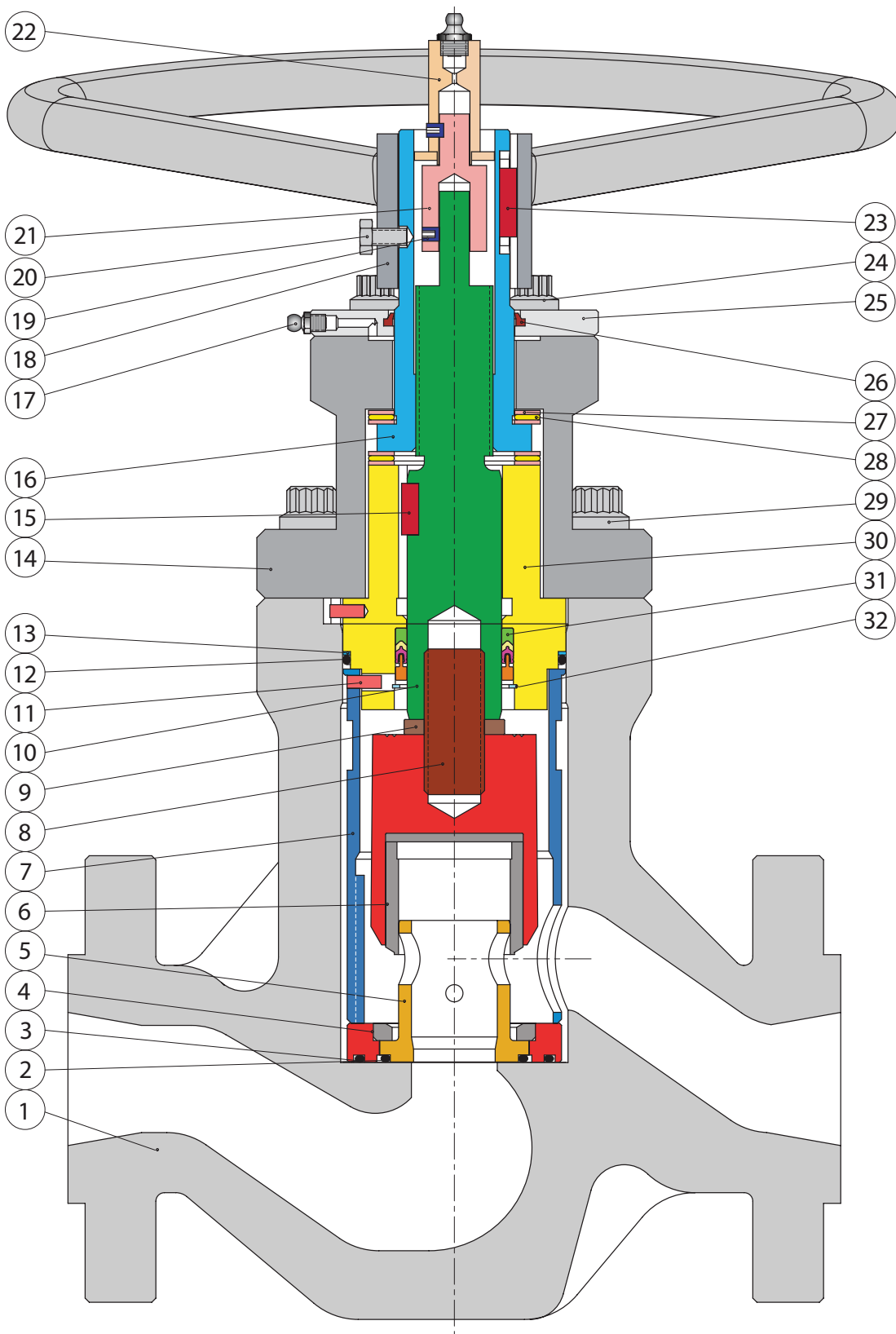
Other actuators available upon request.

PERFORMANCE CHARACTERISTICS



LIQUID PRESSURE RECOVERY FACTOR (FL)

Master Flo's trim geometry has been designed to achieve high F_L numbers. This results in a decreased cavitation potential, lower noise generation, increased flow capacity, and longer trim life. The high F_L numbers of Master Flo's trims have been verified experimentally as per the test procedures of ISA-S75.02-1996.



PARTS LIST

1. Body
2. Seal: Cage - Body
3. Seal: Seat - Body
4. Seat
5. Cage
6. External Sleeve
7. Retaining Sleeve
8. Stud
9. Lockwasher
10. Stem
11. Pin
12. Seal: Bonnet - Body
13. B/U Ring: Bonnet - Body
14. Bonnet Flange
15. Key
16. Stem Nut
17. Grease Nipple
18. Handwheel
19. Set Screw
20. Capscrew
21. Stem Extension
22. Calibration Head
23. Key
24. Capscrew
25. Cover Plate
26. Wiper
27. Thrust Washer
28. Thrust Bearing
29. Capscrew
30. Bonnet
31. Seal Pack: Stem - Bonnet
32. Retaining Ring

P2 Product Family

- Standard:
- P2E - Hammer-Union Bonnet; 10 000 PSI
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- Other Options:
- P2E BB - Bolted Bonnet; 6 000 PSI
 - P2E 10k BB - Bolted Bonnet; 10 000 PSI
 - P2E HT - Hammer Union; 6 000 PSI; High-Temperature Service
 - C2E - Hammer Union; 6 000 PSI; Inline
 - **C2E BB - Bolted Bonnet; 6 000 PSI; Inline**
 - C2E HT - Hammer Union; 6 000 PSI; Inline; High-Temperature Service

chokes for all applications

recycle lines



manifold



vent valves



production



blow down

glycol injection

overboard dumps



subsea



level controllers

water injection

