

**Data sheet**

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 Date: February 2016

**Hytork XL**

# Torque Data

## Spring Return Actuators (Nm), XL26 to XL681

Model Number	Spring Rating	Torque from Springs		Torques from air stroke (Nm) at given operating air pressure (bar)													
		Start	End	3.0 bar(g)		4.0 bar(g)		5.0 bar(g)		5.5 bar(g)		6.0 bar(g)		7.0 bar(g)		8.0 bar(g)	
				Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
XL26	S40	6	4	7	4	10	8	14	11	15	13	17	15	21	18	24	22
	S50	7	4	6	3	9	6	13	10	14	12	16	13	20	17	23	20
	S60	9	5	5	1	8	5	12	8	14	10	15	12	19	15	22	19
	S70	10	6	-	-	8	3	11	7	13	9	14	10	18	14	21	17
	S80	12	7	-	-	7	2	10	5	12	7	14	9	17	12	20	16
	S90	13	8	-	-	-	-	9	4	11	6	13	7	16	11	20	14
S1C	15	9	-	-	-	-	8	2	10	4	12	6	15	9	19	13	
XL71	S40	15	9	17	11	26	20	34	28	38	32	43	37	51	45	60	54
	S50	19	11	15	7	23	16	32	24	36	29	41	33	49	42	58	50
	S60	22	13	12	4	21	12	30	21	34	25	38	29	47	38	55	47
	S70	26	16	-	-	19	8	27	17	32	21	36	26	45	34	53	43
	S80	30	18	-	-	17	5	25	13	30	18	34	22	42	31	51	39
	S90	33	20	-	-	-	-	23	10	27	14	32	18	40	27	49	35
S1C	37	22	-	-	-	-	21	6	25	10	29	15	38	23	47	32	
XL131	S40	28	17	32	21	48	37	64	53	72	61	80	69	97	85	113	102
	S50	35	21	28	14	44	30	60	46	68	54	76	62	92	78	109	95
	S60	42	25	23	7	40	23	56	39	64	47	72	55	88	71	104	88
	S70	49	29	-	-	35	16	52	32	60	40	68	48	84	64	100	81
	S80	56	33	-	-	31	9	47	25	56	33	64	41	80	57	96	74
	S90	63	38	-	-	-	-	43	18	51	26	59	34	76	51	92	67
S1C	70	42	-	-	-	-	39	11	47	19	55	27	71	44	88	60	
XL186	S40	37	22	43	28	65	50	86	71	97	82	108	93	130	115	152	137
	S50	47	28	37	19	59	40	81	62	92	73	103	84	124	106	146	127
	S60	56	34	32	9	53	31	75	53	86	64	97	75	119	96	140	118
	S70	65	39	-	-	48	22	70	43	80	54	91	65	113	87	135	109
	S80	75	45	-	-	42	12	64	34	75	45	86	56	108	78	129	99
	S90	84	50	-	-	-	-	58	25	69	36	80	47	102	68	124	90
S1C	93	56	-	-	-	-	53	15	64	26	75	37	96	59	118	81	
XL221	S40	52	31	60	39	90	69	120	99	135	114	151	130	181	160	211	190
	S50	65	39	52	26	82	56	112	86	128	101	143	117	173	147	203	177
	S60	78	47	44	13	74	43	105	73	120	88	135	104	165	134	196	164
	S70	91	55	-	-	66	30	97	60	112	75	127	90	157	121	188	151
	S80	105	63	-	-	59	17	89	47	104	62	119	77	150	108	180	138
	S90	118	71	-	-	-	-	81	34	96	49	111	64	142	95	172	125
S1C	131	78	-	-	-	-	73	21	88	36	104	51	134	82	164	112	
XL281	S40	64	37	71	45	108	81	144	117	162	135	180	154	216	190	253	226
	S50	80	47	62	29	98	65	135	101	153	119	171	138	207	174	243	210
	S60	96	56	-	-	89	49	125	85	143	103	161	122	198	158	234	194
	S70	112	66	-	-	80	33	116	69	134	87	152	106	188	142	225	178
	S80	128	75	-	-	-	-	106	53	125	71	143	90	179	126	215	162
	S90	144	84	-	-	-	-	97	37	115	55	133	74	170	110	206	146
S1C	160	94	-	-	-	-	-	-	106	39	124	57	160	94	197	130	
XL426	S40	94	56	102	65	155	118	208	171	235	197	261	223	314	276	367	329
	S50	117	70	88	41	141	94	194	147	221	174	247	200	300	253	353	306
	S60	141	84	-	-	127	71	180	124	206	150	233	177	286	229	339	282
	S70	164	99	-	-	113	47	166	100	192	127	219	153	272	206	325	259
	S80	188	113	-	-	-	-	152	77	178	103	205	130	258	182	311	235
	S90	211	127	-	-	-	-	138	53	164	80	191	106	244	159	296	212
S1C	235	141	-	-	-	-	-	-	150	56	177	83	229	136	282	188	
XL681	S40	151	91	168	108	254	194	340	280	384	323	427	366	513	453	599	539
	S50	189	113	145	70	232	156	318	242	361	285	404	329	490	415	576	501
	S60	227	136	123	32	209	118	295	205	338	248	381	291	468	377	554	463
	S70	264	159	-	-	186	81	273	167	316	210	359	253	445	339	531	425
	S80	302	181	-	-	164	43	250	129	293	172	336	215	422	301	509	388
	S90	340	204	-	-	-	-	227	91	270	134	313	178	400	264	486	350
S1C	378	227	-	-	-	-	205	54	248	97	291	140	377	226	463	312	

**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 7 bar air is available, Hytork's optional S1C Spring Modules will often permit the selection of a smaller Hytork Actuator. Both space and cost savings can be achieved.



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## Data sheet

Sheet No.: D66, Rev. D, Page 2 of 2

Date: February 2016

Hytork XL

# Torque Data

## Spring Return Actuators (Nm), XL1127 to XL4581

Model Number	Spring Rating	Torque from Springs		Torques from air stroke (Nm) at given operating air pressure (bar)													
				3.0		4.0		5.0		5.5		6.0		7.0		8.0	
		Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
XL1127	S40	247	148	285	186	429	330	574	474	646	547	718	619	862	763	1007	907
	S50	309	185	248	124	392	268	536	413	609	485	681	557	825	701	970	846
	S60	371	222	211	62	355	206	499	351	572	423	644	495	788	639	932	784
	S70	433	259	-	-	318	145	462	289	535	361	607	433	751	578	895	722
	S80	495	296	-	-	281	83	425	227	497	299	570	371	714	516	858	660
	S1C	618	371	-	-	-	-	351	103	423	176	495	248	640	392	784	537
XL1372	S40	304	183	346	225	523	401	699	577	787	665	875	753	1052	930	1228	1106
	S50	381	228	301	148	477	325	653	501	741	589	830	677	1006	854	1182	1030
	S60	457	274	255	72	431	249	608	425	696	513	784	601	960	778	1137	954
	S70	533	320	-	-	386	172	562	349	650	437	738	525	915	701	1091	878
	S80	609	365	-	-	340	96	516	273	605	361	693	449	869	625	1045	802
	S90	685	411	-	-	-	-	471	197	559	285	647	373	823	549	1000	726
XL2586	S40	574	345	654	425	987	758	1320	1091	1487	1257	1654	1424	1987	1757	2320	2090
	S50	718	431	568	281	901	614	1234	947	1401	1114	1567	1280	1900	1613	2233	1946
	S60	862	517	482	137	815	470	1148	803	1315	970	1481	1137	1814	1470	2147	1803
	S70	1005	603	-	-	729	327	1062	660	1228	826	1395	993	1728	1326	2061	1659
	S80	1149	689	-	-	643	183	976	516	1142	683	1309	849	1642	1182	1975	1515
	S90	1293	776	-	-	-	-	890	373	1056	539	1223	706	1556	1039	1889	1372
XL4581	S40	1017	610	1153	747	1741	1334	2329	1922	2623	2216	2916	2510	3504	3097	4092	3685
	S50	1271	762	1001	492	1588	1080	2176	1668	2470	1962	2764	2256	3352	2843	3939	3431
	S60	1525	915	848	238	1436	826	2024	1414	2318	1708	2611	2001	3199	2589	3787	3177
	S70	1779	1067	-	-	1284	572	1871	1160	2165	1453	2459	1747	3047	2335	3634	2923
	S80	2033	1220	-	-	1131	318	1719	905	2013	1199	2306	1493	2894	2081	3482	2669
	S90	2287	1372	-	-	-	-	1566	651	1860	945	2154	1239	2742	1827	3329	2414
S1C	2541	1525	-	-	-	-	1414	397	1708	691	2001	985	2589	1573	3177	2160	

### 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, Hytork's optional S1C Spring Modules will often permit the selection of a smaller Hytork Actuator. Both space and cost savings can be achieved.



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