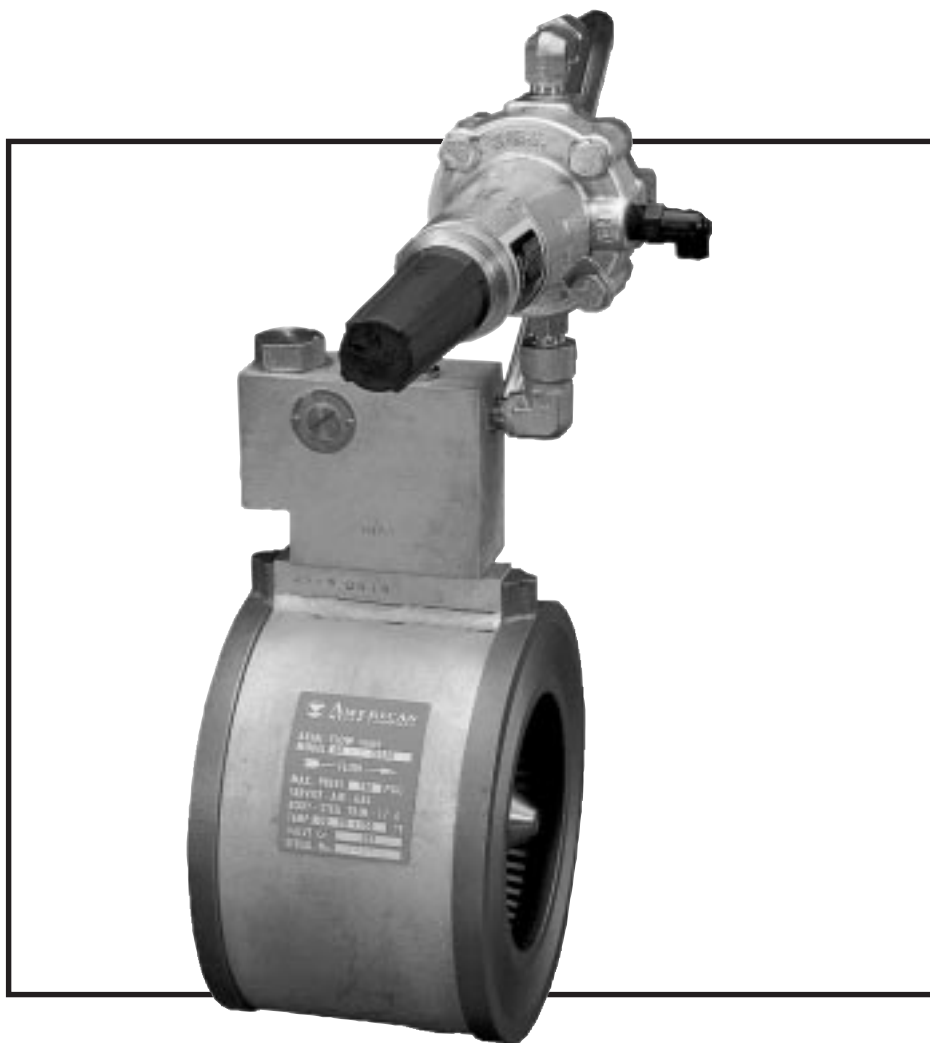


Axial Flow Valves Capacity Tables

300 & 600 Series

2R through 12 inch



GENERAL INFORMATION - Axial Flow Valve 300 and 600 Series

NOTE: The capacities shown in this bulletin are the maximum capacities of the valve only in the full open condition. Actual capacities of the valve in the regulating or relief mode are a function of the pilot employed, the restrictor setting, the downstream piping, and the gas velocity. Good engineering practice suggests sizing the load below the maximum capacity of the valve. Recommended sizing is 50% to 80% of maximum capacity.

Operating Temperature Range: -20° F to +150° F (Based on Hydrin Sleeve Material)
Rated Working Pressure: ANSI Class 300 ΔP=60 psig
 ANSI Class 300 = 740 psig
 ANSI Class 600 = 1480 psig
Flange Compatibility: 300 Series- ANSI 125, 150 and 300 Flanges
 600 Series- ANSI 600 Flanges
Trim: 100% Stainless Steel Trim
Size: 300 Series- 2R10, 2R25, 2R50, 2, 4, 6, 8 and 12 inch
 600 Series- 2R10, 2R25, 2R50, 2, 4, 6 and 8 inch

Operating Differential Pressures (Table I)

AFV Series	Sleeve Number	Composite Block Manifold Operating Parameters (psid)		Inspirator Block Manifold Operations Parameters (psid)		Maximum Operating Conditions (psid)	
		Cracking	Full Open	Cracking	Full Open	Continuous	Intermittent
300	5L	1.5	5	0.5	1.7	30	50
300	5	3.5	15	1.5	7.5	125	180
300	7	14	30	6	19	500	740
600	7	30	60	12	25	1000	1480

FLOW EQUATIONS*:

Gaseous flow capacities at:

Flowing Temperature = 60° F

Base Pressure = 14.73 psia

Base Temperature = 60° F

Specific Gravity = 0.60

Subcritical: when $\Delta P < F_k X_t P_1$

$$(1) Q = 59.64 C_v Y F_g F_p \sqrt{P_1 \Delta P}$$

Critical: when $\Delta P \geq F_k X_t P_1$

$$(2) Q_c = 59.64 C_v Y F_g F_p P_1 \sqrt{X_t F_k}$$

Q= Flow rate, base cubic feet per hour

C_v= Valve Coefficient (See Table II)

F_g = Specific Gravity factor = 1/√S.G (1.291 for natural gas)

F_p = Piping Geometry factor (1.00 for piping same size as valve)

P₂= Downstream Pressure, psia

ΔP= Differential Pressure = (P₁-P₂)

P₁= Upstream Pressure, psia

X_t= Critical Flow Factor (See Table II)

F_k= Ratio of specific Heats factor = k/1.40 (0.929 for natural gas)

and

$$(3) Y = 1 - [\Delta P / (3 F_k X_t P_1)] \text{ or } Y = 0.667 \text{ at a critical flow}$$

Where Y= Expansion factor

Valve Coefficients (Table II)

Series	Size	C _v	X _t
300	2R10 inch	6.5	0.700
	2R25 inch	15.0	0.700
	2R50 inch	30.7	0.643
	2 inch	66.5	0.590
	3 inch	135	0.490
	4 inch	231	0.480
	6 inch	325	0.495
	8 inch	560	0.450
600	12 inch	1165	0.565
	2R10 inch	6.0	0.700
	2R25 inch	14.5	0.750
	2R50 inch	34.8	0.620
	2 inch	67.6	0.590
	4 inch	248	0.590
	6 inch	500	0.511
	8 inch	710	0.550

Temperature Conversion, for Inlet temperature other than 60° F

$$CFH (°F) = scfh \text{ (at } 60°F) \times \frac{22.8}{\sqrt{T}}$$

Where T = Absolute Gas Temperature = °F + 460

* Complete formulas and detailed examples available upon request.

SIZING INSTALLATION PIPING

Good engineering practice suggests that gas velocity should be considered when sizing pipe in order to minimize noise and frictional pressure losses. In order to achieve the capacities listed in the proceeding tables, the inlet and outlet piping must be sized to limit the gas velocity to 500 ft./sec. When noise is a consideration, it is common to limit the gas velocity in the pipe to 200 ft./sec. Gas exit velocities can be reduced to an acceptable level by expanding the outlet piping via a 15 degree included angle cone.

When sizing the Axial Flow Valve for relief valve service, the inlet and outlet piping must be at least as large as the relief valve. When using outlet piping of the same size as the relief valve, the length of the outlet piping must not exceed 20 pipe diameters.

The following two equations may prove useful in determining gas velocity and pipe size.

Key V= Velocity (ft./sec.)

P_2 = Downstream Pressure (psia)

A= Pipe Area, Cross Sectional (sq. in.)

Q= Flow (mscfh)

D= Pipe Inside Diameter (in.)

$$\text{Gas Velocity } v = \frac{600 Q}{P_2 A}$$

Pipe Size (based on velocity limit of 200 ft.sec.)

$$D = 2 \sqrt{\frac{Q}{P_2}}$$


Pipe Size Inches	Schedule Number	I.D. in Inches	Flow Area Square Inches
2	S40	2.067	3.36
	X80	1.939	2.95
3	S40	3.068	7.39
4	S40	4.026	12.73
	X80	3.826	11.50
6	S40	6.065	28.89
	X80	5.761	26.07
8	S40	7.981	50.03
	X80	7.625	45.66
12	S40	11.938	111.93

300 SERIES 2R10 (10%) AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cv = 6.5 Fp = 1.00 Fg = 1.291 Xt = 0.700 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3	3.25	3.5	3.75	4	4.25	4.5	4.75
2	2.7																			
2.5	3.0	2.9	2.8																	
3	3.3	3.2	3.1	3.0	2.8															
4	3.9	3.8	3.7	3.6	3.4	3.3	3.2	3.0	2.9											
5	4.3	4.2	4.2	4.1	4.0	3.9	3.8	3.7	3.6	3.4	3.3	3.1	3.0							
7.5	5.3	5.3	5.2	5.2	5.1	5.0	5.0	4.9	4.8	4.8	4.7	4.6	4.5	4.4	4.3	4.2	4.1	3.9	3.8	3.7
10	6.2	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.7	5.6	5.6	5.5	5.4	5.3	5.3	5.2	5.1
12.5	7.1	7.0	7.0	7.0	6.9	6.9	6.9	6.8	6.8	6.7	6.7	6.7	6.6	6.6	6.5	6.5	6.4	6.3	6.3	6.2
15	7.8	7.8	7.8	7.8	7.7	7.7	7.7	7.7	7.6	7.6	7.6	7.5	7.5	7.5	7.4	7.4	7.3	7.3	7.2	7.2
20	9.3	9.3	9.3	9.3	9.2	9.2	9.2	9.2	9.2	9.2	9.1	9.1	9.1	9.1	9.1	9.0	9.0	9.0	9.0	8.9
25	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.5	10.5	10.5	10.5	10.5
30	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	4.0	3.6	3.0																	
7.5	5.3	4.8	4.5	4.1	3.5															
10	6.1	5.9	5.6	5.3	5.0	4.6	4.0	3.4												
12.5	6.9	6.8	6.6	6.4	6.1	5.8	5.5	5.1	4.6	3.9										
15	7.7	7.6	7.5	7.3	7.1	6.9	6.7	6.3	6.0	5.6	5.1	4.5	3.7							
20	9.2	9.2	9.1	9.0	8.9	8.8	8.6	8.4	8.2	7.9	7.7	7.4	7.0	6.6	6.1	5.6	4.9	4.0		
25	10.7	10.6	10.6	10.5	10.5	10.4	10.3	10.2	10.0	9.9	9.7	9.5	9.2	9.0	8.7	8.4	8.0	7.6	7.1	6.6
30	12.0	12.0	12.0	12.0	11.9	11.9	11.8	11.7	11.6	11.5	11.4	11.3	11.1	10.9	10.7	10.5	10.3	10.0	9.7	9.4
35	13.4	13.4	13.4	13.4	13.4	13.3	13.3	13.2	13.2	13.1	13.0	12.9	12.8	12.7	12.5	12.4	12.2	12.0	11.8	11.6
40	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.6	14.6	14.5	14.5	14.4	14.3	14.2	14.1	13.9	13.8	13.6	13.5
45	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.0	16.0	16.0	15.9	15.9	15.8	15.7	15.6	15.5	15.4	15.3	15.2
50	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.3	17.3	17.3	17.2	17.2	17.1	17.0	16.9	16.8
55	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.7	18.7	18.7	18.7	18.6	18.6	18.5	18.4	18.4
60	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.0	20.0	20.0	19.9	19.9

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
5																				
7.5																				
10																				
12.5																				
15																				
20																				
25	6.0	5.3	4.3																	
30	9.0	8.6	8.1	7.6	7.1	6.4	5.6	4.6												
35	11.3	11.0	10.7	10.4	10.0	9.6	9.2	8.7	8.1	7.5	6.8	5.9	4.9							
40	13.3	13.1	12.8	12.6	12.3	12.0	11.7	11.4	11.0	10.6	10.2	9.7	9.2	8.6	7.9	7.1	6.2	5.1		
45	15.0	14.9	14.7	14.5	14.3	14.1	13.9	13.6	13.3	13.1	12.7	12.4	12.0	11.6	11.2	10.7	10.2	9.6	9.0	8.3
50	16.7	16.6	16.4	16.3	16.1	16.0	15.8	15.6	15.4	15.2	14.9	14.6	14.4	14.1	13.7	13.4	13.0	12.6	12.2	11.7
55	18.3	18.2	18.1	18.0	17.8	17.7	17.6	17.4	17.2	17.1	16.9	16.7	16.4	16.2	15.9	15.7	15.4	15.1	14.7	14.4
60	19.8	19.7	19.6	19.5	19.4	19.3	19.2	19.1	19.0	18.8	18.7	18.5	18.3	18.1	17.9	17.7	17.5	17.2	17.0	16.7

 - Continuous Operation using low differential sleeve within shaded region is not recommended.

300 SERIES 2R25 (25%) AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cv = 15.0 Fp = 1.00 Fg = 1.291 Xt = 0.700 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3	3.25	3.5	3.75	4	4.25	4.5	4.75
2	6.3																			
2.5	7.0	6.7	6.4																	
3	7.7	7.4	7.1	6.8	6.5															
4	8.9	8.7	8.5	8.2	7.9	7.7	7.4	7.0	6.7											
5	10.0	9.8	9.6	9.4	9.2	9.0	8.7	8.5	8.2	7.9	7.6	7.2	6.9							
7.5	12.3	12.2	12.1	11.9	11.8	11.7	11.5	11.3	11.2	11.0	10.8	10.6	10.4	10.1	9.9	9.6	9.4	9.1	8.8	8.5
10	14.4	14.3	14.2	14.1	14.0	13.9	13.8	13.7	13.5	13.4	13.3	13.1	13.0	12.8	12.7	12.5	12.3	12.1	11.9	11.7
12.5	16.3	16.2	16.2	16.1	16.0	15.9	15.8	15.8	15.7	15.6	15.5	15.4	15.3	15.1	15.0	14.9	14.8	14.6	14.5	14.3
15	18.1	18.0	18.0	17.9	17.9	17.8	17.7	17.7	17.6	17.5	17.5	17.4	17.3	17.2	17.1	17.0	16.9	16.8	16.7	16.6
20	21.4	21.4	21.4	21.4	21.3	21.3	21.3	21.2	21.2	21.2	21.1	21.1	21.0	21.0	20.9	20.9	20.8	20.7	20.7	20.6
25	24.7	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.5	24.5	24.5	24.5	24.4	24.4	24.4	24.4	24.3	24.3	24.2	24.2
30	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.7	27.7	27.7	27.7	27.7	27.7	27.7	27.6	27.6	27.6	27.6

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	9.2	8.2	6.9																	
7.5	12.3	11.2	10.4	9.4	8.1															
10	14.0	13.5	13.0	12.3	11.5	10.5	9.3	7.8												
12.5	16.0	15.7	15.3	14.8	14.2	13.5	12.7	11.7	10.5	9.1										
15	17.9	17.6	17.3	16.9	16.5	16.0	15.4	14.6	13.8	12.9	11.7	10.3	8.6							
20	21.3	21.2	21.0	20.8	20.5	20.2	19.8	19.4	18.9	18.3	17.7	17.0	16.1	15.2	14.1	12.8	11.3	9.3		
25	24.6	24.5	24.4	24.3	24.2	23.9	23.7	23.4	23.1	22.7	22.3	21.8	21.3	20.7	20.0	19.3	18.5	17.5	16.5	15.2
30	27.8	27.8	27.7	27.6	27.6	27.4	27.3	27.1	26.9	26.6	26.3	26.0	25.6	25.2	24.8	24.3	23.7	23.1	22.4	21.6
35	30.9	30.9	30.9	30.9	30.8	30.7	30.7	30.5	30.4	30.2	30.0	29.8	29.5	29.2	28.9	28.5	28.1	27.7	27.2	26.7
40	34.0	34.0	34.0	34.0	34.0	33.9	33.9	33.8	33.8	33.6	33.5	33.3	33.2	33.0	32.7	32.4	32.1	31.8	31.4	31.0
45	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.0	37.0	36.9	36.9	36.7	36.6	36.5	36.3	36.1	35.9	35.6	35.4	35.0
50	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.1	40.1	40.0	40.0	39.9	39.7	39.6	39.4	39.2	39.0	38.8
55	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.2	43.2	43.1	43.1	43.0	42.8	42.7	42.5	42.4
60	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.3	46.3	46.2	46.2	46.1	45.9	45.8

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
5																				
7.5																				
10																				
12.5																				
15																				
20																				
25	13.8	12.1	10.0																	
30	20.8	19.8	18.8	17.6	16.3	14.7	12.9	10.7												
35	26.1	25.4	24.7	23.9	23.1	22.2	21.1	20.0	18.7	17.3	15.6	13.7	11.3							
40	30.6	30.1	29.6	29.1	28.4	27.8	27.1	26.3	25.4	24.5	23.5	22.4	21.1	19.8	18.2	16.4	14.4	11.9		
45	34.7	34.4	34.0	33.5	33.1	32.6	32.0	31.4	30.8	30.1	29.4	28.6	27.7	26.8	25.8	24.7	23.5	22.2	20.7	19.1
50	38.5	38.3	38.0	37.6	37.3	36.9	36.4	36.0	35.5	35.0	34.4	33.8	33.2	32.5	31.7	30.9	30.1	29.1	28.1	27.1
55	42.2	42.0	41.7	41.5	41.2	40.9	40.5	40.2	39.8	39.4	38.9	38.4	37.9	37.4	36.8	36.2	35.5	34.8	34.0	33.2
60	45.7	45.5	45.3	45.1	44.9	44.6	44.4	44.1	43.8	43.4	43.1	42.7	42.3	41.8	41.4	40.9	40.3	39.8	39.2	38.5


 - Continuous Operation using low differential sleeve within shaded region is not recommended.

300 SERIES 2R50 (50%) AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cv = 30.7 Fp = 1.00 Fg = 1.291 Xt = 0.643 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3	3.25	3.5	3.75	4	4.25	4.5	4.75
2	12.8																			
2.5	14.3	13.6	13.0																	
3	15.6	15.1	14.5	13.9	13.2															
4	18.0	17.6	17.1	16.7	16.1	15.6	15.0	14.3	13.6											
5	20.2	19.8	19.4	19.0	18.6	18.2	17.7	17.2	16.6	16.1	15.4	14.7	14.0							
7.5	24.8	24.5	24.3	24.0	23.8	23.5	23.2	22.9	22.5	22.2	21.8	21.4	21.0	20.5	20.1	19.5	19.0	18.5	17.8	17.2
10	28.8	28.6	28.5	28.3	28.1	27.9	27.7	27.5	27.2	27.0	26.7	26.5	26.2	25.9	25.6	25.2	24.9	24.5	24.1	23.7
12.5	32.4	32.3	32.2	32.1	32.0	31.8	31.7	31.5	31.4	31.2	31.0	30.8	30.6	30.4	30.2	29.9	29.7	29.4	29.2	28.9
15	35.9	35.8	35.7	35.6	35.5	35.5	35.4	35.2	35.1	35.0	34.9	34.7	34.6	34.4	34.3	34.1	33.9	33.7	33.5	33.3
20	42.3	42.3	42.2	42.2	42.2	42.1	42.1	42.1	42.0	41.9	41.9	41.8	41.7	41.7	41.6	41.5	41.4	41.3	41.2	41.1
25	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.3	48.3	48.3	48.3	48.2	48.2	48.2	48.1	48.1	48.0	48.0
30	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.4	54.4	54.4

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	18.6	16.6	14.0																	
7.5	24.8	22.5	21.0	19.0	16.5															
10	28.1	27.2	26.2	24.9	23.3	21.4	19.0	15.9												
12.5	32.0	31.4	30.6	29.7	28.6	27.3	25.7	23.8	21.4	18.5										
15	35.5	35.1	34.6	33.9	33.1	32.1	31.0	29.6	28.0	26.1	23.8	21.1	17.5							
20	42.2	42.0	41.7	41.4	40.9	40.4	39.7	38.9	38.0	37.0	35.7	34.3	32.7	30.8	28.6	26.1	23.0	19.1		
25	48.4	48.4	48.3	48.1	47.9	47.6	47.2	46.8	46.2	45.5	44.8	43.9	42.9	41.8	40.5	39.0	37.4	35.5	33.4	31.0
30	54.5	54.5	54.5	54.5	54.4	54.2	54.1	53.8	53.5	53.1	52.6	52.0	51.4	50.6	49.8	48.8	47.8	46.6	45.2	43.8
35	60.6	60.6	60.6	60.6	60.6	60.5	60.5	60.4	60.2	60.0	59.7	59.3	58.9	58.4	57.8	57.2	56.4	55.6	54.7	53.7
40	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.6	66.6	66.5	66.3	66.1	65.8	65.5	65.1	64.7	64.2	63.6	63.0	62.2
45	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.7	72.7	72.6	72.4	72.2	72.0	71.7	71.4	71.0	70.5	70.0
50	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.8	78.8	78.7	78.5	78.4	78.2	77.9	77.6	77.2
55	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.8	84.7	84.5	84.3	84.1
60	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	91.0	90.9	90.9	90.8	90.6

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
5																				
7.5																				
10																				
12.5																				
15																				
20																				
25	28.1	24.7	20.5																	
30	42.1	40.2	38.2	35.8	33.1	30.0	26.4	21.8												
35	52.6	51.3	50.0	48.5	46.8	45.0	42.9	40.6	38.1	35.2	31.8	27.9	23.0							
40	61.5	60.6	59.6	58.5	57.4	56.1	54.7	53.2	51.5	49.7	47.6	45.4	43.0	40.2	37.1	33.5	29.4	24.2		
45	69.4	68.8	68.1	67.3	66.4	65.5	64.5	63.4	62.1	60.8	59.4	57.9	56.2	54.4	52.4	50.2	47.8	45.2	42.2	38.9
50	76.8	76.3	75.8	75.2	74.6	73.9	73.1	72.3	71.4	70.4	69.3	68.2	66.9	65.6	64.1	62.6	60.9	59.1	57.1	55.0
55	83.8	83.4	83.1	82.6	82.1	81.6	81.0	80.4	79.7	78.9	78.1	77.2	76.3	75.2	74.1	72.9	71.7	70.3	68.8	67.3
60	90.4	90.2	89.9	89.6	89.3	88.9	88.4	88.0	87.4	86.8	86.2	85.5	84.8	84.0	83.1	82.2	81.2	80.1	78.9	77.7

 - Continuous Operation using low differential sleeve within shaded region is not recommended.

300 SERIES 2" AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cv = 66.5 Fp =1.00 Fg =1.291 Xt = 0.590 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3	3.25	3.5	3.75	4	4.25	4.5	4.75
2	27.5																			
2.5	30.6	29.3	27.9																	
3	33.5	32.4	31.2	29.8	28.4															
4	38.6	37.7	36.7	35.7	34.6	33.5	32.2	30.8	29.3											
5	43.0	42.3	41.6	40.7	39.9	38.9	38.0	36.9	35.7	34.5	33.2	31.7	30.2							
7.5	52.5	52.1	51.6	51.1	50.6	50.0	49.4	48.8	48.1	47.4	46.6	45.8	44.9	44.0	43.0	42.0	40.8	39.6	38.4	37.0
10	60.7	60.4	60.1	59.8	59.5	59.1	58.7	58.3	57.8	57.4	56.9	56.3	55.8	55.2	54.5	53.9	53.2	52.4	51.6	50.8
12.5	68.1	67.9	67.7	67.5	67.3	67.1	66.8	66.6	66.3	65.9	65.6	65.3	64.9	64.5	64.0	63.6	63.1	62.6	62.1	61.5
15	74.9	74.9	74.8	74.7	74.5	74.4	74.2	74.1	73.9	73.7	73.5	73.2	73.0	72.7	72.4	72.1	71.7	71.4	71.0	70.6
20	87.8	87.8	87.8	87.8	87.7	87.7	87.7	87.7	87.6	87.6	87.5	87.5	87.4	87.3	87.1	87.0	86.9	86.7	86.5	86.4
25	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
30	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	39.9	35.7	30.2																	
7.5	52.5	48.1	44.9	40.8	35.6															
10	59.5	57.8	55.8	53.2	49.9	45.9	40.8	34.2												
12.5	67.3	66.3	64.9	63.1	60.9	58.2	55.0	51.0	46.1	39.9										
15	74.5	73.9	73.0	71.7	70.2	68.3	66.0	63.3	60.0	56.0	51.3	45.4	37.9							
20	87.7	87.6	87.4	86.9	86.2	85.2	84.0	82.6	80.8	78.7	76.2	73.4	70.0	66.1	61.6	56.1	49.5	41.2		
25	100	100	100	100	100	99.7	99.2	98.4	97.5	96.3	94.9	93.2	91.3	89.0	86.4	83.5	80.1	76.2	71.8	66.6
30	113	113	113	113	113	113	113	113	113	111	111	110	109	107	106	104	102	99.3	96.6	93.6
35	126	126	126	126	126	126	126	126	126	125	125	124	124	123	122	121	119	118	116	114
40	138	138	138	138	138	138	138	138	138	138	138	138	138	137	137	136	135	134	133	132
45	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	150	150	149	148	147
50	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	163	163	163	163	162
55	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176
60	189	189	189	189	189	189	189	189	189	189	189	189	189	189	189	189	189	189	189	189

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
5																				
7.5																				
10																				
12.5																				
15																				
20																				
25	60.6	53.3	44.2																	
30	90.2	86.3	82.0	77.0	71.4	64.8	56.9	47.1												
35	112	109	107	104	100	96.4	92.1	87.3	82.0	75.8	68.7	60.2	49.8							
40	130	129	127	125	122	120	117	114	110	106	102	97.6	92.4	86.6	80.0	72.4	63.4	52.4		
45	146	145	144	143	141	139	137	135	132	130	127	124	120	117	112	108	103	97.2	91.0	84.0
50	161	161	160	159	158	156	155	153	152	150	147	145	143	140	137	134	130	127	122	118
55	175	175	174	174	173	172	171	170	169	167	166	164	162	160	158	155	153	150	147	144
60	189	188	188	188	187	187	186	185	184	183	182	181	179	178	176	174	173	170	168	166


 - Continuous Operation using low differential sleeve within shaded region is not recommended.

300 SERIES 3" AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cv = 135 Fp = 1.00 Fg = 1.291 Xt = 0.490 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																				
	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3	3.25	3.5	3.75	4	4.25	4.5	4.75	
2	54.9																				
2.5	61.0	58.5	55.8																		
3	66.4	64.3	62.1	59.5	56.8																
4	75.9	74.3	72.6	70.8	68.8	66.6	64.2	61.5	58.6												
5	84.1	82.9	81.6	80.2	78.6	77.0	75.2	73.2	71.1	68.7	66.2	63.5	60.4								
7.5	101	100	99.8	99.0	98.2	97.3	96.3	95.2	94.1	92.9	91.5	90.1	88.5	86.9	85.1	83.2	81.1	78.9	76.5	73.9	
10	115	115	114	114	114	113	113	112	112	111	110	109	108	107	106	105	104	103	101	100	
12.5	127	127	127	127	127	127	127	126	126	126	125	125	124	124	123	123	122	121	120	120	
15	139	139	139	139	139	139	139	139	139	139	139	139	138	138	138	138	137	137	137	136	136
20	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	
25	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	
30	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209	

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	78.6	71.1	60.4																	
7.5	101	94.1	88.5	81.1	71.1															
10	114	112	108	104	98.5	91.1	81.6	68.8												
12.5	127	126	124	122	119	114	108	101	91.9	80.0										
15	139	139	138	137	135	132	129	124	118	111	102	90.9	76.2							
20	162	162	162	162	162	162	160	158	156	153	149	144	138	131	123	112	99.4	83.0		
25	186	186	186	186	186	186	186	185	185	184	182	180	177	173	169	164	158	151	143	133
30	209	209	209	209	209	209	209	209	209	209	209	208	207	205	203	200	197	193	189	184
35	233	233	233	233	233	233	233	233	233	233	233	233	232	232	231	230	229	227	224	221
40	256	256	256	256	256	256	256	256	256	256	256	256	256	256	256	255	254	253	252	252
45	279	279	279	279	279	279	279	279	279	279	279	279	279	279	279	279	279	279	279	279
50	303	303	303	303	303	303	303	303	303	303	303	303	303	303	303	303	303	303	303	303
55	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326
60	349	349	349	349	349	349	349	349	349	349	349	349	349	349	349	349	349	349	349	349

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
5																				
7.5																				
10																				
12.5																				
15																				
20																				
25	121	107	89.2																	
30	178	171	163	154	143	130	114	95.1												
35	218	214	209	204	198	191	183	174	164	152	138	121	101							
40	250	248	245	242	238	234	229	224	217	211	203	194	184	173	160	146	128	106		
45	278	277	275	273	271	269	266	262	258	254	249	243	237	230	223	214	205	194	182	168
50	303	302	302	301	300	298	297	295	292	289	286	283	278	274	269	263	257	250	243	235
55	326	326	326	326	326	325	324	323	322	320	318	316	313	310	307	303	299	294	289	283
60	349	349	349	349	349	349	349	349	348	347	346	345	343	341	339	337	334	331	327	323


 - Continuous Operation using low differential sleeve within shaded region is not recommended.

300 SERIES 4" AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cv = 231 Fp =1.00 Fg =1.291 Xt = 0.480 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3	3.25	3.5	3.75	4	4.25	4.5	4.75
2	93.7																			
2.5	104	99.9	95.3																	
3	113	110	106	102	97.0															
4	129	127	124	121	117	114	110	105	100											
5	143	141	139	137	134	131	128	125	121	117	113	108	103							
7.5	172	171	170	168	167	166	164	162	160	158	156	154	151	148	145	142	138	135	131	126
10	195	195	194	194	193	192	192	191	190	189	187	186	184	183	181	179	177	175	173	170
12.5	216	216	216	215	215	215	215	214	214	213	213	212	211	211	210	209	207	206	205	203
15	235	235	235	235	235	235	235	235	235	235	235	235	235	234	234	233	233	232	231	230
20	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275
25	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315	315
30	354	354	354	354	354	354	354	354	354	354	354	354	354	354	354	354	354	354	354	354

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	134	121	103																	
7.5	172	160	151	138	121															
10	193	190	184	177	168	155	139	118												
12.5	215	214	211	207	202	194	185	173	157	137										
15	235	235	235	233	230	225	219	211	202	190	174	155	130							
20	275	275	275	275	275	274	272	269	265	260	254	245	236	224	209	192	170	142		
25	315	315	315	315	315	315	315	314	313	312	309	305	301	295	288	279	269	258	244	227
30	354	354	354	354	354	354	354	354	354	354	354	353	351	349	345	341	336	329	322	313
35	394	394	394	394	394	394	394	394	394	394	394	394	394	393	392	391	388	385	381	376
40	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	432	430	428
45	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	473	472
50	513	513	513	513	513	513	513	513	513	513	513	513	513	513	513	513	513	513	513	513
55	552	552	552	552	552	552	552	552	552	552	552	552	552	552	552	552	552	552	552	552
60	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592	592

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
5																				
7.5																				
10																				
12.5																				
15																				
20																				
25	207	183	153																	
30	303	291	278	262	244	222	196	163												
35	370	364	356	347	337	325	312	297	280	259	236	207	172							
40	425	421	416	411	405	398	390	381	371	359	346	331	315	296	274	249	219	181		
45	471	469	467	464	461	457	452	446	440	432	424	415	405	393	380	366	350	331	311	288
50	513	512	512	510	509	507	504	501	497	492	487	481	474	467	458	449	438	427	414	400
55	552	552	552	552	552	551	550	548	546	543	540	537	532	527	522	515	508	501	492	483
60	592	592	592	592	592	592	592	591	590	589	588	586	583	580	576	572	568	562	557	550

 - Continuous Operation using low differential sleeve within shaded region is not recommended.

300 SERIES 6" AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cv = 325 Fp = 1.00 Fg = 1.291 Xt = 0.495 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3	3.25	3.5	3.75	4	4.25	4.5	4.75
2	132																			
2.5	147	141	135																	
3	160	155	150	144	137															
4	183	179	175	171	166	160	155	148	141											
5	203	200	197	193	190	186	181	176	171	166	160	153	146							
7.5	244	243	241	239	237	235	232	230	227	224	221	217	214	210	205	201	196	190	184	178
10	278	277	277	276	275	274	272	271	269	268	266	264	262	259	257	254	251	248	245	241
12.5	308	308	308	308	307	307	306	306	305	304	303	302	301	299	298	296	295	293	291	288
15	336	336	336	336	336	336	336	336	336	336	335	335	334	334	333	332	331	330	329	328
20	393	393	393	393	393	393	393	393	393	393	393	393	393	393	393	393	393	393	393	392
25	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450
30	506	506	506	506	506	506	506	506	506	506	506	506	506	506	506	506	506	506	506	506

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	190	171	146																	
7.5	244	227	214	196	171															
10	275	269	262	251	237	220	197	166												
12.5	307	305	301	295	286	275	261	244	222	193										
15	336	336	334	331	326	319	311	299	285	268	246	219	184							
20	393	393	393	393	392	390	387	383	377	369	359	347	333	316	295	270	239	200		
25	450	450	450	450	450	450	449	449	447	444	439	434	427	418	408	395	381	364	344	320
30	506	506	506	506	506	506	506	506	506	506	505	503	500	496	491	484	476	467	456	443
35	563	563	563	563	563	563	563	563	563	563	563	563	562	561	559	556	552	547	541	534
40	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	617	615	612	608
45	676	676	676	676	676	676	676	676	676	676	676	676	676	676	676	676	676	675	675	673
50	732	732	732	732	732	732	732	732	732	732	732	732	732	732	732	732	732	732	732	732
55	789	789	789	789	789	789	789	789	789	789	789	789	789	789	789	789	789	789	789	789
60	846	846	846	846	846	846	846	846	846	846	846	846	846	846	846	846	846	846	846	846

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
5																				
7.5																				
10																				
12.5																				
15																				
20																				
25	292	258	215																	
30	429	412	393	370	344	313	276	229												
35	525	516	504	491	477	460	441	419	394	366	332	292	242							
40	604	598	591	583	574	564	552	539	524	508	489	468	444	417	387	351	308	255		
45	671	668	665	660	655	649	641	633	623	613	601	587	572	556	537	517	494	468	439	406
50	732	731	730	728	725	721	717	712	706	699	691	682	672	661	649	635	620	604	585	565
55	789	789	789	788	787	786	784	781	777	773	768	762	756	748	740	731	721	709	697	683
60	846	846	846	846	846	845	845	844	842	840	837	834	830	825	819	813	806	798	789	780

 - Continuous Operation using low differential sleeve within shaded region is not recommended.

300 SERIES 8" AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cv = 560 Fp =1.00 Fg =1.291 Xt = 0.450 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3	3.25	3.5	3.75	4	4.25	4.5	4.75
2	226																			
2.5	250	240	230																	
3	272	264	255	245	234															
4	310	304	297	290	282	273	264	253	241											
5	342	337	332	327	321	315	308	300	291	282	272	261	249							
7.5	407	405	403	400	397	394	391	387	383	378	373	368	362	355	348	341	333	324	314	304
10	459	459	458	458	457	455	454	452	450	448	445	442	439	436	432	428	424	419	414	408
12.5	506	506	506	506	506	506	506	505	505	504	503	502	500	499	497	495	493	490	487	484
15	553	553	553	553	553	553	553	553	553	553	553	552	552	552	551	551	550	548	547	546
20	646	646	646	646	646	646	646	646	646	646	646	646	646	646	646	646	646	646	646	646
25	739	739	739	739	739	739	739	739	739	739	739	739	739	739	739	739	739	739	739	739
30	832	832	832	832	832	832	832	832	832	832	832	832	832	832	832	832	832	832	832	832

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	321	291	249																	
7.5	407	383	362	333	293															
10	457	450	439	424	402	374	335	284												
12.5	506	505	500	493	481	464	443	414	378	330										
15	553	553	552	550	544	535	522	505	483	455	420	374	315							
20	646	646	646	646	646	645	643	638	630	619	605	587	564	537	503	462	410	343		
25	739	739	739	739	739	739	739	739	738	736	731	724	715	702	687	668	645	618	586	547
30	832	832	832	832	832	832	832	832	832	832	832	831	829	824	818	810	799	785	769	749
35	925	925	925	925	925	925	925	925	925	925	925	925	925	925	924	921	918	912	904	894
40	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1017	1016	1014	1011
45	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110	1110
50	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203
55	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296	1296
60	1389	1389	1389	1389	1389	1389	1389	1389	1389	1389	1389	1389	1389	1389	1389	1389	1389	1389	1389	1389

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
5																				
7.5																				
10																				
12.5																				
15																				
20																				
25	500	442	369																	
30	726	699	668	631	587	536	473	393												
35	882	868	851	831	807	780	750	714	673	625	569	501	416							
40	1005	998	989	978	965	950	932	912	888	862	831	797	758	713	661	601	528	438		
45	1109	1107	1104	1099	1092	1084	1074	1062	1048	1032	1014	993	969	943	913	880	842	799	750	695
50	1203	1203	1203	1202	1200	1197	1192	1186	1178	1169	1158	1145	1131	1114	1095	1074	1050	1024	995	962
55	1296	1296	1296	1296	1296	1296	1295	1293	1290	1285	1280	1272	1264	1254	1242	1228	1213	1196	1177	1155
60	1389	1389	1389	1389	1389	1389	1389	1389	1389	1388	1386	1383	1379	1373	1366	1358	1349	1338	1325	1311

 - Continuous Operation using low differential sleeve within shaded region is not recommended.

300 SERIES 12" AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cv = 1165 Fp =1.00 Fg =1.291 Xt = 0.565 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3	3.25	3.5	3.75	4	4.25	4.5	4.75
2	479																			
2.5	534	512	488																	
3	584	565	544	521	496															
4	671	656	640	623	604	584	562	538	512											
5	747	736	723	709	694	678	661	643	623	602	579	554	527							
7.5	910	903	895	887	878	868	858	847	836	824	811	797	782	766	749	731	712	692	670	646
10	1048	1044	1039	1034	1029	1023	1016	1010	1002	995	986	977	968	958	947	936	924	912	898	884
12.5	1172	1170	1167	1165	1161	1158	1154	1150	1145	1140	1135	1129	1123	1116	1109	1102	1094	1086	1077	1067
15	1287	1286	1285	1284	1282	1281	1279	1276	1274	1271	1267	1264	1260	1256	1251	1246	1241	1235	1229	1223
20	1505	1505	1505	1505	1505	1505	1505	1505	1504	1504	1503	1503	1502	1501	1499	1497	1496	1493	1491	1488
25	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1721	1721	1720
30	1938	1938	1938	1938	1938	1938	1938	1938	1938	1938	1938	1938	1938	1938	1938	1938	1938	1938	1938	1938

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
5	694	623	527																	
7.5	910	836	782	712	621															
10	1029	1002	968	924	869	800	713	598												
12.5	1161	1145	1123	1094	1058	1012	957	889	804	697										
15	1282	1274	1260	1241	1216	1185	1147	1100	1044	977	895	793	662							
20	1505	1504	1502	1496	1486	1471	1453	1429	1400	1366	1325	1276	1219	1153	1074	980	865	720		
25	1722	1722	1722	1722	1720	1716	1708	1697	1683	1664	1642	1615	1583	1545	1502	1452	1395	1328	1252	1163
30	1938	1938	1938	1938	1938	1938	1937	1935	1929	1921	1909	1894	1876	1854	1828	1798	1764	1724	1679	1628
35	2155	2155	2155	2155	2155	2155	2155	2155	2154	2153	2149	2142	2133	2121	2106	2088	2067	2042	2013	1980
40	2372	2372	2372	2372	2372	2372	2372	2372	2372	2372	2372	2370	2367	2362	2355	2345	2333	2318	2300	2279
45	2588	2588	2588	2588	2588	2588	2588	2588	2588	2588	2588	2588	2588	2587	2585	2582	2576	2568	2557	2544
50	2805	2805	2805	2805	2805	2805	2805	2805	2805	2805	2805	2805	2805	2805	2805	2805	2803	2800	2795	2789
55	3022	3022	3022	3022	3022	3022	3022	3022	3022	3022	3022	3022	3022	3022	3022	3022	3022	3022	3020	3018
60	3238	3238	3238	3238	3238	3238	3238	3238	3238	3238	3238	3238	3238	3238	3238	3238	3238	3238	3238	3238

Inlet Pressure psig	OUTLET PRESSURE - psig																			
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
5																				
7.5																				
10																				
12.5																				
15																				
20																				
25	1058	932	774																	
30	1570	1504	1429	1344	1246	1132	995	824												
35	1943	1902	1855	1803	1745	1679	1606	1524	1431	1324	1200	1054	872							
40	2255	2227	2196	2161	2123	2079	2032	1979	1920	1855	1783	1703	1613	1512	1398	1266	1109	917		
45	2529	2511	2491	2467	2441	2411	2378	2341	2301	2257	2208	2154	2095	2030	1959	1881	1794	1698	1590	1468
50	2780	2769	2756	2741	2723	2703	2680	2654	2625	2594	2559	2521	2479	2433	2384	2329	2270	2205	2135	2058
55	3015	3009	3002	2992	2981	2968	2952	2935	2915	2892	2867	2839	2809	2776	2739	2700	2657	2610	2559	2504
60	3237	3236	3233	3229	3222	3214	3205	3193	3179	3164	3146	3126	3104	3080	3053	3024	2992	2957	2919	2878

 - Continuous Operation using low differential sleeve within shaded region is not recommended.

300 SERIES 2R10 (10%) AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cv = 6.5 Fp = 1.00 Fg = 1.291 Xt = 0.700 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																	
	0	10	20	30	50	75	100	150	200	250	300	350	400	450	500	550	600	650
25	10.7	9.9	6.6															
30	12.0	11.5	9.4															
40	14.7	14.6	13.5	10.6														
50	17.4	17.4	16.8	15.2														
60	20.1	20.1	19.9	18.8	12.7													
66	21.7	21.7	21.6	20.8	16.2													
75	24.1	24.1	24.1	23.6	20.3													
100	30.9	30.9	30.9	30.8	29.4	23.8												
125	37.6	37.6	37.6	37.6	37.1	34.2	26.9											
150	44.3	44.3	44.3	44.3	44.2	42.6	38.4											
175	51.1	51.1	51.1	51.1	51.1	50.3	47.6	32.1										
200	57.8	57.8	57.8	57.8	57.8	57.5	55.8	45.7										
225	64.5	64.5	64.5	64.5	64.5	64.5	63.5	56.3	36.7									
250	71.2	71.2	71.2	71.2	71.2	71.2	70.8	65.7	52.0									
275	78.0	78.0	78.0	78.0	78.0	78.0	77.8	74.2	64.0	40.7								
300	84.7	84.7	84.7	84.7	84.7	84.7	84.6	82.2	74.3	57.7								
325	91.4	91.4	91.4	91.4	91.4	91.4	91.4	89.8	83.7	70.8	44.4							
350	98.2	98.2	98.2	98.2	98.2	98.2	98.2	97.2	92.4	82.1	62.8							
375	105	105	105	105	105	105	105	104	101	92.3	77.1	47.8						
400	112	112	112	112	112	112	112	111	108	102	89.3	67.6						
425	118	118	118	118	118	118	118	118	116	110	100	82.9	50.9					
450	125	125	125	125	125	125	125	125	124	119	110	96.0	72.1					
475	132	132	132	132	132	132	132	132	131	127	120	108	88.4	53.9				
500	139	139	139	139	139	139	139	139	138	135	129	118	102	76.3				
525	145	145	145	145	145	145	145	145	145	142	137	128	115	93.5	56.8			
550	152	152	152	152	152	152	152	152	152	150	145	138	126	108	80.3			
575	159	159	159	159	159	159	159	159	159	157	153	147	136	121	98.4	59.4		
600	165	165	165	165	165	165	165	165	165	164	161	155	146	133	114	84.1		
625	172	172	172	172	172	172	172	172	172	171	169	164	156	144	127	103	62.0	
650	179	179	179	179	179	179	179	179	179	178	176	172	165	154	140	119	87.7	
675	186	186	186	186	186	186	186	186	186	185	184	180	173	164	151	133	107	64.5
700	192	192	192	192	192	192	192	192	192	192	191	187	182	174	162	146	124	91.2
725	199	199	199	199	199	199	199	199	199	199	199	198	195	190	183	172	158	112
740	203	203	203	203	203	203	203	203	203	203	202	200	195	188	178	165	147	122

300 SERIES 2R25 (25%) AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cv = 15.0 Fp = 1.00 Fg = 1.291 Xt = 0.700 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																	
	0	10	20	30	50	75	100	150	200	250	300	350	400	450	500	550	600	650
25	24.7	22.7	15.2															
30	27.8	26.6	21.6															
40	34.0	33.6	31.0	24.5														
50	40.2	40.1	38.8	35.0														
60	46.4	46.4	45.8	43.4	29.4													
66	50.1	50.1	49.8	48.0	37.3													
75	55.7	55.7	55.6	54.5	46.9													
100	71.3	71.3	71.3	71.1	67.9	54.9												
125	86.8	86.8	86.8	86.8	85.7	78.8	62.0											
150	102	102	102	102	102	98.4	88.5											
175	118	118	118	118	118	116	110	74.2										
200	133	133	133	133	133	133	129	105										
225	149	149	149	149	149	149	146	130	84.6									
250	164	164	164	164	164	164	163	152	120									
275	180	180	180	180	180	180	180	171	148	93.9								
300	195	195	195	195	195	195	195	190	172	133								
325	211	211	211	211	211	211	211	207	193	163	102							
350	227	227	227	227	227	227	227	224	213	190	145							
375	242	242	242	242	242	242	242	241	232	213	178	110						
400	258	258	258	258	258	258	258	257	250	235	206	156						
425	273	273	273	273	273	273	273	273	268	255	231	191	118					
450	289	289	289	289	289	289	289	288	285	274	254	222	166					
475	304	304	304	304	304	304	304	304	302	293	276	248	204	124				
500	320	320	320	320	320	320	320	320	318	311	297	273	236	176				
525	335	335	335	335	335	335	335	335	334	329	316	296	264	216	131			
550	351	351	351	351	351	351	351	351	350	346	335	318	290	250	185			
575	366	366	366	366	366	366	366	366	366	363	354	338	315	279	227	137		
600	382	382	382	382	382	382	382	382	382	379	372	358	337	307	262	194		
625	397	397	397	397	397	397	397	397	397	396	389	378	359	332	294	238	143	
650	413	413	413	413	413	413	413	413	413	412	407	396	380	356	322	275	202	
675	428	428	428	428	428	428	428	428	428	428	424	415	400	379	349	308	248	149
700	444	444	444	444	444	444	444	444	444	444	440	433	420	401	374	337	287	210
725	459	459	459	459	459	459	459	459	459	459	457	450	439	422	398	365	321	258
740	469	469	469	469	469	469	469	469	469	469	467	461	450	434	411	381	340	283

300 SERIES 2R50 (50%) AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cv = 30.7 Fp =1.00 Fg =1.291 Xt = 0.643 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																	
	0	10	20	30	50	75	100	150	200	250	300	350	400	450	500	550	600	650
25	48.4	45.5	31.0															
30	54.5	53.1	43.8															
40	66.7	66.5	62.2	49.7														
50	78.9	78.9	77.2	70.4														
60	91.0	91.0	90.6	86.8	59.8													
66	98.3	98.3	98.2	95.7	75.6													
75	109	109	109	108	94.5													
100	140	140	140	140	135	111												
125	170	170	170	170	169	158	126											
150	201	201	201	201	201	196	178											
175	231	231	231	231	231	230	220	151										
200	262	262	262	262	262	261	256	213										
225	292	292	292	292	292	292	290	262	172									
250	323	323	323	323	323	323	322	303	243									
275	353	353	353	353	353	353	353	341	298	191								
300	383	383	383	383	383	383	383	377	345	270								
325	414	414	414	414	414	414	414	411	387	331	209							
350	444	444	444	444	444	444	444	443	426	382	295							
375	475	475	475	475	475	475	475	474	463	428	361	225						
400	505	505	505	505	505	505	505	505	497	471	417	317						
425	536	536	536	536	536	536	536	536	531	510	466	388	240					
450	566	566	566	566	566	566	566	566	564	547	512	448	339					
475	597	597	597	597	597	597	597	597	596	583	554	501	414	254				
500	627	627	627	627	627	627	627	627	627	618	594	550	478	359				
525	658	658	658	658	658	658	658	658	658	652	632	595	535	439	267			
550	688	688	688	688	688	688	688	688	688	684	669	637	586	506	378			
575	718	718	718	718	718	718	718	718	718	716	704	678	634	566	462	280		
600	749	749	749	749	749	749	749	749	749	748	739	716	678	620	533	396		
625	779	779	779	779	779	779	779	779	779	779	772	754	721	670	596	484	292	
650	810	810	810	810	810	810	810	810	810	810	805	790	761	717	652	558	413	
675	840	840	840	840	840	840	840	840	840	840	837	825	800	762	705	624	505	304
700	871	871	871	871	871	871	871	871	871	871	869	859	838	804	754	683	583	429
725	901	901	901	901	901	901	901	901	901	901	900	893	875	845	801	738	651	525
740	919	919	919	919	919	919	919	919	919	919	919	912	896	869	827	769	689	575

300 SERIES 2" AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cv = 66.5 Fp =1.00 Fg =1.291 Xt = 0.590 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																	
	0	10	20	30	50	75	100	150	200	250	300	350	400	450	500	550	600	650
25	100	96.3	66.6															
30	113	111	93.6															
40	138	138	132	106														
50	164	164	162	150														
60	189	189	189	183	129													
66	204	204	204	201	162													
75	227	227	227	226	201													
100	290	290	290	290	285	238												
125	353	353	353	353	353	335	270											
150	416	416	416	416	416	411	379											
175	480	480	480	480	480	479	464	324										
200	543	543	543	543	543	543	538	455										
225	606	606	606	606	606	606	605	556	371									
250	669	669	669	669	669	669	669	642	521									
275	732	732	732	732	732	732	732	719	636	413								
300	796	796	796	796	796	796	796	790	733	580								
325	859	859	859	859	859	859	859	857	819	708	451							
350	922	922	922	922	922	922	922	922	898	815	634							
375	985	985	985	985	985	985	985	985	972	910	773	486						
400	1048	1048	1048	1048	1048	1048	1048	1048	1042	996	890	683						
425	1112	1112	1112	1112	1112	1112	1112	1112	1109	1076	993	833	518					
450	1175	1175	1175	1175	1175	1175	1175	1175	1174	1152	1086	959	729					
475	1238	1238	1238	1238	1238	1238	1238	1238	1238	1225	1173	1070	890	549				
500	1301	1301	1301	1301	1301	1301	1301	1301	1301	1294	1254	1170	1024	773				
525	1364	1364	1364	1364	1364	1364	1364	1364	1364	1361	1332	1263	1143	943	578			
550	1428	1428	1428	1428	1428	1428	1428	1428	1428	1426	1406	1350	1249	1086	814			
575	1491	1491	1491	1491	1491	1491	1491	1491	1491	1491	1477	1432	1348	1211	993	606		
600	1554	1554	1554	1554	1554	1554	1554	1554	1554	1554	1546	1511	1440	1324	1144	853		
625	1617	1617	1617	1617	1617	1617	1617	1617	1617	1617	1613	1586	1527	1428	1276	1042	632	
650	1680	1680	1680	1680	1680	1680	1680	1680	1680	1680	1678	1659	1610	1525	1395	1199	891	
675	1744	1744	1744	1744	1744	1744	1744	1744	1744	1744	1743	1729	1689	1617	1504	1338	1087	658
700	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807	1798	1765	1704	1606	1462	1252	927
725	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1865	1839	1787	1702	1577	1397	1132
740	1908	1908	1908	1908	1908	1908	1908	1908	1908	1908	1908	1905	1883	1835	1758	1642	1477	1238

300 SERIES 6" AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cg = 325 Fp = 1.00 Fg = 1.291 Xt = 0.495 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																	
	0	10	20	30	50	75	100	150	200	250	300	350	400	450	500	550	600	650
25	450	444	320															
30	506	506	443															
40	619	619	608	508														
50	732	732	732	699														
60	846	846	846	840	618													
66	914	914	914	913	770													
75	1015	1015	1015	1015	946													
100	1298	1298	1298	1298	1296	1128												
125	1581	1581	1581	1581	1581	1549	1287											
150	1864	1864	1864	1864	1864	1863	1771											
175	2147	2147	2147	2147	2147	2147	2129	1559										
200	2430	2430	2430	2430	2430	2430	2430	2155										
225	2713	2713	2713	2713	2713	2713	2713	2594	1791									
250	2996	2996	2996	2996	2996	2996	2996	2956	2485									
275	3278	3278	3278	3278	3278	3278	3278	3272	2996	1996								
300	3561	3561	3561	3561	3561	3561	3561	3561	3416	2777								
325	3844	3844	3844	3844	3844	3844	3844	3844	3781	3355	2183							
350	4127	4127	4127	4127	4127	4127	4127	4127	4107	3829	3043							
375	4410	4410	4410	4410	4410	4410	4410	4410	4407	4238	3681	2355						
400	4693	4693	4693	4693	4693	4693	4693	4693	4693	4604	4205	3288						
425	4976	4976	4976	4976	4976	4976	4976	4976	4976	4938	4657	3982	2515					
450	5259	5259	5259	5259	5259	5259	5259	5259	5259	5248	5060	4553	3517					
475	5542	5542	5542	5542	5542	5542	5542	5542	5542	5539	5427	5045	4263	2666				
500	5825	5825	5825	5825	5825	5825	5825	5825	5825	5825	5766	5484	4877	3732				
525	6107	6107	6107	6107	6107	6107	6107	6107	6107	6107	6084	5882	5408	4527	2809			
550	6390	6390	6390	6390	6390	6390	6390	6390	6390	6390	6384	6250	5880	5183	3935			
575	6673	6673	6673	6673	6673	6673	6673	6673	6673	6673	6673	6673	6593	6309	5750	4777	2945	
600	6956	6956	6956	6956	6956	6956	6956	6956	6956	6956	6917	6704	6254	5472	4128			
625	7239	7239	7239	7239	7239	7239	7239	7239	7239	7239	7224	7072	6712	6073	5015	3075		
650	7522	7522	7522	7522	7522	7522	7522	7522	7522	7522	7522	7517	7419	7133	6609	5748	4313	
675	7805	7805	7805	7805	7805	7805	7805	7805	7805	7805	7805	7747	7526	7094	6382	5243	3200	
700	8088	8088	8088	8088	8088	8088	8088	8088	8088	8088	8088	8060	7894	7541	6946	6011	4490	
725	8371	8371	8371	8371	8371	8371	8371	8371	8371	8371	8371	8371	8360	8243	7957	7459	6677	5461
740	8540	8540	8540	8540	8540	8540	8540	8540	8540	8540	8540	8540	8535	8445	8194	7746	7040	5958

300 SERIES 8" AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cg = 560 Fp = 1.00 Fg = 1.291 Xt = 0.450 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																		
	0	10	20	30	50	75	100	150	200	250	300	350	400	450	500	550	600	650	
25	739	736	547																
30	832	832	749																
40	1017	1017	1011	862															
50	1203	1203	1203	1169															
60	1389	1389	1389	1388	1053														
66	1501	1501	1501	1501	1305														
75	1668	1668	1668	1668	1588														
100	2133	2133	2133	2133	2133	1908													
125	2598	2598	2598	2598	2598	2575	2185												
150	3062	3062	3062	3062	3062	3062	2966												
175	3527	3527	3527	3527	3527	3527	3521	2657											
200	3992	3992	3992	3992	3992	3992	3992	3638											
225	4457	4457	4457	4457	4457	4457	4457	4339	3060										
250	4921	4921	4921	4921	4921	4921	4921	4901	4213										
275	5386	5386	5386	5386	5386	5386	5386	5386	5043	3417									
300	5851	5851	5851	5851	5851	5851	5851	5851	5710	4723									
325	6316	6316	6316	6316	6316	6316	6316	6316	6277	5670	3740								
350	6780	6780	6780	6780	6780	6780	6780	6780	6776	6433	5186								
375	7245	7245	7245	7245	7245	7245	7245	7245	7245	7082	6240	4038							
400	7710	7710	7710	7710	7710	7710	7710	7710	7710	7651	7092	5612							
425	8175	8175	8175	8175	8175	8175	8175	8175	8175	8164	7816	6765	4316						
450	8640	8640	8640	8640	8640	8640	8640	8640	8640	8640	8453	7700	6008						
475	9104	9104	9104	9104	9104	9104	9104	9104	9104	9104	9024	8496	7254	4577					
500	9569	9569	9569	9569	9569	9569	9569	9569	9569	9569	9546	9196	8266	6381					
525	10034	10034	10034	10034	10034	10034	10034	10034	10034	10034	10029	9824	9130	7713	4823				
550	10499	10499	10499	10499	10499	10499	10499	10499	10499	10499	10499	10499	10397	9890	8799	6734			
575	10963	10963	10963	10963	10963	10963	10963	10963	10963	10963	10963	10963	10926	10573	9727	8148	5058		
600	11428	11428	11428	11428	11428	11428	11428	11428	11428	11428	11428	11428	11419	11195	10544	9303	7069		
625	11893	11893	11893	11893	11893	11893	11893	11893	11893	11893	11893	11893	11893	11769	11279	10292	8561	5283	
650	12358	12358	12358	12358	12358	12358	12358	12358	12358	12358	12358	12358	12358	12304	11948	11164	9783	7389	
675	12822	12822	12822	12822	12822	12822	12822	12822	12822	12822	12822	12822	12822	12806	12565	11948	10830	8956	5498
700	13287	13287	13287	13287	13287	13287	13287	13287	13287	13287	13287	13287	13287	13287	13140	12663	11754	10241	7696
725	13752	13752	13752	13752	13752	13752	13752	13752	13752	13752	13752	13752	13752	13752	13680	13322	12586	11344	9334
740	14031	14031	14031	14031	14031	14031	14031	14031	14031	14031	14031	14031	14031	14031	13989	13696	13049	11942	10168

300 SERIES 12" AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
Cg = 1165 Fp = 1.00 Fg = 1.291 Xt = 0.565 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig																	
	0	10	20	30	50	75	100	150	200	250	300	350	400	450	500	550	600	650
25	1722	1664	1163															
30	1938	1921	1628															
40	2372	2372	2279	1855														
50	2805	2805	2789	2594														
60	3238	3238	3238	3164	2244													
66	3498	3498	3498	3466	2818													
75	3889	3889	3889	3884	3496													
100	4972	4972	4972	4913	4139													
125	6055	6055	6055	6055	6055	5793	4699											
150	7139	7139	7139	7139	7139	7086	6571											
175	8222	8222	8222	8222	8222	8222	8013	5661										
200	9305	9305	9305	9305	9305	9305	9255	7919										
225	10389	10389	10389	10389	10389	10389	10384	9637	6484									
250	11472	11472	11472	11472	11472	11472	11472	11092	9081									
275	12556	12556	12556	12556	12556	12556	12556	12391	11048	7216								
300	13639	13639	13639	13639	13639	13639	13639	13588	12701	10117								
325	14722	14722	14722	14722	14722	14722	14722	14713	14163	12310								
350	15806	15806	15806	15806	15806	15806	15806	15806	15498	14147	7880							
375	16889	16889	16889	16889	16889	16889	16889	16889	16742	15764	13461	8493						
400	17973	17973	17973	17973	17973	17973	17973	17973	17918	17231	15469	11927						
425	19056	19056	19056	19056	19056	19056	19056	19056	19042	18591	17232	14524	9065					
450	20139	20139	20139	20139	20139	20139	20139	20139	20139	19869	18826	16693	12739					
475	21223	21223	21223	21223	21223	21223	21223	21223	21223	21084	20298	18594	15518	9603				
500	22306	22306	22306	22306	22306	22306	22306	22306	22306	22248	21675	20310	17839	13502				
525	23390	23390	23390	23390	23390	23390	23390	23390	23390	23371	22979	21888	19870	16454	10113			
550	24473	24473	24473	24473	24473	24473	24473	24473	24473	24473	24224	23362	21701	18918	14225			
575	25556	25556	25556	25556	25556	25556	25556	25556	25556	25556	25421	24754	23383	21074	17340	10598		
600	26640	26640	26640	26640	26640	26640	26640	26640	26640	26640	26577	26078	24950	23015	19941	14913		
625	27723	27723	27723	27723	27723	27723	27723	27723	27723	27723	27699	27347	26427	24796	22216	18184	11062	
650	28807	28807	28807	28807	28807	28807	28807	28807	28807	28807	28807	28807	28571	27829	26454	24263	20916	15571
675	29890	29890	29890	29890	29890	29890	29890	29890	29890	29890	29890	29890	29755	29169	28012	26140	23305	18992
700	30973	30973	30973	30973	30973	30973	30973	30973	30973	30973	30973	30973	30905	30459	29490	27884	25454	21849
725	32057	32057	32057	32057	32057	32057	32057	32057	32057	32057	32057	32057	32027	31704	30901	29523	27422	24348
740	32707	32707	32707	32707	32707	32707	32707	32707	32707	32707	32707	32707	32688	32433	31720	30463	28534	25721
																		21607

600 SERIES 2R10 (10%) AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
Cv = 6.0 Fp = 1.00 Fg = 1.291 Xt = 0.700 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig															
	0	50	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400
100	28.5	27.2														
150	40.9	40.8	35.4													
200	53.3	53.3	51.5													
250	65.8	65.8	65.3	48.0												
300	78.2	78.2	78.1	68.6												
350	90.6	90.6	90.6	85.3	58.0											
400	103	103	103	100	82.4											
450	115	115	115	114	102	66.5										
500	128	128	128	127	119	94.4										
550	140	140	140	140	134	116	74.1									
600	153	153	153	153	149	135	105									
650	165	165	165	165	163	152	129	81.0								
700	178	178	178	178	176	168	150	115								
750	190	190	190	190	189	183	168	141	87.3							
800	202	202	202	202	202	197	185	163	124							
850	215	215	215	215	215	211	201	183	152	93.2						
900	227	227	227	227	227	225	217	201	175	132						
950	240	240	240	240	240	238	232	218	197	162	98.8					
1000	252	252	252	252	252	251	246	235	216	187	140					
1050	265	265	265	265	265	264	260	250	234	210	171	104				
1100	277	277	277	277	277	277	274	266	252	230	198	147				
1150	289	289	289	289	289	289	287	280	268	250	222	180	109			
1200	302	302	302	302	302	302	300	294	284	268	244	208	154			
1250	314	314	314	314	314	314	313	308	299	285	264	233	189	114		
1300	327	327	327	327	327	327	326	322	314	302	283	256	218	161		
1350	339	339	339	339	339	339	339	336	329	318	301	277	244	197	118	
1400	351	351	351	351	351	351	351	349	343	333	318	297	268	228	167	
1450	364	364	364	364	364	364	364	362	357	348	335	316	290	255	205	123
1480	371	371	371	371	371	371	371	370	365	357	345	327	303	270	225	155

600 SERIES 2R25 (25%) AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
Cv = 14.5 Fp = 1.00 Fg = 1.291 Xt = 0.750 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig															
	0	50	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400
100	71.3	66.9														
150	102	102	86.6													
200	133	133	127													
250	165	165	162	117												
300	196	196	195	168												
350	227	227	227	210	141											
400	258	258	258	247	201											
450	289	289	289	283	249	161										
500	320	320	320	316	292	230										
550	351	351	351	349	331	284	180									
600	382	382	382	381	367	331	255									
650	413	413	413	413	403	373	314	196								
700	444	444	444	444	437	413	366	278								
750	475	475	475	475	470	451	412	343	211							
800	506	506	506	506	503	488	455	398	300							
850	537	537	537	537	536	523	495	447	369	226						
900	568	568	568	568	567	557	534	493	428	320						
950	600	600	600	600	599	591	571	536	480	393	239					
1000	631	631	631	631	630	625	608	577	529	455	339					
1050	662	662	662	662	662	667	643	616	574	511	416	252				
1100	693	693	693	693	693	690	678	655	617	562	482	357				
1150	724	724	724	724	724	722	712	692	659	610	541	438	264			
1200	755	755	755	755	755	754	746	728	699	656	594	507	374			
1250	786	786	786	786	786	785	779	763	737	699	644	568	459	275		
1300	817	817	817	817	817	817	812	798	775	740	692	625	531	390		
1350	848	848	848	848	848	848	844	832	812	781	737	677	595	479	287	
1400	879	879	879	879	879	879	876	866	848	820	780	726	654	554	406	
1450	910	910	910	910	910	910	908	900	883	858	822	773	708	620	498	297
1480	929	929	929	929	929	929	927	920	904	880	846	800	739	657	546	376

600 SERIES 2R50 (50%) AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
Cv = 34.8 Fp = 1.00 Fg = 1.291 Xt = 0.620 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig															
	0	50	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400
100	156	152														
150	223	223	200													
200	291	291	287													
250	359	359	359	275												
300	427	427	427	388												
350	495	495	495	477	333											
400	562	562	562	556	469											
450	630	630	630	629	575	383										
500	698	698	698	698	666	540										
550	766	766	766	766	749	660	427									
600	834	834	834	834	826	763	602									
650	901	901	901	901	898	854	736	467								
700	969	969	969	969	968	939	849	658								
750	1037	1037	1037	1037	1037	1019	950	804	504							
800	1105	1105	1105	1105	1105	1095	1042	928	710							
850	1173	1173	1173	1173	1173	1168	1129	1037	868	538						
900	1240	1240	1240	1240	1240	1239	1210	1137	1001	759						
950	1308	1308	1308	1308	1308	1308	1289	1230	1118	928	571					
1000	1376	1376	1376	1376	1376	1376	1364	1317	1225	1069	805					
1050	1444	1444	1444	1444	1444	1444	1437	1401	1324	1194	983	601				
1100	1512	1512	1512	1512	1512	1512	1508	1481	1417	1308	1134	848				
1150	1579	1579	1579	1579	1579	1579	1578	1558	1506	1413	1266	1036	631			
1200	1647	1647	1647	1647	1647	1647	1647	1633	1591	1512	1386	1195	889			
1250	1715	1715	1715	1715	1715	1715	1715	1706	1672	1605	1497	1334	1087	658		
1300	1783	1783	1783	1783	1783	1783	1783	1778	1751	1694	1601	1460	1253	929		
1350	1851	1851	1851	1851	1851	1851	1851	1848	1828	1780	1699	1577	1399	1135	685	
1400	1918	1918	1918	1918	1918	1918	1918	1917	1903	1862	1792	1686	1531	1309	967	
1450	1986	1986	1986	1986	1986	1986	1986	1986	1976	1943	1882	1788	1653	1461	1181	711
1480	2027	2027	2027	2027	2027	2027	2027	2027	2019	1990	1934	1848	1722	1545	1293	898

600 SERIES 2" AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
Cv = 67.6 Fp = 1.00 Fg = 1.291 Xt = 0.590 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig															
	0	50	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400
100	295	290														
150	423	423	385													
200	552	552	547													
250	680	680	680	530												
300	809	809	809	745												
350	937	937	937	913	644											
400	1066	1066	1066	1059	904											
450	1194	1194	1194	1193	1104	741										
500	1323	1323	1323	1323	1275	1041										
550	1451	1451	1451	1451	1429	1270	827									
600	1580	1580	1580	1580	1571	1464	1163									
650	1708	1708	1708	1708	1706	1636	1418	905								
700	1837	1837	1837	1837	1837	1795	1633	1273								
750	1965	1965	1965	1965	1965	1943	1823	1552	977							
800	2094	2094	2094	2094	2094	2084	1997	1787	1375							
850	2222	2222	2222	2222	2222	2219	2158	1994	1677	1044						
900	2351	2351	2351	2351	2351	2349	2311	2182	1930	1469						
950	2479	2479	2479	2479	2479	2479	2456	2357	2153	1793	1107					
1000	2607	2607	2607	2607	2607	2607	2596	2521	2355	2064	1559					
1050	2736	2736	2736	2736	2736	2736	2731	2676	2542	2302	1902	1167				
1100	2864	2864	2864	2864	2864	2864	2863	2825	2717	2517	2189	1643				
1150	2993	2993	2993	2993	2993	2993	2993	2969	2882	2716	2442	2005	1223			
1200	3121	3121	3121	3121	3121	3121	3121	3108	3040	2901	2670	2308	1723			
1250	3250	3250	3250	3250	3250	3250	3250	3243	3192	3077	2880	2575	2103	1277		
1300	3378	3378	3378	3378	3378	3378	3378	3376	3339	3244	3076	2815	2422	1800		
1350	3507	3507	3507	3507	3507	3507	3507	3507	3482	3404	3261	3036	2701	2197	1329	
1400	3635	3635	3635	3635	3635	3635	3635	3635	3620	3558	3436	3242	2953	2530	1874	
1450	3764	3764	3764	3764	3764	3764	3764	3764	3756	3707	3604	3436	3185	2823	2288	1379
1480	3841	3841	3841	3841	3841	3841	3841	3841	3836	3795	3702	3547	3316	2983	2502	1741

600 SERIES 4" AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
Cv = 248 Fp = 1.00 Fg = 1.291 Xt = 0.590 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig															
	0	50	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400
100	1082	1063														
150	1553	1553	1413													
200	2024	2024	2005													
250	2496	2496	2496	1944												
300	2967	2967	2967	2733												
350	3438	3438	3438	3349	2364											
400	3910	3910	3910	3886	3318											
450	4381	4381	4381	4378	4051	2720										
500	4852	4852	4852	4852	4678	3820										
550	5324	5324	5324	5324	5242	4659	3036									
600	5795	5795	5795	5795	5765	5370	4266									
650	6266	6266	6266	6266	6260	6003	5202	3322								
700	6738	6738	6738	6738	6738	6584	5990	4670								
750	7209	7209	7209	7209	7209	7128	6688	5695	3585							
800	7680	7680	7680	7680	7680	7644	7325	6557	5043							
850	8152	8152	8152	8152	8152	8140	7918	7316	6151	3831						
900	8623	8623	8623	8623	8623	8619	8477	8007	7081	5391						
950	9095	9095	9095	9095	9095	9095	9011	8646	7899	6577	4061					
1000	9566	9566	9566	9566	9566	9566	9523	9247	8640	7571	5718					
1050	10037	10037	10037	10037	10037	10037	10020	9818	9325	8444	6977	4280				
1100	10509	10509	10509	10509	10509	10509	10502	10365	9967	9234	8032	6027				
1150	10980	10980	10980	10980	10980	10980	10980	10892	10574	9963	8958	7356	4488			
1200	11451	11451	11451	11451	11451	11451	11451	11403	11154	10643	9795	8469	6322			
1250	11923	11923	11923	11923	11923	11923	11923	11899	11712	11287	10565	9446	7717	4686		
1300	12394	12394	12394	12394	12394	12394	12394	12384	12250	11899	11284	10327	8885	6603		
1350	12865	12865	12865	12865	12865	12865	12865	12865	12773	12487	11962	11138	9910	8062	4877	
1400	13337	13337	13337	13337	13337	13337	13337	13337	13281	13053	12606	11893	10835	9283	6873	
1450	13808	13808	13808	13808	13808	13808	13808	13808	13778	13601	13223	12605	11684	10355	8393	5060
1480	14091	14091	14091	14091	14091	14091	14091	14091	14072	13922	13582	13014	12165	10945	9179	6388

600 SERIES 6" AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
Cv = 500 Fp = 1.00 Fg = 1.291 Xt = 0.511 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig															
	0	50	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400
100	2029	2023														
150	2914	2914	2749													
200	3798	3798	3796													
250	4683	4683	4683	3841												
300	5567	5567	5567	5305												
350	6451	6451	6451	6403	4698											
400	7336	7336	7336	7336	6512											
450	8220	8220	8220	8220	7860	5425										
500	9104	9104	9104	9104	8980	7542										
550	9989	9989	9989	9989	9967	9114	6067									
600	10873	10873	10873	10873	10873	10413	8454									
650	11758	11758	11758	11758	11758	11547	10229	6648								
700	12642	12642	12642	12642	12642	12570	11694	9280								
750	13526	13526	13526	13526	13526	13513	12967	11242	7182							
800	14411	14411	14411	14411	14411	14411	14109	12860	10041							
850	15295	15295	15295	15295	15295	15295	15157	14264	12175	7680						
900	16180	16180	16180	16180	16180	16180	16133	15521	13937	10749						
950	17064	17064	17064	17064	17064	17064	17054	16669	15464	13045	8147					
1000	17948	17948	17948	17948	17948	17948	17948	17735	16829	14942	11414					
1050	18833	18833	18833	18833	18833	18833	18833	18736	18074	16586	13862	8590				
1100	19717	19717	19717	19717	19717	19717	19717	19685	19227	18054	15886	12043				
1150	20602	20602	20602	20602	20602	20602	20591	20306	19391	17641	14635	9010				
1200	21486	21486	21486	21486	21486	21486	21486	21486	21327	20627	19208	16781	12642			
1250	22370	22370	22370	22370	22370	22370	22370	22370	22299	21783	20634	18641	15371	9412		
1300	23255	23255	23255	23255	23255	23255	23255	23255	23230	22874	21951	20302	17631	13213		
1350	24139	24139	24139	24139	24139	24139	24139	24139	24139	23910	23181	21813	19593	16073	9798	
1400	25024	25024	25024	25024	25024	25024	25024	25024	25024	24901	24339	23208	21344	18444	13761	
1450	25908	25908	25908	25908	25908	25908	25908	25908	25908	25853	25439	24509	22937	20503	16747	10168
1480	26439	26439	26439	26439	26439	26439	26439	26439	26439	26408	26074	25253	23832	21628	18279	12812

600 SERIES 8" AXIAL FLOW VALVE CAPACITY TABLE - ISA METHOD - (mscfh)
Valve Coefficient, Cv Gas - .60 Specific Gravity Base pressure- 14.73 psig Base Temperature - 60 Deg. F
 Cv = 710 Fp = 1.00 Fg = 1.291 Xt = 0.550 Fk = 0.929

Inlet Pressure psig	OUTLET PRESSURE - psig															
	0	50	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400
100	2990	2963														
150	4292	4292	3978													
200	5595	5595	5576													
250	6898	6898	6898	5514												
300	8201	8201	8201	7687												
350	9504	9504	9504	9354	6722											
400	10807	10807	10807	10789	9381											
450	12110	12110	12110	12110	11393	7748										
500	13413	13413	13413	13413	13092	10830										
550	14716	14716	14716	14716	14606	13152	8655									
600	16018	16018	16018	16018	15998	15098	12115									
650	17321	17321	17321	17321	17321	16815	14720	9477								
700	18624	18624	18624	18624	18624	18379	16894	13280								
750	19927	19927	19927	19927	19927	19834	18802	16145	10233							
800	21230	21230	21230	21230	21230	21207	20531	18531	14354							
850	22533	22533	22533	22533	22533	22533	22129	20621	17459	10938						
900	23836	23836	23836	23836	23836	23836	23629	22507	20045	15354						
950	25139	25139	25139	25139	25139	25139	25053	24244	22306	18685	11600					
1000	26441	26441	26441	26441	26441	26441	26416	25867	24342	21459	16294					
1050	27744	27744	27744	27744	27744	27744	27744	27402	26212	23882	19838	12227				
1100	29047	29047	29047	29047	29047	29047	29047	28864	27954	26060	22789	17183				
1150	30350	30350	30350	30350	30350	30350	30350	30269	29597	28058	25366	20929	12823			
1200	31653	31653	31653	31653	31653	31653	31653	31624	31158	29916	27681	24049	18029			
1250	32956	32956	32956	32956	32956	32956	32956	32956	32652	31663	29801	26773	21967	13392		
1300	34259	34259	34259	34259	34259	34259	34259	34259	34091	33321	31771	29219	25249	18838		
1350	35562	35562	35562	35562	35562	35562	35562	35562	35482	34904	33620	31457	28113	22959	13939	
1400	36865	36865	36865	36865	36865	36865	36865	36865	36833	36424	35371	33534	30685	26395	19613	
1450	38167	38167	38167	38167	38167	38167	38167	38167	38167	37891	37041	35482	33037	29395	23911	14464
1480	38949	38949	38949	38949	38949	38949	38949	38949	38949	38749	38009	36599	34363	31042	26127	18243

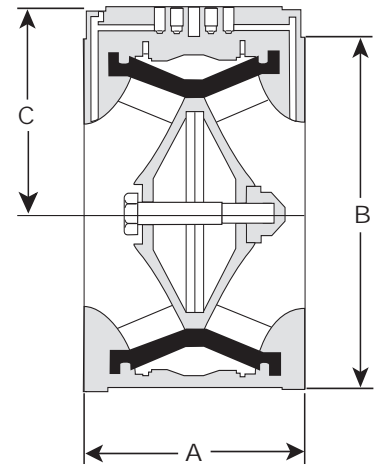
Axial Flow Valve Dimensions and Weights

300 Series: ANSI 125, 250, and 300 Flanges
Working Pressure- 740 psig

VALVE SIZE	DIMENSIONS – INCHES			WEIGHT
	A	B	C	LBS.
2", 2R10, 2R25, 2R50	3-1/32	4-1/8	2-3/4	5-3/4
3"	3-23/32	5-3/8	3-5/16	9
4"	4-1/2	6-7/8	4-1/8	19
6"	5-1/2	8-3/4	5-1/16	38
8"	6-23/32	11	6-3/16	80
12"	9-7/16	16-1/8	8-3/4	177

600 Series: ANSI 600 Flanges
Working Pressure- 1480 psig

VALVE SIZE	DIMENSIONS – INCHES			WEIGHT
	A	B	C	LBS.
2", 2R10, 2R25, 2R50	3-13/32	4-3/8	2-7/8	7-1/2
4"	5-1/4	7-5/8	4-1/2	31-1/2
6"	6-7/8	10-1/2	5-5/16	73-1/2
8"	8-5/64	12-5/8	7	122



Capacity Limiter Kits

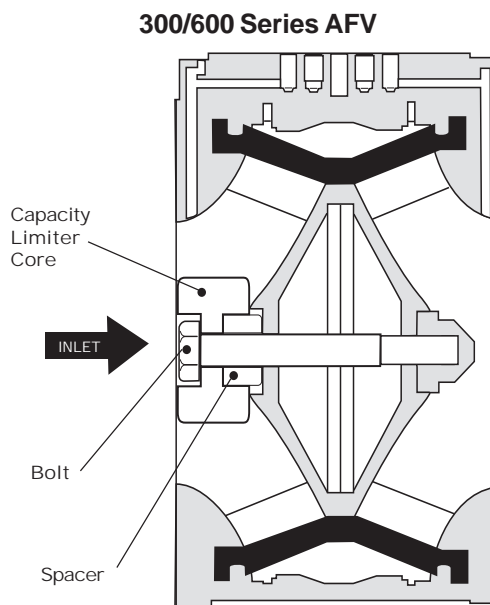
A capacity limiter can be installed to reduce full-open capacity to a predetermined percentage of an Axial Flow Valve's rated capacity. Capacity Limiter kits are available for 2", 3", 4" and 6" standard trim American Axial Flow Valves.

The Capacity limiter can be installed quickly and easily on the inlet of the valve and requires no modification to valve itself. With the capacity limiter kit installed, the AFV becomes an ideal choice:

- as a permanent regulator in low-flow applications
- to temporarily reduce full-open flow rates for start-up conditions
- as a replacement for other types of pressure regulators

Kits are available to reduce the full-open flow rate of an Axial Flow Valve to either 50% or 75% of the valve's normal capacity.

*Note: Capacity Limiters are **NOT** to be used with reduced capacity cages (i.e. 2R50, 2R25, 2R10).*



AFV Capacity Limiter Coefficients

AFV Type & Limiter	C_V	X_T
2" Class 300:		
50% Capacity (P/N 74075G036)	36	0.500
75% Capacity (P/N 74075G041)	53	0.590
3" Class 300:		
50% Capacity (P/N 74075G055)	78	0.410
75% Capacity (P/N 74075G060)	110	0.450
4" Class 300:		
50% Capacity (P/N 74075G074)	136	0.430
75% Capacity (P/N 74075G079)	185	0.470
6" Class 300:		
50% Capacity (P/N 74075G112)	168	0.440
75% Capacity (P/N 74075G117)	246	0.470
2" Class 600:		
50% Capacity (P/N 74075G036)	38	0.450
75% Capacity (P/N 74075G041)	52	0.590
4" Class 600:		
50% Capacity (P/N 74075G093)	154	0.500
75% Capacity (P/N 74075G098)	212	0.550
6" Class 600:		
75% Capacity (P/N 74075G124)	420	0.500

* Capacity Limiter Coefficients shown above are to be used in ANSI/ISA S75.02-1988 Flow prediction set shown on page 2 of this bulletin

NOTES

A Complete Family of Gas Measurement, Pressure Regulation, and Testing Systems



Turbine Gas Meters

High performance meters provide accurate measurement of high volume gas flow. Turbines are available from 3" to 12" line sizes and line pressure up to 1440 psig. See bulletin SB 4510 for more information.



Rotary Gas Meters

RPM Series Rotary Meters are designed for commercial and industrial loads to provide accurate flow measurement and outstanding performance in the most adverse conditions. See bulletin SB 5500 for more information.



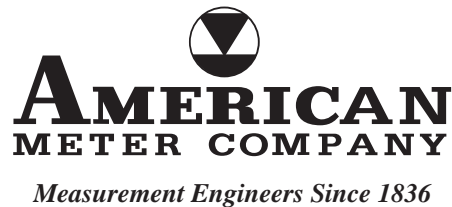
Diaphragm Meters

American Meter's compact, lightweight, aluminum case meters are designed to provide positive displacement accuracy for industrial or commercial loads. See bulletin SB 3510 for more information.



Pilot-Loaded Regulators

1800 PFM industrial regulators are designed for applications requiring medium-to-high capacity, extremely precise outlet pressure control, and fast response to changing loads. See bulletin SB 8551 for more information.



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