



Special Purpose

Suction Diffuser - Iron Body

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Triple Duty Valve - Iron Body

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Style PSD

Suction Diffuser

Cast Iron (ASTM A 126, Class B)

125 lb. Flanged



Suction Diffuser

APPLICATIONS

The Keckley Style PSD mounts to the suction side of a pump in either a horizontal or vertical position. It is designed to remove any foreign matter that may be hazardous to the pump or other system components, while providing the proper flow conditions to the pump. Where space is limited, the Keckley Style PSD can be used as an elbow (in some cases a reducing elbow) with a built-in strainer for easy maintenance and system performance.

CONSTRUCTION

The Keckley Style PSD Suction Diffusers are constructed from rugged cast iron castings that are machined to exacting specifications. These bodies have drilled flanges that are in accordance with ASME B16.1.

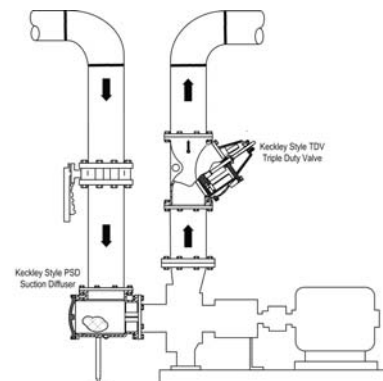
FEATURES

- Reduces installation costs by replacing the strainer, elbow, and entry pipe on the suction side of the pump.
- Integral straightening vanes ensure uniform flow to the suction inlet of the pump.
- Minimal pressure drop (Oversized body & screen).
- Perforated stainless steel screen with a 20 mesh stainless steel removable start-up sleeve to help promote a cleaner more trouble-free system.
- Bolted cover plate with O-ring seal - standard. (Knobs available upon request).
- Cast supporting pads on the diffuser body offer easy mounting of standard I.D. support foot.
- Tappin for inlet and outlet differential connections - Optional.
- Drain connection with plug - standard.

WORKING PRESSURES - NON SHOCK

NOM. RATING	MEDIA	2" to 12"	14" and Larger
125# (Flanged)	W.O.G.	200 PSI @ 150°F	150 PSI @ 150°F

Typical Installation

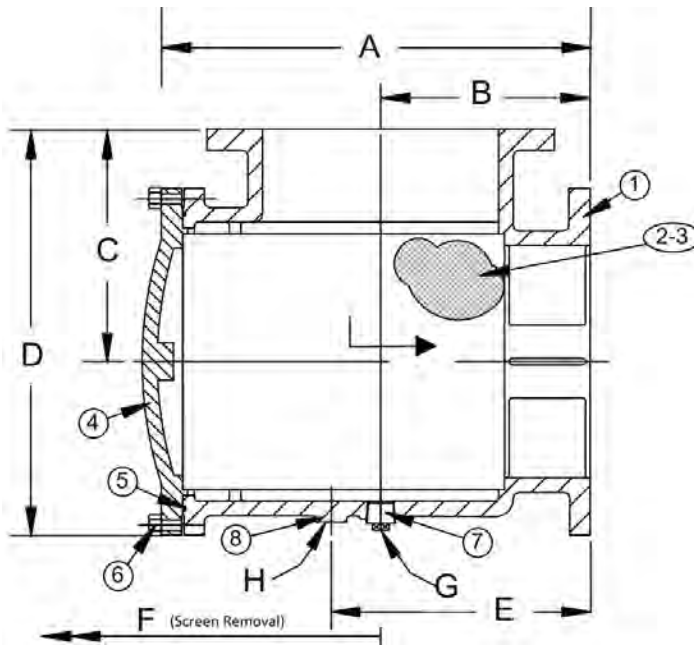




TECHNICAL DATA
DIMENSIONS AND WEIGHTS

Style PSD

Suction Diffuser, 125 lb. Flanged
Cast Iron (ASTM A 126, Class B)



PARTS LIST		
ITEM	DESCRIPTION	MATERIAL
1	Body	Cast Iron (ASTM A 126, Class B)
2	Screen	Stainless Steel (304)
3	Mesh Sleeve*	Stainless Steel (304)
4	Cover	Cast Iron (ASTM A 126, Class B)
5	O-Ring	Buna-N
6	Hex Head Bolt†	Steel
7	Plug	Cast Carbon Steel
8	Stub	Cast Iron (ASTM A 126, Class B)

†Ductile Iron Knobs are available upon request.

SIZE	SCREEN PERFORATION	OPEN AREA
2" to 20"	1/8"	43%

*20 mesh stainless steel sleeves are provided with all Suction Diffusers for start-up applications.

Other meshes or screen perforations available upon request, consult factory.

Inlet x Outlet	A	B	C	D	E	F	G	H	WEIGHTS LBS.
						Screen Removal	Blow Down Connection	Pipe Support I.D.	
2 x 1-1/2	10	4-1/2	4-1/2	7	6	8-13/16	3/4	1.02	24
2 x 2	10	4-1/2	4-1/2	7	6	8-13/16	3/4	1.02	24
2-1/2 x 2	10-5/8	5	5	7-13/16	6-9/16	9-1/8	3/4	1.02	27
2-1/2 x 2-1/2	10-5/8	5	5	7-13/16	6-9/16	9-1/8	3/4	1.02	37
3 x 2	10	4-1/2	5-1/2	8-1/8	6	9-5/8	3/4	1.30	42
3 x 2-1/2	11-3/16	5-1/2	5-1/2	9	7	9-5/8	3/4	1.30	46
3 x 3	11-3/16	5-1/2	5-1/2	9	7	9-5/8	3/4	1.30	51
4 x 3	13-1/8	6-1/2	6-1/2	11	8-3/4	11-1/2	1	1.30	74
4 x 4	13	6-1/2	6-1/2	11	8-1/4	11-1/2	1	1.30	76
5 x 4	15-1/2	7-1/2	7-1/2	13	10	14-7/8	1	1.30	106
5 x 5	15-1/2	7-1/2	7-1/2	13-3/4	10	14-7/8	1	1.30	111
6 x 4	13-1/8	6-1/2	8	12-3/16	8-3/4	16-9/16	1	1.30	93
6 x 5	16-5/8	8	8	14-7/16	10-11/16	16-9/16	1	1.30	128
6 x 6	16-5/8	8	8	14-1/2	10-11/16	19-9/16	1	1.30	149
8 x 5	19-3/16	9	7-9/16	13-1/8	13	16-7/8	1	1.30	178
8 x 6	16-7/8	8	9	15-1/2	10-11/16	16-7/8	1	1.30	178
8 x 8	21-3/8	9	9	17-1/4	11-5/8	22-7/8	1-1/4	2.05	267
10 x 8	21-3/16	9	11	19-1/4	11-5/8	22-7/8	1-1/4	2.05	353
10 x 10	26-11/16	11	11	20-3/4	14-3/16	30-1/4	1-1/4	2.05	388
12 x 8	21-11/16	11	11	19-1/4	13-5/8	22-7/8	1-1/4	2.05	492
12 x 10	26-11/16	11	12	21-3/4	14-3/16	33	1-1/4	2.05	492
12 x 12	26-11/16	12	12	21-3/4	15-3/8	28-3/4	1-1/4	2.05	529
14 x 10	26-11/16	12-15/16	12-9/16	22-3/16	17-3/16	33	1-1/4	2.05	507
14 x 12	26-11/16	12-15/16	12-9/16	22-3/16	17-3/16	31	1-1/4	2.05	601
14 x 14	26-11/16	12-15/16	12-9/16	22-3/16	17-3/16	33-1/8	1-1/4	2.05	620
16 x 12	29-5/16	14-5/16	13-3/16	23-3/4	18-5/8	28-3/4	1-1/4	2.05	725
16 x 14	29-5/16	14-5/16	13-3/16	23-3/4	18-5/8	31	1-1/2	2.05	750
16 x 16	29-5/16	14-5/16	13-3/16	23-3/4	18-5/8	33-1/8	1-1/2	2.05	820
18 x 18	30-15/16	15-5/16	14-9/16	26-5/16	18-13/16	-	2	2.05	-
20 x 20	33-7/16	16-7/8	16	28-3/4	20-5/16	-	2	2.05	-

Larger sizes available upon request.

Certified dimensional drawings and metric drawings available upon request.



Style TDV

Triple Duty Valve

Cast Iron (ASTM A 126, Class B)

125 lb. Flanged



Triple Duty Valve

APPLICATIONS

The Keckley Style TDV is a Triple Duty Valve primarily required on the discharge side of a centrifugal pump in a hydronic heating or cooling system. This valve functions as a shut-off valve, spring loaded silent check valve, and balancing valve.

CONSTRUCTION

The Keckley Style TDV Triple Duty Valves are constructed from rugged cast iron castings that are machined to exacting specifications. These bodies have drilled flanges that are in accordance with ASME B16.1.

FEATURES

The center guided soft seal disc ensures that there is no leakage. The rising stem design includes an adjustable position indicator for accurate disc positioning for throttling service. This unit comes with standard gauge taps at both the inlet and outlet sides and a NPT drain plug.

WORKING PRESSURES - NON SHOCK



TECHNICAL DATA
DIMENSIONS AND WEIGHTS

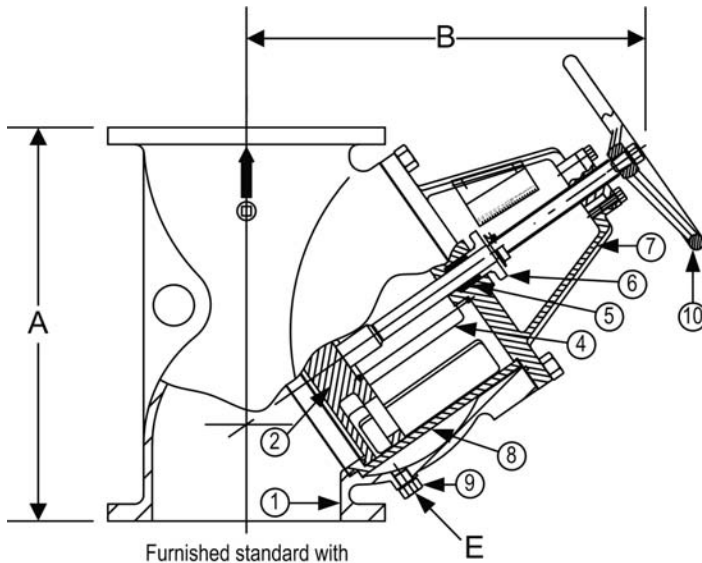
Style TDV

Triple Duty Valve, 125 lb. Flanged Cast Iron (ASTM A 126, Class B)

Designed For Pump Protection

Features

- A Shut-off Valve
- A Spring Loaded Silent Check Valve
- A Balancing Valve



Furnished standard with 1/4" gauge taps & Hand Wheel

PARTS LIST		
ITEM	DESCRIPTION	MATERIAL
1	Body	Cast Iron (ASTM A 126, Class B)
2	Disc	Ductile Iron w/ vulcanized rubber
3	Stem	410 Stainless Steel
4	Spring	304 Stainless Steel
5	Packing	Graphite
6	Gland	Ductile Iron
7	Cover	Cast Iron (ASTM A 126, Class B)
8	Guide	Ductile Iron Nickel Coated
9	Plug	Carbon Steel
10	Handwheel	Cast Iron (ASTM A 126, Class B)
	O-Rings	Buna-N

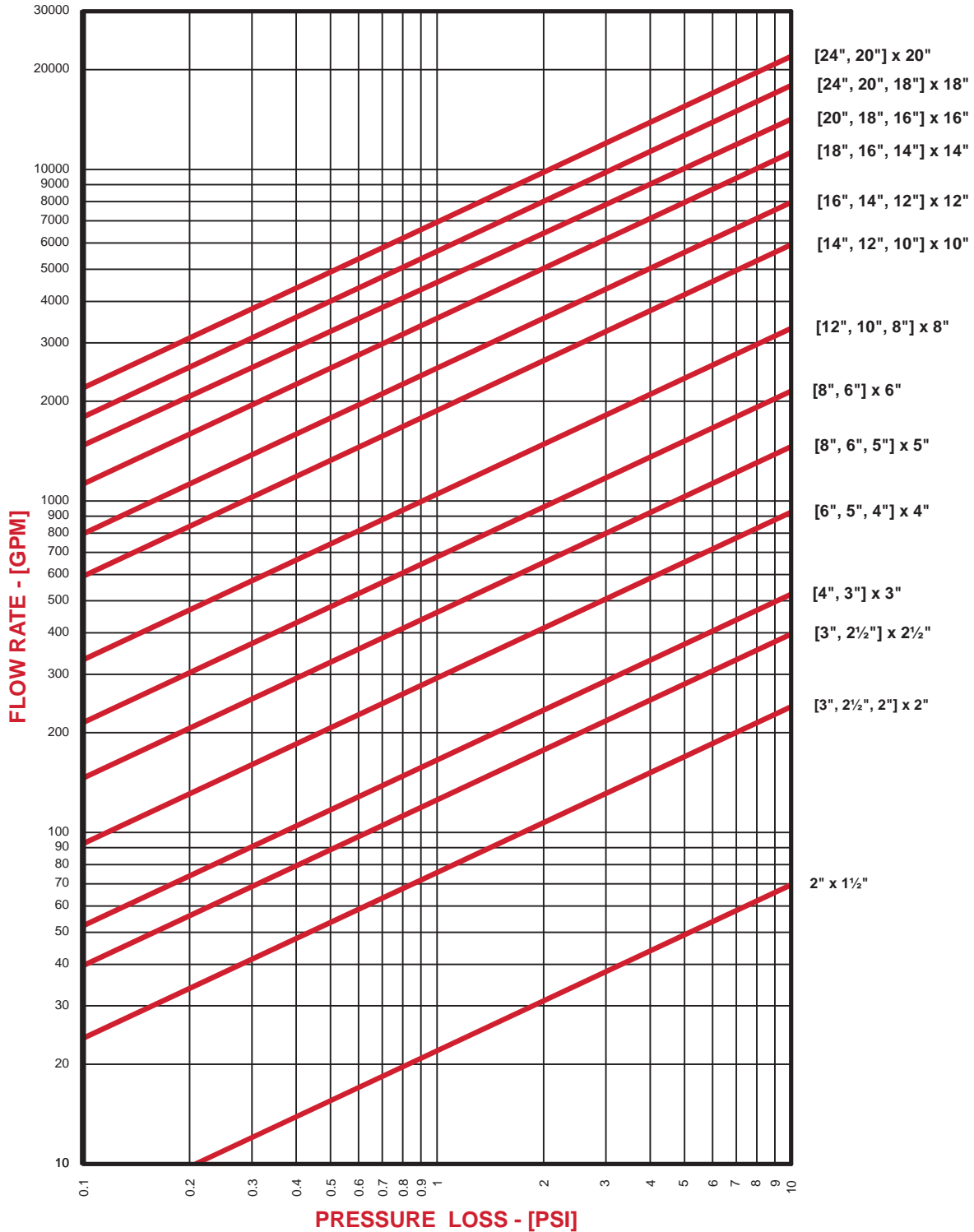
SIZE		DIMENSIONS						WEIGHTS			
		A		B		E					
in	mm	in	mm	in	mm	in	mm	lbs	kgs		
2	50	8-3/8	213	9-5/8	244	1/2	15	28	13		
2-1/2	65	9-7/8	251	10	254	1/2	15	33	15		
3	80	10	254	10-1/8	257	1/2	15	57	26		
4	100	14-1/2	368	12-5/8	321	1/2	15	98	44		
5	125	16	406	16-3/8	416	1/2	15	157	71		
6	150	18	457	17-1/2	445	3/4	20	196	89		
8	200	21-1/2	546	18-1/2	470	3/4	20	348	158		
10	250	25-1/2	648	21-3/4	552	1	25	475	215		
12	300	30	762	24-1/2	622	1	25	656	298		
14	350	30-3/8	772	24-1/2	622	3/4	20	787	357		
16	400	33-13/16	858	34-11/16	880	2	50	--	--		
18	450	36-15/16	938	40-15/16	1040	2	50	--	--		
20	500	41-3/8	1050	Consult Factory						--	--

†This table reflects only the nearest metric equivalents.



PRESSURE DROP CHART

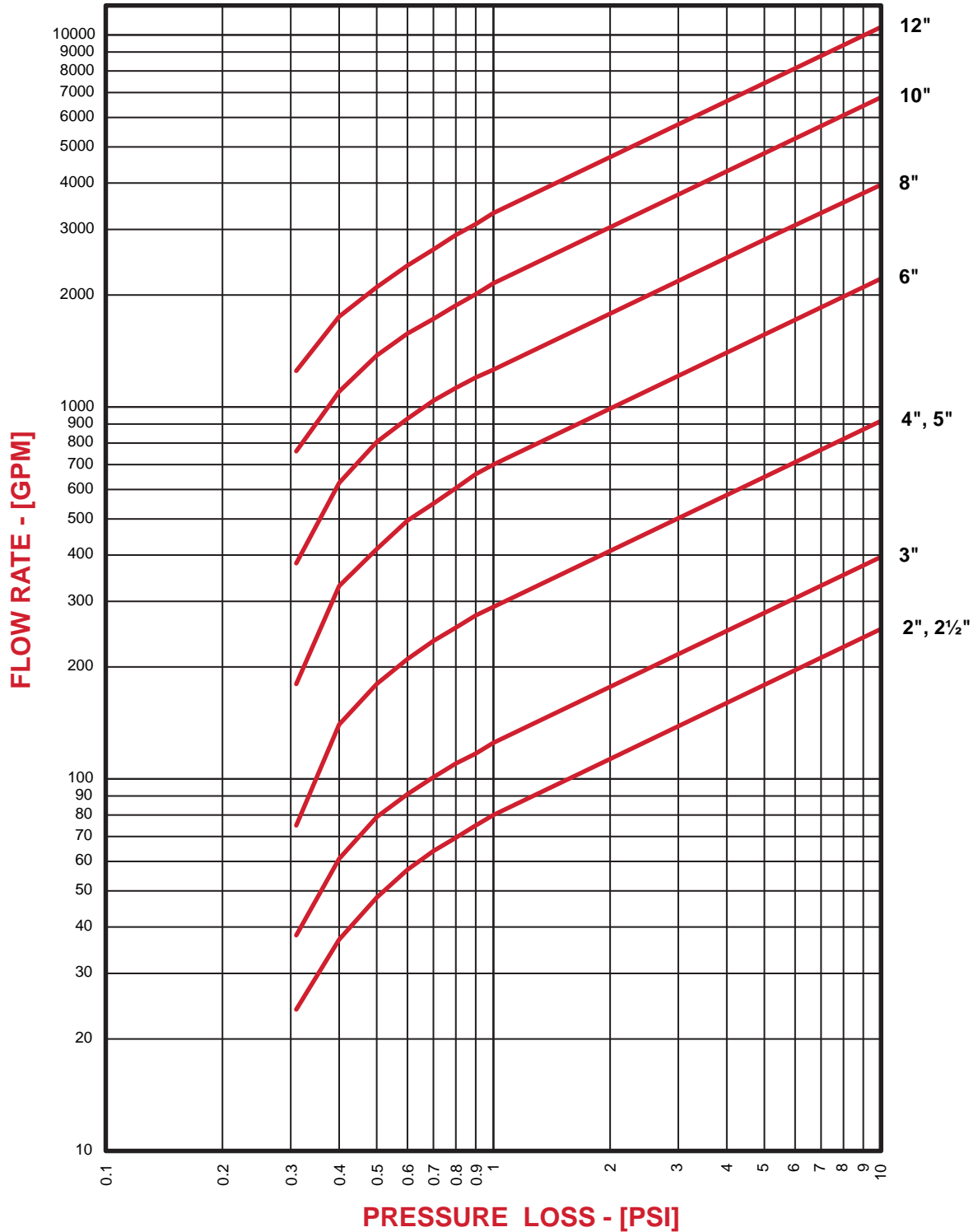
Suction Diffuser (Styles PSD)





PRESSURE DROP CHART

Triple Duty Valve (Styles TDV)





% OPEN VALUES TABLE

Triple Duty (Styles TDV)

SIZE	PRESSURE DROP (PSI)						
	% OPEN	1.0 (CV) PSI	1.5 PSI	2.0 PSI	2.5 PSI	3.0 PSI	5.0 PSI
2" - 2-1/2"	25 %	28	35	40	45	49	63
	50 %	40	49	57	64	70	90
	75 %	56	69	80	89	97	126
	100 %	80	98	114	127	139	179
3"	25 %	46	57	66	73	80	103
	50 %	66	81	94	105	115	148
	75 %	90	111	128	143	156	202
	100 %	125	154	177	198	217	280
4" - 5"	25 %	115	141	163	182	200	258
	50 %	160	196	227	253	278	358
	75 %	215	264	305	340	373	481
	100 %	290	356	411	459	503	649
6"	25 %	300	367	425	475	520	671
	50 %	410	503	580	649	711	917
	75 %	540	662	764	854	936	1208
	100 %	700	858	990	1107	1213	1566
8"	25 %	600	735	849	949	1040	1342
	50 %	800	980	1132	1265	1386	1789
	75 %	1000	1225	1415	1582	1733	2237
	100 %	1260	1544	1782	1993	2183	2818
10"	25 %	1100	1348	1556	1740	1906	2460
	50 %	1400	1715	1980	2214	2425	3131
	75 %	1750	2144	2474	2767	3032	3914
	100 %	2150	2634	3041	3400	3724	4808
12"	25 %	1700	2083	2405	2688	2945	3802
	50 %	2150	2634	3041	3400	3724	4808
	75 %	2650	3246	3748	4190	4590	5926
	100 %	3320	4067	4696	5250	5751	7424
FLOW RATE (GPM)							