

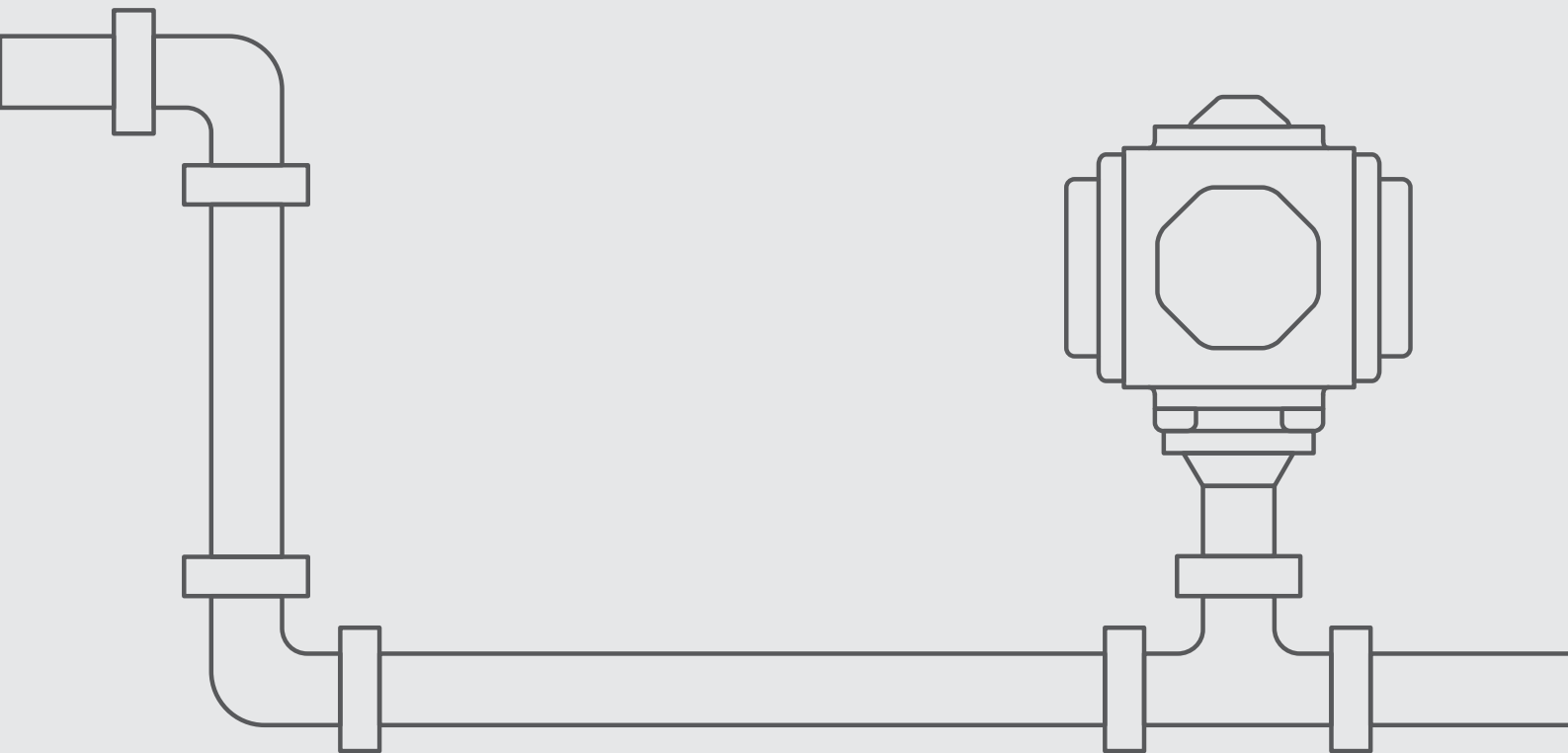
C15-C90M



Actuation

PNEUMATIC ACTUATOR

COMPACT
4 PISTONS





C15-C90M



COMPACT 4 Pistons Pneumatic Actuator

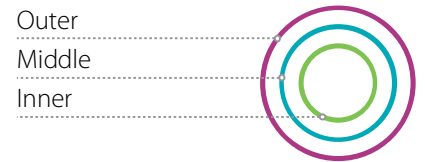
Type	Working temperature C° (F°)	Working Pressure Air, Nitrogen, CO2, Natural gas [sweet] Bar (psi)	Application	Ordering code
Standard	-20 to 80 (-4 to 176)	3.0 (44) to 8.0 (116)	General	Blank
Low Temperatures	-40 to 100 (-40 to 213)		General	LT
High Temperatures	-20 to 120 (-4 to 250)		General	HT
High Cycle	-20 to 80 (-4 to 176)		Above 1 cycle/minute	HC
Nuclear	-40 to 80 (-40 to 176)		Nuclear use	NU

Spring combinations




C15 only




Code	Spring combinations
1A	
1B	



Code	Spring combinations
1B2	
2	



C20 -C90M0

Code	Spring combinations
2AB	
2A	
2A2B	

Code	Spring combinations
2B	
2A3	
2C	

Code	Spring combinations
2C3	
3	

Sizing a spring return actuator requires that the torque output at the start and end of both the spring and air drive strokes is greater than the valve torque at that position.



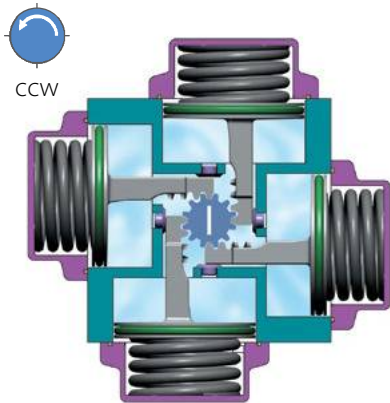
COMPACT Actuators Configurations

The actuator can be configured for either spring return or double-action operation. In both cases the air supply to drive the pistons flows into Port A of the NAMUR cover. Port A is connected to the center chamber, and Port B is connected to the four outside chambers.

Spring return (fail-safe)

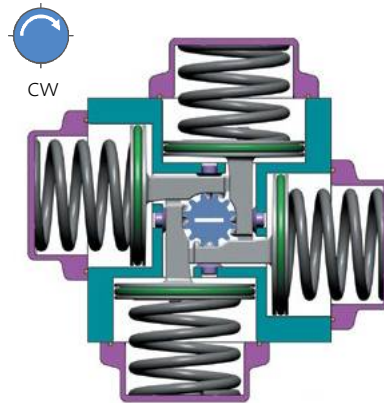
Pressure entering Port A to open:

- Center chamber is pressurized and pistons move outward
- Springs are compressed
- Pinion rotates counterclockwise



Pressure exiting Port A to close:

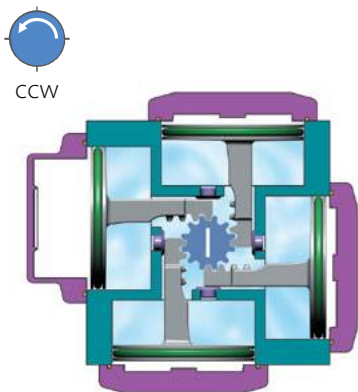
- Air released from center chamber
- Springs drive pistons inward
- Pinion rotates clockwise



Double action (increased torque)

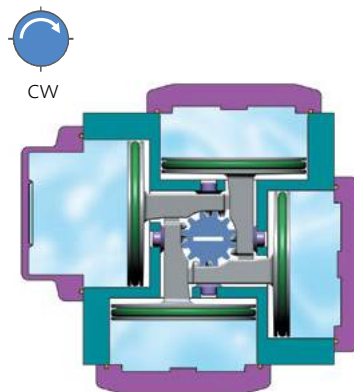
Pressure entering Port A to open:

- Center chamber is pressurized
- Pistons move outward
- Pinion rotates counterclockwise



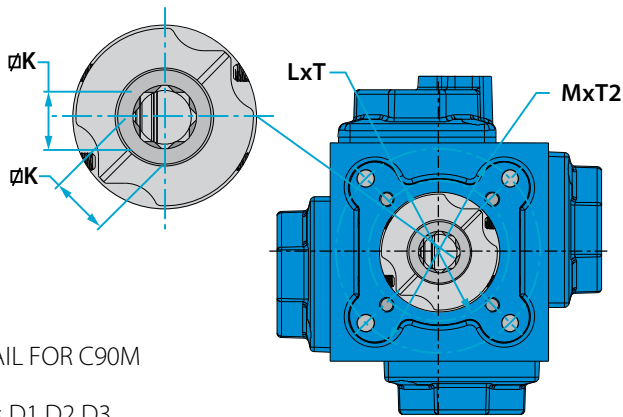
Pressure entering Port B to close:

- Outside chambers are pressurized
- Pistons move inward
- Pinion rotates clockwise



C15-C90M

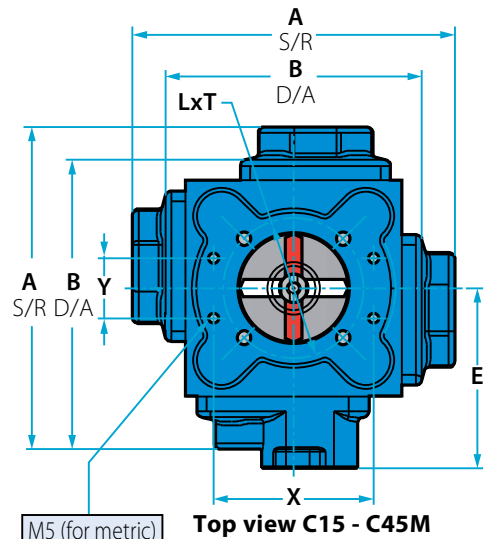
COMPACT 4 Pistons Pneumatic Actuator



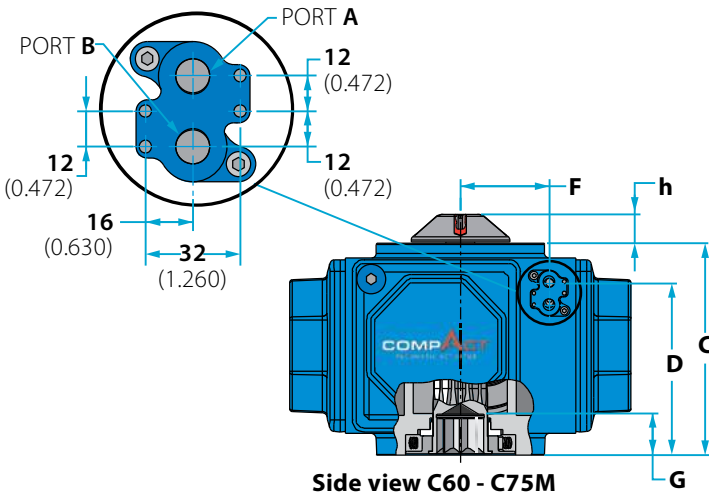
DETAIL FOR C90M

Ports D1 D2 D3
G- $\frac{1}{2}$ " ISO 45 20 22.5
 $\frac{1}{2}$ " NPT 0.79 1.57 0.886

Bottom view C15 - C75M

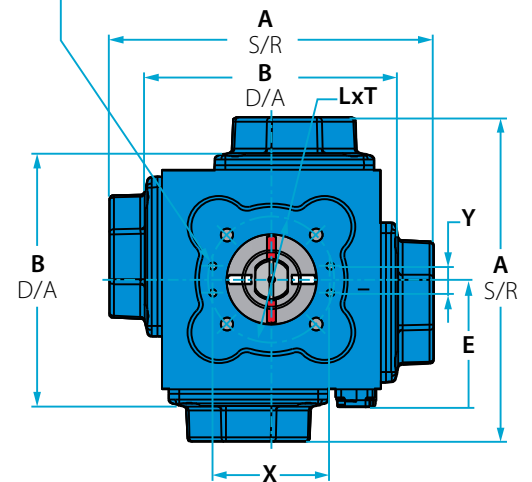


Top view C15 - C45M

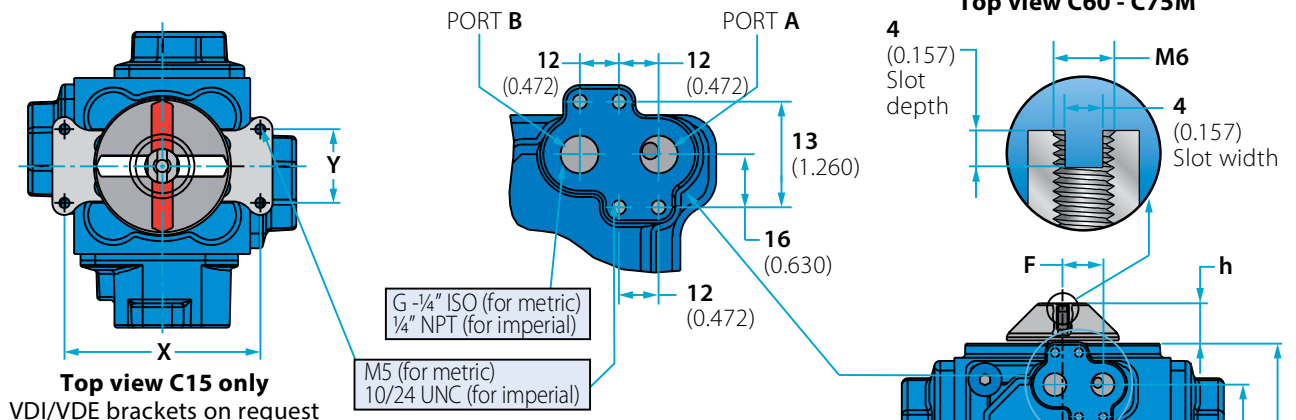


Side view C60 - C75M

M5 (for metric)
10/24 UNC
(for imperial)



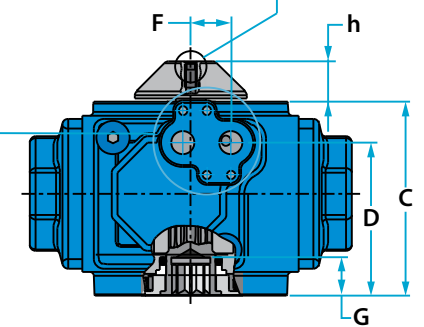
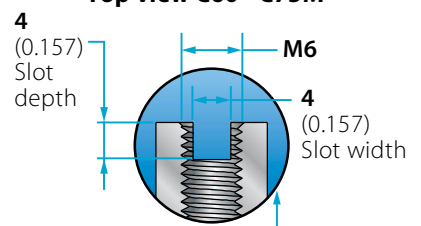
Top view C60 - C75M



Top view C15 only
VDI/VDE brackets on request

G- $\frac{1}{4}$ " ISO (for metric)
 $\frac{1}{4}$ " NPT (for imperial)

M5 (for metric)
10/24 UNC (for imperial)



Side view C15 - C45M

VDI / VDE 3845	
Sizes	X x Y x h
C15 - C45M	80 x 30 x 20
C60 - C90M	130 x 30 x 30

Port **A** is connected to the center chamber
Port **B** is connected to the outside chambers



Actuator Dimensions

Size	A S/R		B D/A		B1 D/A		C		D		E		F		G		Øk		L PCD		T Thread		M PCD (2)		T2	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
C15	110	4.31	86	3.39	97.8	3.85	68.8	2.71	50.8	2.00	66.0	2.60	16.0	0.63	13.5	0.53	9	0.35	50 (F05)	1.97 (F05)	M6x8	1/4"X0.314	-	-	-	-
C20	131	5.17	102	4.03	117.0	4.60	80.5	3.17	61.5	2.42	77.2	3.04	16.5	0.65	15.0	0.59	11	0.43	50 (F05)	1.97 (F05)	M6x8	1/4"X0.314	70 (F07)	2.76 (F07)	M8x11	5/16"X0.43
C25	161	6.34	132	5.24	147.0	5.79	97.0	3.82	76.5	3.01	90.0	3.54	20.0	0.79	19.5	0.77	14	0.55	70 (F07)	2.76 (F07)	M8x9	5/16"X0.354	102 (F10)	4.02 (F10)	M10X11	3/8"X0.43
C30	186	7.33	151	5.94	169.0	6.64	116.0	4.58	93.4	3.68	105.0	4.15	22.3	0.88	22.0	0.87	17	0.67	70 (F07)	2.76 (F07)	M8x11	5/16"X0.43	102 (F10)	4.02 (F10)	M10X12	3/8"X0.47
C30M	216	8.50	-	-	-	-	116.0	4.58	93.4	3.68	120.0	4.72	22.3	0.88	22.0	0.87	17	0.67	70 (F07)	2.76 (F07)	M8x11	5/16"X0.43	102 (F10)	4.02 (F10)	M10X12	3/8"X0.47
C35	222	8.74	182	7.15	202.0	7.94	135.0	5.31	102.0	4.02	114.0	4.48	22.5	0.89	26.0	1.02	22	0.87	102 (F10)	4.02 (F10)	M10x13	3/8"X0.51	-	-	-	-
C35M	256	10.07	-	-	-	-	135.0	5.31	102.0	4.02	131.0	5.15	22.5	0.89	26.0	1.02	22	0.87	102 (F10)	4.02 (F10)	M10x13	3/8"X0.51	-	-	-	-
C45	269	10.59	221	8.70	245.0	9.65	164.0	6.46	127.0	5.00	147.0	5.79	31.0	1.22	33.0	1.30	27	1.06	125 (F12)	4.92 (F12)	M12x15	1/2"X0.59	102* (F10)	4.02* (F10)	M10X15	3/8"X0.59
C45M	303	11.93	-	-	-	-	164.0	6.46	127.0	5.00	164.0	6.45	31.0	1.22	33.0	1.30	27	1.06	125 (F12)	4.92 (F12)	M12x15	1/2"X0.59	102* (F10)	4.02* (F10)	M10X15	3/8"X0.59
C60	360	14.17	285	11.22	-	-	218.0	8.58	180.0	7.09	141.0	5.57	94.0	3.70	43.0	1.69	36	1.42	140 (F14)	5.51 (F14)	M16x18	5/8"X0.71	-	-	-	-
C60M	390	15.35	-	-	-	-	218.0	8.58	180.0	7.09	141.0	5.57	94.0	3.70	43.0	1.69	36	1.42	140 (F14)	5.51 (F14)	M16x18	5/8"X0.71	-	-	-	-
C75	437	17.20	342	13.46	-	-	270.0	10.63	223.0	8.76	166.0	6.54	110.0	4.33	43.0	1.69	36	1.42	140 (F14)	5.51 (F14)	M16x18	5/8"X0.71	-	-	-	-
C75M	467	18.38	-	-	-	-	270.0	10.63	223.0	8.76	166.0	6.54	110.0	4.33	43.0	1.69	36	1.42	140 (F14)	5.51 (F14)	M16x18	5/8"X0.71	-	-	-	-
C90M	570	22.42	369	14.52	-	-	317.0	12.48	264.0	10.37	196.0	7.71	128.0	5.04	52.0	2.05	46	1.81	165 (F16)	6.5 (F16)	M20x30	3/4"X1.18	-	-	-	-

* The C45 bottom PCD can be either F12 or F10, but not both. The standard is F12. When ordering C45 with F10, you must add it to the code.

Technical Data

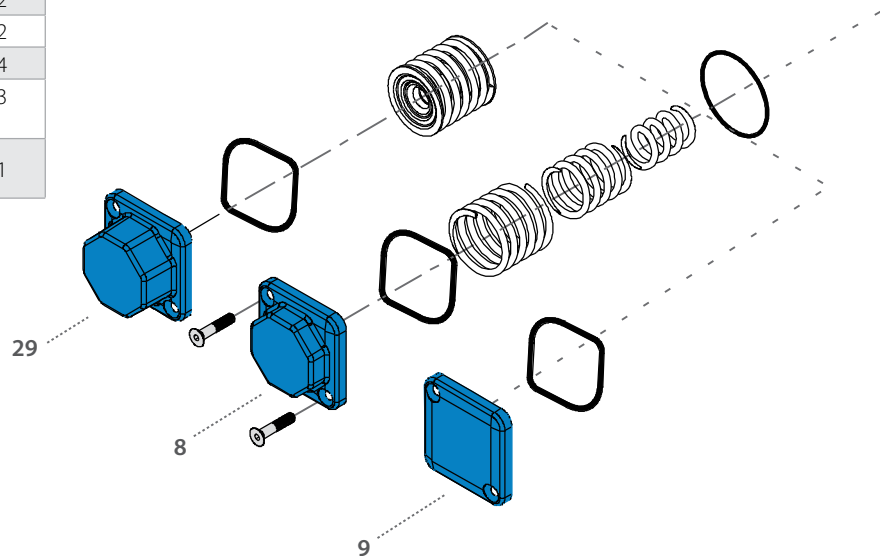
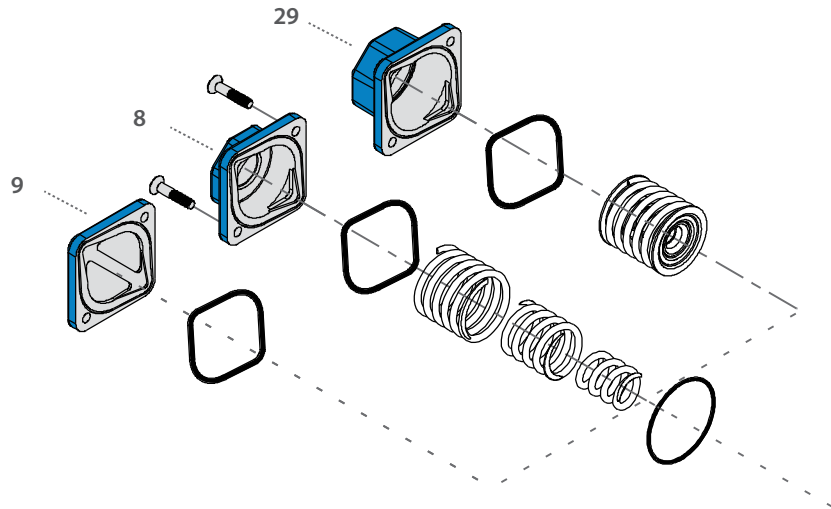
Actuator size		Unit	C15	C20	C25	C30	C30M	C35	C35M	C45	C45M	C60	C60M	C75	C75M	C90M
Weight		kg	1.10	1.90	3.50	5.00	6.10	9.00	10.40	15.00	16.70	35.00	39.40	64.00	72.00	160.00
Spring return		lb	2.40	4.20	7.70	11.00	13.40	19.80	22.00	33.10	37.40	77.20	86.00	141.10	158.00	353.00
Weight		kg	0.90	1.50	2.60	4.40	-	7.10	-	11.00	-	26.00	-	51.00	-	92.00
Double acting		lb	1.98	3.30	62.00	9.70	-	15.70	-	24.30	-	57.30	-	112.40	-	203.00
Air consumption per stroke actual volume	CCW	liter	0.07	0.12	0.25	0.44	0.44	0.74	0.74	1.33	1.33	3.20	3.2	5.76	5.76	12.00
	CW		0.09	0.15	0.33	0.54	-	0.80	-	1.33	-	3.20	-	5.76	-	-
	Total		0.16	0.27	0.58	0.98	-	1.54	-	2.66	-	6.40	-	11.52	-	-
Air consumption per stroke actual volume	CCW	in ³	4.30	7.30	15.00	27.00	27.00	45.00	45.00	81.00	81.00	195.00	195	351.00	351.00	726.00
	CW		5.50	9.20	20.00	33.00	-	49.00	-	81.00	-	195.00	-	351.00	-	-
	Total		9.80	16.50	35.00	60.00	-	94.00	-	162.00	-	391.00	-	703.00	-	-
Stroke time with S.V. with 0.9 Cv at 80 psi	D/A	sec.	0.10	0.13	0.20	0.24	-	0.40	-	0.75	-	1.50	-	2.50	-	3.00
	S/R Open		0.10	0.15	0.23	0.29	0.30	0.54	0.60	1.00	1.10	2.20	2.4	3.70	4.00	4.80
	S/R Close		0.15	0.15	0.23	0.28	0.28	0.48	0.50	0.77	0.80	1.60	1.6	2.90	2.90	3.10

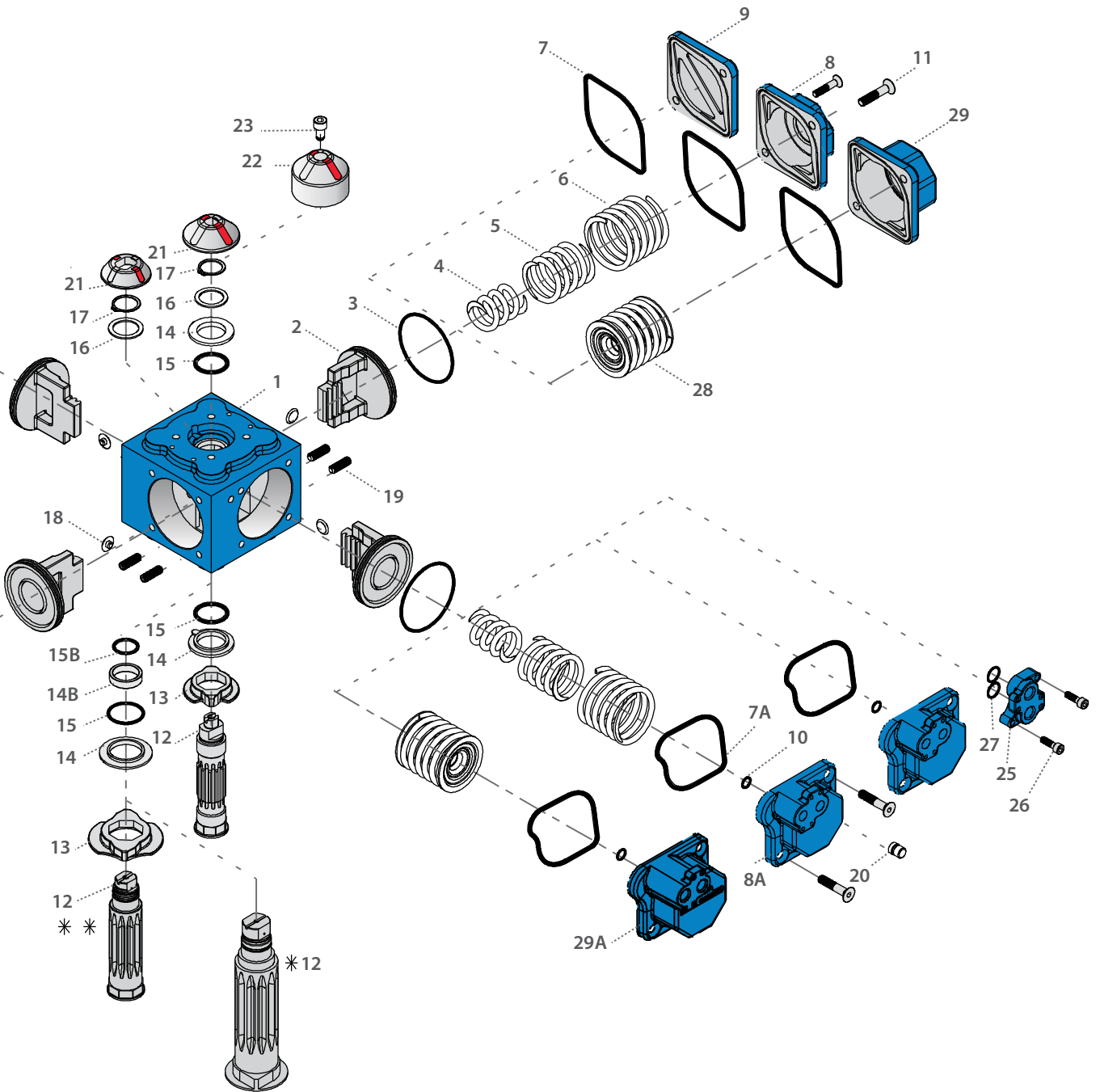
C15-C90M

COMPACT 4 Pistons Pneumatic Actuator

Item	Description	Material specifications	Qty.
1	Body	Acc. Ordering Code	1
2	Piston	Acc. Ordering Code	4
3	Piston O-ring	Acc. Ordering Code	4
4	Inner spring	Spring steel, painted	4
5	Middle spring	Spring steel, painted	4
6	Outer spring	Spring steel, painted	4
7	Cover O-ring	Acc. Ordering Code	3
7a	NAMUR cover O-ring	Acc. Ordering Code	1
8	Spring return cover	Acc. Ordering Code	3
8a	NAMUR cover	Acc. Ordering Code	1
9	Double acting cover	Acc. Ordering Code	3
10	Air supply O-ring	Acc. Ordering Code	1
11	Cover screw	Stainless steel	16
12	Pinion	Acc. Ordering Code	1
13	Stop plate	S. steel	1
14	Thrust washer	Acc. Ordering Code	2
14B	Bearing	Acc. Ordering Code	1
15	Pinion O-ring	Acc. Ordering Code	2
15B	Top pinion O-ring	Acc. Ordering Code	1
16	Disc bearing	Stainless steel / Delrin	1
17	Circlip	Stainless steel, spring steel zinc plated	1
18	Pad	Acc. Ordering Code	4
19	Stroke adjustment screw	Stainless steel	4
20	Exhaust plug (silencer)	Delrin, brass	1
21	Indicator	Plastic ABS, red & white	1
22	Puck	Plastic ABS, red & white	1
23	Indicator screw	Stainless steel	1
24	Tag (not shown)	Stainless steel	4
25	NAMUR insert	AL 380	1
26	Insert screw	Stainless steel	2
27	NAMUR insert O-ring	Acc. Ordering Code	2
28	Spring cassette	Spring steel, painted	4
29	Spring return cover for M series	Acc. Ordering Code	3
29A	NAMUR cover for M series	AL 380	1

* C75 & C90M Pinion (12) and stop (13) are one piece
 ** pinion assembly for actuators C35 and above





C15-C90M

COMPACT 4 Pistons Pneumatic Actuator

Torque Chart (Nm)

Spring return single acting

Size	Spring set	Air pressure - bar (psi)														Spring torque	
		3.0 (44)		4 (58)		5 (73)		5.5 (80)		6 (87)		7 (102)		8 (116)			
		Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
C15	1A	7	4	10	7	13	11	15	12	17	14	20	17	24	21	6	3
	1B			8	4	12	8	13	10	15	11	18	14	22	18	9	5
	1B2					10	5	12	7	13	9	16	11	20	15	12	7
	2									11	6	14	8.5	18	12	15	9
C20	2A			16	10	22	16	26	19	29	22	35	29	41	35	15	9
	2A2B			14	7	20	13	24	16	27	19	33	26	39	32	18	11
	2B					18	10	22	13	25	17	31	23	38	29	21	13
	2C							19	10	22	13	28	19	35	25	25	16
	3									19	9	24	15	30	21	29	19
C25	2A	23	11	36	23	49	36	55	42	62	49	75	62	88	74	28	16
	2A2B			33	19	46	32	53	39	60	45	73	58	86	70	32	18
	2B					43	27	50	34	57	41	70	53	83	66	36	21
	2C					38	18	45	24	52	31	64	44	77	56	47	27
	3									47	21	60	34	73	46	57	31
C30	2A	36	19	57	40	80	62	91	73	102	84	125	107	148	129	42	26
	2A2B			52	30	75	52	86	63	98	74	120	96	143	118	53	31
	2B			48	18	70	43	81	54	93	65	115	87	138	109	62	36
	2C					64	25	73	39	85	50	107	72	130	94	78	44
	3									75	33	98	55	120	77	96	54
C30M	2A	27	19	48	40	70	62	81	73	92	84	113	106	135	128	42	34
	2A2B	21	12	42	33	64	55	75	67	85	77	107	99	129	121	49	40
	2B			36	26	57	48	69	60	79	70	101	92	123	114	56	46
	2C					48	36	59	47	69	58	91	80	113	102	69	57
	3									58	44	80	66	102	88	83	68
C35	2A	75	39	111	74	150	112	168	129	186	147	224	184	262	221	74	38
	2A2B	64	26	100	62	139	99	157	117	175	134	213	171	251	208	87	49
	2B			92	44	130	82	148	99	166	117	204	154	242	191	105	58
	2C							133	68	151	86	189	123	227	160	137	73
	3									135	63	173	100	211	137	161	89
C35M	2A	54	42	89	77	126	114	143	131	160	148	197	185	234	223	70	57
	2A2B	43	28	78	63	115	110	132	117	149	134	186	171	223	209	85	69
	2B			67	49	104	86	121	103	139	120	176	157	213	195	99	80
	2C					86	65	103	82	120	99	157	136	194	173	122	100
	3									102	76	139	114	176	151	146	119
C45	2A	134	60	208	132	280	203	317	239	353	275	426	346	499	417	159	86
	2A2B			197	113	269	184	306	219	342	255	415	326	488	397	179	97
	2B			179	82	252	153	288	188	325	224	398	295	471	366	212	115
	2C					223	102	260	137	296	173	369	244	442	315	265	144
	3									268	122	341	193	414	264	318	173
C45M	2A	90	60	162	131	232	201	267	236	302	271	373	342	443	412	134	107
	2A2B	110	83	181	154	251	225	286	260	321	295	392	365	462	436	160	127
	2B			142	107	213	177	248	213	283	248	353	318	424	388	184	147
	2C					180	136	215	171	250	206	321	277	391	347	228	182
	3									216	163	286	234	357	304	273	218



COMPACT 4 Pistons Pneumatic Actuator

Torque Chart (Nm)

Spring return single acting

Size	Spring set	Air pressure - bar (psi)														Spring torque	
		3.0 (44)		4 (58)		5 (73)		5.5 (80)		6 (87)		7 (102)		8 (116)		Start	End
		Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End		
C60	2A	328	160	501	329	675	498	762	583	848	667	1021	835	1194	1004	360	194
	2A2B			478	285	651	454	738	538	824	623	997	791	1170	960	406	218
	2B			442	221	615	390	702	475	789	559	961	727	1134	896	473	254
	2C					548	268	635	352	721	437	894	605	1067	774	600	323
	3									657	322	830	490	1003	659	720	388
C60M	2A	212	148	379	315	546	483	630	566	714	650	880	816	1047	983	371	304
	2A2B	259	203	426	370	593	537	677	621	760	704	927	871	1094	1038	314	255
	2B			333	261	500	428	583	512	667	595	833	762	1000	929	429	353
	2C					411	321	495	404	578	488	744	654	912	821	542	447
	3									502	393	668	559	835	726	642	527
C75	2A	614	345	935	657	1255	969	1414	1124	1574	1280	1894	1592	2212	1902	615	350
	2A2B			891	582	1211	894	1370	1049	1530	1205	1850	1517	2168	1827	693	395
	2B			820	461	1140	773	1299	928	1459	1084	1779	1396	2097	1706	819	467
	2C					1025	576	1184	632	1344	887	1664	1199	1982	1509	1024	584
	3									1229	691	1549	1003	1867	1313	1229	700
C75M	2A	480	360	789	668	1098	977	1252	1131	1406	1285	1714	1594	2021	1900	596	468
	2A2B	406	269	715	578	1024	887	1177	1041	1331	1195	1640	1503	1947	1810	691	547
	2B			641	488	949	797	1103	951	1257	1104	1566	1413	1873	1720	786	624
	2C					799	606	953	760	1107	913	1415	1222	1722	1529	986	783
	3									959	726	1268	1035	1575	1342	1184	938
C90M	2A2B	734	467	1328	1061	1922	1655	2219	1952	2516	2249	3111	2844	3705	3438	1315	1048
	2B			1155	846	1749	1440	2046	1737	2343	2034	2938	2629	3532	3223	1530	1221
	2C					1571	1224	1868	1521	2165	1818	2760	2413	3354	3007	1746	1399
	3									1376	2411	1971	3005	2565	2188	1748	

Double acting

Size	Operating pressure (bar)						
	3.0	4.0	5.0	5.5	6.0	7.0	8.0
C15	10	14	17	19	21	24	27
C20	18	25	32	35	38	45	51
C25	39	52	65	72	79	92	105
C30	62	84	107	119	130	153	176
C35	114	151	190	208	226	265	304
C45	222	297	371	408	445	519	593
C60	527	703	879	967	1,055	1,230	1,406
C75	974	1,299	1,624	1,786	1,948	2,273	2,596
C90	1,783	2,377	2,971	3,268	3,565	4,160	4,754

C15-C90M

COMPACT 4 Pistons Pneumatic Actuator

Torque Chart (in-lb)

Spring return single acting

Size	Spring set	Air pressure - psi (bar)														Spring torque	
		40 (2.8)		60 (4.1)		70 (4.8)		80 (5.5)		90 (6.2)		100 (6.9)		120 (8.3)			
		Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
C15	1A	56	32	92	64	110	93	133	106	156	128	174	148	220	192	53	27
	1B			73	37	102	68	115	89	137	101	156	121	201	165	80	44
	1B2					85	42	106	62	119	82	139	95	183	137	106	62
	2									101	55	121	74	165	110	133	80
C20	2A			146	92	187	136	230	168	266	201	304	252	375	320	133	80
	2A2B			128	64	170	110	212	142	247	174	286	226	357	293	159	97
	2B					153	85	195	115	229	156	269	200	348	266	186	115
	2C							168	89	201	119	243	165	320	229	221	142
	3									174	82	208	130	275	192	257	168
C25	2A	185	89	330	211	416	306	487	372	568	449	651	538	806	677	248	142
	2A2B			302	174	390	272	469	345	549	412	633	503	787	641	283	159
	2B					365	229	443	301	522	375	607	460	760	604	319	186
	2C					322	153	398	212	476	284	555	382	705	513	416	239
	3									430	192	521	295	668	421	504	274
C30	2A	290	153	522	366	679	526	805	646	934	769	1085	928	1355	1181	372	230
	2A2B			476	275	636	441	761	558	897	677	1041	833	1309	1080	469	274
	2B			439	165	594	365	717	478	851	595	998	755	1263	998	549	319
	2C					543	212	646	345	778	458	928	625	1190	861	690	389
	3									687	302	850	477	1099	705	850	478
C30M	2A	217	153	439	366	594	526	717	646	842	769	980	920	1236	1172	372	301
	2A2B	169	97	385	302	543	467	664	593	778	705	928	859	1181	1108	434	354
	2B			330	238	484	407	611	531	723	641	876	798	1126	1044	496	407
	2C					407	306	522	416	632	531	790	694	1035	934	611	504
	3									531	403	694	573	934	806	735	602
C35	2A	603	314	1016	677	1273	950	1487	1142	1703	1346	1944	1596	2399	2023	655	336
	2A2B	515	209	916	568	1180	840	1389	1035	1602	1227	1848	1484	2298	1904	770	434
	2B			842	403	1103	696	1310	876	1520	1071	1770	1336	2216	1749	929	513
	2C							1177	602	1382	787	1640	1067	2078	1465	1212	646
	3									1236	577	1501	868	1932	1254	1425	788
C35M	2A	434	338	815	705	1069	967	1266	1159	1465	1355	1709	1605	2142	2042	620	504
	2A2B	346	225	714	577	976	933	1168	1035	1364	1227	1614	1484	2042	1913	752	611
	2B			613	449	883	730	1071	912	1273	1099	1527	1362	1950	1785	876	708
	2C					730	552	912	726	1099	906	1362	1180	1776	1584	1080	885
	3									934	696	1206	989	1611	1382	1292	1053
C45	2A	1078	483	1904	1208	2376	1723	2805	2115	3232	2518	3696	3002	4568	3818	1407	761
	2A2B			1804	1035	2283	1561	2708	1938	3131	2335	3601	2829	4468	3635	1584	858
	2B			1639	751	2139	1298	2549	1664	2975	2051	3453	2560	4312	3351	1876	1018
	2C					1892	866	2301	1212	2710	1584	3202	2117	4047	2884	2345	1274
	3									2454	1117	2959	1675	3790	2417	2814	1531
C45M	2A	724	483	1483	1199	1969	1706	2363	2089	2765	2481	3236	2967	4056	3772	1186	947
	2A2B	885	668	1657	1410	2130	1909	2531	2301	2939	2701	3401	3167	4230	3992	1416	1124
	2B			1300	980	1808	1502	2195	1885	2591	2270	3063	2759	3882	3552	1628	1301
	2C					1528	1154	1903	1513	2289	1886	2785	2403	3580	3177	2018	1611
	3									1978	1492	2481	2030	3268	2783	2416	1929



COMPACT 4 Pistons Pneumatic Actuator

Torque Chart (in-lb)

Spring return single acting

Size	Spring set	Air pressure - psi (bar)														Spring torque	
		40 (2.8)		60 (4.1)		70 (4.8)		80 (5.5)		90 (6.2)		100 (6.9)		120 (8.3)			
		Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
C60	2A	2639	1287	4587	3012	5728	4226	6744	5160	7764	6107	8859	7245	10931	9192	3186	1717
	2A2B			4376	2609	5525	3853	6531	4761	7544	5704	8650	6863	10712	8789	3593	1929
	2B			4047	2023	5219	3310	6213	4204	7223	5118	8338	6308	10382	8203	4186	2248
	2C					4650	2274	5620	3115	6601	4001	7757	5249	9769	7086	5310	2859
	3									6015	2948	7201	4251	9183	6033	6372	3434
C60M	2A	1706	1191	3470	2884	4634	4099	5576	5009	6537	5951	7635	7080	9585	9000	3283	2690
	2A2B	2084	1633	3900	3387	5032	4557	5991	5496	6958	6445	8043	7557	10016	9503	2779	2257
	2B			3049	2390	4243	3632	5160	4531	6107	5447	7228	6611	9155	8505	3797	3124
	2C					3488	2724	4381	3575	5292	4468	6455	5674	8350	7516	4797	3956
	3									4596	3598	5796	4850	7645	6647	5682	4664
C75	2A	4940	2776	8560	6015	10650	8223	12514	9947	14410	11719	16433	13813	20251	17413	5443	3098
	2A2B			8157	5328	10277	7587	12125	9284	14007	11032	16051	13162	19848	16727	6133	3496
	2B			7507	4221	9674	6560	11496	8213	13357	9924	15435	12112	19198	15619	7248	4133
	2C					8698	4888	10478	5593	12305	8121	14438	10403	18146	13815	9062	5168
	3									11252	6326	13440	8703	17093	12021	10877	6195
C75M	2A	3862	2896	7223	6116	9318	8291	11080	10009	12872	11764	14871	13830	18503	17395	5275	4142
	2A2B	3266	2164	6546	5292	8690	7527	10416	9213	12186	10940	14229	13041	17825	16571	6115	4841
	2B			5868	4468	8054	6764	9762	8416	11508	10107	13587	12260	17148	15747	6956	5522
	2C					6781	5143	8434	6726	10135	8359	12277	10603	15765	13998	8726	6930
	3									8780	6647	11002	8980	14419	12286	10478	8301
C90M	2A2B	5945	3789	11856	9473	16846	14506	20088	17671	22524	20134	26832	24530	33482	31069	11639	9276
	2B			10312	7553	15329	12621	18522	15724	20975	18209	25340	22675	31919	29126	13542	10807
	2C					13769	10728	16910	13769	19382	16275	23805	20812	30310	27174	15453	12382
	3									16257	12318	20795	17000	27156	23180	19365	15471

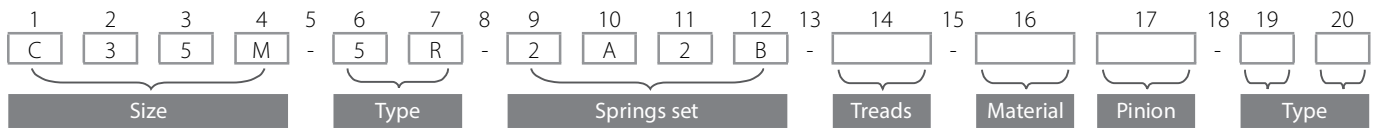
Double acting

Size	Operating pressure (psi)						
	40	60	70	80	90	100	120
C15	81	125	149	172	188	207	244
C20	146	229	271	311	351	390	468
C25	317	476	555	639	723	802	961
C30	505	769	914	1,052	1,190	1,334	1,611
C35	928	1,382	1,624	1,848	2,073	2,311	2,780
C45	1,807	2,719	3,170	3,622	4,074	4,525	5,429
C60	4,289	6,436	7,511	8,585	9,659	10,725	12,872
C75	7,926	11,893	13,877	15,856	17,834	19,819	23,767
C90	14,442	21,222	26,040	29,584	31,915	35,880	42,962

C15-C90M

COMPACT 4 Pistons Pneumatic Actuator - Ordering Code System

light green background



Size (1-4)	
C15	Actuator sizes
C20	
C25	
C30	
C30M	
C35	
C35M	
C45	
C45M	
C60	
C60M	
C75	
C75M	
C90M	

Type (6-7)	
SR	Spring return
DA	Double acting
Springs set (9-12)	
1A	See spring set combinations in page 414
1B	
1B2	
2	
2AB	
2A	
2A2B	
2B	
2A3	
2C	
2C3	
3	

Treads (14)	
Blank	Matric
I	Imperial

body/covers material	
Blank	Aluminum
N	Electroless nickel plating
6	S.ST*

* For selected sizes only - consult factory

Pinion (17)	
Blank	C.st
6	S.ST
Type (19-20)	
Blank	Standard
LT	Low temp
HT	High Temp
HC	High cycle
NU	Nuclear