

Sizing and Selection Stainless Steel Check Valves

PRESSURE MOTIVE PUMP

Liquid Capacity - in lbs/hr using steam as motive media at indicated Filling Head

Motive Press (PSIG)	Total Back Pressure (PSIG)	1"x1" 6" Head PMPLS	1 1/2"x1 1/2" 12" Head	1 1/2"x1 1/2" 12" Head	2"x1" 12" Head	2"x1 1/2" 12" Head	2"x2" 12" Head	3"x2" 12" Head	4"x4" 24" Head	3"x2" Duplex	3"x2" Triplex	3"x2" Quadraplex
5	2	1760	1860	1920	2860	3180	3540	5000	16,600	10,000	15,000	20,000
10	5	1870	2200	2450	4350	4840	5380	7210	19,000	14,420	21,630	28,840
10	2	2200	3030	3370	6880	7650	8500	11110	22,600	22,220	33,330	44,440
25	15	1650	3130	3480	4990	5550	6170	8230	33,200	16,460	24,690	32,920
25	10	1980	3600	3990	6560	7290	8100	10780	40,300	21,560	32,340	43,120
25	5	2300	4700	5200	7970	8860	9850	13350	46,200	26,700	40,050	53,400
50	40	1650	2280	2530	3370	3750	4170	5670	33,300	11,340	17,010	22,680
50	25	1980	4050	4500	6800	7560	8400	11550	40,100	23,100	34,650	46,200
50	10	2300	4700	5240	7970	8860	9850	13440	47,000	26,880	40,320	53,760
75	60	1540	2400	2660	3600	4000	4440	6340	32,900	12,680	19,020	25,360
75	40	1980	3780	4190	5920	6580	7320	9870	39,400	19,740	29,610	39,480
75	15	2420	5130	5700	8580	9540	10600	14330	47,200	28,660	42,990	57,320
100	80	1650	2750	3060	4160	4630	5150	6860	27,200	13,720	20,580	27,440
100	60	1870	3600	4000	5560	6180	6870	9100	35,100	18,200	27,300	36,400
100	40	2090	4700	5210	6880	7650	8500	11270	42,100	22,540	33,810	45,080
100	15	2420	5400	6010	8740	9720	10800	14330	48,000	28,660	42,990	57,320
125	115	1430	2380	2640	3270	3640	4050	4960	19,500	9920	14,880	19,840
125	100	1540	2980	3300	4140	4600	5130	6390	25,300	12,780	19,170	25,560
125	80	1760	3430	4100	5400	6000	6670	8540	32,200	17,080	25,620	34,160
125	60	1980	4170	4850	6600	7340	8160	10530	38,500	21,060	31,590	42,120
125	40	2200	5100	5950	7760	8630	9590	12500	44,000	25,000	37,500	50,000
125	15	2420	5850	6660	9240	10270	11420	15100	49,200	30,200	45,300	60,400
150	120	1590	2650	2940	3400	3780	4200	5690	21,600	11,380	17,070	22,760
150	100	1640	3150	3490	4320	4800	5350	7000	29,000	14,000	21,000	28,000
150	80	1860	3800	4230	5490	6100	6770	9100	34,500	18,200	27,300	36,400
150	60	2080	4500	5000	6660	7400	8240	11120	40,300	22,240	33,360	44,480
150	40	2300	5290	5870	7920	8800	9780	13220	44,700	26,440	39,660	52,880
150	15	2520	6100	6820	9450	10500	11680	15500	49,500	31,000	46,500	62,000

Capacity correction factors for different filling heads

Pump Size	Filling Head						
	6"	12"	18"	24"	36"	48"	60"
1"	1.0	1.1	1.2	1.3	1.5		
1 1/2"-2"	0.7	1.0	1.1	1.2	1.35		
3"	0.84	1.0	1.04	1.08	1.2		
4"		0.8	1.0	1.1	1.15	1.2	

Capacity correction factors for Gas motive supply

Pump Size	% backpressure vs. Motive pressure								
	10%	20%	30%	40%	50%	60%	70%	80%	90%
1"	1.10	1.13	1.16	1.20	1.25	1.30	1.35	1.40	1.45
1 1/2"-3"	1.04	1.06	1.08	1.10	1.12	1.15	1.18	1.23	1.28
4"	No capacity change								

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