



# ABZolute High Performance Butterfly Valve

## CLASS 300 SEATING/UNSEATING TORQUES (in-lb)

SIZE		SOFT SEAT						METAL SEAT						FIRE SAFE SEAT					
inch	mm	150 psi	300 psi	400 psi	500 psi	600 psi	740 psi	150 psi	300 psi	400 psi	500 psi	600 psi	740 psi	150 psi	300 psi	400 psi	500 psi	600 psi	740 psi
2	50	312	371	403	462	481	553	644	715	748	819	852	930	644	702	735	793	826	910
2.5	65	332	390	423	481	507	585	728	806	852	930	975	1,079	676	748	780	852	884	969
3	80	358	423	475	540	579	657	780	852	884	956	988	1,073	865	943	988	1,073	1,118	1,222
4	100	481	631	715	865	930	1,118	1,073	1,222	1,300	1,450	1,521	1,703	975	1,079	1,138	1,242	1,300	1,424
5	125	715	943	1,060	1,287	1,404	1,677	1,313	1,450	1,521	1,658	1,729	1,885	1,229	1,554	1,716	2,035	2,197	2,587
6	150	1,034	1,300	1,437	1,703	1,827	2,152	1,612	1,853	1,976	2,223	2,334	2,626	1,885	2,197	2,360	2,672	2,821	3,185
8	200	1,690	1,970	2,106	2,379	2,522	2,854	2,626	3,036	3,244	3,673	3,881	4,381	2,581	3,231	3,569	4,225	4,544	5,330
10	250	2,587	3,224	3,569	4,199	4,544	5,291	4,082	5,064	5,525	6,500	6,962	8,112	3,276	4,030	4,433	5,233	5,584	6,559
12	300	3,679	4,661	5,233	6,383	6,962	8,340	5,636	8,340	9,724	12,428	13,748	16,972	4,485	6,559	7,651	9,724	10,758	13,234
14	350	5,980	8,398	9,607	12,025	13,234	16,107	10,238	14,495	16,627	20,885	23,010	28,132	8,743	11,622	13,059	15,938	17,375	20,826
16	400	8,457	11,850	13,579	16,972	18,642	22,724	13,806	18,753	21,229	26,176	28,652	34,574	11,739	15,880	17,947	22,094	24,161	29,107
18	450	10,530	15,594	18,122	23,186	25,714	31,811	17,947	26,007	30,030	38,084	42,114	51,779	14,957	21,229	24,395	30,719	33,826	41,425
20	500	15,763	21,288	24,050	29,569	32,331	38,948	23,589	35,555	41,535	53,502	59,488	73,866	18,753	27,502	31,870	40,619	44,987	55,458
22	550	19,676	26,806	30,375	37,512	44,974	49,647	29,913	42,575	48,900	61,555	67,886	83,070	24,161	35,515	39,696	50,050	55,231	67,652
24	600	23,933	32,448	36,706	45,221	49,478	59,716	34,515	50,284	58,162	73,925	81,809	100,737	28,763	41,191	47,405	59,833	66,047	80,945
26	650	27,040	39,124	45,162	57,239	63,284	77,779	46,027	64,662	73,983	92,625	101,946	124,319	36,816	52,351	60,119	75,654	83,421	102,057
28	700	31,064	45,565	52,813	67,308	74,562	91,930	54,080	76,284	87,386	109,597	120,699	147,336	44,298	62,706	71,910	90,324	99,528	121,615
30	750	36,816	50,629	57,532	71,338	78,241	94,809	59,833	85,833	98,839	124,839	137,839	169,026	49,478	70,876	81,575	102,980	113,679	139,341
32	800	44,876	67,886	79,391	102,401	113,906	141,525	70,187	98,950	113,334	142,097	156,481	190,996	57,532	80,886	92,567	115,921	127,602	155,617
34	850	55,231	81,692	94,926	121,388	134,622	166,374	89,746	126,568	144,976	181,792	200,207	244,387	70,187	102,401	118,515	150,729	166,836	205,498
36	900	60,983	91,475	106,717	137,209	152,451	189,046	98,950	146,127	169,715	216,886	240,474	297,083	81,692	118,515	136,923	173,739	192,153	236,334
38	950	71,338	105,853	123,117	157,632	174,889	216,314	117,364	168,565	194,162	245,362	270,966	332,410	96,649	136,923	157,060	197,327	217,464	265,785
40	1000	80,542	117,936	136,637	174,031	192,725	237,601	131,170	185,822	213,148	267,800	295,126	360,711	109,304	156,481	180,070	227,240	250,829	307,437
42	1050	87,445	127,140	146,991	186,687	206,531	254,170	150,729	207,110	235,300	291,675	319,865	387,524	134,622	178,919	201,065	245,362	267,514	320,671
44	1100	92,625	136,344	158,210	201,929	223,789	276,257	165,685	225,518	255,431	315,263	345,183	416,975	149,578	197,906	222,066	270,394	294,554	352,541
46	1150	103,552	154,180	179,491	230,120	255,431	316,186	192,153	253,130	283,621	344,604	375,096	448,273	170,287	219,765	244,504	293,976	318,715	378,086
48	1200	124,267	174,889	200,207	250,829	276,146	336,895	209,411	286,501	325,046	402,136	440,681	518,189	186,394	239,902	266,650	320,151	346,905	411,106

## CLASS 600 SEATING/UNSEATING TORQUES (in-lb)

SIZE		SOFT SEAT						METAL SEAT						FIRE SAFE SEAT					
inch	mm	150 psi	500 psi	800 psi	1000 psi	1200 psi	1480 psi	150 psi	500 psi	800 psi	1000 psi	1200 psi	1480 psi	150 psi	500 psi	800 psi	1000 psi	1200 psi	1480 psi
3	80	520	735	910	949	1,164	1,326	923	1,287	1,580	1,879	2,028	2,301	923	1,274	1,554	1,840	1,976	2,243
4	100	644	1,118	1,495	1,866	2,061	2,418	1,671	2,717	3,543	4,381	4,797	5,584	1,151	1,820	2,347	2,880	3,140	3,634
6	150	1,209	2,028	2,672	3,328	3,647	4,258	2,418	5,005	7,079	9,146	10,186	12,149	1,957	3,601	4,914	6,227	6,884	8,125
8	200	1,898	3,530	4,843	6,156	6,812	8,054	3,796	7,683	10,790	13,897	15,412	18,408	2,990	6,273	8,892	11,518	12,831	15,327
10	250	3,224	5,753	7,768	9,783	10,758	12,656	6,676	11,850	15,997	20,137	22,204	26,117	5,753	10,816	14,840	18,870	20,885	24,681
12	300	4,830	8,457	11,388	14,268	15,704	18,467	13,000	21,801	28,821	35,841	39,351	46,027	9,204	16,393	22,152	27,905	30,778	36,244
14	350	8,632	14,326	18,870	23,413	25,714	30,030	16,107	28,360	38,142	47,925	52,813	62,134	13,806	23,875	31,928	39,982	44,012	51,662
16	400	10,699	18,064	23,933	29,803	32,734	38,259	20,709	36,017	48,269	60,522	66,619	78,241	16,796	29,166	39,065	48,958	53,905	63,284
18	450	15,535	25,311	33,137	40,963	44,876	52,293	25,311	46,774	63,915	81,062	89,629	105,911	20,709	38,831	53,333	67,828	75,075	88,829
20	500	20,137	33,079	43,433	53,788	58,968	68,803	37,967	70,759	96,993	123,227	136,344	161,259	31,987	54,711	72,833	91,013	100,100	117,364
24	600	31,064	52,637	69,901	87,159	95,784	112,184	59,833	109,597	149,403	189,215	209,118	246,916	44,181	78,358	105,684	132,951	146,647	172,588

- Torques shown included 30% safety factor.
- All torque values in the table are for the wetted line media. If media is dry then add additional 10% to torque.
- If service is modulating then add additional 10% to torque.
- Torque may vary with the valve material.

The figure is based on the seat material - Soft seat: PTFE & RTFE (Class 600: MTFE), Metal Seat: 316 Stainless steel, Fire safe seat: RTFE (Class 600: MTFE) & 316 Stainless

Example... 12" valve at 300 psi = 4,661 in-lbs

$$4,661 + 10\% \text{ for dry service} = 4,661 + 466 = 5,127 \text{ in-lbs}$$

$$5,127 + 10\% \text{ for modulating service} = 5,127 + 466 = 5,593 \text{ in-lbs}$$

**Series 400 ABZolute Seal**