



Elite High Performance Butterfly Valve

CLASS 300 SEATING/UNSEATING TORQUES (lbf-in)

SIZE		SOFT SEAT					METAL SEAT					FIRE SAFE SEAT					
inch	mm	150 psi	300 psi	400 psi	500 psi	740 psi	150 psi	300 psi	400 psi	500 psi	740 psi	150 psi	300 psi	400 psi	500 psi	740 psi	
2	50	lbf-in	265	314	347	381	460	748	841	904	966	1,116	690	778	837	895	1,035
		N.M	30	36	39	43	52	85	95	102	109	126	78	88	95	101	117
2.5	65	lbf-in	311	363	398	433	518	805	911	981	1,051	1,220	748	844	909	973	1,127
		N.M	35	41	45	49	59	91	103	111	119	138	85	95	103	110	127
3	80	lbf-in	345	418	467	516	633	989	1,118	1,204	1,290	1,496	920	1,037	1,115	1,193	1,381
		N.M	39	47	53	58	72	112	126	136	146	169	104	117	126	135	156
4	100	lbf-in	575	722	819	917	1,151	1,266	1,391	1,475	1,559	1,760	1,127	1,256	1,342	1,428	1,634
		N.M	65	82	93	104	130	143	157	167	176	199	127	142	152	161	185
5	125	lbf-in	782	1,034	1,202	1,369	1,772	1,668	2,107	2,399	2,692	3,394	1,553	1,960	2,231	2,502	3,152
		N.M	88	117	136	155	200	189	238	271	304	384	176	221	252	283	356
6	150	lbf-in	1,093	1,523	1,810	2,096	2,784	2,416	2,855	3,147	3,440	4,142	2,128	2,564	2,855	3,145	3,843
		N.M	124	172	204	237	315	273	323	356	389	468	241	290	323	355	434
8	200	lbf-in	2,094	2,790	3,254	3,718	4,832	3,624	4,560	5,184	5,808	7,306	3,336	4,387	5,087	5,787	7,467
		N.M	237	315	368	420	546	410	515	586	656	826	377	496	575	654	844
10	250	lbf-in	3,279	4,595	5,473	6,350	8,456	6,098	7,528	8,482	9,435	11,724	5,350	6,754	7,690	8,626	10,872
		N.M	371	519	618	718	956	689	851	958	1,066	1,325	605	763	869	975	1,229
12	300	lbf-in	4,602	6,503	7,771	9,038	12,080	9,894	12,190	13,721	15,252	18,926	8,284	10,638	12,208	13,778	17,545
		N.M	520	735	878	1,021	1,365	1,118	1,377	1,550	1,723	2,139	936	1,202	1,379	1,557	1,983
14	350	lbf-in	7,766	11,788	14,469	17,150	23,585	14,151	18,123	20,771	23,420	29,775	11,045	14,672	17,090	19,508	25,311
		N.M	878	1,332	1,635	1,938	2,665	1,599	2,048	2,347	2,646	3,364	1,248	1,658	1,931	2,204	2,860
16	400	lbf-in	10,872	15,421	18,453	21,485	28,763	18,753	23,664	26,938	30,212	38,070	14,151	19,138	22,463	25,788	33,767
		N.M	1,229	1,742	2,085	2,428	3,250	2,119	2,674	3,044	3,414	4,302	1,599	2,163	2,538	2,914	3,816
18	450	lbf-in	15,187	21,124	25,083	29,041	38,542	25,484	34,092	39,831	45,570	59,343	20,134	28,397	33,906	39,414	52,635
		N.M	1,716	2,387	2,834	3,282	4,355	2,880	3,852	4,501	5,149	6,705	2,275	3,209	3,831	4,454	5,948
20	500	lbf-in	20,364	27,618	32,454	37,290	48,896	33,595	46,055	54,362	62,669	82,606	26,692	39,380	47,839	56,298	76,600
		N.M	2,301	3,121	3,667	4,214	5,525	3,796	5,204	6,143	7,081	9,334	3,016	4,450	5,406	6,361	8,655
24	600	lbf-in	31,294	41,619	48,502	55,386	71,906	50,392	67,544	78,979	90,414	117,857	39,347	58,447	71,181	83,914	114,475
		N.M	3,536	4,703	5,480	6,258	8,125	5,694	7,632	8,924	10,216	13,317	4,446	6,604	8,043	9,482	12,935

- 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.

This figure is based on the following seat material - Soft seat: MRTFE and PTFE, Metal Seat: 316 Stainless steel, Fire safe seat: MTFE & 316 Stainless steel.

Example... 12" valve at 300 psi = 6,503 lbf.in
 6,503 + 10% for dry service = 6,503 + 650 = 7,153 lbf.in
 7,153 + 10% for modulating service = 7,153 + 715 = 7,868 lbf.in