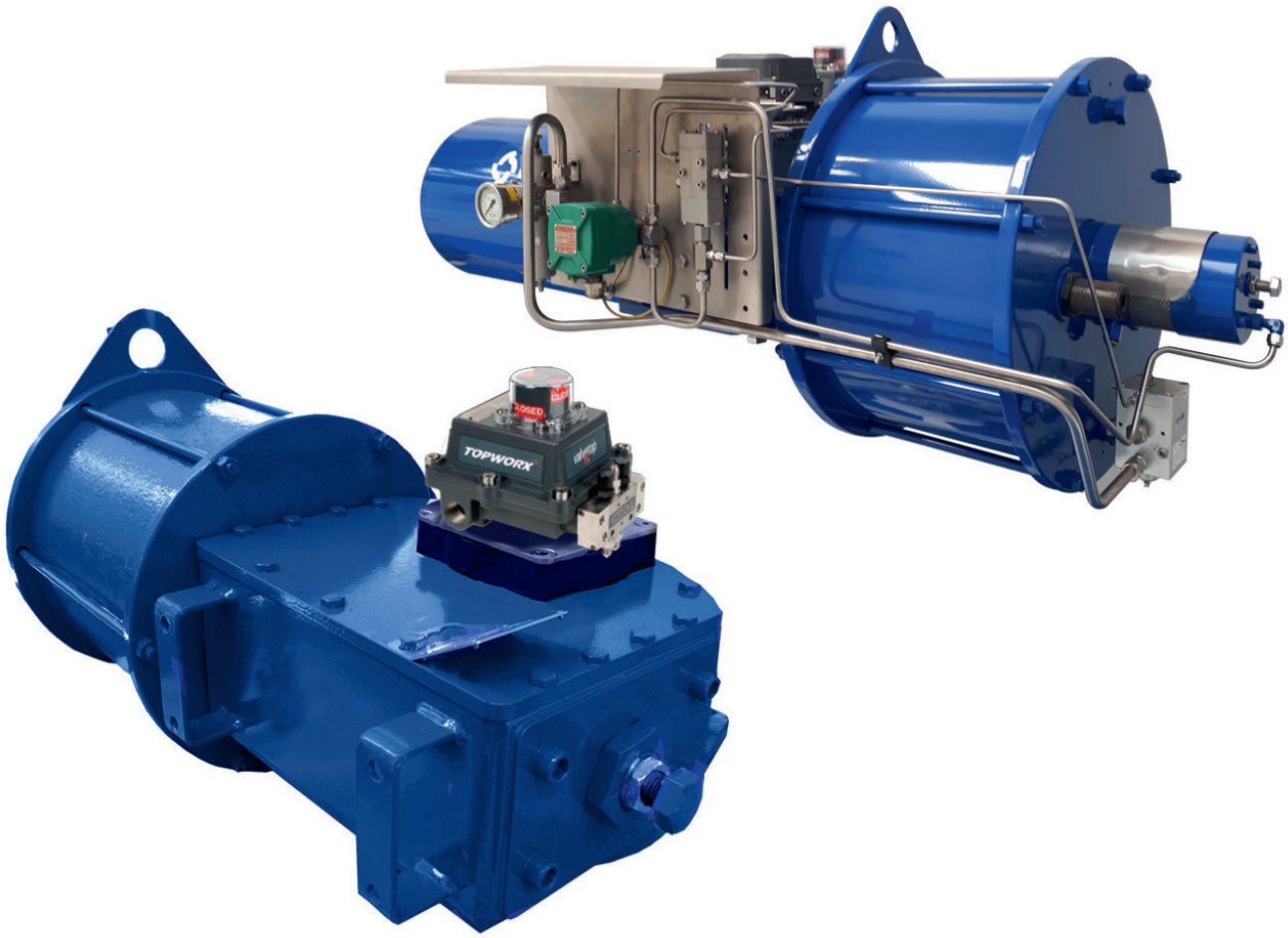
Product Data Sheet
VCTDS-02694-EN Rev. 7
November 2024

Biffi ALGA/ALGAS/ALGAS-QA Pneumatic Actuators

Scotch Yoke Design

Double-acting and spring-return pneumatic quarter-turn actuators for on-off and modulating control of valves in heavy-duty service. Available for output torques to 1,000,000 Nm.



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General Application

ALGA, ALGAS and ALGAS-QA pneumatic actuators are designed for on-off or modulating control of quarter-turn ball, butterfly, plug or damper style valves.

Technical Data

Design pressure (MAWP):	up to 12 barg
Supply medium:	Air, nitrogen or sweet gas
	Sour gas version available

Output torque

ALGA:	Double-acting torque up to 1000000 Nm
ALGAS/ALGAS-QA:	Spring starting torque up to 335000 Nm
	Spring end torque up to 235000 Nm

Ambient temperature

Standard range:	-20 to +100 °C / -4 to +210 °F
Extended temperature:	-60 to +135 °C / -70 to +275 °F

MAWP:	Maximum Allowable Working Pressure is the pressure defined for the design of the actuator pressure containing parts.
MOP:	Maximum Operating Pressure is the pressure that generates the torque used to engineer the mechanical loaded parts of the actuator and it is the one required to produce the design torque of the actuator.

Features

- Totally enclosed, weatherproof housing in fabricated carbon steel for maximum strength.
- Guide bar resists transverse loads and supports the piston rod.
- Hard chromium plated alloy steel material guarantees corrosion protection and minimal friction.
- Polytetrafluoroethylene (PTFE)-impregnated bronze or sintered bronze bushings provide minimal friction and extended service life.
- Scotch yoke design with canted or symmetric torque arm allows close working to distinctive valve torque profiles.
- External travel stops for precise angular stroke adjustment 90° ±4° at each end of travel.
- Electroless nickel plated and polished cylinder provides maximum corrosion resistance and reduces friction.
- Floating type piston seals provide low hysteresis and high sensitivity, preventing sticking problems.
- ALGAS spring-return pack incorporates up to four springs, fully encapsulated in a factory welded cartridge ensuring personnel safety and simplifying assembly.
- ALGAS spring action can be changed easily in the field from to close to open or vice versa.
- Special coatings for offshore or corrosive environments.

Approvals

Safety Integrity Level: (IEC 61508-1÷7:2010)	SIL 3
Area Classification: (ATEX)	II 2GD
Enclosure standards:	
(IEC 60529)	IP66, IP66M, IP67M
(ANSI/NEMA 250)	NEMA 4, 4X, 6
Pressure Equipment Directive:	2014/68/EU
Machinery Directive:	2006/42/EC

Figure 1. ALGA Double-Acting

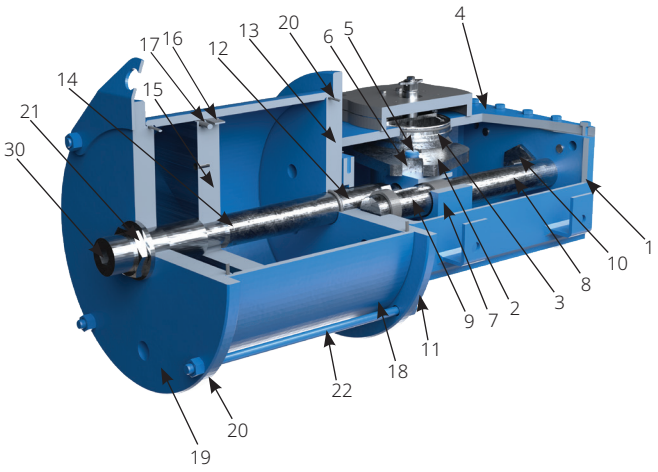


Figure 2. ALGAS Spring-Return

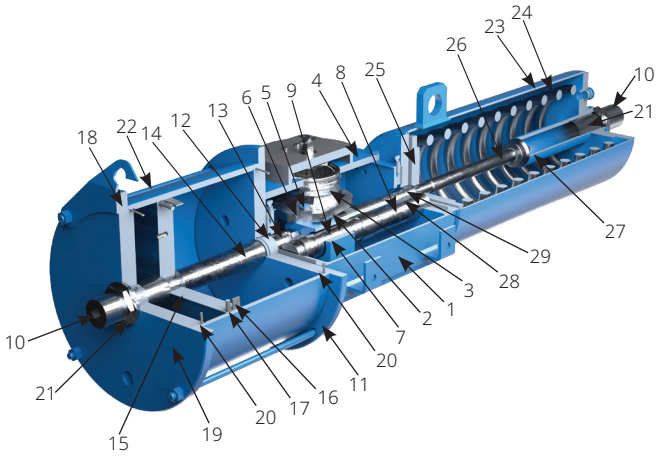


Table 1. Materials

	Part	Material
1	Housing	Carbon steel
2	Yoke	Carbon steel
3	Yoke bushing	Bronze
4	Cover	Carbon steel
5	Guide block pin	Alloy steel
6	Sliding block	Bronze
7	Guide block	Carbon steel
8	Guide bar	Alloy steel (hard chrome plated)
9	Guide block bushing	Steel + Bronze + PTFE
10	Travel stop screw	Carbon steel
11	Cylinder head flange	Carbon steel
12	Piston rod bushing	Steel + Bronze + PTFE
13	Piston rod seal	Nitrile Butadiene Rubber (NBR)
14	Piston rod	Alloy steel (hard chrome plated)
15	Piston	Carbon steel

	Part	Material
16	Piston guide sliding ring	PTFE + Graphite
17	Piston seal O-ring	NBR
18	Cylinder tube	Carbon steel (ENP)
19	Cylinder end flange	Carbon steel
20	Cylinder seal O-ring	NBR
21	Sealing washer	PVC
22	Tie rod	Alloy steel
23	Spring container	Carbon steel
24	Spring	Carbon steel
25	Spring thrust flange	Carbon steel
26	Guide rod	Alloy steel (hard chrome plated)
27	Guide rod bushing	Steel + Bronze + PTFE
28	Container rod	Alloy steel (hard chrome plated)
29	Container rod bushing	Steel + Bronze + PTFE
30	Travel stop screw	Carbon steel

NOTES:
Mounting brackets and tie rods available in stainless steel as an option.
Fluoroelastomer and fluorosilicone seals available as an option.
BOM is for information only, please refer to factory for more details.

ALGA Double-Acting Pneumatic Actuator Output Torques (Nm)

Canted Yoke Design

Table 2. Models 0.3C-100 to 3C-335

Model	Position	Operating Supply Pressure (barg)																						MOP* (barg)
		3.5		4		4.5		5		5.5		6		7		8		9		10		11		12		
		OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	
0.3C-100	0°	384	398	443	459	501	520	560	581	619	642	677	703	794	825	912	947	1029	1069	1146	1191	1263	1313	1381	1435	12.0
	45°	150	140	173	161	196	183	219	204	241	226	264	247	310	290	356	333	402	376	448	419	494	462	539	505	
	90°	216	194	249	224	282	254	315	283	348	313	381	343	448	402	514	462	580	522	646	581	712	641	778	700	
0.3C-135	0°	709	758	816	873	923	987	1030	1102	1136	1216	1243	1331	1457	1560	1671	1789	1884	2018	2098	2247	2312	2476	2525	2705	12.0
	45°	277	267	319	307	360	348	402	388	444	428	486	469	569	550	653	630	736	711	820	792	903	872	987	953	
	90°	399	370	460	426	520	482	580	538	640	594	700	650	821	761	941	873	1062	985	1182	1097	1303	1209	1423	1320	
0.3C-175	0°	1202	1306	1382	1501	1562	1696	1741	1892	1921	2087	2100	2282	2459	2672	-	-	-	-	-	-	-	-	-	-	7.8
	45°	470	460	540	529	610	598	680	666	750	735	821	804	961	942	-	-	-	-	-	-	-	-	-	-	
	90°	678	637	779	733	880	828	981	923	1082	1019	1184	1114	1386	1305	-	-	-	-	-	-	-	-	-	-	
0.3C-235	0°	2188	2400	2512	2755	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.3
	45°	855	846	982	971	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	1233	1172	1416	1345	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
0.9C-235	0°	2530	2775	2905	3186	3279	3597	3653	4008	4028	4418	4402	4829	5151	5651	5900	6472	6648	7294	7397	8115	8146	8937	-	-	11.0
	45°	989	978	1135	1123	1281	1267	1428	1412	1574	1557	1720	1702	2013	1991	2306	2281	2598	2570	2891	2860	3184	3150	-	-	
	90°	1426	1355	1637	1555	1848	1756	2059	1956	2270	2157	2481	2357	2903	2759	3325	3160	3747	3561	4169	3962	4591	4363	-	-	
0.9C-280	0°	3603	3914	4134	4492	4666	5070	5197	5648	5729	6225	6260	6803	7323	7959	-	-	-	-	-	-	-	-	-	-	7.9
	45°	1408	1379	1616	1583	1824	1787	2031	1990	2239	2194	2447	2398	2862	2805	-	-	-	-	-	-	-	-	-	-	
	90°	2031	1911	2330	2193	2630	2475	2929	2757	3229	3039	3528	3321	4127	3886	-	-	-	-	-	-	-	-	-	-	
1.5C-280	0°	4556	4950	5228	5680	5900	6411	6572	7142	7244	7872	7916	8603	9261	10064	10605	11526	11949	12987	13293	14448	-	-	-	-	10.3
	45°	1781	1744	2043	2002	2306	2259	2569	2517	2831	2774	3094	3032	3620	3547	4145	4062	4670	4577	5196	5092	-	-	-	-	
	90°	2568	2416	2947	2773	3325	3130	3704	3487	4083	3843	4462	4200	5219	4914	5977	5627	6735	6340	7492	7054	-	-	-	-	
1.5C-335	0°	6541	7153	7503	8205	8465	9258	9427	10310	10389	11363	11351	12415	13275	14520	-	-	-	-	-	-	-	-	-	-	7.2
	45°	2557	2521	2933	2892	3309	3263	3685	3634	4061	4005	4437	4376	5189	5117	-	-	-	-	-	-	-	-	-	-	
	90°	3687	3492	4229	4006	4771	4520	5313	5034	5856	5547	6398	6061	7482	7089	-	-	-	-	-	-	-	-	-	-	
1.5C-385	0°	8691	9538	9961	10933	11232	12328	12502	13723	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.4
	45°	3397	3362	3893	3853	4390	4345	4887	4837	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	4898	4657	5614	5338	6330	6019	7047	6700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3C-335	0°	10827	11840	12420	13582	14012	15324	15604	17066	17197	18807	18789	20549	21973	24033	25158	27517	-	-	-	-	-	-	-	-	8.7
	45°	4232	4173	4854	4787	5477	5401	6099	6015	6722	6629	7344	7243	8589	8471	9834	9699	-	-	-	-	-	-	-	-	
	90°	6102	5780	7000	6631	7897	7481	8795	8332	9692	9182	10590	10033	12385	11734	14180	13435	-	-	-	-	-	-	-	-	

NOTE:
* MOP = Maximum Operating Pressure (barg)

Table 3. Models 3C-385 to 6C-585

Model	Position	Operating Supply Pressure (barg)																						MOP* (barg)
		3.5		4		4.5		5		5.5		6		7		8		9		10		11		12		
		OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	
3C-385	0°	14385	15788	16488	18097	18591	20405	20694	22714	22797	25023	24900	27332	-	-	-	-	-	-	-	-	-	-	-	-	
	45°	5623	5564	6445	6378	7267	7192	8089	8006	8911	8820	9733	9633	-	-	-	-	-	-	-	-	-	-	-	-	6.5
	90°	8108	7708	9293	8835	10478	9963	11664	11090	12849	12217	14035	13344	-	-	-	-	-	-	-	-	-	-	-	-	
3C-435	0°	18418	20263	21102	23218	23787	26172	26472	29127	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	45°	7199	7142	8248	8183	9298	9225	10347	10266	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.1
	90°	10381	9893	11894	11336	13407	12778	14920	14221	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3C-485	0°	22962	25306	26299	28985	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	45°	8975	8919	10280	10216	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1
	90°	12942	12355	14823	14151	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6C-485	0°	26844	29586	30746	33886	34648	38187	38550	42488	42452	46789	46354	51090	54158	59691	-	-	-	-	-	-	-	-	-	-	
	45°	10493	10428	12018	11944	13543	13459	15069	14975	16594	16491	18119	18007	21169	21039	-	-	-	-	-	-	-	-	-	-	7.0
	90°	15130	14445	17330	16545	19529	18644	21728	20744	23927	22844	26127	24944	30525	29144	-	-	-	-	-	-	-	-	-	-	
6C-535	0°	32760	36150	37508	41390	42255	46630	47003	51869	51751	57109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	45°	12805	12742	14661	14588	16517	16435	18373	18282	20229	20129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.7
	90°	18464	17650	21140	20208	23817	22766	26493	25325	29169	27883	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6C-585	0°	39169	43264	44846	49534	50523	55805	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	45°	15311	15249	17530	17459	19749	19669	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.8
	90°	22077	21123	25277	24184	28476	27246	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

NOTE:
* MOP = Maximum Operating Pressure (barg)

Table 4. Models 14C-635 to 32C-835

Model	Position	Operating Supply Pressure (barg)																						MOP* (barg)
		3.5		4		4.5		5		5.5		6		7		8		9		10		11		12		
		OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	
14C-635	0°	50441	55473	57752	63513	65062	71554	72373	79594	79683	87635	86994	95676	101614	111757	-	-	-	-	-	-	-	-	-	-	
	45°	19717	19552	22574	22386	25432	25220	28290	28054	31147	30888	34005	33722	39720	39390	-	-	-	-	-	-	-	-	-	-	7.5
	90°	28430	27084	32551	31010	36671	34935	40792	38861	44912	42787	49033	46713	57273	54564	-	-	-	-	-	-	-	-	-	-	
14C-735	0°	67580	74492	77374	85290	87168	96087	96962	106884	106757	117681	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	45°	26416	26256	30244	30062	34073	33867	37901	37673	41730	41478	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.6
	90°	38090	36370	43611	41642	49131	46913	54651	52185	60172	57456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18C-635	0°	58008	63794	66415	73040	74822	82287	83229	91534	91636	100780	100043	110027	116857	128521	133671	147014	150485	165507	-	-	-	-	-	-	
	45°	22674	22485	25961	25744	29247	29003	32533	32262	35819	35522	39105	38781	45678	45299	52250	51817	58823	58336	-	-	-	-	-	-	9.7
	90°	32695	31146	37434	35661	42172	40176	46911	44690	51649	49205	56388	53720	65865	62749	75342	71778	84819	80807	-	-	-	-	-	-	
18C-685	0°	67503	74331	77286	85105	87069	95879	96852	106652	106635	117426	116418	128200	135984	149748	155550	171296	-	-	-	-	-	-	-	-	
	45°	26386	26199	30210	29996	34034	33794	37858	37591	41682	41389	45506	45186	53155	52781	60803	60376	-	-	-	-	-	-	-	-	8.4
	90°	38047	36291	43561	41551	49075	46812	54589	52072	60103	57332	65617	62592	76645	73113	87674	83633	-	-	-	-	-	-	-	-	
18C-735	0°	77717	85666	88980	98083	100243	110500	111507	122916	122770	135333	134033	147750	156560	172583	-	-	-	-	-	-	-	-	-	-	
	45°	30378	30194	34781	34571	39184	38947	43587	43324	47989	47700	52392	52077	61198	60830	-	-	-	-	-	-	-	-	-	-	7.2
	90°	43804	41826	50152	47888	56501	53950	62849	60013	69198	66075	75546	72137	88243	84262	-	-	-	-	-	-	-	-	-	-	
18C2-635	0°	115491	128171	132230	146747	148968	165324	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	45°	45144	45176	51687	51723	58230	58271	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.8
	90°	65095	62578	74529	71648	83964	80718	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18C2-685	0°	134480	149245	153971	170876	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	45°	52567	52604	60186	60228	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.2
	90°	75798	72867	86784	83429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32C-685	0°	79242	87258	90727	99906	102211	112553	113696	125201	125180	137848	136665	150496	159633	175791	182602	201086	205571	226381	228540	251676	251509	276972	274478	302267	
	45°	30975	30755	35464	35213	39953	39671	44442	44129	48931	48587	53421	53045	62399	61960	71377	70876	80356	79792	89334	88708	98312	97623	107291	106539	12.0
	90°	44664	42603	51137	48778	57610	54953	64083	61128	70556	67303	77029	73478	89975	85828	102921	98178	115867	110528	128813	122879	141760	135229	154706	147579	
32C-735	0°	91233	100565	104455	115141	117677	129717	130899	144293	144122	158869	157344	173446	183788	202598	210233	231750	236677	260902	263121	290054	289566	319207	-	-	
	45°	35662	35446	40830	40583	45999	45721	51167	50858	56335	55996	61504	61134	71841	71409	82178	81684	92514	91959	102851	102235	113188	112510	-	-	11.0
	90°	51422	49100	58874	56216	66327	63333	73779	70450	81232	77566	88685	84683	103590	98916	118495	113150	133400	127383	148305	141616	163210	155850	-	-	
32C-835	0°	117747	129990	134812	148831	151877	167671	168941	186512	186006	205353	203071	224193	237201	261875	271330	299556	-	-	-	-	-	-	-	-	
	45°	46026	45817	52696	52458	59367	59099	66037	65739	72708	72380	79378	79021	92719	92302	106060	105584	-	-	-	-	-	-	-	-	8.5
	90°	66366	63466	75985	72665	85603	81864	95221	91063	104840	100261	114458	109460	133695	127858	152932	146255	-	-	-	-	-	-	-	-	

NOTE:
* MOP = Maximum Operating Pressure (barg)

Table 5. Models 32C2-685 to 50C2-1000

Model	Position	Operating Supply Pressure (barg)																								MOP* (barg)
		3.5		4		4.5		5		5.5		6		7		8		9		10		11		12		
		OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	
32C2-685	0°	157868	175201	180749	200594	203630	225987	226511	251380	249391	276773	272272	302166	-	-	-	-	-	-	-	-	-	-	-	-	6.3
	45°	61709	61752	70653	70703	79597	79653	88541	88603	97484	97553	106428	106503	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	88980	85540	101877	97938	114773	110336	127670	122734	140566	135132	153462	147530	-	-	-	-	-	-	-	-	-	-	-	-	
50C-935	0°	164043	181019	187817	207255	211592	233492	235366	259729	259141	285966	282915	312202	330464	364676	378013	417150	-	-	-	-	-	-	-	-	8.6
	45°	64123	63803	73416	73051	82709	82298	92002	91546	101295	100793	110589	110041	129175	128536	147761	147032	-	-	-	-	-	-	-	-	
	90°	92460	88380	105861	101190	119261	114000	132661	126810	146061	139620	159461	152430	186261	178050	213062	203669	-	-	-	-	-	-	-	-	
50C-1000	0°	187644	207211	214839	237243	242034	267276	269229	297309	296423	327342	323618	357374	378008	417440	-	-	-	-	-	-	-	-	-	-	7.5
	45°	73348	73035	83978	83620	94608	94206	105239	104792	115869	115377	126499	125963	147759	147134	-	-	-	-	-	-	-	-	-	-	
	90°	105763	101169	121091	115832	136419	130495	151747	145158	167075	159822	182403	174485	213059	203811	-	-	-	-	-	-	-	-	-	-	
50C-1100	0°	227049	250626	259955	286951	292861	323276	325767	359602	358672	395927	391578	432253	-	-	-	-	-	-	-	-	-	-	-	-	6.2
	45°	88751	88337	101614	101141	114476	113944	127339	126748	140201	139551	153064	152355	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	127973	122366	146520	140101	165067	157837	183614	175572	202161	193308	220708	211043	-	-	-	-	-	-	-	-	-	-	-	-	
50C2-935	0°	327154	363073	374569	415694	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.3
	45°	127881	127971	146415	146519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	184396	177267	211121	202959	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
50C2-1000	0°	374356	415457	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.3
	45°	146332	146435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	211001	202843	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

NOTE:
* MOP = Maximum Operating Pressure (barg)

Table 6. Models 80C-935 to 80C2-1200

Model	Position	Operating Supply Pressure (barg)																								MOP* (barg)
		3.5		4		4.5		5		5.5		6		7		8		9		10		11		12		
		OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	
80C-935	0°	191384	211188	219120	241798	246857	272408	274594	303017	302331	333627	330068	364236	385541	425455	441015	486675	496489	547894	551962	609113	607436	670332	662910	731551	12.0
	45°	74810	74437	85652	85226	96494	96015	107336	106804	118178	117592	129020	128381	150704	149959	172388	171537	194072	193115	215757	214693	237441	236270	259125	257848	
	90°	107871	103111	123504	118056	139138	133000	154771	147945	170405	162890	186038	177835	217305	207725	248572	237614	279839	267504	311106	297394	342373	327284	373640	357173	
80C-1000	0°	218918	241746	250645	276784	282373	311822	314100	346861	345827	381899	377555	416937	441009	487013	504464	557090	567919	627166	631373	697243	-	-	-	-	10.7
	45°	85573	85207	97975	97557	110377	109907	122778	122257	135180	134607	147582	146957	172386	171656	197190	196356	221994	221056	246798	245756	-	-	-	-	
	90°	123390	118030	141273	135137	159156	152244	177038	169351	194921	186459	212804	203566	248569	237780	284334	271994	320100	306208	355865	340422	-	-	-	-	
80C-1100	0°	264891	292397	303281	334776	341671	377156	380061	419536	418451	461915	456841	504295	533621	589054	610402	673813	-	-	-	-	-	-	-	-	8.8
	45°	103543	103060	118549	117998	133556	132935	148562	147873	163568	162810	178575	177748	208587	207623	238600	237498	-	-	-	-	-	-	-	-	
	90°	149302	142760	170940	163451	192578	184143	214216	204834	235854	225526	257492	246217	300769	287600	344045	328983	-	-	-	-	-	-	-	-	
80C-1200	0°	315242	348276	360930	398754	406617	449232	452304	499710	497992	550189	543679	600667	635054	701623	-	-	-	-	-	-	-	-	-	-	7.4
	45°	123225	122756	141084	140548	158942	158340	176801	176132	194660	193924	212519	211716	248236	247299	-	-	-	-	-	-	-	-	-	-	
	90°	177682	170043	203433	194688	229184	219334	254935	243979	280686	268625	306437	293270	357940	342561	-	-	-	-	-	-	-	-	-	-	
80C2-935	0°	381679	423585	436998	484977	492316	546368	547634	607760	602952	669152	658270	730543	-	-	-	-	-	-	-	-	-	-	-	-	6.1
	45°	149195	149300	170818	170939	192441	192577	214065	214216	235688	235854	257311	257493	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	215128	206811	246308	236785	277487	266759	308667	296733	339846	326707	371025	356681	-	-	-	-	-	-	-	-	-	-	-	-	
80C2-1000	0°	436748	484700	500048	554949	563347	625198	626646	695447	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.3
	45°	170720	170841	195464	195602	220207	220362	244950	245123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	246167	236650	281845	270949	317523	305247	353201	339546	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
80C2-1100	0°	528361	586371	604938	671356	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.4
	45°	206531	206677	236464	236631	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	297804	286290	340965	327783	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
80C2-1200	0°	629064	698130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.7
	45°	245895	246068	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	354563	340856	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

NOTE:
* MOP = Maximum Operating Pressure (barg)

Symmetric Yoke Design

Table 7. Models 0.3S-100 to 3S-335

Model	Position	Operating Supply Pressure (barg)																								MOP* (barg)
		3		3.5		4		4.5		5		5.5		6		7		8		9		10		11		12		
		OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	
0.3S-100	0°	204	213	241	252	278	291	314	329	351	368	388	407	425	445	498	523	572	600	646	677	719	755	793	832	866	909	12.0
	45°	129	121	153	143	176	164	199	186	223	208	246	230	269	252	316	296	363	340	409	384	456	427	503	471	549	515	
	90°	233	198	276	234	318	270	360	306	402	341	444	377	486	413	570	485	654	557	739	629	823	700	907	772	991	844	
0.3S-135	0°	378	408	445	481	512	553	579	626	646	698	713	771	780	843	914	989	1048	1134	1182	1279	1317	1424	1451	1569	1585	1715	12.0
	45°	239	231	282	272	324	313	367	354	409	395	452	437	494	478	580	560	665	642	750	724	835	807	920	889	1005	971	
	90°	432	379	509	446	585	513	662	581	739	648	816	715	892	783	1046	917	1199	1052	1352	1187	1506	1322	1659	1456	1813	1591	
0.3S-175	0°	642	704	755	828	867	951	980	1075	1093	1199	1205	1323	1318	1446	1543	1694	1769	1941	1994	2189	2220	2436	2445	2684	-	-	11.7
	45°	407	399	478	469	550	539	621	609	693	679	764	749	836	819	978	959	1121	1100	1264	1240	1407	1380	1550	1520	-	-	
	90°	734	653	863	768	992	883	1121	998	1250	1113	1379	1227	1507	1342	1765	1572	2023	1801	2281	2031	2539	2261	2796	2490	-	-	
0.3S-235	0°	1170	1296	1373	1521	1576	1746	1780	1971	1983	2197	2186	2422	2389	2647	-	-	-	-	-	-	-	-	-	-	-	-	6.5
	45°	742	734	871	862	999	989	1128	1117	1257	1244	1386	1372	1515	1499	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	1338	1203	1571	1412	1803	1621	2035	1830	2268	2038	2500	2247	2733	2456	-	-	-	-	-	-	-	-	-	-	-	-	
0.9S-235	0°	1353	1499	1588	1759	1823	2019	2058	2280	2293	2540	2528	2800	2763	3061	3233	3582	3703	4102	4173	4623	4643	5144	5113	5665	5582	6185	12.0
	45°	858	849	1007	996	1156	1144	1305	1291	1454	1439	1603	1586	1752	1734	2050	2029	2348	2324	2646	2619	2944	2914	3242	3209	3540	3504	
	90°	1547	1391	1816	1632	2085	1874	2354	2116	2622	2357	2891	2599	3160	2840	3697	3324	4235	3807	4772	4290	5310	4774	5847	5257	6385	5740	
0.9S-280	0°	1928	2115	2261	2481	2595	2847	2928	3213	3262	3580	3595	3946	3929	4312	4596	5045	5263	5777	5931	6510	6598	7242	7265	7975	-	-	11.9
	45°	1222	1198	1434	1405	1645	1613	1857	1820	2068	2028	2280	2235	2491	2443	2914	2858	3337	3273	3760	3688	4184	4103	4607	4518	-	-	
	90°	2205	1962	2586	2302	2968	2642	3349	2982	3731	3322	4112	3662	4494	4002	5257	4682	6020	5361	6783	6041	7546	6721	8309	7401	-	-	
1.5S-280	0°	2645	2901	3102	3404	3560	3906	4017	4409	4475	4911	4933	5413	5390	5916	6305	6921	7221	7926	8136	8930	9051	9935	9966	10940	10882	11945	12.0
	45°	1547	1510	1815	1772	2082	2034	2350	2295	2618	2557	2885	2818	3153	3080	3689	3603	4224	4126	4759	4649	5295	5173	5830	5696	6366	6219	
	90°	2551	2271	2993	2664	3434	3058	3876	3451	4317	3844	4759	4238	5200	4631	6083	5418	6966	6204	7850	6991	8733	7778	9616	8564	10499	9351	
1.5S-335	0°	3799	4195	4454	4919	5109	5642	5764	6366	6419	7090	7074	7814	7729	8537	9039	9985	10349	11432	11659	12880	12970	14327	-	-	-	-	10.4
	45°	2222	2184	2605	2561	2989	2938	3372	3314	3755	3691	4138	4068	4521	4445	5288	5198	6054	5952	6821	6706	7587	7459	-	-	-	-	
	90°	3665	3284	4297	3850	4929	4417	5561	4984	6193	5550	6825	6117	7457	6683	8721	7816	9985	8949	11249	10083	12513	11216	-	-	-	-	
1.5S-385	0°	5052	5600	5917	6559	6783	7518	7648	8477	8513	9437	9378	10396	10243	11355	11974	13274	-	-	-	-	-	-	-	-	-	-	7.9
	45°	2955	2915	3461	3415	3968	3914	4474	4414	4980	4913	5486	5412	5992	5912	7004	6911	-	-	-	-	-	-	-	-	-	-	
	90°	4874	4384	5709	5135	6544	5885	7378	6636	8213	7387	9048	8138	9883	8889	11552	10391	-	-	-	-	-	-	-	-	-	-	
3S-335	0°	6206	6853	7276	8035	8346	9218	9416	10400	10486	11582	11556	12764	12627	13947	14767	16311	16907	18676	19047	21040	21187	23405	23327	25769	25468	28134	12.0
	45°	3680	3619	4314	4244	4949	4868	5584	5492	6218	6117	6853	6741	7487	7366	8756	8614	10025	9863	11295	11112	12564	12361	13833	13610	15102	14859	
	90°	6160	5520	7223	6472	8285	7424	9347	8376	10409	9329	11471	10281	12534	11233	14658	13138	16783	15042	18907	16947	21031	18851	23156	20755	25280	22660	

NOTE:
* MOP = Maximum Operating Pressure (barg)

Table 8. Models 3S-385 to 6S-585

Model	Position	Operating Supply Pressure (barg)																								MOP* (barg)
		3		3.5		4		4.5		5		5.5		6		7		8		9		10		11		12		
		OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	
3S-385	0°	8253	9148	9667	10715	11080	12282	12494	13849	13907	15416	15320	16983	16734	18550	19560	21684	22387	24818	25214	27952	-	-	-	-	-	-	9.6
	45°	4894	4831	5732	5659	6570	6486	7408	7314	8247	8142	9085	8969	9923	9797	11599	11452	13275	13107	14951	14762	-	-	-	-	-	-	
	90°	8193	7368	9596	8630	10999	9892	12402	11154	13805	12417	15208	13679	16611	14941	19417	17465	22222	19989	25028	22513	-	-	-	-	-	-	
3S-435	0°	10573	11747	12377	13753	14181	15758	15986	17763	17790	19768	19594	21773	21398	23778	25007	27789	-	-	-	-	-	-	-	-	-	-	7.5
	45°	6269	6204	7339	7263	8409	8322	9479	9381	10549	10440	11619	11499	12689	12558	14829	14676	-	-	-	-	-	-	-	-	-	-	
	90°	10495	9462	12286	11077	14077	12692	15868	14307	17659	15922	19450	17537	21241	19152	24823	22382	-	-	-	-	-	-	-	-	-	-	
3S-485	0°	13188	14678	15431	17175	17674	19672	19917	22169	22160	24666	24402	27162	26645	29659	-	-	-	-	-	-	-	-	-	-	-	-	6.0
	45°	7820	7752	9150	9071	10480	10389	11810	11708	13140	13027	14470	14345	15800	15664	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	13091	11822	15317	13833	17544	15844	19770	17855	21997	19866	24223	21877	26449	23888	-	-	-	-	-	-	-	-	-	-	-	-	
6S-485	0°	15390	17130	18008	20044	20625	22958	23243	25871	25860	28785	28478	31699	31095	34613	36331	40440	41566	46268	46801	52095	52036	57923	-	-	-	-	10.3
	45°	9143	9064	10698	10606	12253	12148	13808	13690	15363	15232	16918	16774	18473	18316	21583	21399	24693	24483	27803	27567	30913	30650	-	-	-	-	
	90°	15336	13850	17944	16206	20553	18562	23161	20918	25769	23274	28377	25630	30986	27985	36202	32697	41419	37409	46635	42121	51852	46832	-	-	-	-	
6S-535	0°	18791	20941	21976	24491	25161	28041	28346	31591	31531	35141	34716	38691	37901	42240	44271	49340	50641	56440	-	-	-	-	-	-	-	-	8.5
	45°	11163	11081	13055	12960	14948	14838	16840	16717	18732	18595	20624	20474	22516	22352	26301	26109	30085	29866	-	-	-	-	-	-	-	-	
	90°	18725	16932	21899	19802	25072	22672	28246	25542	31420	28413	34594	31283	37767	34153	44115	39893	50462	45633	-	-	-	-	-	-	-	-	
6S-585	0°	22468	25062	26276	29310	30084	33559	33892	37807	37700	42055	41509	46303	45317	50552	52933	59048	-	-	-	-	-	-	-	-	-	-	7.1
	45°	13347	13262	15610	15510	17872	17758	20135	20006	22397	22254	24659	24502	26922	26750	31446	31246	-	-	-	-	-	-	-	-	-	-	
	90°	22388	20264	26183	23698	29978	27133	33773	30568	37567	34003	41362	37438	45157	40873	52746	47743	-	-	-	-	-	-	-	-	-	-	

NOTE:
* MOP = Maximum Operating Pressure (barg)

Table 9. Models 14S-635 to 32S-835

Model	Position	Operating Supply Pressure (barg)																								MOP* (barg)
		3		3.5		4		4.5		5		5.5		6		7		8		9		10		11		12		
		OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	
	0°	29368	32617	34346	38146	39324	43676	44301	49205	49279	54734	54257	60263	59234	65793	69190	76851	79145	87910	89101	98968	99056	110027	-	-	-	-	
14S-635	45°	17180	16982	20092	19861	23004	22740	25916	25619	28828	28497	31740	31376	34652	34255	40476	40013	46300	45770	52124	51528	57948	57286	-	-	-	-	10.9
	90°	28334	25534	33137	29862	37939	34191	42742	38519	47544	42848	52347	47176	57149	51505	66754	60162	76359	68819	85964	77476	95569	86133	-	-	-	-	
	0°	39346	43801	46015	51226	52684	58650	59353	66075	66022	73500	72691	80925	79360	88350	92698	103199	106036	118049	-	-	-	-	-	-	-	-	
14S-735	45°	23018	22805	26919	26671	30820	30536	34722	34402	38623	38268	42524	42134	46426	46000	54229	53731	62031	61463	-	-	-	-	-	-	-	-	8.1
	90°	37961	34289	44396	40101	50830	45914	57264	51726	63698	57539	70132	63351	76567	69163	89435	80788	102303	92413	-	-	-	-	-	-	-	-	
	0°	33764	37499	39487	43856	45209	50213	50932	56570	56655	62926	62378	69283	68100	75640	79546	88354	90991	101067	102437	113781	113883	126495	125328	139208	136774	151922	
18S-635	45°	19758	19530	23107	22841	26455	26152	29804	29462	33153	32773	36502	36084	39851	39395	46548	46016	53246	52638	59944	59259	66641	65881	73339	72502	80037	79124	12.0
	90°	32595	29374	38120	34353	43645	39333	49170	44312	54694	49292	60219	54271	65744	59251	76793	69210	87843	79168	98892	89127	109942	99086	120991	109045	132041	119004	
	0°	39290	43693	45950	51100	52609	58507	59269	65913	65928	73320	72588	80727	79247	88133	92566	102947	105885	117760	119204	132574	132523	147387	145842	162200	159161	177014	
18S-685	45°	22992	22756	26889	26614	30786	30471	34683	34329	38580	38186	42477	42044	46374	45901	54168	53617	61962	61332	69755	69047	77549	76762	85343	84477	93137	92192	12.0
	90°	37931	34226	44360	40028	50789	45830	57218	51631	63647	57433	70076	63235	76505	69037	89363	80641	102221	92244	115079	103848	127937	115452	140795	127055	153653	138659	
	0°	45236	50357	52903	58893	60570	67429	68237	75965	75904	84501	83571	93037	91238	101573	106573	118645	121907	135718	137241	152790	152576	169862	-	-	-	-	
18S-735	45°	26471	26227	30957	30672	35444	35118	39931	39564	44417	44010	48904	48455	53391	52901	62364	61793	71337	70684	80310	79576	89284	88467	-	-	-	-	10.5
	90°	43670	39446	51072	46132	58474	52819	65876	59505	73278	66192	80679	72878	88081	79565	102885	92938	117689	106311	132492	119684	147296	133057	-	-	-	-	
	0°	67222	75342	78616	88113	90010	100884	101405	113655	112799	126426	124194	139197	135588	151968	158377	177510	-	-	-	-	-	-	-	-	-	-	
18S2-635	45°	39336	39240	46004	45891	52672	52542	59340	59194	66008	65845	72675	72496	79343	79148	92679	92450	-	-	-	-	-	-	-	-	-	-	7.0
	90°	64895	59017	75896	69021	86896	79025	97896	89029	108896	99032	119896	109036	130896	119040	152897	139048	-	-	-	-	-	-	-	-	-	-	
	0°	78275	87731	91543	102601	104810	117472	118078	132343	131346	147213	144614	162084	157882	176954	-	-	-	-	-	-	-	-	-	-	-	-	
18S2-685	45°	45804	45692	53569	53437	61333	61182	69097	68926	76861	76671	84625	84416	92389	92161	-	-	-	-	-	-	-	-	-	-	-	-	6.1
	90°	75566	68721	88375	80370	101184	92019	113992	103667	126801	115316	139610	126964	152419	138613	-	-	-	-	-	-	-	-	-	-	-	-	
	0°	45535	50638	53253	59222	60971	67806	68689	76390	76407	84973	84125	93557	91843	102141	107279	119309	122714	136477	138150	153645	153586	170812	169022	187980	184458	205148	
32S-685	45°	27002	26744	31579	31278	36155	35811	40732	40345	45309	44878	49885	49412	54462	53945	63615	63012	72769	72080	81922	81147	91076	90214	100229	99281	109382	108348	12.0
	90°	45200	40786	52862	47699	60523	54613	68184	61527	75845	68441	83506	75354	91168	82268	106490	96096	121812	109923	137135	123751	152457	137579	167779	151406	183102	165234	
	0°	52425	58360	61311	68253	70197	78146	79083	88039	87968	97932	96854	107824	105740	117717	123511	137503	141283	157288	159054	177074	176826	196860	194597	216645	212369	236431	
32S-735	45°	31088	30823	36357	36047	41626	41272	46895	46497	52165	51722	57434	56947	62703	62172	73241	72621	83780	83071	94318	93521	104857	103970	115395	114420	125933	124870	12.0
	90°	52040	47006	60860	54974	69681	62942	78501	70910	87322	78878	96142	86846	104962	94814	122603	110750	140244	126686	157885	142622	175526	158558	193167	174494	210808	190430	
	0°	67661	75437	79129	88224	90598	101011	102066	113798	113534	126585	125002	139373	136470	152160	159406	177734	182342	203308	205279	228882	228215	254457	251151	280031	274087	305605	
32S-835	45°	40123	39842	46923	46595	53724	53348	60524	60102	67325	66855	74125	73609	80926	80362	94527	93869	108128	107376	121729	120883	135330	134390	148931	147897	162532	161404	12.0
	90°	67164	60760	78548	71059	89932	81358	101315	91657	112699	101956	124083	112256	135467	122555	158234	143153	181002	163752	203770	184350	226537	204949	249305	225547	272072	246146	

NOTE:
* MOP = Maximum Operating Pressure (barg)

Table 10. Models 32S2-685 to 50S2-1000

Model	Position	Operating Supply Pressure (barg)																								MOP* (barg)
		3		3.5		4		4.5		5		5.5		6		7		8		9		10		11		12		
		OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	
32S2-685	0°	90716	101674	106092	118909	121469	136143	136845	153377	152222	170611	167599	187845	182975	205079	213729	239548	244482	274016	275235	308484	-	-	-	-	-	-	9.3
	45°	53794	53699	62912	62801	72030	71903	81149	81005	90267	90107	99385	99210	108503	108312	126740	126516	144976	144720	163213	162925	-	-	-	-	-	-	
	90°	90049	81892	105312	95773	120576	109654	135840	123535	151103	137416	166367	151297	181630	165178	212157	192940	242685	220703	273212	248465	-	-	-	-	-	-	
50S-935	0°	94265	105050	110242	122857	126219	140664	142196	158471	158173	176278	174151	194085	190128	211891	222082	247505	254036	283119	285991	318733	317945	354346	349899	389960	381854	425574	12.0
	45°	55898	55482	65373	64886	74847	74291	84321	83696	93796	93100	103270	102505	112745	111909	131693	130719	150642	149528	169591	168337	188540	187147	207488	205956	226437	224765	
	90°	93572	84611	109432	98953	125291	113296	141151	127638	157011	141980	172870	156323	188730	170665	220449	199350	252169	228034	283888	256719	315608	285404	347327	314088	379047	342773	
50S-1000	0°	107827	120250	126103	140634	144378	161017	162654	181400	180930	201783	199206	222166	217482	242550	254033	283316	290585	324082	327136	364849	363688	405615	400240	446382	-	-	11.0
	45°	63941	63510	74778	74275	85615	85040	96453	95806	107290	106571	118128	117336	128965	128101	150640	149632	172315	171163	193990	192693	215665	214224	237340	235755	-	-	
	90°	107034	96854	125176	113271	143317	129689	161458	146106	179600	162524	197741	178941	215883	195358	252166	228193	288449	261028	324731	293863	361014	326697	397297	359532	-	-	
50S-1100	0°	130470	145445	152584	170099	174698	194753	196812	219407	218925	244061	241039	268715	263153	293369	307380	342677	351608	391986	395835	441294	-	-	-	-	-	-	9.1
	45°	77368	76816	90481	89837	103595	102858	116708	115879	129821	128900	142935	141921	156048	154942	182275	180984	208501	207025	234728	233067	-	-	-	-	-	-	
	90°	129511	117147	151462	137004	173414	156861	195365	176719	217316	196576	239267	216433	261218	236290	305121	276005	349023	315719	392925	355434	-	-	-	-	-	-	
50S2-935	0°	187993	210703	219857	246417	251722	282131	283587	317845	315452	353559	347317	389274	379181	424988	-	-	-	-	-	-	-	-	-	-	-	-	6.3
	45°	111479	111282	130374	130144	149270	149006	168166	167869	187061	186731	205957	205593	224852	224455	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	186611	169708	218241	198473	249872	227239	281502	256004	313133	284770	344763	313535	376394	342301	-	-	-	-	-	-	-	-	-	-	-	-	
50S2-1000	0°	215117	241103	251579	281970	288041	322837	324503	363704	360965	404571	397427	445437	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3
	45°	127563	127338	149185	148921	170807	170505	192428	192089	214050	213672	235672	235256	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	213535	194194	249729	227109	285923	260025	322117	292940	358311	325856	394505	358772	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

NOTE:
* MOP = Maximum Operating Pressure (barg)

Table 11. Models 80S-935 to 80S2-1200

Model	Position	Operating Supply Pressure (barg)																										MOP* (barg)
		3		3.5		4		4.5		5		5.5		6		7		8		9		10		11		12		
		OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	OP	CL	
80S-935	0°	109976	122559	128616	143333	147256	164108	165896	184883	184536	205657	203176	226432	221816	247207	259096	288756	296376	330306	333656	371855	370936	413404	408216	454954	445496	496503	12.0
	45°	65215	64729	76268	75701	87322	86673	98375	97645	109429	108617	120482	119589	131535	130561	153642	152505	175749	174449	197856	196394	219963	218338	242070	240282	264177	262226	
	90°	109167	98713	127670	115446	146173	132178	164676	148911	183179	165644	201682	182377	220185	199109	257191	232575	294197	266040	331203	299506	368209	332971	405215	366436	442221	399902	
80S-1000	0°	125798	140292	147120	164073	168441	187853	189763	211633	211085	235414	232407	259194	253729	282975	296372	330535	339016	378096	381659	425657	424303	473218	466946	520779	509590	568340	12.0
	45°	74597	74095	87241	86654	99885	99214	112528	111773	125172	124333	137816	136892	150460	149452	175747	174571	201034	199690	226322	224809	251609	249928	276897	275047	302184	300166	
	90°	124873	112996	146038	132150	167203	151304	188368	170457	209533	189611	230698	208765	251863	227918	294193	266225	336523	304533	378853	342840	421184	381147	463514	419454	505844	457762	
80S-1100	0°	152216	169686	178015	198449	203814	227212	229614	255975	255413	284738	281212	313501	307012	342264	358610	399790	410209	457317	461808	514843	513406	572369	565005	629895	616604	687421	12.0
	45°	90263	89619	105562	104810	120861	120001	136160	135192	151458	150383	166757	165574	182056	180765	212654	211148	243252	241530	273850	271912	304447	302294	335045	332676	365643	363059	
	90°	151097	136671	176706	159838	202316	183005	227926	206172	253535	229339	279145	252505	304755	275672	355974	322006	407193	368339	458413	414673	509632	461007	560852	507340	612071	553674	
80S-1200	0°	181149	202115	211853	236375	242556	270634	273259	304893	303963	339153	334666	373412	365369	407672	426776	476191	488183	544710	549589	613229	610996	681748	-	-	-	-	10.9
	45°	107420	106746	125627	124840	143834	142934	162041	161028	180248	179122	198455	197216	216662	215310	253076	251498	289490	287686	325904	323874	362318	360062	-	-	-	-	
	90°	179818	162791	210295	190385	240773	217978	271250	245572	301728	273166	332206	300760	362683	328354	423639	383542	484594	438729	545549	493917	606505	549105	-	-	-	-	
80S2-935	0°	219325	245820	256500	287487	293676	329153	330852	370820	368027	412486	405203	454153	442378	495819	516729	579152	591081	662485	665432	745818	-	-	-	-	-	-	9.0
	45°	130058	129829	152103	151835	174148	173841	196193	195847	218238	217853	240283	239859	262328	261865	306418	305877	350508	349889	394598	393901	-	-	-	-	-	-	
	90°	217713	197992	254615	231552	291517	265112	328419	298672	365322	332231	402224	365791	439126	399351	512931	466470	586735	533590	660540	600709	-	-	-	-	-	-	
80S2-1000	0°	250969	281287	293509	328965	336048	376643	378587	424321	421126	471999	463665	519677	506204	567355	591282	662711	-	-	-	-	-	-	-	-	-	-	7.9
	45°	148823	148561	174049	173742	199274	198923	224500	224103	249725	249284	274951	274465	300176	299646	350627	350008	-	-	-	-	-	-	-	-	-	-	
	90°	249125	226559	291351	264961	333577	303362	375804	341764	418030	380165	460256	418567	502483	456969	586935	533772	-	-	-	-	-	-	-	-	-	-	
80S2-1100	0°	303613	340290	355075	397969	406537	455648	458000	513327	509462	571007	560924	628686	612386	686365	-	-	-	-	-	-	-	-	-	-	-	-	6.5
	45°	180041	179723	210558	210186	241074	240649	271591	271112	302108	301575	332625	332038	363142	362501	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	301381	274082	352465	320539	403549	366996	454633	413453	505717	459910	556801	506366	607884	552823	-	-	-	-	-	-	-	-	-	-	-	-	
80S2-1200	0°	361480	405148	422750	473820	484021	542492	545291	611164	606561	679836	667831	748508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5
	45°	214356	213977	250689	250246	287022	286515	323355	322784	359688	359053	396021	395321	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	90°	358823	326321	419643	381632	480463	436943	541282	492254	602102	547565	662922	602876	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

NOTE:
* MOP = Maximum Operating Pressure (barg)

ALGAS Spring-Return Pneumatic Actuator Output Torques (Nm)

Canted Yoke Design, Spring to Close

Table 12. Models 0.3C-008A-100-CL to 0.9C-0350-335-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
0.3C-008A-100-CL	4.3	12.0	198	111	183	-	-	-	-	-	-	-	-	-	290	50	50	348	80	83	407	105	116
0.3C-008A-135-CL	2.6	12.0	191	106	169	391	98	107	497	141	167	604	184	227	711	226	287	818	268	348	925	310	408
0.3C-008B-100-CL	5.9	12.0	304	153	182	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.3C-008B-135-CL	3.5	12.0	297	148	168	-	-	-	-	-	-	606	117	117	713	169	177	820	213	238	926	257	298
0.3C-008C-100-CL	7.0	12.0	367	188	235	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.3C-008C-135-CL	4.1	12.0	360	182	221	-	-	-	-	-	-	-	-	-	659	109	109	766	168	169	873	214	230
0.3C-008C-175-CL	2.7	10.0	352	176	204	760	165	166	939	242	267	1119	314	368	1298	386	469	1478	457	570	1657	528	672
0.3C-0100-135-CL	6.2	12.0	586	319	478	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.3C-0100-175-CL	3.9	9.9	577	312	461	-	-	-	-	-	-	863	119	119	1043	221	221	1222	300	322	1402	374	423
0.3C-0100-235-CL	2.4	5.5	564	302	434	1346	351	391	1669	481	574	1993	610	756	2317	738	939	2641	865	1121	2964	993	1304
0.3C-0150-175-CL	4.8	10.6	732	428	777	-	-	-	-	-	-	-	-	-	-	-	-	907	144	144	1087	242	245
0.3C-0150-235-CL	2.9	6.0	719	419	750	1031	214	214	1354	355	396	1678	485	579	2002	613	761	2326	741	944	2649	869	1126
0.9C-0200-235-CL	3.3	12.0	964	559	992	-	-	-	1443	313	313	1817	472	524	2192	623	735	2566	772	946	2940	920	1157
0.9C-0200-280-CL	2.5	9.6	949	548	962	1984	540	618	2516	752	918	3047	962	1218	3578	1172	1517	4110	1380	1817	4641	1589	2116
0.9C-0200-335-CL	1.9	6.7	939	540	939	3340	1078	1383	4101	1377	1811	4861	1675	2240	5622	1973	2669	6383	2271	3098	7144	2569	3527
0.9C-0250-235-CL	3.8	12.0	1158	703	1388	-	-	-	-	-	-	1422	302	302	1796	463	513	2171	615	724	2545	764	935
0.9C-0250-280-CL	2.9	9.9	1143	692	1358	1589	377	396	2120	595	695	2652	806	995	3183	1016	1294	3715	1225	1594	4246	1434	1894
0.9C-0250-335-CL	2.2	6.9	1132	684	1336	2945	922	1160	3705	1222	1589	4466	1520	2018	5227	1819	2446	5988	2117	2875	6749	2414	3304
0.9C-0350-280-CL	4.1	10.5	1837	1075	1946	-	-	-	-	-	-	-	-	-	2598	541	541	3129	779	841	3661	996	1141
0.9C-0350-335-CL	3.0	7.3	1826	1067	1924	-	-	-	3120	775	836	3881	1084	1265	4642	1388	1693	5402	1689	2122	6163	1989	2551

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 13. Models 0.3C-008A-100-CL to 0.9C-0350-335-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
0.3C-008A-100-CL	4.3	12.0	198	111	183	466	128	149	583	175	215	817	268	347	935	314	413	1169	406	545
0.3C-008A-135-CL	2.6	12.0	191	106	169	1032	352	468	1245	436	588	1673	603	829	1886	687	950	2314	854	1191
0.3C-008B-100-CL	5.9	12.0	304	153	182	467	39	39	585	105	105	819	213	237	936	261	303	1171	354	436
0.3C-008B-135-CL	3.5	12.0	297	148	168	1033	299	358	1247	384	478	1674	553	719	1888	637	840	2315	804	1081
0.3C-008C-100-CL	7.0	12.0	367	188	235	-	-	-	-	-	-	766	168	169	883	218	235	1117	314	367
0.3C-008C-135-CL	4.1	12.0	360	182	221	980	258	290	1194	344	410	1621	514	651	1835	598	772	2262	766	1012
0.3C-008C-175-CL	2.7	10.0	352	176	204	1837	599	773	2196	740	975	2914	1021	1380	-	-	-	-	-	-
0.3C-0100-135-CL	6.2	12.0	586	319	478	-	-	-	938	162	162	1366	359	402	1579	445	523	2007	615	764
0.3C-0100-175-CL	3.9	9.9	577	312	461	1581	446	524	1941	589	727	2659	872	1131	-	-	-	-	-	-
0.3C-0100-235-CL	2.4	5.5	564	302	434	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.3C-0150-175-CL	4.8	10.6	732	428	777	1266	318	347	1625	464	549	2344	748	954	2703	890	1156	-	-	-
0.3C-0150-235-CL	2.9	6.0	719	419	750	2973	996	1309	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0200-235-CL	3.3	12.0	964	559	992	3315	1068	1369	4063	1362	1791	5561	1949	2635	6310	2243	3057	7807	2829	3901
0.9C-0200-280-CL	2.5	9.6	949	548	962	5173	1797	2416	6236	2214	3015	8362	3046	4213	-	-	-	-	-	-
0.9C-0200-335-CL	1.9	6.7	939	540	939	7904	2867	3955	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0250-235-CL	3.8	12.0	1158	703	1388	2920	912	1146	3668	1207	1568	5166	1795	2412	5915	2088	2834	7412	2674	3678
0.9C-0250-280-CL	2.9	9.9	1143	692	1358	4778	1642	2193	5841	2059	2792	7967	2891	3990	-	-	-	-	-	-
0.9C-0250-335-CL	2.2	6.9	1132	684	1336	7509	2712	3733	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0350-280-CL	4.1	10.5	1837	1075	1946	4192	1209	1440	5255	1631	2039	7381	2468	3237	8444	2885	3837	-	-	-
0.9C-0350-335-CL	3.0	7.3	1826	1067	1924	6924	2288	2980	8446	2885	3837	-	-	-	-	-	-	-	-	-

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 14. Models 0.9C-0350-385-CL to 1.5C-0800-485-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
0.9C-0350-385-CL	2.4	5.5	1813	1057	1897	3800	1052	1219	4805	1452	1785	5809	1849	2352	6814	2245	2918	7819	2640	3484	8824	3034	4051
0.9C-0350-435-CL	2.0	4.3	1803	1050	1876	5449	1707	2148	6731	2212	2871	8014	2716	3594	-	-	-	-	-	-	-	-	-
0.9C-0350-485-CL	1.7	3.0	1797	1045	1863	7308	2439	3196	8902	3064	4095	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0400-280-CL	4.8	11.1	2173	1324	2634	-	-	-	-	-	-	-	-	-	-	-	-	2444	455	455	2976	714	754
0.9C-0400-335-CL	3.5	7.8	2162	1316	2612	-	-	-	-	-	-	3196	806	878	3957	1115	1307	4717	1418	1736	5478	1719	2165
0.9C-0400-385-CL	2.8	5.9	2149	1306	2585	3115	772	833	4119	1180	1399	5124	1579	1965	6129	1975	2532	7134	2370	3098	8139	2765	3664
0.9C-0400-435-CL	2.3	4.6	2139	1299	2564	4763	1436	1762	6046	1943	2485	7329	2447	3208	8612	2950	3931	-	-	-	-	-	-
0.9C-0400-485-CL	1.9	3.7	2132	1294	2551	6623	2170	2810	8217	2796	3709	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0420-335-CL	3.8	8.1	2357	1464	3047	-	-	-	-	-	-	2763	634	652	3523	949	1081	4284	1254	1510	5045	1556	1938
0.9C-0420-385-CL	3.0	6.1	2344	1455	3020	-	-	-	3686	1015	1173	4691	1416	1739	5696	1813	2305	6701	2209	2872	7706	2603	3438
0.9C-0420-435-CL	2.4	4.8	2334	1448	2999	4330	1273	1536	5613	1781	2259	6896	2285	2982	8179	2789	3705	-	-	-	-	-	-
0.9C-0420-485-CL	2.1	3.9	2328	1443	2986	6190	2008	2584	7784	2634	3482	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0700-335-CL	4.7	8.3	3076	1839	3500	-	-	-	-	-	-	-	-	-	-	-	-	3833	738	738	4594	1104	1167
0.9C-0700-385-CL	3.7	6.3	3063	1829	3473	-	-	-	-	-	-	4240	951	967	5245	1373	1534	6250	1779	2100	7254	2179	2666
0.9C-0700-435-CL	3.0	4.9	3053	1821	3452	-	-	-	5162	1339	1487	6445	1857	2210	7727	2366	2933	9010	2873	3656	-	-	-
0.9C-0700-485-CL	2.5	4.0	3046	1817	3439	5738	1573	1812	7333	2210	2711	8928	2840	3609	-	-	-	-	-	-	-	-	-
0.9C-0720-385-CL	4.2	6.9	3607	2230	4587	-	-	-	-	-	-	-	-	-	4135	904	908	5140	1331	1475	6145	1737	2041
0.9C-0720-435-CL	3.4	5.4	3596	2222	4566	-	-	-	4053	862	862	5335	1410	1585	6618	1926	2308	7901	2435	3031	-	-	-
0.9C-0720-485-CL	2.9	4.4	3590	2218	4553	4629	1119	1187	6224	1768	2085	7818	2402	2984	-	-	-	-	-	-	-	-	-
1.5C-0800-385-CL	3.7	7.5	3922	2205	3607	-	-	-	-	-	-	6143	1214	1214	7414	1809	1930	8685	2331	2647	9955	2842	3363
1.5C-0800-435-CL	3.0	5.9	3909	2195	3581	-	-	-	7309	1765	1871	8931	2431	2786	10553	3081	3700	12176	3725	4614	13798	4366	5528
1.5C-0800-485-CL	2.5	4.7	3901	2189	3564	8038	2068	2282	10055	2882	3419	12071	3683	4555	14087	4480	5692	-	-	-	-	-	-

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 15. Models 0.9C-0350-385-CL to 1.5C-0800-485-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
0.9C-0350-385-CL	2.4	5.5	1813	1057	1897	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0350-435-CL	2.0	4.3	1803	1050	1876	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0350-485-CL	1.7	3.0	1797	1045	1863	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0400-280-CL	4.8	11.1	2173	1324	2634	3507	933	1054	4570	1359	1653	6696	2198	2851	7759	2616	3450	-	-	-
0.9C-0400-335-CL	3.5	7.8	2162	1316	2612	6239	2019	2594	7760	2617	3451	-	-	-	-	-	-	-	-	-
0.9C-0400-385-CL	2.8	5.9	2149	1306	2585	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0400-435-CL	2.3	4.6	2139	1299	2564	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0400-485-CL	1.9	3.7	2132	1294	2551	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0420-335-CL	3.8	8.1	2357	1464	3047	5806	1856	2367	7327	2455	3225	-	-	-	-	-	-	-	-	-
0.9C-0420-385-CL	3.0	6.1	2344	1455	3020	8710	2997	4004	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0420-435-CL	2.4	4.8	2334	1448	2999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0420-485-CL	2.1	3.9	2328	1443	2986	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0700-335-CL	4.7	8.3	3076	1839	3500	5355	1418	1596	6876	2028	2453	-	-	-	-	-	-	-	-	-
0.9C-0700-385-CL	3.7	6.3	3063	1829	3473	8259	2576	3233	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0700-435-CL	3.0	4.9	3053	1821	3452	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0700-485-CL	2.5	4.0	3046	1817	3439	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0720-385-CL	4.2	6.9	3607	2230	4587	7150	2137	2607	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0720-435-CL	3.4	5.4	3596	2222	4566	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0720-485-CL	2.9	4.4	3590	2218	4553	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-0800-385-CL	3.7	7.5	3922	2205	3607	11226	3348	4079	13767	4354	5511	-	-	-	-	-	-	-	-	-
1.5C-0800-435-CL	3.0	5.9	3909	2195	3581	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-0800-485-CL	2.5	4.7	3901	2189	3564	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 16. Models 1.5C-0800-535-CL to 1.5C-1300-585-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
1.5C-0800-535-CL	2.2	3.9	3899	2188	3561	10658	3122	3759	13112	4095	5142	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1100-385-CL	5.0	8.0	5705	3194	5167	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8402	1425	1425
1.5C-1100-435-CL	4.0	6.3	5692	3184	5141	-	-	-	-	-	-	-	-	-	9000	1762	1762	10622	2540	2676	12244	3212	3590
1.5C-1100-485-CL	3.4	5.1	5684	3178	5124	-	-	-	8501	1481	1481	10517	2496	2617	12534	3329	3754	14550	4142	4890	-	-	-
1.5C-1100-535-CL	2.9	4.2	5682	3177	5121	9104	1821	1821	11558	2930	3204	14012	3926	4587	-	-	-	-	-	-	-	-	-
1.5C-1100-585-CL	2.5	3.0	5656	3157	5067	11937	3086	3417	14870	4270	5071	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1200-385-CL	5.8	8.8	6617	3887	7096	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1200-435-CL	4.6	6.9	6604	3877	7069	-	-	-	-	-	-	-	-	-	-	-	-	8701	1624	1624	10323	2432	2539
1.5C-1200-485-CL	3.8	5.5	6596	3871	7053	-	-	-	-	-	-	8597	1566	1566	10613	2554	2702	12630	3385	3839	14646	4195	4975
1.5C-1200-535-CL	3.2	4.5	6594	3870	7049	-	-	-	9637	2131	2152	12091	3166	3535	14544	4155	4918	-	-	-	-	-	-
1.5C-1200-585-CL	2.8	3.0	6568	3850	6996	10016	2299	2365	12950	3514	4019	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1300-385-CL	6.7	9.3	7844	4637	8596	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1300-435-CL	5.4	7.3	7831	4628	8570	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8829	1182	1182
1.5C-1300-485-CL	4.5	5.8	7823	4621	8553	-	-	-	-	-	-	-	-	-	9119	1345	1345	11135	2460	2482	13152	3320	3618
1.5C-1300-535-CL	3.8	4.8	7821	4 20	8549	-	-	-	-	-	-	10597	2178	2178	13050	3277	3561	-	-	-	-	-	-
1.5C-1300-585-CL	3.2	4.0	7795	4601	8496	-	-	-	11455	2602	2662	14389	3826	4316	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 17. Models 1.5C-0800-535-CL to 1.5C-1300-585-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
1.5C-0800-535-CL	2.2	3.9	3899	2188	3561	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1100-385-CL	5.0	8.0	5705	3194	5167	9672	2126	2141	12214	3199	3573	-	-	-	-	-	-	-	-	-
1.5C-1100-435-CL	4.0	6.3	5692	3184	5141	13866	3867	4505	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1100-485-CL	3.4	5.1	5684	3178	5124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1100-535-CL	2.9	4.2	5682	3177	5121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1100-585-CL	2.5	3.0	5656	3157	5067	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1200-385-CL	5.8	8.8	6617	3887	7096	7752	1089	1089	10293	2418	2522	-	-	-	-	-	-	-	-	-
1.5C-1200-435-CL	4.6	6.9	6604	3877	7069	11945	3106	3453	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1200-485-CL	3.8	5.5	6596	3871	7053	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1200-535-CL	3.2	4.5	6594	3870	7049	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1200-585-CL	2.8	3.0	6568	3850	6996	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1300-385-CL	6.7	9.3	7844	4637	8596	-	-	-	8799	1165	1165	13881	3619	4030	-	-	-	-	-	-
1.5C-1300-435-CL	5.4	7.3	7831	4628	8570	10451	2096	2096	13695	3543	3925	-	-	-	-	-	-	-	-	-
1.5C-1300-485-CL	4.5	5.8	7823	4621	8553	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1300-535-CL	3.8	4.8	7821	4 20	8549	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1300-585-CL	3.2	4.0	7795	4601	8496	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 18. Models 3C-2000-385-CL to 14C-5100-785-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
3C-2000-385-CL	5.2	9.9	9735	5856	11307	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11163	1908	1908
3C-2000-435-CL	4.2	7.8	9713	5840	11264	-	-	-	-	-	-	-	-	-	12153	2466	2466	14838	3687	3980	17523	4784	5493
3C-2000-485-CL	3.5	6.2	9700	5830	11236	-	-	-	-	-	-	14665	3615	3882	18003	4977	5763	21340	6311	7644	24678	7634	9526
3C-2000-535-CL	3	5.1	9697	5828	11230	-	-	-	16387	4324	4853	20449	5956	7142	24510	7568	9431	28571	9170	11720	-	-	-
3C-2000-585-CL	2.6	4.3	9654	5796	11142	17014	4578	5206	21870	6522	7943	26726	8443	10680	-	-	-	-	-	-	-	-	-
3C-2050-385-CL	6.8	10.3	13241	7566	12902	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3C-2050-435-CL	5.5	8	13220	7550	12859	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15934	1760	1760
3C-2050-485-CL	4.5	6.5	13206	7540	12831	-	-	-	-	-	-	-	-	-	16414	2031	2031	19752	3912	3912	23089	5507	5793
3C-2050-535-CL	3.7	5.3	13203	7537	12825	-	-	-	-	-	-	18860	3409	3409	22921	5436	5698	26982	7118	7987	31043	8757	10276
3C-2050-585-CL	3.1	4.5	13160	7505	12737	-	-	-	20281	4210	4210	25137	6362	6947	29993	8335	9684	-	-	-	-	-	-
6C-2500-485-CL	4.1	9.9	13894	8477	16899	-	-	-	-	-	-	-	-	-	17299	3838	3880	21201	5487	6079	25103	7065	8279
6C-2500-535-CL	3.5	8.1	13891	8474	16892	-	-	-	-	-	-	20159	5058	5492	24907	6986	8168	29655	8879	10844	34403	10758	13520
6C-2500-585-CL	3	6.8	13840	8437	16789	-	-	-	21821	5740	6428	27497	8022	9628	33174	10273	12828	38851	12512	16027	44528	14745	19227
6C-2500-635-CL	2.6	5.8	13785	8396	16677	22114	5859	6594	28802	8541	10364	35491	11188	14134	42180	13823	17904	48868	16450	21674	55557	19074	25444
6C-2500-685-CL	2.3	8.8	13726	8352	16555	28573	8450	10234	36357	11530	14621	44140	14593	19008	51923	17649	23395	59707	20701	27783	-	-	-
6C-2500-735-CL	2.1	4.3	13662	8305	16425	35522	11200	14151	44483	14727	19202	53444	18245	24253	-	-	-	-	-	-	-	-	-
6C-3800-535-CL	4.5	9	18816	11838	25340	-	-	-	-	-	-	-	-	-	-	-	-	21241	5030	5269	25989	6989	7945
6C-3800-585-CL	3.9	7.6	18766	11801	25237	-	-	-	-	-	-	19084	4053	4053	24761	6490	7252	30438	8776	10452	36114	11032	13652
6C-3800-635-CL	3.4	6.4	18711	11761	25125	-	-	-	20389	4663	4788	27078	7429	8558	33766	10101	12328	40455	12747	16098	47144	15382	19868
6C-3800-685-CL	3	9.4	18652	11717	25003	-	-	-	27943	7777	9046	35727	10878	13433	43510	13951	17820	51293	17013	22207	59077	20069	26594
6C-3800-735-CL	2.6	4.8	18588	11671	24872	27108	7442	8575	36070	11014	13626	45031	14550	18677	53992	18073	23728	-	-	-	-	-	-
6C-3900-535-CL	4.8	9.3	20080	12793	28172	-	-	-	-	-	-	-	-	-	-	-	-	18420	3803	3803	23168	5906	6479
6C-3900-585-CL	4.1	7.8	20029	12756	28069	-	-	-	-	-	-	-	-	-	21940	5397	5787	27617	7710	8986	33293	9975	12186
6C-3900-635-CL	3.6	6.5	19974	12716	27957	-	-	-	-	-	-	24257	6352	7093	30945	9041	10862	37634	11693	14632	44323	14330	18402
6C-3900-685-CL	3.2	5.5	19915	12673	27836	-	-	-	25122	6704	7580	32906	9821	11967	40689	12899	16354	48473	15963	20741	56256	19020	25128
6C-3900-735-CL	2.8	4.8	19851	12627	27705	24287	6364	7110	33249	9957	12161	42210	13498	17212	51171	17023	22262	-	-	-	-	-	-
14C-5100-635-CL	3.6	10.3	22483	14170	30454	-	-	-	-	-	-	26614	6581	7079	33924	9554	11200	41235	12465	15320	48545	15356	19441
14C-5100-685-CL	3.2	8.9	22418	14122	30321	-	-	-	27560	6973	7613	36067	10411	12407	44574	13787	17202	53081	17142	21997	61588	20487	26792
14C-5100-735-CL	2.9	7.7	22348	14071	30178	26647	6595	7098	36442	10561	12619	46236	14444	18139	56030	18304	23660	65824	22152	29180	75619	25993	34700
14C-5100-785-CL	2.6	6.8	22274	14017	30025	34777	9895	11680	45949	14330	17977	57121	18733	24274	68293	23121	30571	79465	27501	36868	90637	31879	43165

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 19. Models 3C-2000-385-CL to 14C-5100-785-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Suppy Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
3C-2000-385-CL	5.2	9.9	9735	5856	11307	13266	3020	3094	17473	4763	5464	25885	8111	10206	-	-	-	-	-	-
3C-2000-435-CL	4.2	7.8	9713	5840	11264	20208	5860	7006	25577	7989	10033	-	-	-	-	-	-	-	-	-
3C-2000-485-CL	3.5	6.2	9700	5830	11236	28015	8951	11407	-	-	-	-	-	-	-	-	-	-	-	-
3C-2000-535-CL	3	5.1	9697	5828	11230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3C-2000-585-CL	2.6	4.3	9654	5796	11142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3C-2050-385-CL	6.8	10.3	13241	7566	12902	-	-	-	15884	1732	1732	24296	6014	6473	28503	7734	8844	-	-	-
3C-2050-435-CL	5.5	8	13220	7550	12859	18619	3274	3274	23989	5885	6300	-	-	-	-	-	-	-	-	-
3C-2050-485-CL	4.5	6.5	13206	7540	12831	26427	6891	7674	-	-	-	-	-	-	-	-	-	-	-	-
3C-2050-535-CL	3.7	5.3	13203	7537	12825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3C-2050-585-CL	3.1	4.5	13160	7505	12737	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6C-2500-485-CL	4.1	9.9	13894	8477	16899	29005	8622	10478	36809	11708	14876	52416	17842	23673	-	-	-	-	-	-
6C-2500-535-CL	3.5	8.1	13891	8474	16892	39150	12630	16196	48646	16363	21548	-	-	-	-	-	-	-	-	-
6C-2500-585-CL	3	6.8	13840	8437	16789	50205	16975	22427	-	-	-	-	-	-	-	-	-	-	-	-
6C-2500-635-CL	2.6	5.8	13785	8396	16677	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6C-2500-685-CL	2.3	8.8	13726	8352	16555	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6C-2500-735-CL	2.1	4.3	13662	8305	16425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6C-3800-535-CL	4.5	9	18816	11838	25340	30737	8896	10621	40233	12659	15973	59224	20127	26677	-	-	-	-	-	-
6C-3800-585-CL	3.9	7.6	18766	11801	25237	41791	13274	16851	53145	17740	23250	-	-	-	-	-	-	-	-	-
6C-3800-635-CL	3.4	6.4	18711	11761	25125	53832	18010	23638	-	-	-	-	-	-	-	-	-	-	-	-
6C-3800-685-CL	3	9.4	18652	11717	25003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6C-3800-735-CL	2.6	4.8	18588	11671	24872	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6C-3900-535-CL	4.8	9.3	20080	12793	28172	27916	7830	9155	37412	11605	14507	56403	19078	25211	-	-	-	-	-	-
6C-3900-585-CL	4.1	7.8	20029	12756	28069	38970	12221	15386	50324	16690	21785	-	-	-	-	-	-	-	-	-
6C-3900-635-CL	3.6	6.5	19974	12716	27957	51011	16960	22172	-	-	-	-	-	-	-	-	-	-	-	-
6C-3900-685-CL	3.2	5.5	19915	12673	27836	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6C-3900-735-CL	2.8	4.8	19851	12627	27705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14C-5100-635-CL	3.6	10.3	22483	14170	30454	55856	18235	23561	70476	23977	31802	99718	35434	48284	114339	41157	56525	-	-	-
14C-5100-685-CL	3.2	8.9	22418	14122	30321	70095	23827	31587	87109	30497	41177	-	-	-	-	-	-	-	-	-
14C-5100-735-CL	2.9	7.7	22348	14071	30178	85413	29833	40221	105001	37502	51261	-	-	-	-	-	-	-	-	-
14C-5100-785-CL	2.6	6.8	22274	14017	30025	101809	36252	49462	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 20. Models 14C-5100-835-CL to 14C-8300-935-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
14C-5100-835-CL	2.3	6.0	22194	13959	29862	43441	13340	16564	56082	18324	23689	68722	23289	30813	81363	28245	37938	94004	33197	45063	106644	38145	52188
14C-5100-885-CL	2.1	5.3	22110	13897	29689	52640	16969	21749	66840	22551	29752	81040	28118	37756	95240	33680	45759	109439	39239	53763	-	-	-
14C-5100-935-CL	2.0	4.8	22020	13832	29506	62374	20796	27235	78224	27014	36169	94073	33224	45102	109923	39429	54036	-	-	-	-	-	-
14C-5400-635-CL	4.5	10.8	29197	17959	36493	-	-	-	-	-	-	-	-	-	-	-	-	35220	7889	8013	42531	10973	12134
14C-5400-685-CL	4.0	9.2	29132	17912	36360	-	-	-	-	-	-	-	-	-	38559	9327	9895	47066	12816	14690	55573	16225	19485
14C-5400-735-CL	3.5	8.6	29062	17861	36217	-	-	-	-	-	-	40221	10021	10832	50016	14004	16353	59810	17910	21873	69604	21786	27393
14C-5400-785-CL	3.2	7.0	28988	17806	36064	-	-	-	39934	9902	10671	51107	14442	16968	62279	18889	23265	73451	23304	29562	84623	27703	35859
14C-5400-835-CL	2.9	6.2	28908	17748	35901	37427	8847	9257	50067	14024	16382	62708	19059	23507	75348	24052	30631	87989	29026	37756	100630	33992	44881
14C-5400-885-CL	2.6	5.5	28824	17686	35728	46626	12639	14442	60826	18313	22446	75025	23924	30449	89225	29512	38453	103425	35088	46456	117625	40655	54460
14C-5400-935-CL	2.4	5.0	28734	17620	35545	56360	16538	19928	72209	22815	28862	88059	29053	37795	103909	35277	46729	119758	41492	55662	-	-	-
14C-8300-735-CL	4.4	8.4	37471	23145	47494	-	-	-	-	-	-	-	-	-	38785	7003	7003	48579	11784	12524	58373	15804	18044
14C-8300-785-CL	3.9	7.5	37396	23091	47341	-	-	-	-	-	-	39876	7618	7618	51048	12812	13915	62220	17353	20212	73392	21814	26509
14C-8300-835-CL	3.5	6.7	37317	23032	47178	-	-	-	-	-	-	51477	12990	14157	64118	18116	21282	76758	23149	28407	89399	28149	35531
14C-8300-885-CL	3.2	5.9	37232	22971	47005	-	-	-	49595	12209	13096	63795	17986	21100	77994	23639	29103	92194	29252	37107	106394	34843	45110
14C-8300-935-CL	2.9	5.3	37143	22905	46822	45129	10310	10579	60979	16855	19512	76828	23177	28446	92678	29442	37379	108527	35681	46313	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 21. Models 14C-5100-835-CL to 14C-8300-935-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
14C-5100-835-CL	2.3	6.0	22194	13959	29862	119285	43094	59312	-	-	-	-	-	-	-	-	-	-	-	-
14C-5100-885-CL	2.1	5.3	22110	13897	29689	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14C-5100-935-CL	2.0	4.8	22020	13832	29506	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14C-5400-635-CL	4.5	10.8	29197	17959	36493	49841	13933	16254	64462	19754	24495	93704	31271	40977	108325	37009	49218	-	-	-
14C-5400-685-CL	4.0	9.2	29132	17912	36360	64080	19603	24280	81094	26315	33870	115122	39674	53049	-	-	-	-	-	-
14C-5400-735-CL	3.5	8.6	29062	17861	36217	79398	25647	32914	98987	33346	43955	-	-	-	-	-	-	-	-	-
14C-5400-785-CL	3.2	7.0	28988	17806	36064	95795	32093	42156	118139	40857	54750	-	-	-	-	-	-	-	-	-
14C-5400-835-CL	2.9	6.2	28908	17748	35901	113270	38948	52005	-	-	-	-	-	-	-	-	-	-	-	-
14C-5400-885-CL	2.6	5.5	28824	17686	35728	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14C-5400-935-CL	2.4	5.0	28734	17620	35545	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14C-8300-735-CL	4.4	8.4	37471	23145	47494	68167	19734	23564	87756	27500	34605	-	-	-	-	-	-	-	-	-
14C-8300-785-CL	3.9	7.5	37396	23091	47341	84564	26239	32806	106908	35045	45400	-	-	-	-	-	-	-	-	-
14C-8300-835-CL	3.5	6.7	37317	23032	47178	102040	33129	42656	-	-	-	-	-	-	-	-	-	-	-	-
14C-8300-885-CL	3.2	5.9	37232	22971	47005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14C-8300-935-CL	2.9	5.3	37143	22905	46822	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 22. Models 18C-9600-835-CL to 18C-11000-1100-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
18C-9600-835-CL	4.7	8.0	60605	35385	63670	-	-	-	-	-	-	-	-	-	-	-	-	78895	13761	13761	93431	21378	21955
18C-9600-935-CL	3.8	6.7	60405	35236	63260	-	-	-	-	-	-	78975	13806	13806	97202	23001	24080	115429	30548	34353	133656	37896	44627
18C-9600-1000-CL	3.4	5.9	60263	35130	62969	-	-	-	78842	13732	13732	99691	24055	25483	120541	32621	37234	141390	40988	48986	162240	49271	60737
18C-9600-1100-CL	2.9	4.9	60026	34953	62483	83825	16540	16540	109053	27943	30759	134281	38146	44979	159508	48188	59198	-	-	-	-	-	-
18C-9600-1200-CL	2.6	4.1	59766	34760	61951	112118	29198	32487	142141	41287	49409	172164	53199	66331	-	-	-	-	-	-	-	-	-
18C-9600-1300-CL	2.3	3.5	59484	34549	61373	142870	41577	49820	178106	55546	69680	-	-	-	-	-	-	-	-	-	-	-	-
18C-9800-835-CL	5.8	9.0	76919	44620	79020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-9800-935-CL	4.7	7.1	76719	44471	78611	-	-	-	-	-	-	-	-	-	-	-	-	100141	16563	16563	118368	26452	26837
18C-9800-1000-CL	4.2	6.2	76577	44366	78320	-	-	-	-	-	-	-	-	-	105253	19444	19444	126102	29813	31196	146951	38469	42947
18C-9800-1100-CL	3.6	5.2	76339	44189	77834	-	-	-	-	-	-	118992	26730	27189	144220	37352	41408	169448	47559	55627	-	-	-
18C-9800-1200-CL	3.1	4.3	76079	43995	77302	-	-	-	126853	30133	31619	156876	42497	48541	-	-	-	-	-	-	-	-	-
18C-9800-1300-CL	2.7	3.0	75797	43784	76723	127582	30443	32030	162818	44896	51890	-	-	-	-	-	-	-	-	-	-	-	-
18C-10500-935-CL	5.2	7.3	86028	49417	85409	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	111597	16790	16790
18C-10500-1000-CL	4.6	6.4	85886	49311	85118	-	-	-	-	-	-	-	-	-	-	-	-	119331	21149	21149	140180	32049	32900
18C-10500-1100-CL	3.9	5.3	85648	49133	84632	-	-	-	-	-	-	112221	17142	17142	137449	30847	31361	162677	41515	45580	-	-	-
18C-10500-1200-CL	3.4	4.4	85388	48939	84100	-	-	-	120081	21572	21572	150105	36292	38494	-	-	-	-	-	-	-	-	-
18C-10500-1300-CL	3.0	3.0	85106	48727	83522	-	-	-	156047	38776	41843	-	-	-	-	-	-	-	-	-	-	-	-
18C-11000-935-CL	6.8	7.9	96334	57101	106518	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-11000-1000-CL	5.3	6.9	96192	56996	106227	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	119158	21051	21051
18C-11000-1100-CL	4.3	5.7	95954	56820	105741	-	-	-	-	-	-	-	-	-	116427	19512	19512	141654	32690	33731	166882	43241	47951

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 23. Models 18C-9600-835-CL to 18C-11000-1100-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
18C-9600-835-CL	4.7	8.0	60605	35385	63670	107968	27497	30148	137042	39250	46535	-	-	-	-	-	-	-	-	-
18C-9600-935-CL	3.8	6.7	60405	35236	63260	151883	45164	54900	-	-	-	-	-	-	-	-	-	-	-	-
18C-9600-1000-CL	3.4	5.9	60263	35130	62969	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-9600-1100-CL	2.9	4.9	60026	34953	62483	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-9600-1200-CL	2.6	4.1	59766	34760	61951	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-9600-1300-CL	2.3	3.5	59484	34549	61373	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-9800-835-CL	5.8	9.0	76919	44620	79020	92680	12358	12358	121753	27943	28745	179900	51742	61519	-	-	-	-	-	-
18C-9800-935-CL	4.7	7.1	76719	44471	78611	136595	34214	37110	173049	49004	57657	-	-	-	-	-	-	-	-	-
18C-9800-1000-CL	4.2	6.2	76577	44366	78320	167801	46898	54699	-	-	-	-	-	-	-	-	-	-	-	-
18C-9800-1100-CL	3.6	5.2	76339	44189	77834	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-9800-1200-CL	3.1	4.3	76079	43995	77302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-9800-1300-CL	2.7	3.0	75797	43784	76723	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-10500-935-CL	5.2	7.3	86028	49417	85409	129824	27063	27063	166278	42994	47610	-	-	-	-	-	-	-	-	-
18C-10500-1000-CL	4.6	6.4	85886	49311	85118	161030	40837	44652	-	-	-	-	-	-	-	-	-	-	-	-
18C-10500-1100-CL	3.9	5.3	85648	49133	84632	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-10500-1200-CL	3.4	4.4	85388	48939	84100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-10500-1300-CL	3.0	3.0	85106	48727	83522	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-11000-935-CL	6.8	7.9	96334	57101	106518	-	-	-	145256	34239	35761	-	-	-	-	-	-	-	-	-
18C-11000-1000-CL	5.3	6.9	96192	56996	106227	140007	31973	32803	-	-	-	-	-	-	-	-	-	-	-	-
18C-11000-1100-CL	4.3	5.7	95954	56820	105741	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 24. Models 18C-11000-1200-CL to 50C-18600-1200-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
18C-11000-1200-CL	3.1	4.8	95694	56627	105209	-	-	-	99059	9723	9723	129082	26645	26645	159105	40044	43567	-	-	-	-	-	-
18C-11000-1300-CL	2.7	4.1	95412	56417	104630	99789	10134	10134	135024	29758	29994	170260	44622	49854	-	-	-	-	-	-	-	-	-
32C-9900-1100-CL	3.6	6.8	90694	49995	77548	-	-	-	-	-	-	153452	31534	31534	183067	44999	48226	212682	57149	64918	242298	69059	81611
32C-9900-1200-CL	3.1	5.7	90389	49763	76923	-	-	-	162679	36256	36735	197924	51138	56600	233168	65403	76465	268413	79471	96330	303657	93447	116195
32C-9900-1300-CL	2.7	4.8	90058	49512	76244	163536	36639	37218	204899	53987	60532	246263	70644	83846	287626	87096	107159	-	-	-	-	-	-
32C-12000-1100-CL	4.2	7.2	110652	62550	103744	-	-	-	-	-	-	-	-	-	156978	26066	26066	186593	41996	42758	216208	54554	59450
32C-12000-1200-CL	3.6	6.1	110347	62321	103119	-	-	-	-	-	-	171835	34439	34439	207079	50760	54304	242324	65221	74170	277568	79387	94035
32C-12000-1300-CL	3.2	5.2	110015	62071	102440	-	-	-	178810	38371	38371	220173	56186	61685	261537	72964	84999	302900	89486	108313	-	-	-
32C-15000-1100-CL	4.8	7.7	128688	74397	130631	-	-	-	-	-	-	-	-	-	-	-	-	159816	22559	22559	189431	39251	39251
32C-15000-1200-CL	4.2	6.4	128383	74170	130006	-	-	-	-	-	-	-	-	-	180302	34106	34106	215546	51347	53971	250791	65944	73836
32C-15000-1300-CL	3.6	5.5	128051	73921	129327	-	-	-	-	-	-	193396	41486	41486	234760	59372	64800	276123	76198	88114	317486	92750	111428
50C-15400-1100-CL	4.7	8.7	139773	77502	122151	-	-	-	-	-	-	-	-	-	-	-	-	200474	29638	29638	233380	48185	48185
50C-15400-1200-CL	4.0	7.3	139434	77246	121457	-	-	-	-	-	-	-	-	-	223236	42467	42467	262397	61814	64540	301557	78118	86612
50C-15400-1300-CL	3.5	6.3	139066	76969	120702	-	-	-	-	-	-	237785	50668	50668	283744	70781	76572	329704	89556	102476	375663	108006	128381
50C-15400-1450-CL	2.9	5.2	138458	76510	119457	212052	36164	36164	269229	64712	68391	326406	88224	100618	383584	111172	132845	440761	133887	165072	-	-	-
50C-15600-1100-CL	4.9	8.9	146068	82248	135045	-	-	-	-	-	-	-	-	-	-	-	-	187633	22400	22400	220538	40947	40947
50C-15600-1200-CL	4.2	7.5	145729	81993	134350	-	-	-	-	-	-	-	-	-	210395	35229	35229	249555	56242	57302	288716	72842	79374
50C-15600-1300-CL	3.7	6.4	145361	81715	133596	-	-	-	-	-	-	224944	43430	43430	270903	65417	69334	316863	84356	95239	362822	102873	121143
50C-15600-1450-CL	3.1	5.0	144753	81257	132351	-	-	-	256388	59230	61153	313565	83016	93380	370742	106039	125607	427920	128797	157834	-	-	-
50C-17300-1100-CL	5.5	12.0	166473	95867	166715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50C-17300-1200-CL	4.7	11.7	166134	95613	166021	-	-	-	-	-	-	-	-	-	-	-	-	218014	34383	34383	257175	56208	56455
50C-17300-1300-CL	4.1	10.0	165766	95337	165266	-	-	-	-	-	-	-	-	-	239362	46415	46415	285321	68487	72320	331280	87477	98224
50C-17300-1450-CL	3.4	8.0	165158	94881	164021	-	-	-	224847	38234	38234	282024	67090	70461	339201	90694	102688	396378	113687	134916	-	-	-
50C-18600-1100-CL	6.9	10.0	213075	119749	195644	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50C-18600-1200-CL	5.9	12.0	212736	119494	194950	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 25. Models 18C-11000-1200-CL to 50C-18600-1200-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
18C-11000-1200-CL	3.1	4.8	95694	56627	105209	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-11000-1300-CL	2.7	4.1	95412	56417	104630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32C-9900-1100-CL	3.6	6.8	90694	49995	77548	271913	80864	98303	-	-	-	-	-	-	-	-	-	-	-	-
32C-9900-1200-CL	3.1	5.7	90389	49763	76923	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32C-9900-1300-CL	2.7	4.8	90058	49512	76244	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32C-12000-1100-CL	4.2	7.2	110652	62550	103744	245824	66634	76142	305054	90343	109527	-	-	-	-	-	-	-	-	-
32C-12000-1200-CL	3.6	6.1	110347	62321	103119	312813	93428	113900	-	-	-	-	-	-	-	-	-	-	-	-
32C-12000-1300-CL	3.2	5.2	110015	62071	102440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32C-15000-1100-CL	4.8	7.7	128688	74397	130631	219046	52825	55944	278277	77063	89328	-	-	-	-	-	-	-	-	-
32C-15000-1200-CL	4.2	6.4	128383	74170	130006	286035	80179	93701	-	-	-	-	-	-	-	-	-	-	-	-
32C-15000-1300-CL	3.6	5.5	128051	73921	129327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50C-15400-1100-CL	4.7	8.7	139773	77502	122151	266285	63467	66731	332097	90523	103825	-	-	-	-	-	-	-	-	-
50C-15400-1200-CL	4.0	7.3	139434	77246	121457	340718	94001	108684	419039	125277	152829	-	-	-	-	-	-	-	-	-
50C-15400-1300-CL	3.5	6.3	139066	76969	120702	421622	126301	154285	-	-	-	-	-	-	-	-	-	-	-	-
50C-15400-1450-CL	2.9	5.2	138458	76510	119457	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50C-15600-1100-CL	4.9	8.9	146068	82248	135045	253444	57951	59494	319256	85328	96587	-	-	-	-	-	-	-	-	-
50C-15600-1200-CL	4.2	7.5	145729	81993	134350	327876	88818	101446	406198	120172	145591	-	-	-	-	-	-	-	-	-
50C-15600-1300-CL	3.7	6.4	145361	81715	133596	408781	121200	147047	-	-	-	-	-	-	-	-	-	-	-	-
50C-15600-1450-CL	3.1	5.0	144753	81257	132351	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50C-17300-1100-CL	5.5	12.0	166473	95867	166715	221903	36575	36575	287714	69495	73669	419337	122843	147856	-	-	-	-	-	-
50C-17300-1200-CL	4.7	11.7	166134	95613	166021	296335	73107	78528	374656	104990	122672	-	-	-	-	-	-	-	-	-
50C-17300-1300-CL	4.1	10.0	165766	95337	165266	377240	106028	124129	-	-	-	-	-	-	-	-	-	-	-	-
50C-17300-1450-CL	3.4	8.0	165158	94881	164021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50C-18600-1100-CL	6.9	10.0	213075	119749	195644	-	-	-	258902	23646	23646	390526	93059	97834	-	-	-	-	-	-
50C-18600-1200-CL	5.9	12.0	212736	119494	194950	267523	28505	28505	345844	72650	72650	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 26. Models 50C-18600-1300-CL to 80C-19700-1800-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
50C-18600-1300-CL	5.1	10.3	212367	119216	194195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	302469	48201	48201
50C-18600-1450-CL	4.2	8.3	211759	118758	192950	-	-	-	-	-	-	-	-	-	310389	52666	52666	367566	83159	84893	424743	107354	117120
65C-18400-1600-CL	3.5	7.0	199517	113495	191350	-	-	-	-	-	-	324605	71874	72601	390743	99938	109879	456881	126779	147156	523019	153227	184434
65C-18400-1700-CL	3.2	6.0	199055	113148	190404	-	-	-	317294	68480	68480	391957	100437	110563	466621	130691	152646	541284	160495	194729	615948	190089	236812
65C-18400-1800-CL	2.9	5.0	198565	112781	189400	295980	56467	56467	379686	95379	103646	463391	129394	150826	547097	162809	198006	630803	195957	245185	-	-	-
65C-19400-1600-CL	4.2	7.0	245784	142000	248919	-	-	-	-	-	-	-	-	-	333408	58672	58672	399546	92707	95950	465684	120351	133228
65C-19400-1700-CL	3.8	6.0	245322	141654	247973	-	-	-	-	-	-	334622	59357	59357	409286	96877	101440	483949	127807	143523	558613	157927	185606
65C-19400-1800-CL	3.5	6.0	244832	141287	246970	-	-	-	-	-	-	406056	95502	99620	489762	130168	146799	573468	163865	193979	-	-	-
80C-18700-1800-CL	2.9	5.0	245102	128843	174296	421546	71161	71161	524343	123601	129101	627139	166183	187041	729936	207602	244981	-	-	-	-	-	-
80C-19700-1800-CL	3.4	5.0	298876	159970	228340	-	-	-	470518	70274	70274	573314	126934	128214	676111	170732	186154	-	-	-	-	-	-

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 27. Models 50C-18600-1300-CL to 80C-19700-1800-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
50C-18600-1300-CL	5.1	10.3	212367	119216	194195	348428	74106	74106	440347	113767	125915	-	-	-	-	-	-	-	-	-
50C-18600-1450-CL	4.2	8.3	211759	118758	192950	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65C-18400-1600-CL	3.5	7.0	199517	113495	191350	589157	179485	221712	-	-	-	-	-	-	-	-	-	-	-	-
65C-18400-1700-CL	3.2	6.0	199055	113148	190404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65C-18400-1800-CL	2.9	5.0	198565	112781	189400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65C-19400-1600-CL	4.2	7.0	245784	142000	248919	531822	147168	170506	-	-	-	-	-	-	-	-	-	-	-	-
65C-19400-1700-CL	3.8	6.0	245322	141654	247973	633276	187705	227689	-	-	-	-	-	-	-	-	-	-	-	-
65C-19400-1800-CL	3.5	6.0	244832	141287	246970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80C-18700-1800-CL	2.9	5.0	245102	128843	174296	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80C-19700-1800-CL	3.4	5.0	298876	159970	228340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Canted Yoke Design, Spring to Open

Table 28. Models 0.3C-008A-100-OP to 0.9C-0350-435-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
0.3C-008A-100-OP	4.5	12.0	368	89	94	-	-	-	-	-	-	-	-	-	-	-	-	176	95	138	208	119	203
0.3C-008A-135-OP	2.7	12.0	355	83	87	199	112	185	257	155	303	315	197	422	372	240	540	430	282	659	488	324	777
0.3C-008B-100-OP	6.3	12.0	565	94	94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.3C-008B-135-OP	3.8	12.0	553	87	87	-	-	-	-	-	-	303	152	180	361	197	298	419	241	417	477	284	536
0.3C-008C-100-OP	6.3	12.0	682	122	122	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.3C-008C-135-OP	4.4	12.0	669	114	114	-	-	-	-	-	-	-	-	-	328	156	156	386	203	274	444	247	393
0.3C-008C-175-OP	2.8	10.0	653	106	106	382	200	267	480	274	466	577	346	666	674	418	865	771	489	1064	869	560	1263
0.3C-0100-135-OP	6.5	12.0	1089	243	246	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.3C-0100-175-OP	4.1	11.1	1073	236	238	-	-	-	-	-	-	-	-	-	523	271	350	621	345	549	718	418	748
0.3C-0100-235-OP	2.6	6.2	1049	224	224	687	395	686	863	526	1045	1038	654	1405	1214	782	1764	1389	909	2123	1565	1036	2483
0.3C-0150-175-OP	5.0	12.0	1358	356	398	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	547	289	399
0.3C-0150-235-OP	3.0	6.7	1335	346	385	-	-	-	692	399	696	868	529	1055	1043	657	1414	1218	785	1774	1394	912	2133
0.9C-0200-235-OP	3.3	12.0	1722	433	471	-	-	-	766	410	585	969	563	1001	1171	713	1416	1374	862	1832	1577	1009	2247
0.9C-0200-280-OP	2.5	9.6	1695	422	456	1059	630	1186	1347	842	1776	1635	1051	2365	1923	1261	2955	2211	1469	3545	2499	1678	4135
0.9C-0200-335-OP	1.9	6.7	1675	413	444	1794	1167	2690	2206	1466	3535	2618	1764	4379	3030	2062	5223	3442	2360	6068	3855	2658	6912
0.9C-0250-235-OP	3.8	12.0	2079	578	672	-	-	-	-	-	-	754	401	562	957	554	978	1160	705	1393	1363	853	1808
0.9C-0250-280-OP	2.9	9.9	2052	567	657	845	470	747	1133	685	1337	1421	896	1927	1709	1105	2517	1997	1314	3106	2285	1523	3696
0.9C-0250-335-OP	2.2	6.9	2032	559	646	1579	1011	2252	1992	1310	3096	2404	1609	3940	2816	1908	4785	3228	2206	5629	3641	2504	6473
0.9C-0350-280-OP	4.2	11.2	3284	842	928	-	-	-	-	-	-	-	-	-	1378	729	1006	1666	947	1596	1954	1162	2185
0.9C-0350-335-OP	3.1	7.8	3264	834	917	-	-	-	1661	943	1585	2073	1250	2430	2485	1553	3274	2897	1853	4118	3310	2153	4962
0.9C-0350-385-OP	2.5	5.9	3240	824	903	2029	1218	2340	2573	1617	3455	3118	2014	4570	3662	2409	5685	4207	2803	6800	4751	3198	7915
0.9C-0350-435-OP	2.0	4.6	3221	817	893	2922	1871	4169	3617	2376	5593	4313	2880	7017	5008	3383	8440	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 29. Models 0.3C-008A-100-OP to 0.9C-0350-435-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
0.3C-008A-100-OP	4.5	12.0	368	89	94	239	142	268	303	189	398	430	281	658	494	328	788	621	420	1049
0.3C-008A-135-OP	2.7	12.0	355	83	87	546	366	896	662	449	1133	894	617	1608	1009	700	1845	1241	868	2319
0.3C-008B-100-OP	6.3	12.0	565	94	94	-	-	-	291	143	156	419	240	416	482	288	547	609	381	807
0.3C-008B-135-OP	3.8	12.0	553	87	87	535	327	654	650	411	891	882	579	1366	998	663	1603	1229	831	2077
0.3C-008C-100-OP	6.3	12.0	682	122	122	-	-	-	259	14	14	386	202	274	449	251	404	576	346	664
0.3C-008C-135-OP	4.4	12.0	669	114	114	502	290	512	617	376	749	849	545	1223	965	629	1460	1196	797	1934
0.3C-008C-175-OP	2.8	10.0	653	106	106	966	630	1463	1161	771	1861	1550	1053	2658	-	-	-	-	-	-
0.3C-0100-135-OP	6.5	12.0	1089	243	246	-	-	-	467	226	234	698	403	708	814	489	945	1046	659	1420
0.3C-0100-175-OP	4.1	11.1	1073	236	238	815	490	948	1010	633	1346	1399	916	2143	1593	1057	2542	-	-	-
0.3C-0100-235-OP	2.6	6.2	1049	224	224	1740	1163	2842	-	-	-	-	-	-	-	-	-	-	-	-
0.3C-0150-175-OP	5.0	12.0	1358	356	398	644	363	598	839	508	996	1228	792	1793	1423	933	2192	1812	1215	2989
0.3C-0150-235-OP	3.0	6.7	1335	346	385	1569	1040	2492	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0200-235-OP	3.3	12.0	1722	433	471	1780	1157	2662	2186	1451	3493	2997	2038	5155	3403	2332	5986	4214	2918	7648
0.9C-0200-280-OP	2.5	9.6	1695	422	456	2787	1886	4725	3363	2303	5904	4515	3135	8264	-	-	-	-	-	-
0.9C-0200-335-OP	1.9	6.7	1675	413	444	4267	2956	7756	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0250-235-OP	3.8	12.0	2079	578	672	1566	1001	2224	1972	1296	3055	2783	1884	4717	3189	2177	5548	4000	2764	7210
0.9C-0250-280-OP	2.9	9.9	2052	567	657	2573	1731	4286	3149	2148	5466	4301	2981	7825	4877	3397	9005	-	-	-
0.9C-0250-335-OP	2.2	6.9	2032	559	646	4053	2802	7318	4877	3397	9006	-	-	-	-	-	-	-	-	-
0.9C-0350-280-OP	4.2	11.2	3284	842	928	2242	1375	2775	2818	1795	3955	3970	2632	6314	4546	3049	7494	-	-	-
0.9C-0350-335-OP	3.1	7.8	3264	834	917	3722	2452	5807	4546	3049	7495	-	-	-	-	-	-	-	-	-
0.9C-0350-385-OP	2.5	5.9	3240	824	903	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0350-435-OP	2.0	4.6	3221	817	893	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 30. Models 0.9C-0350-485-OP to 1.5C-1300-585-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
0.9C-0350-485-OP	1.7	3.5	3210	812	886	3930	2603	6233	4794	3229	8002	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0400-280-OP	4.8	11.9	3904	1093	1278	-	-	-	-	-	-	-	-	-	-	-	-	1295	664	835	1583	884	1425
0.9C-0400-335-OP	3.5	8.3	3884	1085	1266	-	-	-	-	-	-	1702	974	1669	2114	1281	2513	2526	1583	3358	2938	1883	4202
0.9C-0400-385-OP	2.8	6.3	3860	1076	1253	1658	941	1579	2202	1346	2694	2747	1744	3809	3291	2139	4925	3836	2535	6040	4380	2929	7155
0.9C-0400-435-OP	2.3	4.9	3841	1068	1242	2551	1601	3409	3246	2107	4833	3941	2611	6256	4636	3114	7680	-	-	-	-	-	-
0.9C-0400-485-OP	2.0	3.5	3830	1064	1236	3559	2334	5472	4423	2960	7242	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0420-335-OP	3.8	8.6	4276	1251	1505	-	-	-	-	-	-	1450	790	1188	1862	1099	2033	2274	1404	2877	2686	1705	3721
0.9C-0420-385-OP	3.0	6.5	4252	1242	1492	-	-	-	1950	1165	2214	2495	1565	3329	3039	1961	4444	3584	2357	5559	4128	2751	6674
0.9C-0420-435-OP	2.5	5.1	4233	1234	1481	2299	1422	2928	2994	1929	4352	3689	2433	5775	4384	2937	7199	5079	3440	8623	-	-	-
0.9C-0420-485-OP	2.1	3.7	4222	1229	1474	3307	2156	4992	4171	2782	6761	5035	3408	8531	-	-	-	-	-	-	-	-	-
0.9C-0700-335-OP	4.7	9.5	5513	1482	1685	-	-	-	-	-	-	-	-	-	-	-	-	2031	1052	1360	2443	1366	2204
0.9C-0700-385-OP	3.7	7.2	5489	1472	1671	-	-	-	-	-	-	2252	1221	1812	2796	1631	2927	3341	2035	4042	3885	2433	5157
0.9C-0700-435-OP	3.0	5.6	5470	1465	1661	-	-	-	2751	1597	2835	3446	2112	4259	4141	2620	5682	4836	3126	7106	5531	3630	8529
0.9C-0700-485-OP	2.5	4.0	5458	1460	1654	3064	1829	3475	3928	2464	5244	4792	3093	7014	5656	3721	8784	-	-	-	-	-	-
0.9C-0720-385-OP	4.2	7.8	6492	1876	2237	-	-	-	-	-	-	-	-	-	2195	1178	1696	2739	1588	2811	3284	1993	3926
0.9C-0720-435-OP	3.4	6.1	6474	1868	2226	-	-	-	2150	1144	1604	2845	1667	3027	3540	2181	4451	4235	2689	5875	4930	3194	7298
0.9C-0720-485-OP	2.9	4.9	6462	1863	2220	2462	1381	2244	3326	2024	4013	4190	2656	5783	5055	3284	7553	-	-	-	-	-	-
1.5C-0800-385-OP	3.7	8.5	6858	1573	1617	-	-	-	-	-	-	3329	1755	2393	4018	2277	3803	4706	2791	5213	5395	3301	6623
1.5C-0800-435-OP	3.0	6.7	6834	1562	1604	-	-	-	3961	2234	3687	4840	2890	5487	5719	3538	7287	6598	4179	9087	7477	4819	10887
1.5C-0800-485-OP	2.5	5.4	6820	1556	1595	4356	2530	4496	5448	3340	6733	6541	4138	8971	7634	4933	11209	8726	5726	13447	-	-	-
1.5C-0800-535-OP	2.2	4.4	6816	1554	1593	5775	3579	7403	7105	4549	10126	8434	5514	12849	-	-	-	-	-	-	-	-	-
1.5C-1100-385-OP	5.1	9.8	10071	2304	2366	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4492	2265	2683
1.5C-1100-435-OP	4.1	7.7	10047	2293	2352	-	-	-	-	-	-	-	-	-	4816	2517	3346	5695	3186	5146	6574	3845	6947
1.5C-1100-485-OP	3.4	6.2	10032	2287	2344	-	-	-	4546	2307	2793	5638	3144	5031	6731	3962	7268	7824	4771	9506	8916	5571	11744
1.5C-1100-535-OP	2.9	5.1	10029	2285	2342	4873	2561	3462	6202	3567	6185	7532	4556	8908	8861	5531	11631	10191	6500	14354	-	-	-
1.5C-1100-585-OP	2.5	4.2	9981	2264	2315	6407	3720	6606	7997	4899	9861	9587	6061	13117	-	-	-	-	-	-	-	-	-
1.5C-1200-385-OP	5.8	10.6	11759	3030	3348	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1200-435-OP	4.7	8.3	11735	3020	3334	-	-	-	-	-	-	-	-	-	-	-	-	4654	2403	3076	5533	3075	4876
1.5C-1200-485-OP	3.8	6.6	11720	3014	3326	-	-	-	-	-	-	4598	2359	2960	5690	3193	5198	6783	4010	7436	7876	4819	9673
1.5C-1200-535-OP	3.3	5.4	11717	3013	3324	-	-	-	5162	2793	4115	6491	3793	6838	7820	4779	9561	9150	5751	12284	10479	6719	15007
1.5C-1200-585-OP	2.8	4.6	11669	2993	3297	5367	2949	4535	6956	4139	7791	8546	5310	11046	10135	6469	14302	-	-	-	-	-	-
1.5C-1300-385-OP	6.8	11.5	13957	3650	4073	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1300-435-OP	5.4	9.0	13933	3640	4059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4711	2180	2180
1.5C-1300-485-OP	4.5	7.3	13919	3634	4051	-	-	-	-	-	-	-	-	-	4868	2373	2501	5961	3223	4739	7054	4047	6977
1.5C-1300-535-OP	3.8	6.0	13915	3633	4049	-	-	-	-	-	-	5669	3000	4141	6998	4006	6864	8328	4996	9587	9657	5975	12310
1.5C-1300-585-OP	3.3	5.0	13867	3613	4022	-	-	-	6134	3355	5094	7724	4548	8350	9313	5723	11606	10903	6885	14861	-	-	-

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 31. Models 0.9C-0350-485-OP to 1.5C-1300-585-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
0.9C-0350-485-OP	1.7	3.5	3210	812	886	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0400-280-OP	4.8	11.9	3904	1093	1278	1871	1100	2015	2446	1525	3195	3598	2362	5554	4174	2780	6734	-	-	-
0.9C-0400-335-OP	3.5	8.3	3884	1085	1266	3351	2183	5046	4175	2780	6735	-	-	-	-	-	-	-	-	-
0.9C-0400-385-OP	2.8	6.3	3860	1076	1253	4925	3323	8270	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0400-435-OP	2.3	4.9	3841	1068	1242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0400-485-OP	2.0	3.5	3830	1064	1236	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0420-335-OP	3.8	8.6	4276	1251	1505	3099	2005	4566	3923	2603	6254	-	-	-	-	-	-	-	-	-
0.9C-0420-385-OP	3.0	6.5	4252	1242	1492	4673	3145	7789	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0420-435-OP	2.5	5.1	4233	1234	1481	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0420-485-OP	2.1	3.7	4222	1229	1474	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0700-335-OP	4.7	9.5	5513	1482	1685	2856	1675	3049	3680	2284	4737	5329	3483	8115	-	-	-	-	-	-
0.9C-0700-385-OP	3.7	7.2	5489	1472	1671	4429	2830	6272	5518	3621	8503	-	-	-	-	-	-	-	-	-
0.9C-0700-435-OP	3.0	5.6	5470	1465	1661	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0700-485-OP	2.5	4.0	5458	1460	1654	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0720-385-OP	4.2	7.8	6492	1876	2237	3828	2392	5041	4917	3185	7272	-	-	-	-	-	-	-	-	-
0.9C-0720-435-OP	3.4	6.1	6474	1868	2226	5625	3699	8722	-	-	-	-	-	-	-	-	-	-	-	-
0.9C-0720-485-OP	2.9	4.9	6462	1863	2220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-0800-385-OP	3.7	8.5	6858	1573	1617	6083	3804	8033	7460	4807	10854	-	-	-	-	-	-	-	-	-
1.5C-0800-435-OP	3.0	6.7	6834	1562	1604	8356	5457	12687	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-0800-485-OP	2.5	5.4	6820	1556	1595	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-0800-535-OP	2.2	4.4	6816	1554	1593	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1100-385-OP	5.1	9.8	10071	2304	2366	5180	2797	4093	6557	3832	6913	9311	5860	12553	-	-	-	-	-	-
1.5C-1100-435-OP	4.1	7.7	10047	2293	2352	7453	4497	8747	9211	5786	12347	-	-	-	-	-	-	-	-	-
1.5C-1100-485-OP	3.4	6.2	10032	2287	2344	10009	6368	13982	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1100-535-OP	2.9	5.1	10029	2285	2342	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1100-585-OP	2.5	4.2	9981	2264	2315	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1200-385-OP	5.8	10.6	11759	3030	3348	4140	1996	2022	5517	3062	4842	8271	5109	10483	9648	6114	13303	-	-	-
1.5C-1200-435-OP	4.7	8.3	11735	3020	3334	6412	3734	6676	8170	5035	10277	-	-	-	-	-	-	-	-	-
1.5C-1200-485-OP	3.8	6.6	11720	3014	3326	8968	5618	11911	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1200-535-OP	3.3	5.4	11717	3013	3324	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1200-585-OP	2.8	4.6	11669	2993	3297	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1300-385-OP	6.8	11.5	13957	3650	4073	-	-	-	4695	2146	2146	7449	4342	7786	8826	5365	10607	-	-	-
1.5C-1300-435-OP	5.4	9.0	13933	3640	4059	5590	2939	3980	7348	4267	7580	10864	6856	14781	-	-	-	-	-	-
1.5C-1300-485-OP	4.5	7.3	13919	3634	4051	8146	4861	9215	10331	6467	13690	-	-	-	-	-	-	-	-	-
1.5C-1300-535-OP	3.8	6.0	13915	3633	4049	10987	6946	15033	-	-	-	-	-	-	-	-	-	-	-	-
1.5C-1300-585-OP	3.3	5.0	13867	3613	4022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 32. Models 3C-2000-385-OP to 14C-5100-885-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Suppy Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
3C-2000-385-OP	5.2	11.1	17300	4694	5367	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6004	3043	3666
3C-2000-435-OP	4.2	8.7	17261	4678	5345	-	-	-	-	-	-	-	-	-	6540	3459	4765	7995	4560	7744	9450	5645	10724
3C-2000-485-OP	3.5	7.2	17236	4668	5331	-	-	-	-	-	-	7901	4490	7553	9710	5837	11256	11518	7167	14960	13327	8486	18664
3C-2000-535-OP	3.0	5.7	17231	4666	5328	-	-	-	8834	5187	9464	11035	6814	13971	13235	8420	18478	15436	10020	22985	17636	11616	27492
3C-2000-585-OP	2.6	4.8	17151	4634	5283	9174	5440	10159	11805	7376	15548	14436	9293	20937	17067	11203	26326	-	-	-	-	-	-
3C-2050-385-OP	6.8	12.0	23312	5601	5918	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3C-2050-435-OP	5.5	9.8	23272	5584	5896	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8577	3351	3351
3C-2050-485-OP	4.5	8.0	23248	5574	5882	-	-	-	-	-	-	-	-	-	8837	3883	3883	10646	5599	7587	12454	6975	11291
3C-2050-535-OP	3.8	6.5	23242	5572	5879	-	-	-	-	-	-	10162	5225	6598	12363	6906	11105	14564	8553	15612	16764	10186	20119
3C-2050-585-OP	3.3	5.5	23163	5538	5834	-	-	-	10933	5820	8175	13564	7807	13564	16195	9764	18953	18826	11698	24341	21457	13618	29730
6C-2500-485-OP	4.1	10.5	24670	6891	8034	-	-	-	-	-	-	-	-	-	9362	5093	7617	11476	6683	11948	13591	8252	16278
6C-2500-535-OP	3.5	8.6	24663	6888	8031	-	-	-	-	-	-	10911	6261	10791	13484	8174	16060	16057	10059	21329	18629	11933	26598
6C-2500-585-OP	3.0	7.8	24570	6851	7978	-	-	-	11812	6933	12635	14888	9205	18935	17964	11449	25235	21040	13686	31535	24116	15917	37835
6C-2500-635-OP	2.6	6.1	24469	6810	7921	11971	7051	12960	15595	9722	20383	19219	12362	27806	22843	14994	35229	26468	17622	42652	30092	20246	50075
6C-2500-685-OP	2.3	8.7	24360	6766	7860	15471	9632	20129	19688	12704	28767	23906	15765	37405	28123	18820	46043	32340	21874	54681	-	-	-
6C-2500-735-OP	2.1	4.6	24242	6719	7793	19236	12375	27840	24091	15900	37785	28947	19417	47730	33803	22931	57675	-	-	-	-	-	-
6C-3800-535-OP	4.5	9.7	33620	10043	12246	-	-	-	-	-	-	-	-	-	-	-	-	11494	6423	10342	14066	8347	15611
6C-3800-585-OP	3.9	8.1	33527	10006	12193	-	-	-	-	-	-	10325	5537	7948	13401	7851	14248	16477	10128	20548	19553	12375	26848
6C-3800-635-OP	3.4	6.9	33426	9966	12136	-	-	-	11032	6075	9396	14656	8784	16819	18280	11446	24242	21905	14086	31665	25529	16718	39088
6C-3800-685-OP	3.0	9.4	33317	9923	12075	-	-	-	15125	9132	17780	19343	12222	26418	23560	15290	35056	27777	18350	43694	31995	21405	52332
6C-3800-735-OP	2.7	5.1	33199	9876	12008	14673	8796	16853	19528	12357	26799	24384	15888	36744	29240	19410	46689	34095	22926	56634	-	-	-
6C-3900-535-OP	4.8	10.0	36172	11116	13809	-	-	-	-	-	-	-	-	-	-	-	-	9846	5214	7212	12418	7159	12481
6C-3900-585-OP	4.2	8.3	36080	11079	13756	-	-	-	-	-	-	-	-	-	11753	6660	11118	14829	8951	17418	17905	11207	23718
6C-3900-635-OP	3.6	7.0	35978	11039	13699	-	-	-	9384	4857	6266	13008	7598	13689	16632	10278	21112	20257	12922	28535	23881	15556	35958
6C-3900-685-OP	3.2	6.0	35869	10995	13638	-	-	-	13477	7948	14649	17695	11054	23287	21912	14126	31925	26129	17188	40563	30347	20244	49201
6C-3900-735-OP	2.9	5.3	35751	10949	13571	13025	7611	13723	17880	11190	23668	22736	14725	33613	27592	18249	43558	32447	21765	53503	-	-	-
14C-5100-635-OP	3.7	10.5	40170	12043	14720	-	-	-	-	-	-	14412	8215	13923	18373	11161	22036	22334	14061	30149	26296	16945	38262
14C-5100-685-OP	3.2	9.0	40050	11996	14653	-	-	-	14925	8599	14973	19534	12015	24414	24144	15379	33855	28753	18730	43296	33363	22075	52737
14C-5100-735-OP	2.9	7.4	39921	11945	14580	14430	8228	13960	19737	12164	24830	25044	16035	35699	30351	19890	46569	35658	23737	57438	40965	27580	68308
14C-5100-785-OP	2.6	6.9	39784	11890	14502	18835	11502	22982	24889	15922	35381	30942	20319	47780	36996	24706	60178	43049	29089	72577	49103	33467	84976
14C-5100-835-OP	2.3	6.1	39637	11832	14420	23530	14933	32598	30379	19910	46626	37228	24874	60655	44078	29834	74683	50927	34786	88712	57776	39738	102740
14C-5100-885-OP	2.2	5.4	39481	11770	14332	28514	18557	42807	36209	24136	58566	43903	29707	74324	51597	35270	90083	59291	40833	105842	-	-	-

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 33. Models 3C-2000-385-OP to 14C-5100-885-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
3C-2000-385-OP	5.2	11.1	17300	4694	5367	7143	3919	6000	9422	5624	10668	13981	8962	20004	16260	10618	24672	-	-	-
3C-2000-435-OP	4.2	8.7	17261	4678	5345	10904	6718	13704	13814	8840	19663	-	-	-	-	-	-	-	-	-
3C-2000-485-OP	3.5	7.2	17236	4668	5331	15135	9801	22368	18752	12425	29776	-	-	-	-	-	-	-	-	-
3C-2000-535-OP	3	5.7	17231	4666	5328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3C-2000-585-OP	2.6	4.8	17151	4634	5283	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3C-2050-385-OP	7	12	23312	5601	5918	-	-	-	8550	3295	3295	13108	7466	12631	15387	9166	17299	19946	12516	26635
3C-2050-435-OP	6	10	23272	5584	5896	10032	5123	6330	12942	7341	12290	18761	11651	24208	-	-	-	-	-	-
3C-2050-485-OP	5	8	23248	5574	5882	14262	8329	14995	17879	11006	22403	-	-	-	-	-	-	-	-	-
3C-2050-535-OP	4	7	23242	5572	5879	18965	11800	24626	-	-	-	-	-	-	-	-	-	-	-	-
3C-2050-585-OP	3	6	23163	5538	5834	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6C-2500-485-OP	4.1	10.5	24670	6891	8034	15705	9802	20608	19933	12882	29269	28390	19014	46590	32619	22075	55250	-	-	-
6C-2500-535-OP	3.5	8.6	24663	6888	8031	21202	13803	31867	26347	17534	42405	-	-	-	-	-	-	-	-	-
6C-2500-585-OP	3	7.8	24570	6851	7978	27192	18146	44135	33343	22600	56735	-	-	-	-	-	-	-	-	-
6C-2500-635-OP	2.6	6.1	24469	6810	7921	33716	22869	57498	-	-	-	-	-	-	-	-	-	-	-	-
6C-2500-685-OP	2.3	8.7	24360	6766	7860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6C-2500-735-OP	2.1	4.6	24242	6719	7793	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6C-3800-535-OP	4.5	9.7	33620	10043	12246	16639	10247	20880	21784	13999	31419	32075	21462	52495	-	-	-	-	-	-
6C-3800-585-OP	3.9	8.1	33527	10006	12193	22629	14613	33148	28780	19077	45748	-	-	-	-	-	-	-	-	-
6C-3800-635-OP	3.4	6.9	33426	9966	12136	29153	19347	46511	-	-	-	-	-	-	-	-	-	-	-	-
6C-3800-685-OP	3	9.4	33317	9923	12075	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6C-3800-735-OP	2.7	5.1	33199	9876	12008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6C-3900-535-OP	4.8	10	36172	11116	13809	14991	9071	17750	20136	12834	28288	30427	20302	49365	35572	24028	59903	-	-	-
6C-3900-585-OP	4.2	8.3	36080	11079	13756	20981	13448	30018	27133	17915	42618	-	-	-	-	-	-	-	-	-
6C-3900-635-OP	3.6	7	35978	11039	13699	27505	18186	43381	34753	23435	58227	-	-	-	-	-	-	-	-	-
6C-3900-685-OP	3.2	6	35869	10995	13638	34564	23298	57839	-	-	-	-	-	-	-	-	-	-	-	-
6C-3900-735-OP	2.9	5.3	35751	10949	13571	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14C-5100-635-OP	3.7	10.5	40170	12043	14720	30257	19821	46375	38179	25563	62601	54023	37025	95053	61946	42752	111280	-	-	-
14C-5100-685-OP	3.2	9	40050	11996	14653	37972	25413	62178	47191	32085	81060	65629	45415	118824	-	-	-	-	-	-
14C-5100-735-OP	2.9	7.4	39921	11945	14580	46272	31420	79177	56886	39094	100917	-	-	-	-	-	-	-	-	-
14C-5100-785-OP	2.6	6.9	39784	11890	14502	55157	37844	97374	-	-	-	-	-	-	-	-	-	-	-	-
14C-5100-835-OP	2.3	6.1	39637	11832	14420	64626	44690	116768	-	-	-	-	-	-	-	-	-	-	-	-
14C-5100-885-OP	2.2	5.4	39481	11770	14332	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 34. Models 14C-5100-935-OP to 14C-8300-935-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
14C-5100-935-OP	2.0	4.8	39316	11704	14239	33789	22384	53609	42377	28602	71199	50965	34813	88789	59553	41022	106379	-	-	-	-	-	-
14C-5400-635-OP	4.5	11.4	51974	14788	17456	-	-	-	-	-	-	-	-	-	-	-	-	19031	10386	15670	22992	13364	23783
14C-5400-685-OP	4.0	9.8	51854	14740	17389	-	-	-	-	-	-	-	-	-	20840	11753	19376	25450	15192	28817	30059	18590	38258
14C-5400-735-OP	3.5	8.5	51725	14689	17316	-	-	-	-	-	-	21741	12428	21221	27048	16377	32090	32355	20267	42960	37662	24133	53829
14C-5400-785-OP	3.2	7.2	51587	14634	17239	-	-	-	21585	12312	20902	27639	16813	33301	33692	21243	45700	39746	25650	58098	45799	30044	70497
14C-5400-835-OP	2.9	6.6	51441	14575	17156	20226	11290	18119	27076	16397	32148	33925	21413	46176	40774	26398	60204	47623	31368	74233	54473	36331	88261
14C-5400-885-OP	2.6	5.9	51285	14513	17068	25211	15015	28328	32905	20669	44087	40599	26270	59846	48293	31854	75605	55987	37428	91363	63681	42999	107122
14C-5400-935-OP	2.4	5.2	51120	14447	16975	30485	18903	39131	39073	25160	56721	47661	31395	74310	56249	37617	91900	64837	43836	109490	-	-	-
14C-8300-735-OP	4.4	9.3	66586	19102	22673	-	-	-	-	-	-	-	-	-	21051	10860	13862	26358	14903	24732	31664	18862	35601
14C-8300-785-OP	3.9	8.2	66448	19047	22595	-	-	-	-	-	-	21642	11318	15073	27695	15905	27472	33749	20407	39870	39802	24849	52269
14C-8300-835-OP	3.5	7.7	66301	18988	22513	-	-	-	-	-	-	27928	16079	27948	34777	21167	41977	41626	26180	56005	48476	31168	70033
14C-8300-885-OP	3.2	6.4	66145	18926	22425	-	-	-	26908	15315	25859	34602	21038	41618	42296	26669	57377	49990	32269	73136	57684	37855	88894
14C-8300-935-OP	2.9	5.8	65980	18860	22332	24488	13493	20903	33076	19908	38493	41664	26208	56082	50252	32460	73672	58840	38694	91262	67428	44918	108852

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 35. Models 14C-5100-935-OP to 14C-8300-935-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
14C-5100-935-OP	2.0	4.8	39316	11704	14239	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14C-5400-635-OP	4.5	11.4	51974	14788	17456	26953	16307	31897	34875	22106	48123	50720	33614	80575	58642	39350	96801	-	-	-
14C-5400-685-OP	4.0	9.8	51854	14740	17389	34669	21955	47699	43888	28657	66581	62325	42017	104345	-	-	-	-	-	-
14C-5400-735-OP	3.5	8.5	51725	14689	17316	42969	27990	64699	53582	35686	86438	-	-	-	-	-	-	-	-	-
14C-5400-785-OP	3.2	7.2	51587	14634	17239	51853	34434	82896	63960	43201	107693	-	-	-	-	-	-	-	-	-
14C-5400-835-OP	2.9	6.6	51441	14575	17156	61322	41291	102290	-	-	-	-	-	-	-	-	-	-	-	-
14C-5400-885-OP	2.6	5.9	51285	14513	17068	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14C-5400-935-OP	2.4	5.2	51120	14447	16975	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14C-8300-735-OP	4.4	9.3	66586	19102	22673	36971	22780	46471	47585	30520	68210	68813	45921	111688	-	-	-	-	-	-
14C-8300-785-OP	3.9	8.2	66448	19047	22595	45856	29262	64668	57963	38057	89465	-	-	-	-	-	-	-	-	-
14C-8300-835-OP	3.5	7.7	66301	18988	22513	55325	36143	84062	69023	46073	112119	-	-	-	-	-	-	-	-	-
14C-8300-885-OP	3.2	6.4	66145	18926	22425	65378	43434	104653	-	-	-	-	-	-	-	-	-	-	-	-
14C-8300-935-OP	2.9	5.8	65980	18860	22332	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 36. Models 18C-9600-835-OP to 18C-11000-1300-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
18C-9600-835-OP	4.6	9.7	105772	26591	28911	-	-	-	-	-	-	-	-	-	-	-	-	43282	22271	28189	51159	28301	44322
18C-9600-935-OP	3.8	7.5	105403	26438	28703	-	-	-	-	-	-	43326	22305	28278	53202	29841	48507	63078	37227	68735	72955	44544	88963
18C-9600-1000-OP	3.4	6.7	105141	26329	28555	-	-	-	43254	22249	28131	54551	30857	51269	65848	39283	74408	77145	47618	97546	88442	55867	120685
18C-9600-1100-OP	2.9	5.6	104703	26148	28308	45954	24337	33661	59623	34653	61659	73293	44794	89656	86963	54787	117654	100632	64739	145651	114302	74668	173649
18C-9600-1200-OP	2.5	4.7	104224	25949	28038	61284	35890	65060	77552	47916	98379	93820	59784	131699	110088	71611	165018	-	-	-	-	-	-
18C-9600-1300-OP	2.2	4.0	103703	25733	27744	77947	48205	99189	97040	62126	138293	116132	75996	177397	-	-	-	-	-	-	-	-	-
18C-9800-835-OP	5.7	10.7	134273	33251	35801	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-9800-935-OP	4.7	8.6	133904	33097	35593	-	-	-	-	-	-	-	-	-	-	-	-	54828	27845	33776	64705	35438	54004
18C-9800-1000-OP	4.2	7.1	133642	32987	35446	-	-	-	-	-	-	-	-	-	57598	30000	39449	68895	38605	62587	80193	47060	85726
18C-9800-1100-OP	3.5	6.2	133204	32805	35199	-	-	-	-	-	-	65043	35695	54697	78713	45957	82695	92382	56104	110692	106052	66127	138690
18C-9800-1200-OP	3.1	5.2	132724	32604	34929	-	-	-	69302	38912	63420	85570	51056	96740	101838	63049	130059	118106	74922	163379	-	-	-
18C-9800-1300-OP	2.7	4.4	132203	32386	34635	69697	39210	64230	88790	53443	103334	107882	67462	142438	-	-	-	-	-	-	-	-	-
18C-10500-935-OP	5.4	9.2	156518	38971	42109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57152	26267	26267
18C-10500-1000-OP	4.8	8.1	156255	38862	41961	-	-	-	-	-	-	-	-	-	-	-	-	61342	30579	34850	72639	39324	57988
18C-10500-1100-OP	4.0	6.7	155817	38681	41714	-	-	-	-	-	-	-	-	-	71160	38193	54957	84829	48519	82955	98499	58707	110952
18C-10500-1200-OP	3.5	5.6	155338	38482	41444	-	-	-	-	-	-	78017	43399	69002	94285	55577	102322	110553	67629	135641	126821	79523	168960
18C-10500-1300-OP	3.0	4.8	154817	38265	41150	-	-	-	81237	45826	75597	100329	60064	114701	119421	74124	153805	-	-	-	-	-	-
18C-11000-935-OP	5.9	9.9	175538	46768	52829	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-11000-1000-OP	5.3	8.6	175275	46662	52681	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	61249	30504	34658
18C-11000-1100-OP	4.4	7.3	174838	46484	52435	-	-	-	-	-	-	-	-	-	59769	29327	31627	73438	39930	59624	87108	50227	87622
18C-11000-1200-OP	3.8	6.0	174358	46289	52164	-	-	-	-	-	-	66626	34710	45672	82894	47069	78991	99162	59198	112311	115430	71201	145630
18C-11000-1300-OP	3.3	5.1	173837	46077	51870	-	-	-	69846	37188	52266	88938	51593	91370	108030	65766	130474	127122	79743	169578	-	-	-

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 37. Models 18C-9600-835-OP to 18C-11000-1300-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
18C-9600-835-OP	4.6	9.7	105772	26591	28911	59036	34215	60455	74789	45892	92720	106296	68859	157251	-	-	-	-	-	-
18C-9600-935-OP	3.8	7.5	105403	26438	28703	82831	51772	109191	102583	66159	149648	-	-	-	-	-	-	-	-	-
18C-9600-1000-OP	3.4	6.7	105141	26329	28555	99740	64090	143823	-	-	-	-	-	-	-	-	-	-	-	-
18C-9600-1100-OP	2.9	5.6	104703	26148	28308	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-9600-1200-OP	2.5	4.7	104224	25949	28038	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-9600-1300-OP	2.2	4.0	103703	25733	27744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-9800-835-OP	5.7	10.7	134273	33251	35801	50786	24636	25496	66539	36829	57761	98046	60272	122292	113799	71780	154558	-	-	-
18C-9800-935-OP	4.7	8.6	133904	33097	35593	74581	42873	74233	94334	57545	114689	-	-	-	-	-	-	-	-	-
18C-9800-1000-OP	4.2	7.1	133642	32987	35446	91490	55445	108864	114084	71988	155141	-	-	-	-	-	-	-	-	-
18C-9800-1100-OP	3.5	6.2	133204	32805	35199	119721	76097	166688	-	-	-	-	-	-	-	-	-	-	-	-
18C-9800-1200-OP	3.1	5.2	132724	32604	34929	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-9800-1300-OP	2.7	4.4	132203	32386	34635	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-10500-935-OP	5.4	9.2	156518	38971	42109	67028	35020	46495	86780	49982	86951	126286	79133	167864	-	-	-	-	-	-
18C-10500-1000-OP	4.8	8.1	156255	38862	41961	83937	47851	81127	106531	64660	127404	-	-	-	-	-	-	-	-	-
18C-10500-1100-OP	4.0	6.7	155817	38681	41714	112168	68813	138950	-	-	-	-	-	-	-	-	-	-	-	-
18C-10500-1200-OP	3.5	5.6	155338	38482	41444	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-10500-1300-OP	3.0	4.8	154817	38265	41150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18C-11000-935-OP	5.9	9.9	175538	46768	52829	55637	23164	23164	75390	41412	63621	114895	70809	144534	-	-	-	-	-	-
18C-11000-1000-OP	5.3	8.6	175275	46662	52681	72546	39253	57796	95140	56215	104073	-	-	-	-	-	-	-	-	-
18C-11000-1100-OP	4.4	7.3	174838	46484	52435	100777	60396	115619	128117	80469	171615	-	-	-	-	-	-	-	-	-
18C-11000-1200-OP	3.8	6.0	174358	46289	52164	131698	83082	178950	-	-	-	-	-	-	-	-	-	-	-	-
18C-11000-1300-OP	3.3	5.1	173837	46077	51870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 38. Models 32C-9900-1100-OP to 50C-17300-1450-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
32C-9900-1100-OP	3.6	8.0	162513	36181	36641	-	-	-	-	-	-	80503	42213	56675	96550	54413	89542	112597	66406	122409	128644	78301	155275
32C-9900-1200-OP	3.2	6.7	161950	35928	36324	-	-	-	85503	46049	66916	104600	60448	106030	123697	74642	145144	142794	88681	184258	161892	102617	223372
32C-9900-1300-OP	2.8	5.7	161338	35651	35979	85967	46404	67866	108380	63264	113771	130792	79887	159676	153205	96278	205580	175618	112602	251485	198030	128892	297390
32C-12000-1100-OP	4.3	8.6	198681	47223	49571	-	-	-	-	-	-	-	-	-	82058	40618	45178	98104	53062	78045	114151	65172	110912
32C-12000-1200-OP	3.7	7.8	198118	46984	49253	-	-	-	-	-	-	90108	46924	61666	109205	61460	100780	128302	75735	139894	147399	89885	179008
32C-12000-1300-OP	3.3	6.2	197506	46724	48909	-	-	-	93887	49837	69407	116300	66782	115312	138712	83458	161217	161125	99952	207122	183538	116307	253026
32C-15000-1100-OP	4.9	9.2	231520	58032	62974	-	-	-	-	-	-	-	-	-	-	-	-	83346	37764	37764	99393	52239	70631
32C-15000-1200-OP	4.2	7.5	230957	57799	62657	-	-	-	-	-	-	-	-	-	94446	48407	60499	113544	63023	99613	132641	77343	138727
32C-15000-1300-OP	3.7	6.6	230345	57545	62312	-	-	-	-	-	-	101542	53893	75031	123954	70851	120936	146367	87547	166840	168779	104081	212745
50C-15400-1100-OP	4.8	10.4	250577	56694	57877	-	-	-	-	-	-	-	-	-	-	-	-	104614	50139	50139	122444	64289	86658
50C-15400-1200-OP	4.2	8.8	249951	56417	57525	-	-	-	-	-	-	-	-	-	116947	60031	75401	138166	76290	118861	159386	92230	162321
50C-15400-1300-OP	3.6	7.6	249271	56117	57142	-	-	-	-	-	-	124831	66130	91547	149734	85001	142552	174637	103587	193558	199540	122025	244563
50C-15400-1450-OP	3.0	6.0	248150	55620	56509	-	-	-	141869	79082	126444	172850	102263	189898	203831	125171	253353	234813	147809	316808	265794	170371	380263
50C-15600-1100-OP	5.0	10.6	262195	61728	64426	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	115486	58894	72407
50C-15600-1200-OP	4.3	8.9	261570	61459	64073	-	-	-	-	-	-	-	-	-	109989	54562	61149	131208	71007	104610	152428	87020	148070
50C-15600-1300-OP	3.8	7.5	260890	61168	63690	-	-	-	-	-	-	117873	60751	77296	142776	79766	128301	167679	98410	179307	192582	116888	230312
50C-15600-1450-OP	3.1	6.1	259768	60686	63058	-	-	-	134911	73818	112192	165892	97078	175647	196873	120057	239102	227855	142732	302557	258836	165310	366012
50C-17300-1100-OP	5.5	11.1	290703	70753	75353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50C-17300-1200-OP	4.7	9.3	290077	70491	75001	-	-	-	-	-	-	-	-	-	-	-	-	119078	59753	69642	140297	76143	113102
50C-17300-1300-OP	4.1	7.9	289398	70205	74617	-	-	-	-	-	-	-	-	-	130645	68755	93333	155548	87676	144339	180451	106290	195344
50C-17300-1450-OP	3.4	6.4	288276	69732	73985	-	-	-	122780	62660	77224	153761	86329	140679	184743	109483	204134	215724	132394	267589	246705	155036	331044

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 39. Models 32C-9900-1100-OP to 50C-17300-1450-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
32C-9900-1100-OP	3.6	8.0	162513	36181	36641	144691	90065	188142	176785	113451	253876	-	-	-	-	-	-	-	-	-
32C-9900-1200-OP	3.2	6.7	161950	35928	36324	180989	116509	262486	-	-	-	-	-	-	-	-	-	-	-	-
32C-9900-1300-OP	2.8	5.7	161338	35651	35979	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32C-12000-1100-OP	4.3	8.6	198681	47223	49571	130198	77145	143778	162292	100804	209512	-	-	-	-	-	-	-	-	-
32C-12000-1200-OP	3.7	7.8	198118	46984	49253	166496	103872	218122	204690	131695	296351	-	-	-	-	-	-	-	-	-
32C-12000-1300-OP	3.3	6.2	197506	46724	48909	205950	132612	298931	-	-	-	-	-	-	-	-	-	-	-	-
32C-15000-1100-OP	4.9	9.2	231520	58032	62974	115440	64453	103497	147534	88412	169231	211721	135403	300698	-	-	-	-	-	-
32C-15000-1200-OP	4.2	7.5	230957	57799	62657	151738	91530	177841	189932	119531	256069	-	-	-	-	-	-	-	-	-
32C-15000-1300-OP	3.7	6.6	230345	57545	62312	191192	120451	258650	-	-	-	-	-	-	-	-	-	-	-	-
50C-15400-1100-OP	4.8	10.4	250577	56694	57877	140274	77879	123176	175933	104549	196214	247253	156884	342288	282913	182824	415325	-	-	-
50C-15400-1200-OP	4.2	8.8	249951	56417	57525	180605	108012	205781	223043	139221	292701	-	-	-	-	-	-	-	-	-
50C-15400-1300-OP	3.6	7.6	249271	56117	57142	224442	140242	295568	274248	176521	397579	-	-	-	-	-	-	-	-	-
50C-15400-1450-OP	3.0	6.0	248150	55620	56509	296775	192893	443718	-	-	-	-	-	-	-	-	-	-	-	-
50C-15600-1100-OP	5.0	10.6	262195	61728	64426	133316	72607	108925	168975	99376	181963	240295	151810	328037	275955	177763	401074	-	-	-
50C-15600-1200-OP	4.3	8.9	261570	61459	64073	173647	102853	191530	216085	134143	278450	-	-	-	-	-	-	-	-	-
50C-15600-1300-OP	3.8	7.5	260890	61168	63690	217484	135165	281317	267290	171460	383328	-	-	-	-	-	-	-	-	-
50C-15600-1450-OP	3.1	6.1	259768	60686	63058	289817	187845	429466	-	-	-	-	-	-	-	-	-	-	-	-
50C-17300-1100-OP	5.5	11.1	290703	70753	75353	121185	61409	73957	156845	88652	146995	228164	141505	293069	263824	167521	366106	-	-	-
50C-17300-1200-OP	4.7	9.3	290077	70491	75001	161516	92152	156562	203954	123724	243482	288830	185712	417322	-	-	-	-	-	-
50C-17300-1300-OP	4.1	7.9	289398	70205	74617	205354	124758	246349	255160	161205	348360	-	-	-	-	-	-	-	-	-
50C-17300-1450-OP	3.4	6.4	288276	69732	73985	277686	177605	394498	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 40. Models 50C-18600-1100-OP to 80C-19700-1800-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
50C-18600-1100-OP	6.8	10.0	370358	84384	86467	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50C-18600-1200-OP	5.8	10.4	369733	84111	86114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50C-18600-1300-OP	5.1	8.9	369053	83813	85731	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	165225	83106	97639
50C-18600-1450-OP	4.2	7.2	367931	83321	85099	-	-	-	-	-	-	-	-	-	169516	86476	106429	200497	110253	169884	231479	133554	233339
65C-18400-1600-OP	3.5	8.0	347551	81904	85534	-	-	-	-	-	-	177099	96581	145435	212936	123537	218835	248772	150167	292234	284609	176521	365633
65C-18400-1700-OP	3.2	7.0	346698	81539	85053	-	-	-	173138	93572	137321	213594	124028	220182	254050	154077	303043	294506	183744	385904	334962	213244	468765
65C-18400-1800-OP	2.9	6.0	345794	81151	84544	161589	84715	113667	206944	119060	206563	252300	152783	299459	297656	186043	392355	343011	219099	485251	388367	252081	578147
65C-19400-1600-OP	4.1	8.0	414531	99107	104396	-	-	-	-	-	-	-	-	-	190983	100553	136676	226819	127781	210075	262656	154572	283475
65C-19400-1700-OP	3.7	7.0	413679	98745	103916	-	-	-	-	-	-	191640	101061	138024	232097	131744	220885	272553	161930	303746	313009	191857	386606
65C-19400-1800-OP	3.3	6.0	412775	98360	103406	-	-	-	184991	95928	124405	230347	130433	217301	275702	164265	310197	321058	197752	403093	366414	230883	495989
80C-18700-1800-OP	2.9	6.0	421193	70962	70962	230234	117315	143844	285934	159912	257927	341634	201584	372010	397334	242845	486093	453034	283590	600175	508734	324193	714258
80C-19700-1800-OP	3.4	6.0	515287	95508	95508	-	-	-	256971	127405	142511	312671	170485	256594	368371	212427	370677	424071	253868	484760	479771	294993	598842

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 41. Models 50C-18600-1100-OP to 80C-19700-1800-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
50C-18600-1100-OP	6.8	10.0	370358	84384	86467	-	-	-	141618	49289	49289	212938	119646	195364	248598	146315	268401	319917	198921	414475
50C-18600-1200-OP	5.8	10.4	369733	84111	86114	146289	58857	58857	188728	101298	145777	273604	164874	319617	316042	196093	406538	-	-	-
50C-18600-1300-OP	5.1	8.9	369053	83813	85731	190127	102369	148644	239933	139859	250655	-	-	-	-	-	-	-	-	-
50C-18600-1450-OP	4.2	7.2	367931	83321	85099	262460	156611	296793	324423	202208	423703	-	-	-	-	-	-	-	-	-
65C-18400-1600-OP	3.5	8.0	347551	81904	85534	320446	202673	439033	392119	254804	585831	-	-	-	-	-	-	-	-	-
65C-18400-1700-OP	3.2	7.0	346698	81539	85053	375418	242674	551626	-	-	-	-	-	-	-	-	-	-	-	-
65C-18400-1800-OP	2.9	6.0	345794	81151	84544	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65C-19400-1600-OP	4.1	8.0	414531	99107	104396	298492	181156	356874	370165	233620	503673	-	-	-	-	-	-	-	-	-
65C-19400-1700-OP	3.7	7.0	413679	98745	103916	353465	221434	469467	434377	280356	635189	-	-	-	-	-	-	-	-	-
65C-19400-1800-OP	3.3	6.0	412775	98360	103406	411769	263909	588885	-	-	-	-	-	-	-	-	-	-	-	-
80C-18700-1800-OP	2.9	6.0	421193	70962	70962	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80C-19700-1800-OP	3.4	6.0	515287	95508	95508	535471	335701	712925	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Symmetric Yoke Design, Spring to Close

Table 42. Models 0.3S-008A-100-CL to 0.9S-0350-435-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
0.3S-008A-100-CL	4.4	12.0	246	108	130	-	-	-	-	-	-	-	-	-	168	54	54	205	87	96	241	112	138
0.3S-008A-135-CL	2.7	12.0	238	103	121	231	105	126	298	149	203	365	192	280	432	235	356	499	278	433	566	321	510
0.3S-008B-100-CL	6.2	12.0	381	143	143	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.3S-008B-135-CL	3.7	12.0	373	134	134	-	-	-	-	-	-	352	130	130	420	183	207	487	228	284	554	272	360
0.3S-008C-100-CL	7.2	12.0	458	177	181	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.3S-008C-135-CL	4.2	12.0	450	171	172	-	-	-	-	-	-	-	-	-	382	118	118	449	185	194	516	231	271
0.3S-008C-175-CL	2.8	12.0	440	161	161	445	182	190	558	259	318	670	333	447	783	406	576	896	478	705	1009	550	834
0.3S-0100-135-CL	6.4	12.0	731	307	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.3S-0100-175-CL	4.0	12.0	721	301	339	-	-	-	-	-	-	-	-	-	608	244	248	721	322	377	833	397	506
0.3S-0100-235-CL	2.5	8.4	705	290	322	798	374	466	1001	507	698	1205	638	931	1408	768	1163	1611	898	1395	1814	1027	1628
0.3S-0150-175-CL	4.9	12.0	907	419	539	-	-	-	-	-	-	-	-	-	-	-	-	523	151	151	636	264	280
0.3S-0150-235-CL	3.0	8.9	891	410	523	-	-	-	804	378	472	1007	510	704	1210	641	937	1413	771	1169	1616	901	1402
0.9S-0200-235-CL	3.3	12.0	1192	544	688	-	-	-	846	346	359	1081	506	628	1316	659	897	1551	811	1165	1786	962	1434
0.9S-0200-280-CL	2.5	12.0	1175	533	669	1186	574	748	1519	791	1129	1853	1005	1511	2187	1218	1892	2520	1430	2274	2854	1643	2655
0.9S-0200-335-CL	1.9	9.6	1162	525	655	2037	1122	1721	2514	1427	2267	2992	1731	2813	3469	2034	3359	3947	2337	3905	4424	2640	4451
0.9S-0250-235-CL	3.9	12.0	1426	691	940	-	-	-	-	-	-	833	337	344	1068	497	613	1303	651	882	1538	803	1150
0.9S-0250-280-CL	2.9	12.0	1408	680	921	938	410	464	1271	630	846	1605	846	1227	1939	1059	1609	2272	1272	1990	2606	1485	2372
0.9S-0250-335-CL	2.2	9.9	1395	671	907	1789	964	1437	2266	1269	1983	2744	1573	2529	3221	1876	3076	3699	2180	3622	4176	2483	4168
0.9S-0350-280-CL	4.2	12.0	2271	1049	1345	-	-	-	-	-	-	-	-	-	1520	608	614	1853	839	996	2187	1059	1377
0.9S-0350-335-CL	3.1	10.8	2258	1041	1331	-	-	-	1848	835	989	2325	1149	1535	2803	1458	2081	3280	1765	2627	3758	2070	3174
0.9S-0350-385-CL	2.5	8.2	2242	1031	1315	2274	1116	1477	2905	1524	2198	3536	1928	2920	4166	2331	3641	4797	2733	4362	5428	3134	5083
0.9S-0350-435-CL	2.1	6.4	2230	1023	1301	3309	1783	2661	4114	2298	3581	4919	2811	4502	5724	3323	5423	6530	3834	6344	7335	4345	7265

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 43. Models 0.3S-008A-100-CL to 0.9S-0350-435-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
0.3S-008A-100-CL	4.4	12.0	246	108	130	278	136	180	352	184	264	499	278	433	573	325	517	720	419	685
0.3S-008A-135-CL	2.7	12.0	238	103	121	634	364	587	768	449	740	1036	619	1047	1170	704	1200	1438	875	1507
0.3S-008B-100-CL	6.2	12.0	381	143	143	-	-	-	339	115	115	486	228	283	560	276	367	707	371	536
0.3S-008B-135-CL	3.7	12.0	373	134	134	621	315	437	755	402	590	1023	573	897	1157	659	1051	1425	829	1357
0.3S-008C-100-CL	7.2	12.0	458	177	181	-	-	-	-	-	-	449	185	194	522	235	278	670	332	446
0.3S-008C-135-CL	4.2	12.0	450	171	172	583	276	348	717	363	501	986	536	808	1120	621	961	1388	792	1268
0.3S-008C-175-CL	2.8	12.0	440	161	161	1121	622	963	1347	766	1221	1797	1052	1736	2023	1195	1994	2473	1482	2509
0.3S-0100-135-CL	6.4	12.0	731	307	350	-	-	-	542	173	173	811	382	480	945	470	633	1213	643	940
0.3S-0100-175-CL	4.0	12.0	721	301	339	946	471	635	1171	616	893	1622	905	1408	1848	1048	1666	2298	1335	2182
0.3S-0100-235-CL	2.5	8.4	705	290	322	2017	1156	1860	2424	1415	2325	-	-	-	-	-	-	-	-	-
0.3S-0150-175-CL	4.9	12.0	907	419	539	748	341	409	974	489	667	1424	778	1182	1650	922	1440	2101	1209	1955
0.3S-0150-235-CL	3.0	8.9	891	410	523	1820	1031	1634	2226	1289	2099	-	-	-	-	-	-	-	-	-
0.9S-0200-235-CL	3.3	12.0	1192	544	688	2021	1112	1703	2491	1412	2240	3431	2009	3315	3901	2308	3853	4841	2905	4928
0.9S-0200-280-CL	2.5	12.0	1175	533	669	3187	1855	3037	3854	2278	3800	5189	3126	5326	5856	3549	6089	7190	4395	7615
0.9S-0200-335-CL	1.9	9.6	1162	525	655	4902	2943	4998	5857	3549	6090	7767	4761	8274	-	-	-	-	-	-
0.9S-0250-235-CL	3.9	12.0	1426	691	940	1773	953	1419	2243	1254	1957	3183	1852	3032	3653	2150	3569	4593	2747	4644
0.9S-0250-280-CL	2.9	12.0	1408	680	921	2939	1697	2753	3606	2121	3516	4941	2968	5042	5608	3392	5805	6942	4238	7331
0.9S-0250-335-CL	2.2	9.9	1395	671	907	4654	2786	4714	5609	3392	5806	7519	4604	7991	-	-	-	-	-	-
0.9S-0350-280-CL	4.2	12.0	2271	1049	1345	2521	1276	1759	3188	1705	2522	4522	2558	4048	5189	2982	4811	6524	3830	6337
0.9S-0350-335-CL	3.1	10.8	2258	1041	1331	4235	2375	3720	5190	2983	4812	7100	4196	6996	8055	4803	8089	-	-	-
0.9S-0350-385-CL	2.5	8.2	2242	1031	1315	6058	3535	5805	7320	4336	7247	-	-	-	-	-	-	-	-	-
0.9S-0350-435-CL	2.1	6.4	2230	1023	1301	8140	4856	8185	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 44. Models 0.9S-0350-485-CL to 1.5S-0800-485-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
0.9S-0350-485-CL	1.8	5.1	2222	1018	1293	4476	2528	3995	5477	3165	5140	6478	3801	6285	7479	4436	7429	8479	5072	8574	-	-	-
0.9S-0400-280-CL	4.9	12.0	2676	1302	1782	-	-	-	-	-	-	-	-	-	-	-	-	1423	504	504	1757	774	885
0.9S-0400-335-CL	3.6	11.2	2663	1294	1767	-	-	-	-	-	-	1895	866	1043	2373	1180	1589	2850	1489	2136	3328	1795	2682
0.9S-0400-385-CL	2.8	8.5	2647	1284	1751	1844	832	985	2475	1246	1706	3106	1653	2428	3736	2056	3149	4367	2459	3870	4998	2860	4592
0.9S-0400-435-CL	2.3	6.7	2635	1276	1737	2879	1507	2169	3684	2023	3090	4489	2537	4010	5294	3049	4931	6100	3561	5852	6905	4072	6773
0.9S-0400-485-CL	2.0	5.4	2627	1272	1729	4046	2254	3503	5047	2892	4648	6048	3528	5793	7049	4163	6937	8049	4799	8082	-	-	-
0.9S-0420-335-CL	3.8	11.8	2899	1447	2043	-	-	-	-	-	-	1623	691	754	2101	1010	1300	2578	1320	1846	3056	1627	2393
0.9S-0420-385-CL	3.0	8.8	2883	1438	2026	-	-	-	2203	1077	1417	2834	1485	2139	3464	1889	2860	4095	2292	3581	4726	2694	4302
0.9S-0420-435-CL	2.5	6.9	2871	1430	2013	2607	1339	1880	3412	1856	2800	4217	2370	3721	5023	2882	4642	5828	3394	5563	6633	3905	6484
0.9S-0420-485-CL	2.1	5.6	2863	1425	2005	3774	2087	3214	4775	2725	4359	5776	3361	5504	6777	3997	6648	7777	4632	7793	8778	5268	8938
0.9S-0700-335-CL	4.8	12.0	3795	1802	2392	-	-	-	-	-	-	-	-	-	-	-	-	2235	823	823	2712	1195	1369
0.9S-0700-385-CL	3.7	9.1	3780	1792	2375	-	-	-	-	-	-	2490	1043	1115	3121	1468	1836	3751	1880	2558	4382	2288	3279
0.9S-0700-435-CL	3.0	7.1	3767	1784	2362	-	-	-	3069	1434	1777	3874	1959	2698	4679	2478	3619	5484	2994	4539	6289	3508	5460
0.9S-0700-485-CL	2.6	5.7	3760	1780	2353	3431	1671	2191	4431	2319	3335	5432	2961	4480	6433	3600	5625	7434	4238	6769	8435	4874	7914
0.9S-0720-385-CL	4.3	9.7	4435	2200	3081	-	-	-	-	-	-	-	-	-	2424	997	1040	3055	1425	1761	3686	1838	2483
0.9S-0720-435-CL	3.5	7.6	4423	2192	3068	-	-	-	-	-	-	3178	1505	1901	3983	2030	2822	4788	2548	3743	5593	3064	4664
0.9S-0720-485-CL	2.9	6.1	4415	2188	3059	2734	1210	1394	3735	1870	2539	4736	2515	3684	5737	3156	4828	6738	3794	5973	7739	4432	7118
1.5S-0800-385-CL	3.6	10.3	4268	2090	2540	-	-	-	-	-	-	4124	1448	1472	4989	2000	2307	5854	2528	3141	6719	3047	3976
1.5S-0800-435-CL	3.0	8.1	4254	2080	2522	-	-	-	4918	1956	2238	6022	2629	3303	7127	3290	4369	8231	3946	5435	9336	4599	6500
1.5S-0800-485-CL	2.5	6.5	4245	2073	2511	5414	2260	2717	6787	3088	4041	8160	3904	5366	9533	4716	6691	10906	5525	8015	12279	6332	9340

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 45. Models 0.9S-0350-485-CL to 1.5S-0800-485-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
0.9S-0350-485-CL	1.8	5.1	2222	1018	1293	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9S-0400-280-CL	4.9	12.0	2676	1302	1782	2091	996	1267	2758	1429	2030	4092	2284	3556	4759	2709	4319	6094	3557	5845
0.9S-0400-335-CL	3.6	11.2	2663	1294	1767	3805	2100	3228	4760	2709	4320	6670	3923	6505	7625	4530	7597	-	-	-
0.9S-0400-385-CL	2.8	8.5	2647	1284	1751	5628	3262	5313	6890	4062	6756	-	-	-	-	-	-	-	-	-
0.9S-0400-435-CL	2.3	6.7	2635	1276	1737	7710	4583	7694	-	-	-	-	-	-	-	-	-	-	-	-
0.9S-0400-485-CL	2.0	5.4	2627	1272	1729	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9S-0420-335-CL	3.8	11.8	2899	1447	2043	3533	1933	2939	4488	2542	4031	6398	3757	6215	7353	4363	7308	-	-	-
0.9S-0420-385-CL	3.0	8.8	2883	1438	2026	5356	3095	5024	6618	3896	6466	-	-	-	-	-	-	-	-	-
0.9S-0420-435-CL	2.5	6.9	2871	1430	2013	7438	4417	7404	-	-	-	-	-	-	-	-	-	-	-	-
0.9S-0420-485-CL	2.1	5.6	2863	1425	2005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9S-0700-335-CL	4.8	12.0	3795	1802	2392	3190	1513	1915	4145	2134	3007	6055	3359	5192	7010	3967	6284	8920	5183	8469
0.9S-0700-385-CL	3.7	9.1	3780	1792	2375	5013	2692	4000	6274	3499	5443	8797	5105	8328	-	-	-	-	-	-
0.9S-0700-435-CL	3.0	7.1	3767	1784	2362	7094	4021	6381	8705	5046	8223	-	-	-	-	-	-	-	-	-
0.9S-0700-485-CL	2.6	5.7	3760	1780	2353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9S-0720-385-CL	4.3	9.7	4435	2200	3081	4316	2245	3204	5578	3054	4647	8101	4662	7532	-	-	-	-	-	-
0.9S-0720-435-CL	3.5	7.6	4423	2192	3068	6398	3578	5585	8008	4603	7426	-	-	-	-	-	-	-	-	-
0.9S-0720-485-CL	2.9	6.1	4415	2188	3059	8739	5068	8262	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-0800-385-CL	3.6	10.3	4268	2090	2540	7584	3563	4811	9315	4587	6480	12776	6624	9819	14506	7641	11489	-	-	-
1.5S-0800-435-CL	3.0	8.1	4254	2080	2522	10440	5250	7566	12649	6550	9697	-	-	-	-	-	-	-	-	-
1.5S-0800-485-CL	2.5	6.5	4245	2073	2511	13652	7139	10665	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 46. Models 1.5S-0800-535-CL to 1.5S-1300-585-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
1.5S-0800-535-CL	2.1	5.3	4243	2072	2508	7198	3333	4438	8868	4323	6050	10539	5309	7661	12210	6292	9273	13880	7273	10885	-	-	-
1.5S-1100-385-CL	5.0	10.9	6209	3024	3643	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5632	1742	1742
1.5S-1100-435-CL	4.0	8.5	6195	3014	3625	-	-	-	-	-	-	-	-	-	6039	2109	2135	7144	2819	3201	8248	3497	4266
1.5S-1100-485-CL	3.3	6.8	6186	3008	3614	-	-	-	5699	1808	1808	7072	2775	3132	8445	3616	4457	9818	4442	5782	11191	5260	7106
1.5S-1100-535-CL	2.8	5.6	6184	3006	3611	6110	2157	2204	7781	3212	3816	9452	4222	5428	11122	5219	7040	12793	6209	8651	14464	7196	10263
1.5S-1100-585-CL	2.5	4.5	6155	2986	3574	8039	3369	4065	10036	4572	5992	12034	5759	7919	14031	6940	9846	-	-	-	-	-	-
1.5S-1200-385-CL	5.7	11.6	7216	3730	4969	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1200-435-CL	4.6	9.1	7202	3720	4951	-	-	-	-	-	-	-	-	-	-	-	-	5836	1973	1973	6940	2707	3039
1.5S-1200-485-CL	3.8	7.3	7193	3714	4940	-	-	-	-	-	-	5765	1905	1905	7138	2830	3230	8511	3670	4554	9884	4494	5879
1.5S-1200-535-CL	3.2	6.0	7191	3713	4937	-	-	-	6473	2412	2588	8144	3447	4200	9814	4453	5812	11485	5447	7424	13156	6436	9036
1.5S-1200-585-CL	2.8	5.0	7162	3693	4901	6731	2576	2837	8728	3801	4764	10726	4996	6692	12724	6181	8619	14721	7360	10546	-	-	-
1.5S-1300-385-CL	6.7	12.0	8556	4458	6015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1300-435-CL	5.4	9.5	8542	4448	5997	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5909	1470	1470
1.5S-1300-485-CL	4.4	7.8	8533	4442	5986	-	-	-	-	-	-	-	-	-	6106	1661	1661	7479	2784	2985	8852	3641	4310
1.5S-1300-535-CL	3.7	6.3	8531	4440	5983	-	-	-	-	-	-	7112	2545	2631	8783	3599	4243	10454	4612	5855	12124	5611	7467
1.5S-1300-585-CL	3.2	5.3	8502	4421	5947	-	-	-	7697	2923	3196	9695	4154	5123	11692	5353	7050	13690	6540	8977	-	-	-

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 47. Models 1.5S-0800-535-CL to 1.5S-1300-585-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
1.5S-0800-535-CL	2.1	5.3	4243	2072	2508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1100-385-CL	5.0	10.9	6209	3024	3643	6497	2411	2577	8227	3484	4247	11688	5555	7585	13418	6579	9255	-	-	-
1.5S-1100-435-CL	4.0	8.5	6195	3014	3625	9353	4163	5332	11562	5480	7463	-	-	-	-	-	-	-	-	-
1.5S-1100-485-CL	3.3	6.8	6186	3008	3614	12564	6074	8431	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1100-535-CL	2.8	5.6	6184	3006	3611	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1100-585-CL	2.5	4.5	6155	2986	3574	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1200-385-CL	5.7	11.6	7216	3730	4969	5189	1350	1350	6920	2694	3019	10380	4790	6358	12111	5818	8027	-	-	-
1.5S-1200-435-CL	4.6	9.1	7202	3720	4951	8045	3387	4105	10254	4715	6236	14672	7331	10498	-	-	-	-	-	-
1.5S-1200-485-CL	3.8	7.3	7193	3714	4940	11257	5311	7204	14003	6936	9853	-	-	-	-	-	-	-	-	-
1.5S-1200-535-CL	3.2	6.0	7191	3713	4937	14826	7422	10648	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1200-585-CL	2.8	5.0	7162	3693	4901	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1300-385-CL	6.7	12.0	8556	4458	6015	-	-	-	5888	1450	1450	9349	3944	4789	11079	4987	6459	14540	7044	9798
1.5S-1300-435-CL	5.4	9.5	8542	4448	5997	7013	2479	2536	9222	3867	4667	13640	6511	8930	-	-	-	-	-	-
1.5S-1300-485-CL	4.4	7.8	8533	4442	5986	10225	4474	5635	12971	6114	8284	-	-	-	-	-	-	-	-	-
1.5S-1300-535-CL	3.7	6.3	8531	4440	5983	13795	6603	9079	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1300-585-CL	3.2	5.3	8502	4421	5947	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 48. Models 3S-2000-385-CL to 14S-5100-885-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Suppy Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
3S-2000-385-CL	5.2	12.0	10845	5668	7860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7318	2301	2301
3S-2000-435-CL	4.2	10.6	10821	5652	7831	-	-	-	-	-	-	-	-	-	7984	2891	2962	9788	4051	4753	11592	5163	6544
3S-2000-485-CL	3.5	8.5	10806	5642	7812	-	-	-	-	-	-	9672	3978	4637	11915	5360	6864	14158	6718	9090	16401	8066	11317
3S-2000-535-CL	2.9	7.0	10802	5640	7808	8100	2970	3077	10829	4696	5786	13558	6356	8495	16288	7999	11205	19017	9633	13914	21746	11262	16623
3S-2000-585-CL	2.6	5.8	10754	5608	7748	11250	4954	6204	14514	6933	9444	17777	8891	12683	21040	10841	15922	24303	12787	19161	27566	14729	22400
3S-2050-385-CL	6.8	12.0	14732	7224	9059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3S-2050-435-CL	5.4	10.8	14708	7208	9030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10410	2158	2158
3S-2050-485-CL	4.5	8.8	14693	7198	9011	-	-	-	-	-	-	-	-	-	10732	2478	2478	12975	4643	4704	15218	6105	6931
3S-2050-535-CL	3.8	7.0	14689	7196	9007	-	-	-	-	-	-	12376	4109	4109	15105	6034	6819	17835	7733	9528	20564	9399	12237
3S-2050-585-CL	3.2	6.0	14641	7163	8947	-	-	-	13331	4885	5058	16594	6966	8297	19858	8970	11536	23121	10946	14775	26384	12909	18014
6S-2500-485-CL	4.1	12.0	15533	8240	11721	-	-	-	-	-	-	-	-	-	11337	4320	4637	13955	5972	7245	16572	7576	9853
6S-2500-535-CL	3.5	11.3	15529	8238	11716	-	-	-	-	-	-	13255	5538	6548	16440	7496	9722	19625	9425	12896	22810	11342	16070
6S-2500-585-CL	3.0	9.4	15473	8200	11646	-	-	-	14370	6229	7659	18178	8551	11454	21986	10846	15248	25795	13130	19043	29603	15407	22838
6S-2500-635-CL	2.6	8.0	15411	8159	11570	14567	6350	7855	19054	9080	12326	23541	11779	16797	28028	14466	21268	32515	17146	25739	37001	19822	30211
6S-2500-685-CL	2.3	6.9	15345	8115	11487	18900	8987	12173	24121	12127	17376	29343	15252	22579	34564	18368	27782	39785	21481	32985	45007	24590	38188
6S-2500-735-CL	2.1	6.0	15273	8067	11399	23561	11792	16818	29573	15389	22808	35584	18976	28798	41596	22559	34788	47607	26138	40779	53618	29716	46769
6S-3800-535-CL	4.5	12.0	21051	11605	17481	-	-	-	-	-	-	-	-	-	-	-	-	13940	5571	6285	17125	7553	9458
6S-3800-585-CL	3.9	10.2	20994	11568	17411	-	-	-	-	-	-	12493	4634	4843	16301	7046	8637	20109	9371	12432	23917	11670	16227
6S-3800-635-CL	3.4	8.6	20933	11527	17335	-	-	-	13368	5206	5715	17855	8000	10186	22342	10721	14657	26829	13420	19128	31316	16106	23600
6S-3800-685-CL	3.0	7.4	20866	11483	17253	-	-	-	18436	8354	10765	23657	11514	15968	28878	14648	21171	34100	17770	26374	39321	20886	31576
6S-3800-735-CL	2.6	6.5	20795	11436	17164	17876	8012	10207	23887	11652	16197	29898	15259	22187	35910	18852	28177	41921	22437	34168	47933	26019	40158
6S-3900-535-CL	2.8	12.0	22472	12585	19397	-	-	-	-	-	-	-	-	-	8865	1369	1369	12050	4407	4543	15235	6443	7717
6S-3900-585-CL	2.5	10.3	22415	12548	19327	-	-	-	-	-	-	10603	3101	3101	14411	5928	6896	18220	8276	10690	22028	10583	14485
6S-3900-635-CL	2.2	8.8	22354	12507	19251	-	-	-	11479	3973	3973	15966	6895	8445	20453	9632	12916	24940	12335	17387	29426	15026	21858
6S-3900-685-CL	2.0	7.5	22287	12463	19169	11325	3820	3820	16546	7252	9023	21768	10426	14226	26989	13565	19429	32210	16689	24632	37432	19807	29835
6S-3900-735-CL	1.8	6.5	22216	12416	19080	15986	6908	8465	21998	10565	14455	28009	14176	20445	34021	17771	26436	40032	21358	32426	46043	24940	38416
14S-5100-635-CL	3.6	12.0	24596	13852	21159	-	-	-	-	-	-	17907	7250	8445	22885	10264	13248	27863	13230	18050	32840	16174	22853
14S-5100-685-CL	3.2	12.0	24524	13804	21067	-	-	-	18551	7645	9066	24344	11136	14655	30136	14576	20244	35929	17996	25832	41721	21406	31421
14S-5100-735-CL	2.8	10.6	24447	13752	20969	17930	7264	8467	24599	11289	14901	31268	15246	21336	37937	19179	27770	44606	23101	34204	51275	27018	40638
14S-5100-785-CL	2.6	9.3	24365	13697	20864	23466	10612	13808	31073	15131	21147	38680	19616	28486	46287	24089	35826	53894	28554	43165	61501	33016	50505
14S-5100-835-CL	2.3	8.2	24277	13638	20752	29365	14120	19500	37972	19199	27804	46579	24260	36108	55186	29312	44412	63793	34360	52716	72401	39404	61020
14S-5100-885-CL	2.1	7.3	24184	13575	20633	35629	17820	25543	45298	23507	34871	54966	29183	44200	64635	34853	53528	74304	40518	62856	83973	46181	72185

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 49. Models 3S-2000-385-CL to 14S-5100-885-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Suppy Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
3S-2000-385-CL	5.2	12.0	10845	5668	7860	8732	3383	3704	11558	5142	6510	17212	8553	12122	20039	10244	14928	25692	13613	20540
3S-2000-435-CL	4.2	10.6	10821	5652	7831	13397	6259	8335	17005	8429	11917	24222	12738	19081	27831	14886	22663	-	-	-
3S-2000-485-CL	3.5	8.5	10806	5642	7812	18643	9410	13543	23129	12087	17996	-	-	-	-	-	-	-	-	-
3S-2000-535-CL	2.9	7.0	10802	5640	7808	24475	12889	19332	29934	16138	24750	-	-	-	-	-	-	-	-	-
3S-2000-585-CL	2.6	5.8	10754	5608	7748	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3S-2050-385-CL	6.8	12.0	14732	7224	9059	-	-	-	10376	2124	2124	16030	6615	7736	18856	8359	10542	24510	11782	16154
3S-2050-435-CL	5.4	10.8	14708	7208	9030	12214	3949	3949	15823	6485	7531	23040	10897	14695	26649	13067	18277	-	-	-
3S-2050-485-CL	4.5	8.8	14693	7198	9011	17461	7502	9157	21947	10237	13610	-	-	-	-	-	-	-	-	-
3S-2050-535-CL	3.8	7.0	14689	7196	9007	23293	11050	14946	28751	14328	20364	-	-	-	-	-	-	-	-	-
3S-2050-585-CL	3.2	6.0	14641	7163	8947	29647	14864	21254	-	-	-	-	-	-	-	-	-	-	-	-
6S-2500-485-CL	4.1	12.0	15533	8240	11721	19190	9162	12462	24425	12309	17678	34895	18565	28111	40130	21686	33328	50600	27920	43761
6S-2500-535-CL	3.5	11.3	15529	8238	11716	25995	13251	19243	32365	17057	25591	45105	24649	38286	51476	28442	44634	-	-	-
6S-2500-585-CL	3.0	9.4	15473	8200	11646	33411	17680	26633	41027	22220	34222	56260	31287	49401	-	-	-	-	-	-
6S-2500-635-CL	2.6	8.0	15411	8159	11570	41488	22495	34682	50462	27838	43624	-	-	-	-	-	-	-	-	-
6S-2500-685-CL	2.3	6.9	15345	8115	11487	50228	27699	43391	-	-	-	-	-	-	-	-	-	-	-	-
6S-2500-735-CL	2.1	6.0	15273	8067	11399	59630	33291	52759	-	-	-	-	-	-	-	-	-	-	-	-
6S-3800-535-CL	4.5	12.0	21051	11605	17481	20310	9493	12632	26680	13330	18980	39420	20945	31675	45790	24743	38022	58530	32329	50718
6S-3800-585-CL	3.9	10.2	20994	11568	17411	27725	13957	20022	35342	18513	27611	50574	27591	42790	58191	32126	50379	-	-	-
6S-3800-635-CL	3.4	8.6	20933	11527	17335	35803	18788	28071	44777	24139	37013	-	-	-	-	-	-	-	-	-
6S-3800-685-CL	3.0	7.4	20866	11483	17253	44542	24000	36779	54985	30218	47185	-	-	-	-	-	-	-	-	-
6S-3800-735-CL	2.6	6.5	20795	11436	17164	53944	29598	46148	-	-	-	-	-	-	-	-	-	-	-	-
6S-3900-535-CL	2.8	12.0	22472	12585	19397	18420	8398	10891	24790	12246	17238	37530	19866	29933	43901	23664	36281	56641	31250	48976
6S-3900-585-CL	2.5	10.3	22415	12548	19327	25836	12874	18280	33452	17432	25869	48685	26513	41048	56301	31048	48638	-	-	-
6S-3900-635-CL	2.2	8.8	22354	12507	19251	33913	17707	26329	42887	23061	35271	-	-	-	-	-	-	-	-	-
6S-3900-685-CL	2.0	7.5	22287	12463	19169	42653	22921	35038	53096	29140	45444	-	-	-	-	-	-	-	-	-
6S-3900-735-CL	1.8	6.5	22216	12416	19080	52055	28520	44406	-	-	-	-	-	-	-	-	-	-	-	-
14S-5100-635-CL	3.6	12.0	24596	13852	21159	37818	19109	27655	47774	24962	37260	67685	36642	56470	77640	42472	66075	97551	54134	85285
14S-5100-685-CL	3.2	12.0	24524	13804	21067	47514	24809	37009	59099	31607	48187	82269	45183	70541	93854	51969	81718	117024	65532	104072
14S-5100-735-CL	2.8	10.6	24447	13752	20969	57944	30929	47072	71282	38748	59941	97958	54372	85678	111296	62180	98546	-	-	-
14S-5100-785-CL	2.6	9.3	24365	13697	20864	69109	37476	57844	84323	46386	72523	114752	64202	101880	-	-	-	-	-	-
14S-5100-835-CL	2.3	8.2	24277	13638	20752	81008	44445	69324	98222	54527	85933	-	-	-	-	-	-	-	-	-
14S-5100-885-CL	2.1	7.3	24184	13575	20633	93641	51844	81513	112979	63165	100170	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 50. Models 14S-5100-935-CL to 14S-8300-935-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
14S-5100-935-CL	2.0	6.6	24086	13509	20507	42257	21721	31937	53049	28059	42350	63841	34388	52762	74633	40711	63174	85425	47032	73586	96217	53353	83999
14S-5400-635-CL	4.5	12.0	31902	17436	25418	-	-	-	-	-	-	-	-	-	-	-	-	23662	8896	9630	28640	11984	14432
14S-5400-685-CL	4.0	12.0	31831	17388	25327	-	-	-	-	-	-	-	-	-	25936	10324	11823	31728	13854	17412	37521	17323	23001
14S-5400-735-CL	3.5	10.9	31754	17336	25229	-	-	-	-	-	-	27067	11022	12915	33736	15061	19349	40405	19038	25784	47074	22988	32218
14S-5400-785-CL	3.1	9.6	31671	17281	25124	-	-	-	26872	10902	12727	34479	15507	20066	42086	20036	27406	49693	24534	34745	57301	29018	42084
14S-5400-835-CL	2.8	8.5	31584	17222	25012	25164	9844	11079	33771	15082	19383	42379	20209	27688	50986	25297	35992	59593	30368	44296	68200	35427	52600
14S-5400-885-CL	2.6	7.5	31491	17159	24893	31428	13674	17123	41097	19449	26451	50766	25167	35779	60434	30863	45108	70103	36545	54436	79772	42221	63765
14S-5400-935-CL	2.4	6.7	31392	17093	24767	38056	17642	23517	48848	24035	33929	59640	30396	44342	70432	36738	54754	81225	43073	65166	92017	49402	75578
14S-8300-735-CL	4.3	11.5	40951	22498	33067	-	-	-	-	-	-	-	-	-	26007	8526	8526	32676	13034	14960	39345	17101	21394
14S-8300-785-CL	3.9	10.1	40869	22443	32962	-	-	-	-	-	-	26750	9223	9242	34357	14070	16582	41964	18677	23921	49571	23217	31260
14S-8300-835-CL	3.5	8.9	40781	22384	32850	-	-	-	-	-	-	34649	14249	16864	43256	19452	25168	51863	24579	33472	60470	29672	41776
14S-8300-885-CL	3.2	7.9	40688	22321	32731	-	-	-	33367	13462	15627	43036	19320	24955	52705	25078	34284	62374	30795	43612	72042	36494	52941
14S-8300-935-CL	2.9	7.1	40590	22254	32605	30327	11565	12693	41119	18170	23105	51911	24607	33518	62703	30990	43930	73495	37349	54342	84287	43695	64754

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 51. Models 14S-5100-935-CL to 14S-8300-935-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
14S-5100-935-CL	2.0	6.6	24086	13509	20507	107010	59672	94411	-	-	-	-	-	-	-	-	-	-	-	-
14S-5400-635-CL	4.5	12.0	31902	17436	25418	33617	14990	19235	43573	20916	28840	63484	32656	48050	73439	38505	57655	93350	50184	76865
14S-5400-685-CL	4.0	12.0	31831	17388	25327	43313	20762	28589	54898	27603	39766	78068	41222	62121	89653	48016	73298	112823	61595	95652
14S-5400-735-CL	3.5	10.9	31754	17336	25229	53743	26923	38652	67081	34770	51521	93757	50423	77257	107095	58240	90126	-	-	-
14S-5400-785-CL	3.1	9.6	31671	17281	25124	64908	33493	49424	80122	42427	64103	110551	60264	93460	-	-	-	-	-	-
14S-5400-835-CL	2.8	8.5	31584	17222	25012	76807	40483	60904	94021	50578	77512	-	-	-	-	-	-	-	-	-
14S-5400-885-CL	2.6	7.5	31491	17159	24893	89441	47892	73093	108778	59226	91750	-	-	-	-	-	-	-	-	-
14S-5400-935-CL	2.4	6.7	31392	17093	24767	102809	55730	85991	-	-	-	-	-	-	-	-	-	-	-	-
14S-8300-735-CL	4.3	11.5	40951	22498	33067	46014	21099	27828	59352	29011	40697	86028	44717	66433	99365	52549	79302	-	-	-
14S-8300-785-CL	3.9	10.1	40869	22443	32962	57178	27727	38600	72393	36700	53279	102821	54576	82636	118036	63498	97315	-	-	-
14S-8300-835-CL	3.5	8.9	40781	22384	32850	69077	34748	50080	86292	44872	66688	-	-	-	-	-	-	-	-	-
14S-8300-885-CL	3.2	7.9	40688	22321	32731	81711	42181	62269	101049	53536	80926	-	-	-	-	-	-	-	-	-
14S-8300-935-CL	2.9	7.1	40590	22254	32605	95079	50035	75167	116664	62693	95991	-	-	-	-	-	-	-	-	-

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 52. Models 18S-9600-835-CL to 18S-11000-1300-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
18S-9600-835-CL	4.6	11.4	66304	34048	44881	-	-	-	-	-	-	-	-	-	-	-	-	52610	16539	16539	62505	23808	26092
18S-9600-935-CL	3.8	9.1	66083	33897	44600	-	-	-	-	-	-	52664	16592	16592	65072	25424	28570	77479	33043	40548	89886	40514	52526
18S-9600-1000-CL	3.4	7.9	65927	33789	44400	-	-	-	52574	16505	16505	66766	26480	30206	80959	35148	43908	95151	43659	57609	109344	52099	71310
18S-9600-1100-CL	2.9	6.6	65665	33610	44065	55966	19546	19779	73139	30402	36358	90312	40769	52937	107484	50998	69515	124657	61162	86094	141830	71294	102673
18S-9600-1200-CL	2.5	5.5	65378	33413	43700	75225	31675	38372	95662	43964	58102	116099	56101	77832	136536	68177	97562	156974	80213	117292	177411	92228	137022
18S-9600-1300-CL	2.2	4.5	65067	33199	43302	96159	44260	58582	120144	58497	81737	144129	72649	104892	168115	86765	128048	-	-	-	-	-	-
18S-9800-835-CL	5.7	11.9	83920	42715	55491	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18S-9800-935-CL	4.7	9.5	83699	42564	55210	-	-	-	-	-	-	-	-	-	-	-	-	67016	20215	20215	79423	29805	32194
18S-9800-1000-CL	4.1	8.3	83543	42456	55010	-	-	-	-	-	-	-	-	-	70495	23575	23575	84688	33129	37276	98880	41857	50977
18S-9800-1100-CL	3.5	6.9	83281	42276	54676	-	-	-	-	-	-	79848	30077	32604	97021	40725	49183	114194	51091	65761	131367	61342	82340
18S-9800-1200-CL	3.1	5.8	82994	42079	54310	-	-	-	85199	33448	37769	105636	45945	57499	126073	58192	77229	146510	70330	96959	166947	82416	116689
18S-9800-1300-CL	2.7	4.5	82683	41866	53912	85695	33757	38249	109681	48383	61404	133666	62709	84560	157651	76926	107715	-	-	-	-	-	-
18S-10500-935-CL	5.1	9.6	92694	46404	58625	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76055	21993	21993
18S-10500-1000-CL	4.5	8.4	92538	46296	58425	-	-	-	-	-	-	-	-	-	-	-	-	81320	27075	27075	95512	36795	40777
18S-10500-1100-CL	3.8	7.0	92276	46115	58091	-	-	-	-	-	-	76480	22403	22403	93653	35620	38982	110826	46262	55560	127999	56652	72139
18S-10500-1200-CL	3.3	5.9	91989	45917	57725	-	-	-	81831	27568	27568	102268	41008	47298	122705	53464	67028	143142	65715	86758	163579	77870	106488
18S-10500-1300-CL	2.9	5.0	91678	45702	57327	82327	28048	28048	106313	43500	51203	130298	58031	74359	154283	72348	97514	178269	86572	120669	-	-	-
18S-11000-935-CL	5.7	10.2	104062	54199	73136	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18S-11000-1000-CL	5.0	8.9	103905	54092	72936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81202	26962	26962
18S-11000-1100-CL	4.3	7.4	103643	53913	72602	-	-	-	-	-	-	-	-	-	79343	25167	25167	96516	37426	41745	113689	48008	58324
18S-11000-1200-CL	3.7	6.2	103357	53717	72236	-	-	-	-	-	-	87958	31960	33483	108395	44779	53213	128832	57152	72943	149269	69367	92673
18S-11000-1300-CL	3.2	5.3	103045	53504	71839	-	-	-	92003	34571	37388	115988	49402	60544	139973	63823	83699	163959	78095	106854	-	-	-

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 53. Models 18S-9600-835-CL to 18S-11000-1300-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
18S-9600-835-CL	4.6	11.4	66304	34048	44881	72400	29952	35645	92191	41891	54751	131772	65364	92963	151563	77027	112069	-	-	-
18S-9600-935-CL	3.8	9.1	66083	33897	44600	102294	47912	64504	127109	62610	88461	176738	91833	136373	-	-	-	-	-	-
18S-9600-1000-CL	3.4	7.9	65927	33789	44400	123536	60500	85012	151921	77238	112414	-	-	-	-	-	-	-	-	-
18S-9600-1100-CL	2.9	6.6	65665	33610	44065	159003	81409	119251	-	-	-	-	-	-	-	-	-	-	-	-
18S-9600-1200-CL	2.5	5.5	65378	33413	43700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18S-9600-1300-CL	2.2	4.5	65067	33199	43302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18S-9800-835-CL	5.7	11.9	83920	42715	55491	61937	15312	15312	81728	31269	34418	121309	55348	72630	141100	67125	91736	-	-	-
18S-9800-935-CL	4.7	9.5	83699	42564	55210	91831	37551	44172	116645	52561	68128	166275	82019	116040	-	-	-	-	-	-
18S-9800-1000-CL	4.1	8.3	83543	42456	55010	113073	50418	64679	141458	67337	92082	-	-	-	-	-	-	-	-	-
18S-9800-1100-CL	3.5	6.9	83281	42276	54676	148540	71533	98919	-	-	-	-	-	-	-	-	-	-	-	-
18S-9800-1200-CL	3.1	5.8	82994	42079	54310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18S-9800-1300-CL	2.7	4.5	82683	41866	53912	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18S-10500-935-CL	5.1	9.6	92694	46404	58625	88463	32289	33971	113277	47758	57927	162907	77472	105839	-	-	-	-	-	-
18S-10500-1000-CL	4.5	8.4	92538	46296	58425	109705	45578	54478	138090	62698	81881	-	-	-	-	-	-	-	-	-
18S-10500-1100-CL	3.8	7.0	92276	46115	58091	145172	66926	88718	179518	87312	121875	-	-	-	-	-	-	-	-	-
18S-10500-1200-CL	3.3	5.9	91989	45917	57725	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18S-10500-1300-CL	2.9	5.0	91678	45702	57327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18S-11000-935-CL	5.7	10.2	104062	54199	73136	74152	20156	20156	98967	38959	44112	148597	68967	92024	173412	83695	115981	-	-	-
18S-11000-1000-CL	5.0	8.9	103905	54092	72936	95395	36721	40663	123780	54112	68066	-	-	-	-	-	-	-	-	-
18S-11000-1100-CL	4.3	7.4	103643	53913	72602	130862	58369	74903	165207	78834	108060	-	-	-	-	-	-	-	-	-
18S-11000-1200-CL	3.7	6.2	103357	53717	72236	169707	81500	112403	-	-	-	-	-	-	-	-	-	-	-	-
18S-11000-1300-CL	3.2	5.3	103045	53504	71839	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 54. Models 32S-9900-1100-CL to 50S-17300-1450-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
32S-9900-1100-CL	3.5	9.5	100473	47232	54973	-	-	-	-	-	-	101195	36747	37874	121146	49546	57575	141097	61849	77275	161048	73969	96975
32S-9900-1200-CL	3.1	7.9	100133	46995	54548	-	-	-	107411	40838	44012	131155	55751	67457	154898	70247	90903	178641	84578	114348	202385	98819	137793
32S-9900-1300-CL	2.7	6.8	99763	46738	54086	107988	41211	44582	135854	58641	72098	163719	75585	99613	191585	92347	127128	219450	109025	154644	247316	125645	182159
32S-12000-1100-CL	4.2	9.9	122648	59548	73095	-	-	-	-	-	-	-	-	-	103275	31510	31510	123226	47180	51211	143177	59748	70911
32S-12000-1200-CL	3.6	8.3	122308	59315	72670	-	-	-	-	-	-	113284	40623	41393	137027	55922	64838	160770	70565	88283	184514	84982	111728
32S-12000-1300-CL	3.2	7.1	121938	59061	72208	-	-	-	117983	43766	46033	145848	61402	73549	173714	78445	101064	201579	95271	128579	229445	111988	156095
32S-15000-1100-CL	4.8	10.4	142766	71309	91660	-	-	-	-	-	-	-	-	-	-	-	-	104918	27368	27368	124869	45511	47068
32S-15000-1200-CL	4.1	8.7	142425	71077	91235	-	-	-	-	-	-	-	-	-	118719	40995	40995	142462	56873	64440	166206	71614	87885
32S-15000-1300-CL	3.6	7.4	142055	70825	90773	-	-	-	-	-	-	127540	47285	49706	155406	64955	77221	183271	82033	104736	211137	98887	132252
50S-15400-1100-CL	4.7	12.0	155582	73457	86600	-	-	-	-	-	-	-	-	-	-	-	-	131080	35736	35736	153193	55915	57687
50S-15400-1200-CL	4.0	10.2	155202	73194	86129	-	-	-	-	-	-	-	-	-	146376	50920	50920	172694	68586	77044	199011	85030	103168
50S-15400-1300-CL	3.5	8.7	154790	72908	85616	-	-	-	-	-	-	156154	57893	60626	187040	77608	91285	217926	96649	121944	248812	115428	152603
50S-15400-1450-CL	2.9	7.0	154109	72436	84772	138861	43460	43460	177285	71491	81602	215710	95295	119744	254135	118645	157887	292560	141807	196029	330985	164858	234172
50S-15600-1100-CL	4.9	12.0	162630	78316	95351	-	-	-	-	-	-	-	-	-	-	-	-	122450	27170	27170	144564	49121	49121
50S-15600-1200-CL	4.2	10.4	162251	78055	94880	-	-	-	-	-	-	-	-	-	137747	42354	42354	164064	63062	68478	190381	79685	94601
50S-15600-1300-CL	3.7	8.8	161838	77771	94368	-	-	-	-	-	-	147524	52024	52060	178410	72200	82719	209296	91361	113378	240183	110195	144037
50S-15600-1450-CL	3.1	7.1	161158	77303	93523	-	-	-	168656	66014	73036	207081	90002	111178	245505	113427	149321	283930	136613	187463	322355	159684	225605
50S-17300-1100-CL	5.5	12.0	185420	91855	117073	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50S-17300-1200-CL	4.7	10.8	185041	91597	116602	-	-	-	-	-	-	-	-	-	-	-	-	142642	41393	41393	168959	63556	67516
50S-17300-1300-CL	4.1	9.2	184628	91317	116090	-	-	-	-	-	-	-	-	-	156989	55489	55634	187875	75683	86293	218761	94883	116952
50S-17300-1450-CL	3.4	7.4	183948	90855	115245	-	-	-	147234	45951	45951	185659	74286	84093	224084	98148	122236	262509	121551	160378	300934	144732	198520

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 55. Models 32S-9900-1100-CL to 50S-17300-1450-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
32S-9900-1100-CL	3.5	9.5	100473	47232	54973	180999	85994	116676	220901	109893	156077	300705	157414	234878	-	-	-	-	-	-
32S-9900-1200-CL	3.1	7.9	100133	46995	54548	226128	113011	161238	273615	141301	208128	-	-	-	-	-	-	-	-	-
32S-9900-1300-CL	2.7	6.8	99763	46738	54086	275181	142232	209675	-	-	-	-	-	-	-	-	-	-	-	-
32S-12000-1100-CL	4.2	9.9	122648	59548	73095	163128	72006	90611	203030	96145	130012	282834	143864	208814	-	-	-	-	-	-
32S-12000-1200-CL	3.6	8.3	122308	59315	72670	208257	99283	135173	255744	127710	182063	-	-	-	-	-	-	-	-	-
32S-12000-1300-CL	3.2	7.1	121938	59061	72208	257310	128644	183610	313041	161842	238641	-	-	-	-	-	-	-	-	-
32S-15000-1100-CL	4.8	10.4	142766	71309	91660	144820	58355	66768	184722	82915	106169	264526	130904	184971	304429	154712	224371	-	-	-
32S-15000-1200-CL	4.1	8.7	142425	71077	91235	189949	86089	111330	237436	114691	158220	-	-	-	-	-	-	-	-	-
32S-15000-1300-CL	3.6	7.4	142055	70825	90773	239002	115631	159767	294733	148931	214798	-	-	-	-	-	-	-	-	-
50S-15400-1100-CL	4.7	12.0	155582	73457	86600	175307	70244	79638	219534	97630	123541	307989	151066	211345	352217	177555	255247	440672	230358	343052
50S-15400-1200-CL	4.0	10.2	155202	73194	86129	225328	101164	129291	277962	133020	181539	383231	196095	286033	435865	227491	338281	-	-	-
50S-15400-1300-CL	3.5	8.7	154790	72908	85616	279698	134065	183262	341471	171129	244580	-	-	-	-	-	-	-	-	-
50S-15400-1450-CL	2.9	7.0	154109	72436	84772	369410	187837	272314	446259	233691	348599	-	-	-	-	-	-	-	-	-
50S-15600-1100-CL	4.9	12.0	162630	78316	95351	166677	64747	71072	210905	92348	114974	299360	145890	202779	343587	172395	246681	432042	225211	334486
50S-15600-1200-CL	4.2	10.4	162251	78055	94880	216698	95899	120725	269332	127825	172972	374601	190942	277467	427235	222344	329715	-	-	-
50S-15600-1300-CL	3.7	8.8	161838	77771	94368	271069	128871	174696	332841	165968	236014	-	-	-	-	-	-	-	-	-
50S-15600-1450-CL	3.1	7.1	161158	77303	93523	360780	182676	263748	437630	228544	340033	-	-	-	-	-	-	-	-	-
50S-17300-1100-CL	5.5	12.0	185420	91855	117073	145256	43987	43987	189483	76697	87889	277938	130875	175694	322165	157493	219596	410620	210429	307401
50S-17300-1200-CL	4.7	10.8	185041	91597	116602	195277	80331	93640	247911	112691	145888	353180	176091	250382	405814	207562	302630	-	-	-
50S-17300-1300-CL	4.1	9.2	184628	91317	116090	249647	113745	147611	311419	151044	208929	434964	224949	331565	-	-	-	-	-	-
50S-17300-1450-CL	3.4	7.4	183948	90855	115245	339358	167806	236663	416208	213762	312948	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 56. Models 50S-18600-1100-CL to 80S-19700-1800-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
50S-18600-1100-CL	6.9	12.0	237221	113957	138199	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50S-18600-1200-CL	5.8	11.2	236842	113696	137727	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50S-18600-1300-CL	5.1	10.3	236429	113413	137215	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	197928	58021	58021
50S-18600-1450-CL	4.2	7.7	235749	112945	136370	-	-	-	-	-	-	-	-	-	203251	63305	63305	241676	93157	101447	280100	117403	139589
65S-18400-1600-CL	3.5	9.0	221705	108061	134176	-	-	-	-	-	-	213898	81345	87372	258344	109406	131492	302791	136663	175612	347238	163593	219732
65S-18400-1700-CL	3.2	8.0	221188	107708	133534	-	-	-	208984	78128	82495	259160	109911	132302	309337	140641	182110	359513	170999	231917	409689	201161	281725
65S-18400-1800-CL	2.9	7.0	220639	107333	132852	194661	68277	68277	250913	104791	124116	307166	139323	179955	363419	173350	235795	419672	207149	291634	475925	240821	347474
65S-19400-1600-CL	4.2	9.0	273816	136199	174726	-	-	-	-	-	-	-	-	-	218356	70410	70410	262803	103187	114530	307249	131025	158650
65S-19400-1700-CL	3.8	8.0	273299	135848	174084	-	-	-	-	-	-	219172	71220	71220	269348	107349	121027	319524	138593	170834	369701	169216	220642
65S-19400-1800-CL	3.4	7.0	272751	135475	173403	-	-	-	210925	63033	63033	267178	105970	118873	323431	140989	174712	379684	175276	230551	435937	209229	286391
80S-18700-1800-CL	2.9	7.0	272594	119824	125665	276024	85547	85547	345107	137130	154121	414189	180143	222696	483272	222273	291271	552354	264005	359845	621437	305518	428420
80S-19700-1800-CL	3.4	7.0	332492	149828	163610	-	-	-	307686	84719	84719	376769	143001	153294	445851	186745	221868	514934	229256	290443	584016	271241	359018

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 57. Models 50S-18600-1100-CL to 80S-19700-1800-CL

Model	Hold Pressure (barg)	MOP (barg)	BTC	RTC	ETC	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO
50S-18600-1100-CL	6.9	12.0	237221	113957	138199	-	-	-	168650	28958	28958	257105	103006	116763	301332	130528	160665	389787	184310	248470
50S-18600-1200-CL	5.8	11.2	236842	113696	137727	174443	34709	34709	227078	83598	86957	332346	149502	191451	384981	181405	243699	-	-	-
50S-18600-1300-CL	5.1	10.3	236429	113413	137215	228814	84755	88680	290586	123900	149998	414131	198970	272634	-	-	-	-	-	-
50S-18600-1450-CL	4.2	7.7	235749	112945	136370	318525	141070	177732	395375	187680	254017	-	-	-	-	-	-	-	-	-
65S-18400-1600-CL	3.5	9.0	221705	108061	134176	391685	190361	263852	480578	243603	352092	-	-	-	-	-	-	-	-	-
65S-18400-1700-CL	3.2	8.0	221188	107708	133534	459865	231216	331532	560218	291139	431147	-	-	-	-	-	-	-	-	-
65S-18400-1800-CL	2.9	7.0	220639	107333	132852	532178	274414	403313	644684	341460	514992	-	-	-	-	-	-	-	-	-
65S-19400-1600-CL	4.2	9.0	273816	136199	174726	351696	158272	202770	440590	212030	291010	618377	318466	467490	-	-	-	-	-	-
65S-19400-1700-CL	3.8	8.0	273299	135848	174084	419877	199562	270449	520229	259819	370064	-	-	-	-	-	-	-	-	-
65S-19400-1800-CL	3.4	7.0	272751	135475	173403	492189	243016	342230	604695	310305	453909	-	-	-	-	-	-	-	-	-
80S-18700-1800-CL	2.9	7.0	272594	119824	125665	690519	346899	496995	-	-	-	-	-	-	-	-	-	-	-	-
80S-19700-1800-CL	3.4	7.0	332492	149828	163610	653099	312925	427592	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Symmetric Yoke Design, Spring to Open

Table 58. Models 0.3S-008A-100-OP to 0.9S-0350-435-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
0.3S-008A-100-OP	4.2	12.0	217	95	110	-	-	-	-	-	-	-	-	-	185	64	64	223	93	105	261	117	146
0.3S-008A-135-OP	2.6	12.0	209	90	101	250	111	135	320	154	210	390	198	285	460	241	360	529	284	435	599	326	510
0.3S-008B-100-OP	5.9	12.0	328	102	102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.3S-008B-135-OP	3.5	12.0	320	93	93	-	-	-	-	-	-	385	146	147	454	193	222	524	237	297	594	281	372
0.3S-008C-100-OP	6.9	12.0	396	134	134	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.3S-008C-135-OP	4.1	12.0	388	125	125	-	-	-	-	-	-	-	-	-	418	137	137	488	197	212	557	242	288
0.3S-008C-175-OP	2.7	12.0	379	114	114	483	194	208	601	270	334	718	343	460	835	416	587	952	489	713	1069	561	839
0.3S-0100-135-OP	6.2	12.0	641	268	286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.3S-0100-175-OP	3.9	12.0	632	261	275	-	-	-	-	-	-	543	147	147	660	260	274	778	337	400	895	412	526
0.3S-0100-235-OP	2.4	8.0	617	251	258	858	389	487	1069	521	714	1281	652	942	1492	782	1170	1704	912	1398	1915	1042	1625
0.3S-0150-175-OP	4.8	12.0	810	382	480	-	-	-	-	-	-	-	-	-	-	-	-	572	178	178	689	280	304
0.3S-0150-235-OP	2.9	8.5	796	372	463	652	255	265	864	392	493	1075	525	720	1286	655	948	1498	786	1176	1709	916	1404
0.9S-0200-235-OP	3.2	12.0	1027	470	566	-	-	-	959	395	437	1204	551	700	1448	704	964	1692	856	1227	1937	1007	1491
0.9S-0200-280-OP	2.4	12.0	1010	458	547	1312	620	818	1659	836	1192	2006	1050	1566	2353	1263	1939	2700	1476	2313	3047	1688	2687
0.9S-0200-335-OP	1.9	9.7	997	450	532	2198	1167	1772	2694	1472	2307	3191	1776	2842	3688	2080	3377	4184	2384	3912	4681	2687	4448
0.9S-0250-235-OP	3.7	12.0	1251	617	823	-	-	-	-	-	-	946	386	423	1190	543	686	1434	696	949	1679	848	1213
0.9S-0250-280-OP	2.8	12.0	1234	606	803	1055	457	540	1401	675	914	1748	891	1288	2095	1104	1661	2442	1318	2035	2789	1530	2409
0.9S-0250-335-OP	2.1	10.0	1222	598	789	1940	1009	1494	2436	1314	2029	2933	1618	2564	3430	1922	3099	3926	2226	3634	4423	2530	4170
0.9S-0350-280-OP	4.0	12.0	1961	910	1119	-	-	-	-	-	-	-	-	-	1729	701	761	2076	925	1135	2423	1144	1509
0.9S-0350-335-OP	3.0	10.4	1949	902	1104	-	-	-	2070	921	1129	2566	1234	1664	3063	1542	2199	3560	1849	2734	4056	2154	3269
0.9S-0350-385-OP	2.4	7.9	1934	892	1087	2513	1201	1607	3169	1608	2314	3825	2012	3020	4481	2415	3727	5137	2818	4434	5793	3219	5141
0.9S-0350-435-OP	2.0	6.2	1922	884	1074	3590	1867	2767	4427	2382	3669	5265	2896	4571	6102	3408	5474	6939	3921	6376	7777	4433	7279

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 59. Models 0.3S-008A-100-OP to 0.9S-0350-435-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
0.3S-008A-100-OP	4.2	12.0	217	95	110	299	141	187	376	189	270	529	283	435	606	330	517	759	424	682
0.3S-008A-135-OP	2.6	12.0	209	90	101	669	369	585	808	454	736	1087	625	1036	1227	710	1187	1506	881	1487
0.3S-008B-100-OP	5.9	12.0	328	102	102	294	50	50	371	132	132	524	237	297	600	285	379	754	380	544
0.3S-008B-135-OP	3.5	12.0	320	93	93	664	325	448	803	411	598	1082	583	899	1222	668	1049	1501	839	1350
0.3S-008C-100-OP	6.9	12.0	396	134	134	-	-	-	334	47	47	487	196	212	564	246	295	717	343	459
0.3S-008C-135-OP	4.1	12.0	388	125	125	627	286	363	767	374	513	1046	546	814	1185	632	964	1464	803	1265
0.3S-008C-175-OP	2.7	12.0	379	114	114	1187	651	966	1421	779	1218	1890	1065	1723	2124	1208	1976	2593	1494	2481
0.3S-0100-135-OP	6.2	12.0	641	268	286	-	-	-	592	200	200	871	397	501	1011	484	651	1290	657	952
0.3S-0100-175-OP	3.9	12.0	632	261	275	1012	485	652	1246	631	905	1715	919	1410	1950	1063	1663	2419	1350	2168
0.3S-0100-235-OP	2.4	8.0	617	251	258	2126	1171	1853	2549	1430	2309	-	-	-	-	-	-	-	-	-
0.3S-0150-175-OP	4.8	12.0	810	382	480	806	356	431	1041	503	683	1510	793	1189	1744	937	1441	2213	1224	1946
0.3S-0150-235-OP	2.9	8.5	796	372	463	1921	1045	1631	2343	1304	2087	-	-	-	-	-	-	-	-	-
0.9S-0200-235-OP	3.2	12.0	1027	470	566	2181	1157	1754	2670	1457	2281	3648	2056	3334	4136	2355	3861	5114	2952	4914
0.9S-0200-280-OP	2.4	12.0	1010	458	547	3394	1901	3061	4088	2325	3809	5476	3173	5304	6170	3597	6052	7558	4445	7548
0.9S-0200-335-OP	1.9	9.7	997	450	532	5178	2991	4983	6171	3598	6053	8157	4811	8194	-	-	-	-	-	-
0.9S-0250-235-OP	3.7	12.0	1251	617	823	1923	998	1476	2412	1299	2003	3390	1898	3056	3878	2197	3583	4856	2794	4636
0.9S-0250-280-OP	2.8	12.0	1234	606	803	3136	1743	2783	3830	2167	3531	5218	3016	5026	5912	3440	5774	7300	4287	7270
0.9S-0250-335-OP	2.1	10.0	1222	598	789	4920	2833	4705	5913	3440	5775	7899	4654	7916	8893	5260	8986	-	-	-
0.9S-0350-280-OP	4.0	12.0	1961	910	1119	2770	1360	1883	3464	1790	2631	4851	2642	4126	5545	3068	4874	6933	3917	6369
0.9S-0350-335-OP	3.0	10.4	1949	902	1104	4553	2459	3805	5546	3068	4875	7533	4284	7016	8526	4891	8086	-	-	-
0.9S-0350-385-OP	2.4	7.9	1934	892	1087	6449	3621	5848	7761	4423	7262	-	-	-	-	-	-	-	-	-
0.9S-0350-435-OP	2.0	6.2	1922	884	1074	8614	4945	8181	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 60. Models 0.9S-0350-485-OP to 0.9S-0720-435-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
0.9S-0350-485-OP	1.7	5.0	1914	879	1065	4804	2613	4075	5845	3251	5196	6886	3888	6318	7927	4524	7440	8968	5161	8562	-	-	-
0.9S-0400-280-OP	4.6	12.0	2350	1165	1564	-	-	-	-	-	-	-	-	-	-	-	-	1628	633	653	1975	861	1027
0.9S-0400-335-OP	3.4	10.9	2338	1157	1549	-	-	-	1622	629	647	2119	953	1182	2616	1265	1717	3112	1573	2252	3609	1879	2787
0.9S-0400-385-OP	2.7	8.2	2323	1147	1532	2066	919	1125	2722	1331	1832	3378	1737	2538	4034	2141	3245	4690	2543	3952	5346	2945	4659
0.9S-0400-435-OP	2.2	6.4	2311	1140	1519	3142	1591	2285	3980	2108	3187	4817	2622	4089	5655	3135	4992	6492	3647	5894	7330	4159	6797
0.9S-0400-485-OP	1.9	5.2	2303	1135	1510	4356	2339	3593	5397	2977	4714	6438	3614	5836	7479	4251	6958	8520	4887	8080	-	-	-
0.9S-0420-335-OP	3.7	11.2	2584	1324	1853	-	-	-	-	-	-	1816	767	877	2313	1083	1412	2810	1392	1947	3306	1699	2483
0.9S-0420-385-OP	2.9	8.5	2569	1314	1835	1763	732	820	2419	1149	1527	3075	1557	2234	3731	1961	2941	4387	2364	3647	5043	2766	4354
0.9S-0420-435-OP	2.4	6.7	2557	1306	1822	2840	1411	1980	3677	1928	2882	4515	2442	3785	5352	2956	4687	6190	3468	5589	7027	3980	6492
0.9S-0420-485-OP	2.0	5.4	2549	1302	1814	4054	2159	3288	5095	2798	4410	6136	3435	5531	7177	4072	6653	8218	4709	7775	-	-	-
0.9S-0700-335-OP	4.5	11.4	3305	1589	2047	-	-	-	-	-	-	-	-	-	-	-	-	2554	1005	1054	3050	1331	1589
0.9S-0700-385-OP	3.6	8.7	3290	1579	2030	-	-	-	-	-	-	2819	1182	1340	3475	1601	2047	4131	2011	2754	4787	2418	3460
0.9S-0700-435-OP	2.9	6.8	3278	1572	2017	2584	1026	1086	3421	1567	1988	4259	2090	2891	5096	2609	3793	5933	3125	4696	6771	3639	5598
0.9S-0700-485-OP	2.4	5.4	3271	1567	2008	3798	1803	2394	4839	2450	3516	5880	3092	4637	6921	3731	5759	7961	4369	6881	9002	5007	8003
0.9S-0720-385-OP	4.1	9.3	3920	1990	2751	-	-	-	-	-	-	-	-	-	2751	1137	1266	3407	1558	1973	4063	1969	2680
0.9S-0720-435-OP	3.3	7.3	3908	1982	2737	-	-	-	2697	1101	1208	3534	1638	2110	4372	2161	3013	5209	2679	3915	6047	3194	4818

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 61. Models 0.9S-0350-485-OP to 0.9S-0720-435-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
0.9S-0350-485-OP	1.7	5.0	1914	879	1065	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9S-0400-280-OP	4.6	12.0	2350	1165	1564	2322	1081	1401	3016	1513	2149	4404	2368	3644	5098	2794	4392	6486	3643	5887
0.9S-0400-335-OP	3.4	10.9	2338	1157	1549	4106	2185	3323	5099	2794	4393	7086	4010	6534	8079	4618	7604	-	-	-
0.9S-0400-385-OP	2.7	8.2	2323	1147	1532	6002	3347	5366	7314	4150	6780	-	-	-	-	-	-	-	-	-
0.9S-0400-435-OP	2.2	6.4	2311	1140	1519	8167	4672	7699	-	-	-	-	-	-	-	-	-	-	-	-
0.9S-0400-485-OP	1.9	5.2	2303	1135	1510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9S-0420-335-OP	3.7	11.2	2584	1324	1853	3803	2005	3018	4796	2615	4088	6783	3831	6229	7776	4439	7299	-	-	-
0.9S-0420-385-OP	2.9	8.5	2569	1314	1835	5699	3168	5061	7011	3971	6475	-	-	-	-	-	-	-	-	-
0.9S-0420-435-OP	2.4	6.7	2557	1306	1822	7864	4493	7394	-	-	-	-	-	-	-	-	-	-	-	-
0.9S-0420-485-OP	2.0	5.4	2549	1302	1814	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9S-0700-335-OP	4.5	11.4	3305	1589	2047	3547	1646	2124	4540	2265	3194	6527	3489	5335	7520	4099	6405	-	-	-
0.9S-0700-385-OP	3.6	8.7	3290	1579	2030	5443	2823	4167	6755	3630	5581	-	-	-	-	-	-	-	-	-
0.9S-0700-435-OP	2.9	6.8	3278	1572	2017	7608	4153	6500	-	-	-	-	-	-	-	-	-	-	-	-
0.9S-0700-485-OP	2.4	5.4	3271	1567	2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.9S-0720-385-OP	4.1	9.3	3920	1990	2751	4719	2376	3387	6031	3185	4801	8655	4794	7628	-	-	-	-	-	-
0.9S-0720-435-OP	3.3	7.3	3908	1982	2737	6884	3709	5720	8559	4735	7525	-	-	-	-	-	-	-	-	-

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 62. Models 0.9S-0720-485-OP to 1.5S-1300-585-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
0.9S-0720-485-OP	2.8	5.9	3901	1977	2729	3073	1346	1614	4114	2001	2735	5155	2645	3857	6196	3287	4979	7237	3926	6101	8278	4563	7222
1.5S-0800-385-OP	3.6	10.9	4616	1767	1947	-	-	-	-	-	-	3619	1628	1712	4379	2166	2681	5138	2687	3651	5897	3202	4621
1.5S-0800-435-OP	3.0	8.5	4600	1757	1931	-	-	-	4316	2123	2601	5285	2788	3839	6254	3443	5077	7223	4094	6315	8192	4742	7553
1.5S-0800-485-OP	2.5	6.8	4590	1750	1921	4751	2423	3158	5956	3242	4696	7161	4052	6235	8365	4858	7774	9570	5662	9313	10775	6465	10852
1.5S-0800-535-OP	2.1	5.6	4587	1749	1919	6317	3485	5157	7782	4468	7029	9248	5447	8902	10714	6425	10774	12180	7403	12647	13646	8381	14519
1.5S-1100-385-OP	5.0	12.0	6777	2589	2847	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4879	1944	1944
1.5S-1100-435-OP	4.0	9.5	6761	2579	2831	-	-	-	-	-	-	-	-	-	5236	2329	2400	6205	3021	3638	7174	3690	4876
1.5S-1100-485-OP	3.4	7.6	6750	2572	2822	-	-	-	4938	2020	2020	6143	2977	3559	7347	3809	5098	8552	4627	6636	9757	5438	8175
1.5S-1100-535-OP	2.8	6.3	6748	2571	2819	5298	2375	2480	6764	3409	4353	8230	4409	6225	9696	5397	8098	11162	6380	9970	12628	7360	11843
1.5S-1100-585-OP	2.5	5.2	6716	2550	2788	6991	3564	4642	8743	4756	6881	10496	5934	9119	12249	7107	11358	14001	8276	13597	-	-	-
1.5S-1200-385-OP	5.7	12.0	7926	3315	3990	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1200-435-OP	4.6	10.1	7910	3305	3975	-	-	-	-	-	-	-	-	-	-	-	-	5059	2211	2215	6028	2910	3452
1.5S-1200-485-OP	3.8	8.1	7900	3299	3965	-	-	-	-	-	-	4997	2135	2135	6201	3031	3674	7406	3860	5213	8611	4677	6751
1.5S-1200-535-OP	3.2	6.7	7898	3297	3963	-	-	-	5618	2620	2929	7084	3640	4801	8550	4636	6674	10016	5622	8546	11482	6604	10419
1.5S-1200-585-OP	2.8	5.5	7865	3278	3931	5845	2780	3218	7597	3990	5457	9350	5175	7696	11103	6351	9934	12855	7522	12173	14608	8691	14412
1.5S-1300-385-OP	6.7	12.0	9410	3982	4849	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1300-435-OP	5.4	10.5	9394	3972	4833	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5111	1614	1614
1.5S-1300-485-OP	4.5	8.5	9384	3966	4823	-	-	-	-	-	-	-	-	-	5284	1835	1835	6488	3023	3374	7693	3866	4913
1.5S-1300-535-OP	3.8	7.0	9382	3964	4821	-	-	-	-	-	-	6167	2791	2963	7632	3824	4835	9098	4826	6708	10564	5817	8580
1.5S-1300-585-OP	3.2	5.8	9349	3944	4790	-	-	-	6680	3159	3618	8432	4373	5857	10185	5561	8096	11938	6740	10335	13690	7913	12574

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 63. Models 0.9S-0720-485-OP to 1.5S-1300-585-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
0.9S-0720-485-OP	2.8	5.9	3901	1977	2729	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-0800-385-OP	3.6	10.9	4616	1767	1947	6656	3713	5590	8174	4730	7530	11211	6756	11409	12729	7769	13348	-	-	-
1.5S-0800-435-OP	3.0	8.5	4600	1757	1931	9161	5389	8791	11100	6682	11267	-	-	-	-	-	-	-	-	-
1.5S-0800-485-OP	2.5	6.8	4590	1750	1921	11980	7269	12391	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-0800-535-OP	2.1	5.6	4587	1749	1919	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1100-385-OP	5.0	12.0	6777	2589	2847	5638	2621	2914	7156	3678	4853	10192	5731	8732	11711	6747	10671	14747	8774	14550
1.5S-1100-435-OP	4.0	9.5	6761	2579	2831	8143	4350	6114	10081	5656	8590	13958	8247	13542	-	-	-	-	-	-
1.5S-1100-485-OP	3.4	7.6	6750	2572	2822	10961	6246	9714	13371	7856	12792	-	-	-	-	-	-	-	-	-
1.5S-1100-535-OP	2.8	6.3	6748	2571	2819	14094	8338	13715	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1100-585-OP	2.5	5.2	6716	2550	2788	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1200-385-OP	5.7	12.0	7926	3315	3990	4492	1490	1490	6010	2897	3429	9046	4971	7308	10565	5991	9247	13601	8019	13126
1.5S-1200-435-OP	4.6	10.1	7910	3305	3975	6997	3581	4690	8935	4896	7166	12812	7493	12118	14750	8786	14594	-	-	-
1.5S-1200-485-OP	3.8	8.1	7900	3299	3965	9815	5488	8290	12225	7101	11368	-	-	-	-	-	-	-	-	-
1.5S-1200-535-OP	3.2	6.7	7898	3297	3963	12948	7583	12291	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1200-585-OP	2.8	5.5	7865	3278	3931	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5S-1300-385-OP	6.7	12.0	9410	3982	4849	-	-	-	5092	1591	1591	6611	3110	3530	9647	5198	7409	12684	7239	11288
1.5S-1300-435-OP	5.4	10.5	9394	3972	4833	6080	2727	2852	8018	4089	5328	9956	5407	7803	13832	8008	12755	-	-	-
1.5S-1300-485-OP	4.5	8.5	9384	3966	4823	8898	4690	6452	11307	6317	9529	13716	7930	12607	-	-	-	-	-	-
1.5S-1300-535-OP	3.8	7.0	9382	3964	4821	12030	6802	10453	14962	8762	14198	-	-	-	-	-	-	-	-	-
1.5S-1300-585-OP	3.2	5.8	9349	3944	4790	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 64. Models 3S-2000-385-OP to 14S-5100-885-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Suppy Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
3S-2000-385-OP	5.2	12.0	11460	5082	6413	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6683	2694	2694
3S-2000-435-OP	4.2	11.0	11434	5066	6386	-	-	-	-	-	-	-	-	-	7284	3231	3439	8913	4365	5462	10541	5465	7484
3S-2000-485-OP	3.4	8.9	11417	5056	6370	-	-	-	6783	2818	2818	8808	4293	5331	10832	5660	7845	12857	7008	10359	14882	8348	12873
3S-2000-535-OP	2.9	7.3	11413	5054	6366	7389	3306	3570	9853	5002	6629	12316	6649	9688	14780	8281	12746	17244	9905	15805	19708	11526	18864
3S-2000-585-OP	2.5	6.1	11360	5021	6313	10233	5258	7101	13179	7221	10758	16124	9168	14416	19070	11107	18073	22016	13042	21730	24962	14978	25388
3S-2050-385-OP	6.7	12.0	15396	6217	7107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3S-2050-435-OP	5.4	11.8	15370	6201	7081	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9536	2608	2608
3S-2050-485-OP	4.5	9.5	15353	6190	7065	-	-	-	-	-	-	-	-	-	9827	2970	2970	11852	5217	5483	13876	6639	7997
3S-2050-535-OP	3.8	7.8	15349	6188	7061	-	-	-	-	-	-	11311	4812	4812	13774	6568	7871	16238	8245	10930	18702	9897	13989
3S-2050-585-OP	3.2	6.5	15296	6154	7008	-	-	-	12173	5448	5882	15119	7488	9540	18065	9471	13197	21010	11433	16855	23956	13383	20512
6S-2500-485-OP	4.1	12.0	16307	7415	9589	-	-	-	-	-	-	-	-	-	10472	4816	5461	12844	6440	8394	15216	8029	11328
6S-2500-535-OP	3.4	11.3	16303	7412	9585	-	-	-	9324	3994	4041	12210	6011	7610	15097	7949	11180	17983	9864	14750	20869	11769	18320
6S-2500-585-OP	3.0	9.4	16240	7374	9523	-	-	-	13220	6693	8860	16671	8996	13128	20122	11276	17396	23573	13547	21664	27024	15812	25933
6S-2500-635-OP	2.6	8.0	16172	7333	9455	13399	6813	9080	17465	9522	14109	21531	12205	19138	25597	14876	24167	29663	17542	29196	33729	20208	34225
6S-2500-685-OP	2.6	12.0	16099	7289	9382	17325	9429	13937	22057	12550	19789	26789	15657	25641	31520	18760	31493	36252	21862	37345	40984	24964	43198
6S-2500-735-OP	2.1	6.0	16020	7240	9303	21550	12217	19161	26997	15794	25899	32445	19366	32637	37892	22937	39374	43340	26509	46112	48788	30080	52850
6S-3800-535-OP	4.5	12.0	22273	10680	14589	-	-	-	-	-	-	-	-	-	-	-	-	12862	6126	7353	15748	8081	10923
6S-3800-585-OP	3.8	10.3	22211	10642	14527	-	-	-	-	-	-	11551	5212	5731	15002	7579	10000	18453	9884	14268	21904	12169	18536
6S-3800-635-OP	3.3	8.7	22143	10601	14459	-	-	-	12344	5768	6713	16410	8524	11742	20476	11225	16771	24542	13908	21800	28609	16580	26829
6S-3800-685-OP	3.0	12.0	22070	10557	14386	-	-	-	16936	8875	12392	21668	12013	18244	26400	15128	24097	31131	18234	29949	35863	21336	35801
6S-3800-735-OP	2.6	6.5	21991	10510	14307	16429	8537	11765	21877	12151	18502	27324	15736	25240	32772	19309	31978	38219	22881	38715	43667	26453	45453
6S-3900-535-OP	4.8	12.0	24470	12053	16919	-	-	-	-	-	-	-	-	-	-	-	-	10534	4538	4632	13420	6557	8202
6S-3900-585-OP	4.1	10.5	24408	12016	16857	-	-	-	-	-	-	-	-	-	12673	6046	7278	16124	8379	11547	19575	10672	15815
6S-3900-635-OP	3.6	9.0	24340	11975	16789	-	-	-	-	-	-	14082	7006	9020	18148	9726	14049	22214	12415	19078	26280	15091	24107
6S-3900-685-OP	3.2	7.8	24266	11931	16716	-	-	-	14608	7361	9671	19340	10517	15523	24071	13639	21375	28803	16748	27228	33535	19850	33080
6S-3900-735-OP	2.8	6.8	24187	11883	16637	14101	7018	9044	19548	10654	15781	24996	14247	22519	30443	17823	29257	35891	21395	35994	41339	24966	42732
14S-5100-635-OP	3.6	12.0	27158	12811	17370	-	-	-	-	-	-	15715	7832	9814	20082	10813	15393	24450	13754	20972	28817	16678	26551
14S-5100-685-OP	3.2	11.9	27077	12763	17292	-	-	-	16280	8222	10536	21362	11678	17028	26445	15091	23520	31527	18486	30013	36609	21877	36505
14S-5100-735-OP	2.9	10.3	26989	12711	17207	15735	7846	9840	21586	11828	17314	27438	15755	24789	33289	19661	32264	39140	23565	39738	44992	27469	47213
14S-5100-785-OP	2.6	9.0	26895	12655	17117	20592	11158	16044	27266	15640	24570	33941	20096	33096	40615	24549	41622	47290	29002	50148	53965	33454	58675
14S-5100-835-OP	2.3	8.0	26795	12596	17020	25768	14638	22656	33320	19682	32303	40872	24720	41950	48424	29758	51597	55976	34794	61244	63528	39825	70890
14S-5100-885-OP	2.1	7.1	26689	12533	16918	31264	18310	29676	39747	23970	40513	48231	29629	51350	56714	35286	62187	65198	40937	73024	73681	46589	83860

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 65. Models 3S-2000-385-OP to 14S-5100-885-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
3S-2000-385-OP	5.2	12.0	11460	5082	6413	7959	3708	4278	10511	5444	7446	15614	8832	13782	23270	13866	23287	-	-	-
3S-2000-435-OP	4.2	11.0	11434	5066	6386	12170	6552	9506	15428	8709	13551	21943	12994	21640	-	-	-	-	-	-
3S-2000-485-OP	3.4	8.9	11417	5056	6370	16907	9683	15387	20956	12346	20415	-	-	-	-	-	-	-	-	-
3S-2000-535-OP	2.9	7.3	11413	5054	6366	22171	13144	21923	27099	16382	28041	-	-	-	-	-	-	-	-	-
3S-2000-585-OP	2.5	6.1	11360	5021	6313	27908	16913	29045	-	-	-	-	-	-	-	-	-	-	-	-
3S-2050-385-OP	6.7	12.0	15396	6217	7107				9505	2570	2570	12057	5365	5738	17161	8865	12075	22264	12264	18411
3S-2050-435-OP	5.4	11.8	15370	6201	7081	11165	4631	4631	14422	7013	8675	17680	9214	12720	24195	13541	20809			
3S-2050-485-OP	4.5	9.5	15353	6190	7065	15901	8018	10511	19951	10728	15539	24000	13412	20567						
3S-2050-535-OP	3.8	7.8	15349	6188	7061	21166	11536	17047	26093	14794	23165									
3S-2050-585-OP	3.2	6.5	15296	6154	7008	26902	15327	24169												
6S-2500-485-OP	4.1	12.0	16307	7415	9589	17588	9603	14262	22332	12731	20129	31820	18956	31864	46052	28287	49466	14747	8774	14550
6S-2500-535-OP	3.4	11.3	16303	7412	9585	23755	13667	21890	29528	17453	29029	41073	25023	43308	-	-	-	-	-	-
6S-2500-585-OP	3.0	9.4	16240	7374	9523	30475	18074	30201	37377	22600	38737	51181	31650	55810	-	-	-	-	-	-
6S-2500-635-OP	2.6	8.0	16172	7333	9455	37795	22874	39254	45928	28205	49312	-	-	-	-	-	-	-	-	-
6S-2500-685-OP	2.6	12.0	16099	7289	9382	45715	28066	49050	-	-	-	-	-	-	-	-	-	-	-	-
6S-2500-735-OP	2.1	6.0	16020	7240	9303	54235	33652	59587	-	-	-	-	-	-	-	-	-	13601	8019	13126
6S-3800-535-OP	4.5	12.0	22273	10680	14589	18635	10005	14493	24407	13819	21632	35953	21395	35912	53270	32749	57330	-	-	-
6S-3800-585-OP	3.8	10.3	22211	10642	14527	25355	14442	22804	32257	18972	31341	46061	28022	48413	-	-	-	-	-	-
6S-3800-635-OP	3.3	8.7	22143	10601	14459	32675	19246	31858	40807	24577	41916	-	-	-	-	-	-	-	-	-
6S-3800-685-OP	3.0	12.0	22070	10557	14386	40595	24438	41653	50058	30643	53357	-	-	-	-	-	-	-	-	-
6S-3800-735-OP	2.6	6.5	21991	10510	14307	49115	30024	52191	-	-	-	-	-	-	-	-	-	12684	7239	11288
6S-3900-535-OP	4.8	12.0	24470	12053	16919	16306	8500	11772	22079	12326	18911	27852	16124	26051	39397	23693	40330	50942	31262	54609
6S-3900-585-OP	4.1	10.5	24408	12016	16857	23026	12950	20083	29928	17486	28620	36830	22011	37156	50634	31061	54229			
6S-3900-635-OP	3.6	9.0	24340	11975	16789	30346	17760	29136	38479	23091	39194	46611	28423	49252						
6S-3900-685-OP	3.2	7.8	24266	11931	16716	38266	22952	38932	47730	29156	50636									
6S-3900-735-OP	2.8	6.8	24187	11883	16637	46786	28538	49469												
14S-5100-635-OP	3.6	12.0	27158	12811	17370	33185	19592	32130	41920	25419	43288	59390	37068	65605	85595	54518	99079	-	-	-
14S-5100-685-OP	3.2	11.9	27077	12763	17292	41692	25267	42997	51856	32048	55982	72186	45593	81951	-	-	-	-	-	-
14S-5100-735-OP	2.9	10.3	26989	12711	17207	50843	31372	54687	62546	39171	69636	85952	54756	99535	-	-	-	-	-	-
14S-5100-785-OP	2.6	9.0	26895	12655	17117	60639	37900	67201	73988	46793	84253	100687	64562	118358	-	-	-	-	-	-
14S-5100-835-OP	2.3	8.0	26795	12596	17020	71080	44856	80537	86183	54910	99831	-	-	-	-	-	-			
14S-5100-885-OP	2.1	7.1	26689	12533	16918	82164	52235	94697	99131	63527	116371	-	-	-	-	-	-			

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 66. Models 14S-5100-935-OP to 14S-8300-935-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
14S-5100-935-OP	2.0	6.4	26577	12466	16809	37079	22190	37105	46548	28507	49201	56017	34821	61297	65486	41130	73393	74956	47438	85488	84425	53740	97584
14S-5400-635-OP	4.5	12.0	35100	15878	20665	-	-	-	-	-	-	-	-	-	-	-	-	20720	9770	11134	25087	12808	16713
14S-5400-685-OP	4.0	12.0	35019	15830	20587	-	-	-	-	-	-	-	-	-	22715	11170	13682	27797	14658	20174	32879	18095	26667
14S-5400-735-OP	3.5	11.0	34931	15777	20502	-	-	-	-	-	-	23708	11858	14951	29559	15853	22425	35410	19797	29900	41262	23717	37374
14S-5400-785-OP	3.1	9.6	34837	15721	20412	-	-	-	23536	11740	14732	30211	16294	23258	36885	20787	31784	43560	25254	40310	50235	29707	48836
14S-5400-835-OP	2.8	8.5	34737	15661	20315	22038	10698	12818	29590	15874	22465	37142	20959	32112	44694	26011	41758	52246	31049	51405	59798	36087	61052
14S-5400-885-OP	2.6	7.6	34631	15598	20213	27534	14479	19838	36017	20204	30675	44501	25882	41512	52984	31541	52349	61468	37201	63185	69951	42860	74022
14S-5400-935-OP	2.4	6.8	34519	15530	20104	33349	18411	27267	42818	24758	39363	52287	31077	51459	61756	37394	63554	71226	43711	75650	80695	50027	87746
14S-8300-735-OP	4.3	11.8	44975	20479	26826	-	-	-	-	-	-	-	-	-	22880	9983	9983	28732	14174	17457	34583	18190	24932
14S-8300-785-OP	3.9	10.4	44881	20423	26736	-	-	-	-	-	-	23532	10477	10815	30207	15195	19342	36881	19750	27868	43556	24251	36394
14S-8300-835-OP	3.5	9.2	44781	20363	26639	-	-	-	-	-	-	30463	15372	19669	38015	20517	29316	45567	25601	38963	53119	30658	48610
14S-8300-885-OP	3.2	8.1	44675	20300	26537	-	-	-	29338	14595	18233	37822	20386	29069	46305	26097	39906	54789	31775	50743	63272	37434	61580
14S-8300-935-OP	2.9	7.3	44563	20233	26428	26670	12733	14824	36139	19248	26920	45609	25629	39016	55078	31968	51112	64547	38285	63208	74016	44602	75304

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 67. Models 14S-5100-935-OP to 14S-8300-935-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
14S-5100-935-OP	2.0	6.4	26577	12466	16809	93894	60041	109680	-	-	-	-	-	-	-	-	-	-	-	-
14S-5400-635-OP	4.5	12.0	35100	15878	20665	29455	15783	22292	38190	21662	33450	55660	33326	55766	64395	39154	66925	81865	50806	89241
14S-5400-685-OP	4.0	12.0	35019	15830	20587	37962	21509	33159	48126	28301	46143	68456	41863	72112	78621	48644	85097	98950	62188	111066
14S-5400-735-OP	3.5	11.0	34931	15777	20502	47113	27625	44849	58816	35432	59798	82222	51044	89697	93925	58840	104646	-	-	-
14S-5400-785-OP	3.1	9.6	34837	15721	20412	56909	34160	57362	70258	43065	74415	96957	60860	108519	-	-	-	-	-	-
14S-5400-835-OP	2.8	8.5	34737	15661	20315	67350	41125	70699	82453	51198	89993	-	-	-	-	-	-	-	-	-
14S-5400-885-OP	2.6	7.6	34631	15598	20213	78434	48520	84859	95401	59824	106532	-	-	-	-	-	-	-	-	-
14S-5400-935-OP	2.4	6.8	34519	15530	20104	90164	56335	99842	-	-	-	-	-	-	-	-	-	-	-	-
14S-8300-735-OP	4.3	11.8	44975	20479	26826	40434	22150	32407	52137	30001	47356	75543	45620	77254	87246	53427	92203	-	-	-
14S-8300-785-OP	3.9	10.4	44881	20423	26736	50230	28726	44920	63580	37639	61972	90278	55450	96077	103627	64352	113129	-	-	-
14S-8300-835-OP	3.5	9.2	44781	20363	26639	60671	35699	58257	75775	45775	77550	105982	65922	116138	-	-	-	-	-	-
14S-8300-885-OP	3.2	8.1	44675	20300	26537	71756	43094	72416	88723	54413	94090	-	-	-	-	-	-	-	-	-
14S-8300-935-OP	2.9	7.3	44563	20233	26428	83485	50919	87400	102423	63550	111591	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 68. Models 18S-9600-835-OP to 18S-11000-1300-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
18S-9600-835-OP	4.6	12.0	71007	29097	34300	-	-	-	-	-	-	-	-	-	-	-	-	47292	20611	20611	55980	26903	31701
18S-9600-935-OP	3.8	9.7	70755	28943	34057	-	-	-	-	-	-	47340	20669	20672	58233	28479	34578	69126	35975	48485	80020	43364	62391
18S-9600-1000-OP	3.4	8.6	70577	28833	33885	-	-	-	47261	20571	20571	59721	29514	36478	72181	38054	52385	84642	46480	68292	97102	54850	84198
18S-9600-1100-OP	2.9	7.0	70279	28650	33597	50239	22812	24372	65316	33370	43620	80393	43616	62867	95470	53755	82115	110547	63846	101362	125624	73906	120610
18S-9600-1200-OP	2.5	5.5	69952	28449	33282	67147	34624	45958	85090	46782	68864	103033	58821	91770	120976	70806	114676	138919	82772	137582	156862	94738	160488
18S-9600-1300-OP	2.2	5.0	69598	28232	32940	85526	47075	69421	106584	61196	96304	127642	75252	123187	148700	89295	150069	169758	103339	176952	-	-	-
18S-9800-835-OP	5.7	12.0	90360	36648	42752	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18S-9800-935-OP	4.6	10.5	90109	36493	42509	-	-	-	-	-	-	-	-	-	-	-	-	59652	24510	24510	70545	33419	38417
18S-9800-1000-OP	4.1	9.2	89930	36383	42337	-	-	-	-	-	-	-	-	-	62707	27761	28410	75167	36665	44317	87627	45254	60224
18S-9800-1100-OP	3.5	7.6	89632	36198	42049	-	-	-	-	-	-	70918	33683	38893	85995	44140	58141	101072	54389	77388	116149	64553	96635
18S-9800-1200-OP	3.0	6.4	89306	35996	41734	-	-	-	75616	36977	44890	93559	49296	67796	111501	61425	90702	129444	73472	113608	147387	85470	136514
18S-9800-1300-OP	2.7	5.4	88951	35777	41392	76052	37280	45447	97110	51709	72330	118168	65908	99212	139226	80013	126095	160284	94071	152978	-	-	-
18S-10500-935-OP	5.3	10.9	105334	42899	50258	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62091	19556	19556
18S-10500-1000-OP	4.7	9.5	105156	42790	50086	-	-	-	-	-	-	-	-	-	-	-	-	66713	25457	25457	79173	36941	41364
18S-10500-1100-OP	4.0	7.8	104858	42607	49798	-	-	-	-	-	-	-	-	-	77541	35772	39280	92618	46351	58527	107695	56671	77775
18S-10500-1200-OP	3.4	6.6	104531	42406	49483	-	-	-	67161	26029	26029	85104	41130	48935	103047	53506	71841	120990	65678	94747	138933	77750	117654
18S-10500-1300-OP	3.0	5.5	104176	42188	49141	-	-	-	88656	43607	53469	109714	58043	80352	130771	72267	107234	151829	86396	134117	172887	100473	161000
18S-11000-935-OP	5.9	1.4	118281	50792	62758	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18S-11000-1000-OP	5.2	10.0	118103	50684	62585	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66610	25325	25325
18S-11000-1100-OP	4.4	8.3	117805	50504	62298	-	-	-	-	-	-	-	-	-	64977	23241	23241	80054	37568	42488	95131	48084	61736
18S-11000-1200-OP	3.8	6.9	117478	50306	61983	-	-	-	-	-	-	72541	32126	32896	90484	44876	55803	108426	57168	78709	126369	69303	101615
18S-11000-1300-OP	3.3	5.5	117124	50091	61640	-	-	-	76092	34727	37430	97150	49470	64313	118208	63796	91196	139266	77973	118078	160324	92077	144961

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 69. Models 18S-9600-835-OP to 18S-11000-1300-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
18S-9600-835-OP	4.6	12.0	71007	29097	34300	64668	32925	42792	82043	44730	64974	116793	68017	109337	134169	79604	131518	168919	102779	175881
18S-9600-935-OP	3.8	9.7	70755	28943	34057	90913	50698	76297	112699	65285	104110	156272	94344	159735	-	-	-	-	-	-
18S-9600-1000-OP	3.4	8.6	70577	28833	33885	109562	63188	100105	134483	79814	131919	-	-	-	-	-	-	-	-	-
18S-9600-1100-OP	2.9	7.0	70279	28650	33597	140701	83960	139857	170855	104070	178352	-	-	-	-	-	-	-	-	-
18S-9600-1200-OP	2.5	5.5	69952	28449	33282	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18S-9600-1300-OP	2.2	5.0	69598	28232	32940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18S-9800-835-OP	5.7	12.0	90360	36648	42752	55193	18818	18818	72568	34846	41000	107319	58608	85363	124694	70286	107544	159445	93512	151907
18S-9800-935-OP	4.6	10.5	90109	36493	42509	81438	41010	52323	103224	55845	80136	146797	85076	135761	168583	99606	163573	-	-	-
18S-9800-1000-OP	4.1	9.2	89930	36383	42337	100088	53724	76131	125008	70497	107945	174850	103785	171573	-	-	-	-	-	-
18S-9800-1100-OP	3.5	7.6	89632	36198	42049	131226	74664	115883	161380	94802	154378	-	-	-	-	-	-	-	-	-
18S-9800-1200-OP	3.0	6.4	89306	35996	41734	165330	97436	159420	-	-	-	-	-	-	-	-	-	-	-	-
18S-9800-1300-OP	2.7	5.4	88951	35777	41392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18S-10500-935-OP	5.3	10.9	105334	42899	50258	72984	32454	33462	94770	47836	61275	138343	77354	116900	160129	91947	144713	-	-	-
18S-10500-1000-OP	4.7	9.5	105156	42790	50086	91634	45671	57271	116554	62678	89085	166396	96137	152713	-	-	-	-	-	-
18S-10500-1100-OP	4.0	7.8	104858	42607	49798	122772	66880	97022	152926	87130	135517	-	-	-	-	-	-	-	-	-
18S-10500-1200-OP	3.4	6.6	104531	42406	49483	156876	89771	140560	-	-	-	-	-	-	-	-	-	-	-	-
18S-10500-1300-OP	3.0	5.5	104176	42188	49141	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18S-11000-935-OP	5.9	1.4	118281	50792	62758	60420	17423	17423	82207	39093	45236	125779	68905	100861	147565	83542	128674	-	-	-
18S-11000-1000-OP	5.2	10.0	118103	50684	62585	79070	36868	41232	103991	54150	73046	153832	87736	136674	178753	104385	168488	-	-	-
18S-11000-1100-OP	4.4	8.3	117805	50504	62298	110208	58379	80983	140362	78709	119478	-	-	-	-	-	-	-	-	-
18S-11000-1200-OP	3.8	6.9	117478	50306	61983	144312	81359	124521	-	-	-	-	-	-	-	-	-	-	-	-
18S-11000-1300-OP	3.3	5.5	117124	50091	61640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 70. Models 32S-9900-1100-OP to 50S-17300-1450-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
32S-9900-1100-OP	3.6	10.9	108771	41715	45355	-	-	-	-	-	-	88027	38371	39438	105943	51021	61799	123859	63230	84160	141775	75268	106522
32S-9900-1200-OP	3.1	9.1	108392	41471	44981	-	-	-	93609	42401	46405	114931	57174	73017	136252	71566	99628	157573	85807	126240	178895	99964	152852
32S-9900-1300-OP	2.8	7.8	107980	41205	44574	94127	42771	47052	119150	60042	78284	144174	76871	109515	169197	93534	140747	194220	110115	171979	219243	126642	203211
32S-12000-1100-OP	4.3	10.9	133041	53423	60902	-	-	-	-	-	-	-	-	-	89510	31734	31734	107426	48949	54096	125342	61395	76457
32S-12000-1200-OP	3.7	9.1	132662	53184	60528	-	-	-	-	-	-	98498	42489	42952	119819	57600	69564	141141	72132	96175	162462	86452	122787
32S-12000-1300-OP	3.2	7.8	132250	52926	60121	-	-	-	102718	45580	48219	127741	63036	79451	152764	79953	110682	177787	96675	141914	202810	113291	173146
32S-15000-1100-OP	4.9	11.3	155157	64801	76975	-	-	-	-	-	-	-	-	-	-	-	-	90719	26700	26700	108635	47499	49061
32S-15000-1200-OP	4.2	9.5	154777	64566	76600	-	-	-	-	-	-	-	-	-	103113	42168	42168	124434	58720	68779	145755	73339	95391
32S-15000-1300-OP	3.7	8.1	154365	64311	76193	-	-	-	-	-	-	111034	49246	52055	136057	66733	83287	161080	83686	114518	186103	100432	145750
50S-15400-1100-OP	4.8	12.0	167631	65357	72018	-	-	-	-	-	-	-	-	-	-	-	-	114003	34976	34976	133965	58148	59762
50S-15400-1200-OP	4.1	11.2	167211	65088	71601	-	-	-	-	-	-	-	-	-	127812	52121	52121	151569	70671	81618	175326	86979	111114
50S-15400-1300-OP	3.6	9.5	166754	64795	71148	-	-	-	-	-	-	136638	60095	63080	164520	79613	97697	192402	98517	132314	220284	117180	166932
50S-15400-1450-OP	3.0	7.7	166000	64313	70399	-	-	-	155714	73548	86764	190402	97173	129831	225089	120377	172897	259777	143402	215964	294464	166325	259031
50S-15600-1100-OP	5.0	12.0	175439	70327	79769	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	126175	50089	50089
50S-15600-1200-OP	4.3	11.4	175018	70063	79352	-	-	-	-	-	-	-	-	-	120021	42449	42449	143779	65204	71945	167536	81674	101442
50S-15600-1300-OP	3.7	9.7	174561	69773	78898	-	-	-	-	-	-	128848	53408	53408	156730	74252	88025	184612	93265	122642	212494	111977	157259
50S-15600-1450-OP	3.1	7.8	173808	69294	78150	-	-	-	147924	68125	77092	182611	91915	120159	217299	115188	163225	251986	138239	206292	286674	161180	249359
50S-17300-1100-OP	5.4	12.0	191865	78197	90253	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	115079	29741	29741
50S-17300-1200-OP	4.6	11.7	191444	77932	89836	-	-	-	-	-	-	-	-	-	-	-	-	132683	51597	51597	156441	71900	81094
50S-17300-1300-OP	4.0	10.0	190987	77644	89383	-	-	-	-	-	-	-	-	-	145634	64213	67677	173516	83735	102294	201398	102663	136911
50S-17300-1450-OP	3.4	8.0	190234	77169	88634	-	-	-	136828	56744	56744	171516	82359	99810	206203	105892	142877	240891	129078	185944	275578	152100	229011

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 71. Models 32S-9900-1100-OP to 50S-17300-1450-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
32S-9900-1100-OP	3.6	10.9	108771	41715	45355	159691	87215	128883	195523	110976	173605	267186	158238	263050	303018	181844	307772	-	-	-
32S-9900-1200-OP	3.1	9.1	108392	41471	44981	200216	114076	179463	242859	142210	232687	-	-	-	-	-	-	-	-	-
32S-9900-1300-OP	2.8	7.8	107980	41205	44574	244266	143137	234442	294312	176109	296906	-	-	-	-	-	-	-	-	-
32S-12000-1100-OP	4.3	10.9	133041	53423	60902	143258	73558	98818	179090	97541	143540	250754	144990	232985	286586	168605	277707	-	-	-
32S-12000-1200-OP	3.7	9.1	132662	53184	60528	183784	100661	149399	226427	128923	202622	311712	185159	309069	-	-	-	-	-	-
32S-12000-1300-OP	3.2	7.8	132250	52926	60121	227833	129852	204378	277879	162869	266841	-	-	-	-	-	-	-	-	-
32S-15000-1100-OP	4.9	11.3	155157	64801	76975	126551	60192	71422	162383	84564	116145	234047	132260	205589	269879	155935	250312	-	-	-
32S-15000-1200-OP	4.2	9.5	154777	64566	76600	167077	87711	122003	209720	116142	175226	295006	172499	281673	-	-	-	-	-	-
32S-15000-1300-OP	3.7	8.1	154365	64311	76193	211126	117077	176982	261173	150184	239445	-	-	-	-	-	-	-	-	-
50S-15400-1100-OP	4.8	12.0	167631	65357	72018	153928	72311	84547	193854	99492	134117	273705	152614	233257	313631	178959	282828	393483	231477	381968
50S-15400-1200-OP	4.1	11.2	167211	65088	71601	199084	103003	140610	246599	134668	199603	341629	197397	317588	389143	228626	376581	-	-	-
50S-15400-1300-OP	3.6	9.5	166754	64795	71148	248166	135707	201549	303930	172571	270783	415458	245914	409252	-	-	-	-	-	-
50S-15400-1450-OP	3.0	7.7	166000	64313	70399	329152	189181	302098	398527	234791	388231	-	-	-	-	-	-	-	-	-
50S-15600-1100-OP	5.0	12.0	175439	70327	79769	146138	66868	74874	186064	94245	124445	265915	147469	223585	305841	173829	273155	385692	226359	372296
50S-15600-1200-OP	4.3	11.4	175018	70063	79352	191294	97773	130938	238808	129504	189931	333838	192267	307916	381353	223508	366909	-	-	-
50S-15600-1300-OP	3.7	9.7	174561	69773	78898	240376	130544	191877	296140	167432	261111	407668	240796	399580	-	-	-	-	-	-
50S-15600-1450-OP	3.1	7.8	173808	69294	78150	321361	184050	292425	390736	229673	378559	-	-	-	-	-	-	-	-	-
50S-17300-1100-OP	5.4	12.0	191865	78197	90253	135042	54526	54526	174968	84729	104097	254819	138343	203237	294745	164774	252807	374597	217403	351948
50S-17300-1200-OP	4.6	11.7	191444	77932	89836	180198	88303	110590	227713	120296	169583	322743	183259	287568	370258	214550	346561	-	-	-
50S-17300-1300-OP	4.0	10.0	190987	77644	89383	229280	121343	171529	285044	158366	240763	396572	231840	379232	-	-	-	-	-	-
50S-17300-1450-OP	3.4	8.0	190234	77169	88634	310266	175025	272077	379641	220717	358211	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 72. Models 50S-18600-1100-OP to 80S-19700-1800-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)																	
						3			3.5			4			4.5			5			5.5		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
50S-18600-1100-OP	6.7	12.0	244061	94694	103815	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50S-18600-1200-OP	5.7	12.0	243640	94424	103397	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50S-18600-1300-OP	5.0	10.9	243183	94132	102944	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	184106	72253	72253
50S-18600-1450-OP	4.1	8.8	242430	93644	102195	-	-	-	-	-	-	-	-	-	188911	78219	78219	223599	104546	121285	258286	128335	164352
65S-18400-1600-OP	3.5	10.0	229722	91494	103081	-	-	-	-	-	-	196971	90983	103467	237094	118532	153283	277218	145505	203099	317342	172236	252915
65S-18400-1700-OP	3.1	8.0	229149	91130	102512	-	-	-	192535	87865	97960	237831	119032	154198	283127	149453	210435	328423	179579	266673	373719	209548	322911
65S-18400-1800-OP	2.9	8.0	228542	90745	101909	179605	78624	81906	230386	113977	144954	281168	148144	208003	331949	181916	271051	382731	215500	334100	433512	248973	397148
65S-19400-1600-OP	4.0	10.0	273492	109970	125141	-	-	-	-	-	-	-	-	-	212874	93911	99062	252998	122005	148878	293121	149251	198694
65S-19400-1700-OP	3.6	9.0	272919	109609	124572	-	-	-	-	-	-	213611	94444	99977	258906	126048	156214	304202	156699	212452	349498	186974	268690
65S-19400-1800-OP	3.3	8.0	272312	109226	123969	-	-	-	206166	89019	90733	256947	124709	153782	307729	159067	216830	358510	192969	279879	409292	226656	342927
80S-18700-1800-OP	2.8	7.0	276474	85993	85993	256577	105779	105779	318941	152396	183207	381304	194785	260635	443667	236519	338063	506031	277937	415491	568394	319180	492919
80S-19700-1800-OP	3.3	7.0	338579	115385	115385	-	-	-	286311	106274	106274	348674	161236	183701	411037	204106	261129	473401	246140	338557	535764	287751	415985

NOTES:

- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

Table 73. Models 50S-18600-1100-OP to 80S-19700-1800-OP

Model	Hold Pressure (barg)	MOP (barg)	BTO	RTO	ETO	Operating Supply Pressure (barg)														
						6			7			9			10			12		
						BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC
50S-18600-1100-OP	6.7	12.0	244061	94694	103815	-	-	-	157676	39438	39438	237527	114168	138579	277453	141295	188149	357305	194607	287289
50S-18600-1200-OP	5.7	12.0	243640	94424	103397	162906	45931	45931	210421	95299	104924	305451	160078	222910	352966	191731	281902	447995	254565	399888
50S-18600-1300-OP	5.0	10.9	243183	94132	102944	211988	96409	106870	267752	134747	176105	379280	209170	314574	435044	246024	383808	-	-	-
50S-18600-1450-OP	4.1	8.8	242430	93644	102195	292974	151723	207419	362349	197950	293552	-	-	-	-	-	-	-	-	-
65S-18400-1600-OP	3.5	10.0	229722	91494	103081	357466	198813	302731	437713	251739	402363	598208	357219	601627	-	-	-	-	-	-
65S-18400-1700-OP	3.1	8.0	229149	91130	102512	419015	239425	379148	509606	299011	491624	-	-	-	-	-	-	-	-	-
65S-18400-1800-OP	2.9	8.0	228542	90745	101909	484294	282382	460197	585857	349105	586293	-	-	-	-	-	-	-	-	-
65S-19400-1600-OP	4.0	10.0	273492	109970	125141	333245	176141	248510	413492	229436	348142	573987	335183	547407	-	-	-	-	-	-
65S-19400-1700-OP	3.6	9.0	272919	109609	124572	394794	217048	324927	485386	276883	437403	-	-	-	-	-	-	-	-	-
65S-19400-1800-OP	3.3	8.0	272312	109226	123969	460073	260201	405976	561637	327069	532073	-	-	-	-	-	-	-	-	-
80S-18700-1800-OP	2.8	7.0	276474	85993	85993	630757	360312	570347	-	-	-	-	-	-	-	-	-	-	-	-
80S-19700-1800-OP	3.3	7.0	338579	115385	115385	598127	329142	493413	722854	411535	648269	-	-	-	-	-	-	-	-	-

NOTES:
- Hold pressure: the minimum pressure to operate the actuator
- MOP: Maximum Operating Pressure
- BTC: Break to Close
- RTC: Run to Close
- ETC: End to Close
- BTO: Break to Open
- RTO: Run to Open
- ETO: End to Open

ALGA Double-Acting Pneumatic Actuator Overall Dimensions

Single Cylinder

Figure 3. Single Cylinder Assembly Drawing

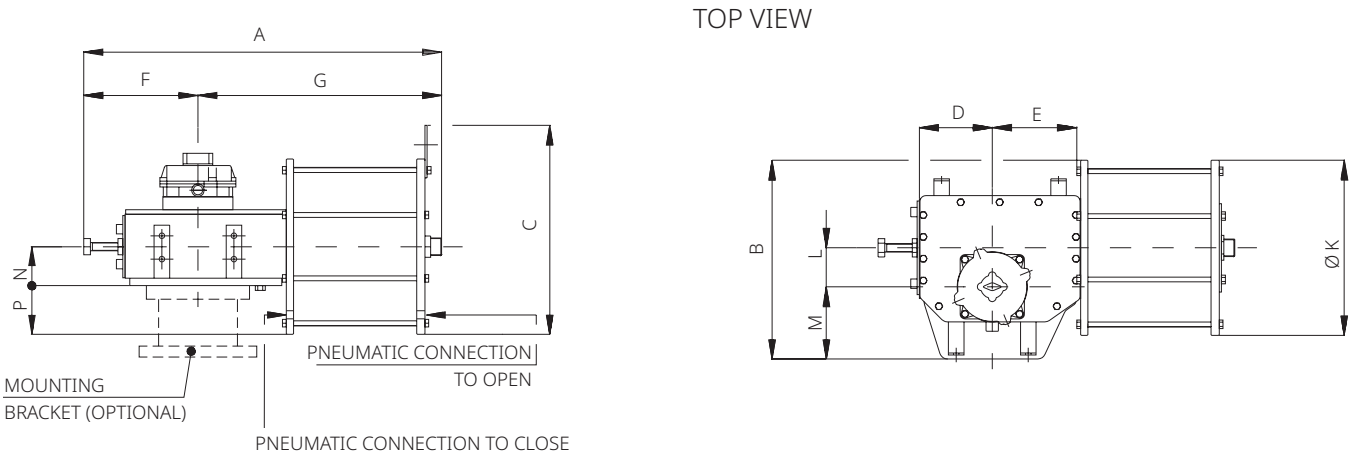


Table 74. Single Cylinder Dimensions (mm)

													Pneumatic Connection*		Weight	Air Consumption
Model	A	B	C	D	E	F	G	Ø K	L	M	N	P	Close	Open	(kg)	(liters)
0.3-100	752	319	182	136	151	227	526	120	70	119	70	-10	1/4	1/4	37	1.6
0.3-135	750	319	226	136	151	227	524	180	70	119	70	21	1/4	1/4	41	2.9
0.3-175	756	319	253	136	151	227	530	200	70	119	70	31	1/4	1/2	52	4.8
0.3-235	786	319	301	136	151	227	559	260	70	119	70	61	1/2	1/2	72	9
0.9-235	847	413	301	160	190	249	598	260	80	170	83	48	1/2	1/2	95	9
0.9-280	855	413	397	160	190	249	607	345	80	170	83	90	1/2	3/4	140	14
1.5-280	991	477	397	187	227	312	679	345	100	185	100	73	1/2	3/4	160	16
1.5-335	994	485	483	187	227	312	682	400	100	185	100	100	1/2	1	196	23
1.5-385	994	510	542	187	227	312	682	450	100	185	100	125	1/2	1	223	31
14-635	1713	890	844	376	435	535	1178	720	200	330	193	167	1	1	1097	159
14-735	1849	940	928	376	435	535	1314	820	200	330	193	217	1	1	1312	213
18-635	1957	955	839	424	492	578	1379	730	230	355	193	172	1	1	1372	184
18-685	1984	970	878	424	492	578	1406	770	230	355	193	192	1	1	1353	208
18-735	1986	995	928	424	492	578	1408	820	230	355	193	217	1	1	1427	239
3-335	1334	586	483	285	330	410	924	400	160	215	106	94	1/2	1	281	36
3-385	1334	600	542	285	330	410	924	450	160	215	106	119	1/2	1	311	47
3-435	1334	625	590	285	330	410	924	500	160	215	106	144	3/4	1	342	60
3-485	1333	655	675	285	330	410	923	560	160	215	106	174	3/4	1	367	74
32-685	2240	1057	879	505	585	649	1591	770	270	395	233	153	1	1	1786	244
32-735	2253	1075	928	505	585	649	1604	820	270	395	233	178	1	1	1867	288
32-835	2271	1128	1038	505	585	649	1622	925	270	395	233	230	1	1	2021	372
50-1000	2559	1280	1264	548	633	692	1867	1120	300	420	233	327	1	1	3099	600
50-1100	2579	1330	1355	548	633	692	1887	1220	300	420	233	377	1	1	3495	730
50-935	2519	1248	1180	548	633	692	1827	1055	300	420	233	295	1	1	2785	520

NOTE:
* Pneumatic connection NPT (in.)

Table 75. Single Cylinder Dimensions (mm) (Continuation)

													Pneumatic Connection*		Weight	Air Consumption
Model	A	B	C	D	E	F	G	Ø K	L	M	N	P	Close	Open	(kg)	(liters)
6-485	1564	740	675	327	379	503	1061	560	185	260	140	140	3/4	1	555	85
6-535	1577	755	716	327	379	503	1074	620	185	260	140	170	3/4	1	655	104
6-585	1577	780	794	327	379	503	1074	670	185	260	140	195	3/4	1	734	124
80-1100	3052	1410	1355	663	761	882	2170	1220	350	450	302	308	1	1	4609	840
80-1200	3047	1465	1329	663	761	882	2165	1329	350	450	302	363	1	1	31309	1000
80-935	3067	1335	1206	663	761	882	2185	1070	350	450	302	233	1	1	4184	610

NOTE:
* Pneumatic connection NPT (in.)

Two Cylinders

Figure 4. Two Cylinders Assembly Drawing

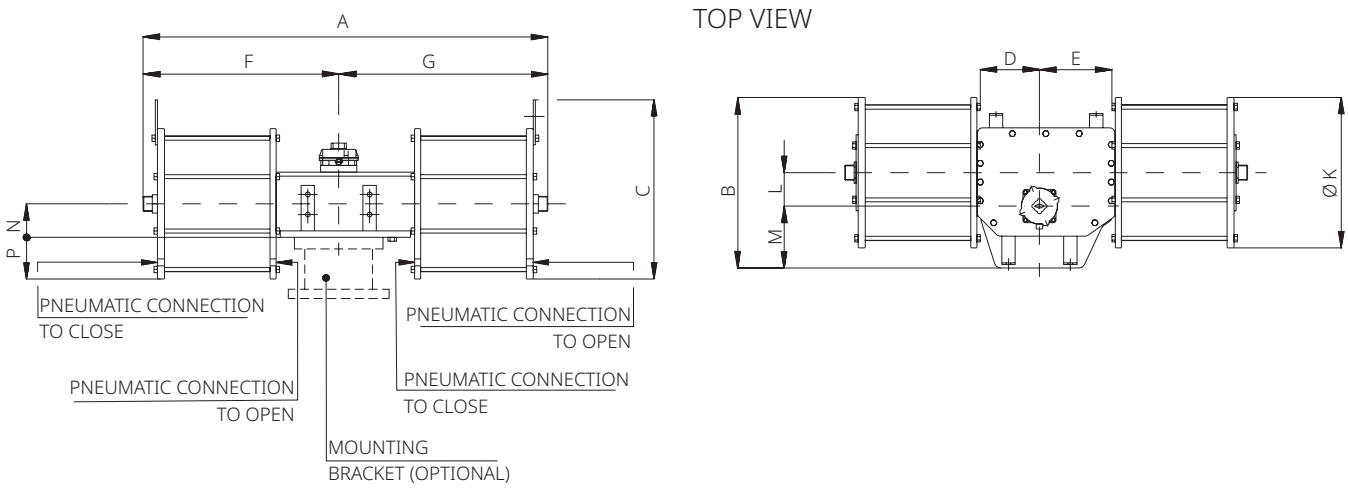


Table 76. Two Cylinders Dimensions (mm)

Model	A	B	C	D	E	F	G	Ø K	L	M	N	P	Pneumatic Connection* Close	Pneumatic Connection* Open	Weight (kg)	Air Consumption (liters)
18-635	2690	955	839	424	492	1311	1379	730	230	355	172	193	1	1	2131.96	357
18-685	2744	970	878	424	492	1338	1406	770	230	355	192	193	1	1	2093.3	416
32-685	3102	1057	879	505	585	1511	1591	770	270	395	153	233	1	1	2550.38	487
50-1000	3649	1280	1264	548	633	1782	1867	1120	300	420	327	233	1	1	4996.1	1200
50-935	3569	1248	1180	548	633	1742	1827	1055	300	420	295	233	1	1	4369.24	1040
80-1100	4242	1410	1355	663	761	2072	2170	1220	350	450	308	302	1	1	7022.72	1680
80-1200	4232	1465	1329	663	761	2067	2165	1329	350	450	363	302	1	1	60421.48	2000
80-935	4272	1335	1206	663	761	2087	2185	1070	350	450	233	302	1	1	6172.64	1220

NOTE:
* Pneumatic connection NPT (in.)

ALGAS Spring-Return Pneumatic Actuator Overall Dimensions

Spring to Close

Figure 5. Overall Dimensions

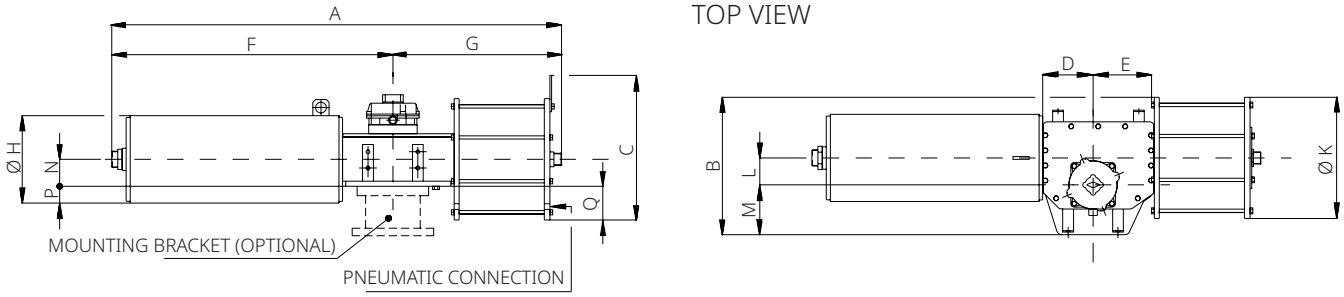


Table 77. Models 0.3-008A-100-CL to 0.9-0250-235-CL Dimensions (mm)

Model	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	NPT (in.)	Weight (kg)	Air Consumption (liters)
0.3-008A 100-CL	1239	319	182	136	151	712	527	150	120	70	119	70	5	-10	1/4	56.5	1.6
0.3-008B-100-CL	1239	319	182	136	151	712	527	150	120	70	119	70	5	-10	1/4	56.5	1.6
0.3-008C-100-CL	1239	319	182	136	151	712	527	150	120	70	119	70	5	-10	1/4	61.5	1.6
0.3-008A-135-CL	1236	319	226	136	151	712	524	150	180	70	119	70	5	20	1/4	63.5	2.9
0.3-008B-135-CL	1236	319	226	136	151	712	524	150	180	70	119	70	5	20	1/4	63.5	2.9
0.3-008C-135-CL	1236	319	226	136	151	712	524	150	180	70	119	70	5	20	1/4	68.5	2.9
0.3-0100-135-CL	1355	319	226	136	151	831	524	224	180	70	119	70	42	20	1/4	83.5	2.9
0.3-0100-175-CL	1361	319	253	136	151	831	530	224	200	70	119	70	42	30	1/2	91.5	4.8
0.3-0150-175-CL	1293	319	253	136	151	763	530	224	200	70	119	70	42	30	1/2	91.5	4.8
0.3-0100-235-CL	1391	319	301	136	151	831	560	224	260	70	119	70	42	60	1/2	112.5	9
0.3-0150-235-CL	1323	319	301	136	151	763	560	224	260	70	119	70	42	60	1/2	112.5	9
0.9-0350-385-CL	1575	475	542	160	190	930	645	350	450	80	170	83	92	142	1	304.5	26
0.9-0400-385-CL	1509	475	542	160	190	864	645	350	450	80	170	83	92	142	1	304.5	26
0.9-0420-385-CL	1466	475	542	160	190	821	645	350	450	80	170	83	92	142	1	299.5	26
0.9-0700-385-CL	1536	475	542	160	190	891	645	350	450	80	170	83	92	142	1	329.5	26
0.9-0720-385-CL	1466	475	542	160	190	821	645	350	450	80	170	83	93	142	1	324.5	26
0.9-0350-435-CL	1575	500	590	160	190	930	645	350	500	80	170	83	92	167	1	334.5	33
0.9-0400-435-CL	1509	500	590	160	190	864	645	350	500	80	170	83	92	167	1	334.5	33
0.9-0420-435-CL	1466	500	590	160	190	821	645	350	500	80	170	83	92	167	1	329.5	33
0.9-0700-435-CL	1536	500	590	160	190	891	645	350	500	80	170	83	92	167	1	359.5	33
0.9-0720-435-CL	1466	500	590	160	190	821	645	350	500	80	170	83	93	167	1	354.5	33
0.9-0350-485-CL	1575	560	656	160	190	930	645	350	560	80	170	83	92	197	1	384.5	41
0.9-0400-485-CL	1509	560	656	160	190	864	645	350	560	80	170	83	92	197	1	384.5	41
0.9-0420-485-CL	1466	560	656	160	190	821	645	350	560	80	170	83	92	197	1	379.5	41
0.9-0700-485-CL	1536	560	656	160	190	891	645	350	560	80	170	83	92	197	1	409.5	41
0.9-0720-485-CL	1466	560	656	160	190	821	645	350	560	80	170	83	93	197	1	404.5	41
0.9-0200-235-CL	1476	413	301	160	190	877	599	280	260	80	170	83	57	47	1/2	160.5	9
0.9-0250-235-CL	1405	413	301	160	190	806	599	280	260	80	170	83	57	47	1/2	165.5	9

Table 78. Models 0.9-0200-280-CL to 3-2050-385-CL Dimensions (mm)

Model	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	NPT (in.)	Weight (kg)	Air Consumption (liters)
0.9-0200-280-CL	1484	423	397	160	190	877	607	280	346	80	170	83	57	90	3/4	160.5	14
0.9-0250-280-CL	1413	423	397	160	190	806	607	280	346	80	170	83	57	90	3/4	165.5	14
0.9-0350-280-CL	1537	423	397	160	190	930	607	350	346	80	170	83	92	90	3/4	210.5	14
0.9-0400-280-CL	1471	423	397	160	190	864	607	350	346	80	170	83	92	90	3/4	210.5	14
0.9-0200-335-CL	1522	450	483	160	190	877	645	280	400	80	170	83	57	117	1	224.5	20
0.9-0250-335-CL	1451	450	483	160	190	806	645	280	400	80	170	83	57	117	1	229.5	20
0.9-0350-335-CL	1575	450	483	160	190	930	645	350	400	80	170	83	92	117	1	274.5	20
0.9-0400-335-CL	1509	450	483	160	190	864	645	350	400	80	170	83	92	117	1	274.5	20
0.9-0420-335-CL	1466	450	483	160	190	821	645	350	400	80	170	83	92	117	1	269.5	20
0.9-0700-335-CL	1536	450	483	160	190	891	645	350	400	80	170	83	92	117	1	299.5	20
1.5-0800-385-CL	1674	510	542	187	227	992	682	400	450	100	185	100	100	125	1	382	31
1.5-1100-385-CL	1674	510	542	187	227	992	682	400	450	100	185	100	100	125	1	392	31
1.5-1200-385-CL	1774	510	542	187	227	1092	682	370	450	100	185	100	85	125	1	402	31
1.5-0800-435-CL	1674	535	590	187	227	992	682	400	500	100	185	100	100	150	1	412	39
1.5-1100-435-CL	1674	535	590	187	227	992	682	400	500	100	185	100	100	150	1	422	39
1.5-1200-435-CL	1774	535	590	187	227	1092	682	370	500	100	185	100	85	150	1	432	39
1.5-0800-485-CL	1674	565	656	187	227	992	682	400	560	100	185	100	100	180	1	462	48
1.5-1100-485-CL	1674	565	656	187	227	992	682	400	560	100	185	100	100	180	1	472	48
1.5-1200-485-CL	1774	565	656	187	227	1092	682	370	560	100	185	100	85	180	1	482	48
1.5-0800-535-CL	1714	620	716	187	227	992	722	400	620	100	185	100	100	210	1	532	59
1.5-1100-535-CL	1714	620	716	187	227	992	722	400	620	100	185	100	100	210	1	542	59
1.5-1200-535-CL	1814	620	716	187	227	1092	722	370	620	100	185	100	85	210	1	552	59
1.5-1100-585-CL	1719	670	775	187	227	992	727	400	670	100	185	100	100	235	1	602	70
1.5-1200-585-CL	1819	670	775	187	227	1092	727	370	670	100	185	100	85	235	1	612	70
1.5-1300-385-CL	1767	510	542	187	227	1085	682	370	450	100	185	100	85	125	1	410	31
1.5-1300-435-CL	1767	535	590	187	227	1085	682	370	500	100	185	100	85	150	1	440	39
1.5-1300-485-CL	1767	565	656	187	227	1085	682	370	560	100	185	100	85	180	1	490	48
1.5-1300-535-CL	1807	620	716	187	227	1085	722	370	620	100	185	100	85	210	1	560	59
1.5-1300-585-CL	1812	710	795	187	227	1085	727	370	710	100	185	100	85	255	1	620	70
3-2000-385-CL	2338	600	542	285	330	1414	924	430	450	160	215	106	109	119	1	552	47
3-2000-435-CL	2338	625	590	285	330	1414	924	430	500	160	215	106	109	144	1	587	60
3-2000-485-CL	2337	655	675	285	330	1414	923	430	560	160	215	106	109	174	1	642	74
3-2000-535-CL	2381	685	716	285	330	1414	967	430	620	160	215	106	109	204	1	712	90
3-2000-585-CL	2381	710	794	285	330	1414	967	430	670	160	215	106	109	229	1	777	108
3-2050-385-CL	2313	600	542	285	330	1389	924	430	450	160	215	106	109	119	1	570	47

Figure 6. Overall Dimensions

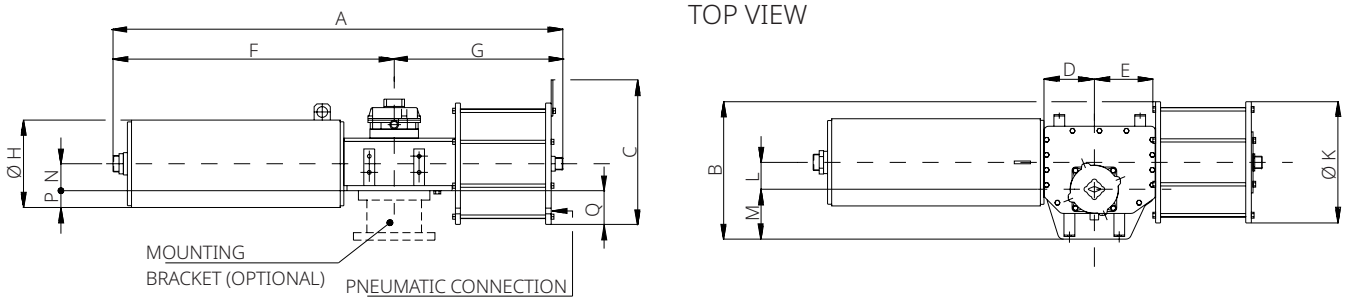


Table 79. Models 3-2050-435-CL to 14-8300-735-CL Dimensions (mm)

Model	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	NPT (in.)	Weight (kg)	Air Consumption (liters)
3-2050-435-CL	2313	625	590	285	330	1389	924	430	500	160	215	106	109	144	1	605	60
3-2050-485-CL	2312	655	675	285	330	1389	923	430	560	160	215	106	109	174	1	660	74
3-2050-535-CL	2356	685	716	285	330	1389	967	430	620	160	215	106	109	204	1	730	90
3-2050-585-CL	2356	710	794	285	330	1389	967	430	670	160	215	106	109	229	1	805	108
6-2500-485-CL	3044	740	675	327	379	1980	1064	380	560	185	260	140	120	140	1	938	85
6-2500-535-CL	3054	755	716	327	379	1980	1074	380	620	185	260	140	120	170	1	1008	104
6-3800-535-CL	3235	755	716	327	379	2161	1074	550	620	185	260	140	205	170	1	1363	104
6-2500-585-CL	3054	780	794	327	379	1980	1074	380	670	185	260	140	120	195	1	1073	124
6-3800-585-CL	3235	780	794	327	379	2161	1074	550	670	185	260	140	205	195	1	1428	124
6-2500-685-CL	3243	830	879	327	379	1980	1263	380	770	185	260	140	120	245	2 x 1	1278	170
6-2500-735-CL	3123	853	926	327	379	1980	1143	380	816	185	260	140	120	268	2 x 1	1388	196
6-3800-735-CL	3304	853	926	327	379	2161	1143	550	816	185	260	140	205	268	2 x 1	1743	196
6-2500-635-CL	3102	805	844	327	379	1980	1122	380	720	185	260	140	120	220	1	1168	146
6-3800-635-CL	3283	805	844	327	379	2161	1122	550	720	185	260	140	205	220	1	1523	146
6-3900-535-CL	3061	755	716	327	379	1987	1074	548	620	185	260	140	210	170	1	1453	104
6-3900-585-CL	3061	780	794	327	379	1987	1074	548	670	185	260	140	210	195	1	1518	124
6-3900-635-CL	3109	805	844	327	379	1987	1122	548	720	185	260	140	210	220	1	1613	146
6-3900-685-CL	3250	830	879	327	379	1987	1263	548	770	185	260	140	210	245	2 x 1	1723	170
6-3900-735-CL	3130	853	926	327	379	1987	1143	548	816	185	260	140	210	268	2 x 1	1833	196
14-5100-685-CL	3431	915	879	376	435	2112	1319	552	770	200	330	193	153	192	2 x 1	1876	185
14-5400-685-CL	3377	915	879	376	435	2058	1319	552	770	200	330	193	153	192	2 x 1	1961	185
14-5100-735-CL	3309	938	926	376	435	2112	1197	552	816	200	330	193	153	215	2 x 1	1971	213
14-5400-735-CL	3255	938	926	376	435	2058	1197	552	816	200	330	193	153	215	2 x 1	2056	213
14-8300-735-CL	3309	938	926	376	435	2112	1197	552	816	200	330	193	153	215	2 x 1	2151	213

Table 80. Models 14-5100-785-CL to 18-9800-935-CL Dimensions (mm)

Model	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	NPT (in.)	Weight (kg)	Air Consumption (liters)
14-5100-785-CL	3309	973	1004	376	435	2112	1197	552	886	200	330	193	153	250	2 x 1	2066	243
14-5400-785-CL	3255	973	1004	376	435	2058	1197	552	886	200	330	193	153	250	2 x 1	2151	243
14-8300-785-CL	3309	973	1004	376	435	2112	1197	552	886	200	330	193	153	250	2 x 1	2246	243
14-5100-835-CL	3309	993	1038	376	435	2112	1197	552	926	200	330	193	153	270	2 x 1	2141	274
14-5400-835-CL	3255	993	1038	376	435	2058	1197	552	926	200	330	193	153	270	2 x 1	2226	274
14-8300-835-CL	3309	993	1038	376	435	2112	1197	552	926	200	330	193	153	270	2 x 1	2321	274
14-5100-935-CL	3388	1058	1180	376	435	2112	1276	552	1056	200	330	193	153	335	2 x 1	2601	343
14-5400-935-CL	3334	1058	1180	376	435	2058	1276	552	1056	200	330	193	153	335	2 x 1	2686	343
14-8300-935-CL	3388	1058	1180	376	435	2112	1276	552	1056	200	330	193	153	335	2 x 1	2781	343
14-5100-635-CL	3290	890	844	376	435	2112	1178	552	720	200	330	193	153	167	1	1766	159
14-5400-635-CL	3236	890	844	376	435	2058	1178	552	720	200	330	193	153	167	1	1851	159
14-5100-885-CL	3388	1030	1123	376	435	2112	1276	552	1000	200	330	193	153	307	2 x 1	2481	308
14-5400-885-CL	3334	1030	1123	376	435	2058	1276	552	1000	200	330	193	153	307	2 x 1	2566	308
14-8300-885-CL	3388	1030	1123	376	435	2112	1276	552	1000	200	330	193	153	307	2 x 1	2661	308
18-10500-1000-CL	4186	1145	1264	424	492	2774	1412	710	1120	230	355	193	252	367	2 x 1	4657	456
18-11000-1000-CL	4068	1145	1264	424	492	2656	1412	710	1120	230	355	193	252	367	2 x 1	4622	456
18-9600-1000-CL	4101	1145	1264	424	492	2689	1412	600	1120	230	355	193	197	367	2 x 1	3717	456
18-9800-1000-CL	4101	1145	1264	424	492	2689	1412	600	1120	230	355	193	197	367	2 x 1	3932	456
18-9600-835-CL	4060	1048	1038	424	492	2689	1371	600	926	230	355	193	197	270	2 x 1	3002	318
18-9800-835-CL	4060	1048	1038	424	492	2689	1371	600	926	230	355	193	197	270	2 x 1	3217	318
18-10500-935-CL	4180	1113	1180	424	492	2774	1406	710	1056	230	355	193	252	335	2 x 1	4402	398
18-11000-935-CL	4062	1113	1180	424	492	2656	1406	710	1056	230	355	193	252	335	2 x 1	4367	398
18-9600-935-CL	4095	1113	1180	424	492	2689	1406	600	1056	230	355	193	197	335	2 x 1	3462	398
18-9800-935-CL	4095	1113	1180	424	492	2689	1406	600	1056	230	355	193	197	335	2 x 1	3677	398

Figure 7. Overall Dimensions

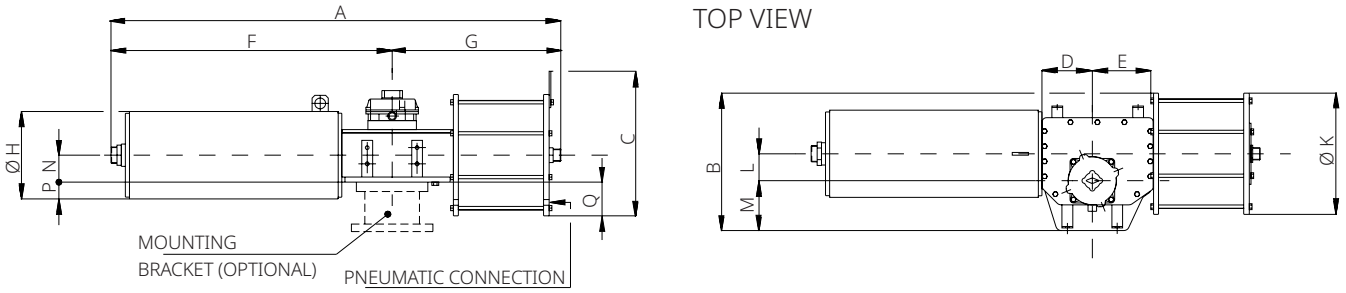


Table 81. Models 18-10500-1100-CL to 80-19700-1800-CL Dimensions (mm)

Model	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	NPT (in.)	Weight (kg)	Air consumption (liters)
18-10500-1100-CL	4183	1220	1364	424	492	2774	1409	710	1220	230	355	193	252	417	2 x 1	5017	552
18-11000-1100-CL	4065	1220	1364	424	492	2656	1409	710	1220	230	355	193	252	417	2 x 1	4982	552
18-9600-1100-CL	4098	1220	1364	424	492	2689	1409	600	1220	230	355	193	197	417	2 x 1	4077	552
18-9800-1100-CL	4098	1220	1364	424	492	2689	1409	600	1220	230	355	193	197	417	2 x 1	4292	552
18-10500-1200-CL	4183	1330	1469	424	492	2774	1409	710	1330	230	355	193	252	472	2 x 1	5378	660
18-11000-1200-CL	4065	1330	1469	424	492	2656	1409	710	1330	230	355	193	252	472	2 x 1	5343	660
18-9600-1200-CL	4098	1310	1459	424	492	2689	1409	600	1310	230	355	193	197	462	2 x 1	4438	660
18-9800-1200-CL	4098	1310	1459	424	492	2689	1409	600	1310	230	355	193	197	462	2 x 1	4653	660
32-12000-1100-CL	4679	1300	1364	505	585	3004	1675	800	1220	270	420	236	254	374	2 x 1	5941	650
32-15000-1100-CL	4679	1300	1364	505	585	3004	1675	800	1220	270	420	236	254	374	2 x 1	6239	650
32-9900-1100-CL	4617	1300	1364	505	585	2942	1675	600	1220	270	420	236	154	374	2 x 1	4919	650
32-12000-1300-CL	4719	1430	1580	505	585	3001	1718	980	1430	270	420	236	254	479	2 x 1	6899	910
32-15000-1300-CL	4722	1430	1580	505	585	3004	1718	800	1430	270	420	236	254	479	2 x 1	7197	910
32-9900-1300-CL	4660	1430	1580	505	585	2942	1718	600	1430	270	420	236	154	479	2 x 1	5877	910
50-15400-1100-CL	4989	1330	1364	548	633	3122	1867	800	1220	300	420	233	257	377	2 x 1	6590	720
50-15600-1100-CL	4989	1330	1364	548	633	3122	1867	800	1220	300	420	233	258	377	2 x 1	6800	720
50-17300-1100-CL	5006	1330	1364	548	633	3139	1867	860	1220	300	420	233	317	377	2 x 1	7165	720
50-15400-1450-CL	4966	1600	1805	548	633	3122	1844	800	1600	300	420	233	257	567	2 x 1	8115	1256
50-15600-1450-CL	4966	1600	1805	548	633	3122	1844	800	1600	300	420	233	258	567	2 x 1	8325	1256
50-17300-1450-CL	4983	1600	1805	548	633	3139	1844	860	1600	300	420	233	317	567	2 x 1-1/2	8690	1256
50-18600-1450-CL	5012	1600	1805	548	633	3168	1844	866	1600	300	420	233	320	567	2 x 1-1/2	9340	1256
65-18400-1600-CL	5192	1750	1993	623	701	3243	1949	866	1750	285	455	302	251	573	2 x 1	11200	1480
65-19400-1600-CL	5307	1750	1993	623	701	3358	1949	866	1750	285	455	302	251	573	2 x 1	11570	1480
65-18400-1700-CL	5221	1900	2160	623	701	3243	1978	866	1900	285	455	302	251	648	2 x 1	12505	1670
65-19400-1700-CL	5336	1900	2160	623	701	3358	1978	866	1900	285	455	302	251	648	2 x 1	12875	1670
65-18400-1800-CL	5222	1960	2196	623	701	3243	1979	866	1960	285	455	302	251	678	2 x 1	13070	1875
65-19400-1800-CL	5337	1960	2196	623	701	3358	1979	866	1960	285	455	302	251	678	2 x 1	13440	1875
80-18700-1800-CL	5679	1960	2196	663	761	3416	2263	866	1960	350	450	302	251	678	2 x 1	13410	2250
80-19700-1800-CL	5796	1960	2196	663	761	3533	2263	866	1960	350	450	302	251	678	2 x 1	13900	2250

Spring to Open

Figure 8. Overall Dimensions

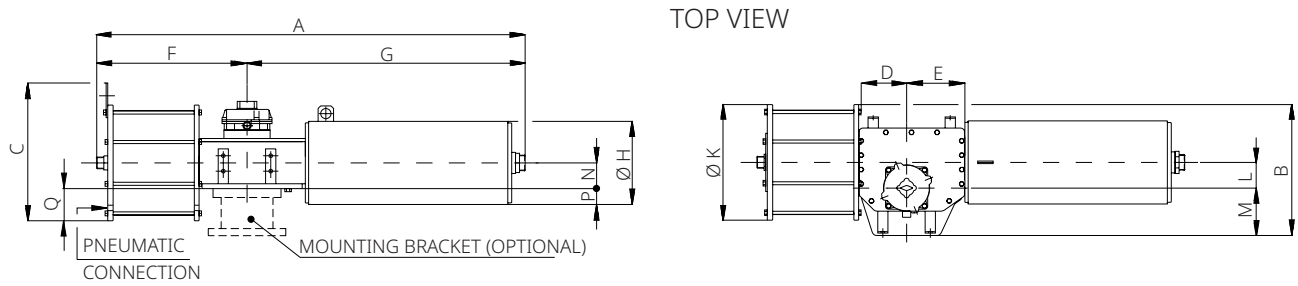


Table 82. Models 0.3-008A-100-OP to 0.9-0700-485-OP Dimensions (mm)

Model	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	NPT (in.)	Weight (kg)	Air Consumption (liters)
0.3-008A-100-OP	1239	319	182	136	151	527	712	150	120	70	119	70	5	-10	1/4	56.5	1.6
0.3-008B-100-OP	1239	319	182	136	151	527	712	150	120	70	119	70	5	-10	1/4	56.5	1.6
0.3-008C-100-OP	1239	319	182	136	151	527	712	150	120	70	119	70	5	-10	1/4	61.5	1.6
0.3-008A-135-OP	1236	319	226	136	151	524	712	150	180	70	119	70	5	20	1/4	63.5	2.9
0.3-008B-135-OP	1236	319	226	136	151	524	712	150	180	70	119	70	5	20	1/4	63.5	2.9
0.3-008C-135-OP	1236	319	226	136	151	524	712	150	180	70	119	70	5	20	1/4	68.5	2.9
0.3-0100-135-OP	1355	319	226	136	151	524	831	224	180	70	119	70	42	20	1/4	83.5	2.9
0.3-0100-175-OP	1361	319	253	136	151	530	831	224	200	70	119	70	42	30	1/2	91.5	4.8
0.3-0150-175-OP	1293	319	253	136	151	530	763	224	200	70	119	70	42	30	1/2	91.5	4.8
0.3-0100-235-OP	1391	319	301	136	151	560	831	224	260	70	119	70	42	60	1/2	112.5	9
0.3-0150-235-OP	1323	319	301	136	151	560	763	224	260	70	119	70	42	60	1/2	112.5	9
0.9-0350-385-OP	1575	475	542	160	190	645	930	350	450	80	170	83	92	142	1	304.5	26
0.9-0400-385-OP	1509	475	542	160	190	645	864	350	450	80	170	83	92	142	1	304.5	26
0.9-0420-385-OP	1466	475	542	160	190	645	821	350	450	80	170	83	92	142	1	299.5	26
0.9-0700-385-OP	1536	475	542	160	190	645	891	350	450	80	170	83	92	142	1	329.5	26
0.9-0720-385-OP	1466	475	542	160	190	645	821	350	450	80	170	83	93	142	1	324.5	26
0.9-0350-435-OP	1575	500	590	160	190	645	930	350	500	80	170	83	92	167	1	334.5	33
0.9-0400-435-OP	1509	500	590	160	190	645	864	350	500	80	170	83	92	167	1	334.5	33
0.9-0420-435-OP	1466	500	590	160	190	645	821	350	500	80	170	83	92	167	1	329.5	33
0.9-0700-435-OP	1536	500	590	160	190	645	891	350	500	80	170	83	92	167	1	359.5	33
0.9-0720-435-OP	1466	500	590	160	190	645	821	350	500	80	170	83	93	167	1	354.5	33
0.9-0350-485-OP	1575	560	656	160	190	645	930	350	560	80	170	83	92	197	1	384.5	41
0.9-0400-485-OP	1509	560	656	160	190	645	864	350	560	80	170	83	92	197	1	384.5	41
0.9-0420-485-OP	1466	560	656	160	190	645	821	350	560	80	170	83	92	197	1	379.5	41
0.9-0700-485-OP	1536	560	656	160	190	645	891	350	560	80	170	83	92	197	1	409.5	41

Table 83. Models 0.9-0720-485-OP to 1.5-0800-535-OP Dimensions (mm)

Model	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	NPT (in.)	Weight (kg)	Air consumption (liters)
0.9-0720-485-OP	1466	560	656	160	190	645	821	350	560	80	170	83	93	197	1	404.5	41
0.9-0200-235-OP	1476	413	301	160	190	599	877	280	260	80	170	83	57	47	1/2	160.5	9
0.9-0250-235-OP	1405	413	301	160	190	599	806	280	260	80	170	83	57	47	1/2	165.5	9
0.9-0200-280-OP	1484	423	397	160	190	607	877	280	346	80	170	83	57	90	3/4	160.5	14
0.9-0250-280-OP	1413	423	397	160	190	607	806	280	346	80	170	83	57	90	3/4	165.5	14
0.9-0350-280-OP	1537	423	397	160	190	607	930	350	346	80	170	83	92	90	3/4	210.5	14
0.9-0400-280-OP	1471	423	397	160	190	607	864	350	346	80	170	83	92	90	3/4	210.5	14
0.9-0200-335-OP	1522	450	483	160	190	645	877	280	400	80	170	83	57	117	1	224.5	20
0.9-0250-335-OP	1451	450	483	160	190	645	806	280	400	80	170	83	57	117	1	229.5	20
0.9-0350-335-OP	1575	450	483	160	190	645	930	350	400	80	170	83	92	117	1	274.5	20
0.9-0400-335-OP	1509	450	483	160	190	645	864	350	400	80	170	83	92	117	1	274.5	20
0.9-0420-335-OP	1466	450	483	160	190	645	821	350	400	80	170	83	92	117	1	269.5	20
0.9-0700-335-OP	1536	450	483	160	190	645	891	350	400	80	170	83	92	117	1	299.5	20
1.5-0800-385-OP	1674	510	542	187	227	682	992	400	450	100	185	100	100	125	1	382	31
1.5-1100-385-OP	1674	510	542	187	227	682	992	400	450	100	185	100	100	125	1	392	31
1.5-1200-385-OP	1774	510	542	187	227	682	1092	370	450	100	185	100	85	125	1	402	31
1.5-0800-435-OP	1674	535	590	187	227	682	992	400	500	100	185	100	100	150	1	412	39
1.5-1100-435-OP	1674	535	590	187	227	682	992	400	500	100	185	100	100	150	1	422	39
1.5-1200-435-OP	1774	535	590	187	227	682	1092	370	500	100	185	100	85	150	1	432	39
1.5-0800-485-OP	1674	565	656	187	227	682	992	400	560	100	185	100	100	180	1	462	48
1.5-1100-485-OP	1674	565	656	187	227	682	992	400	560	100	185	100	100	180	1	472	48
1.5-1200-485-OP	1774	565	656	187	227	682	1092	370	560	100	185	100	85	180	1	482	48
1.5-0800-535-OP	1714	620	716	187	227	722	992	400	620	100	185	100	100	210	1	532	59

Figure 9. Overall Dimensions

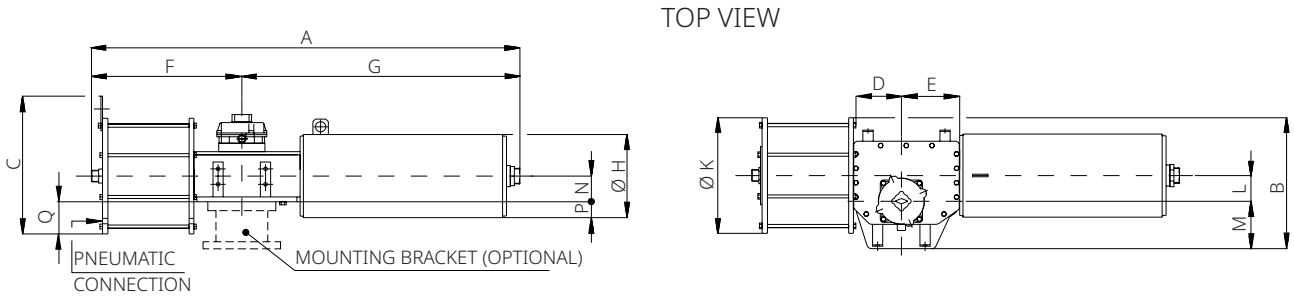


Table 84. Models 1.5-1100-535-OP to 6-2500-685-OP Dimensions (mm)

Model	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	NPT (in.)	Weight (kg)	Air Consumption (liters)
1.5-1100-535-OP	1714	620	716	187	227	722	992	400	620	100	185	100	100	210	1	542	59
1.5-1200-535-OP	1814	620	716	187	227	722	1092	370	620	100	185	100	85	210	1	552	59
1.5-1100-585-OP	1719	670	775	187	227	727	992	400	670	100	185	100	100	235	1	602	70
1.5-1200-585-OP	1819	670	775	187	227	727	1092	370	670	100	185	100	85	235	1	612	70
1.5-1300-385-OP	1767	510	542	187	227	682	1085	370	450	100	185	100	85	125	1	410	31
1.5-1300-435-OP	1767	535	590	187	227	682	1085	370	500	100	185	100	85	150	1	440	39
1.5-1300-485-OP	1767	565	656	187	227	682	1085	370	560	100	185	100	85	180	1	490	48
1.5-1300-535-OP	1807	620	716	187	227	722	1085	370	620	100	185	100	85	210	1	560	59
1.5-1300-585-OP	1812	710	795	187	227	727	1085	370	710	100	185	100	85	255	1	620	70
3-2000-385-OP	2338	600	542	285	330	924	1414	430	450	160	215	106	109	119	1	552	47
3-2000-435-OP	2338	625	590	285	330	924	1414	430	500	160	215	106	109	144	1	587	60
3-2000-485-OP	2337	655	675	285	330	923	1414	430	560	160	215	106	109	174	1	642	74
3-2000-535-OP	2381	685	716	285	330	967	1414	430	620	160	215	106	109	204	1	712	90
3-2000-585-OP	2381	710	794	285	330	967	1414	430	670	160	215	106	109	229	1	777	108
3-2050-385-OP	2313	600	542	285	330	924	1389	430	450	160	215	106	109	119	1	570	47
3-2050-435-OP	2313	625	590	285	330	924	1389	430	500	160	215	106	109	144	1	605	60
3-2050-485-OP	2312	655	675	285	330	923	1389	430	560	160	215	106	109	174	1	660	74
3-2050-535-OP	2356	685	716	285	330	967	1389	430	620	160	215	106	109	204	1	730	90
3-2050-585-OP	2356	710	794	285	330	967	1389	430	670	160	215	106	109	229	1	805	108
6-2500-485-OP	3044	740	675	327	379	1064	1980	380	560	185	260	140	120	140	1	938	85
6-2500-535-OP	3054	755	716	327	379	1074	1980	380	620	185	260	140	120	170	1	1008	104
6-3800-535-OP	3235	755	716	327	379	1074	2161	550	620	185	260	140	205	170	1	1363	104
6-2500-585-OP	3054	780	794	327	379	1074	1980	380	670	185	260	140	120	195	1	1073	124
6-3800-585-OP	3235	780	794	327	379	1074	2161	550	670	185	260	140	205	195	1	1428	124
6-2500-685-OP	3243	830	879	327	379	1263	1980	380	770	185	260	140	120	245	2 x 1	1278	170

Table 85. Models 6-2500-735-OP to 14-8300-835-OP Dimensions (mm)

Model	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	NPT (in.)	Weight (kg)	Air Consumption (liters)
6-2500-735-OP	3123	853	926	327	379	1143	1980	380	816	185	260	140	120	268	2 x 1	1388	196
6-3800-735-OP	3304	853	926	327	379	1143	2161	550	816	185	260	140	205	268	2 x 1	1743	196
6-2500-635-OP	3102	805	844	327	379	1122	1980	380	720	185	260	140	120	220	1	1168	146
6-3800-635-OP	3283	805	844	327	379	1122	2161	550	720	185	260	140	205	220	1	1523	146
6-3900-535-OP	3061	755	716	327	379	1074	1987	548	620	185	260	140	210	170	1	1453	104
6-3900-585-OP	3061	780	794	327	379	1074	1987	548	670	185	260	140	210	195	1	1518	124
6-3900-635-OP	3109	805	844	327	379	1122	1987	548	720	185	260	140	210	220	1	1613	146
6-3900-685-OP	3250	830	879	327	379	1263	1987	548	770	185	260	140	210	245	2 x 1	1723	170
6-3900-735-OP	3130	853	926	327	379	1143	1987	548	816	185	260	140	210	268	2 x 1	1833	196
14-5100-685-OP	3431	915	879	376	435	1319	2112	552	770	200	330	193	153	192	2 x 1	1876	185
14-5400-685-OP	3377	915	879	376	435	1319	2058	552	770	200	330	193	153	192	2 x 1	1961	185
14-5100-735-OP	3309	938	926	376	435	1197	2112	552	816	200	330	193	153	215	2 x 1	1971	213
14-5400-735-OP	3255	938	926	376	435	1197	2058	552	816	200	330	193	153	215	2 x 1	2056	213
14-8300-735-OP	3309	938	926	376	435	1197	2112	552	816	200	330	193	153	215	2 x 1	2151	213
14-5100-785-OP	3309	973	1004	376	435	1197	2112	552	886	200	330	193	153	250	2 x 1	2066	243
14-5400-785-OP	3255	973	1004	376	435	1197	2058	552	886	200	330	193	153	250	2 x 1	2151	243
14-8300-785-OP	3309	973	1004	376	435	1197	2112	552	886	200	330	193	153	250	2 x 1	2246	243
14-5100-835-OP	3309	993	1038	376	435	1197	2112	552	926	200	330	193	153	270	2 x 1	2141	274
14-5400-835-OP	3255	993	1038	376	435	1197	2058	552	926	200	330	193	153	270	2 x 1	2226	274
14-8300-835-OP	3309	993	1038	376	435	1197	2112	552	926	200	330	193	153	270	2 x 1	2321	274

Figure 10. Overall Dimensions

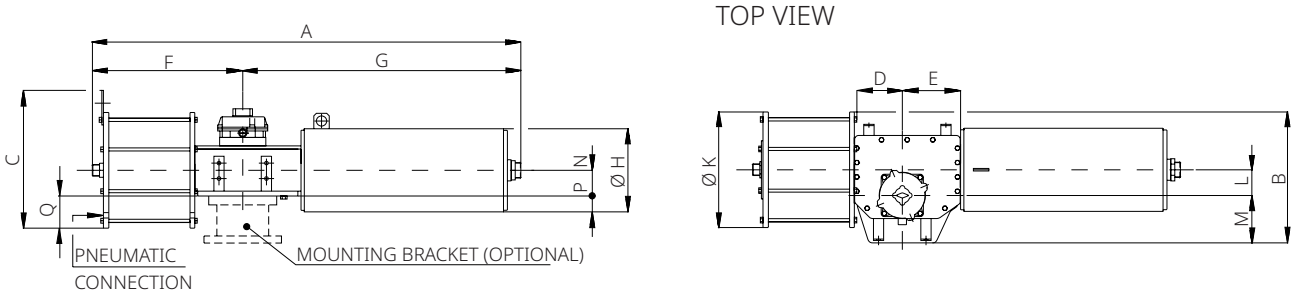


Table 86. Models 14-5100-935-OP to 18-9600-1200-OP Dimensions (mm)

Model	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	NPT (in.)	Weight (kg)	Air Consumption (liters)
14-5100-935-OP	3388	1058	1180	376	435	1276	2112	552	1056	200	330	193	153	335	2 x 1	2601	343
14-5400-935-OP	3334	1058	1180	376	435	1276	2058	552	1056	200	330	193	153	335	2 x 1	2686	343
14-8300-935-OP	3388	1058	1180	376	435	1276	2112	552	1056	200	330	193	153	335	2 x 1	2781	343
14-5100-635-OP	3290	890	844	376	435	1178	2112	552	720	200	330	193	153	167	1	1766	159
14-5400-635-OP	3236	890	844	376	435	1178	2058	552	720	200	330	193	153	167	1	1851	159
14-5100-885-OP	3388	1030	1123	376	435	1276	2112	552	1000	200	330	193	153	307	2 x 1	2481	308
14-5400-885-OP	3334	1030	1123	376	435	1276	2058	552	1000	200	330	193	153	307	2 x 1	2566	308
14-8300-885-OP	3388	1030	1123	376	435	1276	2112	552	1000	200	330	193	153	307	2 x 1	2661	308
18-10500-1000-OP	4186	1145	1264	424	492	1412	2774	710	1120	230	355	193	252	367	2 x 1	4657	456
18-11000-1000-OP	4068	1145	1264	424	492	1412	2656	710	1120	230	355	193	252	367	2 x 1	4622	456
18-9600-1000-OP	4101	1145	1264	424	492	1412	2689	600	1120	230	355	193	197	367	2 x 1	3717	456
18-9800-1000-OP	4101	1145	1264	424	492	1412	2689	600	1120	230	355	193	197	367	2 x 1	3932	456
18-9600-835-OP	4060	1048	1038	424	492	1371	2689	600	926	230	355	193	197	270	2 x 1	3002	318
18-9800-835-OP	4060	1048	1038	424	492	1371	2689	600	926	230	355	193	197	270	2 x 1	3217	318
18-10500-935-OP	4180	1113	1180	424	492	1406	2774	710	1056	230	355	193	252	335	2 x 1	4402	398
18-11000-935-OP	4062	1113	1180	424	492	1406	2656	710	1056	230	355	193	252	335	2 x 1	4367	398
18-9600-935-OP	4095	1113	1180	424	492	1406	2689	600	1056	230	355	193	197	335	2 x 1	3462	398
18-9800-935-OP	4095	1113	1180	424	492	1406	2689	600	1056	230	355	193	197	335	2 x 1	3677	398
18-10500-1100-OP	4183	1220	1364	424	492	1409	2774	710	1220	230	355	193	252	417	2 x 1	5017	552
18-11000-1100-OP	4065	1220	1364	424	492	1409	2656	710	1220	230	355	193	252	417	2 x 1	4982	552
18-9600-1100-OP	4098	1220	1364	424	492	1409	2689	600	1220	230	355	193	197	417	2 x 1	4077	552
18-9800-1100-OP	4098	1220	1364	424	492	1409	2689	600	1220	230	355	193	197	417	2 x 1	4292	552
18-10500-1200-OP	4183	1330	1469	424	492	1409	2774	710	1330	230	355	193	252	472	2 x 1	5378	660
18-11000-1200-OP	4065	1330	1469	424	492	1409	2656	710	1330	230	355	193	252	472	2 x 1	5343	660
18-9600-1200-OP	4098	1310	1459	424	492	1409	2689	600	1310	230	355	193	197	462	2 x 1	4438	660

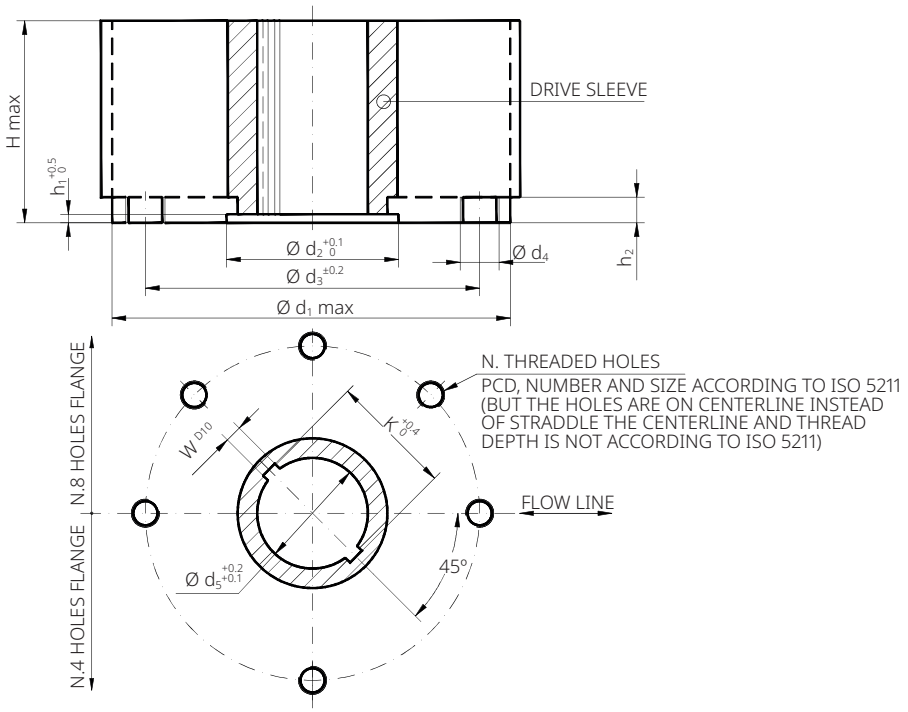
Table 87. Models 18-9800-1200-OP to 80-19700-1800-OP Dimensions (mm)

Model	A	B	C	D	E	F	G	H	K	L	M	N	P	Q	NPT (in.)	Weight (kg)	Air Consumption (liters)
18-9800-1200-OP	4098	1310	1459	424	492	1409	2689	600	1310	230	355	193	197	462	2 x 1	4653	660
32-12000-1100-OP	4679	1300	1364	505	585	1675	3004	800	1220	270	420	236	254	374	2 x 1	5941	650
32-15000-1100-OP	4679	1300	1364	505	585	1675	3004	800	1220	270	420	236	254	374	2 x 1	6239	650
32-9900-1100-OP	4617	1300	1364	505	585	1675	2942	600	1220	270	420	236	154	374	2 x 1	4919	650
32-12000-1300-OP	4719	1430	1580	505	585	1718	3001	980	1430	270	420	236	254	479	2 x 1	6899	910
32-15000-1300-OP	4722	1430	1580	505	585	1718	3004	800	1430	270	420	236	254	479	2 x 1	7197	910
32-9900-1300-OP	4660	1430	1580	505	585	1718	2942	600	1430	270	420	236	154	479	2 x 1	5877	910
50-15400-1100-OP	4989	1330	1364	548	633	1867	3122	800	1220	300	420	233	257	377	2 x 1	6590	720
50-15600-1100-OP	4989	1330	1364	548	633	1867	3122	800	1220	300	420	233	258	377	2 x 1	6800	720
50-17300-1100-OP	5006	1330	1364	548	633	1867	3139	860	1220	300	420	233	317	377	2 x 1	7165	720
50-15400-1450-OP	4966	1600	1805	548	633	1844	3122	800	1600	300	420	233	257	567	2 x 1	8115	1256
50-15600-1450-OP	4966	1600	1805	548	633	1844	3122	800	1600	300	420	233	258	567	2 x 1	8325	1256
50-17300-1450-OP	4983	1600	1805	548	633	1844	3139	860	1600	300	420	233	317	567	2 x 1-1/2	8690	1256
50-18600-1450-OP	5012	1600	1805	548	633	1844	3168	866	1600	300	420	233	320	567	2 x 1-1/2	9340	1256
65-18400-1600-OP	5192	1750	1993	623	701	1949	3243	866	1750	285	455	302	251	573	2 x 1	11200	1480
65-19400-1600-OP	5307	1750	1993	623	701	1949	3358	866	1750	285	455	302	251	573	2 x 1	11570	1480
65-18400-1700-OP	5221	1900	2160	623	701	1978	3243	866	1900	285	455	302	251	648	2 x 1	12505	1670
65-19400-1700-OP	5336	1900	2160	623	701	1978	3358	866	1900	285	455	302	251	648	2 x 1	12875	1670
65-18400-1800-OP	5222	1960	2196	623	701	1979	3243	866	1960	285	455	302	251	678	2 x 1	13070	1875
65-19400-1800-OP	5337	1960	2196	623	701	1979	3358	866	1960	285	455	302	251	678	2 x 1	13440	1875
80-18700-1800-OP	5679	1960	2196	663	761	2263	3416	866	1960	350	450	302	251	678	2 x 1	13410	2250
80-19700-1800-OP	5796	1960	2196	663	761	2263	3533	866	1960	350	450	302	251	678	2 x 1	13900	2250

ALGA/ALGAS/ALGAS-QA Pneumatic Actuator

Mounting Dimensions

Figure 11. Actuator Models 0.3 to 6 (SCN6200E - Rev. 15/10/19)



TOP VIEW OF THE SCOTCH YOKE MECHANISM
(ACTUATOR SHOWN IN CLOSED POSITION)

Table 88. Models 0.3 to 6 Coupling Dimensions (mm)

Actuator Model	Ø d_1	Ø d_2	Ø d_3	Ø d_4	N	h_1	h_2	H max	Ø d_5	W	K
0.3	240	93	165	M20	4	5	17	127	70	12	75.6
0.9	310	112	254	M16	8	5	19	150	86	14	93.6
1.5	360	144	298	M20	8	6	19	190	112	18	119.0
3	430	195	356	M30	8	9	23	200	157	25	167.8
6	520	250	406	M36	8	14	29	260	200	28	212.8

NOTE:
Ø d_1 is maximum adapter flange diameter.

Figure 12. Actuator Model 14 (SCN6201E - Rev. 16/06/20)

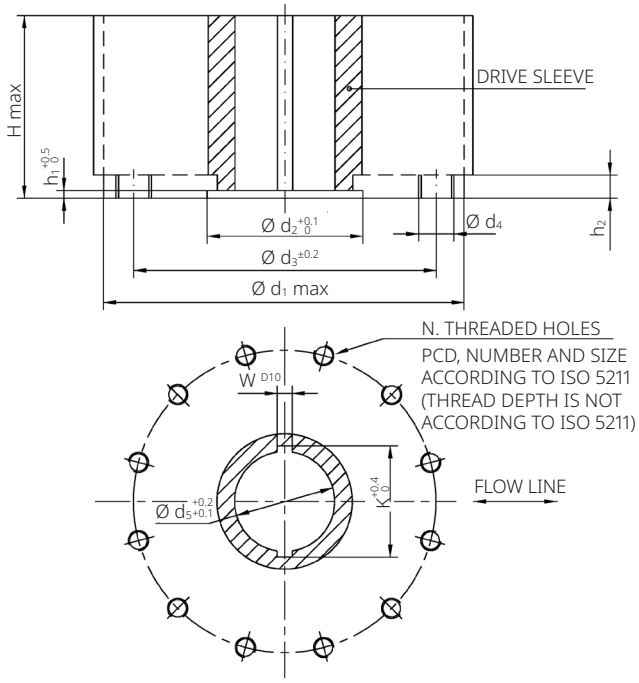


Figure 13. Actuator Models 18 and 32 (SCN6201E - Rev. 16/06/20)

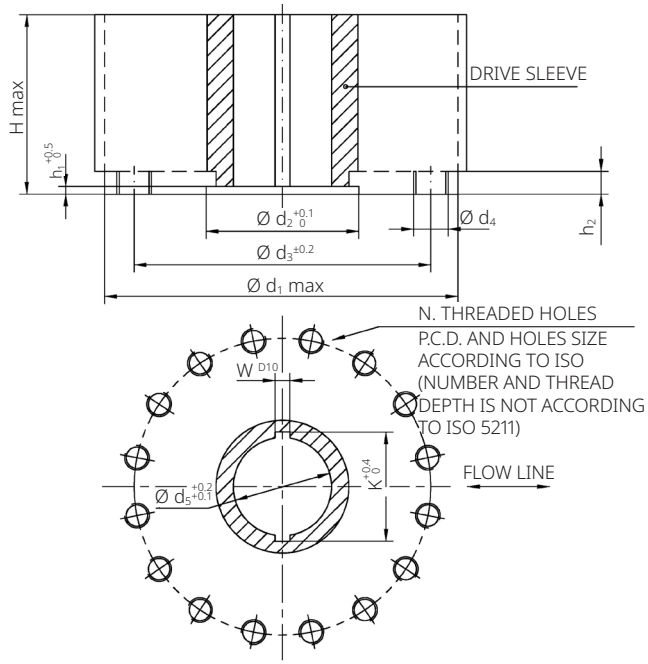


Table 89. Model 14 Coupling Dimensions (mm)

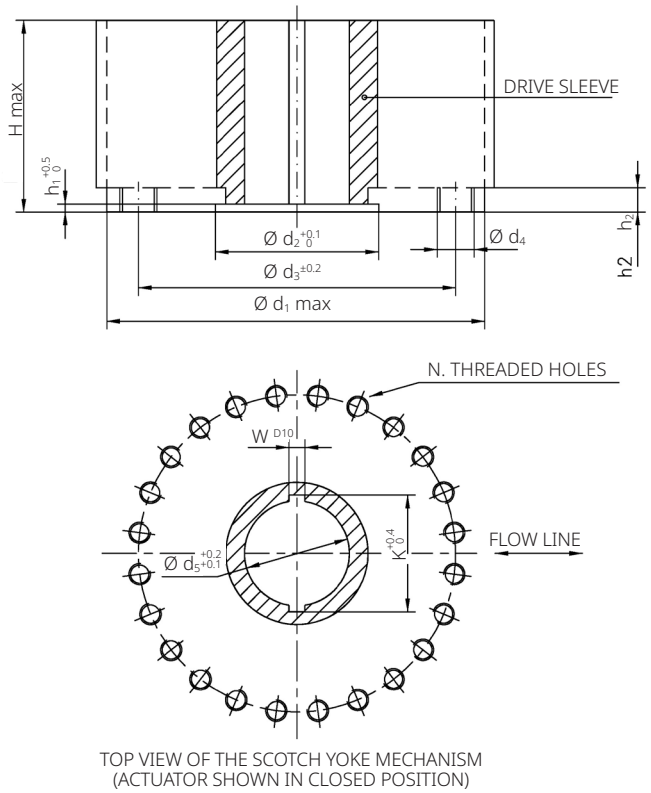
Actuator Model	Ø d_1	Ø d_2	Ø d_3	Ø d_4	N	h_1	h_2	H max	Ø d_5	W	K
14	580	250	483	M36	12	10	29	340	175	45	195.8

Table 90. Models 18 and 32 Coupling Dimensions (mm)

Actuator Model	Ø d_1	Ø d_2	Ø d_3	Ø d_4	N	h_1	h_2	H max	Ø d_5	W	K
18	680	290	603	M36	16	12	32	350	200	45	220.8
32	780	310	603	M36	16	12	32	400	220	50	242.8

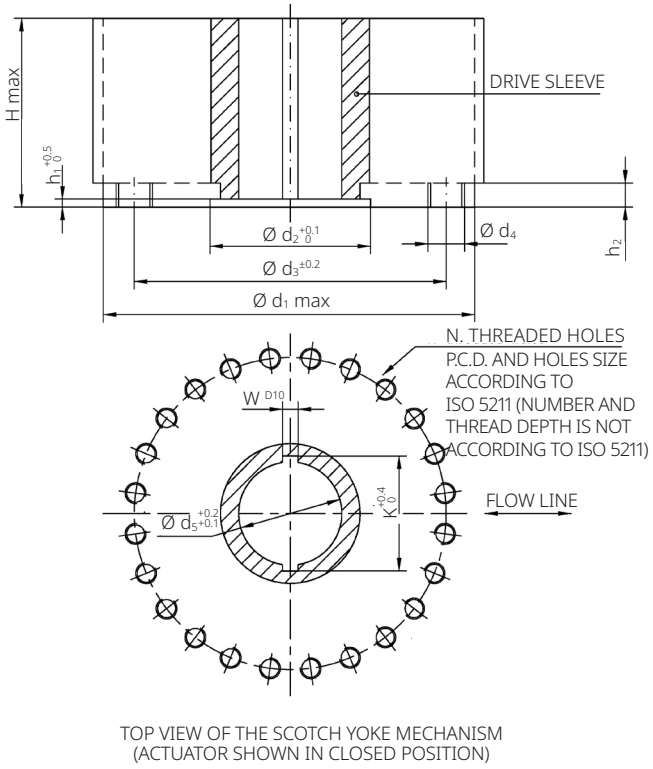
NOTE:
Ø d_1 is maximum adapter flange diameter.

Figure 14. Actuator Model 50 (SCN62011 - Rev. 15/10/19)



TOP VIEW OF THE SCOTCH YOKE MECHANISM
(ACTUATOR SHOWN IN CLOSED POSITION)

Figure 15. Actuator Models 65 and 80 (SCN62013 - Rev. 19/06/20)



TOP VIEW OF THE SCOTCH YOKE MECHANISM
(ACTUATOR SHOWN IN CLOSED POSITION)

Table 91. Model 50 Coupling Dimensions (mm)

Actuator Model	Ø d_1	Ø d_2	Ø d_3	Ø d_4	N	h_1	h_2	H max	Ø d_5	W	K
50	800	315	698	M36	24	10	32	430	240	56	264.8

Table 92. Models 65 and 80 Coupling Dimensions (mm)

Actuator Model	Ø d_1	Ø d_2	Ø d_3	Ø d_4	N	h_1	h_2	H max	Ø d_5	W	K
65	910	370	813	M42	24	12	37	540	280	46	327.4
80	900	970	813	M42	24	12	37	540	280	46	327.4

NOTE:
Ø d_1 is maximum adapter flange diameter.

Figure 16. Actuator Model 100 (SCN62015 - Rev. 22/07/22)

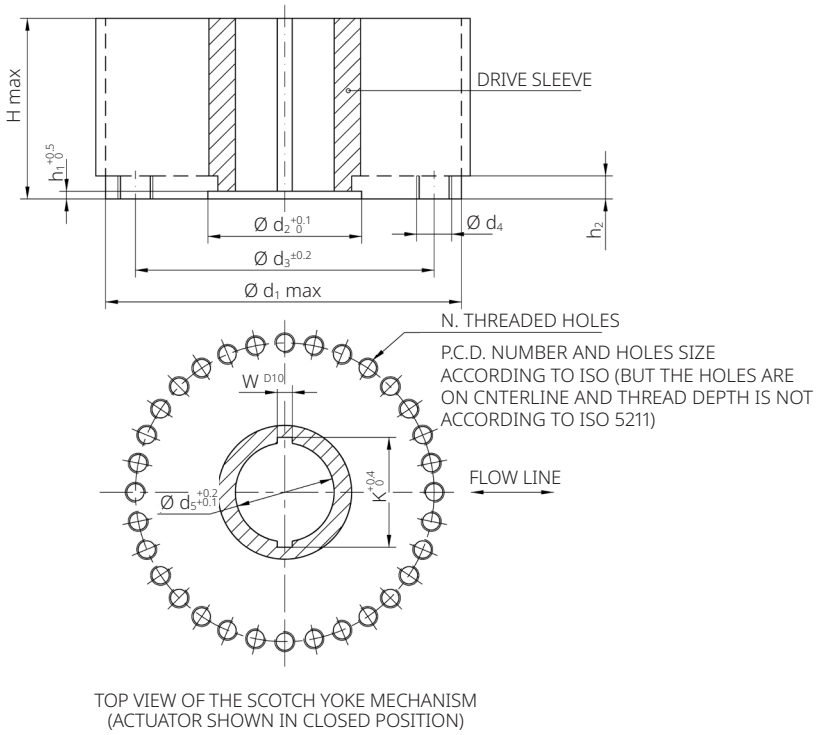


Table 93. Model 100 Coupling Dimensions (mm)

Actuator Model	Ø d_1	Ø d_2	Ø d_3	Ø d_4	N	h_1	h_2	H max	Ø d_5	W	K
100	1200	450	1042	M42	32	8	57	600	300	70	328.8

NOTE:
Ø d_1 is maximum adapter flange diameter.

Figure 17. Stem Acceptance

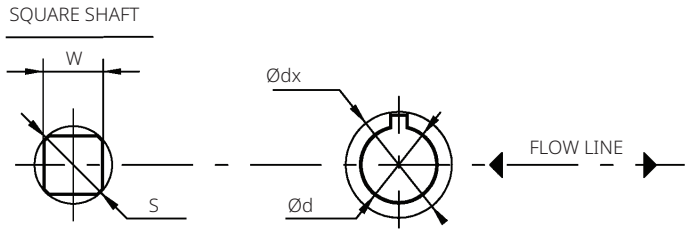


Table 94. Stem Acceptance Dimensions for Insert Bushes (mm)

Housing Size	Maximum Stem Diameter with Rectangular Key d (bxh) [2] (mm)	Maximum Accepted Diameter Described by the key dx [3] (mm)	Maximum Accepted Square Stem (mm) W	Maximum Accepted Square Stem (mm) S*	Maximum Accepted Square Stem Height (mm)**
0.3	53 (16x10)	64	46	64	120
0.9	62 (18x11)	73	55	73	140
1.5	85 (22x14)	99	73	99	180
3	126 (32x18)	145	104	145	190
6	161 (40x22)	185	133	185	250
14	105 (28x16)	121	-	-	340
18	122 (32x18)	140	-	-	350
32	160 (40x22)	183	-	-	400
50	160 (40x22)	183	-	-	430
65	-	-	-	-	540
80	-	-	-	-	540
100	-	-	-	-	600

NOTES:
1. The listed maximum acceptance values are applicable for stems with keyways parallel or perpendicular to the flow line and for square stems with diagonal parallel with the flow line.
2. Key according to UNI6604 or DIN 6885 sh.1 or ISO 773 or equivalent.
3. For stem with key not correspondent to any specification, check the dimension dx.

* S max: maximum external diameter in case of rounded edge.
** Without adapter flange.

Accessories Mounting Dimensions

Figure 18. Actuator Models 0.3 to 100

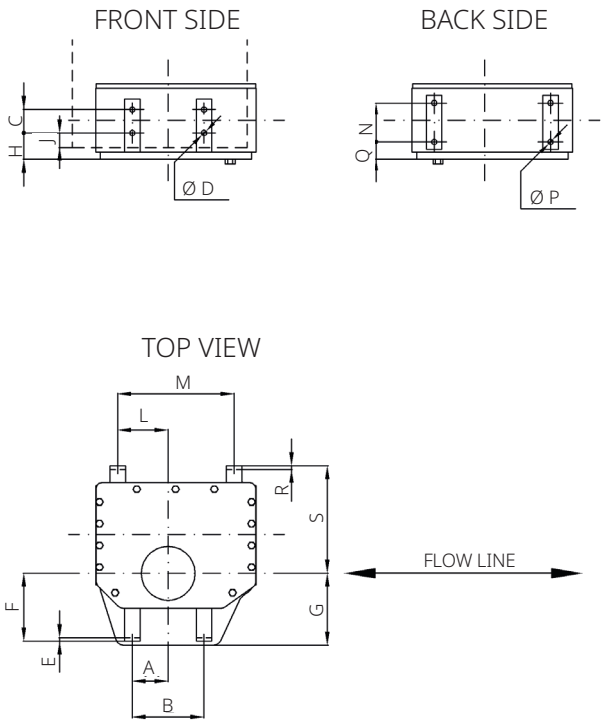


Table 95. Accessories Mounting Dimensions (mm)

Actuator Model	A	B	C	Ø D	E	F	G	H	J	L	M	N	Ø P	Q	R	S
0.3	77.5	155	60	14	5	113	119	37	12	92	200	60	14	36	5	200
0.9	92.5	185	60	14	5	155	170	61	35	85	200	60	14	48	5	243
1.5	92.5	185	60	14	5	175	185	62	35	130	300	100	14	45	5	284
3	117.5	235	85	23	8	203	215	57	25	230	500	100	14	54	5	371
6	137	455	115	23	8	248	260	59	22	224	500	100	14	87	8	480
14	315	630	200	27	10	227	330	97	55	220	500	170	27	99	8	543
18	315	630	200	27	10	235	340	72	32	306	680	215	27	80	10	600
32	315	630	200	27	10	385	395	72	32	414	890	215	27	149	10	660
50	387.5	860	250	30	12	372	387	77	35	473	1030	215	27	163	10	1072
65	391	860	250	30	15	380	455	107	50	474	1030	215	27	270	15	830
80	500	1000	250	30	15	437.5	450	107	50	500	1100	215	27	270	15	900
100	500	1100	250	30	20	564	600	127	50	500	1100	215	27	333	15	1275

Figure 19. Accessories Mounting Holes on Actuator Top (Cover and Yoke)

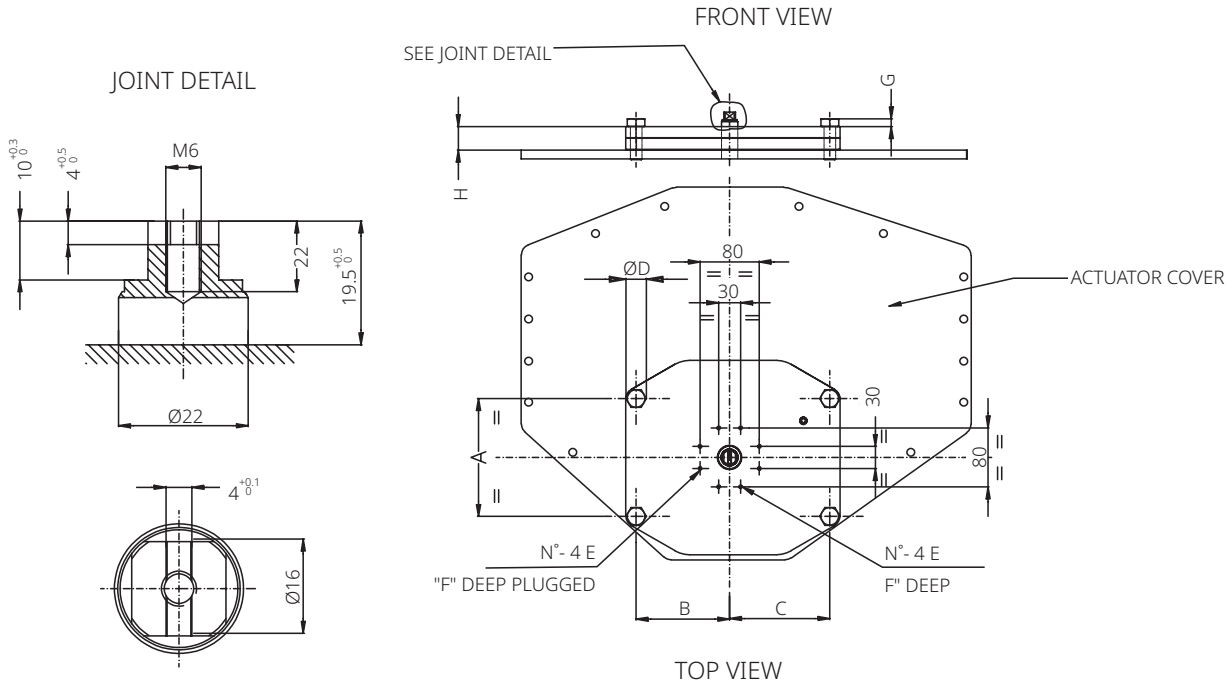


Table 96. Dimensions (mm)

Actuator Model	A	B	C	D	E	F	G	H
0.3	N/A	N/A	N/A	N/A	M5	9	N/A	32
0.9	N/A	N/A	N/A	N/A	M5	9	N/A	32
1.5	N/A	N/A	N/A	N/A	M5	9	N/A	32
3	160	127	136	30	M5	9	11	32
6	160	127	136	30	M5	9	11	32
14	160	127	136	30	M5	9	11	32
18	314	109	109	30	M5	9	11	29
32	314	109	109	30	M5	9	11	29
50	280.6	138.5	138.5	37	M5	9	13	32
65	410	180	180	44	M5	9	16	32
80	410	180	180	44	M5	9	16	32
100	460	205	205	44	M5	9	16	32

Selection Guide

Table 97. Scotch Yoke Double-Acting Pneumatic Actuators

Actuator series	Actuator model	Yoke (C = canted, S = symmetric)	Number of cylinders	Cylinder size	
ALGA	MM	Y	C	SSS	= Model Number **ALGA**MMYC-SSS

Table 98. Scotch Yoke Single-Acting Pneumatic Actuators

Actuator series	Actuator model	Yoke (C = canted, S = symmetric)	Spring size	Cylinder size	Fail mode (CL, OP)	
ALGAS	MM	Y	ZZZZ	SSS	XX	= Model Number **ALGAS**MMY-ZZZZ-SSSXX

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