

Torque Data

Spring Return Actuators (in.lb.), XL26 to XL681

Model Number	Spring Rating	Torque from Springs		Torques from air stroke (in.lbs) at given operating air pressure (PSI)															
				40		50		60		70		80		90		100		120	
		Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
XL26	S40	53	32	52	31	73	52	94	73	115	94	135	114	156	135	177	156	219	198
	S50	66	39	44	18	65	39	86	60	107	80	128	101	148	122	169	143	211	185
	S60	79	47	-	-	57	26	78	46	99	67	120	88	141	109	161	130	203	172
	S70	92	55	-	-	-	-	70	33	91	54	112	75	133	96	153	117	195	158
	S80	105	63	-	-	-	-	62	20	83	41	104	62	125	83	146	104	187	145
	S90	118	71	-	-	-	-	-	-	75	28	96	49	117	70	138	90	179	132
	S1C	131	79	-	-	-	-	-	-	-	-	88	36	109	57	130	77	172	119
XL71	S40	131	79	130	77	182	130	234	182	286	234	338	286	391	338	443	390	547	495
	S50	164	98	110	45	162	97	214	149	267	201	319	253	371	305	423	357	527	462
	S60	197	118	-	-	143	64	195	116	247	168	299	220	351	273	403	325	508	429
	S70	230	138	-	-	-	-	175	83	227	135	279	188	332	240	384	292	488	396
	S80	263	158	-	-	-	-	155	50	208	103	260	155	312	207	364	259	468	363
	S90	295	177	-	-	-	-	-	-	188	70	240	122	292	174	344	226	449	331
	S1C	328	197	-	-	-	-	-	-	-	-	220	89	273	141	325	193	429	298
XL131	S40	247	148	244	146	342	244	440	342	539	440	637	538	735	636	833	734	1029	930
	S50	309	185	207	84	305	182	403	280	502	378	600	476	698	574	796	672	992	869
	S60	370	222	-	-	268	120	366	218	465	316	563	414	661	513	759	611	955	807
	S70	432	259	-	-	-	-	329	157	427	255	526	353	624	451	722	549	918	745
	S80	494	296	-	-	-	-	292	95	390	193	489	291	587	389	685	487	881	683
	S90	555	333	-	-	-	-	-	-	353	131	452	229	550	327	648	426	844	622
	S1C	617	370	-	-	-	-	-	-	-	-	414	168	513	266	611	364	807	560
XL186	S40	331	198	329	197	461	329	593	461	725	593	857	725	989	857	1121	989	1385	1253
	S50	413	248	280	115	412	247	543	379	675	510	807	642	939	774	1071	906	1335	1170
	S60	495	298	-	-	362	164	494	296	626	428	757	560	889	692	1021	824	1285	1088
	S70	578	347	-	-	312	81	444	213	576	345	708	477	840	609	972	741	1236	1005
	S80	661	397	-	-	-	-	395	130	527	262	659	394	791	526	923	658	1186	922
	S90	744	446	-	-	-	-	-	-	477	180	609	311	741	443	873	575	1137	839
	S1C	827	495	-	-	-	-	-	-	-	-	560	229	692	361	824	492	1088	756
XL221	S40	463	278	458	273	641	456	825	640	1009	824	1193	1008	1377	1192	1560	1375	1928	1743
	S50	578	347	388	157	572	341	756	525	940	708	1123	892	1307	1076	1491	1260	1859	1627
	S60	694	416	-	-	503	225	686	409	870	593	1054	777	1238	960	1422	1144	1789	1512
	S70	809	486	-	-	-	-	617	293	801	477	985	661	1168	845	1352	1028	1720	1396
	S80	925	555	-	-	-	-	548	178	731	361	915	545	1099	729	1283	913	1650	1280
	S90	1041	624	-	-	-	-	-	-	662	246	846	430	1030	613	1213	797	1581	1165
	S1C	1156	694	-	-	-	-	-	-	-	-	777	314	960	498	1144	682	1512	1049
XL281	S40	567	331	548	313	768	532	988	752	1208	972	1428	1192	1648	1412	1867	1632	2307	2072
	S50	709	414	465	171	685	391	905	611	1125	831	1345	1050	1565	1270	1785	1490	2224	1930
	S60	850	497	-	-	602	249	822	469	1042	689	1262	909	1482	1129	1702	1242	2142	1788
	S70	992	580	-	-	-	-	739	327	959	547	1179	767	1399	987	1619	1207	2059	1646
	S80	1134	663	-	-	-	-	657	185	877	405	1096	625	1316	845	1536	1065	1976	1505
	S90	1276	745	-	-	-	-	-	-	794	264	1014	483	1233	703	1453	923	1893	1363
	S1C	1417	828	-	-	-	-	-	-	-	-	931	342	1151	562	1370	782	1810	1221
XL426	S40	831	498	784	452	1105	772	1425	1093	1746	1413	2067	1734	2387	2055	2708	2375	3349	3017
	S50	1039	623	659	244	980	564	1301	885	1621	1206	1942	1526	2263	1847	2583	2168	3224	2809
	S60	1246	748	-	-	855	357	1176	677	1497	998	1817	1319	2138	1639	2459	1960	3100	2601
	S70	1454	872	-	-	-	-	1051	470	1372	790	1693	1111	2013	1431	2334	1752	2975	2393
	S80	1662	997	-	-	-	-	927	262	1247	583	1568	903	1889	1224	2209	1544	2851	2186
	S90	1870	1122	-	-	-	-	-	-	1123	375	1443	695	1764	1016	2085	1337	2726	1978
	S1C	2077	1246	-	-	-	-	-	-	-	-	1319	488	1639	808	1960	1129	2601	1770
XL681	S40	1337	802	1289	754	1811	1277	2334	1799	2856	2322	3379	2844	3902	3367	4424	3890	5470	4935
	S50	1671	1002	1088	420	1611	942	2133	1465	2656	1988	3179	2510	3701	3033	4224	3556	5269	4601
	S60	2005	1203	-	-	1410	608	1933	1131	2455	1654	2978	2176	3501	2699	4023	3221	5069	4267
	S70	2339	1403	-	-	-	-	1732	797	2255	1319	2778	1842	3300	2365	3823	2887	4868	3933
	S80	2673	1604	-	-	-	-	1532	463	2055	985	2577	1508	3100	2031	3622	2553	4668	3598
	S90	3007	1804	-	-	-	-	-	-	1854	651	2377	1174	2899	1696	3422	2219	4467	3264
	S1C	3341	2005	-	-	-	-	-	-	-	-	2176	840	2699	1362	3221	1885	4267	2930

Note:
We recommend that the valve manufacturer supply the maximum required torque values (Including any adjustments or suggested safety factors for valve service conditions or application). Additionally, the valve manufacturer must identify at which position(s) and direction(s) of rotation (Counter Clock Wise or Clock Wise) these maximum requirements occur.

S1C Spring Return
For all fail closed butterfly valves and other spring return applications where 100 Psi air is available, Hytorch's optional S1C Spring Modules will often permit the selection of a smaller Hytorch Actuator. Both space and cost savings can be achieved



Torque Data

Spring Return Actuators (in.lb.), XL1127 to XL4581

Model Number	Spring Rating	Torque from Springs		Torques from air stroke (in.lbs) at given operating air pressure (PSI)															
				40		50		60		70		80		90		100		120	
		Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
XL1127	S40	2189	1312	2188	1311	3063	2186	3938	3061	4813	3936	5688	4811	6563	5686	7438	6561	9188	8311
	S50	2736	1640	1860	764	2735	1639	3610	2514	4485	3389	5360	4264	6235	5139	7110	6014	8860	7764
	S60	3283	1968	-	-	2407	1092	3282	1967	4157	2842	5032	3717	5907	4592	6782	5467	8532	7217
	S70	3830	2296	-	-	2079	545	2954	1420	3829	2295	4704	3170	5579	4045	6454	4920	8204	6670
	S80	4377	2624	-	-	-	-	2626	873	3501	1748	4376	2623	5251	3498	6126	4373	7876	6123
	S90	4925	2952	-	-	-	-	-	-	3173	1200	4048	2075	4923	2950	5798	3825	7548	5575
	S1C	5472	3280	-	-	-	-	-	-	-	-	3720	1528	4595	2403	5470	3278	7220	5028
XL1372	S40	2694	1616	2659	1581	3728	2649	4797	3718	5865	4787	6934	5856	8003	6924	9072	7993	11209	10131
	S50	3368	2020	2255	907	3324	1976	4393	3045	5461	4113	6530	5182	7599	6251	8668	7320	10805	9457
	S60	4041	2424	-	-	2920	1302	3989	2371	5057	3440	6126	4509	7195	5577	8264	6646	10401	8784
	S70	4715	2828	-	-	-	-	3585	1698	4653	2766	5722	3835	6791	4904	7860	5973	9997	8110
	S80	5389	3232	-	-	-	-	3181	1024	4249	2093	5318	3161	6387	4230	7456	5299	9593	7436
	S90	6062	3636	-	-	-	-	-	-	3845	1419	4914	2488	5983	3557	7052	4625	9189	6763
	S1C	6736	4040	-	-	-	-	-	-	-	-	4510	1814	5579	2883	6648	3952	8785	6089
XL2586	S40	5084	3051	5024	2991	7043	5010	9062	7028	11081	9047	13099	11066	15118	13085	17137	15103	21174	19141
	S50	6355	3813	4262	1720	6281	3739	8299	5757	10318	7776	12337	9795	14356	11814	16374	13832	20412	17870
	S60	7626	4576	-	-	5518	2468	7537	4486	9555	6505	11574	8524	13593	10543	15612	12561	19649	16599
	S70	8897	5338	-	-	-	-	6774	3215	8793	5234	10812	7253	12830	9272	14849	11290	18887	15328
	S80	10168	6101	-	-	-	-	6011	1944	8030	3963	10049	5982	12068	8001	14086	10019	18124	14057
	S90	11439	6864	-	-	-	-	-	-	7267	2692	9286	4711	11305	6730	13324	8748	17361	12786
	S1C	12710	7626	-	-	-	-	-	-	-	-	8524	3440	10542	5459	12561	7477	16599	11515
XL4581	S40	8996	5398	8852	5254	12415	8816	15977	12379	19540	15941	23102	19504	26665	23066	30227	26629	37352	33754
	S50	11246	6747	7503	3004	11065	6567	14628	10129	18190	13692	21753	17254	25315	20817	28878	24379	36003	31504
	S60	13495	8097	-	-	9716	4318	13278	7880	16841	11443	20403	15005	23966	18568	27528	22130	34653	29255
	S70	15744	9446	-	-	-	-	11929	5631	15492	9194	19054	12756	22617	16319	26179	19881	33304	27006
	S80	17993	10795	-	-	-	-	10580	3382	14142	6945	17705	10507	21267	14070	24830	17632	31955	24757
	S90	20242	12145	-	-	-	-	-	-	12793	4696	16355	8258	19918	11821	23480	15383	30605	22508
	S1C	22491	13494	-	-	-	-	-	-	-	-	15006	6009	18568	9571	22131	13134	29256	20259

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