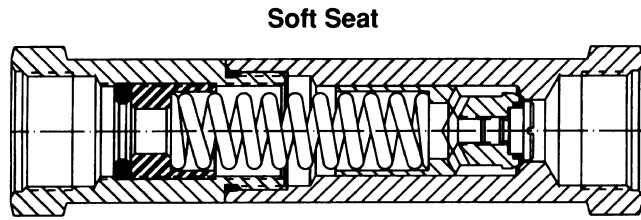
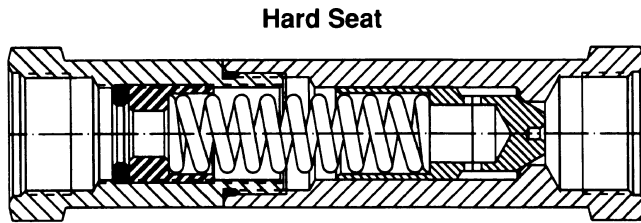


Catalog Series 665

Specifications



Service Applications:

Hard seat type: Hydraulic.
Soft seat type: Hydraulic and air.

Pressure Range:

Working: 4 to 3600 PSI
in 13 ranges
Reseat: Range 1
80% of cracking pressure
Ranges 2 to 13
90% of cracking pressure
Proof: 4500 PSI

Temperature Range:

-40° to 250° F.
Higher on special order.

Sizes:

NPT: 1/8, 1/4, 3/8, 1/2, 3/4, 1.
IST: 4, 6, 8, 12, 16.

Type Ports:

NPT Pipe Threads; IST Internal Straight Threads.

Materials:

Body, Cap: Aluminum alloy, anodized;
stainless steel.

Poppet, Adjustable

Screw: (Hard seat) stainless steel type 416;
(soft seat) stainless steel type 303.

Locknut: Stainless steel type 303.

Spring: Stainless steel AMS5688 and
17-7PH.

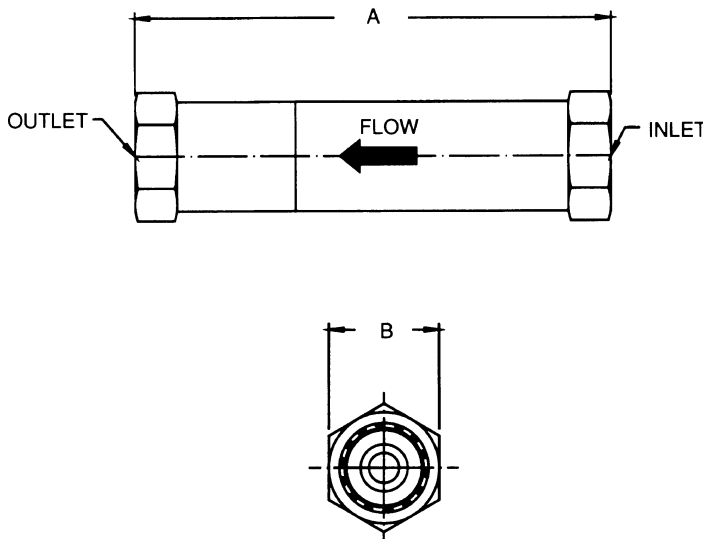
O-Ring: Synthetic rubber.

Seat (soft): Ranges 1 to 3 inclusive, synthetic
rubber; ranges 4 to 13, PTFE.

Features

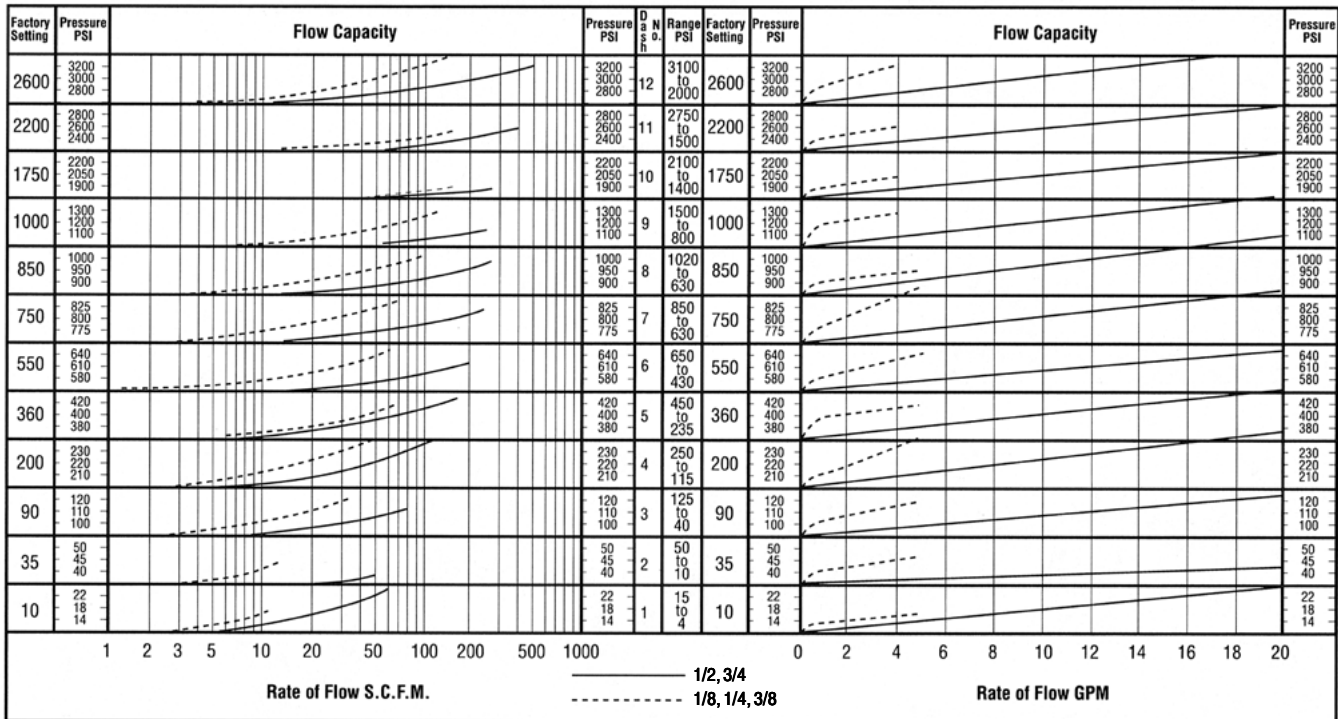
- Internal adjustment ideal for tamper-proof applications.
- Available for hydraulic or pneumatic service.
- Inline design saves space in power unit application.

Dimensions



Valve Size		A	B	Maximum Rated Flow G.P.M.	Weights (Approx.)	
NPT	IST				Aluminum Alloy	Stainless Steel
1/8	4	5	1 3/16	2	0.6 Lbs.	1.3 Lbs.
1/4	6	5	1 3/16	4		
3/8	8	5	1 3/16	5		
1/2	—	5	1 3/16	10		
3/4	12	7	1 5/8	15	1.7 Lbs.	3.2 Lbs.
1	16	7	1 5/8	15		

Rate of Flow



Examples

Pneumatic:

Establish cracking pressure setting of 1/2" valve for flow of 70 SCFM at 400 PSI pressure:

1. Project 70 SCFM on vertical scale.
2. Project 400 PSI scale horizontally intersecting 1.
3. Project line parallel to curves back to vertical line 1.
4. Read cracking pressure setting: 360 PSI.

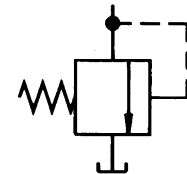
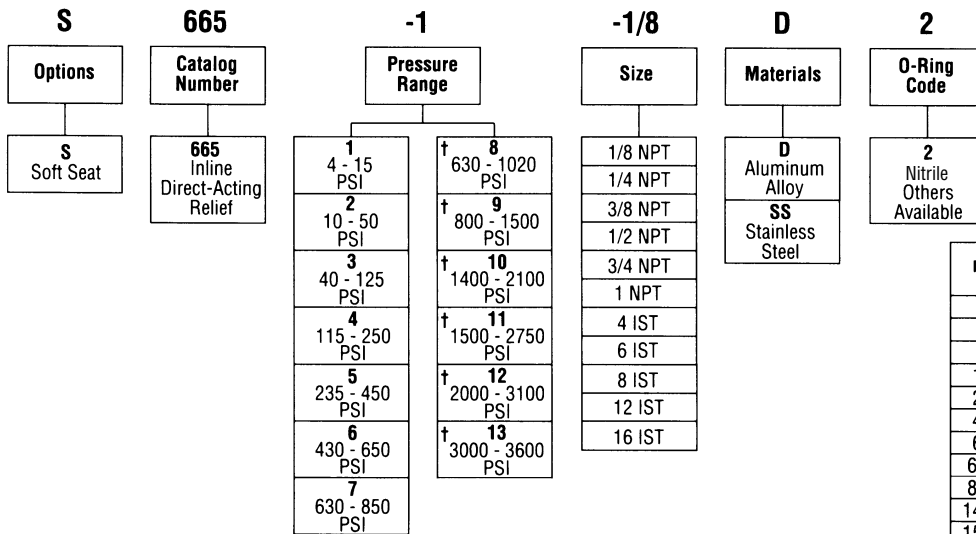
Hydraulic:

Find amount of pressure increase above 360 PSI cracking pressure when flow through 3/4" valve is increased to 14 GPM:

1. From 360 on vertical pressure scale, follow 3/4 curve until it intersects with the vertical line representing 14 GPM.
2. Project intersecting point horizontally and read pressure, i.e., 420 PSI.
3. Accumulated Pressure: 420 minus 360 = 60 PSI.



Interpretation of Valve Number



ANSI Symbol

Pressure Range

Range PSI	Pre-Set Cracking Pressure	Soft Seat Material (when used)	Range Dash Number
4-15	10	Synthetic Rubber	-1
10-50	35		-2
40-125	90		-3
115-250	200		-4
235-450	360		-5
430-650	550		-6
630-850	750	PTFE	-7
630-1020	850		-8
800-1500	1000		-9
1400-2100	1750		-10
1500-2750	2200		-11
2000-3100	2600		-12
3000 - 3600	3200		-13

† NOTE: Ranges 8 and above – Hard Seat only
Teflon seats for Ranges 4, 5, 6 and 7 only

DEFINITIONS:

Cracking pressure —Liquid: 15 to 20 DPM
Air: steady stream of bubbles
Reseat leakage —Less than 1 DPM or 1 BPM