

P10 Choke



6 000 psig / Max Cv 1000 / Max Bean Size 490

This choke valve uses a bolted bonnet to retain the flow trim in the valve body. The flow trim is pressure balanced to minimize the stem loads and provide low operating torques. Standard end connections range in size from 10" to 16".



VALVE SPECIFICATIONS ▶

Valve Model	P10
Body Type	Right Angle
Body Size	10 inch (Nominal)
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	Balanced
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
Material	UNS S17400, Stellite, Tungsten Carbide
Application	Liquid, Gas, Multiphase
Cv	1000
Turns	34.5
Travel	5.75"

STANDARD END CONNECTIONS ▶

Connection Size ▶	Standard Dimensions & Estimated Weights			
	10" Nominal		12" Nominal (13" API)	
	'I' or 'O'		'I' or 'O'	
Connection Type ▼	inch	mm	inch	mm
ASME 150 RF	19.06	484	19.56	497
ASME 300 RF	19.69	500	20.19	513
ASME 600 RF	21.31	541	21.44	545
ASME 600 RTJ	21.38	543	21.50	546
ASME 900 RF	22.56	573	23.19	589
ASME 900 RTJ	22.62	575	23.25	591
ASME 1500 RF	25.31	643	26.44	672
ASME 1500 RTJ	25.50	648	26.75	680
ASME 2500 RTJ	32.25	819	34.00	864
2 000 API 6B	21.38	543	21.50*	546*
3 000 API 6B	22.62	575	23.25*	591*
5 000 API 6B	25.50	648	26.75*	680*

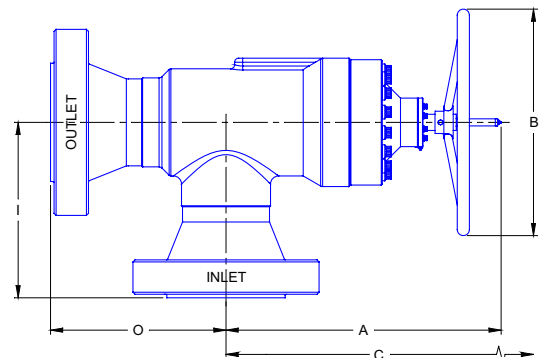
* Subject to change.

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	38.25	895
B	28.00	711
C	51.12	1298

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	HH	
	PSL-2	EE	EE	FF	EE	EE	FF	HH	
	PSL-3	EE	EE	FF	EE	EE	FF	HH	
LU -50F to 250F	STD / PSL-1	EE	EE	FF	EE	EE	FF	HH	
	PSL-2	EE	EE	FF	EE	EE	FF	HH	
	PSL-3	EE	EE	FF	EE	EE	FF	HH	

	BB-General Service	EE-Sour Service	FF-Sour Service	
Body	ASTM A487 4C	ASTM A487 4C	ASTM A487 4C / Inconel 625	ASTM A487 4C / Inconel 625
Bonnet	AISI 4130	AISI 4130	AISI 4130 / DUPLEX	AISI 4130 / Inconel 625
Stem	UNS S17400	UNS S17400	UNS S17400	Inconel 718
Bolting	ASTM A320 L7M	ASTM A320 L7M	ASTM A320 L7M	ASTM A320 L7M
Retaining Sleeve	ASTM A743 CF8M	ASTM A743 CF8M	ASTM A743 CF8M	Inconel 625
Balance Sleeve	DUPLEX	DUPLEX	DUPLEX	Inconel 625
Seals	Buna - N	Viton	Viton	Teflon

Other materials available upon request.

OTHER VALVE OPTIONS

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

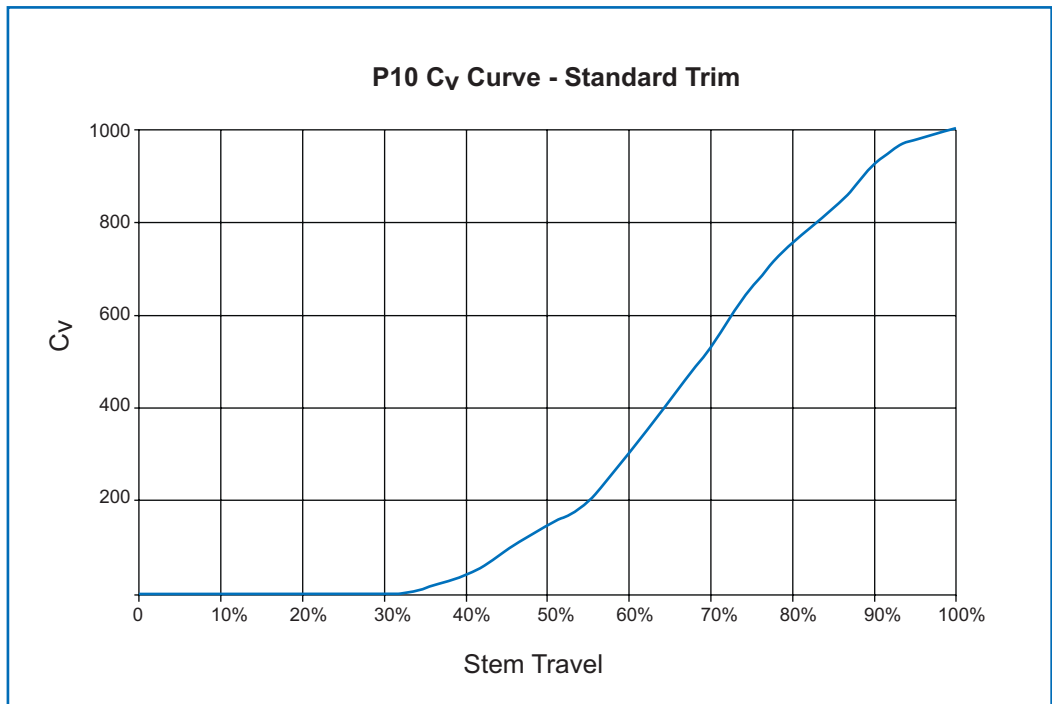
Some limitations may apply.

ACTUATION OPTIONS

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

Other actuators available upon request.

PERFORMANCE CHARACTERISTICS



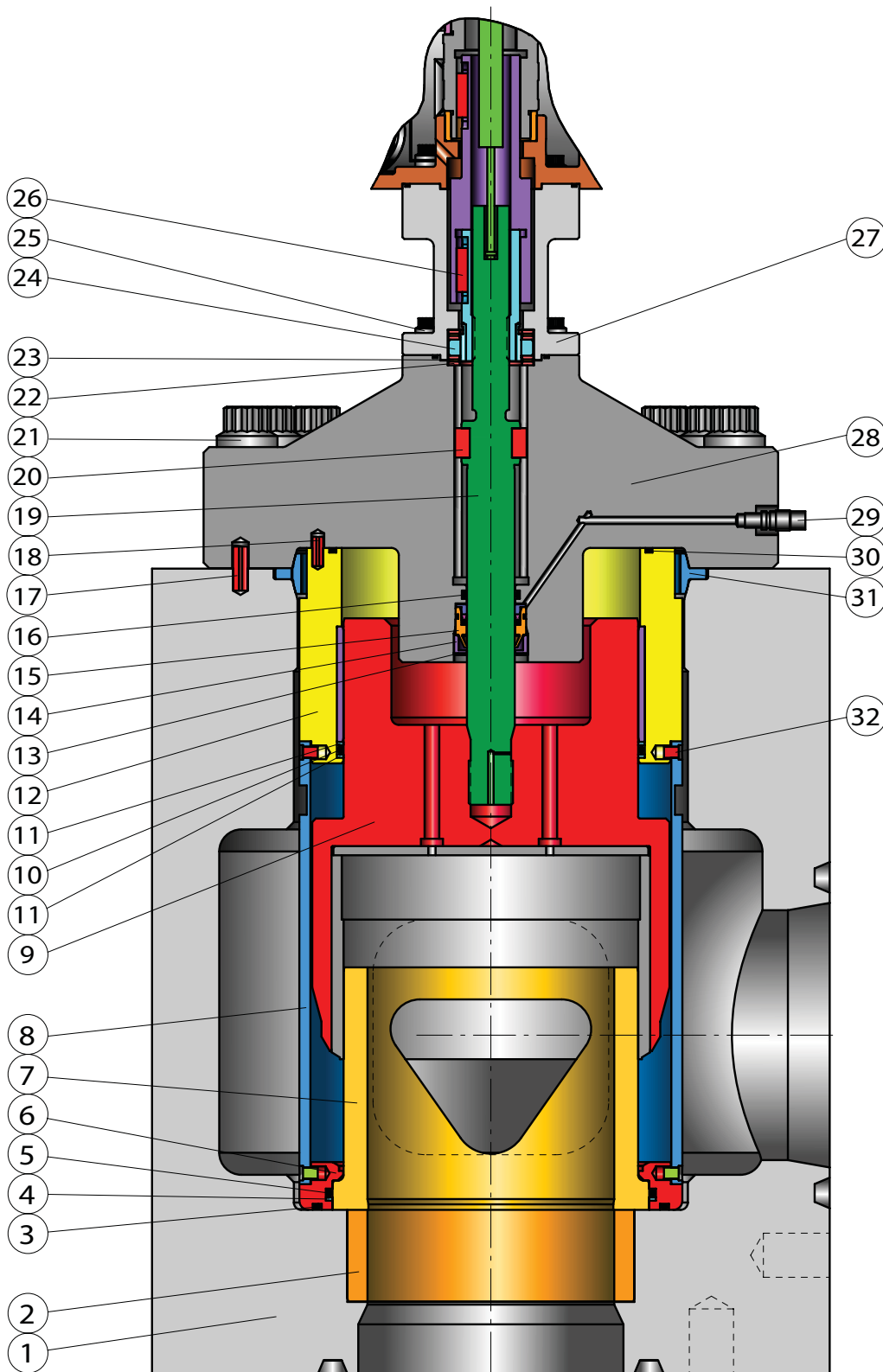
LIQUID PRESSURE RECOVERY FACTOR (FL)

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. Outlet Sleeve
3. Seal: Seat - Body
4. B/U Ring: Cage - Seat
5. Seal: Cage - Seat
6. Seat
7. Cage
8. Retaining Sleeve
9. External Sleeve
10. Seal: External Sleeve - Balance Sleeve
11. BU Ring: External Sleeve - Balance Sleeve
12. Balance Sleeve
13. Retaining Ring
14. Wiper
15. Seal: Stem - Bonnet
16. Seal: Stem - Bonnet
17. Spring Pin
18. Spring Pin
19. Stem
20. Key
21. Capscrew
22. Thrust Washer
23. Thrust Bearing
24. Stem Nut
25. Capscrew
26. Key
27. Cover Plate
28. Bonnet
29. Grease Nipple
30. Seal: Balance Sleeve - Bonnet
31. Bonnet Seal
32. Pin



chokes
for all applications

recycle lines



manifold



vent valves



production



blow down

glycol injection



overboard dumps



level controllers

water injection



subsea