

Cv Values (US-GPM @ 1 Psid)

Size in.	DISC POSITION (Degrees)								
	10 _i	20 _i	30 _i	40 _i	50 _i	60 _i	70 _i	80 _i	90 _i
2"	0.1	5	12	24	45	64	90	125	135
2 1/2"	0.2	8	20	37	65	89	144	204	220
3"	0.3	12	22	39	70	116	183	275	302
4"	0.5	17	36	78	139	230	364	546	600
5"	0.8	29	61	133	237	392	620	930	1022
6"	2	45	95	205	366	605	958	1437	1579
8"	3	89	188	408	727	1202	1903	2854	3136
10"	4	151	320	694	1237	2047	3240	4859	5340
12"	5	234	495	1072	1911	3162	5005	7507	8250
14"	6	338	715	1549	2761	4568	7230	10844	11917
16"	8	464	983	2130	3797	6282	9942	14913	16388
18"	11	615	1302	2822	5028	8320	13168	19752	21705
20"	14	791	1674	3628	6465	10698	16931	25396	27908
24"	22	1222	2587	5605	9989	16528	26157	39236	43116
30"	40	2036	4089	7461	11777	17578	26634	40975	58121
36"	60	3021	6063	11055	17449	26086	39731	60895	86375
42"	101	4738	9514	17361	27405	40903	61974	95344	135240
48"	134	6188	12426	22675	35794	53424	80945	124531	176640

Method Of Calculating Flow

Liquid Flow

$$Q_L = C_v \sqrt{\frac{\Delta P}{g}}$$

Q_L = flow rate of liquid (gal./min.)
 ΔP = differential pressure across the valve (psi)
 g = specific gravity of liquid: water = 1.000

Gas Flow

For non-critical flow ($\frac{\Delta P}{P_2} < 1.0$)

$$Q_g = 61 C_v \sqrt{\frac{P_2 \Delta P}{g}}$$

Q_g = flow rate of gas (CFH at STP)
 P_2 = outlet pressure (psia)
 g = specific gravity of gas: air = 1.000

Valve Seating Torque (In. - Lbs.)

Size in.	50 PSI ⁴		75 PSI ⁴		100 PSI ⁴		150 PSI		200 PSI	
	L	NL	L	NL	L	NL	L	NL	L	NL
2"	106	169	110	176	114	183	—	—	132	211
2 1/2"	153	245	159	255	165	265	—	—	191	306
3"	234	374	243	389	253	404	—	—	292	467
4"	346	554	361	577	375	600	—	—	433	693
5"	558	892	581	929	604	966	—	—	697	1115
6"	726	1234	756	1284	785	1335	—	—	907	1542
8"	1273	2164	1344	2285	1414	2403	—	—	1697	2885
10"	2143	3643	2263	3847	2380	4046	—	—	2857	4857
12"	3254	5206	3436	5497	3614	5782	—	—	4338	6941
14"	4383	6575	4810	7214	5236	7854	6088	9132	—	—
16"	5348	8022	6100	9150	6852	10278	8356	12534	—	—
18"	7167	10750	8175	12262	9182	13774	11198	16797	—	—
20"	9560	14340	10905	16357	12249	18374	14938	22407	—	—
24"	14944	22416	17046	25568	19147	28721	23350	35025	—	—
30"	28320	42480	28066	43498	30864	46296	33336	50004	—	—
36"	40624	60936	37982	59722	43480	65220	46528	69792	—	—
42"	69744	104616	66151	103467	74632	111948	79864	119796	—	—
48"	96648	145572	90157	142077	103840	155760	111112	166668	—	—

Notes: 1. "L" = Lubricated, "NL" = Non Lubricated.

2. Selection of actuator torque output must meet or exceed the maximum torque required by the valve.
3. Under certain conditions, hydrodynamic torque can exceed seating and unseating torques and must be considered in the selection of actuators.
4. Valve seating torques listed under 50, 75 and 100 PSI columns refer to valves with undercut discs.
Please consult factory for availability.