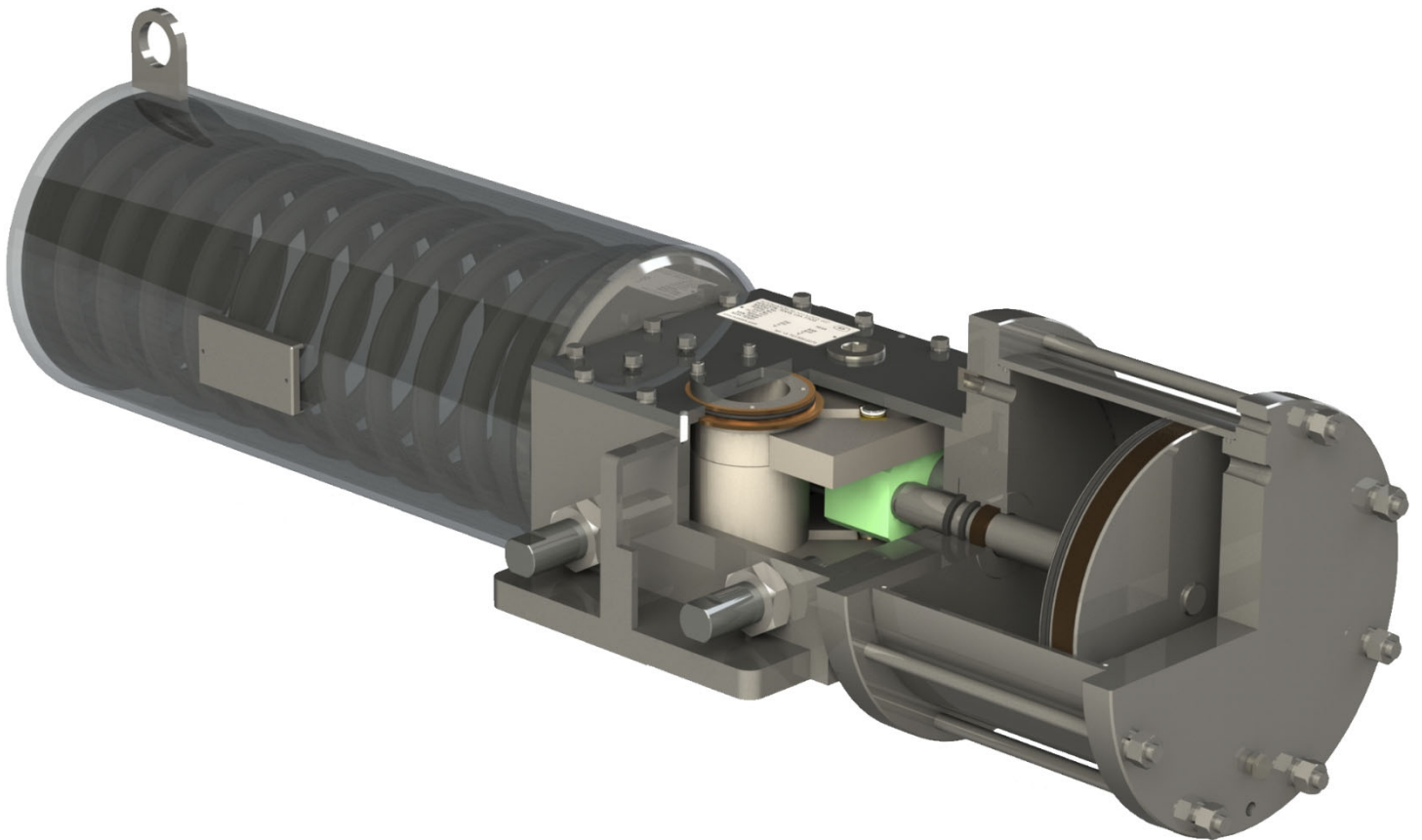




# SYM-L Torque Tables



# Double Acting Symmetric Yoke

## Table Directions

Step 1: Find supply pressure column.

Step 2: Find torque rating that will overcome the max torque required for the valve.

Step 3: Ensure the minimum torque of the actuator is greater than the minimum of the valve.

Model Number	Torque at	Operating Pressure (PSI)											
		40	50	60	70	80	90	100	110	120	130	140	150
		Torque lb.in											
SYM1-L08	Start/End	8,343	10,439	12,535	14,632	16,728	18,825	20,921	23,017	25,114	27,210	29,306	31,403
	Minimum	4,635	5,799	6,964	8,129	9,293	10,458	11,623	12,787	13,952	15,117	16,281	17,446
SYM1-L10	Start/End	13,153	16,458	19,764	23,069	26,374	29,679	32,984	36,289	39,594	42,899	46,204	49,510
	Minimum	7,307	9,144	10,980	12,816	14,652	16,488	18,324	20,161	21,997	23,833	25,669	27,505
SYM1-L12	Start/End	19,033	23,816	28,598	33,380	38,163	42,945	47,728	52,510	57,293	62,075	66,858	71,640
	Minimum	10,574	13,231	15,888	18,545	21,202	23,859	26,515	29,172	31,829	34,486	37,143	39,800
SYM1-L14	Start/End	25,982	32,510	39,039	45,567	52,095	58,624	65,152	71,681	78,209	-	-	-
	Minimum	14,434	18,061	21,688	25,315	28,942	32,569	36,196	39,823	43,449	-	-	-
SYM1-L16	Start/End	34,000	42,543	51,086	59,629	68,172	76,715	-	-	-	-	-	-
	Minimum	18,889	23,635	28,381	33,127	37,873	42,619	-	-	-	-	-	-
SYM1-L18	Start/End	43,087	53,913	64,739	75,565	-	-	-	-	-	-	-	-
	Minimum	23,937	29,952	35,966	41,981	-	-	-	-	-	-	-	-
SYM1-L20	Start/End	53,243	66,621	79,998	-	-	-	-	-	-	-	-	-
	Minimum	29,579	37,011	44,444	-	-	-	-	-	-	-	-	-
SYM1-L24	Start/End	76,762	-	-	-	-	-	-	-	-	-	-	-
	Minimum	42,646	-	-	-	-	-	-	-	-	-	-	-
SYM2-L08	Start/End	12,514	15,658	18,803	21,948	25,092	28,237	31,381	34,526	37,671	40,815	43,960	47,104
	Minimum	6,952	8,699	10,446	12,193	13,940	15,687	17,434	19,181	20,928	22,675	24,422	26,169
SYM2-L10	Start/End	19,730	24,688	29,645	34,603	39,561	44,518	49,476	54,434	59,391	64,349	69,307	74,264
	Minimum	10,961	13,715	16,470	19,224	21,978	24,732	27,487	30,241	32,995	35,749	38,504	41,258
SYM2-L12	Start/End	28,550	35,723	42,897	50,071	57,244	64,418	71,592	78,765	85,939	93,113	100,286	107,460
	Minimum	15,861	19,846	23,832	27,817	31,802	35,788	39,773	43,759	47,744	51,729	55,715	59,700
SYM2-L14	Start/End	38,973	48,765	58,558	68,351	78,143	87,936	97,728	107,521	117,314	127,106	136,899	146,691
	Minimum	21,652	27,092	32,532	37,973	43,413	48,853	54,294	59,734	65,174	70,615	76,055	81,495
SYM2-L16	Start/End	51,000	63,814	76,629	89,443	102,257	115,072	127,886	140,701	153,515	166,329	179,144	191,958
	Minimum	28,333	35,452	42,571	49,691	56,810	63,929	71,048	78,167	85,286	92,405	99,524	106,643
SYM2-L18	Start/End	64,630	80,869	97,108	113,348	129,587	145,826	162,065	178,304	-	-	-	-
	Minimum	35,906	44,927	53,949	62,971	71,993	81,014	90,036	99,058	-	-	-	-
SYM2-L20	Start/End	79,864	99,931	119,998	140,064	160,131	180,198	-	-	-	-	-	-
	Minimum	44,369	55,517	66,665	77,814	88,962	100,110	-	-	-	-	-	-
SYM2-L24	Start/End	115,143	144,074	173,004	-	-	-	-	-	-	-	-	-
	Minimum	63,968	80,041	96,114	-	-	-	-	-	-	-	-	-
SYM2-L28	Start/End	156,836	-	-	-	-	-	-	-	-	-	-	-
	Minimum	87,131	-	-	-	-	-	-	-	-	-	-	-
SYM3-L08	Start/End	16,282	20,374	24,466	28,558	32,650	36,742	40,835	44,927	49,019	53,111	57,203	61,295
	Minimum	9,046	11,319	13,592	15,866	18,139	20,412	22,686	24,959	27,233	29,506	31,779	34,053
SYM3-L10	Start/End	25,904	32,413	38,923	45,432	51,942	58,451	64,961	71,470	77,980	84,489	90,999	97,508
	Minimum	14,391	18,007	21,624	25,240	28,857	32,473	36,089	39,706	43,322	46,938	50,555	54,171
SYM3-L12	Start/End	37,663	47,127	56,592	66,056	75,520	84,984	94,448	103,912	113,377	122,841	132,305	141,769
	Minimum	20,924	26,182	31,440	36,698	41,956	47,213	52,471	57,729	62,987	68,245	73,503	78,761
SYM3-L14	Start/End	51,561	64,517	77,473	90,429	103,385	116,341	129,297	142,253	155,209	168,165	181,121	194,078
	Minimum	28,645	35,843	43,041	50,238	57,436	64,634	71,832	79,030	86,227	93,425	100,623	107,821
SYM3-L16	Start/End	67,597	84,582	101,567	118,552	135,537	152,522	169,508	186,493	203,478	220,463	237,448	254,433
	Minimum	37,554	46,990	56,426	65,862	75,299	84,735	94,171	103,607	113,043	122,479	131,916	141,352
SYM3-L18	Start/End	85,771	107,322	128,874	150,425	171,976	193,528	215,079	236,631	258,182	279,734	301,285	322,837
	Minimum	47,650	59,623	71,596	83,569	95,542	107,515	119,489	131,462	143,435	155,408	167,381	179,354
SYM3-L20	Start/End	106,083	132,738	159,393	186,048	212,703	239,357	266,012	292,667	319,322	345,977	372,632	399,287
	Minimum	58,935	73,743	88,551	103,360	118,168	132,976	147,785	162,593	177,401	192,210	207,018	221,826



Model Number	Torque at	Operating Pressure (PSI)												
		40	50	60	70	80	90	100	110	120	130	140	150	
														Torque lb.in
SYM3-L24	Start/End	153,121	191,595	230,068	268,542	307,016	345,489	383,963	422,436	-	-	-	-	
	Minimum	85,067	106,441	127,816	149,190	170,564	191,938	213,313	234,687	-	-	-	-	
SYM3-L28	Start/End	208,712	261,153	313,594	366,035	418,476	-	-	-	-	-	-	-	
	Minimum	115,951	145,085	174,219	203,353	232,487	-	-	-	-	-	-	-	
SYM3-L32	Start/End	272,855	341,412	409,970	-	-	-	-	-	-	-	-	-	
	Minimum	151,586	189,674	227,761	-	-	-	-	-	-	-	-	-	
SYM3-L36	Start/End	345,550	-	-	-	-	-	-	-	-	-	-	-	
	Minimum	191,972	-	-	-	-	-	-	-	-	-	-	-	
SYM4-L08	Start/End	22,795	28,524	34,253	39,982	45,711	51,439	57,168	62,897	68,626	74,355	80,084	85,813	
	Minimum	12,664	15,847	19,029	22,212	25,395	28,577	31,760	34,943	38,126	41,308	44,491	47,674	
SYM4-L10	Start/End	36,265	45,378	54,492	63,605	72,718	81,832	90,945	100,058	109,172	118,285	127,398	136,512	
	Minimum	20,147	25,210	30,273	35,336	40,399	45,462	50,525	55,588	60,651	65,714	70,777	75,840	
SYM4-L12	Start/End	52,729	65,978	79,228	92,478	105,728	118,978	132,228	145,477	158,727	171,977	185,227	198,477	
	Minimum	29,294	36,655	44,016	51,377	58,738	66,099	73,460	80,821	88,182	95,543	102,904	110,265	
SYM4-L14	Start/End	72,185	90,324	108,462	126,601	144,739	162,878	181,016	199,155	217,293	235,432	253,570	271,709	
	Minimum	40,103	50,180	60,257	70,334	80,411	90,488	100,565	110,641	120,718	130,795	140,872	150,949	
SYM4-L16	Start/End	94,635	118,415	142,194	165,973	189,752	213,531	237,311	261,090	284,869	308,648	332,427	356,207	
	Minimum	52,575	65,786	78,997	92,207	105,418	118,629	131,839	145,050	158,261	171,471	184,682	197,893	
SYM4-L18	Start/End	120,079	150,251	180,423	210,595	240,767	270,939	301,111	331,283	361,455	391,627	421,799	451,971	
	Minimum	66,711	83,473	100,235	116,997	133,759	150,522	167,284	184,046	200,808	217,571	234,333	251,095	
SYM4-L20	Start/End	148,516	185,833	223,150	260,467	297,784	335,100	372,417	409,734	447,051	484,368	521,685	559,002	
	Minimum	82,509	103,240	123,972	144,704	165,435	186,167	206,899	227,630	248,362	269,093	289,825	310,557	
SYM4-L24	Start/End	214,369	268,232	322,096	375,959	429,822	483,685	537,548	591,411	645,274	699,137	-	-	
	Minimum	119,094	149,018	178,942	208,866	238,790	268,714	298,638	328,562	358,486	388,410	-	-	
SYM4-L28	Start/End	292,196	365,614	439,032	512,449	585,867	659,284	732,702	-	-	-	-	-	
	Minimum	162,331	203,119	243,906	284,694	325,482	366,269	407,057	-	-	-	-	-	
SYM4-L32	Start/End	381,997	477,977	573,958	669,938	-	-	-	-	-	-	-	-	
	Minimum	212,220	265,543	318,865	372,188	-	-	-	-	-	-	-	-	
SYM4-L36	Start/End	483,771	605,322	726,874	-	-	-	-	-	-	-	-	-	
	Minimum	268,761	336,290	403,819	-	-	-	-	-	-	-	-	-	
SYM4-L40	Start/End	597,518	747,649	-	-	-	-	-	-	-	-	-	-	
	Minimum	331,954	415,361	-	-	-	-	-	-	-	-	-	-	
SYM5-L08	Start/End	23,618	29,554	35,491	41,427	47,364	53,301	59,237	65,174	71,110	77,047	82,984	88,920	
	Minimum	13,121	16,419	19,717	23,015	26,313	29,611	32,910	36,208	39,506	42,804	46,102	49,400	
SYM5-L10	Start/End	38,050	47,613	57,175	66,738	76,301	85,864	95,427	104,989	114,552	124,115	133,678	143,241	
	Minimum	21,139	26,451	31,764	37,077	42,389	47,702	53,015	58,327	63,640	68,953	74,265	79,578	
SYM5-L12	Start/End	55,689	69,684	83,679	97,674	111,668	125,663	139,658	153,653	167,648	181,642	195,637	209,632	
	Minimum	30,938	38,713	46,488	54,263	62,038	69,813	77,588	85,363	93,138	100,912	108,687	116,462	
SYM5-L14	Start/End	76,536	95,768	115,001	134,234	153,466	172,699	191,931	211,164	230,397	249,629	268,862	288,094	
	Minimum	42,520	53,205	63,889	74,574	85,259	95,944	106,629	117,313	127,998	138,683	149,368	160,052	
SYM5-L16	Start/End	100,589	125,866	151,142	176,418	201,694	226,971	252,247	277,523	302,799	328,076	353,352	378,628	
	Minimum	55,883	69,925	83,968	98,010	112,052	126,095	140,137	154,180	168,222	182,264	196,307	210,349	
SYM5-L18	Start/End	127,850	159,976	192,102	224,227	256,353	288,479	320,604	352,730	384,856	416,982	449,107	481,233	
	Minimum	71,028	88,875	106,723	124,571	142,418	160,266	178,114	195,961	213,809	231,656	249,504	267,352	
SYM5-L20	Start/End	158,318	198,099	237,880	277,661	317,442	357,223	397,004	436,785	476,566	516,347	556,128	595,909	
	Minimum	87,955	110,055	132,156	154,256	176,357	198,457	220,558	242,658	264,759	286,860	308,960	331,061	
SYM5-L24	Start/End	228,876	286,385	343,894	401,403	458,912	516,421	573,930	631,439	688,948	746,457	803,966	861,475	
	Minimum	127,153	159,103	191,052	223,001	254,951	286,900	318,850	350,799	382,749	414,698	446,648	478,597	
SYM5-L28	Start/End	312,262	390,722	469,182	547,643	626,103	704,563	783,023	861,484	939,944	1,018,404	1,096,865	1,175,325	
	Minimum	173,479	217,068	260,657	304,246	347,835	391,424	435,013	478,602	522,191	565,780	609,369	652,958	
SYM5-L32	Start/End	408,476	511,111	613,746	716,381	819,016	921,651	1,024,285	1,126,920	1,229,555	-	-	-	
	Minimum	226,931	283,951	340,970	397,989	455,009	512,028	569,047	626,067	683,086	-	-	-	
SYM5-L36	Start/End	517,520	647,552	777,585	907,618	1,037,650	1,167,683	-	-	-	-	-	-	
	Minimum	287,511	359,751	431,992	504,232	576,472	648,713	-	-	-	-	-	-	
SYM5-L40	Start/End	639,392	800,046	960,699	1,121,353	1,282,007	-	-	-	-	-	-	-	
	Minimum	355,218	444,470	533,722	622,974	712,226	-	-	-	-	-	-	-	



# Spring Return Symmetric Yoke

## Table Directions

Step 1 : Find an End spring value that exceeds the valve End To Close (ETC).

Step 2: Find supply pressure column to match minimum supply.

Step 3: Ensure air to start is greater than valve Break To Open (BTO).

Step 4: Ensure the minimum actuator torque is greater than the run of the valve (RUN).

Model Number	Spring Torque		Operating Pressure (PSI)												
			40	50	60	70	80	90	100	110	120	130	140	150	
			Pressure Torque Output Start,Min,End lb.in												
SYM1-L08-SR1008	Start	17,619	-	-	-	-	-	-	-	-	-	-	19,849	21,998	24,147
	Miniumum	6,675	-	-	-	-	-	-	-	-	-	-	7,963	9,188	10,404
	End	8,000	-	-	-	-	-	-	-	-	-	-	10,230	12,379	14,528
SYM1-L10-SR1008	Start	17,619	-	-	-	-	-	22,084	25,441	28,799	32,157	35,514	38,872	42,229	
	Miniumum	6,675	-	-	-	-	-	9,236	11,133	13,019	14,898	16,773	18,644	20,514	
	End	8,000	-	-	-	-	-	12,465	15,823	19,180	22,538	25,895	29,253	32,611	
SYM1-L12-SR1008	Start	17,619	-	-	20,816	25,651	30,486	35,321	40,156	44,991	49,826	54,660	59,495	64,330	
	Miniumum	6,675	-	-	8,516	11,251	13,964	16,665	19,359	22,051	24,739	27,426	30,112	32,795	
	End	8,000	-	-	11,197	16,032	20,867	25,702	30,537	35,372	40,207	45,042	49,877	54,712	
SYM1-L14-SR1008	Start	17,619	-	24,641	31,222	37,803	44,384	50,964	57,545	64,126	70,707	77,288	-	-	
	Miniumum	6,675	-	10,683	14,376	18,049	21,714	25,372	29,029	32,682	36,334	39,986	-	-	
	End	8,000	-	15,022	21,603	28,184	34,765	41,346	47,927	54,507	61,088	67,669	-	-	
SYM1-L16-SR1008	Start	17,619	26,038	34,633	43,229	51,824	60,419	69,015	77,610	-	-	-	-	-	
	Miniumum	6,675	11,469	16,281	21,071	25,849	30,625	35,395	40,164	-	-	-	-	-	
	End	8,000	16,419	25,014	33,610	42,205	50,801	59,396	67,991	-	-	-	-	-	
SYM1-L18-SR1008	Start	17,619	35,079	45,958	56,836	67,715	78,593	-	-	-	-	-	-	-	
	Miniumum	6,675	16,530	22,589	28,635	34,673	40,710	-	-	-	-	-	-	-	
	End	8,000	25,460	36,339	47,217	58,096	68,975	-	-	-	-	-	-	-	
SYM1-L20-SR1008	Start	17,619	45,184	58,614	72,045	-	-	-	-	-	-	-	-	-	
	Miniumum	6,675	22,159	29,623	37,076	-	-	-	-	-	-	-	-	-	
	End	8,000	35,565	48,996	62,426	-	-	-	-	-	-	-	-	-	
SYM1-L24-SR1008	Start	17,619	68,585	-	-	-	-	-	-	-	-	-	-	-	
	Miniumum	6,675	35,156	-	-	-	-	-	-	-	-	-	-	-	
	End	8,000	58,966	-	-	-	-	-	-	-	-	-	-	-	
SYM1-L08-SR1010	Start	19,619	-	-	-	-	-	-	-	-	-	-	19,998	22,147	
	Miniumum	7,831	-	-	-	-	-	-	-	-	-	-	8,048	9,272	
	End	10,000	-	-	-	-	-	-	-	-	-	-	10,379	12,528	
SYM1-L10-SR1010	Start	19,619	-	-	-	-	-	20,084	23,441	26,799	30,157	33,514	36,872	40,229	
	Miniumum	7,831	-	-	-	-	-	8,097	10,005	11,897	13,779	15,656	17,530	19,400	
	End	10,000	-	-	-	-	-	10,465	13,823	17,180	20,538	23,895	27,253	30,611	
SYM1-L12-SR1010	Start	19,619	-	-	-	23,651	28,486	33,321	38,156	42,991	47,826	52,660	57,495	62,330	
	Miniumum	7,831	-	-	-	10,123	12,843	15,548	18,245	20,938	23,627	26,314	29,001	31,685	
	End	10,000	-	-	-	14,032	18,867	23,702	28,537	33,372	38,207	43,042	47,877	52,712	
SYM1-L14-SR1010	Start	19,619	-	22,641	29,222	35,803	42,384	48,964	55,545	62,126	68,707	75,288	81,869	-	
	Miniumum	7,831	-	9,552	13,256	16,934	20,600	24,260	27,918	31,572	35,224	38,876	42,528	-	
	End	10,000	-	13,022	19,603	26,184	32,765	39,346	45,927	52,507	59,088	65,669	72,250	-	
SYM1-L16-SR1010	Start	19,619	24,038	32,633	41,229	49,824	58,419	67,015	75,610	-	-	-	-	-	
	Miniumum	7,831	10,342	15,164	19,957	24,738	29,515	34,285	39,055	-	-	-	-	-	
	End	10,000	14,419	23,014	31,610	40,205	48,801	57,396	65,991	-	-	-	-	-	
SYM1-L18-SR1010	Start	19,619	33,079	43,958	54,836	65,715	76,593	-	-	-	-	-	-	-	
	Miniumum	7,831	15,413	21,477	27,523	33,564	39,600	-	-	-	-	-	-	-	
	End	10,000	23,460	34,339	45,217	56,096	66,975	-	-	-	-	-	-	-	
SYM1-L20-SR1010	Start	19,619	43,184	56,614	70,045	-	-	-	-	-	-	-	-	-	
	Miniumum	7,831	21,046	28,512	35,966	-	-	-	-	-	-	-	-	-	
	End	10,000	33,565	46,996	60,426	-	-	-	-	-	-	-	-	-	
SYM1-L24-SR1010	Start	19,619	66,585	-	-	-	-	-	-	-	-	-	-	-	
	Miniumum	7,831	34,046	-	-	-	-	-	-	-	-	-	-	-	
	End	10,000	56,966	-	-	-	-	-	-	-	-	-	-	-	



Model Number	Spring Torque		Operating Pressure (PSI)													
			40	50	60	70	80	90	100	110	120	130	140	150		
			Pressure Torque Output Start,Min,End lb.in													
SYM1-L08-SR1012	Start	21,619	-	-	-	-	-	-	-	-	-	-	-	-	-	20,147
	Miniumum	8,972	-	-	-	-	-	-	-	-	-	-	-	-	-	8,133
	End	12,000	-	-	-	-	-	-	-	-	-	-	-	-	-	10,528
SYM1-L10-SR1012	Start	21,619	-	-	-	-	-	-	21,441	24,799	28,157	31,514	34,872	38,229		
	Miniumum	8,972	-	-	-	-	-	-	8,871	10,772	12,659	14,539	16,414	18,286		
	End	12,000	-	-	-	-	-	-	11,823	15,180	18,538	21,895	25,253	28,611		
SYM1-L12-SR1012	Start	21,619	-	-	-	21,651	26,486	31,321	36,156	40,991	45,826	50,660	55,495	60,330		
	Miniumum	8,972	-	-	-	8,990	11,721	14,431	17,131	19,824	22,515	25,203	27,890	30,576		
	End	12,000	-	-	-	12,032	16,867	21,702	26,537	31,372	36,207	41,042	45,877	50,712		
SYM1-L14-SR1012	Start	21,619	-	20,641	27,222	33,803	40,384	46,964	53,545	60,126	66,707	73,288	79,869	-		
	Miniumum	8,972	-	8,416	12,135	15,817	19,486	23,148	26,806	30,462	34,114	37,766	41,418	-		
	End	12,000	-	11,022	17,603	24,184	30,765	37,346	43,927	50,507	57,088	63,669	70,250	-		
SYM1-L16-SR1012	Start	21,619	22,038	30,633	39,229	47,824	56,419	65,015	73,610	-	-	-	-	-		
	Miniumum	8,972	9,210	14,047	18,843	23,626	28,403	33,175	37,945	-	-	-	-	-		
	End	12,000	12,419	21,014	29,610	38,205	46,801	55,396	63,991	-	-	-	-	-		
SYM1-L18-SR1012	Start	21,619	31,079	41,958	52,836	63,715	74,593	-	-	-	-	-	-	-		
	Miniumum	8,972	14,296	20,363	26,412	32,454	38,490	-	-	-	-	-	-	-		
	End	12,000	21,460	32,339	43,217	54,096	64,975	-	-	-	-	-	-	-		
SYM1-L20-SR1012	Start	21,619	41,184	54,614	68,045	81,475	-	-	-	-	-	-	-	-		
	Miniumum	8,972	19,932	27,400	34,856	42,309	-	-	-	-	-	-	-	-		
	End	12,000	31,565	44,996	58,426	71,856	-	-	-	-	-	-	-	-		
SYM1-L24-SR1012	Start	21,619	64,585	-	-	-	-	-	-	-	-	-	-	-		
	Miniumum	8,972	32,937	-	-	-	-	-	-	-	-	-	-	-		
	End	12,000	54,966	-	-	-	-	-	-	-	-	-	-	-		
SYM1-L10-SR1014	Start	23,619	-	-	-	-	-	-	-	22,799	26,157	29,514	32,872	36,229		
	Miniumum	10,105	-	-	-	-	-	-	-	9,642	11,535	13,419	15,297	17,172		
	End	14,000	-	-	-	-	-	-	-	13,180	16,538	19,895	23,253	26,611		
SYM1-L12-SR1014	Start	23,619	-	-	-	24,486	29,321	34,156	38,991	43,826	48,660	53,495	58,330			
	Miniumum	10,105	-	-	-	10,595	13,311	16,014	18,710	21,403	24,091	26,778	29,465			
	End	14,000	-	-	-	14,867	19,702	24,537	29,372	34,207	39,042	43,877	48,712			
SYM1-L14-SR1014	Start	23,619	-	-	25,222	31,803	38,384	44,964	51,545	58,126	64,707	71,288	77,869	-		
	Miniumum	10,105	-	-	11,009	14,700	18,372	22,037	25,694	29,352	33,004	36,656	40,308	-		
	End	14,000	-	-	15,603	22,184	28,765	35,346	41,927	48,507	55,088	61,669	68,250	-		
SYM1-L16-SR1014	Start	23,619	20,038	28,633	37,229	45,824	54,419	63,015	71,610	80,206	-	-	-	-		
	Miniumum	10,105	8,071	12,926	17,729	22,515	27,292	32,065	36,835	41,605	-	-	-	-		
	End	14,000	10,419	19,014	27,610	36,205	44,801	53,396	61,991	70,587	-	-	-	-		
SYM1-L18-SR1014	Start	23,619	29,079	39,958	50,836	61,715	72,593	-	-	-	-	-	-	-		
	Miniumum	10,105	13,176	19,249	25,300	31,344	37,380	-	-	-	-	-	-	-		
	End	14,000	19,460	30,339	41,217	52,096	62,975	-	-	-	-	-	-	-		
SYM1-L20-SR1014	Start	23,619	39,184	52,614	66,045	79,475	-	-	-	-	-	-	-	-		
	Miniumum	10,105	18,818	26,289	33,747	41,199	-	-	-	-	-	-	-	-		
	End	14,000	29,565	42,996	56,426	69,856	-	-	-	-	-	-	-	-		
SYM1-L24-SR1014	Start	23,619	62,585	81,925	-	-	-	-	-	-	-	-	-	-		
	Miniumum	10,105	31,827	42,559	-	-	-	-	-	-	-	-	-	-		
	End	14,000	52,966	72,306	-	-	-	-	-	-	-	-	-	-		
SYM1-L10-SR1016	Start	25,619	-	-	-	-	-	-	-	20,799	24,157	27,514	30,872	34,229		
	Miniumum	11,233	-	-	-	-	-	-	-	8,506	10,409	12,298	14,180	16,055		
	End	16,000	-	-	-	-	-	-	-	11,180	14,538	17,895	21,253	24,611		
SYM1-L12-SR1016	Start	25,619	-	-	-	22,486	27,321	32,156	36,991	41,826	46,660	51,495	56,330			
	Miniumum	11,233	-	-	-	9,465	12,190	14,897	17,596	20,289	22,979	25,667	28,354			
	End	16,000	-	-	-	12,867	17,702	22,537	27,372	32,207	37,042	41,877	46,712			
SYM1-L14-SR1016	Start	25,619	-	-	23,222	29,803	36,384	42,964	49,545	56,126	62,707	69,288	75,869	-		
	Miniumum	11,233	-	-	9,881	13,581	17,258	20,924	24,583	28,240	31,894	35,546	39,198	-		
	End	16,000	-	-	13,603	20,184	26,765	33,346	39,927	46,507	53,088	59,669	66,250	-		
SYM1-L16-SR1016	Start	25,619	-	26,633	35,229	43,824	52,419	61,015	69,610	78,206	-	-	-	-		
	Miniumum	11,233	-	11,804	16,614	21,402	26,180	30,955	35,725	40,495	-	-	-	-		
	End	16,000	-	17,014	25,610	34,205	42,801	51,396	59,991	68,587	-	-	-	-		
SYM1-L18-SR1016	Start	25,619	27,079	37,958	48,836	59,715	70,593	81,472	-	-	-	-	-	-		
	Miniumum	11,233	12,055	18,135	24,189	30,234	36,271	42,307	-	-	-	-	-	-		
	End	16,000	17,460	28,339	39,217	50,096	60,975	71,853	-	-	-	-	-	-		
SYM1-L20-SR1016	Start	25,619	37,184	50,614	64,045	77,475	-	-	-	-	-	-	-	-		
	Miniumum	11,233	17,704	25,177	32,637	40,089	-	-	-	-	-	-	-	-		
	End	16,000	27,565	40,996	54,426	67,856	-	-	-	-	-	-	-	-		
SYM1-L24-SR1016	Start	25,619	60,585	79,925	-	-	-	-	-	-	-	-	-	-		
	Miniumum	11,233	30,717	41,449	-	-	-	-	-	-	-	-	-	-		
	End	16,000	50,966	70,306	-	-	-	-	-	-	-	-	-	-		
SYM1-L10-SR1018	Start	27,619	-	-	-	-	-	-	-	-	22,157	25,514	28,872	32,229		
	Miniumum	12,357	-	-	-	-	-	-	-	-	9,278	11,174	13,059	14,938		
	End	18,000	-	-	-	-	-	-	-	-	12,538	15,895	19,253	22,611		
SYM1-L12-SR1018	Start	27,619	-	-	-	20,486	25,321	30,156	34,991	39,826	44,660	49,495	54,330			
	Miniumum	12,357	-	-	-	8,327	11,065	13,779	16,481	19,175	21,868	24,555	27,242			
	End	18,000	-	-	-	10,867	15,702	20,537	25,372	30,207	35,042	39,877	44,712			



Model Number	Spring Torque		Operating Pressure (PSI)											
			40	50	60	70	80	90	100	110	120	130	140	150
			Pressure Torque Output Start,Min,End lb.in											
SYM1-L14-SR1018	Start	27,619	-	-	21,222	27,803	34,384	40,964	47,545	54,126	60,707	67,288	73,869	80,450
	Minimum	12,357	-	-	8,746	12,460	16,142	19,810	23,471	27,129	30,785	34,436	38,088	41,740
	End	18,000	-	-	11,603	18,184	24,765	31,346	37,927	44,507	51,088	57,669	64,250	70,831
SYM1-L16-SR1018	Start	27,619	-	24,633	33,229	41,824	50,419	59,015	67,610	76,206	-	-	-	-
	Minimum	12,357	-	10,678	15,496	20,288	25,069	29,846	34,615	39,385	-	-	-	-
	End	18,000	-	15,014	23,610	32,205	40,801	49,396	57,991	66,587	-	-	-	-
SYM1-L18-SR1018	Start	27,619	25,079	35,958	46,836	57,715	68,593	79,472	-	-	-	-	-	-
	Minimum	12,357	10,929	17,021	23,077	29,123	35,161	41,197	-	-	-	-	-	-
	End	18,000	15,460	26,339	37,217	48,096	58,975	69,853	-	-	-	-	-	-
SYM1-L20-SR1018	Start	27,619	35,184	48,614	62,045	75,475	-	-	-	-	-	-	-	-
	Minimum	12,357	16,589	24,065	31,527	38,980	-	-	-	-	-	-	-	-
	End	18,000	25,565	38,996	52,426	65,856	-	-	-	-	-	-	-	-
SYM1-L24-SR1018	Start	27,619	58,585	77,925	-	-	-	-	-	-	-	-	-	-
	Minimum	12,357	29,607	40,339	-	-	-	-	-	-	-	-	-	-
	End	18,000	48,966	68,306	-	-	-	-	-	-	-	-	-	-
SYM1-L10-SR1020	Start	29,619	-	-	-	-	-	-	-	-	20,157	23,514	26,872	30,229
	Minimum	13,478	-	-	-	-	-	-	-	-	8,139	10,046	11,938	13,820
	End	20,000	-	-	-	-	-	-	-	-	10,538	13,895	17,253	20,611
SYM1-L12-SR1020	Start	29,619	-	-	-	-	23,321	28,156	32,991	37,826	42,660	47,495	52,330	
	Minimum	13,478	-	-	-	-	9,937	12,658	15,364	18,061	20,754	23,443	26,131	
	End	20,000	-	-	-	-	13,702	18,537	23,372	28,207	33,042	37,877	42,712	
SYM1-L14-SR1020	Start	29,619	-	-	25,803	32,384	38,964	45,545	52,126	58,707	65,288	71,869	78,450	
	Minimum	13,478	-	-	11,336	15,024	18,696	22,366	26,017	29,675	33,327	36,978	40,630	
	End	20,000	-	-	16,184	22,765	29,346	35,927	42,507	49,088	55,669	62,250	68,831	
SYM1-L16-SR1020	Start	29,619	-	22,633	31,229	39,824	48,419	57,015	65,610	74,206	-	-	-	-
	Minimum	13,478	-	9,548	14,379	19,174	23,957	28,734	33,505	38,275	-	-	-	-
	End	20,000	-	13,014	21,610	30,205	38,801	47,396	55,991	64,587	-	-	-	-
SYM1-L18-SR1020	Start	29,619	23,079	33,958	44,836	55,715	66,593	77,472	-	-	-	-	-	-
	Minimum	13,478	9,800	15,904	21,966	28,012	34,051	40,088	-	-	-	-	-	-
	End	20,000	13,460	24,339	35,217	46,096	56,975	67,853	-	-	-	-	-	-
SYM1-L20-SR1020	Start	29,619	33,184	46,614	60,045	73,475	-	-	-	-	-	-	-	-
	Minimum	13,478	15,472	22,954	30,417	37,870	-	-	-	-	-	-	-	-
	End	20,000	23,565	36,996	50,426	63,856	-	-	-	-	-	-	-	-
SYM1-L24-SR1020	Start	29,619	56,585	75,925	-	-	-	-	-	-	-	-	-	-
	Minimum	13,478	28,495	39,229	-	-	-	-	-	-	-	-	-	-
	End	20,000	46,966	66,306	-	-	-	-	-	-	-	-	-	-
SYM1-L10-SR1022	Start	31,619	-	-	-	-	-	-	-	-	-	21,514	24,872	28,229
	Minimum	14,597	-	-	-	-	-	-	-	-	-	8,913	10,812	12,699
	End	22,000	-	-	-	-	-	-	-	-	-	11,895	15,253	18,611
SYM1-L12-SR1022	Start	31,619	-	-	-	-	21,321	26,156	30,991	35,826	40,660	45,495	50,330	
	Minimum	14,597	-	-	-	-	8,803	11,535	14,246	16,947	19,640	22,332	25,019	
	End	22,000	-	-	-	-	11,702	16,537	21,372	26,207	31,042	35,877	40,712	
SYM1-L14-SR1022	Start	31,619	-	-	23,803	30,384	36,964	43,545	50,126	56,707	63,288	69,869	76,450	
	Minimum	14,597	-	-	10,209	13,907	17,582	21,247	24,906	28,563	32,217	35,869	39,520	
	End	22,000	-	-	14,184	20,765	27,346	33,927	40,507	47,088	53,669	60,250	66,831	
SYM1-L16-SR1022	Start	31,619	-	20,633	29,229	37,824	46,419	55,015	63,610	72,206	80,801	-	-	-
	Minimum	14,597	-	8,411	13,259	18,060	22,845	27,623	32,396	37,165	41,935	-	-	-
	End	22,000	-	11,014	19,610	28,205	36,801	45,396	53,991	62,587	71,182	-	-	-
SYM1-L18-SR1022	Start	31,619	21,079	31,958	42,836	53,715	64,593	75,472	-	-	-	-	-	-
	Minimum	14,597	8,665	14,787	20,852	26,900	32,941	38,978	-	-	-	-	-	-
	End	22,000	11,460	22,339	33,217	44,096	54,975	65,853	-	-	-	-	-	-
SYM1-L20-SR1022	Start	31,619	31,184	44,614	58,045	71,475	-	-	-	-	-	-	-	-
	Minimum	14,597	14,354	21,842	29,307	36,760	-	-	-	-	-	-	-	-
	End	22,000	21,565	34,996	48,426	61,856	-	-	-	-	-	-	-	-
SYM1-L24-SR1022	Start	31,619	54,585	73,925	-	-	-	-	-	-	-	-	-	-
	Minimum	14,597	27,384	38,119	-	-	-	-	-	-	-	-	-	-
	End	22,000	44,966	64,306	-	-	-	-	-	-	-	-	-	-
SYM1-L10-SR1024	Start	33,619	-	-	-	-	-	-	-	-	-	22,872	26,229	
	Minimum	15,714	-	-	-	-	-	-	-	-	-	9,683	11,576	
	End	24,000	-	-	-	-	-	-	-	-	-	13,253	16,611	
SYM1-L12-SR1024	Start	33,619	-	-	-	-	-	24,156	28,991	33,826	38,660	43,495	48,330	
	Minimum	15,714	-	-	-	-	-	10,409	13,126	15,830	18,526	21,219	23,907	
	End	24,000	-	-	-	-	-	14,537	19,372	24,207	29,042	33,877	38,712	
SYM1-L14-SR1024	Start	33,619	-	-	21,803	28,384	34,964	41,545	48,126	54,707	61,288	67,869	74,450	
	Minimum	15,714	-	-	9,077	12,786	16,466	20,133	23,794	27,452	31,107	34,759	38,411	
	End	24,000	-	-	12,184	18,765	25,346	31,927	38,507	45,088	51,669	58,250	64,831	
SYM1-L16-SR1024	Start	33,619	-	-	27,229	35,824	44,419	53,015	61,610	70,206	78,801	-	-	-
	Minimum	15,714	-	-	12,138	16,946	21,734	26,511	31,286	36,056	40,825	-	-	-
	End	24,000	-	-	17,610	26,205	34,801	43,396	51,991	60,587	69,182	-	-	-
SYM1-L18-SR1024	Start	33,619	-	29,958	40,836	51,715	62,593	73,472	-	-	-	-	-	-
	Minimum	15,714	-	13,668	19,738	25,789	31,831	37,868	-	-	-	-	-	-
	End	24,000	-	20,339	31,217	42,096	52,975	63,853	-	-	-	-	-	-



Model Number	Spring Torque		Operating Pressure (PSI)													
			40	50	60	70	80	90	100	110	120	130	140	150		
			Pressure Torque Output Start,Min,End lb.in													
SYM1-L20-SR1024	Start	33,619	29,184	42,614	56,045	69,475	-	-	-	-	-	-	-	-	-	-
	Miniumum	15,714	13,234	20,729	28,195	35,650	-	-	-	-	-	-	-	-	-	-
	End	24,000	19,565	32,996	46,426	59,856	-	-	-	-	-	-	-	-	-	-
SYM1-L24-SR1024	Start	33,619	52,585	71,925	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	15,714	26,272	37,009	-	-	-	-	-	-	-	-	-	-	-	-
	End	24,000	42,966	62,306	-	-	-	-	-	-	-	-	-	-	-	-
SYM1-L28-SR1024	Start	33,619	80,241	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	15,714	41,624	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	24,000	70,622	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM1-L10-SR1026	Start	35,619	-	-	-	-	-	-	-	-	-	-	-	-	20,872	24,229
	Miniumum	16,832	-	-	-	-	-	-	-	-	-	-	-	-	8,547	10,450
	End	26,000	-	-	-	-	-	-	-	-	-	-	-	-	11,253	14,611
SYM1-L12-SR1026	Start	35,619	-	-	-	-	-	22,156	26,991	31,826	36,660	41,495	46,330	-	-	-
	Miniumum	16,832	-	-	-	-	-	9,277	12,005	14,713	17,412	20,105	22,796	-	-	-
	End	26,000	-	-	-	-	-	12,537	17,372	22,207	27,042	31,877	36,712	-	-	-
SYM1-L14-SR1026	Start	35,619	-	-	-	19,803	26,384	32,964	39,545	46,126	52,707	59,288	65,869	72,450	-	-
	Miniumum	16,832	-	-	-	7,936	11,663	15,349	19,019	22,682	26,340	29,997	33,649	37,301	-	-
	End	26,000	-	-	-	10,184	16,765	23,346	29,927	36,507	43,088	49,669	56,250	62,831	-	-
SYM1-L16-SR1026	Start	35,619	-	-	25,229	33,824	42,419	51,015	59,610	68,206	76,801	-	-	-	-	-
	Miniumum	16,832	-	-	11,013	15,829	20,620	25,400	30,176	34,946	39,715	-	-	-	-	-
	End	26,000	-	-	15,610	24,205	32,801	41,396	49,991	58,587	67,182	-	-	-	-	-
SYM1-L18-SR1026	Start	35,619	-	27,958	38,836	49,715	60,593	71,472	-	-	-	-	-	-	-	-
	Miniumum	16,832	-	12,547	18,624	24,677	30,722	36,758	-	-	-	-	-	-	-	-
	End	26,000	-	18,339	29,217	40,096	50,975	61,853	-	-	-	-	-	-	-	-
SYM1-L20-SR1026	Start	35,619	27,184	40,614	54,045	67,475	80,905	-	-	-	-	-	-	-	-	-
	Miniumum	16,832	12,113	19,615	27,083	34,540	41,993	-	-	-	-	-	-	-	-	-
	End	26,000	17,565	30,996	44,426	57,856	71,287	-	-	-	-	-	-	-	-	-
SYM1-L24-SR1026	Start	35,619	50,585	69,925	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	16,832	25,161	35,900	-	-	-	-	-	-	-	-	-	-	-	-
	End	26,000	40,966	60,306	-	-	-	-	-	-	-	-	-	-	-	-
SYM1-L28-SR1026	Start	35,619	78,241	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	16,832	40,514	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	26,000	68,622	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM1-L10-SR1028	Start	37,619	-	-	-	-	-	-	-	-	-	-	-	-	-	22,229
	Miniumum	17,946	-	-	-	-	-	-	-	-	-	-	-	-	-	9,319
	End	28,000	-	-	-	-	-	-	-	-	-	-	-	-	-	12,611
SYM1-L12-SR1028	Start	37,619	-	-	-	-	-	20,156	24,991	29,826	34,660	39,495	44,330	-	-	-
	Miniumum	17,946	-	-	-	-	-	8,138	10,879	13,594	16,296	18,991	21,684	-	-	-
	End	28,000	-	-	-	-	-	10,537	15,372	20,207	25,042	29,877	34,712	-	-	-
SYM1-L14-SR1028	Start	37,619	-	-	-	-	24,384	30,964	37,545	44,126	50,707	57,288	63,869	70,450	-	-
	Miniumum	17,946	-	-	-	-	10,538	14,232	17,905	21,571	25,228	28,886	32,539	36,191	-	-
	End	28,000	-	-	-	-	14,765	21,346	27,927	34,507	41,088	47,669	54,250	60,831	-	-
SYM1-L16-SR1028	Start	37,619	-	-	23,229	31,824	40,419	49,015	57,610	66,206	74,801	-	-	-	-	-
	Miniumum	17,946	-	-	9,885	14,712	19,506	24,288	29,065	33,836	38,606	-	-	-	-	-
	End	28,000	-	-	13,610	22,205	30,801	39,396	47,991	56,587	65,182	-	-	-	-	-
SYM1-L18-SR1028	Start	37,619	-	25,958	36,836	47,715	58,593	69,472	80,350	-	-	-	-	-	-	-
	Miniumum	17,946	-	11,423	17,510	23,565	29,612	35,648	41,685	-	-	-	-	-	-	-
	End	28,000	-	16,339	27,217	38,096	48,975	59,853	70,732	-	-	-	-	-	-	-
SYM1-L20-SR1028	Start	37,619	25,184	38,614	52,045	65,475	78,905	-	-	-	-	-	-	-	-	-
	Miniumum	17,946	10,988	18,501	25,972	33,430	40,883	-	-	-	-	-	-	-	-	-
	End	28,000	15,565	28,996	42,426	55,856	69,287	-	-	-	-	-	-	-	-	-
SYM1-L24-SR1028	Start	37,619	48,585	67,925	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	17,946	24,049	34,790	-	-	-	-	-	-	-	-	-	-	-	-
	End	28,000	38,966	58,306	-	-	-	-	-	-	-	-	-	-	-	-
SYM1-L28-SR1028	Start	37,619	76,241	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	17,946	39,404	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	28,000	66,622	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM1-L10-SR1030	Start	39,619	-	-	-	-	-	-	-	-	-	-	-	-	-	20,229
	Miniumum	19,060	-	-	-	-	-	-	-	-	-	-	-	-	-	8,180
	End	30,000	-	-	-	-	-	-	-	-	-	-	-	-	-	10,611
SYM1-L12-SR1030	Start	39,619	-	-	-	-	-	-	22,991	27,826	32,660	37,495	42,330	-	-	-
	Miniumum	19,060	-	-	-	-	-	-	9,750	12,473	15,179	17,877	20,570	-	-	-
	End	30,000	-	-	-	-	-	-	13,372	18,207	23,042	27,877	32,712	-	-	-
SYM1-L14-SR1030	Start	39,619	-	-	-	-	22,384	28,964	35,545	42,126	48,707	55,288	61,869	68,450	-	-
	Miniumum	19,060	-	-	-	-	9,407	13,111	16,791	20,457	24,117	27,774	31,429	35,081	-	-
	End	30,000	-	-	-	-	12,765	19,346	25,927	32,507	39,088	45,669	52,250	58,831	-	-
SYM1-L16-SR1030	Start	39,619	-	-	21,229	29,824	38,419	47,015	55,610	64,206	72,801	81,396	-	-	-	-
	Miniumum	19,060	-	-	8,750	13,593	18,392	23,176	27,954	32,726	37,496	42,265	-	-	-	-
	End	30,000	-	-	11,610	20,205	28,801	37,396	45,991	54,587	63,182	71,778	-	-	-	-
SYM1-L18-SR1030	Start	39,619	-	23,958	34,836	45,715	56,593	67,472	78,350	-	-	-	-	-	-	-
	Miniumum	19,060	-	10,297	16,394	22,454	28,500	34,539	40,575	-	-	-	-	-	-	-
	End	30,000	-	14,339	25,217	36,096	46,975	57,853	68,732	-	-	-	-	-	-	-



Model Number	Spring Torque		Operating Pressure (PSI)												
			40	50	60	70	80	90	100	110	120	130	140	150	
			Pressure Torque Output Start,Min,End lb.in												
SYM1-L20-SR1030	Start	39,619	23,184	36,614	50,045	63,475	76,905	-	-	-	-	-	-	-	-
	Miniumum	19,060	9,859	17,387	24,860	32,321	39,773	-	-	-	-	-	-	-	-
	End	30,000	13,565	26,996	40,426	53,856	67,287	-	-	-	-	-	-	-	-
SYM1-L24-SR1030	Start	39,619	46,585	65,925	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	19,060	22,937	33,680	-	-	-	-	-	-	-	-	-	-	-
	End	30,000	36,966	56,306	-	-	-	-	-	-	-	-	-	-	-
SYM1-L28-SR1030	Start	39,619	74,241	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	19,060	38,295	-	-	-	-	-	-	-	-	-	-	-	-
	End	30,000	64,622	-	-	-	-	-	-	-	-	-	-	-	-
SYM1-L12-SR1032	Start	41,619	-	-	-	-	-	-	-	20,991	25,826	30,660	35,495	40,330	
	Miniumum	20,174	-	-	-	-	-	-	-	8,615	11,349	14,062	16,763	19,456	
	End	32,000	-	-	-	-	-	-	-	11,372	16,207	21,042	25,877	30,712	
SYM1-L14-SR1032	Start	41,619	-	-	-	-	20,384	26,964	33,545	40,126	46,707	53,288	59,869	66,450	
	Miniumum	20,174	-	-	-	-	8,268	11,990	15,673	19,343	23,005	26,663	30,319	33,971	
	End	32,000	-	-	-	-	10,765	17,346	23,927	30,507	37,088	43,669	50,250	56,831	
SYM1-L16-SR1032	Start	41,619	-	-	-	27,824	36,419	45,015	53,610	62,206	70,801	79,396	-	-	
	Miniumum	20,174	-	-	-	12,472	17,278	22,065	26,842	31,616	36,386	41,156	-	-	
	End	32,000	-	-	-	18,205	26,801	35,396	43,991	52,587	61,182	69,778	-	-	
SYM1-L18-SR1032	Start	41,619	-	21,958	32,836	43,715	54,593	65,472	76,350	-	-	-	-	-	
	Miniumum	20,174	-	9,165	15,277	21,342	27,388	33,429	39,465	-	-	-	-	-	
	End	32,000	-	12,339	23,217	34,096	44,975	55,853	66,732	-	-	-	-	-	
SYM1-L20-SR1032	Start	41,619	21,184	34,614	48,045	61,475	74,905	-	-	-	-	-	-	-	
	Miniumum	20,174	8,725	16,271	23,749	31,211	38,663	-	-	-	-	-	-	-	
	End	32,000	11,565	24,996	38,426	51,856	65,287	-	-	-	-	-	-	-	
SYM1-L24-SR1032	Start	41,619	44,585	63,925	-	-	-	-	-	-	-	-	-	-	
	Miniumum	20,174	21,826	32,570	-	-	-	-	-	-	-	-	-	-	
	End	32,000	34,966	54,306	-	-	-	-	-	-	-	-	-	-	
SYM1-L28-SR1032	Start	41,619	72,241	-	-	-	-	-	-	-	-	-	-	-	
	Miniumum	20,174	37,185	-	-	-	-	-	-	-	-	-	-	-	
	End	32,000	62,622	-	-	-	-	-	-	-	-	-	-	-	
SYM2-L14-SR2040	Start	76,070	-	-	-	-	-	-	-	-	78,060	87,932	97,803	107,674	
	Miniumum	30,796	-	-	-	-	-	-	-	-	31,934	37,533	43,098	48,639	
	End	40,000	-	-	-	-	-	-	-	-	41,990	51,861	61,733	71,604	
SYM2-L16-SR2040	Start	76,070	-	-	-	-	75,522	88,415	101,308	114,201	127,095	139,988	152,881		
	Miniumum	30,796	-	-	-	-	30,483	37,807	45,071	52,298	59,501	66,695	73,876		
	End	40,000	-	-	-	-	39,452	52,345	65,238	78,131	91,024	103,917	116,810		
SYM2-L18-SR2040	Start	76,070	-	-	-	-	89,890	106,208	122,526	138,843	155,161	171,479	187,797		
	Miniumum	30,796	-	-	-	-	38,640	47,817	56,949	66,058	75,147	84,229	93,298		
	End	40,000	-	-	-	-	53,820	70,137	86,455	102,773	119,091	135,409	151,727		
SYM2-L20-SR2040	Start	76,070	-	-	80,067	100,212	120,358	140,503	160,649	180,794	-	-	-		
	Miniumum	30,796	-	-	33,075	44,454	55,738	66,982	78,203	89,406	-	-	-		
	End	40,000	-	-	43,997	64,142	84,288	104,433	124,578	144,724	-	-	-		
SYM2-L24-SR2040	Start	76,070	74,877	103,887	132,896	161,906	190,915	-	-	-	-	-	-		
	Miniumum	30,796	30,114	46,517	62,742	78,904	95,031	-	-	-	-	-	-		
	End	40,000	38,807	67,817	96,826	125,836	154,845	-	-	-	-	-	-		
SYM2-L28-SR2040	Start	76,070	116,361	155,846	-	-	-	-	-	-	-	-	-		
	Miniumum	30,796	53,506	75,528	-	-	-	-	-	-	-	-	-		
	End	40,000	80,291	119,776	-	-	-	-	-	-	-	-	-		
SYM2-L32-SR2040	Start	76,070	164,227	-	-	-	-	-	-	-	-	-	-		
	Miniumum	30,796	80,196	-	-	-	-	-	-	-	-	-	-		
	End	40,000	128,156	-	-	-	-	-	-	-	-	-	-		
SYM2-L14-SR2042	Start	78,070	-	-	-	-	-	-	-	-	76,060	85,932	95,803	105,674	
	Miniumum	31,939	-	-	-	-	-	-	-	-	30,790	36,403	41,973	47,518	
	End	42,000	-	-	-	-	-	-	-	-	39,990	49,861	59,733	69,604	
SYM2-L16-SR2042	Start	78,070	-	-	-	-	-	-	86,415	99,308	112,201	125,095	137,988	150,881	
	Miniumum	31,939	-	-	-	-	-	-	36,676	43,945	51,177	58,384	65,581	72,762	
	End	42,000	-	-	-	-	-	-	50,345	63,238	76,131	89,024	101,917	114,810	
SYM2-L18-SR2042	Start	78,070	-	-	-	-	87,890	104,208	120,526	136,843	153,161	169,479	185,797		
	Miniumum	31,939	-	-	-	-	37,510	46,696	55,832	64,944	74,033	83,117	92,187		
	End	42,000	-	-	-	-	51,820	68,137	84,455	100,773	117,091	133,409	149,727		
SYM2-L20-SR2042	Start	78,070	-	-	78,067	98,212	118,358	138,503	158,649	178,794	-	-	-		
	Miniumum	31,939	-	-	31,937	43,328	54,621	65,868	77,089	88,295	-	-	-		
	End	42,000	-	-	41,997	62,142	82,288	102,433	122,578	142,724	-	-	-		
SYM2-L24-SR2042	Start	78,070	-	101,887	130,896	159,906	188,915	-	-	-	-	-	-		
	Miniumum	31,939	-	45,396	61,625	77,790	93,920	-	-	-	-	-	-		
	End	42,000	-	65,817	94,826	123,836	152,845	-	-	-	-	-	-		





Model Number	Spring Torque		Operating Pressure (PSI)											
			40	50	60	70	80	90	100	110	120	130	140	150
Pressure Torque Output Start,Min,End lb.in														
SYM2-L28-SR2042	Start	78,070	114,361	153,846	-	-	-	-	-	-	-	-	-	-
	Miniumum	31,939	52,387	74,414	-	-	-	-	-	-	-	-	-	-
	End	42,000	78,291	117,776	-	-	-	-	-	-	-	-	-	-
SYM2-L32-SR2042	Start	78,070	162,227	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	31,939	79,082	-	-	-	-	-	-	-	-	-	-	-
	End	42,000	126,156	-	-	-	-	-	-	-	-	-	-	-
SYM2-L14-SR2044	Start	80,070	-	-	-	-	-	-	-	74,060	83,932	93,803	103,674	
	Miniumum	33,077	-	-	-	-	-	-	-	29,647	35,271	40,847	46,397	
	End	44,000	-	-	-	-	-	-	-	37,990	47,861	57,733	67,604	
SYM2-L16-SR2044	Start	80,070	-	-	-	-	-	-	84,415	97,308	110,201	123,095	135,988	148,881
	Miniumum	33,077	-	-	-	-	-	-	35,545	42,820	50,056	57,267	64,467	71,648
	End	44,000	-	-	-	-	-	-	48,345	61,238	74,131	87,024	99,917	112,810
SYM2-L18-SR2044	Start	80,070	-	-	-	85,890	102,208	118,526	134,843	151,161	167,479	183,797	-	
	Miniumum	33,077	-	-	-	36,379	45,575	54,715	63,829	72,919	82,006	91,075	-	
	End	44,000	-	-	-	49,820	66,137	82,455	98,773	115,091	131,409	147,727	-	
SYM2-L20-SR2044	Start	80,070	-	-	76,067	96,212	116,358	136,503	156,649	176,794	-	-	-	
	Miniumum	33,077	-	-	30,794	42,203	53,504	64,754	75,975	87,183	-	-	-	
	End	44,000	-	-	39,997	60,142	80,288	100,433	120,578	140,724	-	-	-	
SYM2-L24-SR2044	Start	80,070	-	99,887	128,896	157,906	186,915	-	-	-	-	-	-	
	Miniumum	33,077	-	44,271	60,508	76,676	92,808	-	-	-	-	-	-	
	End	44,000	-	63,817	92,826	121,836	150,845	-	-	-	-	-	-	
SYM2-L28-SR2044	Start	80,070	112,361	151,846	191,331	-	-	-	-	-	-	-	-	
	Miniumum	33,077	51,266	73,300	95,263	-	-	-	-	-	-	-	-	
	End	44,000	76,291	115,776	155,261	-	-	-	-	-	-	-	-	
SYM2-L32-SR2044	Start	80,070	160,227	-	-	-	-	-	-	-	-	-	-	
	Miniumum	33,077	77,968	-	-	-	-	-	-	-	-	-	-	
	End	44,000	124,156	-	-	-	-	-	-	-	-	-	-	
SYM2-L14-SR2046	Start	82,070	-	-	-	-	-	-	-	-	81,932	91,803	101,674	
	Miniumum	34,213	-	-	-	-	-	-	-	-	34,135	39,722	45,276	
	End	46,000	-	-	-	-	-	-	-	-	45,861	55,733	65,604	
SYM2-L16-SR2046	Start	82,070	-	-	-	-	-	82,415	95,308	108,201	121,095	133,988	146,881	
	Miniumum	34,213	-	-	-	-	-	34,409	41,694	48,935	56,150	63,351	70,534	
	End	46,000	-	-	-	-	-	46,345	59,238	72,131	85,024	97,917	110,810	
SYM2-L18-SR2046	Start	82,070	-	-	-	83,890	100,208	116,526	132,843	149,161	165,479	181,797	-	
	Miniumum	34,213	-	-	-	35,248	44,451	53,598	62,712	71,805	80,894	89,963	-	
	End	46,000	-	-	-	47,820	64,137	80,455	96,773	113,091	129,409	145,727	-	
SYM2-L20-SR2046	Start	82,070	-	-	74,067	94,212	114,358	134,503	154,649	174,794	-	-	-	
	Miniumum	34,213	-	-	29,651	41,078	52,385	63,639	74,861	86,071	-	-	-	
	End	46,000	-	-	37,997	58,142	78,288	98,433	118,578	138,724	-	-	-	
SYM2-L24-SR2046	Start	82,070	-	97,887	126,896	155,906	184,915	-	-	-	-	-	-	
	Miniumum	34,213	-	43,145	59,390	75,561	91,697	-	-	-	-	-	-	
	End	46,000	-	61,817	90,826	119,836	148,845	-	-	-	-	-	-	
SYM2-L28-SR2046	Start	82,070	110,361	149,846	189,331	-	-	-	-	-	-	-	-	
	Miniumum	34,213	50,145	72,186	94,151	-	-	-	-	-	-	-	-	
	End	46,000	74,291	113,776	153,261	-	-	-	-	-	-	-	-	
SYM2-L32-SR2046	Start	82,070	158,227	-	-	-	-	-	-	-	-	-	-	
	Miniumum	34,213	76,854	-	-	-	-	-	-	-	-	-	-	
	End	46,000	122,156	-	-	-	-	-	-	-	-	-	-	
SYM2-L14-SR2048	Start	84,070	-	-	-	-	-	-	-	-	79,932	89,803	99,674	
	Miniumum	35,350	-	-	-	-	-	-	-	-	32,998	38,591	44,151	
	End	48,000	-	-	-	-	-	-	-	-	43,861	53,733	63,604	
SYM2-L16-SR2048	Start	84,070	-	-	-	-	-	80,415	93,308	106,201	119,095	131,988	144,881	
	Miniumum	35,350	-	-	-	-	-	33,273	40,569	47,814	55,033	62,234	69,420	
	End	48,000	-	-	-	-	-	44,345	57,238	70,131	83,024	95,917	108,810	
SYM2-L18-SR2048	Start	84,070	-	-	-	81,890	98,208	114,526	130,843	147,161	163,479	179,797	-	
	Miniumum	35,350	-	-	-	34,111	43,326	52,479	61,595	70,691	79,780	88,852	-	
	End	48,000	-	-	-	45,820	62,137	78,455	94,773	111,091	127,409	143,727	-	
SYM2-L20-SR2048	Start	84,070	-	-	92,212	112,358	132,503	152,649	172,794	-	-	-	-	
	Miniumum	35,350	-	-	39,952	51,264	62,522	73,747	84,960	-	-	-	-	
	End	48,000	-	-	56,142	76,288	96,433	116,578	136,724	-	-	-	-	
SYM2-L24-SR2048	Start	84,070	-	95,887	124,896	153,906	182,915	-	-	-	-	-	-	
	Miniumum	35,350	-	42,020	58,273	74,447	90,585	-	-	-	-	-	-	
	End	48,000	-	59,817	88,826	117,836	146,845	-	-	-	-	-	-	



Model Number	Spring Torque		Operating Pressure (PSI)													
			40	50	60	70	80	90	100	110	120	130	140	150		
			Pressure Torque Output Start,Min,End lb.in													
SYM2-L28-SR2048	Start	84,070	108,361	147,846	187,331	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	35,350	49,024	71,072	93,039	-	-	-	-	-	-	-	-	-	-	-
	End	48,000	72,291	111,776	151,261	-	-	-	-	-	-	-	-	-	-	-
SYM2-L32-SR2048	Start	84,070	156,227	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	35,350	75,740	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	48,000	120,156	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L14-SR2050	Start	86,070	-	-	-	-	-	-	-	-	-	77,932	87,803	97,674	-	-
	Miniumum	36,481	-	-	-	-	-	-	-	-	-	31,860	37,461	43,026	-	-
	End	50,000	-	-	-	-	-	-	-	-	-	41,861	51,733	61,604	-	-
SYM2-L16-SR2050	Start	86,070	-	-	-	-	-	-	78,415	91,308	104,201	117,095	129,988	142,881	-	-
	Miniumum	36,481	-	-	-	-	-	-	32,136	39,442	46,693	53,915	61,117	68,306	-	-
	End	50,000	-	-	-	-	-	-	42,345	55,238	68,131	81,024	93,917	106,810	-	-
SYM2-L18-SR2050	Start	86,070	-	-	-	-	79,890	96,208	112,526	128,843	145,161	161,479	177,797	-	-	-
	Miniumum	36,481	-	-	-	-	32,974	42,200	51,358	60,478	69,577	78,666	87,740	-	-	-
	End	50,000	-	-	-	-	43,820	60,137	76,455	92,773	109,091	125,409	141,727	-	-	-
SYM2-L20-SR2050	Start	86,070	-	-	-	90,212	110,358	130,503	150,649	170,794	190,940	-	-	-	-	-
	Miniumum	36,481	-	-	-	38,823	50,143	61,405	72,633	83,848	95,045	-	-	-	-	-
	End	50,000	-	-	-	54,142	74,288	94,433	114,578	134,724	154,869	-	-	-	-	-
SYM2-L24-SR2050	Start	86,070	-	93,887	122,896	151,906	180,915	-	-	-	-	-	-	-	-	-
	Miniumum	36,481	-	40,894	57,156	73,333	89,473	-	-	-	-	-	-	-	-	-
	End	50,000	-	57,817	86,826	115,836	144,845	-	-	-	-	-	-	-	-	-
SYM2-L28-SR2050	Start	86,070	106,361	145,846	185,331	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	36,481	47,903	69,958	91,928	-	-	-	-	-	-	-	-	-	-	-
	End	50,000	70,291	109,776	149,261	-	-	-	-	-	-	-	-	-	-	-
SYM2-L32-SR2050	Start	86,070	154,227	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	36,481	74,626	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	50,000	118,156	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L14-SR2052	Start	88,070	-	-	-	-	-	-	-	-	-	75,932	85,803	95,674	-	-
	Miniumum	37,612	-	-	-	-	-	-	-	-	-	30,717	36,330	41,900	-	-
	End	52,000	-	-	-	-	-	-	-	-	-	39,861	49,733	59,604	-	-
SYM2-L16-SR2052	Start	88,070	-	-	-	-	-	-	76,415	89,308	102,201	115,095	127,988	140,881	-	-
	Miniumum	37,612	-	-	-	-	-	-	30,993	38,312	45,572	52,798	60,000	67,192	-	-
	End	52,000	-	-	-	-	-	-	40,345	53,238	66,131	79,024	91,917	104,810	-	-
SYM2-L18-SR2052	Start	88,070	-	-	-	-	77,890	94,208	110,526	126,843	143,161	159,479	175,797	-	-	-
	Miniumum	37,612	-	-	-	-	31,836	41,075	50,237	59,361	68,463	77,552	86,629	-	-	-
	End	52,000	-	-	-	-	41,820	58,137	74,455	90,773	107,091	123,409	139,727	-	-	-
SYM2-L20-SR2052	Start	88,070	-	-	-	88,212	108,358	128,503	148,649	168,794	188,940	-	-	-	-	-
	Miniumum	37,612	-	-	-	37,692	49,022	60,288	71,519	82,737	93,933	-	-	-	-	-
	End	52,000	-	-	-	52,142	72,288	92,433	112,578	132,724	152,869	-	-	-	-	-
SYM2-L24-SR2052	Start	88,070	-	91,887	120,896	149,906	178,915	-	-	-	-	-	-	-	-	-
	Miniumum	37,612	-	39,769	56,039	72,219	88,362	-	-	-	-	-	-	-	-	-
	End	52,000	-	55,817	84,826	113,836	142,845	-	-	-	-	-	-	-	-	-
SYM2-L28-SR2052	Start	88,070	104,361	143,846	183,331	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	37,612	46,782	68,844	90,816	-	-	-	-	-	-	-	-	-	-	-
	End	52,000	68,291	107,776	147,261	-	-	-	-	-	-	-	-	-	-	-
SYM2-L32-SR2052	Start	88,070	152,227	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	37,612	73,512	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	52,000	116,156	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L14-SR2054	Start	90,070	-	-	-	-	-	-	-	-	-	73,932	83,803	93,674	-	-
	Miniumum	38,742	-	-	-	-	-	-	-	-	-	29,573	35,198	40,775	-	-
	End	54,000	-	-	-	-	-	-	-	-	-	37,861	47,733	57,604	-	-
SYM2-L16-SR2054	Start	90,070	-	-	-	-	-	-	74,415	87,308	100,201	113,095	125,988	138,881	-	-
	Miniumum	38,742	-	-	-	-	-	-	29,850	37,181	44,448	51,677	58,883	66,078	-	-
	End	54,000	-	-	-	-	-	-	38,345	51,238	64,131	77,024	89,917	102,810	-	-
SYM2-L18-SR2054	Start	90,070	-	-	-	-	75,890	92,208	108,526	124,843	141,161	157,479	173,797	190,115	-	-
	Miniumum	38,742	-	-	-	-	30,693	39,949	49,116	58,244	67,349	76,438	85,517	94,586	-	-
	End	54,000	-	-	-	-	39,820	56,137	72,455	88,773	105,091	121,409	137,727	154,044	-	-
SYM2-L20-SR2054	Start	90,070	-	-	-	86,212	106,358	126,503	146,649	166,794	186,940	-	-	-	-	-
	Miniumum	38,742	-	-	-	36,561	47,901	59,171	70,405	81,625	92,822	-	-	-	-	-
	End	54,000	-	-	-	50,142	70,288	90,433	110,578	130,724	150,869	-	-	-	-	-
SYM2-L24-SR2054	Start	90,070	-	89,887	118,896	147,906	176,915	-	-	-	-	-	-	-	-	-
	Miniumum	38,742	-	38,639	54,922	71,105	87,250	-	-	-	-	-	-	-	-	-
	End	54,000	-	53,817	82,826	111,836	140,845	-	-	-	-	-	-	-	-	-



Model Number	Spring Torque		Operating Pressure (PSI)												
			40	50	60	70	80	90	100	110	120	130	140	150	
			Pressure Torque Output Start,Min,End lb.in												
SYM2-L28-SR2054	Start	90,070	102,361	141,846	181,331	-	-	-	-	-	-	-	-	-	-
	Miniumum	38,742	45,661	67,730	89,705	-	-	-	-	-	-	-	-	-	-
	End	54,000	66,291	105,776	145,261	-	-	-	-	-	-	-	-	-	-
SYM2-L32-SR2054	Start	90,070	150,227	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	38,742	72,398	-	-	-	-	-	-	-	-	-	-	-	-
	End	54,000	114,156	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L14-SR2056	Start	92,070	-	-	-	-	-	-	-	-	-	-	81,803	91,674	-
	Miniumum	39,872	-	-	-	-	-	-	-	-	-	-	34,062	39,649	-
	End	56,000	-	-	-	-	-	-	-	-	-	-	45,733	55,604	-
SYM2-L16-SR2056	Start	92,070	-	-	-	-	-	-	-	85,308	98,201	111,095	123,988	136,881	-
	Miniumum	39,872	-	-	-	-	-	-	-	36,050	43,322	50,556	57,766	64,964	-
	End	56,000	-	-	-	-	-	-	-	49,238	62,131	75,024	87,917	100,810	-
SYM2-L18-SR2056	Start	92,070	-	-	-	-	-	90,208	106,526	122,843	139,161	155,479	171,797	188,115	-
	Miniumum	39,872	-	-	-	-	-	38,820	47,995	57,127	66,235	75,324	84,406	93,475	-
	End	56,000	-	-	-	-	-	54,137	70,455	86,773	103,091	119,409	135,727	152,044	-
SYM2-L20-SR2056	Start	92,070	-	-	84,212	104,358	124,503	144,649	164,794	184,940	-	-	-	-	-
	Miniumum	39,872	-	-	35,431	46,781	58,054	69,291	80,512	91,710	-	-	-	-	-
	End	56,000	-	-	48,142	68,288	88,433	108,578	128,724	148,869	-	-	-	-	-
SYM2-L24-SR2056	Start	92,070	-	87,887	116,896	145,906	174,915	-	-	-	-	-	-	-	-
	Miniumum	39,872	-	37,508	53,805	69,991	86,139	-	-	-	-	-	-	-	-
	End	56,000	-	51,817	80,826	109,836	138,845	-	-	-	-	-	-	-	-
SYM2-L28-SR2056	Start	92,070	100,361	139,846	179,331	-	-	-	-	-	-	-	-	-	-
	Miniumum	39,872	44,538	66,616	88,593	-	-	-	-	-	-	-	-	-	-
	End	56,000	64,291	103,776	143,261	-	-	-	-	-	-	-	-	-	-
SYM2-L32-SR2056	Start	92,070	148,227	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	39,872	71,284	-	-	-	-	-	-	-	-	-	-	-	-
	End	56,000	112,156	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L14-SR2058	Start	94,070	-	-	-	-	-	-	-	-	-	-	79,803	89,674	-
	Miniumum	40,998	-	-	-	-	-	-	-	-	-	-	32,925	38,519	-
	End	58,000	-	-	-	-	-	-	-	-	-	-	43,733	53,604	-
SYM2-L16-SR2058	Start	94,070	-	-	-	-	-	-	83,308	96,201	109,095	121,988	134,881	-	-
	Miniumum	40,998	-	-	-	-	-	-	34,917	42,197	49,435	56,649	63,850	-	-
	End	58,000	-	-	-	-	-	-	47,238	60,131	73,024	85,917	98,810	-	-
SYM2-L18-SR2058	Start	94,070	-	-	-	-	-	88,208	104,526	120,843	137,161	153,479	169,797	186,115	-
	Miniumum	40,998	-	-	-	-	-	37,689	46,874	56,009	65,121	74,210	83,294	92,363	-
	End	58,000	-	-	-	-	-	52,137	68,455	84,773	101,091	117,409	133,727	150,044	-
SYM2-L20-SR2058	Start	94,070	-	-	82,212	102,358	122,503	142,649	162,794	182,940	-	-	-	-	-
	Miniumum	40,998	-	-	34,294	45,660	56,937	68,177	79,398	90,599	-	-	-	-	-
	End	58,000	-	-	46,142	66,288	86,433	106,578	126,724	146,869	-	-	-	-	-
SYM2-L24-SR2058	Start	94,070	-	85,887	114,896	143,906	172,915	-	-	-	-	-	-	-	-
	Miniumum	40,998	-	36,377	52,687	68,877	85,027	-	-	-	-	-	-	-	-
	End	58,000	-	49,817	78,826	107,836	136,845	-	-	-	-	-	-	-	-
SYM2-L28-SR2058	Start	94,070	98,361	137,846	177,331	-	-	-	-	-	-	-	-	-	-
	Miniumum	40,998	43,412	65,502	87,481	-	-	-	-	-	-	-	-	-	-
	End	58,000	62,291	101,776	141,261	-	-	-	-	-	-	-	-	-	-
SYM2-L32-SR2058	Start	94,070	146,227	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	40,998	70,170	-	-	-	-	-	-	-	-	-	-	-	-
	End	58,000	110,156	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L14-SR2060	Start	96,070	-	-	-	-	-	-	-	-	-	-	77,803	87,674	-
	Miniumum	42,123	-	-	-	-	-	-	-	-	-	-	31,786	37,388	-
	End	60,000	-	-	-	-	-	-	-	-	-	-	41,733	51,604	-
SYM2-L16-SR2060	Start	96,070	-	-	-	-	-	-	81,308	94,201	107,095	119,988	132,881	-	-
	Miniumum	42,123	-	-	-	-	-	-	33,780	41,071	48,314	55,531	62,733	-	-
	End	60,000	-	-	-	-	-	-	45,238	58,131	71,024	83,917	96,810	-	-
SYM2-L18-SR2060	Start	96,070	-	-	-	-	-	86,208	102,526	118,843	135,161	151,479	167,797	184,115	-
	Miniumum	42,123	-	-	-	-	-	36,559	45,754	54,892	64,007	73,096	82,182	91,252	-
	End	60,000	-	-	-	-	-	50,137	66,455	82,773	99,091	115,409	131,727	148,044	-
SYM2-L20-SR2060	Start	96,070	-	-	80,212	100,358	120,503	140,649	160,794	180,940	-	-	-	-	-
	Miniumum	42,123	-	-	33,158	44,536	55,820	67,063	78,284	89,487	-	-	-	-	-
	End	60,000	-	-	44,142	64,288	84,433	104,578	124,724	144,869	-	-	-	-	-
SYM2-L24-SR2060	Start	96,070	-	83,887	112,896	141,906	170,915	-	-	-	-	-	-	-	-
	Miniumum	42,123	-	35,246	51,566	67,763	83,916	-	-	-	-	-	-	-	-
	End	60,000	-	47,817	76,826	105,836	134,845	-	-	-	-	-	-	-	-



Model Number	Spring Torque		Operating Pressure (PSI)														
			40	50	60	70	80	90	100	110	120	130	140	150			
			Pressure Torque Output Start,Min,End lb.in														
SYM2-L28-SR2060	Start	96,070	96,361	135,846	175,331	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	42,123	42,287	64,388	86,370	-	-	-	-	-	-	-	-	-	-	-	-
	End	60,000	60,291	99,776	139,261	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L32-SR2060	Start	96,070	144,227	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	42,123	69,056	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	60,000	108,156	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L14-SR2062	Start	98,070	-	-	-	-	-	-	-	-	-	-	-	-	75,803	85,674	
	Miniumum	43,248	-	-	-	-	-	-	-	-	-	-	-	-	30,643	36,257	
	End	62,000	-	-	-	-	-	-	-	-	-	-	-	-	39,733	49,604	
SYM2-L16-SR2062	Start	98,070	-	-	-	-	-	-	-	79,308	92,201	105,095	117,988	130,881	-	-	
	Miniumum	43,248	-	-	-	-	-	-	-	32,644	39,946	47,193	54,414	61,616	-	-	
	End	62,000	-	-	-	-	-	-	-	43,238	56,131	69,024	81,917	94,810	-	-	
SYM2-L18-SR2062	Start	98,070	-	-	-	-	-	84,208	100,526	116,843	133,161	149,479	165,797	182,115	-	-	
	Miniumum	43,248	-	-	-	-	-	35,428	44,630	53,775	62,890	71,982	81,071	90,140	-	-	
	End	62,000	-	-	-	-	-	48,137	64,455	80,773	97,091	113,409	129,727	146,044	-	-	
SYM2-L20-SR2062	Start	98,070	-	-	-	78,212	98,358	118,503	138,649	158,794	178,940	-	-	-	-	-	
	Miniumum	43,248	-	-	-	32,021	43,410	54,702	65,949	77,170	88,375	-	-	-	-	-	
	End	62,000	-	-	-	42,142	62,288	82,433	102,578	122,724	142,869	-	-	-	-	-	
SYM2-L24-SR2062	Start	98,070	-	81,887	110,896	139,906	168,915	-	-	-	-	-	-	-	-	-	
	Miniumum	43,248	-	34,109	50,445	66,649	82,804	-	-	-	-	-	-	-	-	-	
	End	62,000	-	45,817	74,826	103,836	132,845	-	-	-	-	-	-	-	-	-	
SYM2-L28-SR2062	Start	98,070	94,361	133,846	173,331	-	-	-	-	-	-	-	-	-	-	-	
	Miniumum	43,248	41,161	63,272	85,258	-	-	-	-	-	-	-	-	-	-	-	
	End	62,000	58,291	97,776	137,261	-	-	-	-	-	-	-	-	-	-	-	
SYM2-L32-SR2062	Start	98,070	142,227	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Miniumum	43,248	67,942	-	-	-	-	-	-	-	-	-	-	-	-	-	
	End	62,000	106,156	-	-	-	-	-	-	-	-	-	-	-	-	-	
SYM2-L14-SR2064	Start	100,070	-	-	-	-	-	-	-	-	-	-	-	-	-	83,674	
	Miniumum	44,374	-	-	-	-	-	-	-	-	-	-	-	-	-	35,125	
	End	64,000	-	-	-	-	-	-	-	-	-	-	-	-	-	47,604	
SYM2-L16-SR2064	Start	100,070	-	-	-	-	-	-	-	77,308	90,201	103,095	115,988	128,881	-	-	
	Miniumum	44,374	-	-	-	-	-	-	-	31,504	38,817	46,072	53,297	60,499	-	-	
	End	64,000	-	-	-	-	-	-	-	41,238	54,131	67,024	79,917	92,810	-	-	
SYM2-L18-SR2064	Start	100,070	-	-	-	-	-	82,208	98,526	114,843	131,161	147,479	163,797	180,115	-	-	
	Miniumum	44,374	-	-	-	-	-	34,292	43,505	52,657	61,773	70,868	79,957	89,028	-	-	
	End	64,000	-	-	-	-	-	46,137	62,455	78,773	95,091	111,409	127,727	144,044	-	-	
SYM2-L20-SR2064	Start	100,070	-	-	-	76,212	96,358	116,503	136,649	156,794	176,940	-	-	-	-	-	
	Miniumum	44,374	-	-	-	30,877	42,285	53,585	64,835	76,056	87,264	-	-	-	-	-	
	End	64,000	-	-	-	40,142	60,288	80,433	100,578	120,724	140,869	-	-	-	-	-	
SYM2-L24-SR2064	Start	100,070	-	79,887	108,896	137,906	166,915	-	-	-	-	-	-	-	-	-	
	Miniumum	44,374	-	32,973	49,324	65,535	81,692	-	-	-	-	-	-	-	-	-	
	End	64,000	-	43,817	72,826	101,836	130,845	-	-	-	-	-	-	-	-	-	
SYM2-L28-SR2064	Start	100,070	92,361	131,846	171,331	-	-	-	-	-	-	-	-	-	-	-	
	Miniumum	44,374	40,036	62,155	84,147	-	-	-	-	-	-	-	-	-	-	-	
	End	64,000	56,291	95,776	135,261	-	-	-	-	-	-	-	-	-	-	-	
SYM2-L32-SR2064	Start	100,070	140,227	191,799	-	-	-	-	-	-	-	-	-	-	-	-	
	Miniumum	44,374	66,828	95,523	-	-	-	-	-	-	-	-	-	-	-	-	
	End	64,000	104,156	155,729	-	-	-	-	-	-	-	-	-	-	-	-	
SYM2-L14-SR2066	Start	102,070	-	-	-	-	-	-	-	-	-	-	-	-	-	81,674	
	Miniumum	45,498	-	-	-	-	-	-	-	-	-	-	-	-	-	33,988	
	End	66,000	-	-	-	-	-	-	-	-	-	-	-	-	-	45,604	
SYM2-L16-SR2066	Start	102,070	-	-	-	-	-	-	-	75,308	88,201	101,095	113,988	126,881	-	-	
	Miniumum	45,498	-	-	-	-	-	-	-	30,360	37,686	44,950	52,178	59,382	-	-	
	End	66,000	-	-	-	-	-	-	-	39,238	52,131	65,024	77,917	90,810	-	-	
SYM2-L18-SR2066	Start	102,070	-	-	-	-	-	80,208	96,526	112,843	129,161	145,479	161,797	178,115	-	-	
	Miniumum	45,498	-	-	-	-	-	33,155	42,379	51,536	60,656	69,754	78,843	87,917	-	-	
	End	66,000	-	-	-	-	-	44,137	60,455	76,773	93,091	109,409	125,727	142,044	-	-	
SYM2-L20-SR2066	Start	102,070	-	-	-	74,212	94,358	114,503	134,649	154,794	174,940	-	-	-	-	-	
	Miniumum	45,498	-	-	-	29,734	41,159	52,467	63,721	74,942	86,152	-	-	-	-	-	
	End	66,000	-	-	-	38,142	58,288	78,433	98,578	118,724	138,869	-	-	-	-	-	
SYM2-L24-SR2066	Start	102,070	-	77,887	106,896	135,906	164,915	-	-	-	-	-	-	-	-	-	
	Miniumum	45,498	-	31,834	48,203	64,421	80,580	-	-	-	-	-	-	-	-	-	
	End	66,000	-	41,817	70,826	99,836	128,845	-	-	-	-	-	-	-	-	-	
SYM2-L28-SR2066	Start	102,070	90,361	129,846	169,331	-	-	-	-	-	-	-	-	-	-	-	
	Miniumum	45,498	38,907	61,038	83,035	-	-	-	-	-	-	-	-	-	-	-	
	End	66,000	54,291	93,776	133,261	-	-	-	-	-	-	-	-	-	-	-	



Model Number	Spring Torque		Operating Pressure (PSI)													
			40	50	60	70	80	90	100	110	120	130	140	150		
			Pressure Torque Output Start,Min,End lb.in													
SYM2-L32-SR2066	Start	87,642	138,227	189,799	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	42,050	70,173	98,791	-	-	-	-	-	-	-	-	-	-	-	-
	End	66,000	116,584	168,157	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L14-SR2068	Start	104,070	-	-	-	-	-	-	-	-	-	-	-	-	-	79,674
	Miniumum	46,619	-	-	-	-	-	-	-	-	-	-	-	-	-	32,852
	End	68,000	-	-	-	-	-	-	-	-	-	-	-	-	-	43,604
SYM2-L16-SR2068	Start	104,070	-	-	-	-	-	-	-	-	-	86,201	99,095	111,988	124,881	-
	Miniumum	46,619	-	-	-	-	-	-	-	-	-	36,555	43,825	51,057	58,265	-
	End	68,000	-	-	-	-	-	-	-	-	-	50,131	63,024	75,917	88,810	-
SYM2-L18-SR2068	Start	104,070	-	-	-	-	-	78,208	94,526	110,843	127,161	143,479	159,797	176,115	-	-
	Miniumum	46,619	-	-	-	-	-	32,018	41,254	50,415	59,538	68,640	77,729	86,805	-	-
	End	68,000	-	-	-	-	-	42,137	58,455	74,773	91,091	107,409	123,727	140,044	-	-
SYM2-L20-SR2068	Start	104,070	-	-	-	-	92,358	112,503	132,649	152,794	172,940	-	-	-	-	-
	Miniumum	46,619	-	-	-	-	40,034	51,346	62,604	73,828	85,041	-	-	-	-	-
	End	68,000	-	-	-	-	56,288	76,433	96,578	116,724	136,869	-	-	-	-	-
SYM2-L24-SR2068	Start	104,070	-	75,887	104,896	133,906	162,915	191,925	-	-	-	-	-	-	-	-
	Miniumum	46,619	-	30,691	47,082	63,306	79,466	95,592	-	-	-	-	-	-	-	-
	End	68,000	-	39,817	68,826	97,836	126,845	155,855	-	-	-	-	-	-	-	-
SYM2-L28-SR2068	Start	104,070	88,361	127,846	167,331	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	46,619	37,776	59,921	81,924	-	-	-	-	-	-	-	-	-	-	-
	End	68,000	52,291	91,776	131,261	-	-	-	-	-	-	-	-	-	-	-
SYM2-L32-SR2068	Start	104,070	136,227	187,799	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	46,619	64,600	93,299	-	-	-	-	-	-	-	-	-	-	-	-
	End	68,000	100,156	151,729	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L36-SR2068	Start	104,070	190,474	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	46,619	94,786	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	68,000	154,404	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L14-SR2070	Start	106,070	-	-	-	-	-	-	-	-	-	-	-	-	-	77,674
	Miniumum	47,740	-	-	-	-	-	-	-	-	-	-	-	-	-	31,713
	End	70,000	-	-	-	-	-	-	-	-	-	-	-	-	-	41,604
SYM2-L16-SR2070	Start	106,070	-	-	-	-	-	-	-	-	-	84,201	97,095	109,988	122,881	-
	Miniumum	47,740	-	-	-	-	-	-	-	-	-	35,425	42,699	49,936	57,147	-
	End	70,000	-	-	-	-	-	-	-	-	-	48,131	61,024	73,917	86,810	-
SYM2-L18-SR2070	Start	106,070	-	-	-	-	-	76,208	92,526	108,843	125,161	141,479	157,797	174,115	-	-
	Miniumum	47,740	-	-	-	-	-	30,875	40,128	49,294	58,421	67,526	76,615	85,694	-	-
	End	70,000	-	-	-	-	-	40,137	56,455	72,773	89,091	105,409	121,727	138,044	-	-
SYM2-L20-SR2070	Start	106,070	-	-	-	-	90,358	110,503	130,649	150,794	170,940	191,085	-	-	-	-
	Miniumum	47,740	-	-	-	-	38,905	50,225	61,486	72,714	83,929	95,126	-	-	-	-
	End	70,000	-	-	-	-	54,288	74,433	94,578	114,724	134,869	155,015	-	-	-	-
SYM2-L24-SR2070	Start	106,070	-	-	102,896	131,906	160,915	189,925	-	-	-	-	-	-	-	-
	Miniumum	47,740	-	-	45,961	62,189	78,352	94,481	-	-	-	-	-	-	-	-
	End	70,000	-	-	66,826	95,836	124,845	153,855	-	-	-	-	-	-	-	-
SYM2-L28-SR2070	Start	106,070	86,361	125,846	165,331	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	47,740	36,645	58,804	80,811	-	-	-	-	-	-	-	-	-	-	-
	End	70,000	50,291	89,776	129,261	-	-	-	-	-	-	-	-	-	-	-
SYM2-L32-SR2070	Start	106,070	134,227	185,799	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	47,740	63,485	92,188	-	-	-	-	-	-	-	-	-	-	-	-
	End	70,000	98,156	149,729	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L36-SR2070	Start	106,070	188,474	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	47,740	93,675	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	70,000	152,404	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L14-SR2072	Start	108,070	-	-	-	-	-	-	-	-	-	-	-	-	-	75,674
	Miniumum	48,861	-	-	-	-	-	-	-	-	-	-	-	-	-	30,570
	End	72,000	-	-	-	-	-	-	-	-	-	-	-	-	-	39,604
SYM2-L16-SR2072	Start	108,070	-	-	-	-	-	-	-	-	-	82,201	95,095	107,988	120,881	-
	Miniumum	48,861	-	-	-	-	-	-	-	-	-	34,288	41,574	48,815	56,030	-
	End	72,000	-	-	-	-	-	-	-	-	-	46,131	59,024	71,917	84,810	-
SYM2-L18-SR2072	Start	108,070	-	-	-	-	-	74,208	90,526	106,843	123,161	139,479	155,797	172,115	-	-
	Miniumum	48,861	-	-	-	-	-	29,731	39,000	48,174	57,304	66,412	75,501	84,582	-	-
	End	72,000	-	-	-	-	-	38,137	54,455	70,773	87,091	103,409	119,727	136,044	-	-
SYM2-L20-SR2072	Start	108,070	-	-	-	-	88,358	108,503	128,649	148,794	168,940	189,085	-	-	-	-
	Miniumum	48,861	-	-	-	-	37,774	49,104	60,369	71,600	82,818	94,014	-	-	-	-
	End	72,000	-	-	-	-	52,288	72,433	92,578	112,724	132,869	153,015	-	-	-	-
SYM2-L24-SR2072	Start	108,070	-	-	100,896	129,906	158,915	187,925	-	-	-	-	-	-	-	-
	Miniumum	48,861	-	-	44,839	61,071	77,238	93,369	-	-	-	-	-	-	-	-
	End	72,000	-	-	64,826	93,836	122,845	151,855	-	-	-	-	-	-	-	-
SYM2-L28-SR2072	Start	108,070	84,361	123,846	163,331	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	48,861	35,515	57,687	79,697	-	-	-	-	-	-	-	-	-	-	-
	End	72,000	48,291	87,776	127,261	-	-	-	-	-	-	-	-	-	-	-
SYM2-L32-SR2072	Start	108,070	132,227	183,799	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	48,861	62,368	91,076	-	-	-	-	-	-	-	-	-	-	-	-
	End	72,000	96,156	147,729	-	-	-	-	-	-	-	-	-	-	-	-



Model Number	Spring Torque		Operating Pressure (PSI)														
			40	50	60	70	80	90	100	110	120	130	140	150			
			Pressure Torque Output Start,Min,End lb.in														
SYM2-L36-SR2072	Start	108,070	186,474	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	48,861	92,563	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	72,000	150,404	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L16-SR2074	Start	110,070	-	-	-	-	-	-	-	-	80,201	93,095	105,988	118,881	-	-	-
	Miniumum	49,982	-	-	-	-	-	-	-	-	33,151	40,448	47,694	54,913	-	-	-
	End	74,000	-	-	-	-	-	-	-	-	44,131	57,024	69,917	82,810	-	-	-
SYM2-L18-SR2074	Start	110,070	-	-	-	-	-	-	88,526	104,843	121,161	137,479	153,797	170,115	-	-	-
	Miniumum	49,982	-	-	-	-	-	-	37,869	47,053	56,187	65,298	74,387	83,471	-	-	-
	End	74,000	-	-	-	-	-	-	52,455	68,773	85,091	101,409	117,727	134,044	-	-	-
SYM2-L20-SR2074	Start	110,070	-	-	-	-	86,358	106,503	126,649	146,794	166,940	187,085	-	-	-	-	-
	Miniumum	49,982	-	-	-	-	36,644	47,983	59,252	70,486	81,706	92,903	-	-	-	-	-
	End	74,000	-	-	-	-	50,288	70,433	90,578	110,724	130,869	151,015	-	-	-	-	-
SYM2-L24-SR2074	Start	110,070	-	-	98,896	127,906	156,915	185,925	-	-	-	-	-	-	-	-	-
	Miniumum	49,982	-	-	43,713	59,954	76,124	92,258	-	-	-	-	-	-	-	-	-
	End	74,000	-	-	62,826	91,836	120,845	149,855	-	-	-	-	-	-	-	-	-
SYM2-L28-SR2074	Start	110,070	82,361	121,846	161,331	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	49,982	34,379	56,570	78,583	-	-	-	-	-	-	-	-	-	-	-	-
	End	74,000	46,291	85,776	125,261	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L32-SR2074	Start	110,070	130,227	181,799	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	49,982	61,251	89,965	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	74,000	94,156	145,729	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM2-L36-SR2074	Start	110,070	184,474	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	49,982	91,452	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	74,000	148,404	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM3-L16-SR3072	Start	136,125	-	-	-	-	-	-	-	-	133,602	150,793	167,983	185,174	-	-	-
	Miniumum	55,257	-	-	-	-	-	-	-	-	53,814	63,600	73,305	82,969	-	-	-
	End	72,000	-	-	-	-	-	-	-	-	69,477	86,668	103,858	121,049	-	-	-
SYM3-L18-SR3072	Start	136,125	-	-	-	-	-	-	144,701	166,458	188,215	209,972	231,729	253,486	-	-	-
	Miniumum	55,257	-	-	-	-	-	-	60,141	72,447	84,673	96,857	109,010	121,142	-	-	-
	End	72,000	-	-	-	-	-	-	80,576	102,333	124,090	145,847	167,604	189,361	-	-	-
SYM3-L20-SR3072	Start	136,125	-	-	-	141,811	168,671	195,532	222,392	249,253	276,114	302,974	329,835	-	-	-	-
	Miniumum	55,257	-	-	-	58,498	73,692	88,774	103,795	118,784	133,745	148,697	163,626	-	-	-	-
	End	72,000	-	-	-	77,686	104,546	131,407	158,267	185,128	211,989	238,849	265,710	-	-	-	-
SYM3-L24-SR3072	Start	136,125	-	-	158,529	197,208	235,887	274,566	313,246	351,925	390,604	-	-	-	-	-	-
	Miniumum	55,257	-	-	67,973	89,713	111,333	132,884	154,406	175,903	197,401	-	-	-	-	-	-
	End	72,000	-	-	94,404	133,083	171,762	210,441	249,121	287,800	326,479	-	-	-	-	-	-
SYM3-L28-SR3072	Start	136,125	136,481	189,128	241,775	294,422	347,069	399,715	-	-	-	-	-	-	-	-	-
	Miniumum	55,257	55,460	85,185	114,618	143,943	173,204	202,458	-	-	-	-	-	-	-	-	-
	End	72,000	72,356	125,003	177,650	230,297	282,944	335,590	-	-	-	-	-	-	-	-	-
SYM3-L32-SR3072	Start	136,125	200,302	269,065	337,829	406,592	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	55,257	91,447	129,819	168,068	206,274	-	-	-	-	-	-	-	-	-	-	-
	End	72,000	136,177	204,940	273,704	342,467	-	-	-	-	-	-	-	-	-	-	-
SYM3-L36-SR3072	Start	136,125	272,632	359,661	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	55,257	131,806	180,203	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	72,000	208,507	295,536	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM3-L40-SR3072	Start	136,125	353,472	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	55,257	176,763	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	72,000	289,347	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM3-L16-SR3076	Start	140,125	-	-	-	-	-	-	-	-	-	146,793	163,983	181,174	-	-	-
	Miniumum	57,540	-	-	-	-	-	-	-	-	-	61,330	71,054	80,727	-	-	-
	End	76,000	-	-	-	-	-	-	-	-	-	82,668	99,858	117,049	-	-	-
SYM3-L18-SR3076	Start	140,125	-	-	-	-	-	-	140,701	162,458	184,215	205,972	227,729	249,486	-	-	-
	Miniumum	57,540	-	-	-	-	-	-	57,867	70,194	82,431	94,623	106,776	118,914	-	-	-
	End	76,000	-	-	-	-	-	-	76,576	98,333	120,090	141,847	163,604	185,361	-	-	-
SYM3-L20-SR3076	Start	140,125	-	-	-	-	137,811	164,671	191,532	218,392	245,253	272,114	298,974	325,835	-	-	-
	Miniumum	57,540	-	-	-	-	56,220	71,441	86,532	101,561	116,556	131,517	146,474	161,403	-	-	-
	End	76,000	-	-	-	-	73,686	100,546	127,407	154,267	181,128	207,989	234,849	261,710	-	-	-
SYM3-L24-SR3076	Start	140,125	-	-	154,529	193,208	231,887	270,566	309,246	347,925	386,604	-	-	-	-	-	-
	Miniumum	57,540	-	-	65,712	87,471	109,098	130,656	152,182	173,680	195,178	-	-	-	-	-	-
	End	76,000	-	-	90,404	129,083	167,762	206,441	245,121	283,800	322,479	-	-	-	-	-	-
SYM3-L28-SR3076	Start	140,125	132,481	185,128	237,775	290,422	343,069	395,715	-	-	-	-	-	-	-	-	-
	Miniumum	57,540	53,174	82,943	112,387	141,715	170,981	200,238	-	-	-	-	-	-	-	-	-
	End	76,000	68,356	121,003	173,650	226,297	278,944	331,590	-	-	-	-	-	-	-	-	-
SYM3-L32-SR3076	Start	140,125	196,302	265,065	333,829	402,592	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	57,540	89,206	127,591	165,845	204,054	-	-	-	-	-	-	-	-	-	-	-
	End	76,000	132,177	200,940	269,704	338,467	-	-	-	-	-	-	-	-	-	-	-
SYM3-L36-SR3076	Start	140,125	268,632	355,661	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	57,540	129,578	177,979	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	76,000	204,507	291,536	-	-	-	-	-	-	-	-	-	-	-	-	-
SYM3-L40-SR3076	Start	140,125	349,472	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	57,540	174,540	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	End	76,000	285,347	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Model Number	Spring Torque		Operating Pressure (PSI)												
			40	50	60	70	80	90	100	110	120	130	140	150	
			Pressure Torque Output Start,Min,End lb.in												
SYM3-L16-SR3080	Start	144,125	-	-	-	-	-	-	-	-	-	142,793	159,983	177,174	
	Minimum	59,814	-	-	-	-	-	-	-	-	-	59,056	68,795	78,477	
	End	80,000	-	-	-	-	-	-	-	-	-	78,668	95,858	113,049	
SYM3-L18-SR3080	Start	144,125	-	-	-	-	-	-	-	136,701	158,458	180,215	201,972	223,729	245,486
	Minimum	59,814	-	-	-	-	-	-	-	55,586	67,933	80,188	92,383	104,542	116,686
	End	80,000	-	-	-	-	-	-	-	72,576	94,333	116,090	137,847	159,604	181,361
SYM3-L20-SR3080	Start	144,125	-	-	-	-	133,811	160,671	187,532	214,392	241,253	268,114	294,974	321,835	
	Minimum	59,814	-	-	-	-	53,933	69,184	84,290	99,326	114,328	129,289	144,251	159,179	
	End	80,000	-	-	-	-	69,686	96,546	123,407	150,267	177,128	203,989	230,849	257,710	
SYM3-L24-SR3080	Start	144,125	-	-	150,529	189,208	227,887	266,566	305,246	343,925	382,604	421,284	-	-	
	Minimum	59,814	-	-	63,450	85,229	106,864	128,427	149,959	171,457	192,954	214,426	-	-	
	End	80,000	-	-	86,404	125,083	163,762	202,441	241,121	279,800	318,479	357,159	-	-	
SYM3-L28-SR3080	Start	144,125	-	181,128	233,775	286,422	339,069	391,715	-	-	-	-	-	-	
	Minimum	59,814	-	80,701	110,153	139,487	168,758	198,018	-	-	-	-	-	-	
	End	80,000	-	117,003	169,650	222,297	274,944	327,590	-	-	-	-	-	-	
SYM3-L32-SR3080	Start	144,125	192,302	261,065	329,829	398,592	-	-	-	-	-	-	-	-	
	Minimum	59,814	86,964	125,363	163,622	201,834	-	-	-	-	-	-	-	-	
	End	80,000	128,177	196,940	265,704	334,467	-	-	-	-	-	-	-	-	
SYM3-L36-SR3080	Start	144,125	264,632	351,661	-	-	-	-	-	-	-	-	-	-	
	Minimum	59,814	127,350	175,756	-	-	-	-	-	-	-	-	-	-	
	End	80,000	200,507	287,536	-	-	-	-	-	-	-	-	-	-	
SYM3-L40-SR3080	Start	144,125	345,472	-	-	-	-	-	-	-	-	-	-	-	
	Minimum	59,814	172,317	-	-	-	-	-	-	-	-	-	-	-	
	End	80,000	281,347	-	-	-	-	-	-	-	-	-	-	-	
SYM3-L16-SR3084	Start	148,125	-	-	-	-	-	-	-	-	-	138,793	155,983	173,174	
	Minimum	62,087	-	-	-	-	-	-	-	-	-	56,782	66,534	76,226	
	End	84,000	-	-	-	-	-	-	-	-	-	74,668	91,858	109,049	
SYM3-L18-SR3084	Start	148,125	-	-	-	-	-	-	132,701	154,458	176,215	197,972	219,729	241,486	
	Minimum	62,087	-	-	-	-	-	-	53,299	65,672	77,937	90,141	102,307	114,458	
	End	84,000	-	-	-	-	-	-	68,576	90,333	112,090	133,847	155,604	177,361	
SYM3-L20-SR3084	Start	148,125	-	-	-	-	-	156,671	183,532	210,392	237,253	264,114	290,974	317,835	
	Minimum	62,087	-	-	-	-	-	66,923	82,048	97,092	112,096	127,061	142,023	156,956	
	End	84,000	-	-	-	-	-	92,546	119,407	146,267	173,128	199,989	226,849	253,710	
SYM3-L24-SR3084	Start	148,125	-	-	146,529	185,208	223,887	262,566	301,246	339,925	378,604	417,284	-	-	
	Minimum	62,087	-	-	61,179	82,988	104,630	126,199	147,736	169,234	190,731	212,207	-	-	
	End	84,000	-	-	82,404	121,083	159,762	198,441	237,121	275,800	314,479	353,159	-	-	
SYM3-L28-SR3084	Start	148,125	-	177,128	229,775	282,422	335,069	387,715	-	-	-	-	-	-	
	Minimum	62,087	-	78,451	107,919	137,259	166,535	195,795	-	-	-	-	-	-	
	End	84,000	-	113,003	165,650	218,297	270,944	323,590	-	-	-	-	-	-	
SYM3-L32-SR3084	Start	148,125	188,302	257,065	325,829	394,592	-	-	-	-	-	-	-	-	
	Minimum	62,087	84,722	123,135	161,399	199,615	-	-	-	-	-	-	-	-	
	End	84,000	124,177	192,940	261,704	330,467	-	-	-	-	-	-	-	-	
SYM3-L36-SR3084	Start	148,125	260,632	347,661	-	-	-	-	-	-	-	-	-	-	
	Minimum	62,087	125,122	173,533	-	-	-	-	-	-	-	-	-	-	
	End	84,000	196,507	283,536	-	-	-	-	-	-	-	-	-	-	
SYM3-L40-SR3084	Start	148,125	341,472	-	-	-	-	-	-	-	-	-	-	-	
	Minimum	62,087	170,094	-	-	-	-	-	-	-	-	-	-	-	
	End	84,000	277,347	-	-	-	-	-	-	-	-	-	-	-	
SYM3-L16-SR3088	Start	152,125	-	-	-	-	-	-	-	-	-	134,793	151,983	169,174	
	Minimum	64,353	-	-	-	-	-	-	-	-	-	54,495	64,273	73,975	
	End	88,000	-	-	-	-	-	-	-	-	-	70,668	87,858	105,049	
SYM3-L18-SR3088	Start	152,125	-	-	-	-	-	-	-	150,458	172,215	193,972	215,729	237,486	
	Minimum	64,353	-	-	-	-	-	-	-	63,410	75,686	87,900	100,073	112,226	
	End	88,000	-	-	-	-	-	-	-	86,333	108,090	129,847	151,604	173,361	
SYM3-L20-SR3088	Start	152,125	-	-	-	-	-	152,671	179,532	206,392	233,253	260,114	286,974	313,835	
	Minimum	64,353	-	-	-	-	-	64,661	79,804	94,858	109,861	124,833	139,795	154,733	
	End	88,000	-	-	-	-	-	88,546	115,407	142,267	169,128	195,989	222,849	249,710	
SYM3-L24-SR3088	Start	152,125	-	-	142,529	181,208	219,887	258,566	297,246	335,925	374,604	413,284	-	-	
	Minimum	64,353	-	-	58,906	80,746	102,396	123,971	145,513	167,011	188,508	209,987	-	-	
	End	88,000	-	-	78,404	117,083	155,762	194,441	233,121	271,800	310,479	349,159	-	-	
SYM3-L28-SR3088	Start	152,125	-	173,128	225,775	278,422	331,069	383,715	-	-	-	-	-	-	
	Minimum	64,353	-	76,200	105,684	135,031	164,311	193,572	-	-	-	-	-	-	
	End	88,000	-	109,003	161,650	214,297	266,944	319,590	-	-	-	-	-	-	
SYM3-L32-SR3088	Start	152,125	184,302	253,065	321,829	390,592	-	-	-	-	-	-	-	-	
	Minimum	64,353	82,480	120,907	159,176	197,394	-	-	-	-	-	-	-	-	
	End	88,000	120,177	188,940	257,704	326,467	-	-	-	-	-	-	-	-	
SYM3-L36-SR3088	Start	152,125	256,632	343,661	-	-	-	-	-	-	-	-	-	-	
	Minimum	64,353	122,894	171,310	-	-	-	-	-	-	-	-	-	-	
	End	88,000	192,507	279,536	-	-	-	-	-	-	-	-	-	-	
SYM3-L40-SR3088	Start	152,125	337,472	-	-	-	-	-	-	-	-	-	-	-	
	Minimum	64,353	167,870	-	-	-	-	-	-	-	-	-	-	-	
	End	88,000	273,347	-	-	-	-	-	-	-	-	-	-	-	



Model Number	Spring Torque		Operating Pressure (PSI)												
			40	50	60	70	80	90	100	110	120	130	140	150	
			Pressure Torque Output Start,Min,End lb.in												
SYM3-L16-SR3092	Start	156,125	-	-	-	-	-	-	-	-	-	-	-	147,983	165,174
	Miniumum	66,614	-	-	-	-	-	-	-	-	-	-	-	62,006	71,724
	End	92,000	-	-	-	-	-	-	-	-	-	-	-	83,858	101,049
SYM3-L18-SR3092	Start	156,125	-	-	-	-	-	-	-	146,458	168,215	189,972	211,729	233,486	
	Miniumum	66,614	-	-	-	-	-	-	-	61,139	73,435	85,658	97,839	109,992	
	End	92,000	-	-	-	-	-	-	-	82,333	104,090	125,847	147,604	169,361	
SYM3-L20-SR3092	Start	156,125	-	-	-	-	-	148,671	175,532	202,392	229,253	256,114	282,974	309,835	
	Miniumum	66,614	-	-	-	-	-	62,397	77,553	92,619	107,627	122,605	137,567	152,510	
	End	92,000	-	-	-	-	-	84,546	111,407	138,267	165,128	191,989	218,849	245,710	
SYM3-L24-SR3092	Start	156,125	-	-	138,529	177,208	215,887	254,566	293,246	331,925	370,604	409,284	-	-	
	Miniumum	66,614	-	-	56,631	78,496	100,161	121,743	143,288	164,787	186,285	207,767	-	-	
	End	92,000	-	-	74,404	113,083	151,762	190,441	229,121	267,800	306,479	345,159	-	-	
SYM3-L28-SR3092	Start	156,125	-	169,128	221,775	274,422	327,069	379,715	-	-	-	-	-	-	
	Miniumum	66,614	-	73,949	103,450	132,803	162,088	191,349	-	-	-	-	-	-	
	End	92,000	-	105,003	157,650	210,297	262,944	315,590	-	-	-	-	-	-	
SYM3-L32-SR3092	Start	156,125	180,302	249,065	317,829	386,592	-	-	-	-	-	-	-	-	
	Miniumum	66,614	80,237	118,679	156,953	195,171	-	-	-	-	-	-	-	-	
	End	92,000	116,177	184,940	253,704	322,467	-	-	-	-	-	-	-	-	
SYM3-L36-SR3092	Start	156,125	252,632	339,661	-	-	-	-	-	-	-	-	-	-	
	Miniumum	66,614	120,666	169,087	-	-	-	-	-	-	-	-	-	-	
	End	92,000	188,507	275,536	-	-	-	-	-	-	-	-	-	-	
SYM3-L40-SR3092	Start	156,125	333,472	-	-	-	-	-	-	-	-	-	-	-	
	Miniumum	66,614	165,647	-	-	-	-	-	-	-	-	-	-	-	
	End	92,000	269,347	-	-	-	-	-	-	-	-	-	-	-	
SYM3-L16-SR3096	Start	160,125	-	-	-	-	-	-	-	-	-	-	143,983	161,174	
	Miniumum	68,875	-	-	-	-	-	-	-	-	-	-	59,733	69,469	
	End	96,000	-	-	-	-	-	-	-	-	-	-	79,858	97,049	
SYM3-L18-SR3096	Start	160,125	-	-	-	-	-	-	142,458	164,215	185,972	207,729	229,486		
	Miniumum	68,875	-	-	-	-	-	-	58,866	71,184	83,416	95,605	107,757		
	End	96,000	-	-	-	-	-	-	78,333	100,090	121,847	143,604	165,361		
SYM3-L20-SR3096	Start	160,125	-	-	-	-	144,671	171,532	198,392	225,253	252,114	278,974	305,835		
	Miniumum	68,875	-	-	-	-	60,124	75,302	90,377	105,393	120,377	135,339	150,287		
	End	96,000	-	-	-	-	80,546	107,407	134,267	161,128	187,989	214,849	241,710		
SYM3-L24-SR3096	Start	160,125	-	-	134,529	173,208	211,887	250,566	289,246	327,925	366,604	405,284	-	-	
	Miniumum	68,875	-	-	54,344	76,245	97,927	119,515	141,060	162,564	184,062	205,548	-	-	
	End	96,000	-	-	70,404	109,083	147,762	186,441	225,121	263,800	302,479	341,159	-	-	
SYM3-L28-SR3096	Start	160,125	-	165,128	217,775	270,422	323,069	375,715	-	-	-	-	-	-	
	Miniumum	68,875	-	71,698	101,216	130,575	159,865	189,126	-	-	-	-	-	-	
	End	96,000	-	101,003	153,650	206,297	258,944	311,590	-	-	-	-	-	-	
SYM3-L32-SR3096	Start	160,125	176,302	245,065	313,829	382,592	-	-	-	-	-	-	-	-	
	Miniumum	68,875	77,986	116,451	154,730	192,947	-	-	-	-	-	-	-	-	
	End	96,000	112,177	180,940	249,704	318,467	-	-	-	-	-	-	-	-	
SYM3-L36-SR3096	Start	160,125	248,632	335,661	422,689	-	-	-	-	-	-	-	-	-	
	Miniumum	68,875	118,438	166,864	215,206	-	-	-	-	-	-	-	-	-	
	End	96,000	184,507	271,536	358,564	-	-	-	-	-	-	-	-	-	
SYM3-L40-SR3096	Start	160,125	329,472	-	-	-	-	-	-	-	-	-	-	-	
	Miniumum	68,875	163,424	-	-	-	-	-	-	-	-	-	-	-	
	End	96,000	265,347	-	-	-	-	-	-	-	-	-	-	-	
SYM3-L18-SR3100	Start	185,500	-	-	-	-	-	-	-	-	-	181,972	203,729	225,486	
	Miniumum	75,962	-	-	-	-	-	-	-	-	-	73,945	86,310	98,589	
	End	100,000	-	-	-	-	-	-	-	-	-	96,472	118,229	139,986	
SYM3-L20-SR3100	Start	185,500	-	-	-	-	-	-	194,392	221,253	248,114	274,974	301,835		
	Miniumum	75,962	-	-	-	-	-	-	81,016	96,207	111,306	126,357	141,360		
	End	100,000	-	-	-	-	-	-	108,892	135,753	162,614	189,474	216,335		
SYM3-L24-SR3100	Start	185,500	-	-	-	207,887	246,566	285,246	323,925	362,604	401,284	-	-		
	Miniumum	75,962	-	-	-	88,661	110,439	132,094	153,693	175,237	196,772	-	-		
	End	100,000	-	-	-	122,387	161,066	199,746	238,425	277,104	315,784	-	-		
SYM3-L28-SR3100	Start	185,500	-	-	213,775	266,422	319,069	371,715	424,362	-	-	-	-		
	Miniumum	75,962	-	-	91,989	121,567	150,986	180,312	209,599	-	-	-	-		
	End	100,000	-	-	128,275	180,922	233,569	286,215	338,862	-	-	-	-		
SYM3-L32-SR3100	Start	185,500	-	241,065	309,829	378,592	-	-	-	-	-	-	-		
	Miniumum	75,962	-	107,355	145,825	184,142	-	-	-	-	-	-	-		
	End	100,000	-	155,565	224,329	293,092	-	-	-	-	-	-	-		
SYM3-L36-SR3100	Start	185,500	244,632	331,661	418,689	-	-	-	-	-	-	-	-		
	Miniumum	75,962	109,355	158,002	206,446	-	-	-	-	-	-	-	-		
	End	100,000	159,132	246,161	333,189	-	-	-	-	-	-	-	-		
SYM3-L40-SR3100	Start	185,500	325,472	-	-	-	-	-	-	-	-	-	-		
	Miniumum	75,962	154,554	-	-	-	-	-	-	-	-	-	-		
	End	100,000	239,972	-	-	-	-	-	-	-	-	-	-		





Model Number	Spring Torque		Operating Pressure (PSI)												
			40	50	60	70	80	90	100	110	120	130	140	150	
			Pressure Torque Output Start,Min,End lb.in												
SYM3-L18-SR3104	Start	189,500	-	-	-	-	-	-	-	-	-	-	177,972	199,729	221,486
	Miniumum	78,236	-	-	-	-	-	-	-	-	-	-	71,659	84,049	96,338
	End	104,000	-	-	-	-	-	-	-	-	-	-	92,472	114,229	135,986
SYM3-L20-SR3104	Start	189,500	-	-	-	-	-	-	-	190,392	217,253	244,114	270,974	297,835	
	Miniumum	78,236	-	-	-	-	-	-	-	78,743	93,956	109,064	124,118	139,126	
	End	104,000	-	-	-	-	-	-	-	104,892	131,753	158,614	185,474	212,335	
SYM3-L24-SR3104	Start	189,500	-	-	-	203,887	242,566	281,246	319,925	358,604	397,284	-	-		
	Miniumum	78,236	-	-	-	86,399	108,197	129,860	151,465	173,009	194,549	-	-		
	End	104,000	-	-	-	118,387	157,066	195,746	234,425	273,104	311,784	-	-		
SYM3-L28-SR3104	Start	189,500	-	-	209,775	262,422	315,069	367,715	420,362	-	-	-	-		
	Miniumum	78,236	-	-	89,728	119,325	148,752	178,084	207,375	-	-	-	-		
	End	104,000	-	-	124,275	176,922	229,569	282,215	334,862	-	-	-	-		
SYM3-L32-SR3104	Start	189,500	-	237,065	305,829	374,592	-	-	-	-	-	-	-		
	Miniumum	78,236	-	105,105	143,591	181,914	-	-	-	-	-	-	-		
	End	104,000	-	151,565	220,329	289,092	-	-	-	-	-	-	-		
SYM3-L36-SR3104	Start	189,500	240,632	327,661	414,689	-	-	-	-	-	-	-	-		
	Miniumum	78,236	107,112	155,774	204,223	-	-	-	-	-	-	-	-		
	End	104,000	155,132	242,161	329,189	-	-	-	-	-	-	-	-		
SYM3-L40-SR3104	Start	189,500	321,472	-	-	-	-	-	-	-	-	-	-		
	Miniumum	78,236	152,326	-	-	-	-	-	-	-	-	-	-		
	End	104,000	235,972	-	-	-	-	-	-	-	-	-	-		
SYM3-L18-SR3108	Start	193,500	-	-	-	-	-	-	-	-	-	195,729	217,486		
	Miniumum	80,509	-	-	-	-	-	-	-	-	-	81,776	94,087		
	End	108,000	-	-	-	-	-	-	-	-	-	110,229	131,986		
SYM3-L20-SR3108	Start	193,500	-	-	-	-	-	-	186,392	213,253	240,114	266,974	293,835		
	Miniumum	80,509	-	-	-	-	-	-	76,470	91,694	106,820	121,877	136,892		
	End	108,000	-	-	-	-	-	-	100,892	127,753	154,614	181,474	208,335		
SYM3-L24-SR3108	Start	193,500	-	-	-	199,887	238,566	277,246	315,925	354,604	393,284	-	-		
	Miniumum	80,509	-	-	-	84,138	105,950	127,626	149,231	170,781	192,325	-	-		
	End	108,000	-	-	-	114,387	153,066	191,746	230,425	269,104	307,784	-	-		
SYM3-L28-SR3108	Start	193,500	-	-	205,775	258,422	311,069	363,715	416,362	-	-	-	-		
	Miniumum	80,509	-	-	87,467	117,083	146,518	175,856	205,152	-	-	-	-		
	End	108,000	-	-	120,275	172,922	225,569	278,215	330,862	-	-	-	-		
SYM3-L32-SR3108	Start	193,500	-	233,065	301,829	370,592	-	-	-	-	-	-	-		
	Miniumum	80,509	-	102,854	141,357	179,686	-	-	-	-	-	-	-		
	End	108,000	-	147,565	216,329	285,092	-	-	-	-	-	-	-		
SYM3-L36-SR3108	Start	193,500	236,632	323,661	410,689	-	-	-	-	-	-	-	-		
	Miniumum	80,509	104,861	153,546	201,999	-	-	-	-	-	-	-	-		
	End	108,000	151,132	238,161	325,189	-	-	-	-	-	-	-	-		
SYM3-L40-SR3108	Start	193,500	317,472	424,915	-	-	-	-	-	-	-	-	-		
	Miniumum	80,509	150,095	209,906	-	-	-	-	-	-	-	-	-		
	End	108,000	231,972	339,415	-	-	-	-	-	-	-	-	-		
SYM3-L18-SR3112	Start	197,500	-	-	-	-	-	-	-	-	-	191,729	213,486		
	Miniumum	82,782	-	-	-	-	-	-	-	-	-	79,503	91,826		
	End	112,000	-	-	-	-	-	-	-	-	-	106,229	127,986		
SYM3-L20-SR3112	Start	197,500	-	-	-	-	-	-	182,392	209,253	236,114	262,974	289,835		
	Miniumum	82,782	-	-	-	-	-	-	74,186	89,433	104,569	119,635	134,657		
	End	112,000	-	-	-	-	-	-	96,892	123,753	150,614	177,474	204,335		
SYM3-L24-SR3112	Start	197,500	-	-	-	195,887	234,566	273,246	311,925	350,604	389,284	-	-		
	Miniumum	82,782	-	-	-	81,866	103,699	125,391	146,996	168,553	190,098	-	-		
	End	112,000	-	-	-	110,387	149,066	187,746	226,425	265,104	303,784	-	-		
SYM3-L28-SR3112	Start	197,500	-	-	201,775	254,422	307,069	359,715	412,362	-	-	-	-		
	Miniumum	82,782	-	-	85,205	114,841	144,284	173,628	202,929	-	-	-	-		
	End	112,000	-	-	116,275	168,922	221,569	274,215	326,862	-	-	-	-		
SYM3-L32-SR3112	Start	197,500	-	229,065	297,829	366,592	-	-	-	-	-	-	-		
	Miniumum	82,782	-	100,603	139,122	177,458	-	-	-	-	-	-	-		
	End	112,000	-	143,565	212,329	281,092	-	-	-	-	-	-	-		
SYM3-L36-SR3112	Start	197,500	232,632	319,661	406,689	-	-	-	-	-	-	-	-		
	Miniumum	82,782	102,610	151,317	199,776	-	-	-	-	-	-	-	-		
	End	112,000	147,132	234,161	321,189	-	-	-	-	-	-	-	-		
SYM3-L40-SR3112	Start	197,500	313,472	420,915	-	-	-	-	-	-	-	-	-		
	Miniumum	82,782	147,860	207,683	-	-	-	-	-	-	-	-	-		
	End	112,000	227,972	335,415	-	-	-	-	-	-	-	-	-		
SYM3-L18-SR3116	Start	201,500	-	-	-	-	-	-	-	-	-	187,729	209,486		
	Miniumum	85,050	-	-	-	-	-	-	-	-	-	77,229	89,565		
	End	116,000	-	-	-	-	-	-	-	-	-	102,229	123,986		
SYM3-L20-SR3116	Start	201,500	-	-	-	-	-	-	178,392	205,253	232,114	258,974	285,835		
	Miniumum	85,050	-	-	-	-	-	-	71,899	87,172	102,318	117,393	132,423		
	End	116,000	-	-	-	-	-	-	92,892	119,753	146,614	173,474	200,335		
SYM3-L24-SR3116	Start	201,500	-	-	-	191,887	230,566	269,246	307,925	346,604	385,284	423,963	-		
	Miniumum	85,050	-	-	-	79,593	101,448	123,150	144,762	166,325	187,870	209,377	-		
	End	116,000	-	-	-	106,387	145,066	183,746	222,425	261,104	299,784	338,463	-		



Model Number	Spring Torque		Operating Pressure (PSI)											
			40	50	60	70	80	90	100	110	120	130	140	150
			Pressure Torque Output Start,Min,End lb.in											
SYM3-L28-SR3116	Start	201,500	-	-	197,775	250,422	303,069	355,715	408,362	-	-	-	-	-
	Miniumum	85,050	-	-	82,939	112,599	142,049	171,400	200,706	-	-	-	-	-
	End	116,000	-	-	112,275	164,922	217,569	270,215	322,862	-	-	-	-	-
SYM3-L32-SR3116	Start	201,500	-	225,065	293,829	362,592	-	-	-	-	-	-	-	-
	Miniumum	85,050	-	98,352	136,888	175,230	-	-	-	-	-	-	-	-
	End	116,000	-	139,565	208,329	277,092	-	-	-	-	-	-	-	-
SYM3-L36-SR3116	Start	201,500	228,632	315,661	402,689	-	-	-	-	-	-	-	-	-
	Miniumum	85,050	100,359	149,083	197,553	-	-	-	-	-	-	-	-	-
	End	116,000	143,132	230,161	317,189	-	-	-	-	-	-	-	-	-
SYM3-L40-SR3116	Start	201,500	-	-	309,472	416,915	-	-	-	-	-	-	-	-
	Miniumum	85,050	-	-	145,626	205,459	-	-	-	-	-	-	-	-
	End	116,000	-	-	223,972	331,415	-	-	-	-	-	-	-	-
SYM3-L18-SR3120	Start	205,500	-	-	-	-	-	-	-	-	-	-	183,729	205,486
	Miniumum	87,311	-	-	-	-	-	-	-	-	-	-	74,950	87,303
	End	120,000	-	-	-	-	-	-	-	-	-	-	98,229	119,986
SYM3-L20-SR3120	Start	205,500	-	-	-	-	-	-	-	201,253	228,114	254,974	281,835	-
	Miniumum	87,311	-	-	-	-	-	-	-	84,910	100,067	115,151	130,189	-
	End	120,000	-	-	-	-	-	-	-	115,753	142,614	169,474	196,335	-
SYM3-L24-SR3120	Start	205,500	-	-	-	-	187,887	226,566	265,246	303,925	342,604	381,284	419,963	-
	Miniumum	87,311	-	-	-	-	77,319	99,197	120,908	142,528	164,097	185,642	207,154	-
	End	120,000	-	-	-	-	102,387	141,066	179,746	218,425	257,104	295,784	334,463	-
SYM3-L28-SR3120	Start	205,500	-	-	193,775	246,422	299,069	351,715	404,362	-	-	-	-	-
	Miniumum	87,311	-	-	80,665	110,357	139,815	169,172	198,483	-	-	-	-	-
	End	120,000	-	-	108,275	160,922	213,569	266,215	318,862	-	-	-	-	-
SYM3-L32-SR3120	Start	205,500	-	221,065	289,829	358,592	-	-	-	-	-	-	-	-
	Miniumum	87,311	-	96,101	134,654	173,002	-	-	-	-	-	-	-	-
	End	120,000	-	135,565	204,329	273,092	-	-	-	-	-	-	-	-
SYM3-L36-SR3120	Start	205,500	224,632	311,661	398,689	-	-	-	-	-	-	-	-	-
	Miniumum	87,311	98,109	146,849	195,330	-	-	-	-	-	-	-	-	-
	End	120,000	139,132	226,161	313,189	-	-	-	-	-	-	-	-	-
SYM3-L40-SR3120	Start	205,500	305,472	412,915	-	-	-	-	-	-	-	-	-	-
	Miniumum	87,311	143,392	203,236	-	-	-	-	-	-	-	-	-	-
	End	120,000	219,972	327,415	-	-	-	-	-	-	-	-	-	-
SYM3-L18-SR3124	Start	209,500	-	-	-	-	-	-	-	-	-	-	179,729	201,486
	Miniumum	89,573	-	-	-	-	-	-	-	-	-	-	72,663	85,042
	End	124,000	-	-	-	-	-	-	-	-	-	-	94,229	115,986
SYM3-L20-SR3124	Start	209,500	-	-	-	-	-	-	-	197,253	224,114	250,974	277,835	-
	Miniumum	89,573	-	-	-	-	-	-	-	82,642	97,817	112,909	127,955	-
	End	124,000	-	-	-	-	-	-	-	111,753	138,614	165,474	192,335	-
SYM3-L24-SR3124	Start	209,500	-	-	-	-	183,887	222,566	261,246	299,925	338,604	377,284	415,963	-
	Miniumum	89,573	-	-	-	-	75,040	96,946	118,666	140,293	161,869	183,414	204,930	-
	End	124,000	-	-	-	-	98,387	137,066	175,746	214,425	253,104	291,784	330,463	-
SYM3-L28-SR3124	Start	209,500	-	-	189,775	242,422	295,069	347,715	400,362	-	-	-	-	-
	Miniumum	89,573	-	-	78,392	108,116	137,581	166,944	196,260	-	-	-	-	-
	End	124,000	-	-	104,275	156,922	209,569	262,215	314,862	-	-	-	-	-
SYM3-L32-SR3124	Start	209,500	-	217,065	285,829	354,592	423,355	-	-	-	-	-	-	-
	Miniumum	89,573	-	93,850	132,420	170,774	209,039	-	-	-	-	-	-	-
	End	124,000	-	131,565	200,329	269,092	337,855	-	-	-	-	-	-	-
SYM3-L36-SR3124	Start	209,500	220,632	307,661	394,689	-	-	-	-	-	-	-	-	-
	Miniumum	89,573	95,858	144,614	193,107	-	-	-	-	-	-	-	-	-
	End	124,000	135,132	222,161	309,189	-	-	-	-	-	-	-	-	-
SYM3-L40-SR3124	Start	209,500	301,472	408,915	-	-	-	-	-	-	-	-	-	-
	Miniumum	89,573	141,158	201,013	-	-	-	-	-	-	-	-	-	-
	End	124,000	215,972	323,415	-	-	-	-	-	-	-	-	-	-
SYM3-L18-SR3128	Start	213,500	-	-	-	-	-	-	-	-	-	-	175,729	197,486
	Miniumum	91,834	-	-	-	-	-	-	-	-	-	-	70,376	82,775
	End	128,000	-	-	-	-	-	-	-	-	-	-	90,229	111,986
SYM3-L20-SR3128	Start	213,500	-	-	-	-	-	-	-	193,253	220,114	246,974	273,835	-
	Miniumum	91,834	-	-	-	-	-	-	-	80,369	95,566	110,667	125,720	-
	End	128,000	-	-	-	-	-	-	-	107,753	134,614	161,474	188,335	-
SYM3-L24-SR3128	Start	213,500	-	-	-	-	179,887	218,566	257,246	295,925	334,604	373,284	411,963	-
	Miniumum	91,834	-	-	-	-	72,753	94,695	116,424	138,059	159,641	181,186	202,707	-
	End	128,000	-	-	-	-	94,387	133,066	171,746	210,425	249,104	287,784	326,463	-
SYM3-L28-SR3128	Start	213,500	-	-	185,775	238,422	291,069	343,715	396,362	-	-	-	-	-
	Miniumum	91,834	-	-	76,119	105,868	135,347	164,716	194,037	-	-	-	-	-
	End	128,000	-	-	100,275	152,922	205,569	258,215	310,862	-	-	-	-	-
SYM3-L32-SR3128	Start	213,500	-	213,065	281,829	350,592	419,355	-	-	-	-	-	-	-
	Miniumum	91,834	-	91,588	130,185	168,546	206,816	-	-	-	-	-	-	-
	End	128,000	-	127,565	196,329	265,092	333,855	-	-	-	-	-	-	-
SYM3-L36-SR3128	Start	213,500	216,632	303,661	390,689	-	-	-	-	-	-	-	-	-
	Miniumum	91,834	93,605	142,380	190,881	-	-	-	-	-	-	-	-	-
	End	128,000	131,132	218,161	305,189	-	-	-	-	-	-	-	-	-



Model Number	Spring Torque		Operating Pressure (PSI)													
			40	50	60	70	80	90	100	110	120	130	140	150		
			Pressure Torque Output Start,Min,End lb.in													
SYM3-L40-SR3128	Start	213,500	297,472	404,915	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	91,834	138,923	198,790	-	-	-	-	-	-	-	-	-	-	-	-
	End	128,000	211,972	319,415	-	-	-	-	-	-	-	-	-	-	-	-
SYM3-L18-SR3132	Start	217,500	-	-	-	-	-	-	-	-	-	-	-	-	-	193,486
	Miniumum	94,095	-	-	-	-	-	-	-	-	-	-	-	-	-	80,501
	End	132,000	-	-	-	-	-	-	-	-	-	-	-	-	-	107,986
SYM3-L20-SR3132	Start	217,500	-	-	-	-	-	-	-	-	189,253	216,114	242,974	269,835	-	-
	Miniumum	94,095	-	-	-	-	-	-	-	-	78,095	93,311	108,425	123,480	-	-
	End	132,000	-	-	-	-	-	-	-	-	103,753	130,614	157,474	184,335	-	-
SYM3-L24-SR3132	Start	217,500	-	-	-	-	175,887	214,566	253,246	291,925	330,604	369,284	407,963	-	-	-
	Miniumum	94,095	-	-	-	-	70,467	92,437	114,182	135,825	157,413	178,958	200,484	-	-	-
	End	132,000	-	-	-	-	90,387	129,066	167,746	206,425	245,104	283,784	322,463	-	-	-
SYM3-L28-SR3132	Start	217,500	-	-	181,775	234,422	287,069	339,715	392,362	-	-	-	-	-	-	-
	Miniumum	94,095	-	-	73,833	103,617	133,112	162,488	191,813	-	-	-	-	-	-	-
	End	132,000	-	-	96,275	148,922	201,569	254,215	306,862	-	-	-	-	-	-	-
SYM3-L32-SR3132	Start	217,500	-	209,065	277,829	346,592	415,355	-	-	-	-	-	-	-	-	-
	Miniumum	94,095	-	89,327	127,951	166,318	204,592	-	-	-	-	-	-	-	-	-
	End	132,000	-	123,565	192,329	261,092	329,855	-	-	-	-	-	-	-	-	-
SYM3-L36-SR3132	Start	217,500	212,632	299,661	386,689	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	94,095	91,343	140,146	188,653	-	-	-	-	-	-	-	-	-	-	-
	End	132,000	127,132	214,161	301,189	-	-	-	-	-	-	-	-	-	-	-
SYM3-L40-SR3132	Start	217,500	293,472	400,915	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	94,095	136,689	196,567	-	-	-	-	-	-	-	-	-	-	-	-
	End	132,000	207,972	315,415	-	-	-	-	-	-	-	-	-	-	-	-
SYM3-L18-SR3136	Start	221,500	-	-	-	-	-	-	-	-	-	-	-	-	-	189,486
	Miniumum	96,346	-	-	-	-	-	-	-	-	-	-	-	-	-	78,228
	End	136,000	-	-	-	-	-	-	-	-	-	-	-	-	-	103,986
SYM3-L20-SR3136	Start	221,500	-	-	-	-	-	-	-	-	185,253	212,114	238,974	265,835	-	-
	Miniumum	96,346	-	-	-	-	-	-	-	-	75,821	91,050	106,179	121,238	-	-
	End	136,000	-	-	-	-	-	-	-	-	99,753	126,614	153,474	180,335	-	-
SYM3-L24-SR3136	Start	221,500	-	-	-	-	-	210,566	249,246	287,925	326,604	365,284	403,963	-	-	-
	Miniumum	96,346	-	-	-	-	-	90,175	111,940	133,591	155,185	176,730	198,261	-	-	-
	End	136,000	-	-	-	-	-	125,066	163,746	202,425	241,104	279,784	318,463	-	-	-
SYM3-L28-SR3136	Start	221,500	-	-	177,775	230,422	283,069	335,715	388,362	-	-	-	-	-	-	-
	Miniumum	96,346	-	-	71,546	101,366	130,878	160,260	189,585	-	-	-	-	-	-	-
	End	136,000	-	-	92,275	144,922	197,569	250,215	302,862	-	-	-	-	-	-	-
SYM3-L32-SR3136	Start	221,500	-	205,065	273,829	342,592	411,355	-	-	-	-	-	-	-	-	-
	Miniumum	96,346	-	87,065	125,717	164,090	202,369	-	-	-	-	-	-	-	-	-
	End	136,000	-	119,565	188,329	257,092	325,855	-	-	-	-	-	-	-	-	-
SYM3-L36-SR3136	Start	221,500	208,632	295,661	382,689	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	96,346	89,082	137,912	186,425	-	-	-	-	-	-	-	-	-	-	-
	End	136,000	123,132	210,161	297,189	-	-	-	-	-	-	-	-	-	-	-
SYM3-L40-SR3136	Start	221,500	289,472	396,915	-	-	-	-	-	-	-	-	-	-	-	-
	Miniumum	96,346	134,455	194,344	-	-	-	-	-	-	-	-	-	-	-	-
	End	136,000	203,972	311,415	-	-	-	-	-	-	-	-	-	-	-	-

