

E P2E High-Temperature Choke 5CB

6 000 psig / Max Cv 21 / Max Bean Size 72



VALVE SPECIFICATIONS ▶

This choke-valve option, suitable for high-temperature applications, uses a hammer-union nut to retain the bonnet and flow trim in the valve body. Standard end connections range in size from 2" to 3".

Valve Model	P2E HT
Body Type	Right Angle
Body Size	2 inch (Nominal)
Body Rating	6 000 PSIG (Maximum)
Inlet Connection	see 'Standard End Connections'
Outlet Connection	see 'Standard End Connections'
Bonnet Type	Hammer Union Nut
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	High-Cv Low-ΔP Trim * Cage & External Sleeve
Material	UNS S17400,Stellite	UNS S17400
Application	Liquid, Gas, Multiphase; Clean	Liquid, Gas, Multiphase; Clean, Low Velocity, Low ΔP
Cv	21	25
Turns	11	11
Travel	1.35"	1.35"

* Replacement trim only.

STANDARD END CONNECTIONS ▶

Connection Size ▶ Connection Type ▼	Standard Dimensions & Estimated Weights											
	2" Nominal (2-1/16" API)				2-1/2" Nominal (2-9/16" API)				3" Nominal (3-1/8" API)			
	'I' or 'O'		Weight		'I' or 'O'		Weight		'I' or 'O'		Weight	
	inch	mm	lbs.	kg	inch	mm	lbs.	kg	inch	mm	lbs.	kg
Threaded	4.50	114	82	37	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
ANSI 150 RF	7.00	178	92	42	7.25	184	101	46	7.25	184	103	47
ANSI 300 RF	7.25	184	96	44	7.50	191	106	48	7.62	194	114	52
ANSI 600 RF	7.62	194	100	45	7.88	200	110	50	8.00	203	116	53
ANSI 600 RTJ	7.69	195	100	45	7.94	202	110	50	8.06	205	116	53
ANSI 900 RF	8.75	222	128	58	8.88	225	149	68	8.75	222	138	63
ANSI 900 RTJ	8.81	224	128	58	8.94	227	149	68	8.81	224	138	63
ANSI 1500 RTJ	8.81	224	128	58	8.94	227	149	68	9.44	240	176	80
ANSI 2500 RTJ	9.81	249	164	74	10.50	267	191	87	11.50	292	268	122
2 000 API 6B **	7.69	195	100	45	7.94	202	110	50	8.06	205	116	53
3 000 API 6B **	8.81	224	128	58	8.94	227	149	68	8.81	224	138	63
5 000 API 6B **	8.81	224	128	58	8.94	227	149	68	9.44	240	177	80

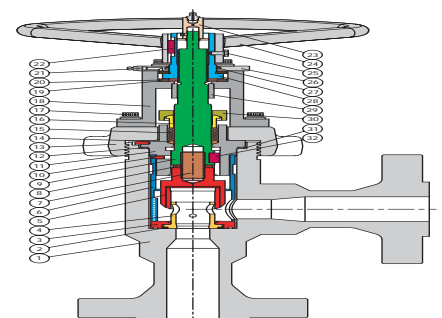
** Not API monogrammable due to temperature range.

ENVELOPE DIMENSIONS ▶

Dimensions 'A', 'B', and 'C' apply to manually operated chokes and are tabulated below. 'I' (inlet) and 'O' (outlet) dimensions depend on the end connections and are tabulated above. Special dimensions and other end connections are available upon request.

Dimensions		
	inch	mm
A	15.75	400
B	18.00	457
C	21.62	549

Note: "C" is the disassembly clearance.



MATERIAL OPTIONS

Temperature Class	Certification Level	API - 6A Material Class Designations							
		AA	BB	CC	DD	EE	FF	HH	
-20 F to 850F	STD / PSL-1	BB	BB	CC	n/a	n/a	n/a	n/a	
	PSL-2	BB	BB	CC	n/a	n/a	n/a	n/a	
	PSL-3	BB	BB	CC	n/a	n/a	n/a	n/a	

	BB-General Service	CC-General Service**
Body	AISI 8620	AISI 316
Bonnet	AISI 1020*	AISI 316
Stem	UNS S17400	UNS S17400
Bonnet Nut	AISI 4130	AISI 4130
Retaining Sleeve	ASTM A351 CF8M	ASTM A351 CF8M
Seals	Graphoil	Graphoil

Other materials available upon request.

* AISI 8620 required for API-rated valves.

** Not available for API-rated valves.

OTHER VALVE OPTIONS

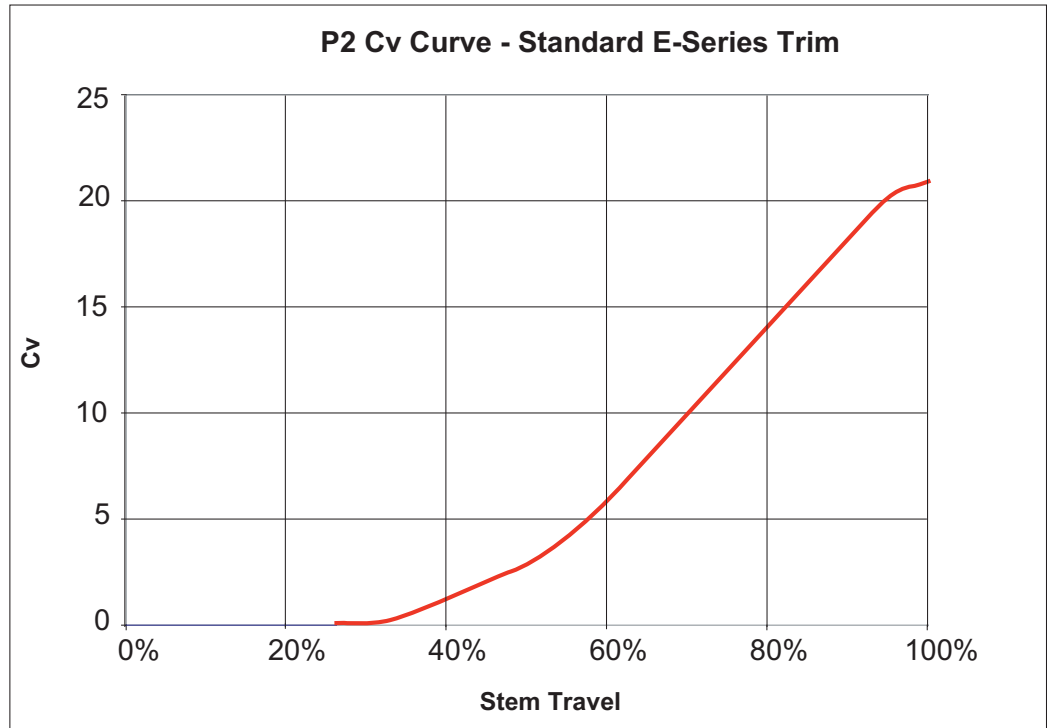
	Standard	Optional
Calibration Head / Serial Plaque	Aluminum	Stainless Steel
Outlet Sleeve	-	n/a
Body Bleed Port	-	1/2" NPT, API Autoclave

ACTUATION OPTIONS

Master Flo	Other
Manually Operated	Pneumatic Piston

Other actuators available upon request.

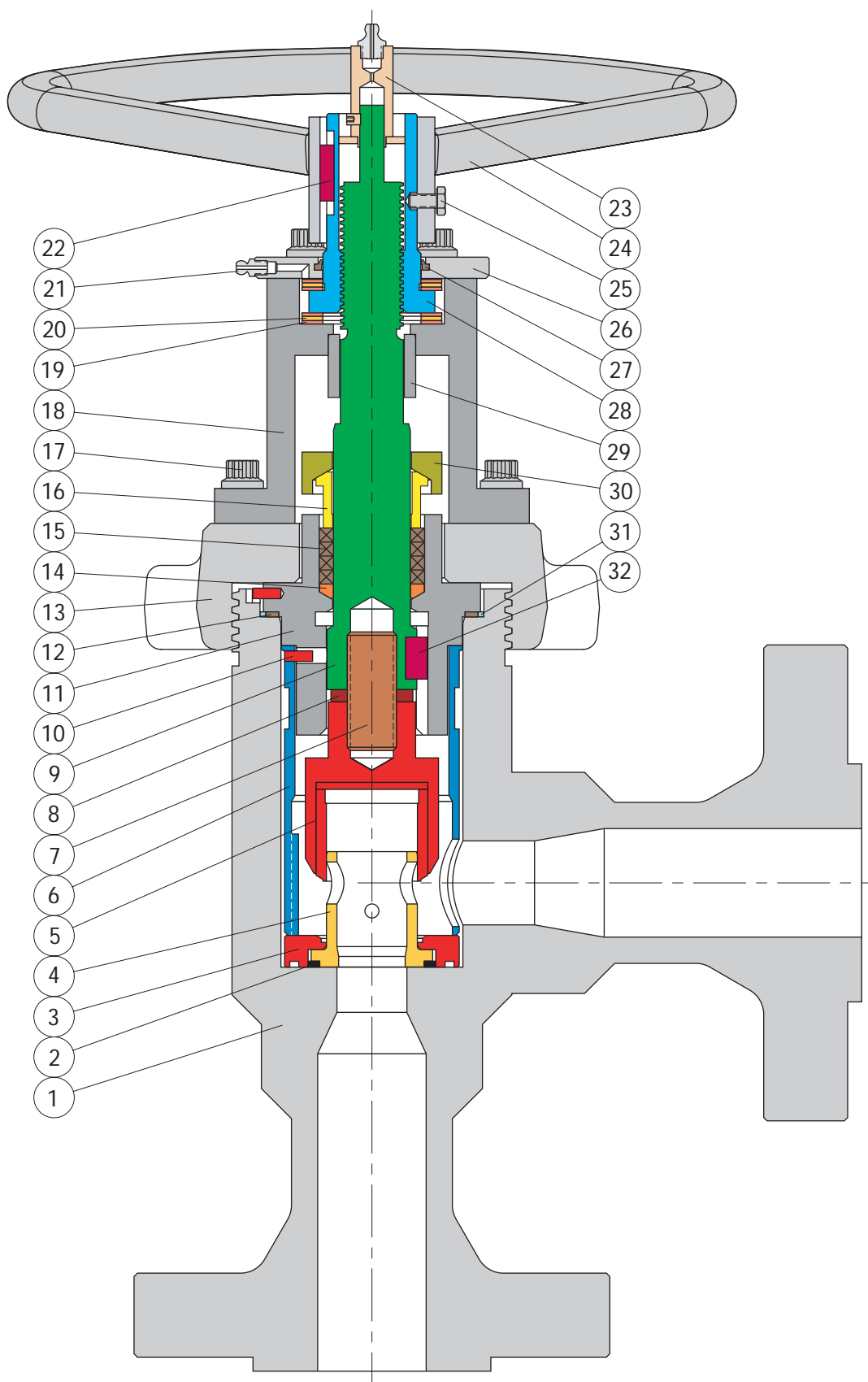
PERFORMANCE CHARACTERISTICS



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: Nozzle - Body
3. Seat
4. Nozzle
5. Flow Ring
6. Retaining Sleeve
7. Stud
8. Lockwasher
9. Stem
10. Pin
11. Bonnet
12. Seal: Bonnet - Body
13. Bonnet Nut
14. Packing Leader
15. Packing: Stem - Bonnet
16. Packing Follower
17. Capscrew
18. Yoke
19. Thrust Washer
20. Thrust Bushing
21. Grease Nipple
22. Key
23. Calibration Head
24. Handwheel
25. Capscrew
26. Cover Plate
27. Wiper
28. Stem Nut
29. Yoke Sleeve
30. Packing Gland
31. Retaining Ring
32. Key

P2 Product Family

Standard:

- P2E - Hammer-Union Bonnet; 10 000 PSI

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; 3 600 PSI; Inline
- C2E HT - Hammer Union; 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