

E C1E Valve

3 600 psig / Max Cv 14 / Max Bean Size 58

This control valve uses a bolted bonnet to retain the flow trim in the valve body. Standard end connections range in size from 1" to 2".



VALVE SPECIFICATIONS

Valve Model	C1E
Body Type	Inline
Body Rating	3 600 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	Unbalanced
Flow Characteristic	Equal Percentage
Trim Material	see 'Trim Options'
Design Cv	see 'Trim Options'
Leakage Class	Class V (Standard)

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 only
Cv	14	4	3
Turns	6	4	4
Travel	1.00"	0.65"	0.65"

STANDARD END CONNECTIONS

Connection Size ▶	Standard Dimensions & Estimated Weights							
	1" Nominal				2" Nominal			
	'F'		Weight		'F'		Weight	
Connection Type ▼	inch	mm	lbs.	kg	inch	mm	lbs.	kg
Threaded	8.25	210	37	17	-	-	-	-
ASME 150 RF	*8.50	*216	38	17	*10.50	*267	51	23
ASME 300 RF	*8.75	*222	41	19	10.50	267	51	25
ASME 600 RF	*9.38	*238	42	19	11.25	286	55	25
ASME 600 RTJ	*9.38	*238	49	22	11.38	289	55	40
ASME 900 RF	11.50	292	49	22	14.75	375	88	40
ASME 900 RTJ	11.50	292	49	22	14.88	378	88	40
ASME 1500 RF	11.50	292	49	22	14.75	375	88	40
ASME 1500 RTJ	11.50	292	49	22	14.88	378	88	40

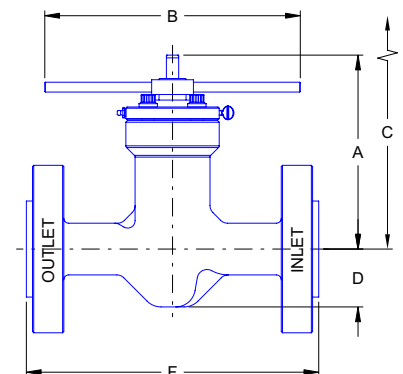
* Not a standard ISA face-to-face dimension.

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	9.84	250
B	13.00	330
C	15.69	398
D	2.94	75

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
	PSL-2	EE	EE	FF	EE	EE	FF	n/a
	PSL-3	EE	EE	FF	EE	EE	FF	n/a
LU -50F to 250F	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

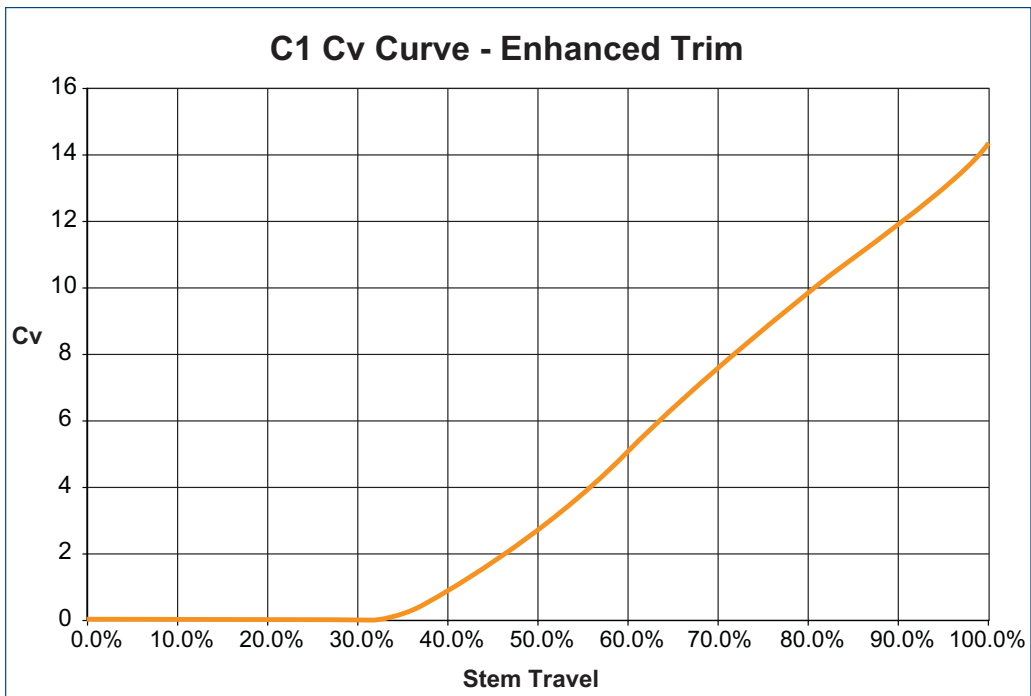
Some limitations may apply.

ACTUATION OPTIONS

Master Flo	Other
Manually Operated	Rotary Electric
FC Hydraulic Piston	Pneumatic Diaphragm
Pneumatic Piston	Pneumatic Piston

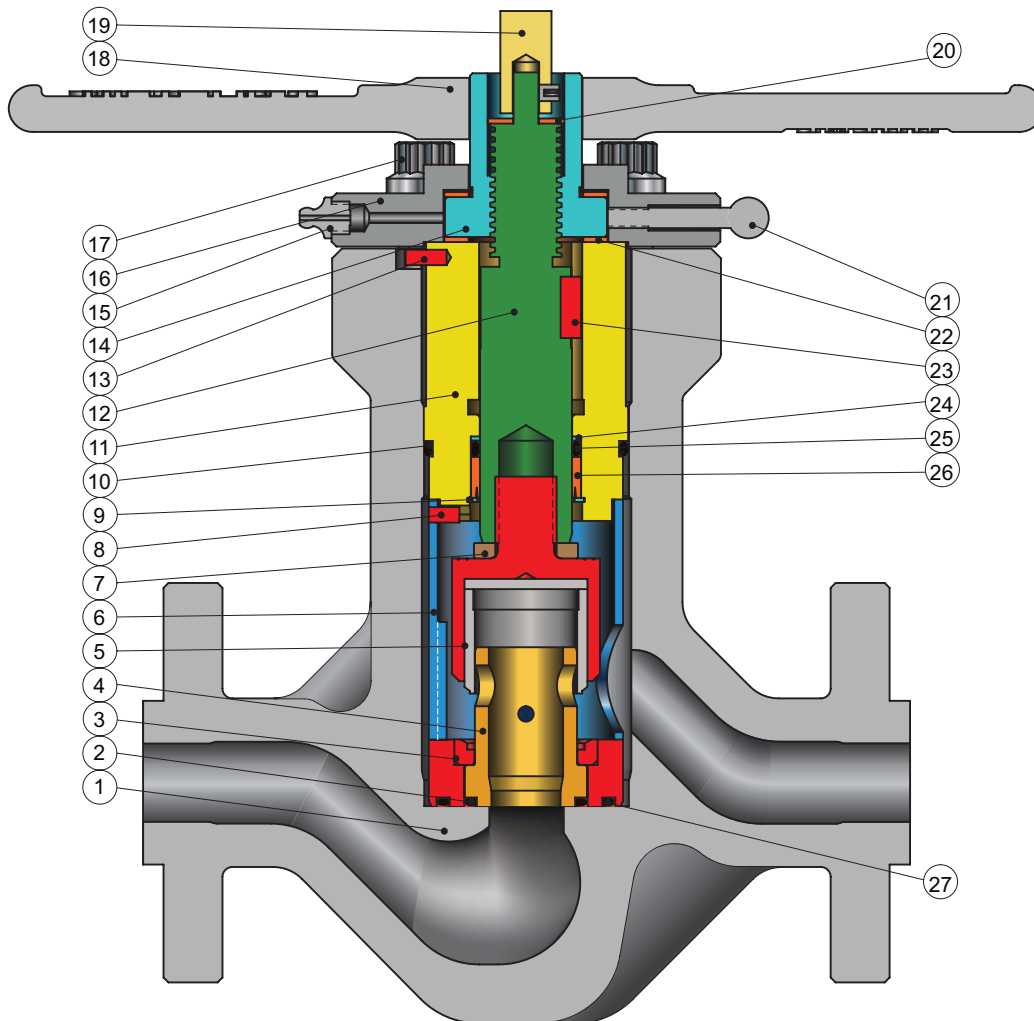
Other actuators available upon request.

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. Seat
- 4. Cage
- 5. External Sleeve
- 6. Retaining Sleeve
- 7. Lock Washer
- 8. Groove Pin
- 9. Retaining Ring
- 10. Seal: Bonnet - Body
- 11. Bonnet
- 12. Stem
- 13. Groove Pin
- 14. Stem Nut
- 15. Grease Nipple
- 16. Bonnet Flange
- 17. Cap Screw
- 18. Handle
- 19. Calibration Head
- 20. Stem Washer
- 21. Thumbscrew
- 22. Thrust Washer
- 23. Key
- 24. B.U. Ring: Stem - Bonnet
- 25. Seal: Stem - Bonnet
- 26. Bushing: Stem - Bonnet
- 27. Seal: Seat - Body

P1E Product Family

Standard:
 • P1E - Bolted Bonnet; 6 000 PSI

- Other Options:
- P1E HT - Bolted Bonnet; 6 000 PSI; High-Temperature Service
 - YP1E - Bolted Bonnet; 5 000 PSI; Y-Pattern Inline
 - C1E - Bolted Bonnet; 3 600 PSI; Inline
 - C1E HT - Bolted Bonnet; 3 600 PSI; Inline; High-Temperature Service

chokes for all applications

recycle lines



manifold



vent valves



production



blow down

glycol injection



overboard dumps



level controllers

water injection

subsea



www.masterflo.com
info@masterflo.com
info@masterflo.co.uk