

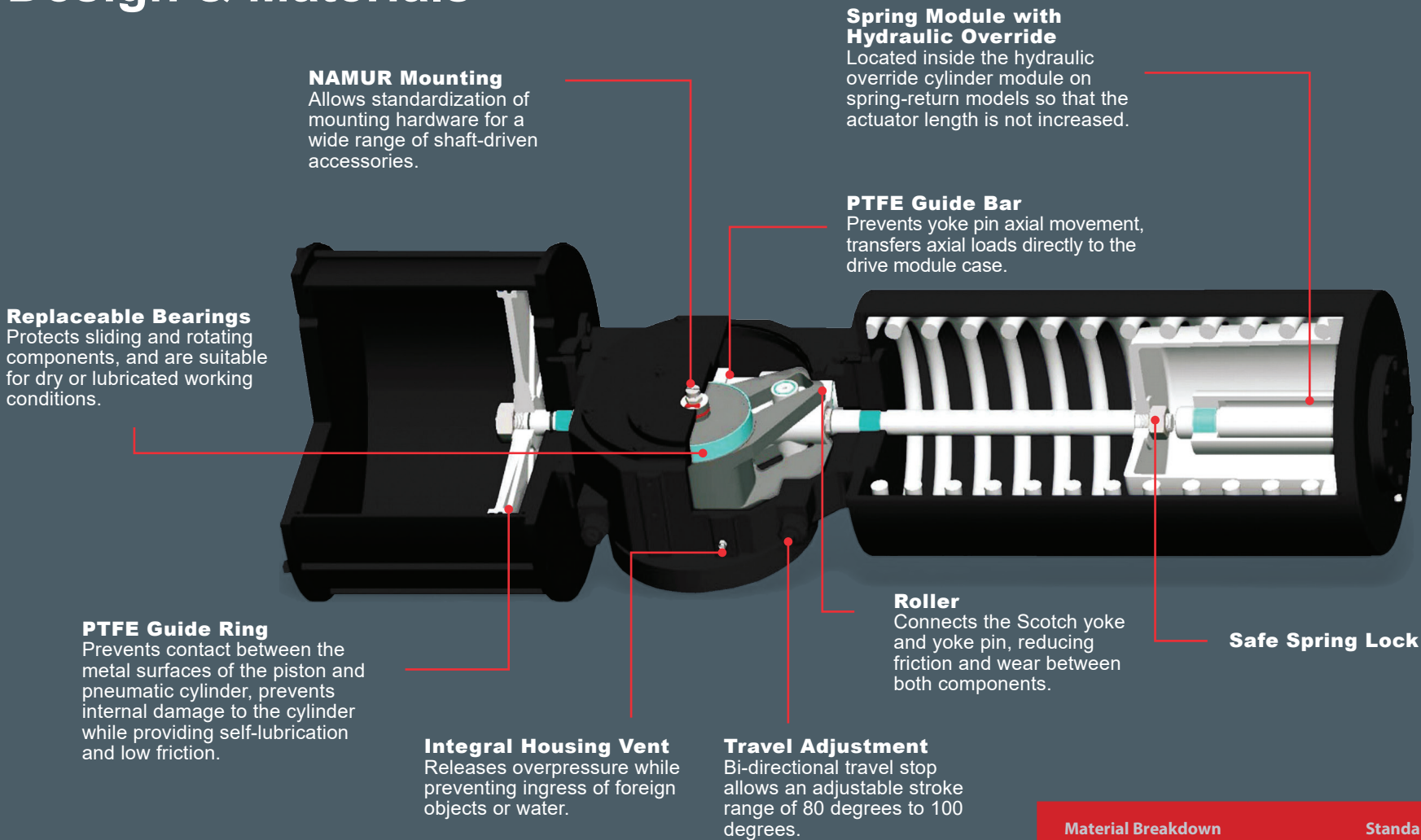
# CSY SERIES

## Pneumatic Rotary Actuator

Designed & engineered for severe-service applications

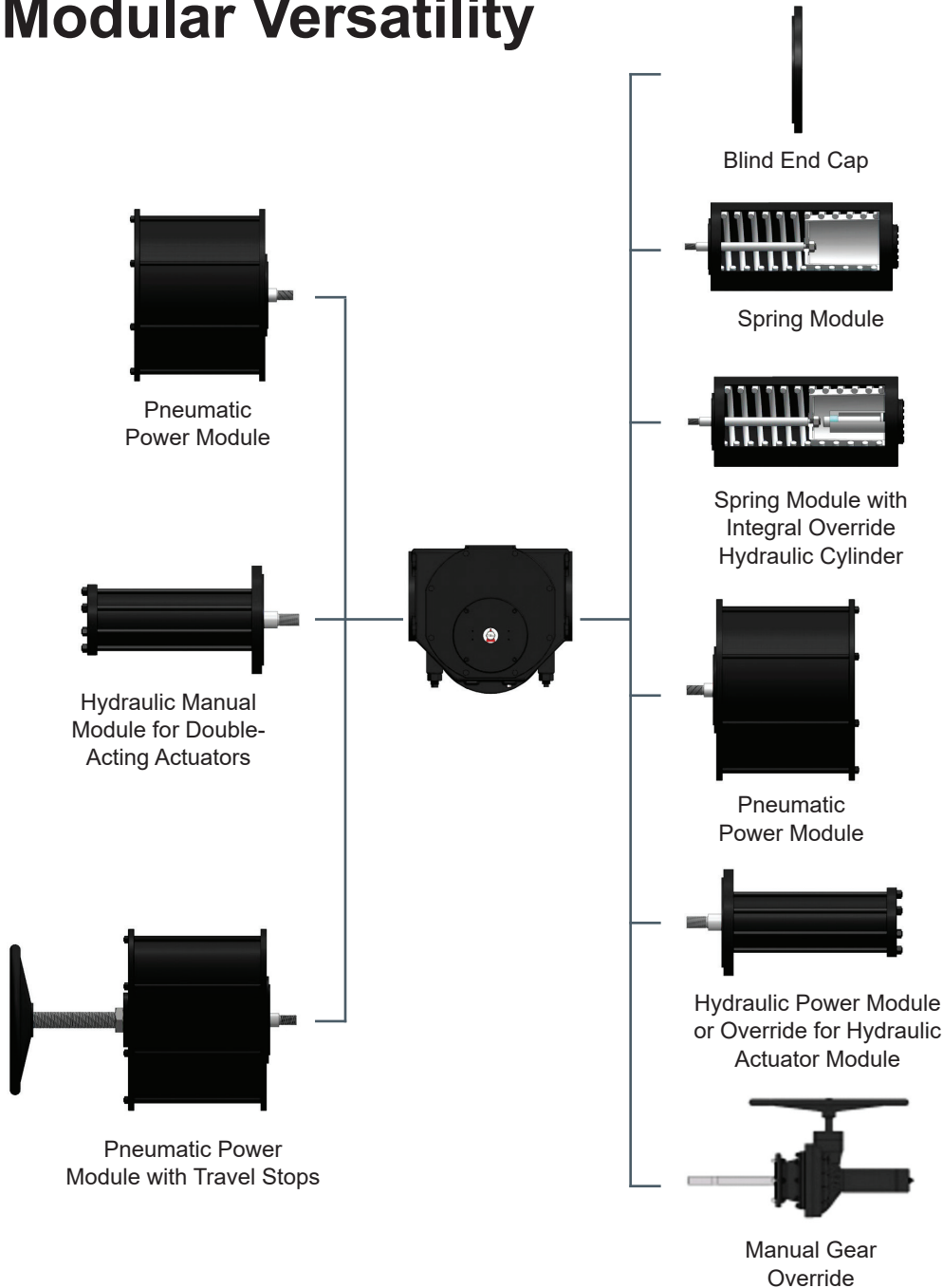
- Double-Acting or Spring-Return
- Torques up to 2,500,000 in-lb
- Modular Design

# Design & Materials

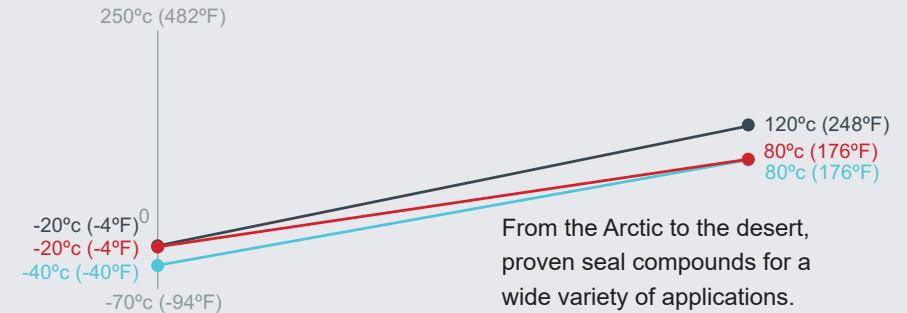


Material Breakdown		Standard
Head & Cap		Ductile Iron
Barrel		Carbon Steel
Piston		Ductile Iron
Tension Rod		Alloy Steel
Hydraulic Cylinder		Carbon Steel
Hydraulic Piston		Carbon Steel
Scotch-Yoke		Carbon Steel

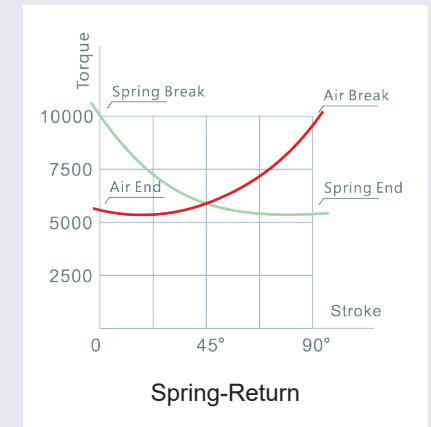
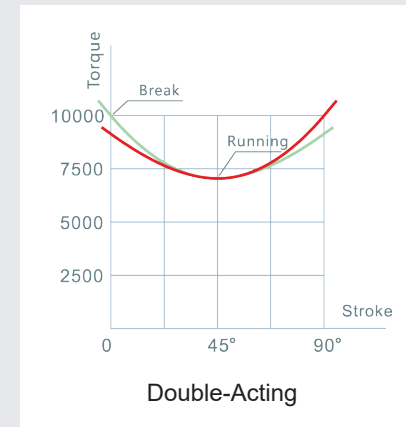
# Modular Versatility



# Specifications



- **Double-Acting and Spring-Return**
- **Torques up to: *Double-Acting:* 2,212,686 in-lb  
*Spring-Return:* 635,067 in-lb**
- **Operating Pressure: *Pneumatic:* 40 – 100 PSIG**



# Add-Ons



## Mounting Kits: ISO, MSS & Customized Patterns Available

Cowan valve mounting kits can be designed for any rotary valve.  
Mounting kits available in steel and stainless steel construction.

## Automation Packages



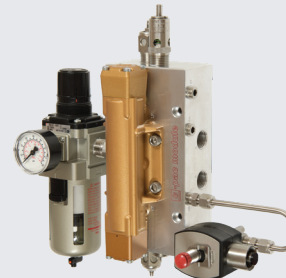
### Integration of Control

#### Accessories:

- Solenoid Valves
- Pilot Valves
- Quick Exhausts
- Positioners

### Position Feedback:

- Limit switches and position sensors
- Field-adjustable for open and close indication.
- Analog and digital feedback



### C-PAC Module: Cowan Pneumatic Actuator Control

- Compact, Versatile, Simple, Cost Effective
- Designed for Linear and 1/4 Turn Actuators
- Fail Close, Open, Last or Lock
- Cv up to 11.1

Double Acting (in-lbs)										
Model	Air Pressure									
	40 PSIG		60 PSIG		70 PSIG		90 PSIG		100 PSIG	
	Break	Run	Break	Run	Break	Run	Break	Run	Break	Run
CSY14-200	7,523	4,461	9,798	5,948	12,249	7,426	14,692	8,913	17,144	10,400
CSY14-250	11,488	6,966	15,312	9,284	19,144	11,612	-	-	-	-
CSY14-300	16,471	9,992	-	-	-	-	-	-	-	-
CSY16-250	14,356	8,709	19,144	11,612	23,932	14,515	28,721	17,418	33,509	20,321
CSY16-300	20,675	12,542	27,570	16,719	34,465	20,905	-	-	-	-
CSY16-350	28,145	17,073	37,527	22,764	-	-	-	-	-	-
CSY25-350	34,748	21,074	46,334	28,101	57,910	35,129	69,496	42,156	-	-
CSY25-400	44,112	26,756	58,822	35,677	73,523	44,599	-	-	-	-
CSY25-450	55,839	33,872	74,452	45,165	-	-	-	-	-	-
CSY30-450	68,239	41,395	90,986	55,193	113,732	68,992	136,479	82,790	-	-
CSY30-500	84,250	51,104	112,343	68,151	140,426	85,188	-	-	-	-
CSY30-550	101,952	61,849	135,939	82,462	-	-	-	-	-	-
CSY35-550	129,752	78,710	173,006	104,952	216,250	131,186	259,504	157,428	302,757	183,671
CSY35-600	154,419	93,676	205,895	124,902	257,362	156,127	308,838	187,361	-	-
CSY35-700	210,188	127,513	280,250	170,014	-	-	-	-	-	-
CSY40-600	-	-	-	-	312,520	189,592	375,033	227,517	437,537	265,434
CSY40-700	-	-	340,302	206,444	425,385	258,061	510,458	309,670	595,531	361,287
CSY40-800	333,354	267,956	444,476	357,269	555,597	446,591	-	-	-	-
CSY48-800	-	-	-	-	653,645	396,540	784,380	475,851	915,105	555,163
CSY48-900	-	-	661,815	401,496	827,262	501,864	992,717	602,240	1,158,173	702,616
CSY48-1000	612,799	371,758	817,065	495,686	1,021,332	619,605	-	-	-	-
CSY60-800	-	-	-	-	-	-	1,058,912	642,405	1,235,396	749,472
CSY60-900	-	-	893,456	542,029	1,116,814	677,533	1,340,180	813,038	1,563,546	948,543
CSY60-1000	827,270	501,873	1,103,033	669,169	1,378,787	836,457	1,654,550	1,003,754	1,930,303	1,171,042
CSY60-1100	1,000,993	607,267	1,334,666	809,693	1,668,330	1,012,118	2,001,994	1,214,579	2,335,659	1,416,960

# Torque Charts: Spring-Return (Bar/Nm)

Actuation Solutions and Systems for the World's Most Challenging Environments

Bar (Nm)															
Model	Spring Break	Spring Run	Spring End	3 BAR			4 BAR			5 BAR			6 BAR		
				Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End
CSK07S	34	12	21	-	-	-	33	13	22	47	20	36	61	27	50
CSK10S	68	27	42	-	-	-	67	28	44	100	43	70	120	60	93
CSK12S	162	67	100	-	-	-	164	68	102	308	100	118	398	131	170
CSK15S	267	107	166	-	-	-	261	107	163	479	161	245	615	214	328

Bar (Nm)																					
Model	Spring Break	Spring Run	Spring End	3 BAR			4 BAR			5 BAR			6 BAR			7 BAR			8 BAR		
				Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End
CSY10-150 SR3	187	91	118	183	89	115	293	155	225	396	217	328	499	279	431	602	340	534	705	402	637
CSY10-170 SR3	230	115	153	237	119	161	379	204	302	512	284	435	645	364	568	778	444	701	911	524	834
CSY10-150 SR4	230	115	153	155	70	78	250	127	173	361	193	284	465	255	387	567	317	490	838	379	593
CSY10-170 SR4	293	148	201	198	91	106	320	164	228	464	251	372	597	330	505	730	410	638	863	490	771
CSY10-150 SR5	293	148	201	107	36	15	210	98	118	303	154	211	416	222	324	519	284	427	622	346	530
CSY10-170 SR5	383	193	260	138	46	16	271	126	149	391	198	269	538	286	415	671	366	548	804	445	681
CSY10-150 SR6	383	193	260	-	-	-	151	54	28	254	115	131	345	170	222	460	239	337	563	301	440
CSY10-170 SR6	489	242	319	-	-	-	213	76	42	346	156	175	463	227	293	612	316	442	745	396	575
CSY12-170 SR3	285	141	187	299	150	201	478	257	380	645	357	546	811	457	713	978	557	879	1,144	657	1,046
CSY12-200 SR3	369	184	246	432	222	308	680	371	557	912	510	789	1,144	649	1,020	1,377	789	1,254	1,607	927	1,484
CSY12-170 SR4	369	184	246	252	114	129	402	204	278	585	314	462	752	414	628	918	514	795	1,085	614	961
CSY12-200 SR4	526	267	364	330	149	168	540	275	378	794	428	632	1,026	567	864	1,259	707	1,097	1,489	845	1,327
CSY12-170 SR5	487	244	327	171	55	12	338	155	178	483	242	323	671	354	511	837	454	678	1,004	554	844
CSY12-200 SR5	699	346	454	-	-	-	473	71	227	677	332	431	936	488	691	1,169	628	924	1,400	766	1,154
CSY12-170 SR6	526	267	364	-	-	-	301	132	139	467	232	305	608	316	446	800	431	638	967	531	805
CSY12-200 SR6	818	407	541	-	-	-	-	-	-	617	287	340	816	406	538	1,082	566	805	1,313	704	1,035

Bar (Nm)															
Model	Spring Break	Spring Run	Spring End	3 BAR			4 BAR			5 BAR			6 BAR		
				Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End
CSY14-200 SR3	511	254	307	523	261	318	801	419	596	1,078	585	873	1,355	751	1,150
CSY14-250 SR3	789	402	506	791	403	508	1,233	658	960	1,669	919	1,396	2,105	1,181	1,832
CSY14-300 SR3	1,079	543	674	1,194	615	790	1,847	998	1,480	2,477	1,376	2,110	3,108	1,754	2,740

# Torque Charts: Spring-Return (Bar/Nm)

Actuation Solutions and Systems for the World's Most Challenging Environments

Bar (Nm)															
Model	Spring Break	Spring Run	Spring End	3 BAR			4 BAR			5 BAR			6 BAR		
				Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End
CSY14-200 SR4	679	346	436	391	162	151	671	341	428	945	495	705	1,222	661	982
CSY14-250 SR4	1,079	543	674	634	270	267	1,056	530	651	1,506	793	1,139	1,942	1,055	1,575
CSY14-300 SR4	1,477	752	948	934	404	412	1,544	793	1,015	2,195	1,160	1,673	2,825	1,538	2,303
CSY14-200 SR5	789	402	506	320	110	47	597	276	324	877	456	594	1,151	609	878
CSY14-250 SR5	1,345	670	815	490	150	12	917	412	448	1,347	671	818	1,798	935	1,320
CSY14-300 SR5	1,880	957	1,206	707	230	62	1,337	609	692	1,908	975	1,235	2,598	1,365	1,953
CSY14-200 SR6	1,028	512	623	-	-	-	434	150	67	711	316	344	1,037	518	633
CSY14-250 SR6	1,477	752	948	-	-	-	787	316	266	1,223	577	702	1,648	s	1,118
CSY14-300 SR6	2,291	1,162	1,458	-	-	-	1,030	363	180	1,661	741	810	2,280	1,156	1,447
CSY16-250 SR3	1,092	508	607	1,014	498	529	1,563	810	1,139	2,106	1,136	1,682	2,649	1,462	2,225
CSY16-300 SR3	1,434	721	892	1,444	727	902	2,250	1,979	1,708	3,036	1,659	2,423	3,822	2,130	3,280
CSY16-350 SR3	1,896	968	1,227	1,953	1,038	1,283	3,063	1,645	2,420	4,136	2,289	3,493	5,209	2,932	4,566
CSY16-250 SR4	1,281	651	818	807	339	324	1,345	691	882	1,893	990	1,409	2,436	1,316	1,952
CSY16-300 SR4	1,896	968	1,227	1,130	485	486	1,888	963	1,219	2,701	1,428	2,058	3,487	1,899	2,844
CSY16-350 SR4	2,595	1,310	1,629	1,554	644	594	2,611	1,327	1,645	3,700	1,932	2,740	4,772	2,575	3,812
CSY16-250 SR5	1,553	795	1,011	616	207	75	1,159	533	617	1,692	881	1,150	2,245	1,184	1,703
CSY16-300 SR5	2,421	1,202	1,455	840	273	70	1,626	744	855	2,438	1,213	1,472	3,197	1,687	2,426
CSY16-350 SR5	3,194	1,637	2,085	-	-	-	2,166	941	971	3,215	1,744	2,106	4,312	2,228	3,116
CSY16-250 SR6	1,896	968	1,227	-	-	-	944	373	301	1,487	699	844	2,018	1,043	1,348
CSY16-300 SR6	2,595	1,310	1,629	-	-	-	1,479	599	519	2,264	1,071	1,305	3,044	1,588	2,077
CSY16-350 SR6	3,858	1,954	2,446	-	-	-	1,805	650	362	2,878	1,294	1,435	3,914	2,102	2,502
CSY25-350 SR3	2,249	1,153	1,470	2,346	1,255	1,567	3,660	1,963	2,882	4,943	2,732	4,165	6,226	3,502	5,448
CSY25-400 SR3	2,996	1,516	1,895	3,089	1,574	1,903	4,779	2,512	3,594	6,459	3,520	5,275	8,140	4,528	6,955
CSY25-450 SR3	3,960	2,013	2,534	3,774	1,898	2,348	6,080	3,184	4,535	8,211	4,463	6,665	10,341	5,741	8,796
CSY25-350 SR4	2,996	1,517	1,895	1,907	788	722	3,193	1,706	2,092	4,472	2,328	3,288	5,755	3,098	4,570
CSY25-400 SR4	3,960	2,013	2,534	2,598	1,095	1,053	4,112	2,107	2,686	5,959	3,111	4,413	7,639	3,310	6,094
CSY25-450 SR4	4,955	2,466	2,999	3,500	1,584	1,781	5,412	2,749	3,456	7,762	4,141	6,043	9,892	5,420	8,173
CSY25-350 SR5	3,960	2,013	2,534	-	-	-	2,689	1,149	1,143	3,826	2,044	2,400	5,255	2,689	3,709
CSY25-400 SR5	4,955	2,466	2,999	2,149	774	430	3,829	1,782	2,110	5,309	2,685	3,352	7,190	3,798	5,471
CSY25-450 SR5	6,326	3,117	3,726	2,621	919	442	4,752	2,197	2,573	6,788	3,402	4,188	9,013	4,754	6,834
CSY25-350 SR6	4,955	2,466	2,999	-	-	-	2,240	828	521	3,523	1,598	1,804	4,633	2,403	2,677
CSY25-400 SR6	6,326	3,117	3,726	-	-	-	2,950	1,116	771	4,631	2,124	2,451	6,243	3,065	3,643
CSY25-450 SR6	8,261	4,024	4,720	-	-	-	3,649	1,363	894	5,779	2,641	3,025	7,897	3,799	4,357

# Torque Charts: Spring-Return (Bar/Nm)

Actuation Solutions and Systems for the World's Most Challenging Environments

Bar (Nm)															
Model	Spring Break	Spring Run	Spring End	3 BAR			4 BAR			5 BAR			6 BAR		
				Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End
CSY30-450 SR3	4,786	2,379	2,889	4,821	2,401	2,924	7,420	3,975	5,829	10,017	5,533	8,426	12,614	7,091	11,022
CSY30-500 SR3	6,044	2,969	3,535	5,984	2,932	3,475	9,189	4,824	6,893	12,401	6,751	10,104	15,613	8,679	13,316
CSY30-550 SR3	6,867	3,477	4,349	7,169	3,664	4,651	11,558	6,156	8,964	15,450	8,491	12,856	19,342	10,827	16,474
CSY30-450 SR4	6,329	3,146	3,820	3,780	1,450	1,186	6,461	3,228	3,952	8,974	4,606	6,379	11,570	6,164	8,976
CSY30-500 SR4	7,929	3,967	4,869	4,704	1,826	1,383	7,824	3,902	4,763	11,128	5,680	7,807	14,340	7,607	11,019
CSY30-550 SR4	9,375	4,814	5,824	5,975	2,479	2,287	9,534	4,708	5,983	13,759	7,149	10,071	17,651	9,484	13,963
CSY30-450 SR5	7,929	3,968	4,869	-	-	-	5,455	2,277	2,134	7,892	4,001	4,922	10,649	5,393	7,327
CSY30-500 SR5	9,375	4,712	5,824	3,935	1,255	248	7,147	3,182	3,459	10,042	5,125	6,490	13,571	7,036	9,883
CSY30-550 SR5	11,426	5,741	7,092	-	-	-	8,306	3,651	3,863	12,106	6,162	7,772	16,090	8,321	11,647
CSY30-450 SR6	9,375	4,712	5,824	-	-	-	4,686	1,705	998	7,283	3,263	3,595	9,598	4,850	6,046
CSY30-500 SR6	11,426	5,741	7,092	-	-	-	5,586	2,019	1,143	8,798	3,946	4,355	11,962	6,064	7,613
CSY30-550 SR6	14,080	6,952	8,344	-	-	-	7,031	2,736	2,091	10,923	5,071	5,983	14,694	7,332	8,957
CSY35-550 SR3	9,180	4,520	5,400	9,260	4,569	5,480	14,344	7,661	11,193	19,281	10,623	16,129	24,218	13,585	21,066
CSY35-600 SR3	11,016	5,392	6,378	11,069	5,425	6,430	16,635	8,797	12,690	22,520	12,328	18,575	28,405	15,859	24,460
CSY35-700 SR3	14,449	7,240	8,907	14,840	7,483	9,298	23,114	12,443	18,363	31,142	17,259	26,390	39,170	22,076	34,418
CSY35-550 SR4	12,297	6,131	7,481	7,484	3,307	3,539	12,066	5,988	7,250	17,358	9,231	13,413	22,295	12,193	18,350
CSY35-600 SR4	14,449	7,241	8,907	8,657	3,769	3,906	14,356	7,183	8,813	20,427	10,830	15,675	26,311	14,361	21,560
CSY35-700 SR4	19,069	9,491	11,549	13,252	6,154	7,262	20,114	10,140	12,594	29,307	15,787	23,317	37,335	20,604	31,345
CSY35-550 SR5	14,449	7,241	8,907	5,814	2,062	1,062	10,750	5,025	5,999	15,527	7,909	9,984	20,624	10,949	15,873
CSY35-600 SR5	18,185	8,971	10,752	6,823	2,296	833	12,707	5,827	6,718	18,327	9,058	10,894	24,477	12,889	18,487
CSY35-700 SR5	23,864	11,772	14,109	10,627	4,056	2,896	18,654	8,873	10,923	25,470	12,767	15,715	34,710	18,506	26,979
CSY35-550 SR6	18,185	8,970	10,752	-	-	-	8,916	3,552	2,926	13,852	6,514	7,863	18,569	9,209	11,136
CSY35-600 SR6	22,471	10,908	12,716	-	-	-	10,082	3,730	2,351	15,967	7,261	8,236	22,179	10,727	12,424
CSY35-700 SR6	28,953	14,335	17,288	-	-	-	14,076	5,243	3,399	22,104	10,059	11,427	30,207	15,112	18,543
CSY40-600 SR3	13,131	6,586	8,114	13,071	6,549	8,054	19,458	10,198	14,536	26,566	14,463	21,644	33,674	18,728	28,752
CSY40-700 SR3	16,359	8,256	10,272	18,564	9,623	12,477	28,548	15,110	21,818	38,259	20,936	31,528	47,969	28,096	41,239
CSY40-800 SR3	21,426	10,879	13,666	23,998	12,460	16,238	37,164	19,778	28,761	50,133	27,405	41,474	62,591	35,033	54,188
CSY40-600 SR4	16,357	8,926	10,272	11,032	4,600	4,301	17,976	8,256	11,888	25,247	13,184	18,517	32,355	17,394	25,625
CSY40-700 SR4	21,426	10,879	13,666	15,444	6,745	7,041	24,782	12,960	17,023	35,119	18,398	26,461	44,575	24,224	36,172
CSY40-800 SR4	30,015	15,120	18,757	19,372	8,244	8,108	31,461	16,016	20,203	44,798	23,500	33,534	57,511	31,128	46,248
CSY40-600 SR5	21,426	10,879	13,666	-	-	-	14,745	6,326	6,342	21,644	11,014	13,884	28,961	14,856	20,558
CSY40-700 SR5	30,015	15,120	18,757	-	-	-	20,074	8,665	8,811	29,304	14,679	18,046	39,495	20,318	28,232
CSY40-800 SR5	35,425	17,702	21,679	16,204	5,648	2,623	28,917	13,276	15,336	41,095	21,218	27,349	54,343	28,532	40,763



# Torque Charts: Spring-Return (Bar/Nm)

Actuation Solutions and Systems for the World's Most Challenging Environments

Bar (Nm)															
Model	Spring Break	Spring Run	Spring End	3 BAR			4 BAR			5 BAR			6 BAR		
				Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End
CSY40-600 SR6	26,630	13,472	16,828	-	-	-	10,978	3,430	457	18,086	7,695	7,566	25,544	12,799	15,471
CSY40-700 SR6	35,425	17,702	21,679	-	-	-	16,907	6,069	3,326	26,617	11,896	13,036	35,995	18,056	22,248
CSY40-800 SR6	47,742	23,883	29,300	-	-	-	23,635	8,676	5,286	36,348	16,304	17,999	46,029	22,821	28,593
CSY48-800 SR3	26,619	13,330	16,381	27,930	14,142	17,691	42,377	22,682	33,230	57,317	31,646	48,170	72,256	40,609	63,109
CSY48-900 SR3	33,844	16,948	20,827	35,254	17,822	22,237	53,968	28,476	40,951	72,911	39,841	59,894	91,854	51,207	78,837
CSY48-1000 SR3	45,789	23,215	29,097	40,140	19,712	23,447	65,718	34,190	48,248	89,136	48,240	71,666	112,553	62,291	95,083
CSY48-800 SR4	33,844	16,948	20,827	22,038	9,318	9,021	38,254	19,417	25,237	51,918	27,245	38,901	66,857	36,209	53,840
CSY48-900 SR4	45,789	23,344	29,097	28,877	12,085	11,407	45,677	23,146	28,986	66,763	34,817	49,293	85,706	46,182	68,236
CSY48-1000 SR4	57,348	28,690	35,200	36,329	15,013	13,714	57,115	28,546	34,968	83,164	43,114	60,549	106,582	57,164	83,967
CSY48-800 SR5	45,789	23,214	29,097	-	-	-	31,836	13,842	14,336	44,755	22,574	28,063	61,685	31,770	44,215
CSY48-900 SR5	57,348	28,690	35,200	22,906	6,959	291	41,849	18,324	19,233	58,269	29,261	36,121	79,735	41,056	57,120
CSY48-1000 SR5	69,602	34,789	42,618	25,938	8,152	1,236	49,356	22,203	24,653	72,776	36,756	45,792	96,191	50,304	71,488
CSY48-800 SR6	57,348	28,690	35,200	-	-	-	25,835	8,716	3,219	40,774	17,680	18,159	53,420	26,257	31,275
CSY48-900 SR6	69,602	34,788	42,618	-	-	-	31,458	11,464	6,755	50,401	22,830	25,698	69,545	34,753	42,561
CSY48-1000 SR6	82,680	41,743	51,976	-	-	-	40,529	15,354	10,651	63,947	29,404	34,069	86,497	42,250	55,793
CSY60-800 SR3	36,800	18,478	22,805	35,799	18,379	21,805	57,777	30,855	45,075	77,866	42,909	65,165	97,956	54,963	85,254
CSY60-900 SR3	47,118	23,238	27,842	47,867	23,702	28,592	72,798	39,044	57,351	98,293	54,341	82,845	123,787	69,638	108,339
CSY60-1000 SR3	63,398	31,514	38,261	55,207	26,436	30,071	89,762	46,841	66,376	121,297	65,762	97,911	158,283	84,683	129,446
CSY60-1100 SR3	78,878	34,854	49,217	63,881	35,266	34,219	107,340	56,957	82,519	145,551	79,884	120,730	183,763	102,811	158,942
CSY60-800 SR4	47,118	23,238	27,842	29,373	12,290	13,926	51,918	26,214	32,642	69,553	37,097	54,105	89,642	49,151	74,195
CSY60-900 SR4	63,398	31,514	38,261	40,105	17,047	16,720	62,685	31,072	37,548	91,094	47,640	67,708	116,588	62,937	93,203
CSY60-1000 SR4	78,878	39,048	49,217	44,962	19,531	20,141	75,409	38,220	45,747	108,032	57,373	83,211	139,567	76,294	114,746
CSY60-1100 SR4	95,891	47,761	58,177	59,509	25,878	26,750	92,620	45,733	54,906	135,392	71,731	10,373	174,143	94,658	141,384
CSY60-1100X2 SR4	170,261	84,792	112,378	117,280	53,003	59,397	193,833	98,935	135,950	270,386	144,867	212,503	-	-	-
CSY60-800 SR5	63,398	31,515	38,261	23,891	7,319	505	43,980	19,372	20,595	61,439	30,300	36,302	84,160	43,480	60,774
CSY60-900 SR5	78,878	39,710	49,217	26,840	8,658	2,020	52,335	23,954	27,514	76,967	38,524	47,305	103,324	54,548	78,503
CSY60-1000 SR5	95,891	47,761	58,177	39,480	13,860	6,721	71,015	32,781	38,256	97,605	48,824	59,891	134,084	70,623	101,326
CSY60-1100 SR5	112,369	57,081	71,764	-	-	-	80,728	35,559	37,801	116,733	59,787	76,127	157,151	81,412	114,224
CSY60-1100X2 SR5	170,261	84,792	112,378	-	-	-	-	-	-	203,622	104,808	145,739	-	-	-
CSY60-800 SR6	78,878	39,710	49,217	-	-	-	34,853	13,465	10,032	54,943	25,519	30,122	70,724	34,468	40,762
CSY60-900 SR6	95,891	47,761	58,177	-	-	-	46,852	18,284	14,094	72,347	33,580	39,588	93,243	46,119	55,529
CSY60-1000 SR6	112,369	57,081	71,764	-	-	-	54,022	19,535	11,095	85,557	38,456	42,630	115,175	58,821	74,570

# Torque Charts: Spring-Return (PSI/in-lbs)

Actuation Solutions and Systems for the World's Most Challenging Environments

PSI (in-lbs)															
Model	Spring Break	Spring Run	Spring End	40 PSI			60 PSI			70 PSI			90 PSI		
				Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End
CSK07S	301	106	186	-	-	-	292	115	195	416	177	319	540	239	443
CSK10S	602	239	372	-	-	-	593	248	389	885	381	620	1,062	531	823
CSK12S	1,434	593	885	-	-	-	1,452	602	903	2,726	885	1,044	3,523	1,159	1,505
CSK15S	2,363	947	1,469	-	-	-	2,310	947	1,443	4,240	1,425	2,168	5,443	1,894	2,903

PSI (in-lbs)																					
Model	Spring Break	Spring Run	Spring End	40 PSI			60 PSI			70 PSI			90 PSI			100 PSI			110 PSI		
				Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End
CSY10-150 SR3	187	91	118	183	89	115	293	155	225	396	217	328	499	279	431	602	340	534	705	402	637
CSY10-170 SR3	230	115	153	237	119	161	379	204	302	512	284	435	645	364	568	778	444	701	911	524	834
CSY10-150 SR4	230	115	153	155	70	78	250	127	173	361	193	284	465	255	387	567	317	490	838	379	593
CSY10-170 SR4	293	148	201	198	91	106	320	164	228	464	251	372	597	330	505	730	410	638	863	490	771
CSY10-150 SR5	293	148	201	107	36	15	210	98	118	303	154	211	416	222	324	519	284	427	622	346	530
CSY10-170 SR5	383	193	260	138	46	16	271	126	149	391	198	269	538	286	415	671	366	548	804	445	681
CSY10-150 SR6	383	193	260	-	-	-	151	54	28	254	115	131	345	170	222	460	239	337	563	301	440
CSY10-170 SR6	489	242	319	-	-	-	213	76	42	346	156	175	463	227	293	612	316	442	745	396	575
CSY12-170 SR3	285	141	187	299	150	201	478	257	380	645	357	546	811	457	713	978	557	879	1,144	657	1,046
CSY12-200 SR3	369	184	246	432	222	308	680	371	557	912	510	789	1,144	649	1,020	1,377	789	1,254	1,607	927	1,484
CSY12-170 SR4	369	184	246	252	114	129	402	204	278	585	314	462	752	414	628	918	514	795	1,085	614	961
CSY12-200 SR4	526	267	364	330	149	168	540	275	378	794	428	632	1,026	567	864	1,259	707	1,097	1,489	845	1,327
CSY12-170 SR5	487	244	327	171	55	12	338	155	178	483	242	323	671	354	511	837	454	678	1,004	554	844
CSY12-200 SR5	699	346	454	-	-	-	473	71	227	677	332	431	936	488	691	1,169	628	924	1,400	766	1,154
CSY12-170 SR6	526	267	364	-	-	-	301	132	139	467	232	305	608	316	446	800	431	638	967	531	805
CSY12-200 SR6	818	407	541	-	-	-	-	-	-	617	287	340	816	406	538	1,082	566	805	1,313	704	1,035

PSI (in-lbs)															
Model	Spring Break	Spring Run	Spring End	40 PSI			60 PSI			70 PSI			90 PSI		
				Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End
CSY14-200 SR3	4,523	2,248	2,717	4,629	2,310	2,815	7,089	3,708	5,275	9,541	5,178	7,727	11,993	6,647	10,178
CSY14-250 SR3	6,983	3,558	4,478	7,001	3,567	4,496	10,913	5,824	8,497	14,772	8,134	12,356	18,631	10,453	16,215
CSY14-300 SR3	9,550	4,806	5,965	10,568	5,443	6,992	16,347	8,833	13,099	21,923	12,179	18,675	27,508	15,524	24,251

# Torque Charts: Spring-Return (PSI/in-lbs)

Actuation Solutions and Systems for the World's Most Challenging Environments

PSI (in-lbs)															
Model	Spring Break	Spring Run	Spring End	40 PSI			60 PSI			70 PSI			90 PSI		
				Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End
CSY14-200 SR4	6,010	3,062	3,859	3,461	1,434	1,336	5,939	3,018	3,788	8,364	4,381	6,240	10,816	5,850	8,691
CSY14-250 SR4	9,550	4,806	5,965	5,611	2,390	2,363	9,346	4,691	5,762	13,329	7,019	10,081	17,188	9,338	13,940
CSY14-300 SR4	13,073	6,656	8,391	8,267	3,576	3,647	13,666	7,019	8,984	19,427	10,267	14,807	25,003	13,612	20,383
CSY14-200 SR5	6,983	3,558	4,478	2,832	974	416	5,284	2,443	2,868	7,762	4,036	5,257	10,187	5,390	7,771
CSY14-250 SR5	11,904	5,930	7,213	4,337	1,328	106	8,116	3,647	3,965	11,922	5,939	7,240	15,914	8,275	11,683
CSY14-300 SR5	16,639	8,470	10,674	6,257	2,036	549	11,833	5,390	6,125	16,887	8,629	10,931	22,994	12,081	17,286
CSY14-200 SR6	9,099	4,532	5,514	-	-	-	3,841	1,328	593	6,293	2,797	3,045	9,178	4,585	5,603
CSY14-250 SR6	13,073	6,656	8,391	-	-	-	6,966	2,797	2,354	10,824	5,107	6,213	14,586	s	9,895
CSY14-300 SR6	20,277	10,285	12,904	-	-	-	9,116	3,213	1,593	14,701	6,558	7,169	20,180	10,231	12,807
CSY16-250 SR3	9,665	4,496	5,372	8,975	4,408	4,682	13,834	7,169	10,081	18,640	10,054	14,887	23,446	12,940	19,693
CSY16-300 SR3	12,692	6,381	7,895	12,780	6,434	7,983	19,914	17,516	15,117	26,871	14,683	21,445	33,828	18,852	29,030
CSY16-350 SR3	16,781	8,568	10,860	17,286	9,187	11,356	27,110	14,559	21,419	36,607	20,259	30,916	46,104	25,950	40,413
CSY16-250 SR4	11,338	5,762	7,240	7,143	3,000	2,868	11,904	6,116	7,806	16,754	8,762	12,471	21,560	11,648	17,277
CSY16-300 SR4	16,781	8,568	10,860	10,001	4,293	4,301	16,710	8,523	10,789	23,906	12,639	18,215	30,863	16,808	25,172
CSY16-350 SR4	22,968	11,594	14,418	13,754	5,700	5,257	23,109	11,745	14,559	32,748	17,100	24,251	42,236	22,791	33,739
CSY16-250 SR5	13,745	7,036	8,948	5,452	1,832	664	10,258	4,717	5,461	14,975	7,798	10,178	19,870	10,479	15,073
CSY16-300 SR5	21,428	10,639	12,878	7,435	2,416	620	14,391	6,585	7,567	21,578	10,736	13,028	28,296	14,931	21,472
CSY16-350 SR5	28,269	14,489	18,454	-	-	-	19,171	8,329	8,594	28,455	15,436	18,640	38,164	19,719	27,579
CSY16-250 SR6	16,781	8,568	10,860	-	-	-	8,355	3,301	2,664	13,161	6,187	7,470	17,861	9,231	11,931
CSY16-300 SR6	22,968	11,594	14,418	-	-	-	13,090	5,302	4,594	20,038	9,479	11,550	26,942	14,055	18,383
CSY16-350 SR6	34,146	17,294	21,649	-	-	-	15,976	5,753	3,204	25,472	11,453	12,701	34,642	18,604	22,145
CSY25-350 SR3	19,905	10,205	13,011	20,764	11,108	13,869	32,394	17,374	25,508	43,749	24,180	36,863	55,105	30,995	48,219
CSY25-400 SR3	26,517	13,418	16,772	27,340	13,931	16,843	42,298	22,233	31,810	57,167	31,155	46,688	72,045	40,076	61,557
CSY25-450 SR3	35,049	17,817	22,428	33,403	16,799	20,782	53,813	28,181	40,138	72,673	39,501	58,990	91,526	50,812	77,851
CSY25-350 SR4	26,517	13,427	16,772	16,878	6,974	6,390	28,260	15,099	18,516	39,581	20,605	29,101	50,936	27,420	40,448
CSY25-400 SR4	35,049	17,817	22,428	22,994	9,692	9,320	36,394	18,649	23,773	52,742	27,535	39,058	67,611	29,296	53,936
CSY25-450 SR4	43,855	21,826	26,543	30,978	14,020	15,763	47,900	24,331	30,588	68,699	36,651	53,485	87,552	47,971	72,337
CSY25-350 SR5	35,049	17,817	22,428	-	-	-	23,800	10,170	10,116	33,863	18,091	21,242	46,511	23,800	32,827
CSY25-400 SR5	43,855	21,826	26,543	19,020	6,850	3,806	33,890	15,772	18,675	46,989	23,764	29,668	63,637	33,615	48,422
CSY25-450 SR5	55,990	27,588	32,978	23,198	8,134	3,912	42,059	19,445	22,773	60,079	30,110	37,067	79,772	42,076	60,486
CSY25-350 SR6	43,855	21,826	26,543	-	-	-	19,826	7,328	4,611	31,181	14,143	15,967	41,006	21,268	23,693
CSY25-400 SR6	55,990	27,588	32,978	-	-	-	26,110	9,877	6,824	40,988	18,799	21,693	55,255	27,128	32,243
CSY25-450 SR6	73,116	35,615	41,776	-	-	-	32,296	12,064	7,913	51,148	23,375	26,774	69,894	33,624	38,563

# Torque Charts: Spring-Return (PSI/in-lbs)

Actuation Solutions and Systems for the World's Most Challenging Environments

PSI (in-lbs)															
Model	Spring Break	Spring Run	Spring End	40 PSI			60 PSI			70 PSI			90 PSI		
				Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End
CSY30-450 SR3	42,360	21,056	25,570	42,669	21,251	25,880	65,673	35,182	51,591	88,658	48,971	74,576	111,643	62,761	97,553
CSY30-500 SR3	53,494	26,278	31,287	52,963	25,950	30,756	81,330	42,696	61,008	109,758	59,751	89,428	138,187	76,816	117,857
CSY30-550 SR3	60,778	30,774	38,492	63,451	32,429	41,165	102,297	54,485	79,338	136,744	75,152	113,785	171,191	95,827	145,807
CSY30-450 SR4	56,016	27,844	33,810	33,456	12,834	10,497	57,185	28,570	34,978	79,427	40,767	56,459	102,403	54,556	79,444
CSY30-500 SR4	70,178	35,111	43,094	41,634	16,161	12,241	69,248	34,536	42,156	98,491	50,272	69,098	126,920	67,328	97,526
CSY30-550 SR4	82,976	42,607	51,547	52,883	21,941	20,242	84,383	41,669	52,954	121,777	63,274	89,136	156,225	83,940	123,583
CSY30-450 SR5	70,178	35,120	43,094	-	-	-	48,281	20,153	18,887	69,850	35,412	43,563	94,252	47,732	64,849
CSY30-500 SR5	82,976	41,705	51,547	34,828	11,108	2,195	63,256	28,163	30,615	88,879	45,360	57,441	120,113	62,274	87,472
CSY30-550 SR5	101,129	50,812	62,769	-	-	-	73,514	32,314	34,190	107,147	54,538	68,788	142,408	73,647	103,085
CSY30-450 SR6	82,976	41,705	51,547	-	-	-	41,475	15,091	8,833	64,460	28,880	31,818	84,949	42,926	53,512
CSY30-500 SR6	101,129	50,812	62,769	-	-	-	49,440	17,870	10,116	77,869	34,925	38,545	105,873	53,671	67,381
CSY30-550 SR6	124,619	61,530	73,851	-	-	-	62,230	24,216	18,507	96,677	44,882	52,954	130,053	64,894	79,276
CSY35-550 SR3	81,250	40,005	47,794	81,958	40,439	48,502	126,955	67,806	99,066	170,651	94,021	142,754	214,347	120,237	186,450
CSY35-600 SR3	97,500	47,723	56,450	97,969	48,015	56,910	147,232	77,860	112,316	199,319	109,112	164,403	251,405	140,364	216,489
CSY35-700 SR3	127,884	64,079	78,834	131,345	66,230	82,294	204,576	110,130	162,526	275,630	152,755	233,571	346,684	195,389	304,625
CSY35-550 SR4	108,838	54,264	66,212	66,239	29,269	31,323	106,793	52,998	64,168	153,631	81,701	118,715	197,327	107,917	162,411
CSY35-600 SR4	127,884	64,088	78,834	76,621	33,358	34,571	127,061	63,575	78,002	180,794	95,854	138,735	232,872	127,106	190,822
CSY35-700 SR4	168,775	84,002	102,217	117,290	54,467	64,274	178,024	89,747	111,466	259,389	139,727	206,373	330,443	182,361	277,427
CSY35-550 SR5	127,884	64,088	78,834	51,458	18,250	9,399	95,146	44,475	53,096	137,426	70,001	88,366	182,538	96,907	140,488
CSY35-600 SR5	160,951	79,400	95,163	60,389	20,321	7,373	112,466	51,573	59,459	162,208	80,170	96,420	216,640	114,077	163,624
CSY35-700 SR5	211,214	104,191	124,875	94,057	35,899	25,632	165,102	78,533	96,677	225,428	112,997	139,089	307,209	163,792	238,784
CSY35-550 SR6	160,951	79,391	95,163	-	-	-	78,913	31,438	25,897	122,601	57,654	69,593	164,349	81,507	98,562
CSY35-600 SR6	198,885	96,544	112,546	-	-	-	89,233	33,013	20,808	141,320	64,265	72,895	196,301	94,942	109,962
CSY35-700 SR6	256,256	126,875	153,012	-	-	-	124,583	46,404	30,084	195,637	89,030	101,137	267,354	133,752	164,119
CSY40-600 SR3	116,219	58,291	71,815	115,688	57,964	71,284	172,218	90,260	128,654	235,129	128,008	191,566	298,040	165,757	254,477
CSY40-700 SR3	144,789	73,072	90,915	164,305	85,171	110,431	252,671	133,735	193,106	338,621	185,299	279,046	424,561	248,671	364,996
CSY40-800 SR3	189,636	96,287	120,954	212,400	110,280	143,718	328,929	175,050	254,556	443,714	242,555	367,076	553,977	310,068	479,604
CSY40-600 SR4	144,772	79,002	90,915	97,641	40,713	38,067	159,101	73,072	105,218	223,455	116,688	163,889	286,366	153,950	226,800
CSY40-700 SR4	189,636	96,287	120,954	136,691	59,698	62,318	219,339	114,706	150,666	310,829	162,836	234,200	394,522	214,400	320,149
CSY40-800 SR4	265,655	133,823	166,013	171,457	72,966	71,762	278,453	141,754	178,812	396,496	207,993	296,801	509,015	275,506	409,329
CSY40-600 SR5	189,636	96,287	120,954	-	-	-	130,504	55,990	56,131	191,566	97,482	122,884	256,326	131,487	181,954
CSY40-700 SR5	265,655	133,823	166,013	-	-	-	177,670	76,692	77,984	259,362	129,920	159,721	349,560	179,829	249,874
CSY40-800 SR5	313,538	156,676	191,875	143,417	49,989	23,216	255,937	117,503	135,735	363,721	187,795	242,059	480,976	252,529	360,783

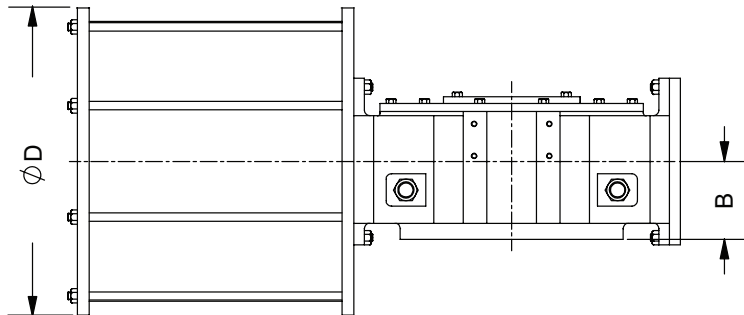
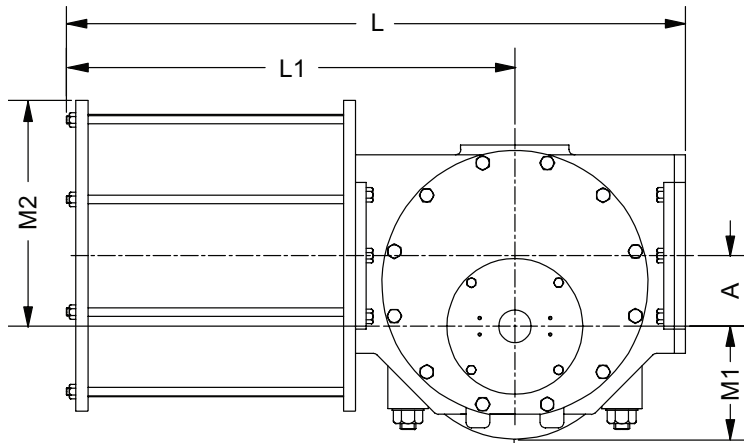
# Torque Charts: Spring-Return (PSI/in-lbs)

Actuation Solutions and Systems for the World's Most Challenging Environments

PSI (in-lbs)															
Model	Spring Break	Spring Run	Spring End	40 PSI			60 PSI			70 PSI			90 PSI		
				Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End	Air Break	Air Run	Air End
CSY40-600 SR6	235,695	119,237	148,940	-	-	-	97,163	30,358	4,045	160,075	68,106	66,965	226,083	113,281	136,930
CSY40-700 SR6	313,538	156,676	191,875	-	-	-	149,640	53,715	29,438	235,580	105,288	115,378	318,583	159,809	196,911
CSY40-800 SR6	422,552	211,382	259,327	-	-	-	209,187	76,789	46,785	321,707	144,303	159,305	407,391	201,983	253,069
CSY48-800 SR3	235,598	117,980	144,984	247,201	125,167	156,579	375,068	200,753	294,110	507,298	280,091	426,340	639,519	359,420	558,562
CSY48-900 SR3	299,545	150,002	184,334	312,024	157,738	196,814	477,657	252,034	362,447	645,317	352,623	530,107	812,976	453,220	697,766
CSY48-1000 SR3	405,267	205,470	257,530	355,269	174,466	207,523	581,653	302,607	427,031	788,920	426,960	634,298	996,178	551,322	841,555
CSY48-800 SR4	299,545	150,002	184,334	195,053	82,471	79,843	338,576	171,855	223,366	459,513	241,139	344,303	591,734	320,477	476,524
CSY48-900 SR4	405,267	206,612	257,530	255,583	106,961	100,960	404,276	204,859	256,548	590,902	308,156	436,280	758,562	408,745	603,939
CSY48-1000 SR4	507,573	253,928	311,546	321,539	132,876	121,379	505,510	252,653	309,493	736,063	381,591	535,904	943,330	505,944	743,171
CSY48-800 SR5	405,267	205,461	257,530	-	-	-	281,772	122,512	126,884	396,115	199,797	248,378	545,958	281,188	391,336
CSY48-900 SR5	507,573	253,928	311,546	202,735	61,592	2,576	370,395	162,181	170,226	515,724	258,982	319,698	705,714	363,376	505,555
CSY48-1000 SR5	616,030	307,909	377,201	229,571	72,151	10,940	436,837	196,513	218,197	644,122	325,318	405,293	851,362	445,228	632,722
CSY48-800 SR6	507,573	253,928	311,546	-	-	-	228,659	77,143	28,491	360,880	156,481	160,721	472,807	232,394	276,807
CSY48-900 SR6	616,030	307,900	377,201	-	-	-	278,427	101,465	59,787	446,086	202,063	227,446	615,525	307,590	376,697
CSY48-1000 SR6	731,780	369,457	460,026	-	-	-	358,712	135,894	94,269	565,979	260,247	301,536	765,563	373,944	493,810
CSY60-800 SR3	325,707	163,544	201,841	316,848	162,668	192,991	511,370	273,090	398,947	689,172	379,777	576,759	866,984	486,464	754,561
CSY60-900 SR3	417,029	205,674	246,422	423,659	209,780	253,061	644,317	345,569	507,599	869,966	480,958	733,240	1,095,607	616,348	958,881
CSY60-1000 SR3	561,120	278,922	338,638	488,623	233,978	266,151	794,461	414,578	587,477	1,073,569	582,043	866,585	1,400,923	749,508	1,145,694
CSY60-1100 SR3	698,129	308,484	435,607	565,394	312,130	302,864	950,039	504,112	730,355	1,288,235	707,033	1,068,551	1,626,440	909,954	1,406,755
CSY60-800 SR4	417,029	205,674	246,422	259,973	108,776	123,255	459,513	232,013	288,906	615,596	328,336	478,870	793,399	435,023	656,681
CSY60-900 SR4	561,120	278,922	338,638	354,959	150,879	147,984	554,809	275,010	332,328	806,250	421,650	599,266	1,031,891	557,039	824,916
CSY60-1000 SR4	698,129	345,604	435,607	397,947	172,864	178,263	667,426	338,276	404,895	956,164	507,794	736,479	1,235,272	675,259	1,015,588
CSY60-1100 SR4	848,707	422,720	514,910	526,699	229,040	236,757	819,756	404,771	485,959	1,198,320	634,873	91,809	1,541,295	837,794	1,251,354
CSY60-1100X2 SR4	1,506,937	750,472	994,629	1,038,015	469,116	525,708	1,715,567	875,649	1,203,259	2,393,118	1,282,181	1,880,810	-	-	-
CSY60-800 SR5	561,120	278,931	338,638	211,453	64,779	4,470	389,256	171,457	182,281	543,781	268,178	321,300	744,879	384,830	537,895
CSY60-900 SR5	698,129	351,463	435,607	237,554	76,630	17,879	463,204	212,011	243,519	681,215	340,966	418,685	914,494	482,790	694,810
CSY60-1000 SR5	848,707	422,720	514,910	349,427	122,671	59,486	628,536	290,136	338,594	863,877	432,129	530,080	1,186,743	625,066	896,811
CSY60-1100 SR5	994,549	505,209	635,165	-	-	-	714,503	314,724	334,567	1,033,174	529,160	673,781	1,390,904	720,557	1,010,968
CSY60-1100X2 SR5	1,506,937	750,472	994,629	-	-	-	-	-	-	1,802,207	927,629	1,289,899	-	-	-
CSY60-800 SR6	698,129	351,463	435,607	-	-	-	308,475	119,175	88,791	486,287	225,862	266,602	625,960	305,068	360,774
CSY60-900 SR6	848,707	422,720	514,910	-	-	-	414,675	161,827	124,742	640,325	297,208	350,383	825,270	408,188	491,473
CSY60-1000 SR6	994,549	505,209	635,165	-	-	-	478,135	172,899	98,199	757,243	340,364	377,307	1,019,385	520,610	660,000

# Actuator Dimensions: Double-Acting

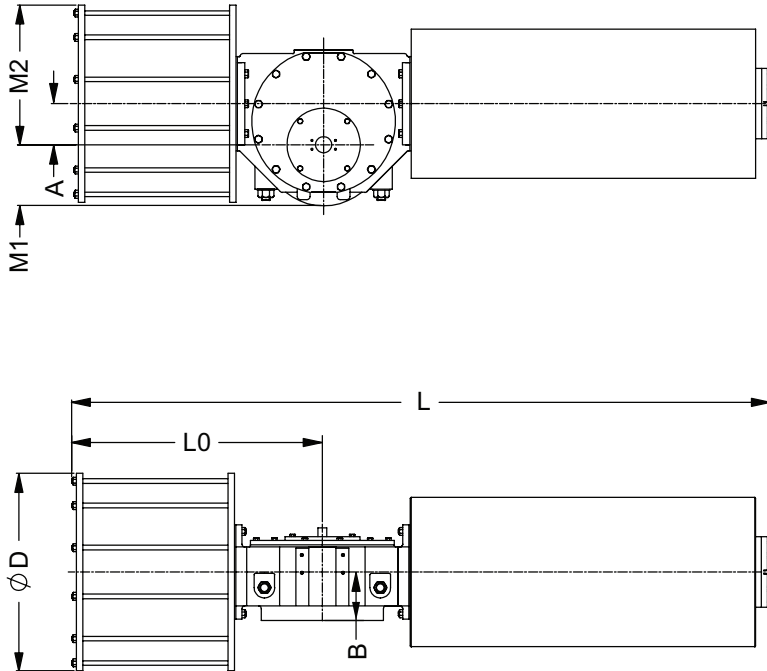
Actuation Solutions and Systems for the World's Most Challenging Environments



Actuator Dimensions (mm)								
Model	Mounting Pattern	L	L0	m1	m2	A	B	D
CSY14-200DA	F14	23.39	17.68	3.44	7.38	2.36	3.46	10.04
CSY14-250DA		23.39	17.68	3.44	8.37	2.36	3.46	12.01
CSY14-300DA		23.39	17.68	3.44	9.35	2.36	3.46	13.98
CSY16-250DA	F16	26.73	17.68	4.13	8.76	2.76	3.62	12.01
CSY16-300DA		26.73	17.68	4.13	9.74	2.76	3.62	13.98
CSY16-350DA		26.73	17.68	4.13	10.73	2.76	3.62	15.94
CSY25-350DA	F25	30.16	22.28	5.91	11.52	3.54	4.09	15.94
CSY25-400DA		30.16	22.28	5.91	12.50	3.54	4.09	17.91
CSY25-450DA		30.16	22.28	5.91	13.78	3.54	4.09	20.47
CSY30-450DA	F30	36.30	26.06	6.89	14.57	4.33	5.12	20.47
CSY30-500DA		36.30	26.06	6.89	15.55	4.33	5.12	22.44
CSY30-550DA		36.30	26.06	6.89	16.54	4.33	5.12	24.41
CSY35-550DA	F35	44.49	32.17	8.17	17.72	5.51	6.50	24.41
CSY35-600DA		44.49	32.17	8.17	17.72	5.51	6.50	26.38
CSY35-700DA		44.49	32.17	8.17	18.70	5.51	6.50	30.31
CSY40-600DA	F40	51.97	37.80	9.35	19.88	6.69	7.87	26.38
CSY40-700DA		51.97	37.80	9.35	21.85	6.69	7.87	30.31
CSY40-800DA		51.97	37.80	9.35	23.92	6.69	7.87	34.45
CSY48-800DA	F48	62.20	44.49	11.02	25.10	7.87	8.27	34.45
CSY48-900DA		62.20	44.49	11.02	27.07	7.87	8.27	38.39
CSY48-1000DA		62.20	44.49	11.02	31.00	7.87	8.27	42.32
CSY60-800DA	F60	77.17	54.33	13.50	27.85	10.63	9.06	34.45
CSY60-900DA		77.17	54.33	13.50	29.82	10.63	9.06	38.39
CSY60-1000DA		77.17	54.33	13.50	31.79	10.63	9.06	42.32
CSY60-1100DA		77.17	54.33	13.50	33.76	10.63	9.06	46.26

# Actuator Dimensions: Spring-Return

Actuation Solutions and Systems for the World's Most Challenging Environments



Actuator Dimensions (in)								
Model	Mounting Pattern	L	L0	m1	m2	A	B	D
CSY14-200 SR4	F14	43.50	17.68	3.44	7.38	2.36	3.46	10.04
CSY14-250 SR4		43.50	17.68	3.44	8.37	2.36	3.46	12.01
CSY14-300 SR4		44.29	17.68	3.44	9.35	2.36	3.46	13.98
CSY16-250 SR4	F16	50.75	17.68	4.13	8.76	2.76	3.62	12.01
CSY16-300 SR4		50.75	17.68	4.13	9.74	2.76	3.62	13.98
CSY16-350 SR4		51.89	17.68	4.13	10.73	2.76	3.62	15.94
CSY25-350 SR4	F25	62.05	22.28	5.91	11.52	3.54	4.09	15.94
CSY25-400 SR4		62.05	22.28	5.91	12.50	3.54	4.09	17.91
CSY25-450 SR4		61.97	22.28	5.91	13.78	3.54	4.09	20.47
CSY30-450 SR4	F30	71.14	26.06	6.89	14.57	4.33	5.12	20.47
CSY30-500 SR4		71.14	26.06	6.89	15.55	4.33	5.12	22.44
CSY30-550 SR4		71.14	26.06	6.89	16.54	4.33	5.12	24.41
CSY35-550 SR4	F35	78.94	32.17	8.17	17.72	5.51	6.50	24.41
CSY35-600 SR4		78.94	32.17	8.17	17.72	5.51	6.50	26.38
CSY35-700 SR4		78.94	32.17	8.17	18.70	5.51	6.50	30.31
CSY40-600 SR4	F40	106.10	37.80	9.35	19.88	6.69	7.87	26.38
CSY40-700 SR4		106.10	37.80	9.35	21.85	6.69	7.87	30.31
CSY40-800 SR4		106.10	37.80	9.35	23.92	6.69	7.87	34.45
CSY48-800 SR4	F48	133.66	44.49	11.02	25.10	7.87	8.27	34.45
CSY48-900 SR4		133.66	44.49	11.02	27.07	7.87	8.27	38.39
CSY48-1000 SR4		141.14	44.49	11.02	31.00	7.87	8.27	42.32
CSY60-800 SR4	F60	164.76	54.33	13.50	27.85	10.63	9.06	34.45
CSY60-900 SR4		164.76	54.33	13.50	29.82	10.63	9.06	38.39
CSY60-1000 SR4		187.01	54.33	13.50	31.79	10.63	9.06	42.32
CSY60-1100 SR4		187.01	54.33	13.50	33.76	10.63	9.06	46.26

Dimensions in this table are for a spring grade of 4-bar air pressure.  
Consult factory for more dimension specifications.

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