

**CP and Cp V.1 - SPRING RETURN  
RANGE METRIC TORQUE DATA**

**CP 35** Maximum Operating Torque 300 Nm

MODEL	MOP	MAWP	Position	Spring	OUTPUT Nm at bar										
					3.0	3.5	4.0	5.0	5.5	6.0	7.0	8.0	9.0	10.0	12.0
CP/S-035-080*/AA	12	12	End	30	24	37	50	76	89	102	128	154	180	206	258
CP/S-035-080*/AL			45°	23	19	27	34	49	57	64	79	94	108	123	153
			Break	47	42	54	67	91	104	116	141	165	190	214	264
CP/S-035-100*/AA	8.6	12	End	30	68	88	109	149	170	190	231	272			
CP/S-035-100*/AL			45°	23	44	56	68	91	102	114	137	160			
			Break	47	84	103	122	161	180	199	237	276			
CP/S-035-080*/BA	12	12	End	58			25	38	51	77	103	129	155	207	
CP/S-035-080*/BL			45°	44			26	33	41	56	70	85	100	130	
			Break	90			63	75	87	112	137	161	186	235	
CP/S-035-100*/BA	9.3	12	End	58	17	37	57	98	118	139	180	220	261		
CP/S-035-100*/BL			45°	44	21	33	44	68	79	91	114	137	160		
			Break	90	55	74	94	132	151	170	209	247	286		
CP/S-035-100*/CB	10	12	84	84			54	74	95	135	176	217	258		
CP/S-035-100*/CM			62	62			47	58	70	93	116	140	163		
			128	128			105	124	143	182	220	258	297		
CP/S-035-130*/CA	5.9	12	End	84	57	91	126	194	229						
CP/S-035-130*/CL			45°	62	49	68	88	127	146						
			Break	128	107	140	172	237	270						
CP/S-035-140*/CA	5.1	12	End	84	90	130	170	249							
CP/S-035-140*/CL			45°	62	67	90	113	158							
			Break	128	139	176	214	289							
CP/S-035-100*/DB	10.4	12	End	98				22	43	84	124	165	206		
CP/S-035-100*/DM			45°	80				39	51	74	97	120	144		
			Break	172				109	129	167	205	244	282		
CP/S-035-130*/DA	6.1	12	End	98		39	74	143	177	212					
CP/S-035-130*/DL			45°	80		49	69	108	127	147					
			Break	172		125	158	223	255	288					
CP/S-035-140*/DA	5.3	12	End	98	38	78	118	198							
CP/S-035-140*/DL			45°	80	48	71	94	139							
			Break	172	124	162	199	275							
CP/S-035-130*/EA	6.5	12	End	118			57	126	161	195					
CP/S-035-130*/EL			45°	90			58	97	116	136					
			Break	186			137	202	234	267					
CP/S-035-140*/EA	5.6	12	End	118		62	101	181	221						
CP/S-035-140*/EL			45°	90		60	83	128	151						
			Break	186		141	178	254	291						

\* SEAL MATERIAL CODE: A (-30°C+100°C) - NBR, B (-20°C+160°C) - VITON, C (-40°C+160°C) - FLUOROSILICONE



**CP and Cp V.1 - SPRING RETURN  
RANGE METRIC TORQUE DATA**

**CP 45** Maximum Operating Torque 800 Nm

MODEL	MOP	MAWP	Position	Spring	OUTPUT Nm at bar										
					3.0	3.5	4.0	5.0	5.5	6.0	7.0	8.0	9.0	10.0	12.0
CP/S-045-120*/AA	12	12	End	112		47	86	162	200	238	315	391	467	544	696
CP/S-045-120*/AL			45°	88		54	76	119	141	163	206	249	293	336	423
			Break	188		135	171	243	279	315	387	459	531	603	747
CP/S-045-140*/AA	9.3	12	End	112	92	144	196	300	352	404	507	611	715		
CP/S-045-140*/AL			45°	88	79	109	139	198	227	257	316	375	434		
			Break	188	177	226	275	373	422	471	569	667	765		
CP/S-045-120*/BA	12	12	End	150			89	127	165	242	318	394	471	623	
CP/S-045-120*/BL			45°	118			87	108	130	174	217	260	304	391	
			Break	250			204	240	276	348	420	492	564	708	
CP/S-045-140*/BA	9.7	12	End	150		71	123	227	279	331	434	538	642		
CP/S-045-140*/BL			45°	118		77	106	165	195	224	283	342	401		
			Break	250		187	236	334	383	432	530	628	726		
CP/S-045-140*/CB	10.3	12	End	210			108	160	212	316	420	524	628		
CP/S-045-140*/CM			45°	166			112	142	171	230	290	349	408		
			Break	351			271	320	369	466	564	662	760		
CP/S-045-180*/CA	6.2	12	End	210	104	190	276	448	533	619					
CP/S-045-180*/CL			45°	166	110	159	208	305	354	403					
			Break	351	267	348	428	590	671	752					
CP/S-045-200*/CA	5	12	End	210	225	331	437	649							
CP/S-045-200*/CL			45°	166	179	239	299	420							
			Break	351	381	480	580	780							
CP/S-045-140*/DB	10.7	12	End	247				75	127	231	335	439	543		
CP/S-045-140*/DM			45°	198				106	136	195	254	313	372		
			Break	423				281	330	428	526	624	722		
CP/S-045-180*/DA	6.5	12	End	247		105	191	362	448	534					
CP/S-045-180*/DL			45°	198		123	172	270	318	367					
			Break	423		309	390	552	633	714					
CP/S-045-200*/DA	5.2	12	End	247	140	246	352	564							
CP/S-045-200*/DL			45°	198	143	203	264	384							
			Break	423	342	442	542	742							
CP/S-045-180*/EA	6.8	12	End	298			103	275	360	446					
CP/S-045-180*/EL			45°	235			131	229	277	326					
			Break	498			338	500	580	661					
CP/S-045-200*/EA	5.5	12	End	298		158	264	476	582						
CP/S-045-200*/EL			45°	235		162	223	343	403						
			Break	498		390	490	689	789						

\* SEAL MATERIAL CODE: A (-30°C+100°C) - NBR, B (-20°C+160°C) - VITON, C (-40°C+160°C) - FLUOROSILICONE

**CP and Cp V.1 - SPRING RETURN  
RANGE METRIC TORQUE DATA**

**CP 55** Maximum Operating Torque 1700 Nm

MODEL	MOP	MAWP	Position	Spring	OUTPUT Nm at bar										
					3.0	3.5	4.0	5.0	5.5	6.0	7.0	8.0	9.0	10.0	12.0
CP/S-055-160*/AA	12	12	End	<b>282</b>		<b>88</b>	<b>171</b>	<b>339</b>	<b>423</b>	<b>507</b>	<b>675</b>	<b>842</b>	<b>1010</b>	<b>1178</b>	<b>1513</b>
			45°	209		103	151	246	294	342	437	532	628	723	914
			Break	426		260	339	497	576	655	814	972	1130	1288	1605
CP/S-055-200*/AA	8	12	End	<b>282</b>	<b>287</b>	<b>418</b>	<b>549</b>	<b>811</b>	<b>942</b>	<b>1073</b>	<b>1335</b>	<b>1597</b>			
			45°	209	217	291	366	515	589	664	813	962			
			Break	426	448	571	695	942	1066	1189	1437	1684			
CP/S-055-160*/BA	12	12	End	<b>363</b>				<b>120</b>	<b>204</b>	<b>288</b>	<b>456</b>	<b>623</b>	<b>791</b>	<b>959</b>	<b>1294</b>
			45°	288				159	206	254	349	445	540	636	826
			Break	613				413	492	571	730	888	1046	1204	1521
CP/S-055-200*/BA	8.4	12	End	<b>363</b>		<b>199</b>	<b>330</b>	<b>592</b>	<b>723</b>	<b>854</b>	<b>1116</b>	<b>1378</b>			
			45°	288		203	278	427	502	576	725	874			
			Break	613		487	611	858	982	1105	1353	1600			
CP/S-055-200*/CB	8.7	12	End	<b>448</b>			<b>216</b>	<b>478</b>	<b>609</b>	<b>740</b>	<b>1002</b>	<b>1264</b>			
			45°	342			219	368	442	517	666	815			
			Break	710			522	769	892	1016	1263	1511			
CP/S-055-250*/CA	5.6	12	End	<b>448</b>	<b>396</b>	<b>601</b>	<b>806</b>	<b>1215</b>	<b>1420</b>						
			45°	342	321	438	554	787	903						
			Break	710	692	885	1078	1464	1657						
CP/S-055-280*/CA	4.4	12	End	<b>448</b>	<b>709</b>	<b>966</b>	<b>1222</b>								
			45°	342	499	645	791								
			Break	710	986	1229	1471								
CP/S-055-200*/DB	9	12	End	<b>508</b>				<b>268</b>	<b>399</b>	<b>530</b>	<b>792</b>	<b>1054</b>	<b>1316</b>		
			45°	413				289	364	438	587	736	885		
			Break	890				707	830	954	1201	1448	1696		
CP/S-055-250*/DA	5.7	12	End	<b>508</b>	<b>186</b>	<b>391</b>	<b>595</b>	<b>1005</b>	<b>1210</b>						
			45°	413	243	359	475	708	825						
			Break	890	630	823	1016	1402	1595						
CP/S-055-280*/DA	4.5	12	End	<b>508</b>	<b>498</b>	<b>755</b>	<b>1012</b>								
			45°	413	420	566	712								
			Break	890	924	1167	1409								
CP/S-055-250*/EA	6	12	End	<b>620</b>		<b>189</b>	<b>394</b>	<b>803</b>	<b>1008</b>	<b>1213</b>					
			45°	496		266	383	616	732	849					
			Break	1062		705	898	1285	1478	1671					
CP/S-055-280*/EA	4.8	12	End	<b>620</b>	<b>297</b>	<b>554</b>	<b>811</b>								
			45°	496	328	474	620								
			Break	1062	807	1049	1291								

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**CP and Cp V.1 - SPRING RETURN  
RANGE METRIC TORQUE DATA**

**CP 65** Maximum Operating Torque 4500 Nm

MODEL	MOP	MAWP	Position	Spring	OUTPUT Nm at bar										
					3.0	3.5	4.0	5.0	5.5	6.0	7.0	8.0	9.0	10.0	12.0
CP/S-065-250*/AA	11.1	12	End	<b>636</b>	<b>248</b>	<b>493</b>	<b>738</b>	<b>1227</b>	<b>1472</b>	<b>1717</b>	<b>2206</b>	<b>2696</b>	<b>3185</b>	<b>3675</b>	
			45°	495	288	427	567	845	984	1123	1402	1680	1958	2237	
			Break	1041	722	953	1184	1645	1876	2107	2569	3030	3492	3954	
CP/S-065-280*/AA	8.9	12	End	<b>636</b>	<b>622</b>	<b>929</b>	<b>1236</b>	<b>1850</b>	<b>2157</b>	<b>2464</b>	<b>3078</b>	<b>3692</b>			
			45°	495	501	675	850	1199	1374	1548	1897	2246			
			Break	1041	1074	1364	1653	2233	2522	2812	3391	3970			
CP/S-065-250*/BA	11.6	12	End	<b>854</b>			<b>293</b>	<b>782</b>	<b>1027</b>	<b>1272</b>	<b>1761</b>	<b>2251</b>	<b>2740</b>	<b>3230</b>	
			45°	671			371	650	789	928	1207	1485	1763	2042	
			Break	1421			956	1418	1649	1880	2341	2803	3265	3726	
CP/S-065-280*/BA	9.3	12	End	<b>854</b>		<b>484</b>	<b>791</b>	<b>1405</b>	<b>1712</b>	<b>2019</b>	<b>2633</b>	<b>3247</b>	<b>3861</b>		
			45°	671		480	655	1004	1178	1353	1702	2051	2401		
			Break	1421		1136	1426	2005	2295	2584	3163	3743	4322		
CP/S-065-280*/CA	9.7	12	End	<b>1102</b>			<b>340</b>	<b>954</b>	<b>1261</b>	<b>1568</b>	<b>2182</b>	<b>2797</b>	<b>3411</b>		
			45°	858			449	798	973	1147	1496	1846	2195		
			Break	1806			1168	1747	2037	2326	2906	3485	4064		
CP/S-065-335*/CA	6.8	12	End	<b>1102</b>	<b>521</b>	<b>961</b>	<b>1400</b>	<b>2279</b>	<b>2719</b>	<b>3158</b>					
			45°	858	552	802	1051	1551	1801	2051					
			Break	1806	1339	1753	2168	2997	3411	3826					
CP/S-065-385*/CA	5.1	10.5	End	<b>1102</b>	<b>1367</b>	<b>1947</b>	<b>2528</b>	<b>3689</b>							
			45°	858	1033	1363	1693	2353							
			Break	1806	2136	2684	3231	4326							
CP/S-065-280*/DA	10.3	12	End	<b>1459</b>					<b>444</b>	<b>751</b>	<b>1366</b>	<b>1980</b>	<b>2594</b>	<b>3208</b>	
			45°	1169					628	803	1152	1501	1850	2199	
			Break	2503					1664	1954	2533	3112	3691	4270	
CP/S-065-335*/DA	7.2	12	End	<b>1459</b>			<b>583</b>	<b>1462</b>	<b>1902</b>	<b>2341</b>	<b>3220</b>				
			45°	1169			707	1207	1457	1706	2206				
			Break	2503			1795	2624	3038	3453	4282				
CP/S-065-385*/DA	5.4	10.5	End	1459	550	1130	1711	2872							
			45°	1169	688	1018	1348	2008							
			Break	2503	1764	2311	2859	3954							
CP/S-065-385*/EA	5.8	10.5	End	<b>1822</b>		<b>607</b>	<b>1187</b>	<b>2348</b>	<b>2929</b>						
			45°	1407		755	1085	1745	2075						
			Break	2950		1933	2480	3575	4123						

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**Cp and Cp V.1 - SPRING RETURN  
RANGE IMPERIAL TORQUE DATA**

**CP 35** Maximum Operating Torque 2,655 lbf-in

MODEL	MOP	MAWP	Position	Spring	OUTPUT lbf-in at psi										
					40	50	60	70	80	90	100	110	125	150	174
CP/S-035-080*/AA	174	174	End	269	155	314	473	633	792	949	1,108	1,267	1,508	1,905	2,288
CP/S-035-080*/AL			45°	200	141	231	322	412	503	592	683	773	910	1,136	1,354
			Break	412	321	471	621	772	922	1,070	1,220	1,370	1,597	1,971	2,333
CP/S-035-100*/AA	125	174	End	269	513	762	1,011	1,260	1,509	1,754	2,003	2,252	2,627		
CP/S-035-100*/AL			45°	200	345	486	628	769	911	1,050	1,192	1,333	1,546		
			Break	412	659	894	1,128	1,363	1,598	1,829	2,064	2,299	2,653		
CP/S-035-080*/BA	174	174	End	511				179	338	495	655	814	1,054	1,451	1,834
CP/S-035-080*/BL			45°	386				207	298	387	478	568	705	931	1,149
			Break	799				519	669	817	968	1,118	1,344	1,719	2,080
CP/S-035-100*/BA	135	174	End	511		309	557	806	1,055	1,300	1,549	1,798	2,173		
CP/S-035-100*/BL			45°	386		281	423	564	706	845	987	1,128	1,341		
			Break	799		641	876	1,111	1,345	1,577	1,811	2,046	2,400		
CP/S-035-100*/CB	145	174	End	742			167	416	664	910	1,159	1,408	1,783		
CP/S-035-100*/CM			45°	552			239	380	522	661	803	944	1,158		
			Break	1,132			635	869	1,104	1,335	1,570	1,805	2,159		
CP/S-035-130*/CA	86	174	End	742	356	776	1,197	1,618							
CP/S-035-130*/CL			45°	552	346	585	825	1,064							
			Break	1,132	813	1,210	1,606	2,003							
CP/S-035-140*/CA	74	174	End	742	625	1,112	1,600								
CP/S-035-140*/CL			45°	552	499	776	1,054								
			Break	1,132	1,067	1,527	1,987								
CP/S-035-100*/DB	151	174	End	867						452	700	949	1,324		
CP/S-035-100*/DM			45°	706							492	633	775	988	
			Break	1,523						1,206	1,440	1,675	2,029		
CP/S-035-130*/DA	88.5	174	End	867		318	739	1,159	1,580						
CP/S-035-130*/DL			45°	706		416	655	894	1,134						
			Break	1,523		1,080	1,477	1,873	2,270						
CP/S-035-140*/DA	77	174	End	867		654	1,142	1,630							
CP/S-035-140*/DL			45°	706		607	884	1,162							
			Break	1,523		1,397	1,857	2,317							
CP/S-035-130*/EA	94	174	End	1,044			594	1,015	1,435						
CP/S-035-130*/EL			45°	793			558	798	1,037						
			Break	1,647			1,292	1,689	2,086						
CP/S-035-140*/EA	81	174	End	1,044		509	997	1,485							
CP/S-035-140*/EL			45°	793		510	788	1,065							
			Break	1,647		1,213	1,673	2,133							

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**Cp and Cp V.1 - SPRING RETURN  
RANGE IMPERIAL TORQUE DATA**

**CP 45** Maximum Operating Torque 7,080 lbf-in

MODEL	MOP	MAWP	Position	Spring	OUTPUT lbf-in at psi										
					40	50	60	70	80	90	100	110	125	150	174
CP/S-045-120*/AA	174	174	End	994		386	852	1,318	1,784	2,244	2,710	3,176	3,878	5,040	6,162
CP/S-045-120*/AL			45°	783		460	725	990	1,255	1,516	1,781	2,047	2,446	3,107	3,744
			Break	1,660		1,162	1,602	2,041	2,481	2,914	3,354	3,794	4,456	5,552	6,610
CP/S-045-140*/AA	135	174	End	994	593	1,227	1,862	2,496	3,131	3,756	4,391	5,025	5,981		
CP/S-045-140*/AL			45°	783	578	939	1,299	1,660	2,021	2,376	2,737	3,098	3,642		
			Break	1,660	1,358	1,956	2,554	3,153	3,751	4,341	4,939	5,538	6,440		
CP/S-045-120*/BA	174	174	End	1,323			672	1,138	1,597	2,063	2,530	3,232	4,394	5,516	
CP/S-045-120*/BL			45°	1,043			703	968	1,229	1,494	1,759	2,159	2,820	3,457	
			Break	2,211			1,698	2,138	2,571	3,011	3,450	4,113	5,209	6,267	
CP/S-045-140*/BA	141	174	End	1,323		581	1,216	1,850	2,485	3,110	3,744	4,379	5,335		
CP/S-045-140*/BL			45°	1,043		651	1,012	1,373	1,734	2,089	2,450	2,811	3,355		
			Break	2,211		1,613	2,211	2,809	3,408	3,998	4,596	5,194	6,096		
CP/S-045-140*/CB	149	174	End	1,863			802	1,437	2,062	2,697	3,331	4,287	5,869		
CP/S-045-140*/CM			45°	1,466			905	1,266	1,622	1,983	2,343	2,887	3,786		
			Break	3,105			2,247	2,845	3,435	4,034	4,632	5,534	7,026		
CP/S-045-180*/CA	90	174	End	1,863	556	1,605	2,654	3,703	4,752	5,785					
CP/S-045-180*/CL			45°	1,466	766	1,362	1,958	2,555	3,151	3,739					
			Break	3,105	2,015	3,004	3,993	4,983	5,972	6,947					
CP/S-045-200*/CA	72.5	174	End	1,863	1,540	2,835	4,130	5,425							
CP/S-045-200*/CL			45°	1,466	1,325	2,061	2,798	3,534							
			Break	3,105	2,943	4,164	5,386	6,607							
CP/S-045-140*/DB	155	174	End	2,187					684	1,309	1,944	2,578	3,534	5,116	
CP/S-045-140*/DM			45°	1,751					950	1,306	1,667	2,028	2,571	3,471	
			Break	3,748					2,508	3,098	3,696	4,294	5,196	6,688	
CP/S-045-180*/DA	94	174	End	2,187		852	1,901	2,950	3,999	5,032					
CP/S-045-180*/DL			45°	1,751		1,046	1,643	2,239	2,835	3,423					
			Break	3,748		2,667	3,656	4,645	5,634	6,609					
CP/S-045-200*/DA	75	174	End	2,187	788	2,082	3,377	4,672							
CP/S-045-200*/DL			45°	1,751	1,009	1,746	2,482	3,218							
			Break	3,748	2,606	3,827	5,048	6,269							
CP/S-045-180*/EA	99	174	End	2,635			1,123	2,172	3,221	4,254					
CP/S-045-180*/EL			45°	2,079			1,280	1,877	2,473	3,061					
			Break	4,412			3,188	4,177	5,167	6,141					
CP/S-045-200*/EA	80	174	End	2,635		1,304	2,599	3,894	5,189						
CP/S-045-200*/EL			45°	2,079		1,383	2,120	2,856	3,592						
			Break	4,412		3,359	4,580	5,802	7,023						

\* SEAL MATERIAL CODE: A (-30°C+100°C) - NBR, B (-20°C+160°C) - VITON, C (-40°C+160°C) - FLUOROSILICONE



**Cp and Cp V.1 - SPRING RETURN  
RANGE IMPERIAL TORQUE DATA**

**CP 55** Maximum Operating Torque 15,046 lbf-in

MODEL	MOP	MAWP	Position	Spring	OUTPUT lbf-in at psi											
					40	50	60	70	80	90	100	110	125	150	174	
CP/S-055-160*/AA	174	174	End	<b>2,496</b>			<b>1,726</b>	<b>2,750</b>	<b>3,775</b>	<b>4,784</b>	<b>5,809</b>	<b>6,833</b>	<b>8,377</b>	<b>10,931</b>	<b>13,396</b>	
			45°	1,847			1,454	2,037	2,619	3,193	3,776	4,358	5,236	6,689	8,090	
			Break	3,773			3,196	4,162	5,128	6,081	7,047	8,013	9,469	11,878	14,203	
CP/S-055-200*/AA	116	174	End	<b>2,496</b>	<b>1,982</b>	<b>3,583</b>	<b>5,183</b>	<b>6,784</b>	<b>8,385</b>	<b>9,962</b>	<b>11,563</b>	<b>13,164</b>				
			45°	1,847	1,600	2,510	3,420	4,330	5,241	6,138	7,048	7,958				
			Break	3,773	3,437	4,947	6,457	7,967	9,476	10,964	12,474	13,984				
CP/S-055-160*/BA	174	174	End	<b>3,209</b>				<b>811</b>	<b>1,836</b>	<b>2,845</b>	<b>3,870</b>	<b>4,894</b>	<b>6,438</b>	<b>8,992</b>	<b>11,457</b>	
			45°	2,548				1,261	1,844	2,418	3,000	3,583	4,461	5,913	7,315	
			Break	5,427				3,419	4,385	5,337	6,304	7,270	8,726	11,135	13,460	
CP/S-055-200*/BA	122	174	End	<b>3,209</b>		<b>1,644</b>	<b>3,244</b>	<b>4,845</b>	<b>6,446</b>	<b>8,023</b>	<b>9,624</b>	<b>11,225</b>				
			45°	2,548		1,735	2,645	3,555	4,465	5,362	6,273	7,183				
			Break	5,427		4,204	5,714	7,224	8,733	10,221	11,731	13,241				
CP/S-055-200*/CB	126	174	End	<b>3,967</b>			<b>2,236</b>	<b>3,837</b>	<b>5,437</b>	<b>7,015</b>	<b>8,616</b>	<b>10,217</b>	<b>12,629</b>			
			45°	3,023			2,120	3,030	3,940	4,837	5,748	6,658	8,030			
			Break	6,288			4,924	6,433	7,943	9,431	10,941	12,451	14,726			
CP/S-055-250*/CA	81	174	End	<b>3,967</b>	<b>2,636</b>	<b>5,137</b>	<b>7,638</b>	<b>10,140</b>	<b>12,641</b>							
			45°	3,023	2,347	3,770	5,192	6,614	8,036							
			Break	6,288	5,301	7,660	10,019	12,378	14,737							
CP/S-055-280*/CA	64	174	End	<b>3,967</b>	<b>5,181</b>	<b>8,319</b>	<b>11,456</b>									
			45°	3,023	3,795	5,579	7,363									
			Break	6,288	7,702	10,661	13,620									
CP/S-055-200*/DB	130.5	174	End	<b>4,494</b>				<b>1,975</b>	<b>3,576</b>	<b>5,154</b>	<b>6,754</b>	<b>8,355</b>	<b>10,768</b>			
			45°	3,652				2,335	3,246	4,143	5,053	5,963	7,335			
			Break	7,876				5,884	7,394	8,882	10,392	11,901	14,177			
CP/S-055-250*/DA	83	174	End	<b>4,494</b>		<b>3,276</b>	<b>5,777</b>	<b>8,278</b>	<b>10,780</b>							
			45°	3,652		3,075	4,497	5,919	7,342							
			Break	7,876		7,111	9,470	11,829	14,188							
CP/S-055-280*/DA	65	174	End	<b>4,494</b>	<b>3,320</b>	<b>6,457</b>	<b>9,595</b>									
			45°	3,652	3,100	4,884	6,668									
			Break	7,876	7,152	10,111	13,071									
CP/S-055-250*/EA	87	174	End	<b>5,491</b>		<b>1,492</b>	<b>3,993</b>	<b>6,494</b>	<b>8,995</b>							
			45°	4,394		2,254	3,677	5,099	6,521							
			Break	9,399		6,072	8,431	10,790	13,149							
CP/S-055-280*/EA	70	174	End	<b>5,491</b>	<b>1,536</b>	<b>4,673</b>	<b>7,811</b>									
			45°	4,394	2,279	4,064	5,848									
			Break	9,399	6,113	9,072	12,031									

\* SEAL MATERIAL CODE: A (-30°C+100°C) - NBR, B (-20°C+160°C) - VITON, C (-40°C+160°C) - FLUOROSILICONE



**Cp and Cp V.1 - SPRING RETURN  
RANGE IMPERIAL TORQUE DATA**

**CP 65** Maximum Operating Torque 39,829 lbf-in

MODEL	MOP	MAWP	Position	Spring	OUTPUT lbf-in at psi										
					40	50	60	70	80	90	100	110	125	150	174
CP/S-065-250*/AA	161	174	End	<b>5,631</b>		<b>4,147</b>	<b>7,137</b>	<b>10,126</b>	<b>13,116</b>	<b>16,062</b>	<b>19,052</b>	<b>22,041</b>	<b>26,547</b>	<b>33,999</b>	
			45°	4,379		3,659	5,359	7,059	8,759	10,435	12,135	13,835	16,397	20,634	
			Break	9,217		8,228	11,048	13,867	16,687	19,466	22,285	25,105	29,355	36,384	
CP/S-065-280*/AA	129	174	End	<b>5,631</b>	<b>4,200</b>	<b>7,950</b>	<b>11,700</b>	<b>15,450</b>	<b>19,200</b>	<b>22,896</b>	<b>26,646</b>	<b>30,396</b>	<b>36,048</b>		
			45°	4,379	3,689	5,822	7,954	10,087	12,219	14,321	16,453	18,585	21,799		
			Break	9,217	8,278	11,815	15,352	18,889	22,426	25,911	29,448	32,985	38,316		
CP/S-065-250*/BA	168	174	End	<b>7,561</b>		<b>3,197</b>	<b>6,186</b>	<b>9,176</b>	<b>12,122</b>	<b>15,111</b>	<b>18,101</b>	<b>22,607</b>	<b>30,059</b>		
			45°	5,942		3,633	5,333	7,033	8,708	10,408	12,108	14,670	18,908		
			Break	12,579		9,036	11,855	14,675	17,454	20,273	23,093	27,343	34,371		
CP/S-065-280*/BA	135	174	End	<b>7,561</b>	<b>4,010</b>	<b>7,760</b>	<b>11,510</b>	<b>15,260</b>	<b>18,956</b>	<b>22,706</b>	<b>26,456</b>	<b>32,108</b>			
			45°	5,942	4,095	6,227	8,360	10,492	12,594	14,726	16,859	20,073			
			Break	12,579	9,803	13,340	16,876	20,413	23,899	27,436	30,973	36,304			
CP/S-065-280*/CA	141	174	End	<b>9,751</b>		<b>3,773</b>	<b>7,523</b>	<b>11,273</b>	<b>14,969</b>	<b>18,719</b>	<b>22,469</b>	<b>28,122</b>			
			45°	7,590		4,406	6,538	8,671	10,772	12,905	15,037	18,251			
			Break	15,981		11,056	14,593	18,130	21,616	25,153	28,690	34,021			
CP/S-065-335*/CA	99	174	End	<b>9,751</b>	<b>2,745</b>	<b>8,113</b>	<b>13,481</b>	<b>18,849</b>	<b>24,217</b>	<b>29,507</b>					
			45°	7,590	3,821	6,873	9,926	12,978	16,031	19,039					
			Break	15,981	10,086	15,149	20,212	25,275	30,338	35,328					
CP/S-065-385*/CA	74	152	End	<b>9,751</b>	<b>9,633</b>	<b>16,723</b>	<b>23,813</b>	<b>30,903</b>							
			45°	7,590	7,738	11,769	15,801	19,832							
			Break	15,981	16,583	23,270	29,957	36,644							
CP/S-065-280*/DA	149	174	End	<b>12,916</b>					<b>4,042</b>	<b>7,738</b>	<b>11,488</b>	<b>15,238</b>	<b>20,891</b>	<b>30,239</b>	
			45°	10,350					5,620	7,722	9,854	11,987	15,201	20,516	
			Break	22,151					14,832	18,318	21,854	25,391	30,722	39,539	
CP/S-065-335*/DA	105	174	End	<b>12,916</b>		<b>6,250</b>	<b>11,618</b>	<b>16,986</b>	<b>22,276</b>	<b>27,644</b>					
			45°	10,350		6,876	9,928	12,980	15,989	19,041					
			Break	22,151		16,914	21,977	27,040	32,029	37,092					
CP/S-065-385*/DA	78	152	End	<b>12,916</b>	<b>9,492</b>	<b>16,582</b>	<b>23,672</b>								
			45°	10,350	8,719	12,751	16,782								
			Break	22,151	19,971	26,658	33,345								
CP/S-065-385*/EA	84	152	End	<b>16,129</b>	<b>4,856</b>	<b>11,946</b>	<b>19,036</b>	<b>26,126</b>							
			45°	12,456	6,391	10,423	14,454	18,486							
			Break	26,107	16,622	23,309	29,996	36,683							

\* SEAL MATERIAL CODE: A (-30°C+100°C) - NBR, B (-20°C+160°C) - VITON, C (-40°C+160°C) - FLUOROSILICONE



**CP - DOUBLE ACTING  
RANGE METRIC TORQUE DATA**

**CP 35** Maximum Operating Torque 300 Nm

MODEL	MOP	MAWP	Position	OUTPUT Nm at bar									
				3.0	3.5	4.0	5.0	5.5	6.0	7.0	8.0	9.0	10.0
CP/D-035-080*/A	11.5	12	End	78	91	104	130	143	157	183	209	235	261
			45°	45	52	59	74	82	89	104	119	134	148
			Break	72	84	95	119	131	143	167	191	215	239
CP/D-035-100*/A	7.3	12	End	122	143	163	204	224	245	285			
			45°	70	81	93	116	127	139	162			
			Break	112	131	149	186	205	224	261			
CP/D-035-130*/A	4.3	12	End	207	241	276							
			45°	118	137	157							
			Break	189	221	252							
CP/D-035-140*/A	3.7	12	End	240	280								
			45°	136	159								
			Break	219	256								

**CP 45** Maximum Operating Torque 800 Nm

MODEL	MOP	MAWP	Position	OUTPUT Nm at bar									
				3.0	3.5	4.0	5.0	5.5	6.0	7.0	8.0	9.0	10.0
CP/D-045-120*/A	10.4	12	End	229	267	305	382	420	458	534	611	687	764
			45°	130	152	174	217	239	260	304	347	391	434
			Break	210	244	279	349	384	419	489	559	629	698
CP/D-045-140*/A	7.6	12	End	312	364	416	520	572	624	727			
			45°	177	207	236	295	325	355	414			
			Break	285	333	380	475	523	570	666			
CP/D-045-180*/A	4.6	12	End	515	601	687							
			45°	293	342	391							
			Break	471	550	629							
CP/D-045-200*/A	3.7	12	End	636	742								
			45°	362	422								
			Break	582	679								

\* SEAL MATERIAL CODE: A (-30°C+100°C) - NBR, B (-20°C+160°C) - VITON, C (-40°C+160°C) - FLUOROSILICONE

**CP - DOUBLE ACTING  
RANGE METRIC TORQUE DATA**

**CP 55** Maximum Operating Torque 1700 Nm

MODEL	MOP	MAWP	Position	OUTPUT Nm at bar									
				3.0	3.5	4.0	5.0	5.5	6.0	7.0	8.0	9.0	10.0
CP/D-055-160*/A	10.1	12	End	503	587	671	839	923	1007	1175	1342	1510	1678
			45°	286	334	382	477	525	573	668	763	859	954
			Break	461	537	614	768	844	921	1075	1228	1382	1535
CP/D-055-200*/A	6.4	12	End	780	918	1049	1311	1439	1573				
			45°	447	522	596	745	895	895				
			Break	720	840	959	1199	1319	1439				
CP/D-055-250*/A	4.1	12	End	1229	1434	1639							
			45°	699	815	932							
			Break	1124	1312	1499							
CP/D-055-280*/A	3.3	12	End	1410									
			45°	877									
			Break	1542									

**CP 65** Maximum Operating Torque 4500 Nm

MODEL	MOP	MAWP	Position	OUTPUT Nm at bar									
				3.0	3.5	4.0	5.0	5.5	6.0	7.0	8.0	9.0	10.0
CP/D-065-250*/A	9.1	12	End	1469	1714	1959	2448	2693	2938	3428	3917	4407	
			45°	835	975	1114	1392	1531	1671	1949	2227	2506	
			Break	1344	1568	1792	2240	2464	2688	3136	3584	4032	
CP/D-065-280*/A	7.3	12	End	1843	2150	2457	3071	3378	3685	4300			
			45°	1048	1222	1397	1746	1921	2096	2445			
			Break	1686	1967	2248	2810	3091	3372	3934			
CP/D-065-335*/A	5.1	12	End	2638	3077	3517	4396						
			45°	1500	1750	2000	2500						
			Break	2413	2815	3218	4022						
CP/D-065-385*/A	3.9	10.5	End	3455	4031								
			45°	1965	2292								
			Break	3161	3688								

\* SEAL MATERIAL CODE: A (-30°C+100°C) - NBR, B (-20°C+160°C) - VITON, C (-40°C+160°C) - FLUOROSILICONE



**CP - DOUBLE ACTING  
RANGE IMPERIAL TORQUE DATA**

**CP 35** Maximum Operating Torque 2,655 lbf-in

MODEL	MOP	MAWP	Position	OUTPUT lbf-in at psi										
				40	50	60	70	80	90	100	110	125	150	174
CP/D-035-080*/A	167	174	End	637	797	956	1,115	1,275	1,434	1,593	1,752	1,991	2,186	
			45°	363	451	540	637	726	814	903	991	1,133	1,354	
			Break	584	726	876	1,018	1,168	1,310	1,452	1,602	1,823	2,390	
CP/D-035-100*/A	106	174	End	1,000	1,248	1,496	1,744	1,991	2,239	2,487				
			45°	566	708	850	991	1,133	1,275	1,416				
			Break	912	1,142	1,363	1,593	1,823	2,053	2,275				
CP/D-035-130*/A	62	174	End	1,682	2,107	2,523								
			45°	956	1,195	1,434								
			Break	1,540	1,921	2,310								
CP/D-035-140*/A	54	174	End	1,956	2,443									
			45°	1,106	1,390									
			Break	1,788	2,230									

**CP 45** Maximum Operating Torque 7,080 lbf-in

MODEL	MOP	MAWP	Position	OUTPUT lbf-in at psi										
				40	50	60	70	80	90	100	110	125	150	174
CP/D-045-120*/A	151	174	End	1,868	2,328	2,797	3,266	3,726	4,195	4,656	5,125	5,824	6,983	
			45°	1,062	1,328	1,593	1,859	2,124	2,390	2,646	2,912	3,310	3,974	
			Break	1,708	2,133	2,558	2,983	3,416	3,841	4,257	4,682	5,328	6,390	
CP/D-045-140*/A	110	174	End	2,540	3,178	3,806	4,443	5,080	5,709	6,337	6,975			
			45°	1,443	1,806	2,168	2,523	2,885	3,248	3,602	3,965			
			Break	2,319	2,903	3,487	4,063	4,647	5,222	5,797	6,382			
CP/D-045-180*/A	67	174	End	4,195	5,249	6,293								
			45°	2,390	2,983	3,576								
			Break	3,841	4,797	5,762								
CP/D-045-200*/A	54	174	End	5,178	6,479									
			45°	2,947	3,682									
			Break	4,744	5,921									

\* SEAL MATERIAL CODE: A (-30°C+100°C) - NBR, B (-20°C+160°C) - VITON, C (-40°C+160°C) - FLUROSILICONE



**CP - DOUBLE ACTING  
RANGE IMPERIAL TORQUE DATA**

**CP 55** Maximum Operating Torque 15,046 lbf-in

MODEL	MOP	MAWP	Position	OUTPUT lbf-in at psi										
				40	50	60	70	80	90	100	110	125	150	174
CP/D-055-160*/A	147	174	End	4,098	5,125	6,151	7,169	8,196	9,223	10,232	11,258	12,799	15,356	
			45°	2,328	2,912	3,496	4,080	4,664	5,249	5,815	6,399	7,284	8,736	
			Break	3,753	4,691	5,629	6,559	7,497	8,435	9,364	10,303	11,710	14,047	
CP/D-055-200*/A	93	174	End	6,408	8,010	9,603	11,205	12,807	14,409					
			45°	3,638	4,549	5,461	6,373	7,284	8,196					
			Break	5,859	7,329	8,789	10,258	11,719	13,188					
CP/D-055-250*/A	59	174	End	10,010	12,506									
			45°	5,691	7,116									
			Break	9,152	11,444									
CP/D-055-280*/A	48	174	End	12,551										
			45°	7,143										
			Break	11,489										

**CP 65** Maximum Operating Torque 39,829 lbf-in

MODEL	MOP	MAWP	Position	OUTPUT lbf-in at psi										
				40	50	60	70	80	90	100	110	125	150	174
CP/D-065-250*/A	132	174	End	11,958	14,949	17,941	20,933	23,924	26,916	29,863	32,855	37,360		
			45°	6,798	8,506	10,205	11,905	13,604	15,303	16,976	18,684	21,242		
			Break	10,940	13,684	16,419	19,118	21,889	24,623	27,323	30,058	34,183		
CP/D-065-280*/A	106	174	End	15,002	18,755	22,508	26,261	30,014	33,758	37,457				
			45°	8,532	10,665	12,799	14,932	17,065	19,198	21,296				
			Break	13,728	17,162	20,587	24,022	27,456	30,890	34,271				
CP/D-065-335*/A	74	174	End	21,481	26,845	32,218	37,590							
			45°	12,214	15,268	18,322	21,375							
			Break	19,649	24,562	29,474	34,386							
CP/D-065-385*/A	57	152	End	28,137	35,165									
			45°	15,994	19,994									
			Break	25,739	32,173									

\* SEAL MATERIAL CODE: A (-30°C+100°C) - NBR, B (-20°C+160°C) - VITON, C (-40°C+160°C) - FLUOROSILICONE