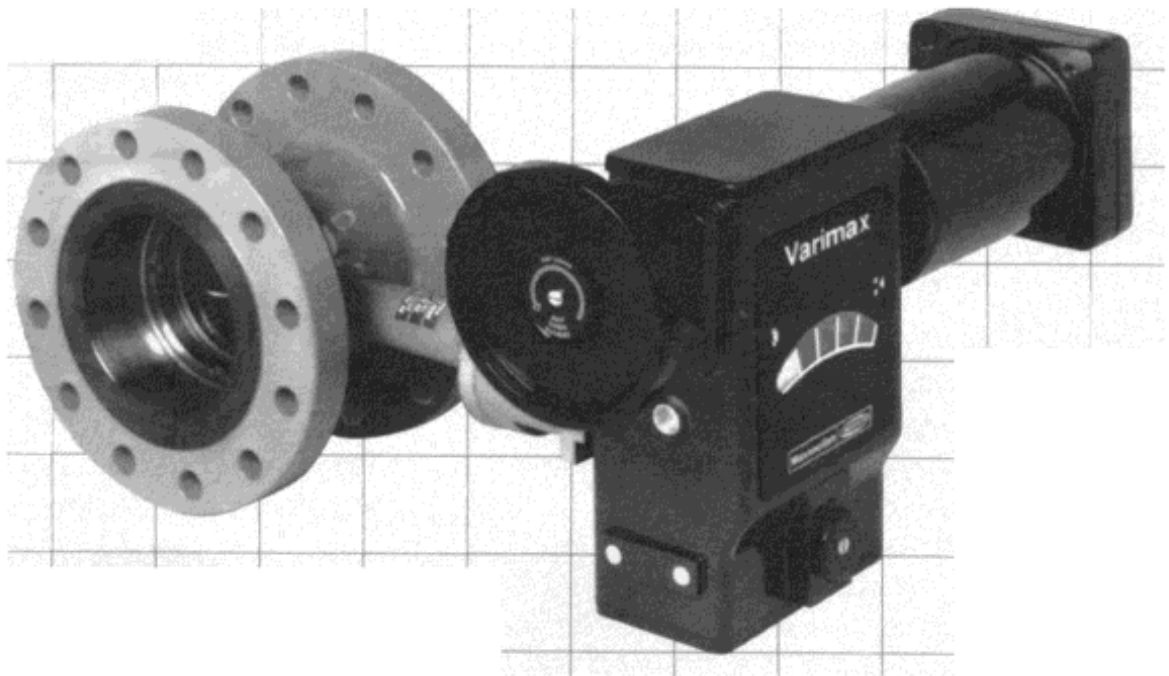


Varimax™ 30000 Series

The New Universal Control Valve



Masoneilan

DRESSER

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Foreword

The new **Varimax** represents a major advance in the evolution of automatic throttling control valves.

Its application envelope extends into the realm of globe valves.

It combines globe valve performance characteristics with the technical and packaging benefits specific to rotary designs.

A patented seating concept permits rotation of the valve plug without any break away torque.

The result is globe valve performance previously unavailable in rotary valve design.

The new **ATA (Adjustable Torque Actuator)** includes a new concept in control valve sizing which leads to improved dynamic control characteristics.

Varimax is the only control valve in today's market with these unique design features.

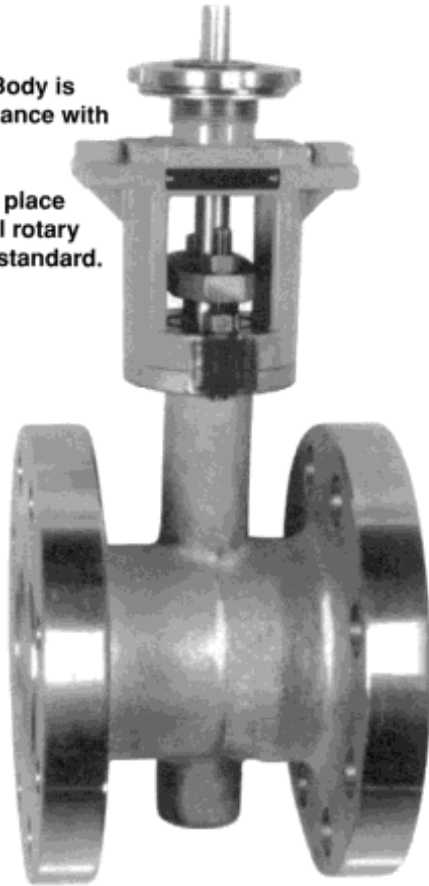
A Major Advance in Control Valve Technology

Valve Body Subassembly

ROTARY GLOBE

The Rotary Globe Body is designed in accordance with the I.E.C. 534-3-2 Standard.

This body will fit in place of any conventional rotary valve meeting this standard.



Trim

A New Seating Concept

The trim (aerodynamically tested and patented) has been designed to reduce the unbalanced forces to a minimum; requiring lower actuator torque.



Seat Ring



Soft
Seat Ring
Detail of the Section



Standard
Plug

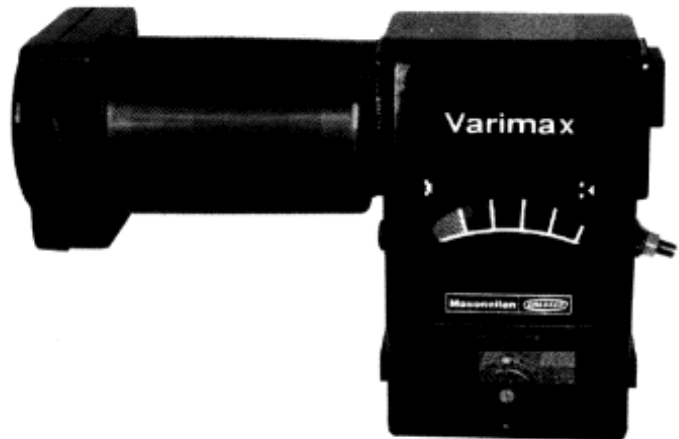


LO-DB
Plug

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Actuator Subassembly

The ATA (Adjustable Travel and Torque Actuator) is the first rotary actuator offering variable C_v by adjustment of the output travel while amplifying the output torque.



ATA Actuator Features

- The dynamic control characteristics are improved as input travel remains constant regardless of the output travel adjustments. In this way the sensitivity of the positioner remains constant for any C_v adjustment.
- Safety factors and changing process dynamics are handled simply with adjustments without changing control valve trim.

Higher Pressure Drop Capabilities with Smaller Actuators

- About 80% of all applications are handled with the Standard actuator size. However, a High Torque model is available for very high pressure drop applications.

Convenient Yoke Design

- Allows actuator servicing, removal and remounting the actuator with valve under line pressure.
- High Torque actuator will mount without modification.
- C_v adjustment is possible without removing the valve from the line.

Rugged Handwheel Design

- Field mountable, requiring no modification or extra-parts.
- Install or remove "in-line" without disassembling valve.

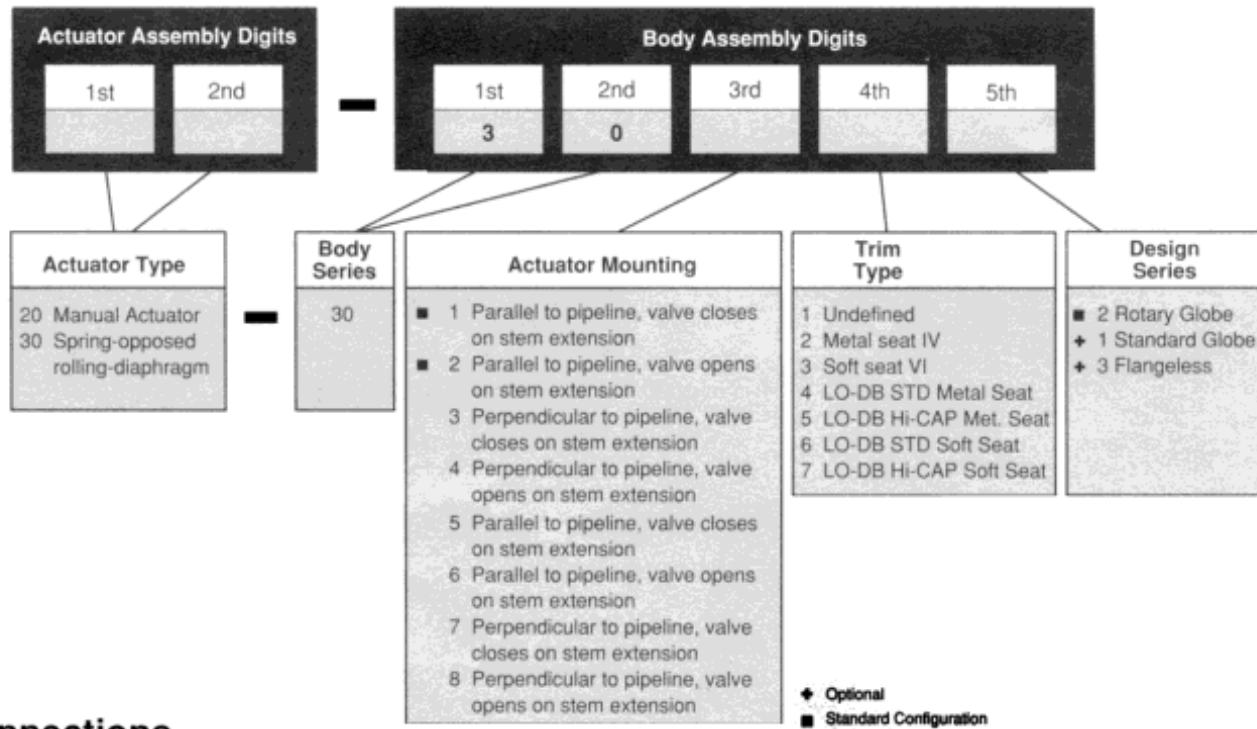
Standard Adjustable Torque Limiter

- Automatic overtorque limitation in seated position.

Optional Adjustable Travel Limit stop

- Limits travel in both directions.

Numbering System



Connections

Connections and Face-to-Face

Valve Size (in.)	STANDARD CONFIGURATION		OPTIONAL			
	ROTARY GLOBE BODY		STANDARD GLOBE BODY		FLANGELESS BODY	
	Face-to-face IEC-534-3-2 FLANGED		Face-to-face IEC-534-3 (ANSI B16.10) FLANGED		Face-to-face ① FLANGELESS	
	For ANSI Class RF Flanges		For ANSI Class RF Flanges		For ANSI Class RF Flanges②	
2 to 16	150-300	600	150-300	600	150-300	600
	□	□	□	□	□	□

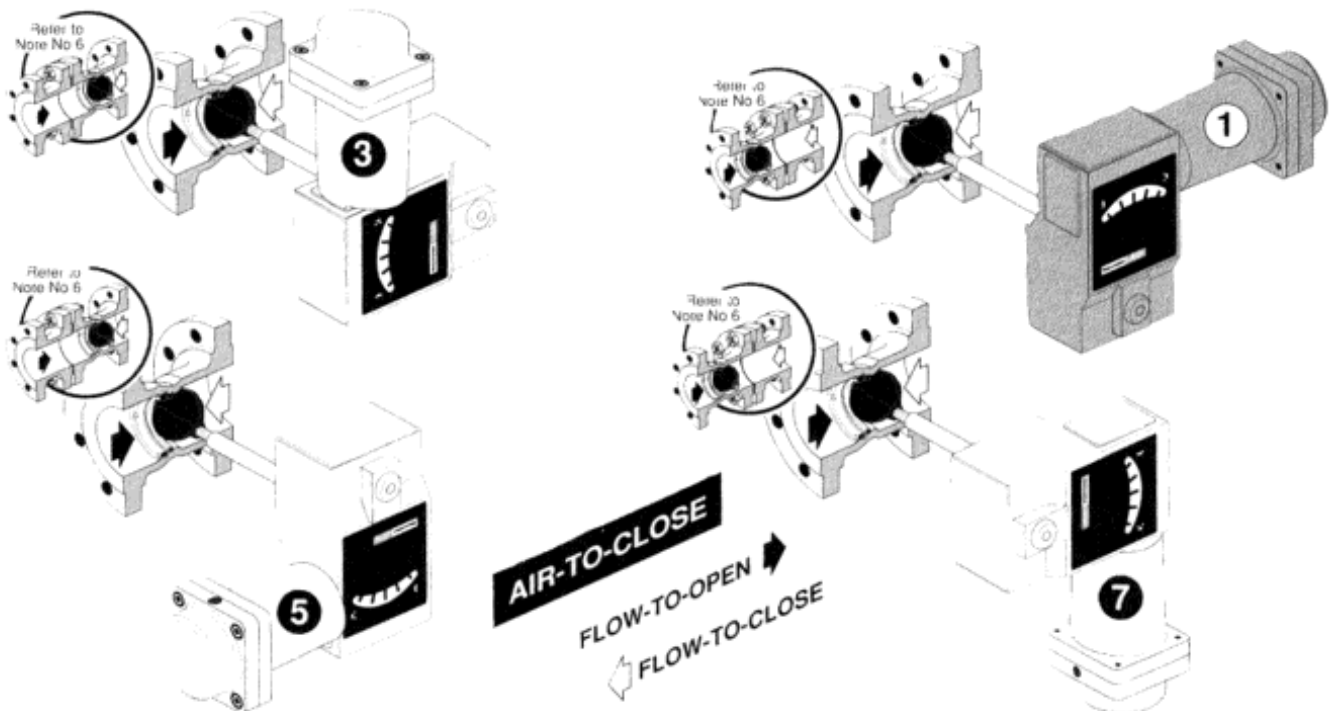
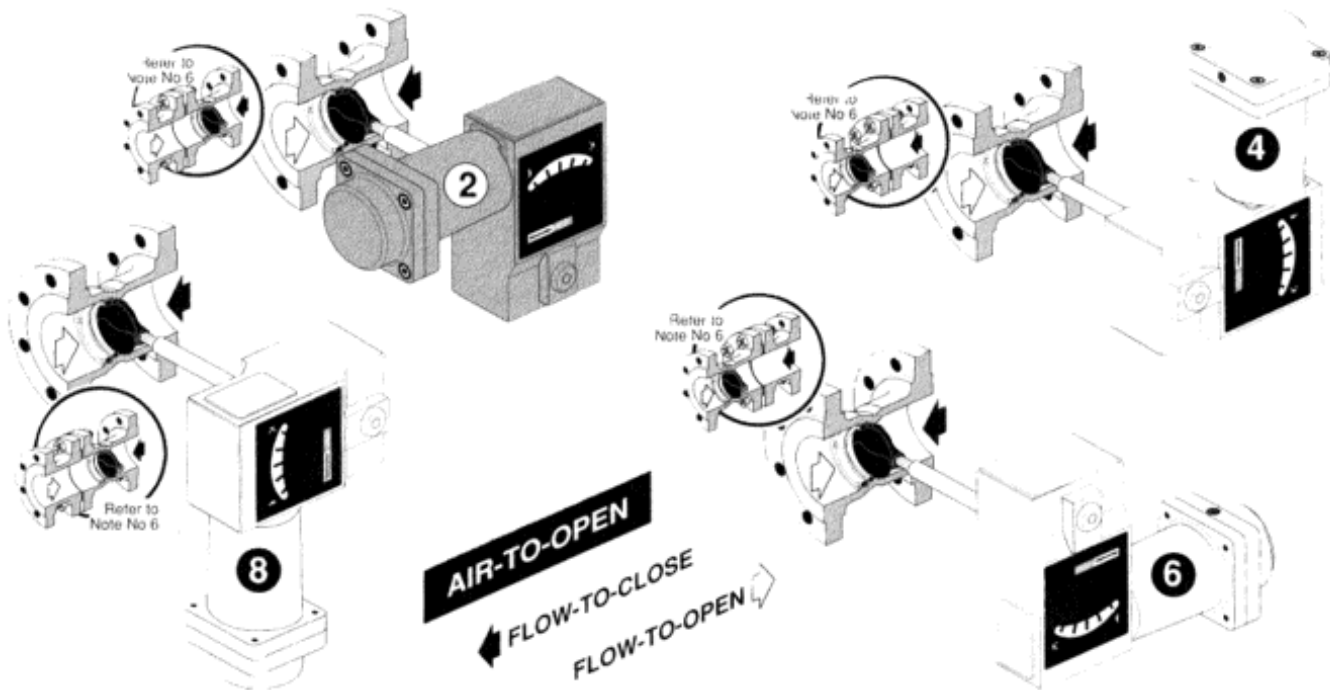
□ Available

① Refer to page 43 for dimensions.

② Clamps between Flanges.

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Actuator Positions



Notes:

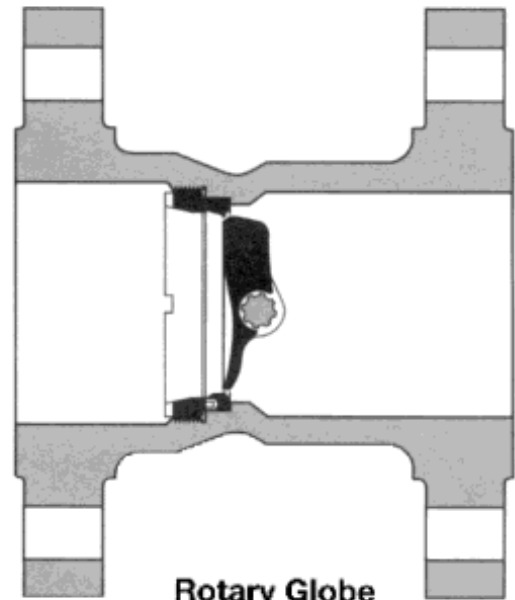
- 1. Recommended actuator mounting positions are shaded.
 - 2. Recommended flow directions are shown by the black arrows.
 - 3. Plug positions are shown in the initial position without air on actuator.
 - 4. All available configurations are shown in order to meet requirements of all field situations.
 - 5. Action and orientation field reversible without additional parts.
 - 6. Globe adaptor position in relation to valve body, in the optional Std. Globe configuration. To minimize the overall dimensions, the globe adaptor, which permits one to obtain a Varimax face-to-face end connection corresponding to the IEC 534-3 (ANSI B16.10) standard, will be mounted on the same side as the ATA cylinder. However, if necessary, the customer can easily and without any risk, field reverse the globe adaptor position.
- } When no specific position is indicated on the specification sheet, the Varimax will be delivered: Air-to-Open, Position 2

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level.

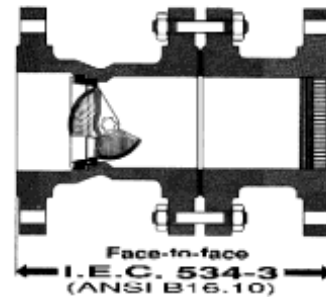
General Data

Body

- type:** **Rotary Globe**
face-to-face conforms to I.E.C. 534-3-2
- size:** 2" to 16"
- rating:** ANSI Class 150, 300, 600 (per B 16.34 standard (2"-16"))
- flow direction:** flow to open or flow to close
- materials:** carbon steel ASTM A216 Gr. WCC
stainless steel ASTM A351 Gr. CF8M
- packing:** PTFE/Kevlar (285 K- asbestos free)
flexible graphite (optional)
- end connections:** flanged ANSI 150, 300 or 600
- temperature range:** - 20°F to + 800°F (carbon steel bodies).
- 320°F to + 800°F (stainless steel bodies)
- yoke:** in carbon steel
accepts the Standard or the High Torque Model ATActuators.
- body option:** in addition to its standard **Rotary Globe** body, Varimax offers the additional advantage of two supplementary body options for specific application:
- The **Standard Globe** which conforms to I.E.C. 534-3 (ANSI B16.10) face-to-face, also offers the possibility of a built-in downstream LO-DB® cartridge which still, conforms to I.E.C. 534-3 (ANSI B16.10) face-to-face.
 - The **Flangeless** associates light weight with very thin body face-to-face, thus avoiding tie rods thermal extension problems on high temperature service. LO-DB option not available.



Rotary Globe
I.E.C. 534-3-2 face-to-face
(Standard Plug)



Optional Standard Globe Body
with a LO-DB Trim and a Built-in
Downstream LO-DB® cartridge
I.E.C 534-3 (ANSI B16.10) face-to-face



Flangeless Body
(Standard Plug)

Trim

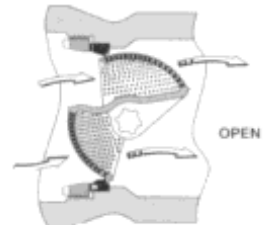
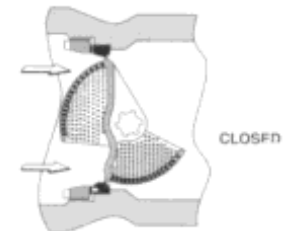
- standard plug type:** eccentrically rotating, aerodynamically shaped to reduce unbalanced forces and to increase flow coefficient.
- seat type:** solid clamped
- LO-DB:** The LO-DB® Trim is designed for severe service application on compressible fluids
Two basic trim design:
types 4 & 6: LO-DB® standard
types 5 & 7: LO-DB® HI-CAP
refer to bulletin CN3050.
- capacity:**
- seven different rated C_v are available for each valve size, (see page 10).
 - reduced trim/one size reduction (optional) for flashing service, (ex. 3" x 2" x 3" denotes a 2" trim in a 3" body).
- soft seat:** 2" to 16" (See detail page 3)



Standard Trim



Reduced One Size Trim
(Flashing Service)



LO-DB® Trim

General Data

materials: plug

- 316 stainless steel or
- solid stellite # 6 or
- 316 stainless steel with hard surfaced seat

shaft (blow-out proof)

- splined type
- for carbon steel bodies:
 - 17-4 PH
- for stainless steel bodies:
 - for chemical applications: 316 St. St. (Nitronic 50 optional)
 - for saturated steam applications: 17-4 PH

metal seat ring

- 316 stainless steel or
- Solid stellite # 6 or
- 316 stainless steel with hard surfaced seat

soft seat ring

- 316 stainless steel with PTFE -Ni insert (to 450°F)

positioning washer and seat ring retainer

- 316 stainless steel

flow characteristic: linear

(equal percentage and linear split range are available depending on the selection of the cam positioner)

C_v ratio: 100: 1 for all 7 rated C_v

seat leakage:

class IV as per ANSI/FCI 70-2/IEC 534-4 (with metal seat ring)
class VI as per ANSI/FCI 70-2/IEC 534-4 (with soft seat ring)

Actuator

type: ATA[®]: Adjustable Travel and Torque Actuator allows simultaneous C_v and torque adjustments. Spring Opposed /Rolling Diaphragm type

sizes: Nos 3, 5, 7 and 9

spring range: 7-25 psi (w/ Standard or Hi-torque ATA)
3-15 psi (w/ Hi-torque ATA only—optional)

torsion stop: limitation of torque in closed position avoids shaft damage for any C_v adjustment

material:

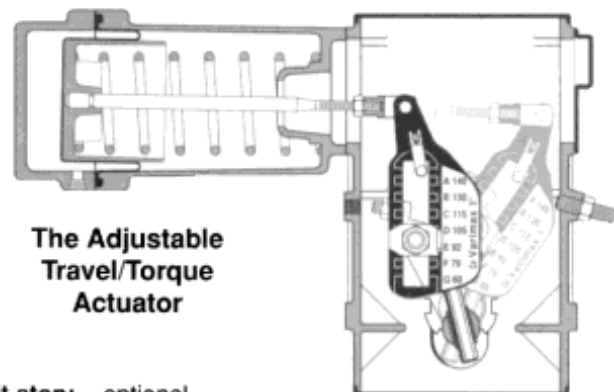
- die cast aluminum (bracket, spring-barrel, diaphragm case and piston),
- BUNA N diaphragm with dacron fabric,
- carbon steel levers

action: air to close or air to open

air connection: 1/4" NPT

handwheel: optional

- separate subassembly unit,
- may be easily mounted during installation or while valve is in service,
- low rim force,
- Type No 3, 5, 7 & 9



The Adjustable Travel/Torque Actuator

limit stop: optional, adjustable between 70 and 100% in open position; 0 and 30% in closed position.



Direct Handwheel

model 20: ATAActuator with direct handwheel (without pneumatic cylinder)



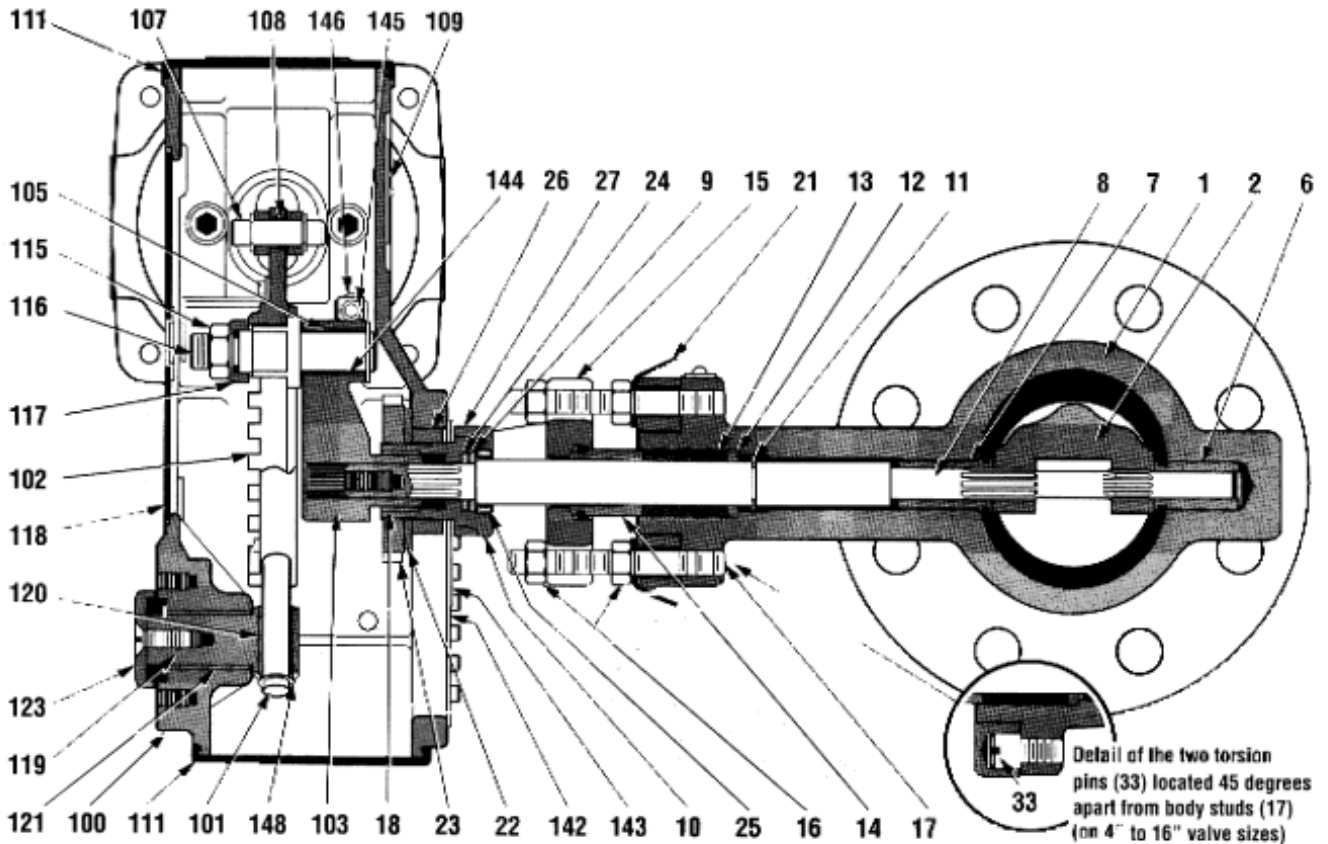
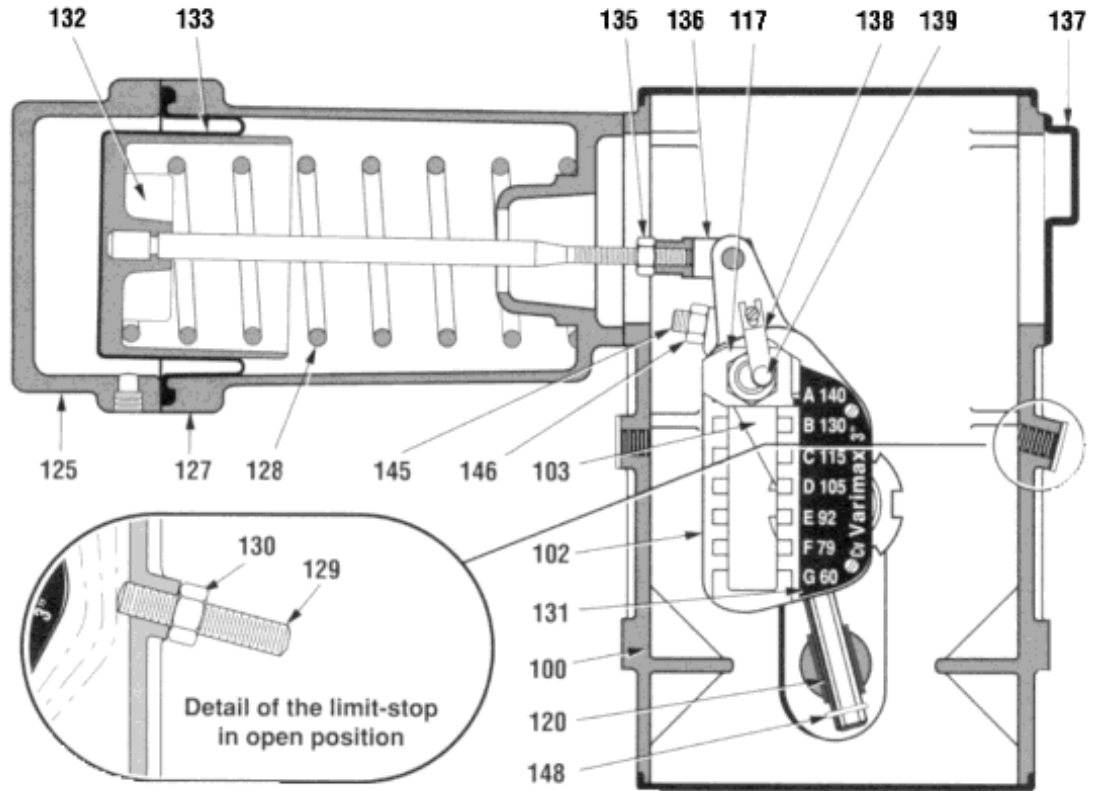
Model 20 Direct Handwheel



Handwheel

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

General Data



General Data

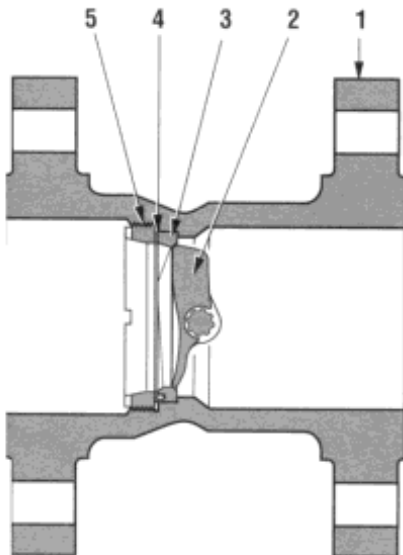
Standard Valve Body Subassembly Materials

Ref. No	Part	Material	
		Carbon Steel Construction	Stainless Steel Construction
1	Rotary Globe Body ①	A216 Gr. WCC	A351 Gr. CF8M
	Std. Globe Body ② ③		
	Flangeless Body ④		
2	Plug	316 St. St.	
		Stellite or 316 St. St. w/ Hardfaced Seating Surface	
3	Seat Ring	316 St. St.	
		Stellite or 316 St. St. w/ Hardfaced Seating Surface	
4	Positioning Washer	316 St. St.	
5	Seat Ring Retainer	316 St. St.	
6	Lower Guide Bushing	440 C	Stellite
7	Upper Guide Bushing	440 C	Stellite
8	Shaft	17-4 PH St. St.	316 St. St. (Nitronic 50 optional)
9	Needle Bearing	Stainless Steel	
10	Yoke	Carbon Steel	
11	Retaining Ring	17-4 PH	
12	Packing Washer	316 St. St.	
13	Packing	PTFE/Kevlar – Graphite (optional)	
14	Packing Follower	Stainless Steel	
15	Packing Flange	A105	
16	Stud Nut	A194 Gr 8	
17	Body Stud	A193 Gr B8	
18	Bearing	Steel/ Brass/ PTFE - Pb	
21	Warning Plate	Stainless Steel	
22	Yoke Washer	Carbon Steel	
23	Yoke Nut	Carbon Steel	
24	Counter Plate	Stainless Steel	
25	Radial Seal Ring	Buna N	
26	Spacer	Carbon Steel	
27	Yoke Connection Plate	Aluminum	
33	Torsion Pin	17-4 PH	
40	Globe Adaptor ⑤	A216 Gr. WCC	A351 Gr. CF8M
41	Gasket ⑥	316 St. St. + Graphite	
44	Bolting Set ⑦	A193 Gr B7 & A194 Gr 2H	A193 304 St. St. & A194 304 St. St.

Standard Actuator Subassembly Materials

Ref. No	Part	Material
100	Case	Die Cast Aluminum
101	Lever Sliding Rod	17-4 PH
102	Adjustment Lever	Carbon Steel
103	Valve Lever	Carbon Steel
105	Valve Lever Bearing	Steel/ Brass/ PTFE - Pb
107	Clevis Pin	Martensitic Stainless Steel
108	Adjustment Lever Bearing	Duralon
109	Serial Plate	Stainless Steel
111	Top & Bottom Covers	Polycarbonate (or Carbon Steel *)
115	Clamping Nut	Stainless Steel
116	Driving Link Spindle	Martensitic Stainless Steel
117	Clamping Plate	Carbon Steel
118	Front Cover	Polycarbonate
119	Pivot	Martensitic Stainless Steel
120	Pivot Bearing	Steel/ Brass/ PTFE - Pb
121	Case Bearing	Steel/ Brass/ PTFE - Pb
123	Pivot Cover	Polycarbonate
125	Diaphragm Case	Die Cast Aluminum
127	Spring Barrel	Die Cast Aluminum
128	Actuator Spring	Spring Carbon Steel
129	Limit Stop Screw	Stainless Steel
130	Limit Stop Nut	Stainless Steel
131	Cv Indicator Plate	Aluminum
132	Piston	Die Cast Aluminum
	Piston Stem	Stainless Steel
133	Diaphragm	Buna N with Dacron Insert
135	Nut	Carbon Steel
136	Clevis	Carbon Steel
137	Side Cover	Polycarbonate (or Carbon Steel *)
138	Indicator Stamping	Stainless Steel
139	Indicator Dot	Vinyl
142	Rear Cover 1	Stainless Steel
143	Rear Cover 2	Stainless Steel
144	Valve Lever Bearing	Steel/ Brass/ PTFE - Pb
145	Torque Stop Screw	Stainless Steel
146	Torque Stop Nut	Stainless Steel
148	Retaining Clip	17-4 PH

* On ATA No 9



- ① Standard Configuration.
- ② Optional.
- ③ Includes Globe Adaptor (40), Gasket (41) and Bolting set (44).
- ④ Included in Optional Standard Globe (Not Shown).

Note: Available with NACE Certified Materials

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Rated Flow Coefficient C_V

Valve Size (in.) (Full Area Trim)	Flow Direction	Actuator Adjustment						
		A	B	C	D ^①	E	F	G
2	Flow to Open	67	62	54	45	35	28	20
	Flow to Close	58	53	49	43	35	29	21
3	Flow to Open	150	140	125	110	92	75	58
	Flow to Close	140	130	115	105	92	79	60
4	Flow to Open	275	245	215	185	155	125	91
	Flow to Close	250	225	205	185	160	140	105
6	Flow to Open	595	545	500	435	365	290	215
	Flow to Close	550	510	460	405	355	315	240
8	Flow to Open	1100	1010	920	805	675	540	395
	Flow to Close	950	890	800	705	620	545	420
10	Flow to Open	1800	1670	1430	1155	910	730	535
	Flow to Close	1600	1450	1295	1110	935	785	610
12	Flow to Open	2600	2235	1875	1540	1260	1005	750
	Flow to Close	2400	2140	1810	1520	1260	1035	805
16	Flow to Open	4830	4150	3485	2860	2340	1865	1395
	Flow to Close	4460	3975	3365	2825	2340	1925	1495

① When no specific adjustment is indicated on the specification sheet, the Varimax will be delivered:
Set at mid band setting or "D" adjustment and Flow-to-Close

Flashing Service (ATA No. Rated C_V , Allowable Pressure Drops)

Flashing Service Valve Size (in.) Inlet Fl. x Trim x Outlet Fl.	ATA No		Flow Direction	Rated Flow Coeff. C_V , Acc. to Act. Adjustment							For Allowable Pressure Drops Refer to Tables of:
	Stand.	High Torque		A	B	C	D ^①	E	F	G	
3 x 2 x 3	3		Flow to Open	67	62	54	45	35	28	20	2" Valve with ATA No 3
			Flow to Close	58	53	49	43	35	29	21	
4 x 3 x 4	3	5	Flow to Open	150	140	125	110	92	75	58	3" Valve with ATA No 3 or 5
			Flow to Close	140	130	115	105	92	79	60	
6 x 4 x 6	5		Flow to Open	275	245	215	185	155	125	91	4" Valve with ATA No 5
			Flow to Close	250	225	205	185	160	140	105	
8 x 6 x 8	5	7	Flow to Open	595	545	500	435	365	290	215	6" Valve with ATA No 5 or 7
			Flow to Close	550	510	460	405	355	315	240	
10 x 8 x 10	7		Flow to Open	1100	1010	920	805	675	540	395	8" Valve with ATA No 7
			Flow to Close	950	890	800	705	620	545	420	
12 x 10 x 12	7	9	Flow to Open	1800	1670	1430	1155	910	730	535	10" Valve with ATA No 7 or 9
			Flow to Close	1600	1450	1295	1110	935	785	610	
16 x 12 x 16	9		Flow to Open	2600	2235	1875	1540	1260	1005	750	12" Valve with ATA No 9
			Flow to Close	2400	2140	1810	1520	1260	1035	805	

① When no specific adjustment is indicated on the specification sheet, the Varimax will be delivered:
Set at mid band setting or "D" adjustment and Flow-to-Close

Percent Rated C_V Versus Percentage Plug Rotation

Percent of Rotation	Actuator Adjustment													
	A		B		C		D		E		F		G	
	FTO	FTC	FTO	FTC	FTO	FTC	FTO	FTC	FTO	FTC	FTO	FTC	FTO	FTC
100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
90	87.0	84.5	87.0	85.0	87.0	85.0	87.0	85.0	87.0	85.0	87.0	86.0	87.0	86.0
80	75.0	70.5	75.0	70.5	75.0	71.0	74.0	71.0	74.0	71.0	74.0	72.0	73.0	72.0
70	63.0	57.0	64.0	57.0	63.0	57.0	62.0	57.0	62.0	58.0	62.0	58.0	61.0	58.0
60	52.0	45.0	52.0	45.0	51.0	45.0	50.0	45.0	49.0	45.0	48.0	45.0	47.0	45.0
50	40.5	34.0	45.5	34.0	40.0	34.0	40.0	34.0	39.0	34.0	38.0	33.0	37.0	33.0
40	30.0	24.0	30.0	24.0	29.0	24.0	28.0	24.0	27.0	24.0	26.0	24.0	25.0	24.0
30	20.0	15.5	20.0	15.5	20.0	15.5	18.0	15.0	17.0	15.0	15.0	15.0	14.0	15.0
20	11.0	8.0	11.0	8.0	10.0	7.0	9.0	7.0	9.0	6.0	7.0	5.0	5.5	5.0
10	3.0	2.5	3.0	2.5	2.5	2.0	2.0	2.0	2.0	1.5	1.5	1.0	1.0	1.0

FTO: Flow-To-Open FTC: Flow-to Close

Critical Flow Factor F_L Versus Percentage Plug Rotation

Percent of Rotation	Actuator Adjustment													
	A		B		C		D		E		F		G	
	FTO	FTC	FTO	FTC	FTO	FTC	FTO	FTC	FTO	FTC	FTO	FTC	FTO	FTC
100	0.77	0.79	0.80	0.81	0.80	0.81	0.81	0.81	0.83	0.82	0.86	0.84	0.89	0.85
90	0.80	0.81	0.80	0.81	0.82	0.81	0.83	0.82	0.85	0.83	0.87	0.85	0.89	0.85
80	0.80	0.81	0.81	0.82	0.83	0.82	0.86	0.84	0.87	0.83	0.89	0.85	0.90	0.86
70	0.81	0.81	0.83	0.82	0.85	0.83	0.86	0.84	0.89	0.85	0.89	0.86	0.90	0.86
60	0.83	0.82	0.86	0.84	0.87	0.84	0.89	0.85	0.89	0.86	0.90	0.86	0.91	0.87
50	0.86	0.84	0.89	0.85	0.89	0.85	0.90	0.86	0.90	0.87	0.90	0.87	0.91	0.88
40	0.89	0.85	0.90	0.86	0.90	0.86	0.90	0.86	0.90	0.87	0.91	0.88	0.92	0.89
30	0.90	0.86	0.90	0.87	0.90	0.88	0.91	0.88	0.91	0.88	0.92	0.89	0.93	0.90
20	0.91	0.88	0.91	0.89	0.91	0.90	0.92	0.90	0.92	0.91	0.93	0.90	0.93	0.91
10	0.93	0.90	0.93	0.90	0.93	0.91	0.94	0.92	0.94	0.92	0.95	0.93	0.95	0.93

FTO: Flow-To-Open FTC: Flow-to Close

Adjustable Travel /Torque Actuator (Characteristics and Travel Times)

Valve Size (in.)	ATA No		ATA No	Diaphr. Effective Area (Sq. in.)	Diaphr. Travel (in.)	Travel Times * (Sec.)			
	Standard	High Torque				4607A Positioner*		4807A Hi Cap Positioner†	
						Air Loading	Air Venting	Air Loading	Air Venting
2	3	—	3	11.2	2.57	1.5	2.1		
3	3	5	5	17.7	5.09	2.9	3.6	1.1	1
4	3	5	7	34.8	5.87	5.6	8.9	1.6	1.5
6	5	7	9	74.7	7.64	17.0	24.0	4.5	3.7
8	5	7							
10	7	9							
12	7	9							
16	9	—							

* Measured with direct positioner; 40 psig supply.
 * 4607A Positioner with tubing size 1/4"
 † 4807A High Capacity Positioner with tubing size 3/8"

Temperature Range/Seat Leakage

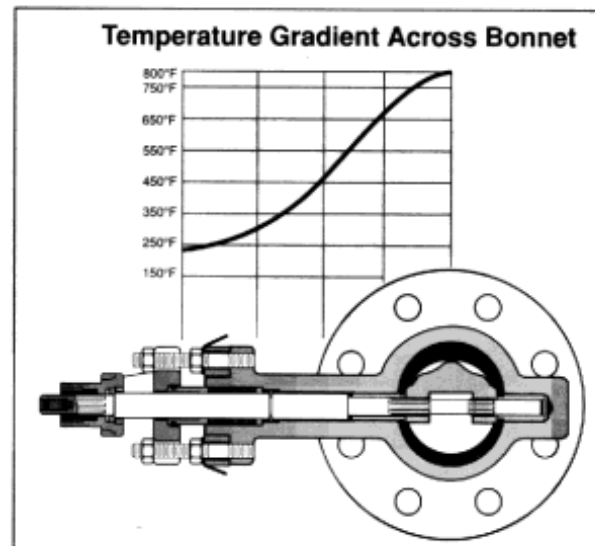
Valve Size (in.)	Seat Type	Temperature Range		Seat Leakage ANSI/FCI 70-2 Class
		Min.	Max.	
2" to 16"	Metal	- 320 °F *	+ 800 °F	IV
	Soft Seat	- 260 °F *	+ 450 °F	VI

* Stainless Steel Bodies Only

The technology of the Varimax valve significantly reduces the required plug torque.

This advantage allows a smaller shaft diameter and a smaller external diameter of the integrally cast bonnet neck.

The resulting accelerated thermal gradient reduces the temperature at the packing.

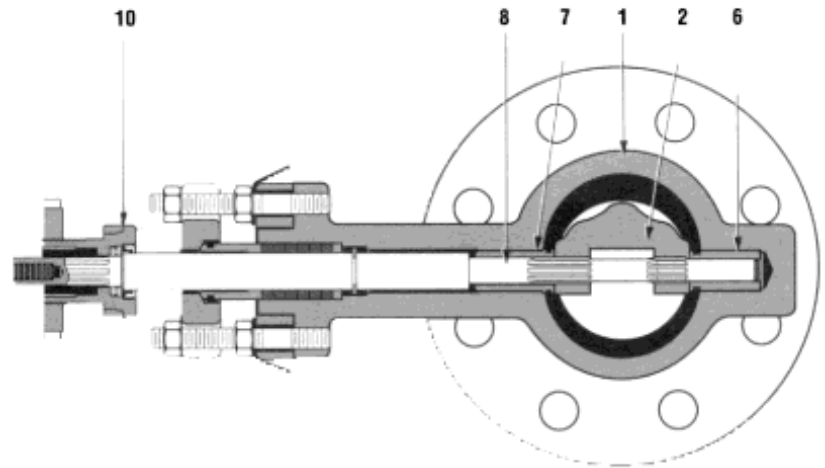
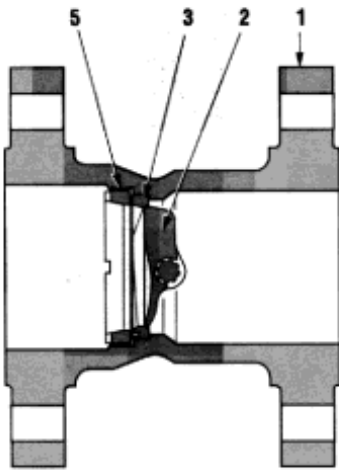


Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...



Materials

Valve Body Subassembly



Ref. No	Part	Carbon Steel Construction				Stainless Steel Construction			
		T1 ③	T2 ②③	T3 ③	T4 ④	T1 ③	T2 ②③	T3 ③	T4 ④
1	Body	A216 Gr. WCC				A351 Gr. CF8M			
10	Yoke	Carbon Steel				Carbon Steel			
5	Seat Ring Retainer	A351 Gr. CF8M				A351 Gr. CF8M			
8	Shaft	17-4 PH (H1075) St. St.				316 St. St. (Nitronic 50 optional)			
6 & 7	Guide Bushings	440 C				Stellite #6 ①			
2	Plug	316 St. St.	316 St. St.	Stellite ①	316 St. St.	316 St. St.	316 St. St.	Stellite ①	316 St. St.
3	Seat Ring	316 St. St.	Stellite ①	Stellite ①	316 St. St.+PTFE-Ni	316 St. St.	Stellite ①	Stellite ①	316 St. St.+PTFE-Ni

① Stellite denotes either Solid Stellite or 316 St. St. with Stellite Hardfacing (as per following table).

Size (in.)	2	3	4	6	8	10	12	16
Plug	SS	SS	SS	HF	HF	HF	HF	HF
Seat Ring	SS	SS	SS	SS	HF	HF	HF	HF

SS denotes: Solid Stellite No 6
 HF denotes: 316 St. St. with hardfaced seating surface (stellite No 6)

② T2 is recommended when ΔP shut-off exceeds: $\begin{cases} 170 \text{ psi for } 2'' \text{ to } 6'' \text{ valves.} \\ 115 \text{ psi for } 8'' \text{ to } 16'' \text{ valves.} \end{cases}$

③ T1, T2 and T3 correspond to class IV seat leakage.

④ T4 corresponds to class VI seat leakage.

Materials

Choice of Materials Versus Temperature

Ref. No	Temperature	Temperature			
		—320°F	—20°F	+450°F	+800°F
Part Name	Material				
1	Body	A216 Carbon Steel			
		316 St. St. A351 Gr. CF8M			
2	Plug	A351 Type 316			
		A351 Type 316 w/stellite hardfacing			
3	Seat Ring	A351 Type 316			
		316 St. St. w/PTFE - Ni			
		A351 Type 316 w/stellite hardfacing			
6	Lower Guide Bushing	A276 Type 440			
		Stellite No 6 ①			
7	Upper Guide Bushing	A276 Type 440			
		Stellite No 6 ①			
8	Shaft	A479 Type 316 ① (Nitronic 50 optional)			
		A564 Type 17-4 PH ②			

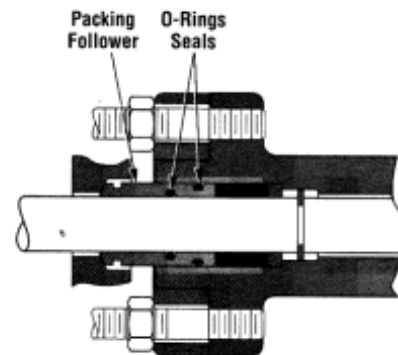
① For Carbon and Stainless St. constructions. When used in Stainless Steel construction, Stellite No.6 bushings must be used.

② For Carbon Steel construction only.

EF Seal (Emission Free)

Double O-Ring Seal Packing Follower — EF Seal Fugitive Emission Containment Package for low emissions

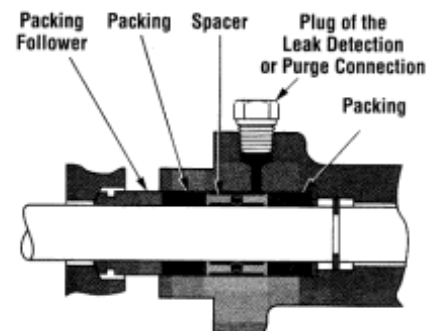
To prevent dangerous emissions, Masoneilan offers a double O-ring sealed packing box. This economical solution to fugitive emissions will not compromise control performance as it is used in environmentally sensitive applications.



Double Packing (Optional)

Double Packing with Leak Detection or Purge Connection

Double packing design offers improvements in leakage performance.



Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Allowable Pressure Drops (psi)

17-4 PH Shaft - Metal Seat and Soft Seat [®] - 7-25 psi Actuator Spring Range

Air to Open - Flow to Close																						
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		Sup. Pres. 65 psi		Sup. Pres. 70 psi		Sup. Pres. 75 psi		
				ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3
2	A	58	C	1450		1450		1450		1450												
			O	520		785		1045		1115												
	B	53	C	1450		1450		1450														
			O	580		870		1115														
	C	49	C	1450		1450		1450														
			O	655		980		1115														
	D	43	C	1450		1450																
O			755		1135																	
E	35	C	1450		1450																	
		O	885		1155																	
F	29	C	1450		1450																	
		O	1070		1180																	
G	21	C	1450																			
		O	1225																			
3	A	140	C	495	1450	595	1450	690	1450	790	1450	910										
			O	110	370	165	555	220	740	275	850	340										
	B	130	C	605	1450	725	1450	840	1450	960		1075		1195		1310		1430		1450		
			O	120	410	180	615	240	785	300	365	425	485	550	600							
	C	115	C	710	1450	840	1450	975	1450	1110		1245		1380		1450		1450		1450		
			O	135	455	200	685	270	785	335	405	470	540	610	675							
	D	105	C	805	1450	955	1450	1110	1450	1265		1415		1450		1450		1450		1450		
O			155	530	235	795	315	805	390	470	550	625	700	780								
E	92	C	930	1450	1110	1450	1290		1450		1450		1450		1450		1450		1450			
		O	195	670	295	880	395	490	590	690	780	875	880									
F	79	C	1120	1450	1330	1450	1450		1450		1450		1450		1450		1450					
		O	260	875	385	970	515	775	775	900	920	970										
G	60	C	1320	1450	1450		1450		1450		1450		1450									
		O	340	1090	510		680		850		1020		1090									
4	A	250	C	185	720	225	855	265	990	305	1125	345	1260	385	1395	420	1450	460	1450			
			O	35	115	50	175	70	235	85	290	105	350	120	405	135	465	155	520			
	B	225	C	230	865	275	1030	325	1190	375	1360	420	1450	465	1450	510	1450	560	1450	610	1450	
			O	40	130	60	195	80	265	95	330	115	395	135	460	155	525	175	590	195	640	
	C	205	C	270	1005	325	1190	380	1380	435	1450	490	1450	545	1450	600	1450	655	1450	700		
			O	45	150	65	225	90	295	110	370	130	445	155	520	175	595	195	640	220		
	D	185	C	310	1140	375	1350	435	1450	495	1450	560	1450	620	1450	690	1450	750	750	790		
O			50	175	80	265	105	355	130	440	155	530	185	620	205	675	235		260			
E	160	C	365	1325	435	1450	505	1450	575	1450	650	1450	720	1450	790		860		930			
		O	65	230	100	330	135	455	165	570	200	685	235	750	265	295	305					
F	140	C	440	1450	525	1450	610	1450	695	1450	780	1450	865		945		1030					
		O	90	300	135	450	175	600	220	750	265	835	310	335	385							
G	105	C	520	1450	620	1450	720	1450	820	1450	920		1020		1120							
		O	120	405	180	610	240	815	300	965	360	420	475									

C: Closed O: Open [Ⓢ]: For maximum allowable pressure drop for Soft Seat Trim see table below

Soft Seat Construction

Allowable Pressure Drop (psi) for Soft Seat Valves

Valve Size (in.)	2	3	4	6	8	10	12	16
Pressure Drop Limit	1000	800	800	530	450	330	300	250

Allowable pressure drop for valves with T4 TRIM (Soft seat) is either shaft allowable pressure drop or actuator spring range allowable pressure drop or soft seat allowable pressure drop (tabulated below), whichever is the lowest.

Example: 6" Valve, T4 Trim with 17-4 PH Shaft, Air to Open-Flow to Close, C_v 240, ATA No 5 with 50 psi supply pressure.

Allowable pressure drop closed: 17-4 PH Shaft → 1015 psi (page 15)
T4 Trim (soft seat) → 530 psi

Allowable pressure drop open: 17-4 PH Shaft → 285 psi
T4 Trim (soft seat) → 530 psi

I: =530 psi
: =285 psi

In the tables pages 14 to 40, allowable pressure drop values which are higher than the maximum allowed for soft seat ring are in colored italic characters.

Allowable Pressure Drops (psi)

17-4 PH Shaft - Metal Seat and Soft Seat ① - 7-25 psi Actuator Spring Range

Air to Open - Flow to Close																								
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		Sup. Pres. 65 psi		Sup. Pres. 70 psi		Sup. Pres. 75 psi				
				ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	
6	A	550	C	240	530	290	625	340	725	390	825	435	925	470	995									
			O	30	60	45	90	60	120	75	150	90	185	100	205									
	B	510	C	295	635	355	755	410	870	470	990	530	1110	585	1170	640	1170							
			O	30	65	50	95	65	130	80	160	95	195	110	225	120	260							
	C	460	C	345	730	410	865	480	1005	545	1140	610	1170	680	1170	750	1170	810	1170	880	1170			
			O	35	75	55	110	75	150	90	185	110	225	130	260	145	300	165	335	180	370			
	D	405	C	395	835	470	990	545	1145	620	1170	695	1170	770	1170	845	1170	920	1170	1000	1170			
O			45	90	70	140	90	185	115	230	135	275	160	320	180	365	200	410	225	455				
E	355	C	460	965	550	1140	635	1170	720	1170	810	1170	900	1170	985		1075		1160					
		O	60	120	90	180	120	240	150	305	180	365	210	425	240		270		300					
F	315	C	550	1150	655	1170	755	1170	860	1170	965	1170	1065		1170		1170							
		O	80	165	120	250	165	330	205	415	245	475	285		310		345							
G	240	C	655	1170	775	1170	895	1170	1015	1170	1140		1170		1170									
		O	115	230	170	350	230	465	285	560	340		395		430									
8	A	950	C	95	220	115	260	140	305	160	350													
			O	15	30	25	50	30	65	40	80													
	B	890	C	120	265	145	315	170	370	195	420	220	470	245	520	265	570	295	620	320	670			
			O	15	35	25	50	35	65	40	85	50	100	60	115	70	125	80	140	85	160			
	C	800	C	140	305	170	365	195	425	225	485	255	545	285	600	310	645	345	695	370	740			
			O	20	40	30	55	40	75	45	95	55	115	65	135	75	150	85	165	95	180			
	D	705	C	160	350	195	420	225	485	260	550	290	620	325	685	355	740	390	795	420	820			
O			25	50	35	70	45	95	60	120	70	140	80	165	90	180	100	195	115	210				
E	620	C	190	405	230	485	265	560	305	640	340	715	380	790	420	820	455	820	490	820				
		O	30	65	50	95	65	130	80	160	95	195	110	225	125	255	140	285	155	315				
F	545	C	230	490	275	580	320	670	365	765	405	820	450	820	500	820	540	820						
		O	45	90	65	135	90	180	110	225	130	270	155	315	170	360	190	405						
G	420	C	275	580	325	685	380	795	430	820	485	820	535	820	590	820								
		O	65	130	95	195	130	260	160	325	190	390	225	455	250	510								
10	A	1600	C	105	295	130	350	145	400															
			O	20	50	30	80	35	100															
	B	1450	C	130	355	155	420	180	490	205	555	225	620	260	645	280	645	305	645	325	645			
			O	20	55	30	80	40	110	50	135	60	165	70	190	80	215	90	245	100	260			
	C	1295	C	150	410	175	485	205	565	235	640	260	645	290	645	320	645	350	645	375	645			
			O	20	60	35	90	45	120	55	150	65	180	75	210	85	240	100	270	110	260			
	D	1110	C	170	465	200	550	235	640	265	645	295	645	330	645	365	645	395		425				
O			30	75	40	115	55	155	70	195	85	230	100	270	110	295	125		140					
E	935	C	195	540	235	640	270	645	305	645	340	645	380	645	420	645	455		490					
		O	40	110	60	160	80	215	100	270	120	325	140	360	155		175		195					
F	785	C	235	645	280	645	320	645	365	645	405	645	450		495		540							
		O	60	160	85	236	115	315	145	395	175	440	200		220		235							
G	610	C	280	645	330	645	380	645	430	645	480		530		580									
		O	90	245	135	370	180	490	225	585	270		315		350									
12	A	2400	C	160	70	190	80	223	95	255	105	285	110	305										
			O	15	10	25	15	35	15	45	20	50	20	60										
	B	2140	C	195	85	230	95	270	110	305	125	345	140	380	155	435	170	460	185	505				
			O	20	10	30	15	40	15	45	20	55	25	65	30	75	30	85	35	95				
	C	1810	C	225	95	270	115	310	130	355	145	395	160	440	180	490	195	535	210	580				
			O	20	10	32	15	45	20	55	25	65	30	75	30	85	35	95	40	105				
	D	1520	C	95	255	110	305	130	355	145	400	165	450	180	500	205	560	220	560	240	560			
O			10	20	15	45	20	60	25	75	30	85	35	100	40	115	45	130	50	145				
E	1260	C	110	295	130	350	150	410	170	465	190	520	210	560	235	560	255	560	275	560				
		O	15	45	25	65	30	85	40	110	50	130	55	145	60	170	70	185	80	215				
F	1035	C	130	355	155	425	180	490	200	555	225	560	250	560	275	560	305	560						
		O	25	70	40	100	50	135	60	170	75	205	85	240	90	265	100	290						
G	805	C	155	420	180	500	210	560	240	560	265	560	295	560	320	560								
		O	40	110	60	160	80	220	100	270	120	325	140	380	145	400								

Refer page 19 for 16 in. valve size

C:Closed O:Open ①: Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Allowable Pressure Drops (psi)

17-4 PH Shaft - Metal Seat and Soft Seat [Ⓢ] - 7-25 psi Actuator Spring Range

Air to Close- Flow to Open																							
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		Sup. Pres. 65 psi		Sup. Pres. 70 psi		Sup. Pres. 75 psi			
				ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5
2	A	67	C	575		900		1225		1450													
			O	475		475		475		475													
	B	62	C	705		1095		1450															
			O	705		805		805															
	C	54	C	820		1270		1450															
			O	820		1270		1450															
	D	45	C	940		1450																	
O			940		1450																		
E	35	C	1090		1450																		
		O	1090		1450																		
F	28	C	1310		1450																		
		O	1310		1450																		
G	20	C	1450																				
		O	1450																				
3	A	150	C	140	610	240	945	340	1275	440	1450	535		635		730		830		925			
			O	140	610	240	945	335	1130	335	1130	335		635		335		335		335		335	
	B	140	C	185	740	300	1140	420	1450	535		655		770		890		1010		1130			
			O	185	740	300	1140	420	1450	535		605		605		605		605		605		605	
	C	125	C	220	865	350	1320	485	1450	620		760		895		1030		1170		1300			
			O	220	865	350	1320	485	1450	620		760		895		1030		1030		1030		1030	
	D	110	C	250	980	405	1450	560	1450	710		865		1020		1165		1320		1450			
O			250	980	405	1450	560	1450	710		865		1020		1165		1320		1450		1450		
E	92	C	300	1145	475	1450	650		825		1005		1180		1340		1450						
		O	300	1145	475	1450	650		825		1005		1180		1340		1450						
F	75	C	365	1365	575	1450	785		995		1200		1410		1450								
		O	365	1365	575	1450	785		995		1200		1410		1450								
G	58	C	440	1450	685		930		1175		1420		1450										
		O	440	1450	685		930		1175		1420		1450										
4	A	275	C	40	230	80	365	120	500	160	640	200	775	240	910	280	1040	320	1175	360	1310		
			O	40	230	80	365	120	500	160	625	185	625	185	625	185	625	185	625	185	625	185	625
	B	245	C	55	285							770	250		295	10			400	1095	445	1095	
			O	55	285							770	250		295	10			400	1095	445	1095	
	C	215	C	70	335							895	295						455	1450	510		
			O	70	335							895	295						455	1450	510		
	D	185	C	85	385								335	122					515		580		
O			85	385								335	122					515		580			
E	155	C	105	450	175	695	250											595		665			
		O	105	450	175	695	250											595		665			
F	125	C	130	540	220	825	300	1115	385	1400	475	1450	555		630			715					
		O	130	540	220	825	300	1115	385	1400	475	1450	555		630			715					
G	91	C	160	640	260	980	360	1320	460	1450	560		660		'55								
		O	160	640	260	980	360	1320	460	1450	560		660		'55								

C:Closed O:Open

Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Allowable Pressure Drops (psi)

17-4 PH Shaft - Metal Seat and Soft Seat [Ⓛ] - 7-25 psi Actuator Spring Range

Air to Close - Flow to Open																					
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		Sup. Pres. 65 psi		Sup. Pres. 70 psi		Sup. Pres. 75 psi	
				ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7
6	A	595	C	70	170	115	270	165	370	215	470	260	565	310	665	360	765	405	865	455	965
			O	55	115	55	115	55	115	55	115	55	115	55	115	55	115	55	115	55	115
	B	545	C	85	195	145	325	205	445	260	565	320	680	375	800	435	915	490	1035	550	1155
			O	85	195	95	195	95	195	95	195	95	195	95	195	95	195	95	195	95	195
	C	500	C	105	245	170	380	240	515	305	650	370	785	440	920	505	1055	570	1170	635	1170
			O	105	245	135	275	135	275	135	275	135	275	135	275	135	275	135	275	135	275
	D	435	C	120	280	195	435	275	585	350	740	425	895	500	1050	575	1170	650		725	
O			120	280	195	435	275	585	320	650	320	650	320	650	320	650	320	650	320		320
E	365	C	145	325	235	505	320	680	410	855	495	1035	585	1170	670		755		845		
		O	145	325	235	505	320	680	410	855	495	1035	585	1170	670		755		845		845
F	290	C	180	395	280	605	385	815	485	1025	590	1170	695		795		900				
		O	180	395	280	605	385	815	485	1025	590	1170	695		795		900				
G	215	C	215	465	335	715	460	965	580	1170	700		820		940						
		O	215	465	335	715	460	965	580	1170	700		820		940						
8	A	1100	C	20	65	40	105	60	150	85	195	105	235	125	280	145	320	165	365	185	405
			O	20	55	25	55	25	55	25	55	25	55	25	55	25	55	25	55	25	55
	B	1010	C	30	80	55	130	80	150	105	235	130	285	155	340	175	385	200	435	225	490
			O	30	80	50	105	50	105	50	105	50	105	50	105	50	105	50	105	50	105
	C	920	C	35	95	65	155	95	215	125	275	150	330	180	390	205	445	235	505	265	565
			O	35	95	65	155	95	200	95	200	95	200	95	200	95	200	95	200	95	200
	D	805	C	45	110	75	180	110	245	140	310	175	380	205	445	235	510	270	575	305	645
O			45	110	75	180	110	245	140	310	175	380	205	445	235	510	270	575	305	645	
E	675	C	55	130	90	210	130	285	165	365	205	440	245	515	280	590	315	665	355	740	
		O	55	130	90	210	130	285	165	365	205	440	245	515	280	590	315	665	355	740	
F	540	C	70	160	110	250	155	345	200	435	245	525	290	615	335	705	380	795			
		O	70	160	110	250	155	345	200	435	245	525	290	615	335	705	380	795			
G	395	C	85	195	135	300	190	405	240	515	295	620	345	730	395	815					
		O	85	195	135	300	190	405	240	515	295	620	345	730	395	815					
10	A	1800	C	35	95	55	150	75	205	95	260	115	320	135	375	150	425	165	480	185	540
			O	25	70	25	70	25	70	25	70	25	70	25	70	25	70	25	70	25	70
	B	1670	C	40	115	65	185	75	250	115	315	140	380	165	450	185	515	210	580	230	645
			O	40	115	60	170	60	170	60	170	60	170	60	170	60	170	60	170	60	170
	C	1430	C	50	135	75	210	105	290	135	365	160	440	190	515	220	590	250	645	275	
			O	50	135	75	210	105	290	135	365	160	440	190	515	220	590	250	645	275	
	D	1155	C	55	155	90	240	120	330	150	415	185	500	215	585	245	645	275		300	
O			55	155	90	240	120	330	150	415	185	500	190	525	245	645	275		300		
E	910	C	65	180	105	280	140	380	175	480	210	580	250	645	285		315		345		
		O	65	180	105	280	140	380	175	480	210	580	250	645	285		315		345		
F	730	C	80	220	125	340	165	455	210	575	250	645	295		330		380				
		O	80	220	125	340	165	455	210	575	250	645	295		330		380				
G	535	C	95	260	145	400	195	540	250	645	300		350		400						
		O	95	260	145	400	195	540	250	645	300		350		400						
12	A	2600	C	15	50	30	80	40	110	50	140	60	175	75	205	85	235	95	265	100	300
			O	15	45	15	45	15	45	15	45	15	45	15	45	15	45	15	45	15	45
	B	2235	C	20	60	35	95	50	135	60	170	75	210	90	245	100	285	115	320	125	360
			O	20	60	30	85	30	85	30	85	30	85	30	85	30	85	30	85	30	85
	C	1875	C	25	70	40	115	55	155	75	200	85	240	105	285	120	325	135	370	150	410
			O	25	70	40	115	55	155	60	165	60	165	60	165	60	165	60	165	60	165
	D	1540	C	30	85	50	130	65	180	85	230	100	275	115	325	135	375	150	420	175	470
O			30	85	50	130	65	180	85	230	100	270	100	270	100	270	100	270	100	270	100
E	1260	C	35	95	55	150	75	210	95	265	115	320	135	375	155	430	175	485	195	540	
		O	35	95	55	150	75	210	95	265	115	320	135	375	155	430	175	485	195	540	
F	1005	C	40	115	65	185	90	250	115	315	140	385	165	450	185	515	210	560			
		O	40	115	65	185	90	250	115	315	140	385	165	450	185	515	210	560			
G	750	C	50	140	80	220	105	295	135	375	165	450	195	530	220	560					
		O	50	140	80	220	105	295	135	375	165	450	195	530	220	560					

Refer page 19 for 16 in. valve size

C: Closed O: Open [Ⓛ]: Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Allowable Pressure Drops (psi)

17-4 PH Shaft - Metal Seat and Soft Seat[®] - 7-25 psi Actuator Spring Range

Air to Close - Flow to Close					Valve Size (in.)	Air to Open - Flow to Open					
Sup. Pres. 35 psi		Position	Rated Cv	ATA Adjust [†]		ATA Adjust [†]	Rated Cv	Position	Sup. Pres. 35 psi		
ATA No 5	ATA No 3								ATA No 3	ATA No 5	
	1365 365	C O	58	A	2	A	67	C O	375 375		
	1450 405	C O	53	B		B	62	C O	470 470		
	1450 460	C O	49	C		C	54	C O	550 550		
	1450 530	C O	43	D		D	45	C O	635 635		
	1450 620	C O	35	E		E	35	C O	740 740		
	1450 735	C O	29	F		F	28	C O	895 895		
	1450 860	C O	21	G		G	20	C O	1065 1065		
1420 260	385 75	C O	140	A		3	A	150	C O		410 410
1450 285	490 85	C O	130	B	B		140	C O			505 505
1450 320	620 95	C O	115	C	C		125	C O			585 585
1450 370	710 110	C O	105	D	D		110	C O			670 670
1450 470	825 140	C O	92	E	E		92	C O			785 785
1450 555	995 165	C O	79	F	F		75	C O			940 940
1450 655	1175 190	C O	60	G	G		58	C O			1115 1090
555 80	135 25	C O	250	A	4		A	275	C O		150 150
705 95	180 30	C O	225	B		B	245	C O			190 190
895 105	235 30	C O	205	C		C	215	C O			220 220
1005 125	270 35	C O	185	D		D	185	C O			255 255
1180 160	320 45	C O	160	E		E	155	C O			305 305
1400 190	385 55	C O	140	F		F	125	C O			365 365
1450 220	455 65	C O	105	G		G	91	C O			435 435

C: Closed O: Open

† : Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Air to Close - Flow to Close					Valve Size (in.)	Air to Open - Flow to Open					
Sup. Pres. 35 psi		Position	Rated Cv	ATA Adjust [†]		ATA Adjust [†]	Rated Cv	Position	Sup. Pr. 35 psi		
ATA No 7	ATA No 5								ATA No 7	ATA No 5	
410 40	185 20	C O	550	A	6	A	595	C O		110 110	
510 45	235 20	C O	510	B		B	545	C O			140 140
650 50	305 25	C O	460	C		C	500	C O			160 160
740 65	350 30	C O	405	D		D	435	C O			185 185
855 85	410 40	C O	355	E		E	365	C O			220 220
1025 100	485 50	C O	315	F		F	290	C O			265 265
1170 120	580 60	C O	240	G		G	215	C O			320 320
170 20	75 10	C O	950	A		8	A	1100	C O		40 40
215 25	95 10	C O	890	B	B		1010	C O			50 50
275 25	125 15	C O	800	C	C		920	C O			60 60
310 35	140 15	C O	705	D	D		805	C O			70 70
365 45	165 20	C O	620	E	E		675	C O			85 85
435 55	200 25	C O	545	F	F		540	C O			105 105
515 60	240 30	C O	420	G	G		395	C O			130 130

Sup. Pres. 35 psi		Position	Rated Cv	ATA Adjust [†]	Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Sup. Pr. 35 psi		
ATA No 9	ATA No 7								ATA No 9	ATA No 7	
235 35	85 15	C O	1600	A	10	A	1800	C O		60 60	
290 40	105 15	C O	1450	B		B	1670	C O			75 75
365 40	135 15	C O	1295	C		C	1430	C O			90 90
415 55	150 20	C O	1110	D		D	1155	C O			105 105
480 75	175 30	C O	935	E		E	910	C O			120 120
575 90	210 35	C O	785	F		F	730	C O			150 150
675 105	250 40	C O	610	G		G	535	C O			175 175
125 10	45 5	C O	2400	A		12	A	2600	C O		30 30
155 15	55 5	C O	2140	B	B		2235	C O			40 40
200 15	75 5	C O	1810	C	C		1875	C O			45 45
230 20	85 5	C O	1520	D	D		1540	C O			55 55
265 30	95 10	C O	1260	E	E		1260	C O			65 65
315 35	115 15	C O	1035	F	F		1005	C O			80 80
375 40	135 15	C O	805	G	G		750	C O			95 95

Refer page 19 for 16 in. valve size

Allowable Pressure Drops (psi)

17-4 PH Shaft - Metal Seat and Soft Seat ^① - 7-25 psi Actuator Spring Range

Air to Open - Flow to Close												
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	ATA No 9								
				Supply Pressure								
				35 psi	40 psi	45 psi	50 psi	55 psi	60 psi	65 psi	70 psi	75 psi
16	A	4460	C	65	80	90	105	120	125			
			O	5	10	15	20	20	25			
	B	3975	C	80	95	110	125	145	160	180	200	220
			O	5	10	15	20	25	30	35	35	40
	C	3365	C	95	110	130	150	165	185	200	230	240
			O	10	15	15	20	30	30	35	40	45
	D	2825	C	105	130	150	170	190	210	230	255	280
O			10	15	25	30	35	40	45	50	55	
E	2340	C	125	150	175	195	220	245	275	300	320	
		O	15	30	35	45	55	65	70	80	90	
F	1925	C	150	180	205	235	265	295	325	355		
		O	30	40	55	70	85	100	110	120		
G	1495	C	180	210	245	280	315	345	360			
		O	45	70	90	115	135	160	175			

Air to Close - Flow to Close				
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	ATA No 9
				Supply Pressure 35 psi
16	A	4460	C	50
			O	5
	B	3975	C	60
			O	5
	C	3365	C	80
			O	5
	D	2825	C	95
O			10	
E	2340	C	110	
		O	15	
F	1925	C	130	
		O	15	
G	1495	C	160	
		O	15	

Air to Close - Flow to Open												
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	ATA No 9								
				Supply Pressure								
				35 psi	40 psi	45 psi	50 psi	55 psi	60 psi	65 psi	70 psi	75 psi
16	A	4830	C	15	30	45	55	70	85	100	110	125
			O	15	15	15	15	15	15	15	15	15
	B	4150	C	20	40	55	70	85	100	115	130	150
			O	20	35	35	35	35	35	35	35	35
	C	3485	C	25	45	60	80	100	120	135	155	175
			O	25	45	60	70	70	70	70	70	70
	D	2860	C	30	50	75	95	115	135	155	180	200
O			30	50	75	95	115	115	115	115	115	
E	2340	C	35	60	85	110	135	160	180	205	230	
		O	35	60	85	110	135	160	180	205	230	
F	1865	C	45	75	105	130	160	190	220	250		
		O	45	75	105	130	160	190	220	250		
G	1395	C	55	90	125	160	190	225	260			
		O	55	90	125	160	190	225	260			

Air to Open - Flow to Open				
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	ATA No 9
				Supply Pressure 35 psi
16	A	4830	C	
			O	
	B	4150	C	10
			O	10
	C	3485	C	15
			O	15
	D	2860	C	15
O			15	
E	2340	C	20	
		O	20	
F	1865	C	30	
		O	30	
G	1395	C	35	
		O	35	

C: Closed O: Open ^①: Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Allowable Pressure Drops (psi)

316 St. St. Shaft - Metal Seat and Soft Seat - 7-25 psi Actuator Spring Range

Air to Open - Flow to Close																					
Valve Size (in.)	ATA Adjust†	Rated Cv	Position	Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		Sup. Pres. 65 psi		Sup. Pres. 70 psi		Sup. Pres. 75 psi	
				ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5
2	A	58	C	395																	
			O	345																	
	B	53	C	395																	
			O	345																	
	C	49	C	395																	
			O	345																	
	D	43	C	395																	
		O	350																		
	E	35	C	395																	
		O	360																		
	F	29	C	395																	
		O	365																		
	G	21	C	395																	
		O	380																		
3	A	140	C	435	435	435		435		435											
			O	110	245	165		220		245											
	B	130	C	435	435	435		435		435											
			O	120	245	180		240		245											
	C	115	C	435	435	435		435													
			O	135	245	200		245													
	D	105	C	435		435		435													
		O	155		235		250														
	E	92	C	435		435															
		O	195		275																
	F	79	C	435		435															
		O	260		300																
	G	60	C	435																	
		O	340																		
4	A	250	C	185	460	225	460	265	460	305		345		385		420		460			
			O	35	115	50	175	70	200	85		105		120		135		155			
	B	225	C	230	460	275	460	325	460	375		420		460		460		460			
			O	40	130	60	195	80	200	95		115		135		155		175			
	C	205	C	270	460	325	460	380		435		460		460		460		460			
			O	45	150	65	200	90		110		130		155		175		195			
	D	185	C	310	460	375	460	435		460		460		460		460		460			
		O	50	175	80	210	105		130		155		185		205		210				
	E	160	C	365	460	435		460		460		460		460							
		O	65	230	100		135		165		200		230								
	F	140	C	440	460	460		460		460		460									
		O	90	260	135		175		220		260										
	G	105	C	460	460	460		460		460											
		O	120	300	180		240		300												

C:Closed O:Open

Allowable Pressure Drops (psi)

316 St. St. Shaft - Metal Seat and Soft Seat - 7-25 psi Actuator Spring Range

Air to Open - Flow to Close																					
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		Sup. Pres. 65 psi		Sup. Pres. 70 psi		Sup. Pres. 75 psi	
				ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7
6	A	550	C	240	345	290	345	340	345	345		345		345							
			O	30	60	45	90	60	100	75		90		100							
	B	510	C	295	345	345	345	345	345	345		345		345							
			O	30	65	50	95	65	100	80		95		100							
	C	460	C	345	345	345	345	345		345		345									
			O	35	75	55	105	75		90		105									
	D	405	C	345	345	345	345	345		345											
		O	45	90	70	110	90		110												
8	E	355	C	345	345	345	345	345		345											
			O	60	120	90	130	120		130											
	F	315	C	345	345	345		345													
			O	80	145	120		145													
	G	240	C	345	345	345		345													
			O	115	175	170		175													
	A	950	C	95	220	115	240	140	240	160	240										
		O	15	30	25	50	30	65	40	80											
B	890	C	120	240	145	240	170	240	195	240	220		240		240		240		240		
		O	15	35	25	50	35	65	40	85	50		60		70		80		85		
C	800	C	140	240	170	240	195	240	225	240	240		240		240		240		240		
		O	20	40	30	55	40	75	45	85	55		65		75		85				
D	705	C	160	240	195	240	225	240	240		240		240		240		240				
		O	25	50	35	70	45	95	60		70		80		95						
E	620	C	190	240	230	240	240	240	240		240		240		240		240				
		O	30	65	50	95	65	110	80		95		110								
F	545	C	230	240	240	240	240		240		240		240								
		O	45	90	65	130	90		110		130										
G	420	C	240	240	240	240	240		240		240										
		O	65	130	95	160	130		160												
10	A	1600	C	105	185	130	185	145													
			O	20	50	30	80	35													
	B	1450	C	130	185	155	185	180		200		200		200		200					
			O	20	55	30	80	40		50		60		70		80					
	C	1295	C	150	185	175	185	200		200		200		200		200					
			O	20	60	35	80	45		55		65		75		80					
	D	1110	C	170	185	200	185	200		200		200		200		200					
		O	30	75	40	90	55		70		85		90								
12	E	935	C	195	185	200		200		200		200									
			O	40	110	60		80		100		110									
	F	785	C	200	185	200		200		200											
			O	60	135	85		115		135											
	G	610	C	200	185	200		200													
			O	90	180	135		180													
	A	2400	C		160	70	160	80	160	95	160	105		110							
		O		15	10	25	15	35	15	45	20		20								
B	2140	C		160	85	160	95	160	110	160	125		140		155		170		175		
		O		20	10	30	15	40	15	45	20		25		30		30		35		
C	1810	C		160	95	160	115	160	130		145		160		175		175		175		
		O		20	10	32	15	45	20	25		30		30		35		35	40		
D	1520	C	95	160	110	160	130	160	145		165		175		175		175		175		
		O	10	20	15	45	20	50	25	30		35		40		45		45	50		
E	1260	C	110	160	130	160	150	160	170		175		175		175		175				
		O	15	45	25	65	30	70	40		50		55		60		65				
F	1035	C	130	160	155	160	175		175		175		175								
		O	25	70	40	90	50		60		75		85								
G	805	C	155	160	175	160	175		175		175										
		O	40	110	60	125	80		100		120										

Refer page 25 for 16 in. valve size

C:Closed O:Open

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...



Allowable Pressure Drops (psi)

316 St. St. Shaft - Metal Seat and Soft Seat - 7-25 psi Actuator Spring Range

Air to Close - Flow to Open																								
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		Sup. Pres. 65 psi		Sup. Pres. 70 psi		Sup. Pres. 75 psi				
				ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	
2	A	67	C	395																				
			O	300																				
	B	62	C	395																				
			O	395																				
	C	54	C	395																				
			O	395																				
	D	45	C	395																				
		O	395																					
	E	35	C	395																				
		O	395																					
	F	28	C	395																				
		O	395																					
	G	20	C	395																				
		O	395																					
3	A	150	C	140	435	240		340		435														
			O	140	335	240		335		335														
	B	140	C	185	435	300		420		435														
			O	185	435	300		420		435														
	C	125	C	220	435	350		435																
			O	220	435	350		435																
	D	110	C	250		405		435																
		O	250		405		435																	
	E	92	C	300		435																		
		O	300		435																			
	F	75	C	365		435																		
		O	365		435																			
	G	58	C	435																				
		O	435																					
4	A	275	C	40	230	80	365	120	460	160		200		240		280		320		360				
			O	40	230	80	365	120	460	160		185		185		185		185		185				
	B	245	C	55	285	105	445	155	460	200		250		295		350		400		445				
			O	55	285	105	445	155	460	200		250		295		350		400		445				
	C	215	C	70	335	125	460	180		235		295		345		400		455		460				
			O	70	335	125	460	180		235		295		345		400		455		460				
	D	185	C	85	385	150	460	210		275		335		395		455		460						
		O	85	385	150	460	210		275		335		395		455		460							
	E	155	C	105	450	175	460	250		320		390		460										
		O	105	450	175	460	250		320		390		460											
	F	125	C	130	460	220		300		385		460												
		O	130	460	220		300		385		460													
	G	91	C	160	460	260		360		460														
		O	160	460	260		360		460															

C:Closed O:Open

Allowable Pressure Drops (psi)

316 St. St. Shaft - Metal Seat and Soft Seat - 7-25 psi Actuator Spring Range

Air to Close - Flow to Open																						
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		Sup. Pres. 65 psi		Sup. Pres. 70 psi		Sup. Pres. 75 psi		
				ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5
6	A	595	C	70	170	115	270	165	345	215		260		310		345						
			O	55	115	55	115	55	115	55		55		55		55						
	B	545	C	85	195	145	325	205	345	260		320		345								
			O	85	195	95	195	95	195	95		95		95		95						
	C	500	C	105	245	170	345	240		305		345										
			O	105	245	135	275	135		135		135										
	D	435	C	120	280	195	345	275		345												
			O	120	280	195	345	275		320												
	E	365	C	145	325	235	345	320		345												
			O	145	325	235	345	320		345												
	F	290	C	180	345	280		345														
			O	180	345	280		345														
	G	215	C	215	345	335		345														
			O	215	345	335		345														
8	A	1100	C	20	65	40	105	60	150	85	195	105	235	125	240	145		165		185		
			O	20	55	25	55	25	55	25	55	25	55	25	55	25	55	25		25		25
	B	1010	C	30	80	55	130	80	150	105	235	130	240	155		175		200		225		
			O	30	80	50	105	50	105	50	105	50	105	50	105	50		50		50		50
	C	920	C	35	95	65	155	95	215	125	240	150		180		205		235		240		
			O	35	95	65	155	95	200	95	200	95		95		95		95		95		95
	D	805	C	45	110	75	180	110	240	140		175		205		240						
			O	45	110	75	180	110	240	140		175		205		240						
	E	675	C	55	130	90	210	130	240	165		205		240								
			O	55	130	90	210	130	240	165		205		240								
	F	540	C	70	160	110	240	155		200		240										
			O	70	160	110	240	155		200		240										
	G	395	C	85	195	135	240	190		240												
			O	85	195	135	240	190		240												
10	A	1800	C	35	95	55	150	75	185	95	200	115		135		150		165		185		
			O	25	70	25	70	25	70	25	70	25	70	25		25		25		25		25
	B	1670	C	40	115	65	185	75	200	115		140		165		185		200				
			O	40	115	60	170	60	170	60		60		60		60		60		60		
	C	1430	C	50	135	75	185	105		135		160		190		200						
			O	50	135	75	185	105		135		160		190		200						
	D	1155	C	55	155	90	185	120		150		185		200		200						
			O	55	155	90	185	120		150		185		190		200		200				
	E	910	C	65	180	105	185	140		175		200										
			O	65	180	105	185	140		175		200										
	F	730	C	80	185	125		165		200												
			O	80	185	125		165		200												
	G	535	C	95	185	145		195		200												
			O	95	185	145		195		200												
12	A	2600	C	15	50	30	80	40	110	50	140	60	160	75	175	85		95		100		
			O	15	45	15	45	15	45	15	45	15	45	15	45	15	45	15		15		15
	B	2235	C	20	60	35	95	50	135	60	160	75	175	90		100		115		125		
			O	20	60	30	85	30	85	30	85	30	85	30	85	30		30		30		30
	C	1875	C	25	70	40	115	55	155	75	160	85	175	105		120		135		150		
			O	25	70	40	115	55	155	60	160	60	175	60		60		60		60		60
	D	1540	C	30	85	50	130	65	160	85	175	100		115		135		150		175		
			O	30	85	50	130	65	160	85	165	100		100		100		100		100		100
	E	1260	C	35	95	55	150	75	160	95	175	115		135		155		175				
			O	35	95	55	150	75	160	95	175	115		135		155		165		165		
	F	1005	C	40	115	65	160	90	175	115		140		165		175						
			O	40	115	65	160	90	175	115		140		165		175						
	G	750	C	50	140	80	160	105	175	135		165		175								
			O	50	140	80	160	105	175	135		165		175								

Refer page 25 for 16 in. valve size

C: Closed O: Open

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Allowable Pressure Drops (psi)

316 St. St. Shaft - Metal Seat and Soft Seat - 7-25 psi Actuator Spring Range

Air to Close - Flow to Close					Valve Size (in.)	Air to Open - Flow to Open				
Sup. Pres. 35 psi		Position	Rated Cv	ATA Adjust [†]		ATA Adjust [†]	Rated Cv	Position	Sup. Pres. 35 psi	
ATA No 5	ATA No 3								ATA No 3	ATA No 5
	395 345	C O	58	A	2	A	67	C O	375 375	
	395 345	C O	53	B		B	62	C O	395 395	
	395 345	C O	49	C		C	54	C O	395 395	
	395 350	C O	43	D		D	45	C O	395 395	
	395 360	C O	35	E		E	35	C O	395 395	
	395 365	C O	29	F		F	28	C O	395 395	
	395 380	C O	21	G		G	20	C O	395 395	
435 245	385 75	C O	140	A		3	A	150	C O	
435 245	435 85	C O	130	B	B		140	C O		435 435
435 245	435 95	C O	115	C	C		125	C O		435 435
435 250	435 110	C O	105	D	D		110	C O		435 435
435 275	435 140	C O	92	E	E		92	C O		435 435
435 300	435 165	C O	79	F	F		75	C O		435 435
435 340	435 190	C O	60	G	G		58	C O		435 435
460 80	135 25	C O	250	A	4		A	275	C O	
460 95	180 30	C O	225	B		B	245	C O		190 190
460 105	235 30	C O	205	C		C	215	C O		220 220
460 125	270 35	C O	185	D		D	185	C O		255 255
460 160	320 45	C O	160	E		E	155	C O		305 305
460 190	385 55	C O	140	F		F	125	C O		365 365
460 220	455 65	C O	105	G		G	91	C O		435 435

C: Closed O: Open

Air to Close - Flow to Close					Valve Size (in.)	Air to Open - Flow to Open				
Sup. Pres. 35 psi		Position	Rated Cv	ATA Adjust [†]		ATA Adjust [†]	Rated Cv	Position	Sup. Pr. 35 psi	
ATA No 7	ATA No 5								ATA No 7	ATA No 5
345 40	185 20	C O	550	A	6	A	595	C O	110 110	
345 45	235 20	C O	510	B		B	545	C O	140 140	
345 50	305 25	C O	460	C		C	500	C O	160 160	
345 65	345 30	C O	405	D		D	435	C O	185 185	
345 85	345 40	C O	355	E		E	365	C O	220 220	
345 100	345 50	C O	315	F		F	290	C O	265 265	
345 120	345 60	C O	240	G		G	215	C O	320 320	
170 20	75 10	C O	950	A		8	A	1100	C O	40 40
215 25	95 10	C O	890	B	B		1010	C O	50 50	
240 25	125 15	C O	800	C	C		920	C O	60 60	
240 35	140 15	C O	705	D	D		805	C O	70 70	
240 45	165 20	C O	620	E	E		675	C O	85 85	
240 55	200 25	C O	545	F	F		540	C O	105 105	
240 60	240 30	C O	420	G	G		395	C O	130 130	
185 35	85 15	C O	1600	A	10		A	1800	C O	60 60
185 40	105 15	C O	1450	B		B	1670	C O	75 75	
185 40	135 15	C O	1295	C		C	1430	C O	90 90	
185 55	150 20	C O	1110	D		D	1155	C O	105 105	
185 75	175 30	C O	935	E		E	910	C O	120 120	
185 90	200 35	C O	785	F		F	730	C O	150 150	
185 105	200 40	C O	610	G		G	535	C O	175 175	
125 10	45 5	C O	2400	A		12	A	2600	C O	30 30
155 15	55 5	C O	2140	B	B		2235	C O	40 40	
160 15	75 5	C O	1810	C	C		1875	C O	45 45	
160 20	85 5	C O	1520	D	D		1540	C O	55 55	
160 30	95 10	C O	1260	E	E		1260	C O	65 65	
160 35	115 15	C O	1035	F	F		1005	C O	80 80	
160 40	135 15	C O	805	G	G		750	C O	95 95	

Refer page 25 for 16 in. valve size

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Allowable Pressure Drops (psi)

316 St. St. Shaft - Metal Seat and Soft Seat - 7-25 psi Actuator Spring Range

Air to Open - Flow to Close												
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	ATA No 9								
				Supply Pressure								
				35 psi	40 psi	45 psi	50 psi	55 psi	60 psi	65 psi	70 psi	75 psi
16	A	4460	C	65	80	90	105	120	125			
			O	5	10	15	20	20	25			
	B	3975	C	80	95	110	125	145	160	160	160	160
			O	5	10	15	20	25	30	35	35	40
	C	3365	C	95	110	130	150	160	160	160	160	
			O	10	15	15	20	30	30	35	40	
	D	2825	C	105	130	150	160	160	160	160	160	
O			10	15	25	30	35	40	45	50		
E	2340	C	125	150	160	160	160	160				
		O	15	30	35	45	55	65				
F	1925	C	150	160	160	160	160					
		O	30	40	55	70	85					
G	1495	C	160	160	160	160						
		O	45	70	90	115						

Air to Close - Flow to Close				
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	ATA No 9
				Supply Pressure
				35 psi
16	A	4460	C	50
			O	5
	B	3975	C	60
			O	5
	C	3365	C	80
			O	5
	D	2825	C	95
O			10	
E	2340	C	110	
		O	15	
F	1925	C	130	
		O	15	
G	1495	C	160	
		O	15	

Air to Close - Flow to Open												
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	ATA No 9								
				Supply Pressure								
				35 psi	40 psi	45 psi	50 psi	55 psi	60 psi	65 psi	70 psi	75 psi
16	A	4830	C	15	30	45	55	70	85	100	110	125
			O	15	15	15	15	15	15	15	15	15
	B	4150	C	20	40	55	70	85	100	115	130	150
			O	20	35	35	35	35	35	35	35	35
	C	3485	C	25	45	60	80	100	120	135	155	160
			O	25	45	60	70	70	70	70	70	70
	D	2860	C	30	50	75	95	115	135	155	160	
O			30	50	75	95	115	115	115	115		
E	2340	C	35	60	85	110	135	160				
		O	35	60	85	110	135	160				
F	1865	C	45	75	105	130	160					
		O	45	75	105	130	160					
G	1395	C	55	90	125	160						
		O	55	90	125	160						

Air to Open - Flow to Open				
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	ATA No 9
				Supply Pressure
				35 psi
16	A	4830	C	
			O	
	B	4150	C	10
			O	10
	C	3485	C	15
			O	15
	D	2860	C	15
O			15	
E	2340	C	20	
		O	20	
F	1865	C	30	
		O	30	
G	1395	C	35	
		O	35	

C: Closed O: Open

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Allowable Pressure Drops (psi)

Nitronic 50 Shaft - Metal Seat and Soft Seat - 7-25 psi Actuator Spring Range

Air to Open - Flow to Close																					
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		Sup. Pres. 65 psi		Sup. Pres. 70 psi		Sup. Pres. 75 psi	
				ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5
2	A	58	C	760		760															
			O	520		555															
	B	53	C	760																	
			O	555																	
	C	49	C	760																	
			O	345																	
	D	43	C	760																	
		O	570																		
3	E	35	C	760																	
			O	580																	
	F	29	C	760																	
			O	590																	
	G	21	C	760																	
			O	615																	
	4	A	140	C	495	700	595	700	690		700		700								
			O	110	370	165	395	220		275		340									
B		130	C	605	700	700		700		700		700		700							
			O	120	395	180		240		300		365		395							
C		115	C	700	700	700		700		700		700									
			O	135	395	200		270		335		395									
D		105	C	700	700	700		700		700		700									
		O	155	405	235		315		390		405										
4	E	92	C	700	700	700		700		700											
			O	195	440	295		395		440											
	F	79	C	700	700	700		700													
			O	260	485	385		485													
	G	60	C	700	700	700		700													
			O	340	545	510		545													
	4	A	250	C	185	720	225	740	265	740	305	740	345	740	385		420		460		
			O	35	115	50	175	70	235	85	290	105	320	120		135		155			
B		225	C	230	740	275	740	325	740	375	740	420		465		510		560		610	
			O	40	130	60	195	80	265	95	320	115		135		155		175		195	
C		205	C	270	740	325	740	380	740	435	740	490		545		600		655		700	
			O	45	150	65	225	90	295	110	320	130		155		175		195		220	
D		185	C	310	740	375	740	435	740	495		560		620		690		740		740	
		O	50	175	80	265	105	340	130		155		185		205		235		260		
4	E	160	C	365	740	435	740	505	740	575		650		720		740		740		740	
			O	65	230	100	330	135	375	165		200		235		265		295		305	
	F	140	C	440	740	525	740	610		695		740		740		740		740		740	
			O	90	300	135	420	175		220		265		310		335		385			
	G	105	C	520	740	620	740	720		740		740		740		740		740		740	
			O	120	405	180	485	240		300		360		420		475					

C: Closed O: Open

Allowable Pressure Drops (psi)

Nitronic 50 Shaft - Metal Seat and Soft Seat ^① - 7-25 psi Actuator Spring Range

Air to Open - Flow to Close																					
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		Sup. Pres. 65 psi		Sup. Pres. 70 psi		Sup. Pres. 75 psi	
				ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7
6	A	550	C	240	530	290	555	340	555	390	555	435	555	470							
			O	30	60	45	90	60	120	75	150	90	160	100							
	B	510	C	295	555	355	555	410	555	470	555	530	555	555		555					
			O	30	65	50	95	65	130	80	160	95	160	110		125					
	C	460	C	345	555	410	555	480	555	545	555	555		555		555		555			
			O	35	75	55	110	75	150	90	165	110		130		140		165			
	D	405	C	395	555	470	555	545	555	555		555		555		555					
		O	45	90	70	140	90	175	115		135		160		175						
	E	355	C	460	555	550	555	555	555	555		555		555							
		O	60	120	90	180	120	205	150		180		205								
	F	315	C	550	555	555	555	555		555		555									
		O	80	165	120	235	165		205		235										
	G	240	C	555	555	555	555	555		555											
		O	115	230	170	280	230		280												
8	A	950	C	95	220	115	260	140	305	160	350										
			O	15	30	25	50	30	65	40	80										
	B	890	C	120	265	145	315	170	370	195	415	220	415	245	415	265	415	295	415	320	
			O	15	35	25	50	35	65	40	85	50	100	60	115	70	125	80	135	85	
	C	800	C	140	305	170	365	195	415	225	415	255	415	285	415	310		345		370	
			O	20	40	30	55	40	75	45	95	55	115	65	135	75		85		95	
	D	705	C	160	350	195	415	225	415	260	415	290	415	325	415	355		390		415	
		O	25	50	35	70	45	95	60	120	70	140	80	150	90		100		115		
	E	620	C	190	405	230	415	265	415	305	415	340	415	380		415		415		415	
		O	30	65	50	95	65	130	80	160	95	175	110		125		140		155		
	F	545	C	230	415	275	415	320	415	365	415	405		415		415		415			
		O	45	90	65	135	90	180	110	205	130		155		170		190				
	G	420	C	275	415	325	415	380	415	415		415		415		415					
		O	65	130	95	195	130	255	160		190		225		250						
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		Sup. Pres. 65 psi		Sup. Pres. 70 psi		Sup. Pres. 75 psi	
				ATA No 7	ATA No 9	ATA No 7	ATA No 9	ATA No 7	ATA No 9	ATA No 7	ATA No 9	ATA No 7	ATA No 9	ATA No 7	ATA No 9	ATA No 7	ATA No 9	ATA No 7	ATA No 9	ATA No 7	ATA No 9
10	A	1600	C	105	295	130	325	145	325												
			O	20	50	30	80	35	100												
	B	1450	C	130	325	155	325	180	325	205	325	225		290		280		305		325	
			O	20	55	30	80	40	110	50	130	60		70		80		90		100	
	C	1295	C	150	325	175	325	205	325	235	325	260		290		320		325		325	
			O	20	60	35	90	45	120	55	130	65		75		85		100		110	
	D	1110	C	170	325	200	325	235	325	265		295		325		325		325		325	
		O	30	75	40	115	55	145	70		85		100		110		125		140		
	E	935	C	195	325	235	325	270	325	305		325		325		325		325		325	
		O	40	110	60	160	80	175	100		120		140		155		175				
	F	785	C	235	325	280	325	320		325		325		325		325					
		O	60	160	85	215	115		145		175		200		215						
	G	610	C	280	325	325	325	325		325		325		325							
		O	90	245	135	290	180		225		270		290								
12	A	2400	C		160	70	190	80	225	95	255	105	285	110	285						
			O		15	10	25	15	35	15	45	20	50	20	60						
	B	2140	C		195	85	230	95	270	110	285	125	285	140	285	155	285	170	185		
			O		20	10	30	15	40	15	45	20	55	25	65	30	70	30	35		
	C	1810	C		225	95	270	115	285	130	285	145	285	160	285	180		195		210	
			O		20	10	32	15	45	20	55	25	65	30	70	30		35		40	
	D	1520	C	95	255	110	285	130	285	145	285	165	285	180		205		220		240	
		O	10	20	15	45	20	60	25	75	30	85	35		40		45		50		
	E	1260	C	110	285	130	285	150	285	170	285	190		210		235		255		275	
		O	15	45	25	65	30	85	40	110	50		55		60		70		80		
	F	1035	C	130	285	155	285	180	285	200	285	225		250		275		285			
		O	25	70	40	100	50	135	60	145	75		85		90		100				
	G	805	C	155	285	180	285	210	285	240		265		285		285					
		O	40	110	60	160	80	200	100		120		140		145						

Refer page 31 for 16 in. valve size

C: Closed O: Open ^①: Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...



Allowable Pressure Drops (psi)

Nitronic 50 Shaft - Metal Seat and Soft Seat - 7-25 psi Actuator Spring Range

Air to Close - Flow to Open																							
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		Sup. Pres. 65 psi		Sup. Pres. 70 psi		Sup. Pres. 75 psi			
				ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5		
2	A	67	C	575		680																	
			O	475		475																	
	B	62	C	680																			
			O	680																			
	C	54	C	680																			
			O	680																			
	D	45	C	680																			
O			680																				
E	35	C	680																				
		O	680																				
F	28	C	680																				
		O	680																				
G	20	C	680																				
		O	680																				
3	A	150	C	140	610	240		340		440		535		635		730							
			O	140	610	240		335		335		335		335		335							
	B	140	C	185	730	300		420		535		655		730									
			O	185	730	300		420		535		605		605									
	C	125	C	220	730	350		485		620		730											
			O	220	730	350		485		620		730											
	D	110	C	250	730	405		560		710		730											
O			250	730	405		560		710		730												
E	92	C	300	730	475		650		730														
		O	300	730	475		650		730														
F	75	C	365	730	575		730																
		O	365	730	575		730																
G	58	C	440	730	685		730																
		O	440	730	685		730																
4	A	275	C	40	230	80	365	120	500	160	640	200	760	240	280		320		360				
			O	40	230	80	365	120	500	160	625	185	625	185		185		185		185			
	B	245	C	55	285	105	445	155	610	200	760	250		295		350		400		445			
			O	55	285	105	445	155	610	200	760	250		295		350		400		445			
	C	215	C	70	335	125	520	180	705	235	760	295		345		400		455		510			
			O	70	335	125	520	180	705	235	760	295		345		400		455		510			
	D	185	C	85	385	150	595	210	760	275		335		395		455		515		580			
O			85	385	150	595	210	760	275		335		395		455		515		580				
E	155	C	105	450	175	695	250	760	320		390		465		530		595		665				
		O	105	450	175	695	250	760	320		390		465		530		595		665				
F	125	C	130	540	220	760	300		385		475		555		630		715						
		O	130	540	220	760	300		385		475		555		630		715						
G	91	C	160	640	260	760	360		460		560		660		755								
		O	160	640	260	760	360		460		560		660		755								

C: Closed O: Open

Allowable Pressure Drops (psi)

Nitronic 50 Shaft - Metal Seat and Soft Seat [Ⓛ] - 7-25 psi Actuator Spring Range

Air to Close - Flow to Open																					
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		Sup. Pres. 65 psi		Sup. Pres. 70 psi		Sup. Pres. 75 psi	
				ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7
6	A	595	C	70	170	115	270	165	370	215	470	260	565	310	570	360		405		455	
			O	55	115	55	115	55	115	55	115	55	115	55	115	55	115	55	55		55
	B	545	C	85	195	145	325	205	345	260	565	320	570	375		435		490		550	
			O	85	195	95	195	95	195	95	195	95	195	95	195	95	95		95		95
	C	500	C	105	245	170	345	240	515	305	570	370		440		505		570			
			O	105	245	135	275	135	275	135	275	135	275	135		135		135		135	
	D	435	C	120	280	195	345	275	570	350		425		500		570					
O			120	280	195	345	275	570	320		320		320		320		320				
E	365	C	145	325	235	505	320	570	410		495		570								
		O	145	325	235	505	320	570	345		495		570		570						
F	290	C	180	345	280	570	385	570	485		570										
		O	180	345	280	570	385	570	485		570										
G	215	C	215	465	335	570	460		570												
		O	215	345	335	570	460		570												
8	A	1100	C	20	65	40	105	60	150	85	195	105	235	125	280	145	320	165	365	185	400
			O	20	55	25	55	25	55	25	55	25	55	25	55	25	55	25	55	25	55
	B	1010	C	30	80	55	130	80	150	105	235	130	285	155	340	175	385	200	400	225	
			O	30	80	50	105	50	105	50	105	50	105	50	105	50	105	50	105	50	105
	C	920	C	35	95	65	155	95	215	125	275	150	330	180	390	205	400	235		265	
			O	35	95	65	155	95	200	95	200	95	200	95	200	95	200	95	200	95	
	D	805	C	45	110	75	180	110	245	140	310	175	380	205	400	235		270		305	
O			45	110	75	180	110	245	140	310	175	380	205	400	235		270		305		
E	675	C	55	130	90	210	130	285	165	365	205	400	245		280		315		355		
		O	55	130	90	210	130	285	165	365	205	400	245		280		315		355		
F	540	C	70	160	110	250	155	345	200	400	245		290		335		380				
		O	70	160	110	250	155	345	200	400	245		290		335		380				
G	395	C	85	195	135	300	190	400	240		295		345		395						
		O	85	195	135	300	190	400	240		295		345		395						
10	A	1800	C	35	95	55	150	75	205	95	260	115	310	135		150		165		185	
			O	25	70	25	70	25	70	25	70	25	70	25	70	25		25		25	
	B	1670	C	40	115	65	185	75	250	115	310	140		165		185		210		230	
			O	40	115	60	170	60	170	60	170	60	170	60		60		60		60	
	C	1430	C	50	135	75	210	105	290	135	310	160		190		220		250		275	
			O	50	135	75	210	105	290	135	310	160		190		220		250		275	
	D	1155	C	55	155	90	240	120	310	150		185		215		245		275		300	
O			55	155	90	240	120	310	150		185		215		245		275		300		
E	910	C	65	180	105	280	140	310	175		210		250		285		310				
		O	65	180	105	280	140	310	175		210		250		285		310				
F	730	C	80	220	125	310	165		210		250		295		310						
		O	80	220	125	310	165		210		250		295		310						
G	535	C	95	260	145	310	195		250		300		310								
		O	95	260	145	310	195		250		300		310								
12	A	2600	C	15	50	30	80	40	110	50	140	60	175	75	205	85	235	95	265	100	270
			O	15	45	15	45	15	45	15	45	15	45	15	45	15	45	15	45	15	45
	B	2235	C	20	60	35	95	50	135	60	170	75	210	90	245	100	270	115		125	
			O	20	60	30	85	30	85	30	85	30	85	30	85	30	85	30	85	30	
	C	1875	C	25	70	40	115	55	155	75	200	85	240	105	270	120		135		150	
			O	25	70	40	115	55	155	60	165	60	165	60	165	60		60		60	
	D	1540	C	30	85	50	130	65	180	85	230	100	270	115		135		150		175	
O			30	85	50	130	65	180	85	230	100	270	100		100		100		100		100
E	1260	C	35	95	55	150	75	210	95	265	115	270	135		155		175		195		
		O	35	95	55	150	75	210	95	265	115	270	135		155		175		195		
F	1005	C	40	115	65	185	90	250	115	270	140		165		185		210				
		O	40	115	65	185	90	250	115	270	140		165		185		210				
G	750	C	50	140	80	220	105	270	135		165		195		220						
		O	50	140	80	220	105	270	135		165		195		220						

Refer page 31 for 16 in. valve size

C: Closed O: Open [Ⓛ]: Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...



Allowable Pressure Drops (psi)

Nitronic 50 Shaft - Metal Seat and Soft Seat ^① - 7-25 psi Actuator Spring Range

Air to Close - Flow to Close					Valve Size (in.)	Air to Open - Flow to Open				
Sup. Pres. 35 psi		Position	Rated Cv	ATA Adjust [†]		ATA Adjust [†]	Rated Cv	Position	Sup. Pres. 35 psi	
ATA No 5	ATA No 3								ATA No 3	ATA No 5
2					A	67	C	375	375	
					B	62	C	470	470	
					C	54	C	550	550	
					D	45	C	635	635	
					E	35	C	640	640	
					F	29	C	640	640	
					G	21	C	640	640	
3					A	150	C	410	410	
					B	140	C	505	505	
					C	125	C	585	585	
					D	110	C	670	670	
					E	92	C	700	700	
					F	79	C	700	700	
					G	60	C	700	700	
4					A	275	C	150	150	
					B	245	C	190	190	
					C	215	C	220	220	
					D	185	C	255	255	
					E	155	C	305	305	
					F	125	C	365	365	
					G	91	C	435	435	

C: Closed O: Open

^① - Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Air to Close - Flow to Close					Valve Size (in.)	Air to Open - Flow to Open				
Sup. Pres. 35 psi		Position	Rated Cv	ATA Adjust [†]		ATA Adjust [†]	Rated Cv	Position	Sup. Pr. 35 psi	
ATA No 7	ATA No 5								ATA No 7	ATA No 5
6					A	595	C	110	110	
					B	545	C	140	140	
					C	500	C	160	160	
					D	435	C	185	185	
					E	365	C	220	220	
					F	290	C	265	265	
					G	215	C	320	320	
8					A	1100	C	40	40	
					B	1010	C	50	50	
					C	920	C	60	60	
					D	805	C	70	70	
					E	675	C	85	85	
					F	540	C	105	105	
					G	395	C	130	130	

Air to Close - Flow to Close					Valve Size (in.)	Air to Open - Flow to Open				
Sup. Pres. 35 psi		Position	Rated Cv	ATA Adjust [†]		ATA Adjust [†]	Rated Cv	Position	Sup. Pr. 35 psi	
ATA No 9	ATA No 7								ATA No 9	ATA No 7
10					A	1800	C	60	60	
					B	1670	C	75	75	
					C	1430	C	90	90	
					D	1155	C	105	105	
					E	910	C	120	120	
					F	730	C	150	150	
					G	535	C	175	175	
12					A	2600	C	30	30	
					B	2235	C	40	40	
					C	1875	C	45	45	
					D	1540	C	55	55	
					E	1260	C	65	65	
					F	1005	C	80	80	
					G	750	C	95	95	

Refer page 31 for 16 in. valve size

Allowable Pressure Drops (psi)

Nitronic 50 Shaft - Metal Seat and Soft Seat ^① - 7-25 psi Actuator Spring Range

Air to Open - Flow to Close												
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	ATA No 9								
				Supply Pressure								
				35 psi	40 psi	45 psi	50 psi	55 psi	60 psi	65 psi	70 psi	75 psi
16	A	4460	C	65	80	90	105	120	125			
			O	5	10	15	20	20	25			
	B	3975	C	80	95	110	125	145	160	180	200	220
			O	5	10	15	20	25	30	35	35	40
	C	3365	C	95	110	130	150	165	185	200	230	240
			O	10	15	15	20	30	30	35	40	45
	D	2825	C	105	130	150	170	190	210	230	255	280
O			10	15	25	30	35	40	45	50	55	
E	2340	C	125	150	175	195	220	245	275	280		
		O	15	30	35	45	55	65	70	80		
F	1925	C	150	180	205	235	265	280	280	280		
		O	30	40	55	70	85	100	110	120		
G	1495	C	180	210	245	280	280	280	280			
		O	45	70	90	115	135	160	175			

Air to Close - Flow to Close				
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	ATA No 9
				Supply Pressure 35 psi
16	A	4460	C	50
			O	5
	B	3975	C	60
			O	5
	C	3365	C	80
			O	5
	D	2825	C	95
O			10	
E	2340	C	110	
		O	15	
F	1925	C	130	
		O	15	
G	1495	C	160	
		O	15	

Air to Close - Flow to Open												
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	ATA No 9								
				Supply Pressure								
				35 psi	40 psi	45 psi	50 psi	55 psi	60 psi	65 psi	70 psi	75 psi
16	A	4830	C	15	30	45	55	70	85	100	110	125
			O	15	15	15	15	15	15	15	15	15
	B	4150	C	20	40	55	70	85	100	115	130	150
			O	20	35	35	35	35	35	35	35	35
	C	3485	C	25	45	60	80	100	120	135	155	175
			O	25	45	60	70	70	70	70	70	70
	D	2860	C	30	50	75	95	115	135	155	180	200
O			30	50	75	95	115	115	115	115	115	
E	2340	C	35	60	85	110	135	160	180	205	230	
		O	35	60	85	110	135	160	180	205	230	
F	1865	C	45	75	105	130	160	190	220	250		
		O	45	75	105	130	160	190	220	250		
G	1395	C	55	90	125	160	190	225	260			
		O	55	90	125	160	190	225	260			

Air to Open - Flow to Open				
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	ATA No 9
				Supply Pressure 35 psi
16	A	4830	C	
			O	
	B	4150	C	10
			O	10
	C	3485	C	15
			O	15
	D	2860	C	15
O			15	
E	2340	C	20	
		O	20	
F	1865	C	30	
		O	30	
G	1395	C	35	
		O	35	

C: Closed O: Open ①: Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Allowable Pressure Drops (psi)

17-4 PH Shaft - Metal Seat and Soft Seat ¹ - 3-15 psi Actuator Spring Range

Air to Open - Flow to Close																					
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	Sup. Pres. 20 psi		Sup. Pres. 25 psi		Sup. Pres. 30 psi		Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi	
				ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5
2	A	58	C		1450		1450														
			O		885		1115														
	B	53	C		1450		1450														
			O		980		1115														
	C	49	C		1450																
			O		1115																
	D	43	C		1450																
		O		1135																	
3	E	35	C		1450																
			O		1155																
	F	29	C		1450																
			O		1180																
	G	21	C		1450																
			O		1225																
	4	A	140	C		1130		1450		1450		1450		1450							
			O		185		370		555		740										
B		130	C		1350		1450		1450		1450										
			O		200		405		610		785										
C		115	C		1450		1450		1450		1450										
			O		225		455		680		785										
D		105	C		1450		1450		1450		1450										
		O		265		529		795		805											
6	E	92	C		1450		1450		1450												
			O		335		670		880												
	F	79	C		1450		1450		1450												
			O		395		790		970												
	G	60	C		1450		1450		1450												
			O		465		930		1090												
	8	A	250	C		460		595		730		865		1000		1170					
			O		60		115		175		230		290		365						
B		225	C		550		710		875		1035		1200		1350		1450		1450		1450
			O		65		130		200		265		330		395		460		525		590
C		205	C		630		820		1005		1190		1380		1450		1450		1450		1450
			O		75		150		220		300		370		445		520		595		640
D		185	C		715		925		1135		1350		1450		1450		1450		1450		
		O		90		175		265		355		440		530		615		675			
10	E	160	C		830		1075		1315		1450		1450		1450		1450				
			O		110		230		340		455		570		685		750				
	F	140	C		980		1270		1450		1450		1450		1450		1450				
			O		135		270		400		540		675		805		835				
	G	105	C		1155		1450		1450		1450		1450		1450		1450				
			O		155		315		475		635		790		950		960				

Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	Sup. Pres. 20 psi		Sup. Pres. 25 psi		Sup. Pres. 30 psi		Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi	
				ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7
6	A	550	C		335		435		535		635		680								
			O		30		60		90		120		135								
	B	510	C		400		520		635		755		875		945						
			O		30		65		100		135		170		190						
	C	460	C		460		595		730		865		1000		1140		1170		1170		1170
			O		35		75		110		145		185		220		260		300		330
	D	405	C		520		675		830		985		1135		1170		1170		1170		1170
		O		45		90		135		180		225		275		320		355		355	
8	E	355	C		600		775		955		1130		1170		1170		1170				
			O		60		120		180		240		300		360		410				
	F	315	C		710		925		1135		1170		1170		1170		1170				
			O		70		140		215		285		355		430		475				
	G	240	C		840		1090		1170		1170		1170		1170		1170				
			O		80		165		250		335		420		505		560				

C: Closed O: Open D: Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Allowable Pressure Drops (psi)

17-4 PH Shaft - Metal Seat and Soft Seat ^① - 3-15 psi Actuator Spring Range

Air to Close - Flow to Open																					
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	Sup. Pres. 20 psi		Sup. Pres. 25 psi		Sup. Pres. 30 psi		Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi	
				ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5
2	A	67	C		1020																
			O		960																
	B	62	C		1450																
			O		1450																
	C	54	C		1450																
			O		1450																
	D	45	C		1450																
		O		1450																	
E	35	C		1450																	
		O		1450																	
F	28	C		1450																	
		O		1450																	
G	20	C		1450																	
		O		1450																	
3	A	150	C		275		610		940		1275		1450								
			O		275		610		755		755		755								
	B	140	C		345		740		1135		1450										
			O		345		740		1135		1360										
	C	125	C		400		860		1320		1450										
			O		400		860		1320		1450										
	D	110	C		460		980		1450												
		O		460		980		1450													
E	92	C		545		1145		1450													
		O		545		1145		1450													
F	75	C		655		1360		1450													
		O		655		1360		1450													
G	58	C		780		1450															
		O		780		1450															
4	A	275	C		95		230		365		500		635		770		905		1040		1175
			O		95		230		365		415		415		415		415		415		415
	B	245	C		120		280		445		605		765		930		1090		1250		1410
			O		120		280		445		605		725		725		725		725		725
	C	215	C		145		330		515		700		890		1075		1260		1445		1450
			O		145		330		515		700		890		1075		1260		1445		1450
	D	185	C		170		380		590		800		1010		1220		1430		1450		
		O		170		380		590		800		1010		1220		1430		1450			
E	155	C		205		445		690		930		1175		1420		1450					
		O		205		445		690		930		1175		1420		1450					
F	125	C		245		535		820		1110		1395		1450							
		O		245		535		820		1110		1395		1450							
G	91	C		300		635		975		1310		1450									
		O		300		635		975		1310		1450									
6	A	595	C		70		170		265		365		465		565		665		765		865
			O		70		75		75		75		75		75		75		75		75
	B	545	C		90		205		325		445		560		680		800		915		1035
			O		90		130		130		130		130		130		130		130		130
	C	500	C		105		240		375		515		650		785		920		1055		1170
			O		105		185		185		185		185		185		185		185		185
	D	435	C		125		280		430		585		740		895		1050		1170		1170
		O		125		280		430		585		700		700		700		700		700	
E	365	C		145		325		500		680		855		1030		1170					
		O		145		325		500		680		855		1030		1170					
F	290	C		180		390		600		810		1020		1170							
		O		180		390		600		810		1020		1170							
G	215	C		215		465		715		960		1170									
		O		215		465		710		960		1170									

C: Closed O: Open ^①: Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Allowable Pressure Drops (psi)

316 St. St. Shaft - Metal Seat and Soft Seat - 3-15 psi Actuator Spring Range

Air to Open - Flow to Close																						
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	Sup. Pres. 20 psi		Sup. Pres. 25 psi		Sup. Pres. 30 psi		Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		
				ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	
2	A	58	C		470																	
			O		345																	
	B	53	C		470																	
			O		345																	
	C	49	C		470																	
			O		345																	
	D	43	C		470																	
		O		350																		
	E	35	C		470																	
		O		360																		
	F	29	C		470																	
		O		365																		
	G	21	C		470																	
		O		380																		
3	A	140	C		435		435															
			O		185		370															
	B	130	C		435		435															
			O		200		245															
	C	115	C		435		435															
			O		225		245															
	D	105	C		435																	
		O		250																		
	E	92	C		435																	
		O		275																		
	F	79	C		435																	
		O		300																		
	G	60	C		435																	
		O		340																		
4	A	250	C		460		460		460		460											
			O		60		115		175		200											
	B	225	C		460		460		460													
			O		65		130		200													
	C	205	C		460		460		460													
			O		75		150		200													
	D	185	C		460		460		460													
		O		90		175		210														
	E	160	C		460		460		460													
		O		110		230		230														
	F	140	C		460		460															
		O		175		260																
	G	105	C		460		460															
		O		155		300																
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	Sup. Pres. 20 psi		Sup. Pres. 25 psi		Sup. Pres. 30 psi		Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		
				ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	
6	A	550	C		335		345		345		345											
			O		30		60		90		100											
	B	510	C		345		345		345													
			O		30		65		100													
	C	460	C		345		345		345													
			O		35		75		105													
	D	405	C		345		345		345													
		O		45		90		110														
	E	355	C		345		345		345													
		O		60		120		130														
	F	315	C		345		345		345													
		O		70		140		145														
	G	240	C		345		345		345													
		O		80		165		175														

C: Closed O: Open

Allowable Pressure Drops (psi)

316 St. St. Shaft - Metal Seat and Soft Seat - 3-15 psi Actuator Spring Range

Air to Close - Flow to Open																						
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	Sup. Pres. 20 psi		Sup. Pres. 25 psi		Sup. Pres. 30 psi		Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		
				ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	
2	A	67	C		395																	
			O		300																	
	B	62	C		395																	
			O		395																	
	C	54	C		395																	
			O		395																	
	D	45	C		395																	
		O		395																		
	E	35	C		395																	
		O		395																		
	F	28	C		395																	
		O		395																		
	G	20	C		395																	
		O		395																		
3	A	150	C		275		435															
			O		275		435															
	B	140	C		345		435															
			O		345		435															
	C	125	C		400		435															
			O		400		435															
	D	110	C		435																	
		O		435																		
	E	92	C		435																	
		O		435																		
	F	75	C		435																	
		O		435																		
	G	58	C		435																	
		O		435																		
4	A	275	C		95		230		365		460		460		460		460		460		460	
			O		95		230		365		415		415		415		415		415		415	
	B	245	C		120		280		445		460		460									
			O		120		280		445		460		460									
	C	215	C		145		330		460													
			O		145		330		460													
	D	185	C		170		380		460													
		O		170		380		460														
	E	155	C		205		445		460													
		O		205		445		460														
	F	125	C		245		460															
		O		245		460																
	G	91	C		300		460															
		O		300		460																
Valve Size (in.)	ATA Adjust ¹	Rated Cv	Position	Sup. Pres. 20 psi		Sup. Pres. 25 psi		Sup. Pres. 30 psi		Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		
				ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	
6	A	595	C		70		170		265		345											
			O		70		75		75		75											
	B	545	C		90		195		325		345											
			O		90		130		130		130											
	C	500	C		105		240		345													
			O		105		185		185													
	D	435	C		125		280		345													
		O		125		280		345														
	E	365	C		145		325		345													
		O		145		325		345														
	F	290	C		180		345															
		O		180		345																
	G	215	C		215		345															
		O		215		345																

C: Closed O: Open

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Allowable Pressure Drops (psi)

Nitronic 50 Shaft - Metal Seat and Soft Seat ^① - 3-15 psi Actuator Spring Range

Air to Open - Flow to Close																						
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Sup. Pres. 20 psi		Sup. Pres. 25 psi		Sup. Pres. 30 psi		Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		
				ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	
2	A	58	C		640																	
			O		640																	
	B	53	C		640																	
			O		555																	
	C	49	C		640																	
			O		555																	
	D	43	C		640																	
		O		570																		
	E	35	C		640																	
		O		580																		
	F	29	C		640																	
		O		590																		
	G	21	C		640																	
		O		615																		
3	A	140	C		700		700		700													
			O		185		370		395													
	B	130	C		700		700															
			O		200		395															
	C	115	C		700		700															
			O		225		395															
	D	105	C		700		700															
		O		265		405																
	E	92	C		700		700															
		O		335		440																
	F	79	C		700		700															
		O		395		485																
	G	60	C		700		700															
		O		465		545																
4	A	250	C		460		595		730		740		740		740							
			O		60		115		175		230		290		320							
	B	225	C		550		710		740		740		740									
			O		65		130		200		265		320									
	C	205	C		630		740		740		740		740									
			O		75		150		220		300		320									
	D	185	C		715		740		740		740		740									
		O		90		175		265		340												
	E	160	C		740		740		740		740											
		O		110		230		340		375												
	F	140	C		740		740		740		740											
		O		135		270		400		420												
	G	105	C		740		740		740		740											
		O		155		315		475		485												
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Sup. Pres. 20 psi		Sup. Pres. 25 psi		Sup. Pres. 30 psi		Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		
				ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	ATA No 5	ATA No 7	
6	A	550	C		335		435		535		555		555									
			O		30		60		90		120		135									
	B	510	C		400		520		555		555		555									
			O		30		65		100		135		160									
	C	460	C		400		555		555		555		555									
			O		35		75		110		145		165									
	D	405	C		520		555		555		555											
		O		45		90		135		175												
	E	355	C		555		555		555		555											
		O		60		120		180		205												
	F	315	C		555		555		555		555											
		O		70		140		215		235												
	G	240	C		555		555		555		555											
		O		80		165		250		280												

C: Closed O: Open ^① : Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Allowable Pressure Drops (psi)

Nitronic 50 Shaft - Metal Seat and Soft Seat ^① - 3-15 psi Actuator Spring Range

Air to Close - Flow to Open																						
Valve Size (in.)	ATA Adjust†	Rated Cv	Position	Sup. Pres. 20 psi		Sup. Pres. 25 psi		Sup. Pres. 30 psi		Sup. Pres. 35 psi		Sup. Pres. 40 psi		Sup. Pres. 45 psi		Sup. Pres. 50 psi		Sup. Pres. 55 psi		Sup. Pres. 60 psi		
				ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	ATA No 3	ATA No 5	
2	A	67	C		640																	
			O		640																	
	B	62	C		640																	
			O		640																	
	C	54	C		640																	
			O		640																	
	D	45	C		640																	
		O		640																		
E	35	C		640																		
		O		640																		
F	28	C		640																		
		O		640																		
G	20	C		640																		
		O		640																		
3	A	150	C		275		610		700													
			O		275		610		700													
	B	140	C		345		700															
			O		345		700															
	C	125	C		400		700															
			O		400		700															
	D	110	C		460		700															
		O		460		700																
E	92	C		545		700																
		O		545		700																
F	75	C		655		700																
		O		655		700																
G	58	C		700																		
		O		700																		
4	A	275	C		95		230		365		500		635		740							
			O		95		230		365		415		415		415							
	B	245	C		120		280		445		605		740									
			O		120		280		445		605		725									
	C	215	C		145		330		515		700		740									
			O		145		330		515		700		740									
	D	185	C		170		380		590		740											
		O		170		380		590		740												
E	155	C		205		445		690		740												
		O		205		445		690		740												
F	125	C		245		535		740														
		O		245		535		740														
G	91	C		300		635		740														
		O		300		635		740														
6	A	595	C		70		170		265		365		465		555							
			O		70		75		75		75		75		75							
	B	545	C		90		205		325		445		555		555							
			O		90		130		130		130		130		130							
	C	500	C		105		240		375		515		555									
			O		105		185		185		185		185									
	D	435	C		125		280		430		555											
		O		125		280		430		555												
E	365	C		145		325		500		555												
		O		145		325		500		555												
F	290	C		180		390		555														
		O		180		390		555														
G	215	C		215		465		555														
		O		215		465		555														

C: Closed O: Open ^①: Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Allowable Pressure Drops (psi)

17-4 PH Shaft - Metal Seat and Soft Seat ^① - 3-15 psi Actuator Spring Range

Air to Close - Flow to Close					
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Supply Press. 20 psi	
				ATA No 3	ATA No 5
2	A	58	C O		1450 530
	B	53	C O		1450 590
	C	49	C O		1450 664
	D	43	C O		1450 765
	E	35	C O		1450 900
	F	29	C O		1450 1090
	G	21	C O		1450 1110
3	A	140	C O		860 110
	B	130	C O		1085 120
	C	115	C O		1370 135
	D	105	C O		1450 160
	E	92	C O		1450 200
	F	79	C O		1450 260
	G	60	C O		1450 300
4	A	250	C O		345 35
	B	225	C O		440 40
	C	205	C O		545 45
	D	185	C O		630 55
	E	160	C O		730 80
	F	140	C O		865 90
	G	105	C O		1015 120
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Supply Press. 20 psi	
				ATA No 5	ATA No 7
6	A	550	C O		255 20
	B	510	C O		325 20
	C	460	C O		405 25
	D	405	C O		460 30
	E	355	C O		530 35
	F	315	C O		630 45
	G	240	C O		740 70

Air to Open - Flow to Open					
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Supply Press. 20 psi	
				ATA No 3	ATA No 5
2	A	67	C O		500 580
	B	62	C O		710 710
	C	54	C O		830 830
	D	45	C O		950 950
	E	35	C O		1110 1110
	F	28	C O		1330 1330
	G	20	C O		1450 1450
3	A	150	C O		145 145
	B	140	C O		185 185
	C	125	C O		220 220
	D	110	C O		255 255
	E	92	C O		305 305
	F	75	C O		370 370
	G	58	C O		445 445
4	A	275	C O		40 40
	B	245	C O		60 60
	C	215	C O		75 75
	D	185	C O		90 90
	E	155	C O		105 105
	F	125	C O		135 135
	G	91	C O		165 165
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Supply Press. 20 psi	
				ATA No 5	ATA No 7
6	A	595	C O		30 30
	B	545	C O		45 45
	C	500	C O		55 55
	D	435	C O		65 65
	E	365	C O		80 80
	F	290	C O		100 100
	G	215	C O		120 120

C: Closed O: Open ^①: Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Allowable Pressure Drops (psi)

316 St. St. Shaft - Metal Seat and Soft Seat - 3-15 psi Actuator Spring Range

Air to Close - Flow to Close					
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Supply Press. 20 psi	
				ATA No 3	ATA No 5
2	A	58	C O		470 345
	B	53	C O		470 345
	C	49	C O		470 345
	D	43	C O		470 350
	E	35	C O		470 355
	F	29	C O		470 360
	G	21	C O		390 470
3	A	140	C O		435 110
	B	130	C O		435 120
	C	115	C O		435 135
	D	105	C O		435 160
	E	92	C O		435 200
	F	79	C O		435 260
	G	60	C O		435 300
4	A	250	C O		345 35
	B	225	C O		440 40
	C	205	C O		460 45
	D	185	C O		460 55
	E	160	C O		460 70
	F	140	C O		460 90
	G	105	C O		460 120
6	A	550	C O		250 15
	B	510	C O		325 20
	C	460	C O		345 20
	D	405	C O		345 30
	E	355	C O		345 35
	F	315	C O		345 50
	G	240	C O		345 70

Air to Open - Flow to Open					
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Supply Press. 20 psi	
				ATA No 3	ATA No 5
2	A	67	C O		395 395
	B	62	C O		395 395
	C	54	C O		395 395
	D	45	C O		395 395
	E	35	C O		395 395
	F	28	C O		395 395
	G	20	C O		395 395
3	A	150	C O		145 145
	B	140	C O		185 185
	C	125	C O		220 220
	D	110	C O		255 255
	E	92	C O		305 305
	F	75	C O		370 370
	G	58	C O		435 435
4	A	275	C O		40 40
	B	245	C O		60 60
	C	215	C O		75 75
	D	185	C O		90 90
	E	155	C O		105 105
	F	125	C O		135 135
	G	91	C O		165 165
6	A	595	C O		30 30
	B	545	C O		45 45
	C	500	C O		55 55
	D	435	C O		65 65
	E	365	C O		80 80
	F	290	C O		100 100
	G	215	C O		120 120

C:Closed O:Open

Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Allowable Pressure Drops (psi)

Nitronic 50 Shaft - Metal Seat and Soft Seat ^① - 3-15 psi Actuator Spring Range

Air to Close - Flow to Close					
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Supply Press. 20 psi	
				ATA No 3	ATA No 5
2	A	58	C O		640 530
	B	53	C O		640 560
	C	49	C O		640 560
	D	43	C O		640 570
	E	35	C O		640 580
	F	29	C O		640 590
	G	21	C O		640 610
3	A	140	C O		700 110
	B	130	C O		700 120
	C	115	C O		700 135
	D	105	C O		700 160
	E	92	C O		700 200
	F	79	C O		700 260
	G	60	C O		700 300
4	A	250	C O		345 35
	B	225	C O		440 40
	C	205	C O		545 45
	D	185	C O		630 55
	E	160	C O		740 70
	F	140	C O		740 90
	G	105	C O		740 120
6	A	550	C O		255 20
	B	510	C O		325 20
	C	460	C O		405 25
	D	405	C O		460 30
	E	355	C O		530 35
	F	315	C O		555 45
	G	240	C O		555 70

Air to Open - Flow to Open					
Valve Size (in.)	ATA Adjust [†]	Rated Cv	Position	Supply Press. 20 psi	
				ATA No 3	ATA No 5
2	A	67	C O		580 480
	B	62	C O		640 640
	C	54	C O		640 640
	D	45	C O		640 640
	E	35	C O		640 640
	F	28	C O		640 640
	G	20	C O		640 640
3	A	150	C O		145 145
	B	140	C O		185 185
	C	125	C O		220 220
	D	110	C O		255 255
	E	92	C O		305 305
	F	75	C O		370 370
	G	58	C O		445 445
4	A	275	C O		40 40
	B	245	C O		60 60
	C	215	C O		75 75
	D	185	C O		90 90
	E	155	C O		105 105
	F	125	C O		135 135
	G	91	C O		165 165
6	A	595	C O		30 30
	B	545	C O		45 45
	C	500	C O		55 55
	D	435	C O		65 65
	E	365	C O		80 80
	F	290	C O		100 100
	G	215	C O		120 120

C: Closed O: Open ^①: Refer to page 14 for maximum allowable pressure drop for Soft Seat Trim

Options and Accessories

Accessories

4607A Series Pneumatic Positioner

(See Specification Data CS2002)

Instrument Signals 3-15, 3-27, 6-30 psi
3-9, 9-15 and 15-27 psi split range
6-18 and 18-30 psi split range

4807A Series High Capacity Pneumatic Positioner

Instrument Signals 3-15, 3-27, 6-30 psi
3-9, 9-15 and 15-27 psi split range
6-18 and 18-30 psi split range

8012 Electropneumatic Valve Positioner

(See Specification Data CS5000)

Instrument Signals 10-50 mA, 104 ohms
4-20 mA, 173 ohms
4-12, 12-20 mA, 173 ohms split range

8006A Electropneumatic Transducer

(See Specification Data CS6000)

Input Signals 10-50 mA; 104 ohms
4-20 mA; 173 ohms

Output Signals (Direct or Reverse)

Model 8006A: 3-15 psi, 6-30 psi, 0-20 psi, or 0-35 psi

I/PEX 9000 Electropneumatic Transducer

(See Specification Data CS9000)

Input Range 4-20 mA
Split range up to 3 times

Output (Direct or Reverse)
3-15 psi, adjustable to 0-20 psi

Model 6000 Electropneumatic Transducer

(See Specification Data CS6600)

Input Range 4-20 mA
Output 3-15 psi

Internal Regulator

Integral Universal Mounting Bracket

496 Rotary Switches

496-2 (2 switches) Limit Switch
(See Specification Data CS7000)

80-4 or 80-40 Airset

(see Specification Data CY7800)

77-6 or 77-60 Lockup Valve
(see Specification Data CY7700)

2" Gauge 0-30 psi

For Solenoid Valves Consult Factory

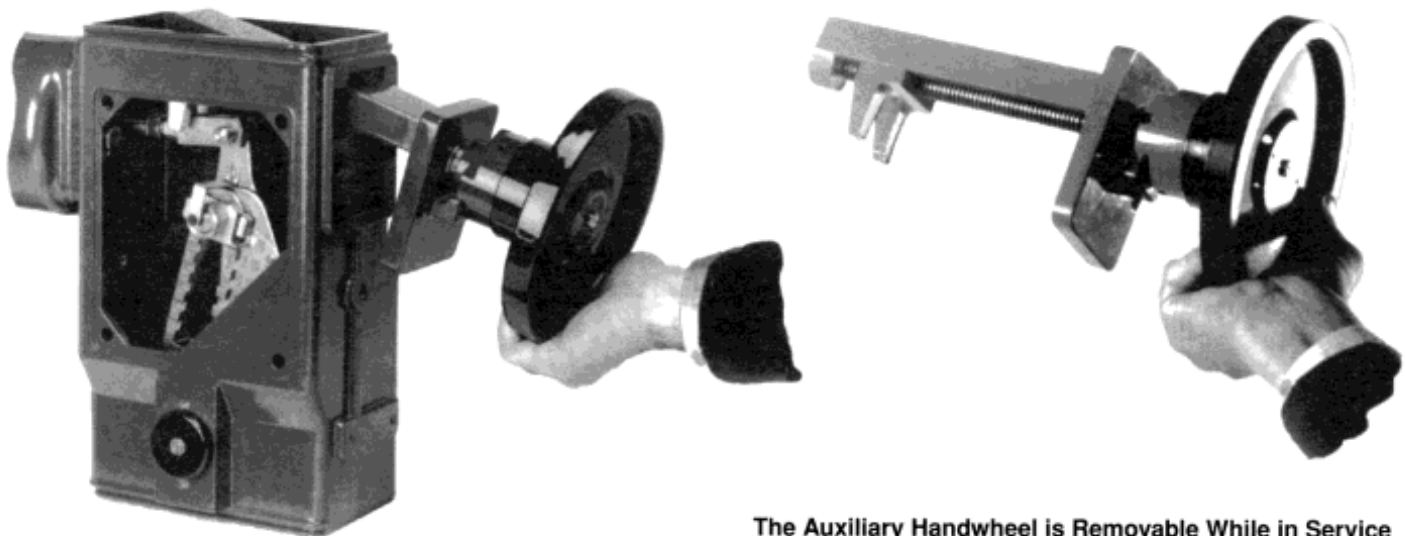
Additional Options Available

Handwheel

Other Body Materials (NACE)

Adjustable Limit Stops

Refer to specific actuator and accessory specification literature for complete information.

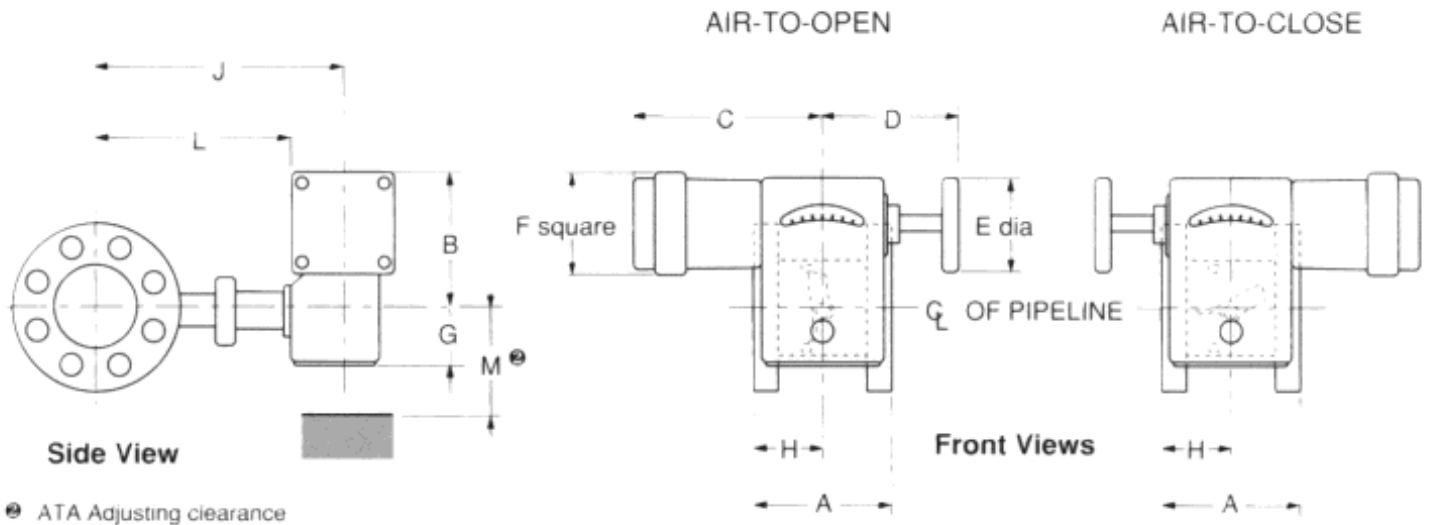


The Auxiliary Handwheel is Removable While in Service

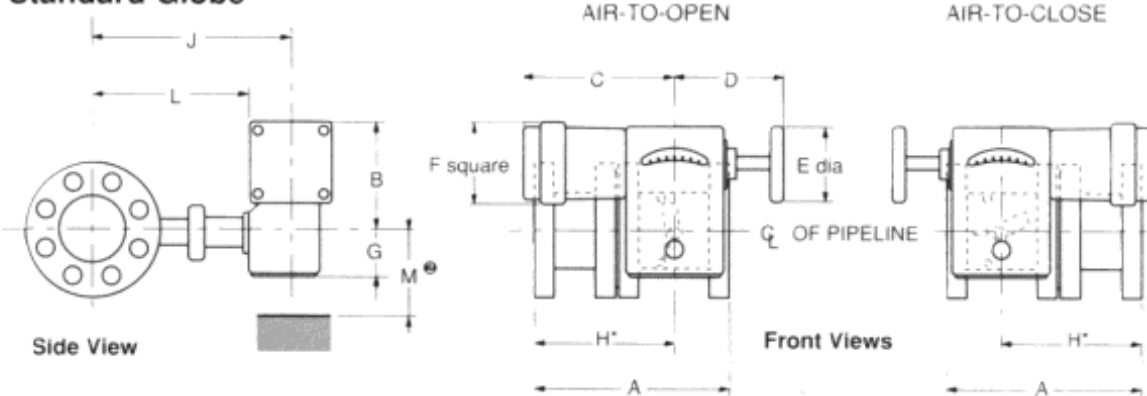
Note: The allowable pressure drop in open position should be checked according to other eventual limitations such as fluid velocity, noise level, vibrations, etc...

Dimensions and Weights

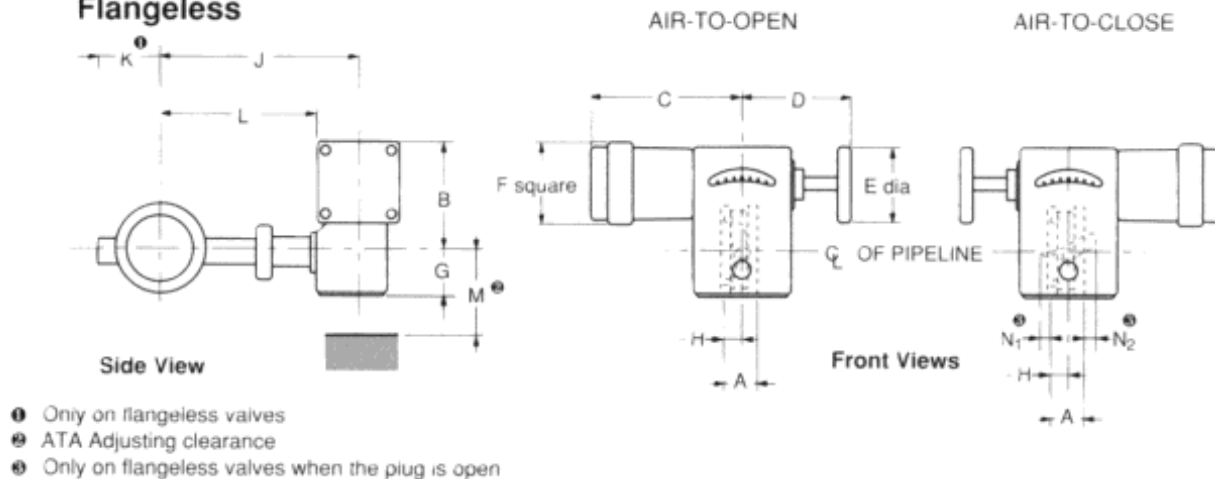
Rotary Globe (Standard Configuration)



Standard Globe



Flangeless



Dimensions and Weights

All dimensions in inches

Valve Size	ATA No	ANSI Class	A*			B	C	D	E	F	G	H*			J	K [Ⓢ]	L	M [Ⓢ]	N [Ⓢ] N ₁ N ₂	Valve Weight [Ⓢ] (lbs.)			
			Standard Globe	Rotary Globe	Flange-less							Standard Globe	Rotary Globe	Flange-less						Standard Globe	Rotary Globe	Flange-less	H/W
2"	3	150	10.00	4.88	1.69	4.7 min. 6.5 max.	10.2	5.7	5.9	5.2	3.5 max. 1.7 min.	7.56	2.44	0.96	10.7	2.4	8.1	10.0 min.	0.0	44	31	22	2.5
		300	10.50									8.06								55	35		
		600	11.25									8.81								62	37		
	5	150	10.00	4.88	1.69	8.1 min. 11.6 max.	16.5	8.0	9.4	6.5	5.7 max. 2.2 min.	7.56	2.44	0.96	11.4	2.4	8.2	10.0 min.	0.0	64	51	42	9
		300	10.50									8.06								75	55		
		600	11.25									8.81								82	57		
3"	3	150	11.75	6.50	2.12	4.7 min. 6.5 max.	10.2	5.7	5.9	5.2	3.5 max. 1.7 min.	8.50	3.25	1.40	11.6	3.4	9.0	10.0 min.	0.0	64	42	29	2.5
		300	12.50									9.25								88	51		
		600	13.25									10.00								101	57		
	5	150	11.75	6.50	2.12	8.1 min. 11.6 max.	16.5	8.0	9.4	6.5	5.7 max. 2.2 min.	8.50	3.25	1.40	12.4	3.4	9.1	10.0 min.	0.0	84	62	49	9
		300	12.50									9.25								108	71		
		600	13.25									10.00								121	77		
4"	3	150	13.88	7.62	2.50	4.7 min. 6.5 max.	10.2	5.7	5.9	5.2	3.5 max. 1.7 min.	10.07	3.81	1.69	13.3	4.3	10.7	10.0 min.	0.0	103	62	33	2.5
		300	14.50									10.69								136	77		
		600	15.50									11.69								183	95		
	5	150	13.88	7.62	2.50	8.1 min. 11.6 max.	16.5	8.0	9.4	6.5	5.7 max. 2.2 min.	10.07	3.81	1.69	14.0	4.3	10.8	10.0 min.	0.0	123	82	53	9
		300	14.50									10.69								156	97		
		600	15.50									11.69								203	115		
6"	5	150	17.75	9.00	3.06	8.1 min. 11.6 max.	16.5	8.0	9.4	6.5	5.7 max. 2.2 min.	13.25	4.50	2.17	18.6	5.9	15.3	12.5 min.	0.5	191	123	77	9
		300	18.62									14.12								266	156		
		600	20.00									15.50								383	202		
	7	150	17.75	9.00	3.06	9.6 min. 13.9 max.	20.0	9.6	9.4	8.5	8.3 max. 4.0 min.	13.25	4.50	2.17	19.4	5.9	15.2	12.5 min.	0.5	231	163	116	11
		300	18.62									14.12								305	195		
		600	20.00									15.50								422	242		
8"	5	150	21.38	9.56	4.00	8.1 min. 11.6 max.	16.5	8.0	9.4	6.5	5.7 max. 2.2 min.	16.60	4.78	2.72	20.2	6.7	16.9	12.5 min.	0.9	239	154	101	9
		300	22.38									17.60								355	209		
		600	24.00									19.22								610	323		
	7	150	21.38	9.56	4.00	9.6 min. 13.9 max.	20.0	9.6	9.4	8.5	8.3 max. 4.0 min.	16.60	4.78	2.72	21.1	6.7	16.8	12.5 min.	0.9	278	193	140	11
		300	22.38									17.60								394	248		
		600	24.00									19.22								650	363		
10"	7	150	26.50	11.69	4.62	9.60 min. 13.9 max.	20.0	9.6	9.4	8.5	8.3 max. 4.0 min.	20.66	5.85	2.95	26.0	8.7	21.7	14.5 min.	0.9	443	286	217	11
		300	27.88									22.04								620	365		
		600	29.62									23.78								1030	545		
	9	150	26.50	11.69	4.62	13.4 min. 18.7 max.	26.4	13.0	15.7	12.0	10.1 max. 4.8 min.	20.66	5.85	2.95	27.2	8.7	21.2	14.5 min.	0.9	544	387	319	19
		300	27.88									22.04								721	466		
		600	29.62									23.78								1131	646		
12"	7	150	29.00	13.31	5.50	9.6 min. 13.9 max.	20.0	9.6	9.4	8.5	8.3 max. 4.0 min.	22.35	6.66	3.29	27.2	10.7	22.9	14.5 min.	1.4	592	382	281	11
		300	30.50									23.85								826	486		
		600	32.25									25.60								1300	688		
	9	150	29.00	13.31	5.50	13.4 min. 18.7 max.	26.4	13.0	15.7	12.0	10.1 max. 4.8 min.	22.35	6.66	3.29	28.4	10.7	22.4	14.5 min.	1.4	694	484	382	19
		300	30.50									23.85								927	587		
		600	32.25									25.60								1401	789		
16"	9	150	40.00	15.75	7.75	13.4 min. 18.7 max.	26.4	13.0	15.7	12.0	10.1 max. 4.8 min.	32.13	7.88	4.29	32.6	11.6	26.6	14.5 min.	2.3	1364	880	661	19
		300	41.62									33.75								1795	1056		
		600	43.62									35.74								2695	1427		

* Standard Globe (IEC 534-3 — ANSI B16-10)

* Rotary Globe (IEC 534-3-2)

■ Only w/ 3-15 psi actuator spring range

Ⓢ Only on flangeless valves

Ⓢ ATA Adjusting clearance

Ⓢ Only on flangeless valves when the plug is open

Ⓢ Shipping weights are approximately 10% higher

Facilities: Brazil, Canada, France, Germany, Italy, Japan, Mexico,
Netherlands, Singapore, Spain, United Kingdom, United States



Signature Press 2/97/8M

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