

Victaulic Suction Diffuser Series 731-D



1.0 PRODUCT DESCRIPTION

Available Sizes

- 3 x 2" to 12 x 12"/DN80 x DN50 to DN300 x DN300

Pressure Class

- Rated to the working pressure of the mating flange up to a maximum of 365 psi/2517 kPa/25 bar.

Application

- Provides optimum flow conditions at the inlet side of the pump.
- Removable basket and fine mesh sleeve act as start-up strainer.
- Pressure port in the cap measures pressure downstream of the diffuser.
- Plug in the cap allows for easy draining of the system

2.0 CERTIFICATION/LISTINGS

Not applicable – contact Victaulic with any questions.

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	

3.0 SPECIFICATIONS – MATERIAL

Housing (Body, Coupling, End Cap): Ductile iron conforming to ASTM A395.

Housing Coating: (specify choice)

Standard: Fusion bonded epoxy (Max. operating temperature +140°F/+60°C).

Optional: Orange coating.

Coupling Gasket: (specify choice)

Victaulic EPDM

(Green color code). Temperature range –30°F to +230°F/–34°C to +110°C. UL Classified in accordance with ANSI/ NSF 61 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and ANSI/NSF 372. NOT RECOMMENDED FOR PETROLEUM SERVICES.

Victaulic Nitrile

(Orange color code). Temperature range +10°F to +150°F/–12°C to +65°C. Not compatible for hot water services over +150°F/+66°C or for hot dry air over +140°F/60°C. NOT RECOMMENDED FOR HOT WATER SERVICES.

Diffuser: Type 304 stainless steel, frame and perforated sheet with 5/32" / 4 mm diameter holes.

Start-Up Pre-Filter: 20 mesh stainless steel, Type 304.

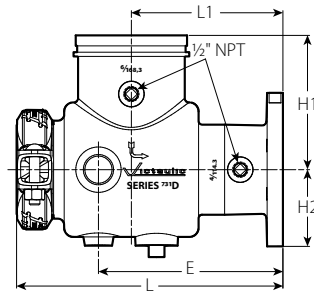
Bolts/Nuts: Heat-treated plated carbon steel, trackhead meeting the physical and chemical requirements of ASTM A449 and physical requirements of ASTM A183.

Support: Boss for support. See table below for size. (Support not supplied.)

4.0 DIMENSIONS

ANSI Dimensions

Series 731-D with ANSI Class 150 Flange



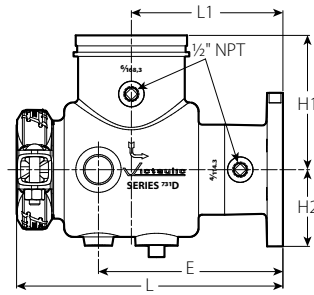
3 – 12¹/₈₀ – 300 mm

Size		Dimensions							Approx. Weight (Each)
System Side Grooved	Pump Side x Flange ANSI Class 150	L	L1	H1	H2	Thread Size	E		
Nominal Size		inches mm	inches mm	inches mm	inches mm		inches mm	lb kg	
3 80	x	2 50	11.00 279	6.30 160	5.51 140	3.30 83	1-11.5 NPT	7.48 190	20.1 9.1
		2.5 65	11.00 279	6.30 160	5.51 140	3.70 93	1-11.5 NPT	7.48 190	26.0 11.8
		3 80	11.00 279	6.30 160	5.51 140	4.00 101	1-11.5 NPT	7.48 190	27.7 12.6
4 100	x	2.5 65	13.00 330	7.40 187	6.50 165	3.70 93	1-11.5 NPT	8.74 222	29.7 13.5
		3 80	13.00 330	7.40 187	6.50 165	4.00 101	1-11.5 NPT	8.74 222	31.6 15.0
		4 100	13.00 330	7.40 187	6.50 165	4.60 116	1-11.5 NPT	8.74 222	34.6 15.7
		5 125	15.00 381	8.40 213	7.52 191	4.00 101	1.25-11.5 NPT	9.84 250	46.2 21.0
6 150	x	4 100	16.00 406	9.00 229	8.00 203	4.60 116	1.25-11.5 NPT	10.98 279	64.0 29.0
		5 125	16.00 406	9.00 229	8.00 203	5.10 130	1.25-11.5 NPT	10.98 279	67.3 30.0
		6 150	16.00 406	9.00 229	8.00 203	5.70 144	1.25-11.5 NPT	10.98 279	70.3 31.9
8 200	x	5 125	19.00 483	10.20 260	9.02 229	5.10 130	1.25-11.5 NPT	12.52 318	98.5 44.7
		6 150	19.00 483	10.20 260	9.02 229	5.70 144	1.25-11.5 NPT	12.52 318	102.1 46.3
		8 200	19.00 483	10.20 260	9.02 229	6.80 172	1.25-11.5 NPT	12.52 318	110.7 50.2
10 250	x	6 150	23.00 584	12.40 315	11.00 279	5.70 144	1.25-11.5 NPT	15.55 395	150.6 68.3
		8 200	22.50 584	12.40 315	11.00 279	6.80 172	1.25-11.5 NPT	15.55 395	159.9 72.5
		10 250	22.50 584	12.40 315	11.00 279	8.07 205	1.25-11.5 NPT	15.55 395	172.0 78.0
12 300	x	8 200	27.00 686	15.43 392	13.19 335	6.75 172	1.25-11.5 NPT	18.58 472	245.4 111.3
		10 250	26.84 686	15.43 392	13.19 335	8.07 205	1.25-11.5 NPT	18.58 472	260.3 118.1
		12 300	26.84 686	15.43 392	13.19 335	9.50 241	1.25-11.5 NPT	18.58 472	273.2 123.9

4.1 DIMENSIONS

DIN Dimensions

Series 731-D with PN10/PN16 Flange



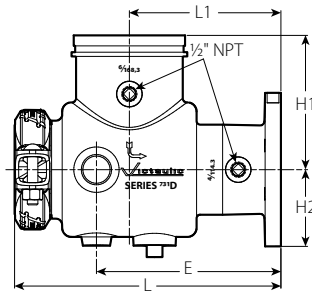
80 – 300 mm

Size		Dimensions							Approx. Weight (Each)
System Side Grooved	Pump Side x Flange ANSI Class 150	L	L1	H1	H2	Thread Size	E		
Nominal Size		mm inches	mm inches	mm inches	mm inches		mm inches	kg lb	
76.1 mm	x 50	279 11.00	160 6.30	140 5.50	83 3.30	1-11 ISO 7-1	190 7.50	9.1	
	2							20.1	
80	x 50	279 11.00	160 6.30	140 5.50	83 3.30	1-11 ISO 7-1	190 7.50	9.1	
		2						20.1	
	76.1 mm	279 11.00	160 6.30	140 5.50	93 3.70	1-11 ISO 7-1	190 7.50	12.6	
		80	279 11.00	160 6.30	140 5.50			101 4.00	1-11 ISO 7-1
100	x 76.1 mm	330 13.00	187 7.40	165 6.50	93 3.70	1-11 ISO 7-1	222 8.70	15.0	
		4						31.6	
	80	3	330 13.00	187 7.40	165 6.50	101 4.00	1-11 ISO 7-1	222 8.70	15.0
			4						31.6
100	x 100	330 13.00	187 7.40	165 6.50	116 4.60	1-11 ISO 7-1	222 8.70	15.7	
		4						34.6	
	139.7 mm	x 76.1 mm	381 15.00	213 8.40	191 7.50	93 3.70	1.25-11 ISO 7-1	250 9.80	16.8
			80	381 15.00	213 8.40	191 7.50			101 4.00
100		4	381 15.00	213 8.40	191 7.50	116 4.60	1.25-11 ISO 7-1	250 9.80	20.0
			4						44.0
125	x 139.7 mm	381 15.00	213 8.40	191 7.50	130 5.10	1.25-11 ISO 7-1	250 9.80	22.2	
		4						49.0	
	80	3	381 15.00	213 8.40	191 7.50	101 4.00	1.25-11 ISO 7-1	250 9.80	21.0
			4						46.2
125	x 100	381 15.00	213 8.40	191 7.50	116 4.60	1.25-11 ISO 7-1	250 9.80	22.4	
		4						49.4	
	125	5	381 15.00	213 8.40	191 7.50	130 5.10	1.25-11 ISO 7-1	250 9.80	23.7
			5						52.3
150	x 100	406 16.00	229 9.00	203 8.00	116 4.60	1.25-11 ISO 7-1	279 11.00	29.0	
		4						64.0	
	139.7 mm	125	406 16.00	229 9.00	203 8.00	130 5.10	1.25-11 ISO 7-1	279 11.00	30.0
			5						67.3
	125	5	406 16.00	229 9.00	203 8.00	130 5.10	1.25-11 ISO 7-1	279 11.00	30.0
			5						67.3
150	6	406 16.00	229 9.00	203 8.00	144 5.70	1.25-11 ISO 7-1	279 11.00	31.9	
		6						70.3	
200	x 139.7 mm	483 19.00	260 10.20	229 9.00	130 5.10	1.25-11 ISO 7-1	318 12.50	44.7	
		8						98.5	
	125	5	483 19.00	260 10.20	229 9.00	130 5.10	1.25-11 ISO 7-1	318 12.50	44.7
			5						98.5
	150	6	483 19.00	260 10.20	229 9.00	144 5.70	1.25-11 ISO 7-1	318 12.50	46.3
			6						102.1
200	8	483 19.00	260 10.20	229 9.00	172 6.80	1.25-11 ISO 7-1	318 12.50	50.2	
		8						110.7	

4.1 DIMENSIONS (Continued)

DIN Dimensions

Series 731-D with PN10/PN16 Flange



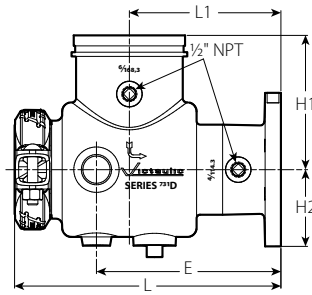
80 – 300 mm

Size		Dimensions						Approx. Weight (Each)	
System Side Grooved	Pump Side x Flange ANSI Class 150	L	L1	H1	H2	Thread Size	E		
Nominal Size		mm inches	mm inches	mm inches	mm inches		mm inches	kg lb	
250 10	x 6	150	584	315	279	144	1.25-11 ISO 7-1	395	68.3
		200	584	315	279	172		395	150.6
	8	23.00	12.40	11.00	11.00	6.80	1.25-11 ISO 7-1	15.60	72.5
300 12	x 8	250	584	315	279	205	1.25-11 ISO 7-1	395	78.0
		10	23.00	12.40	11.00	8.10		15.60	172.0
	x 10	200	686	392	335	172	1.25-11 ISO 7-1	472	111.3
		250	686	392	335	205		18.60	245.4
x 12	250	686	392	335	205	1.25-11 ISO 7-1	472	118.1	
	300	27.00	15.40	13.20	8.10		18.60	260.3	
x 12	250	686	392	335	241	1.25-11 ISO 7-1	472	123.9	
	300	27.00	15.40	13.20	9.50		18.60	273.2	

4.2 DIMENSIONS

GB Dimensions

Series 731-D with GB Flange



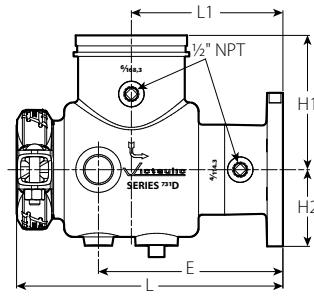
76.1 – 300 mm

Size		Dimensions							Approx. Weight (Each)		
System Side Grooved	Pump Side x Flange ANSI Class 150	L	L1	H1	H2	Thread Size	E				
Nominal Size		mm inches	mm inches	mm inches	mm inches		mm inches	kg lb			
76.1 mm	x 50	279 11.00	160 6.3	140 5.50	83 3.30	1-11 ISO 7-1	190 7.50	9.1			
	2							20.1			
80	x 50	279 11.00	160 6.3	140 5.50	83 3.30	1-11 ISO 7-1	190 7.50	9.1			
		2						20.1			
	76.1 mm	279 11.00	160 6.3	140 5.50	93 3.70	1-11 ISO 7-1	190 7.50	12.6			
		80	279 11.00	160 6.3	140 5.50			101 4.00	1-11 ISO 7-1	190 7.50	12.6
100	x 76.1 mm	330 13.00	187 7.4	165 6.50	93 3.70	1-11 ISO 7-1	222 8.70	15.0			
		80	330 13.00	187 7.4	165 6.50			101 4.00	1-11 ISO 7-1	222 8.70	15.0
		3	330 13.00	187 7.4	165 6.50			116 4.60	1-11 ISO 7-1	222 8.70	15.7
139.7 mm	x 76.1 mm	381 15.00	213 8.4	191 7.50	93 3.70	1.25-11 ISO 7-1	250 9.80	16.8			
		80	381 15.00	213 8.4	191 7.50			101 4.00	1.25-11 ISO 7-1	250 9.80	19.1
		100	381 15.00	213 8.4	191 7.50	116 4.60	1.25-11 ISO 7-1	250 9.80	20.0		
		4	381 15.00	213 8.4	191 7.50	130 5.10			1.25-11 ISO 7-1	250 9.80	22.2
150	x 100	406 16.00	229 9.0	203 8.00	116 4.60	1.25-11 ISO 7-1	279 11.00	29.0			
		4	406 16.00	229 9.0	203 8.00			130 5.10	1.25-11 ISO 7-1	279 11.00	30.0
		139.7 mm	406 16.00	229 9.0	203 8.00	130 5.10	1.25-11 ISO 7-1	279 11.00	67.3		
		125	406 16.00	229 9.0	203 8.00	144 5.70			1.25-11 ISO 7-1	279 11.00	30.0
		5	406 16.00	229 9.0	203 8.00	144 5.70			1.25-11 ISO 7-1	279 11.00	30.0
200	x 139.7 mm	483 19.00	260 10.2	229 9.00	130 5.10	1.25-11 ISO 7-1	318 12.50	44.7			
		8	483 19.00	260 10.2	229 9.00			130 5.10	1.25-11 ISO 7-1	318 12.50	44.7
		125	483 19.00	260 10.2	229 9.00	144 5.70	1.25-11 ISO 7-1	318 12.50	98.5		
		5	483 19.00	260 10.2	229 9.00	172 6.80			1.25-11 ISO 7-1	318 12.50	46.3
		6	483 19.00	260 10.2	229 9.00	172 6.80			1.25-11 ISO 7-1	318 12.50	102.1
150	483 19.00	260 10.2	229 9.00	172 6.80	1.25-11 ISO 7-1	318 12.50	50.2				
8	483 19.00	260 10.2	229 9.00	172 6.80	1.25-11 ISO 7-1	318 12.50	110.7				

4.2 DIMENSIONS (Continued)

GB Dimensions

Series 731-D with GB Flange



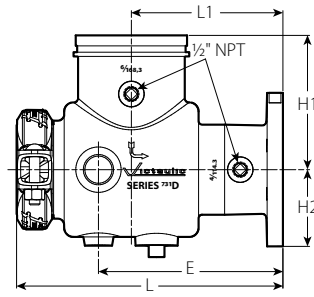
76.1 – 300 mm

Size		Dimensions						Approx. Weight (Each)	
System Side Grooved	Pump Side x Flange ANSI Class 150	L	L1	H1	H2	Thread Size	E		
Nominal Size		mm inches	mm inches	mm inches	mm inches		mm inches	kg lb	
250 10	x 6	150	584	315	279	144	1.25-11 ISO 7-1	395	68.3
		200	584	315	279	172		150.6	
	x 8	200	584	315	279	172	1.25-11 ISO 7-1	395	72.5
		250	584	315	279	205		159.9	
300 12	x 8	250	686	392	335	172	1.25-11 ISO 7-1	472	111.3
		300	686	392	335	205		245.4	
	x 10	250	686	392	335	205	1.25-11 ISO 7-1	472	118.1
		300	686	392	335	241		260.3	
x 12	300	686	392	335	241	1.25-11 ISO 7-1	472	123.9	
	300	686	392	335	241		273.2		

4.3 DIMENSIONS

JIS Dimensions

Series 731-D with JIS 10K Flange



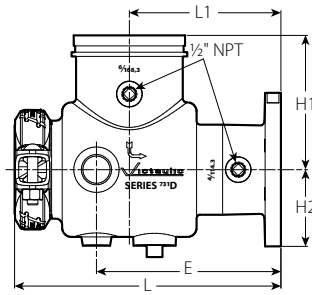
350A – 600A mm

Size		Dimensions						Approx. Weight (Each)
System Side Grooved	Pump Side x Flange ANSI Class 150	L	L1	H1	H2	Thread Size	E	
Nominal Size		mm inches	mm inches	mm inches	mm inches		mm inches	kg lb
76.1 mm	x 50A 2	279 11.00	160 6.30	140 5.50	83 3.30	1-11 ISO 7-1	190 7.50	9.1 20.1
80A 3	x 50A 2	279 11.00	160 6.30	140 5.50	83 3.30	1-11 ISO 7-1	190 7.50	9.1 20.1
	76.1 mm	279 11.00	160 6.30	140 5.50	93 3.70	1-11 ISO 7-1	190 7.50	12.6 27.7
	80A 3	279 11.00	160 6.30	140 5.50	101 4.00	1-11 ISO 7-1	190 7.50	12.6 27.7
100A 4	x 76.1 mm	330 13.00	187 7.40	165 6.50	93 3.70	1-11 ISO 7-1	222 8.70	15.0 31.6
	80A 3	330 13.00	187 7.40	165 6.50	101 4.00	1-11 ISO 7-1	222 8.70	15.0 31.6
	100A 4	330 13.00	187 7.40	165 6.50	116 4.60	1-11 ISO 7-1	222 8.70	15.7 34.6
139.7 mm	x 76.1 mm	381 15.00	213 8.40	191 7.50	93 3.70	1.25-11 ISO 7-1	250 9.80	16.8 37.0
125A 5	x 76.1 mm	381 15.00	213 8.40	191 7.50	93 3.70	1.25-11 ISO 7-1	250 9.80	16.8 37.0
	80A 3	381 15.00	213 8.40	191 7.50	101 4.00	1.25-11 ISO 7-1	250 9.80	21.0 46.2
	100A 4	381 15.00	213 8.40	191 7.50	116 4.60	1.25-11 ISO 7-1	250 9.80	22.2 49.0
	125A 5	381 15.00	213 8.40	191 7.50	130 5.10	1.25-11 ISO 7-1	250 9.80	23.7 52.3
150A 6	x 100A 4	406 16.00	229 9.00	203 8.00	116 4.60	1.25-11 ISO 7-1	279 11.00	29.0 64.0
	139.7 mm	406 16.00	229 9.00	203 8.00	130 5.10	1.25-11 ISO 7-1	279 11.00	30.0 67.3
	125A 5	406 16.00	229 9.00	203 8.00	130 5.10	1.25-11 ISO 7-1	279 11.00	30.0 67.3
	150A 6	406 16.00	229 9.00	203 8.00	144 5.70	1.25-11 ISO 7-1	279 11.00	31.9 70.3
200A 8	x 139.7 mm	483 19.00	260 10.20	229 9.00	130 5.10	1.25-11 ISO 7-1	318 12.50	44.7 98.5
	125A 5	483 19.00	260 10.20	229 9.00	130 5.10	1.25-11 ISO 7-1	318 12.50	44.7 98.5
	150A 6	483 19.00	260 10.20	229 9.00	144 5.70	1.25-11 ISO 7-1	318 12.50	46.3 102.1
	200A 8	483 19.00	260 10.20	229 9.00	172 6.80	1.25-11 ISO 7-1	318 12.50	50.2 110.7

4.3 DIMENSIONS (Continued)

JIS Dimensions

Series 731-D with JIS 10K Flange



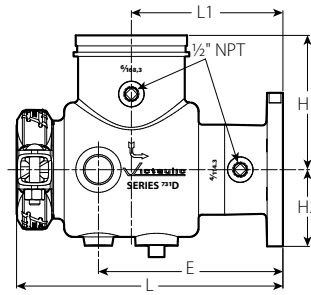
350A – 600A mm

Size		Dimensions						Approx. Weight (Each)	
System Side Grooved	Pump Side x Flange ANSI Class 150	L	L1	H1	H2	Thread Size	E		
Nominal Size		mm inches	mm inches	mm inches	mm inches		mm inches	kg lb	
250A 10	x 6	150A	584 23.00	315 12.40	279 11.00	144 5.70	1.25-11 ISO 7-1	395 15.60	68.3 150.6
		200A	584 23.00	315 12.40	279 11.00	172 6.80	1.25-11 ISO 7-1	395 15.60	72.5 159.9
	x 10	250A	584 23.00	315 12.40	279 11.00	205 8.10	1.25-11 ISO 7-1	395 15.60	78.0 172.0
		300A	584 23.00	315 12.40	279 11.00	241 9.50	1.25-11 ISO 7-1	395 15.60	82.7 182.5
300A 12	x 8	200A	686 27.00	392 15.40	335 13.20	172 6.80	1.25-11 ISO 7-1	472 18.60	111.3 245.4
		250A	686 27.00	392 15.40	335 13.20	205 8.10	1.25-11 ISO 7-1	472 18.60	118.1 260.3
	x 12	300A	686 27.00	392 15.40	335 13.20	241 9.50	1.25-11 ISO 7-1	472 18.60	123.9 273.2

4.4 DIMENSIONS

AS Dimensions

Series 731-D with
Australian Standard Flange Table "E"



3 – 12"/80 – 300 mm

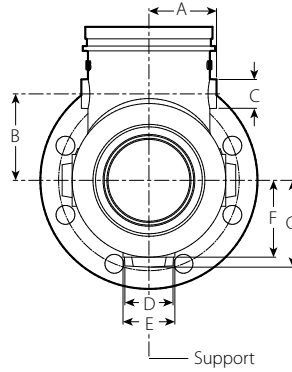
Size		Dimensions							Approx. Weight (Each)
System Side Grooved	Pump Side x Flange ANSI Class 150	L	L1	H1	H2	Thread Size	E		
Nominal Size		mm inches	mm inches	mm inches	mm inches		mm inches	kg lb	
76.1 mm	x 50	279 11.00	160 6.30	140 5.50	83 3.30	1-11 ISO 7-1	190 7.50	9.1	
	2							20.1	
80	x 50	279 11.00	160 6.30	140 5.50	83 3.30	1-11 ISO 7-1	190 7.50	9.1	
		2						20.1	
	76.1 mm	279 11.00	160 6.30	140 5.50	93 3.70	1-11 ISO 7-1	190 7.50	12.6	
		3						27.7	
100	x 76.1 mm	330 13.00	187 7.40	165 6.50	93 3.70	1-11 ISO 7-1	222 8.70	15.0	
		4						31.6	
	80	330 13.00	187 7.40	165 6.50	101 4.00	1-11 ISO 7-1	222 8.70	15.0	
		3						27.7	
125	x 80 ¹	381 15.00	213 8.40	191 7.50	101 4.00	1.25-11 ISO 7-1	250 9.80	20.0	
		3						44.0	
	100	381 15.00	213 8.40	191 7.50	116 4.60	1.25-11 ISO 7-1	250 9.80	22.2	
		4						49.0	
150	x 125	381 15.00	213 8.40	191 7.50	130 5.10	1.25-11 ISO 7-1	250 9.80	23.7	
		5						52.3	
	100 ¹	406 16.00	229 9.00	203 8.00	116 4.60	1.25-11 ISO 7-1	279 11.00	29.0	
		4						64.0	
200	x 125	406 16.00	229 9.00	203 8.00	130 5.10	1.25-11 ISO 7-1	279 11.00	30.0	
		5						67.3	
	150	406 16.00	229 9.00	203 8.00	144 5.70	1.25-11 ISO 7-1	279 11.00	31.9	
		6						70.3	
250	x 150 ¹	483 19.00	260 10.20	229 9.00	130 5.10	1.25-11 ISO 7-1	318 12.50	44.7	
		5						98.5	
	150	483 19.00	260 10.20	229 9.00	144 5.70	1.25-11 ISO 7-1	318 12.50	46.3	
		6						102.1	
300	x 200	483 19.00	260 10.20	229 9.00	172 6.80	1.25-11 ISO 7-1	318 12.50	50.2	
		8						110.7	
	150 ¹	584 23.00	315 12.40	279 11.00	144 5.70	1.25-11 ISO 7-1	395 15.60	68.3	
		6						150.6	
250	x 200	584 23.00	315 12.40	279 11.00	172 6.80	1.25-11 ISO 7-1	395 15.60	72.5	
		8						159.9	
	250	584 23.00	315 12.40	279 11.00	205 8.10	1.25-11 ISO 7-1	395 15.60	78.0	
		10						172.0	
300	x 200 ¹	686 27.00	392 15.40	335 13.20	172 6.80	1.25-11 ISO 7-1	472 18.60	111.3	
		8						245.4	
	250	686 27.00	392 15.40	335 13.20	205 8.10	1.25-11 ISO 7-1	472 18.60	118.1	
		10						260.3	
300	686 27.00	392 15.40	335 13.20	241 9.50	1.25-11 ISO 7-1	472 18.60	123.9		
	12						273.2		

¹ Available with No. 50 Concentric Reducer and the appropriate coupling for additional size needs. Contact Victaulic for details.

4.5 DIMENSIONS

Support and tap boss location

Series 731-D Suction Diffuser



Inlet Size inches mm	Boss Tap Two Places			Support Locations Three Places			
	A inches mm	B inches mm	C inches mm	D ² inches mm	E ² inches mm	F inches mm	G inches mm
3 80	1.88 47.8	3.25 82.6	1.00 25.4	1.30 33.0	1.80 45.7	2.10 53.3	2.30 58.4
4 100	2.70 68.6	3.25 82.6	1.00 25.4	1.30 33.0	1.80 45.7	2.70 68.6	2.90 73.7
5 125	3.02 76.7	4.25 108.0	1.50 38.1	1.80 45.7	2.70 68.6	3.35 85.1	3.83 58.4
6 150	3.52 89.4	5.50 114.3	1.50 38.1	1.80 45.7	2.70 68.6	4.00 101.6	4.52 114.8
8 200	4.45 113.0	5.00 127.0	1.50 38.1	1.80 45.7	2.70 68.6	5.18 131.6	5.70 144.8
10 250	5.50 139.7	6.50 165.1	1.50 38.1	1.80 45.7	2.70 68.6	6.45 163.8	6.97 177.0
12 300	6.48 164.6	8.00 203.2	1.50 38.1	1.80 45.7	2.70 68.6	7.65 194.3	8.17 207.5

² Listed as diameters.

4.6 DIMENSIONS

Assembly Clearance

The recommended access requirements and support leg pipe diameters are listed in the following table. The recommended support leg in pipe diameters is based on Schedule 40 pipe. Reference the illustration on the next page.

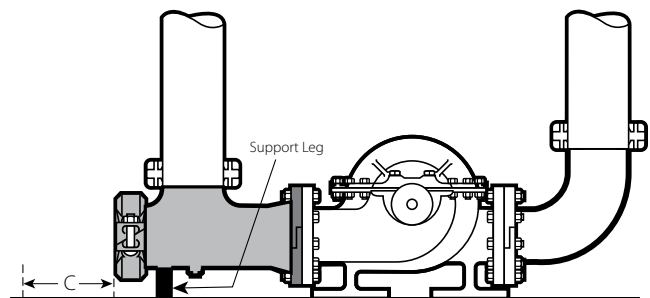
Recommended Minimum Clearance Required to Remove Diffuser Basket											
ANSI				DIN			GB				
Size inches mm		Clearance "C" inches mm	Rec. Support Leg Pipe Diameter ³ inches	Size mm inches	Clearance "C" mm inches	Rec. Support Leg Pipe Diameter ³ inches	Size mm inches	Clearance "C" mm inches	Rec. Support Leg Pipe Diameter ³ inches		
3 80	x	2 50	1 1/4	76.1 mm	50 2	1 1/4	76.1 mm	50 2	1 1/4		
		2.5 65			152 6.00			152 6.00			
		3 80			152 6.00			152 6.00			
4 100	x	2.5 65	1 1/4	76.1 mm	80 3	1 1/4	76.1 mm	80 3	1 1/4		
		3 80			178 7.00			178 7.00			
		4 100			178 7.00			178 7.00			
5 125	x	3 80	2	139.7 mm	76.1 mm	2	139.7 mm	76.1 mm	2		
		4 100			203 8.00			203 8.00			
		5 125			203 8.00			203 8.00			
6 150	x	4 100	2	139.7 mm	80 3	2	139.7 mm	80 3	2		
		5 125			203 8.00			203 8.00			
		6 150			241 9.50			241 9.50			
8 200	x	5 125	2	150	100 4	2	150	100 4	2		
		6 150			203 8.00			203 8.00			
		8 200			305 12.00			305 12.00			
10 250	x	6 150	2	200	139.7 mm	2	200	139.7 mm	2		
		8 200			241 9.50			241 9.50			
		10 250			406 16.00			406 16.00			
12 300	x	8 200	2	250	200 8	2	250	200 8	2		
		10 250			305 12.00			305 12.00			
		12 300			457 18.00			457 18.00			
3	Based on Schedule 40 pipe diameter.			250	150 6	2	250	150 6	2		
					200 8			406 16.00			406 16.00
					250 10			406 16.00			406 16.00
3	Based on Schedule 40 pipe diameter.			300	200 8	2	300	200 8	2		
					250 10			457 18.00			457 18.00
					300 12			457 18.00			457 18.00

4.6 DIMENSIONS (Continued)

Assembly Clearance

Recommended Minimum Clearance Required to Remove Diffuser Basket										
JIS				AS Table "E"						
Size mm inches		Clearance "C" mm inches	Rec. Support Leg Pipe Diameter ³ inches	Size mm inches		Clearance "C" mm inches	Rec. Support Leg Pipe Diameter ³ inches			
76.1 mm	x	50A 2	152 6.00	1/4	76.1 mm	x	50 2	152 6.00	1/4	
80A 3	x	50A 2	152 6.00	1/4	80 3	x	50 2	152 6.00	1/4	
		76.1 mm	152 6.00				76.1 mm	152 6.00		
		80A 3	152 6.00				80 3	152 6.00		
100A 4	x	76.1 mm	178 7.00	1/4	100 4	x	76.1 mm	178 7.00	1/4	
		80A 3	178 7.00				80 3	178 7.00		
		100A 4	178 7.00				100 4	178 7.00		
139.7 mm	x	76.1 mm	203 8.00	2	125 5	x	80 3	203 8.00	2	
125A 5	x	76.1 mm	203 8.00	2	150 6	x	100 4	203 8.00		2
		80A 3	203 8.00				125 5	203 8.00		
		100A 4	203 8.00				100 4	241 9.50		
		125A 5	203 8.00				125 5	241 9.50		
150A 6	x	100A 4	241 9.50	2	200 8	x	150 6	241 9.50	2	
		139.7 mm	241 9.50				125 5	305 12.00		
		125A 5	241 9.50				150 6	305 12.00		
		150A 6	241 9.50				200 8	305 12.00		
200A 8	x	139.7 mm	305 12.00	2	250 10	x	150 6	406 16.00	2	
		125A 5	305 12.00				200 8	406 16.00		
		150A 6	305 12.00				250 10	406 16.00		
		200A 8	305 12.00				250 10	406 16.00		
250A 10	x	150A 6	406 16.00	2	300 12	x	200 8	457 18.00	2	
		200A 8	406 16.00				250A 10	457 18.00		
		250A 10	406 16.00				300A 12	457 18.00		
300A 12	x	200A 8	457 18.00	2			200A 8	457 18.00		
		250A 10	457 18.00				250A 10	457 18.00		
		300A 12	457 18.00				300A 12	457 18.00		

³ Based on Schedule 40 pipe diameter.



5.0 PERFORMANCE

Flow Characteristics

Formulas for C_v Values:

$$\Delta P = \frac{Q^2}{C_v^2}$$

$$Q = C_v \times \sqrt{\Delta P}$$

Where:

Q = Flow (GPM)

ΔP = Pressure Drop (psi)

C_v = Flow Coefficient

Formulas for K_v Values:

$$\Delta P = \frac{Q^2}{K_v^2}$$

$$Q = K_v \times \sqrt{\Delta P}$$

Where:

Q = Flow (m³/hr)

ΔP = Pressure Drop (Bar)

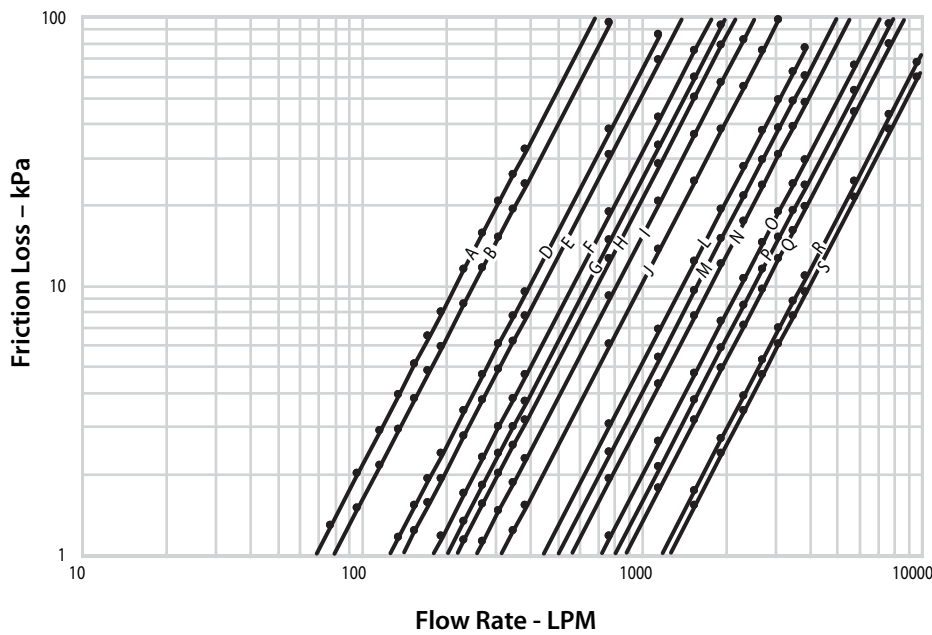
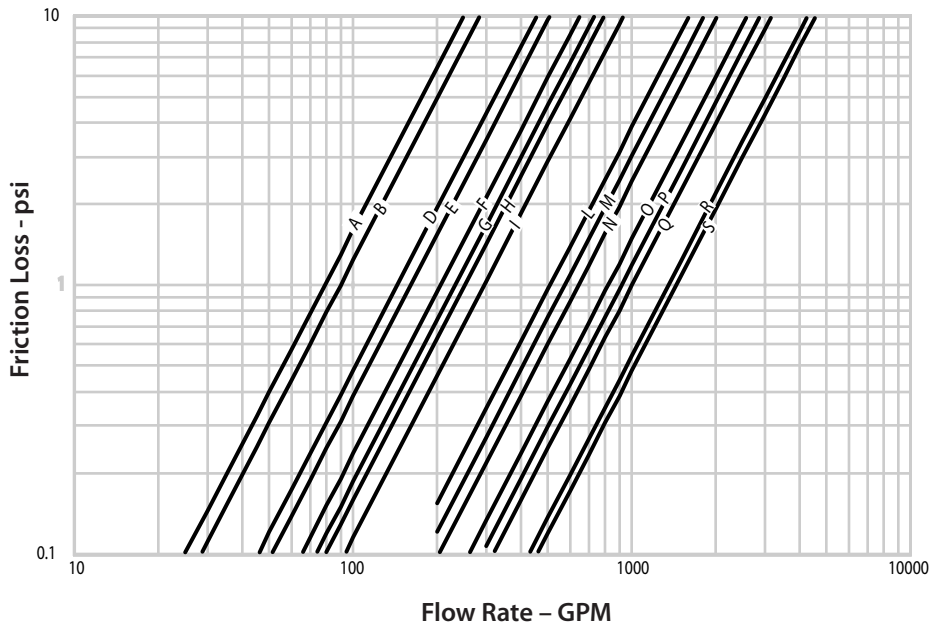
K_v = Flow Coefficient

C_v values for flow of water at +60°F/+16°C through a fully open valve.

Size		Flow Data	C_v K_v
Actual Outside Diameter	inches mm		
3.000 76.1	x	2.375	79
		60.3	68
3.500 88.9	x	2.375	79
		60.3	68
		3.000	79
		76.1	68
4.500 114.3	x	3.500	90
		88.9	79
		3.000	144
		76.1	125
5.500 139.7	x	3.500	144
		88.9	125
		4.500	161
		114.3	139
5.563 141.3	x	3.000	206
		76.1	178
		3.500	206
		88.9	178
		4.500	232
6.625 168.3	x	114.3	200
		5.563	251
		141.3	217
		4.500	295
		114.3	255
8.625 219.1	x	5.500	361
		139.7	312
		5.563	361
		141.3	312
		6.625	361
10.750 273.0	x	168.3	312
		6.625	509
		168.3	440
		8.625	509
		219.1	440
12.750 323.9	x	8.625	575
		219.1	497
		10.750	642
		273.0	555
		12.750	821
12.750 323.9	x	168.3	710
		8.625	917
		219.1	793
		10.750	1003
12.750 323.9	x	273.0	867
		8.625	1352
		219.1	1170
12.750 323.9	x	10.750	1352
		273.0	1170
12.750 323.9	x	12.750	1445
		323.9	1249

5.0 PERFORMANCE (Continued)

Flow Characteristics



6.0 NOTIFICATIONS

WARNING

- Always depressurize and drain system before disassembly. Failure to do so could result in serious personal injury, property damage, joint leakage or joint separation.

7.0 REFERENCE MATERIALS

[05.01: Victaulic Seal Selection Guide](#)

[24.01: Victaulic Pipe Preparation Tools](#)

[I-100: Victaulic Field Installation Handbook](#)

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