

WEIR CONCEPTS INC.

PRODUCT GUIDE

- WC-CF SERIES PNEUMATIC ACTUATOR -



EXPECT QUALITY AND RELIABILITY

using our brand name CF SERIES PNEUMATIC ACTUATOR



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MADE IN ALBERTA, CANADA PRODUCTS

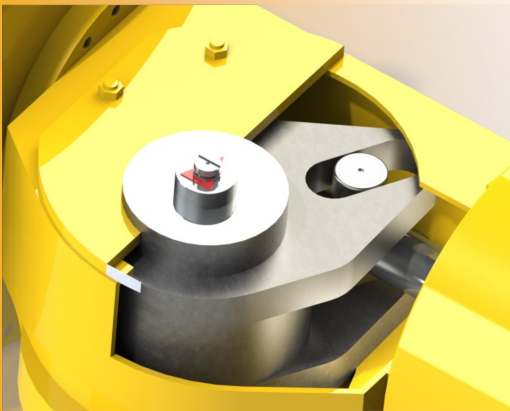
Manufactured and assembled at our Edmonton based facility

DETAILS ARE THE DIFFERENCE BETWEEN ORDINARY AND EXCELLENCE

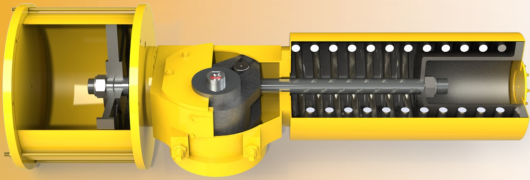
BODY



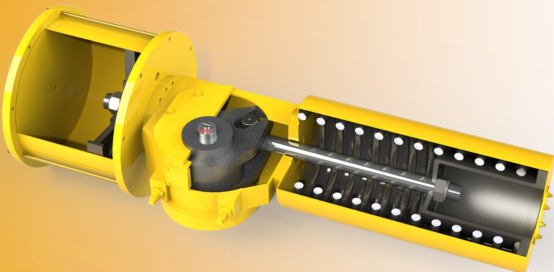
INTERNAL BODY PARTS



CYLINDER



SPRING MODULE



CF SERIES DESIGN & CONSTRUCTION

Internal O-ring to ensure water ingress protection.

NUMUR standard for all sizes for assembly of switch boxes and positioners.

Front and rear threaded components for easy assembly of a pneumatic control panel.

Round rolled used for reducing friction between the yoke arm and pin, minimizing the wear.

Replaceable bearings protect the sliding and rotating components. Suitable for dry or lubricated working conditions.

PTFE thrust bar prevents yoke pin axial movement, transferring axial loads directly to the drive module case.

Connects the piston rod with the guide block, compensating for side load deflection and reducing wear on rod, bearings, and seats.

CYLINDER The inner surface of the cylinder is coated by PTFE to prevent resistance and self-lubricating.

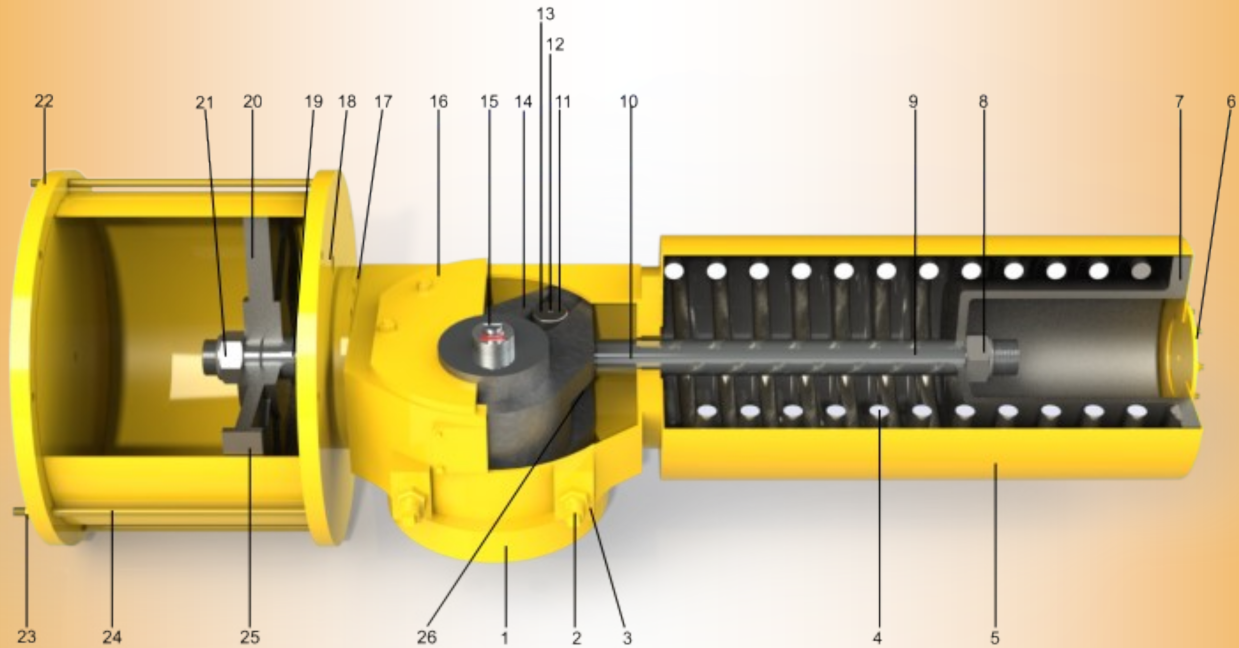
PISTONS SEALS Double sealing with O-ring and dynamic ring to prevent metal on metal contact between the piston and the cylinder.

Safe spring lock prevents spring module detachment from the drive module.

Internal hydraulic cylinder for manual pump override.

Weir Concepts at work for you

CF SERIES PARTS & MATERIAL

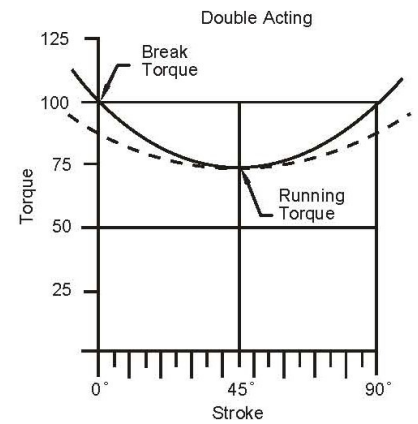
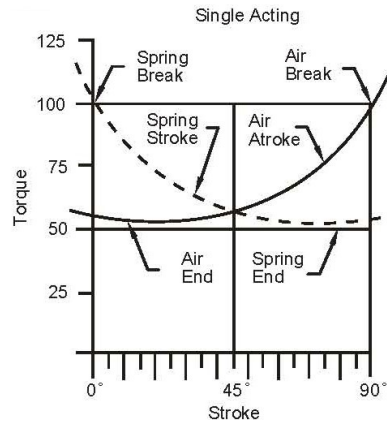


No.	Name	Material
1	Body	Ductile Iron
2	Adjust Stud	Alloy Steel
3	Nut	2H
4	Spring	Alloy Steel
5	Spring Case	Carbon Steel
6	Cover Plate	Carbon Steel
7	Spring Seat	Carbon Steel
8	Nut	2H
9	Tension Rod	Alloy Steel
10	Sliding Bearing	Metal +TfE
11	Roller	Alloy Steel
12	Slider Bearing	Metal +TfE
13	Pin	Alloy Steel
14	Yoke	Carbon Steel
15	Drive Shaft	Alloy Steel
16	Body Cap	Ductile Iron
17	Bolting	Carbon Steel
18	Adapter plate	Ductile Iron
19	O ring	NBR
20	Piston	Ductile Iron
21	Nut	2H
22	End Cap	Ductile Iron
23	Nut	2H
24	Body Screw	Alloy Steel
25	Oring seals	NBR
26	Guide Block	Ductile Iron

**Solutions for your
company needs**

CF SERIES OUTPUT TORQUE

**Solutions for your
company needs**

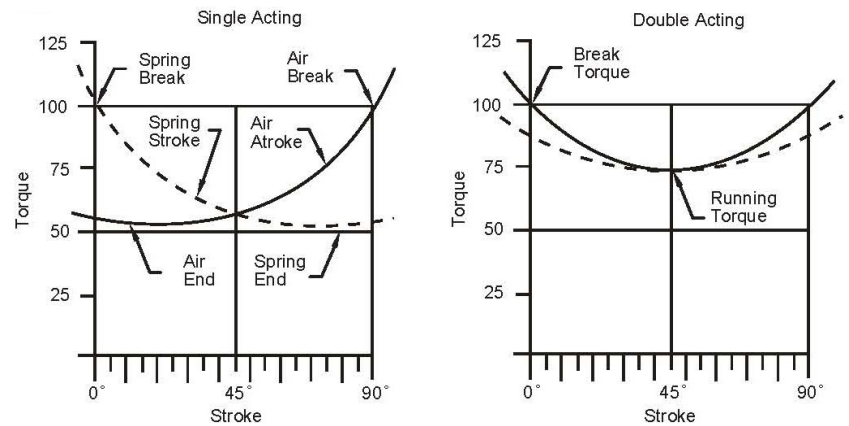


Model	Max Torque of Drive Module	Air Pressure									
		3Bar		4 Bar		5 Bar		6 Bar		7 Bar	
		Break	Run	Break	Run	Break	Run	Break	Run	Break	Run
CF14-200	2000Nm	830	504	1107	672	1384	839	1660	1007	1937	1175
CF14-250		1298	787	1730	1049	2163	1312				
CF14-300		1861	1129								
CF16-250	4000Nm	1622	984	2163	1312	2704	1640	3245	1968	3786	2296
CF16-300		2336	1417	3115	1889	3894	2362				
CF16-350		3180	1929	4240	2572						
CF25-350	8000Nm	3926	2381	5235	3175	6543	3969	7852	4763		
CF25-400		4984	3023	6646	4031	8307	5039				
CF25-450		6309	3827	8412	5103						
CF30-450	16000Nm	7710	4677	10280	6236	12580	7631	15420	9354		
CF30-500		9519	5774	12693	7700	15866	9625				
CF30-550		11519	6988	15359	9317						
CF35-550	32000Nm	14660	8893	19547	11858	24433	14822	29320	17787	34207	20752
CF35-600		17447	10584	23263	14112	29078	17640	34894	21169		
CF35-700		23748	14407	31664	19209						
CF40-600	63000Nm					35310	21421	42373	25706	49435	29990
CF40-700				38449	23325	48062	29157	57674	34988	67286	40820
CF40-800		37664	22849	50219	40366	62774	38082				
CF48-800	125000Nm					73852	44803	88623	53764	103393	62725
CF48-900				74775	45363	93468	56703	112162	68044	130856	79385
CF48-1000		69237	42003	92316	56005	115395	70006				
CF60-800	250000Nm							119641	72582	139581	84679
CF60-900				100947	61241	126183	76551	151420	91861	176657	107171
CF60-1000		93469	56704	124626	75606	155782	94507	186939	113409	218095	132310
CF60-1100		113097	68612	150797	91483	188496	114354	226195	137224	263894	160095

Double Acting Unit: N.m

CF SERIES OUTPUT TORQUE

**Solutions for your
company needs**



Model	Max Torque of Drive Module	Spring break	Spring end	Air break	Air end
CF14-200	2000Nm	511	307	523	318
CF14-250		789	506	791	508
CF14-300		1079	674	1194	790
CF16-250	4000Nm	1092	607	1014	529
CF16-300		1434	892	1444	902
CF16-350		1896	1227	1953	1283
CF25-350	8000Nm	2249	1470	2346	1567
CF25-400		2996	1895	3089	1903
CF25-450		3960	2534	3774	2348
CF30-450	16000Nm	4786	2889	4821	2924
CF30-500		6044	3535	5984	3475
CF30-550		6867	4349	7169	4651
CF35-550	32000Nm	9180	5400	9260	5480
CF35-600		11016	6378	11069	6430
CF35-700		14449	8907	14840	9298
CF40-600	63000Nm	13131	8114	13071	8054
CF40-700		16359	10272	18564	12477
CF40-800		21426	13666	23998	16238
CF48-800	125000Nm	26619	16381	27930	17691
CF48-900		33844	20827	35254	22237
CF48-1000		45789	29097	40140	23447
CF60-800	250000Nm	36800	22805	35799	21805
CF60-900		47118	27842	47867	28592
CF60-1000		63398	38261	55207	30071
CF60-1100		78878	49217	63881	34219

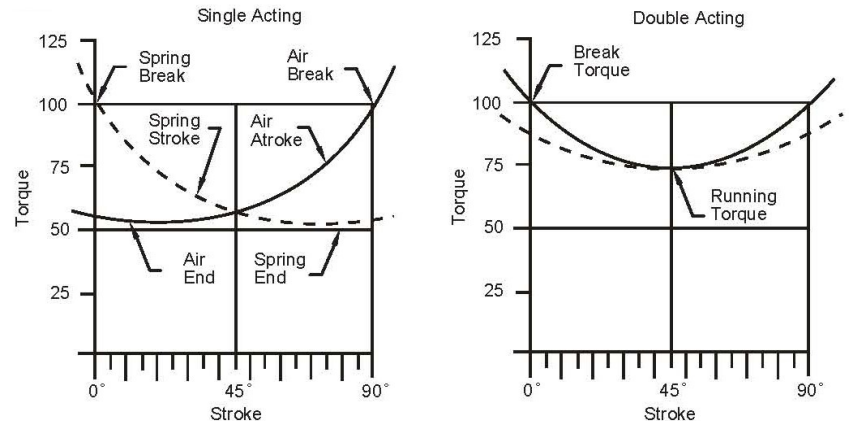
Spring Return Acting

Spring for Air Pressure is 3Bar

Unit: N.m

CF SERIES OUTPUT TORQUE

**Solutions for your
company needs**



Model	Max Torque of Drive Module	Spring break	Spring end	Air break	Air end
CF14-200	2000Nm	679	436	671	428
CF14-250		1079	674	1056	651
CF14-300		1477	948	1544	1015
CF16-250	4000Nm	1281	818	1345	882
CF16-300		1896	1227	1888	1219
CF16-350		2595	1629	2611	1645
CF25-350	8000Nm	2996	1895	3193	2092
CF25-400		3960	2534	4112	2686
CF25-450		4955	2999	5412	3456
CF30-450	16000Nm	6329	3820	6461	3952
CF30-500		7929	4869	7824	4763
CF30-550		9375	5824	9534	5983
CF35-550	32000Nm	12297	7481	12066	7250
CF35-600		14449	8907	14356	8813
CF35-700		19069	11549	20114	12594
CF40-600	63000Nm	16359	10272	17976	11888
CF40-700		21426	13666	24782	17023
CF40-800		30015	18757	31461	20203
CF48-800	125000Nm	33844	20827	38254	25237
CF48-900		45789	29097	45677	28986
CF48-1000		57348	35200	57115	34968
C60-800	250000Nm	47118	27842	51918	32642
CF60-900		63398	38261	62685	37548
CF60-1000		78878	49217	75409	45747
CF60-1100		95891	58177	92620	54906

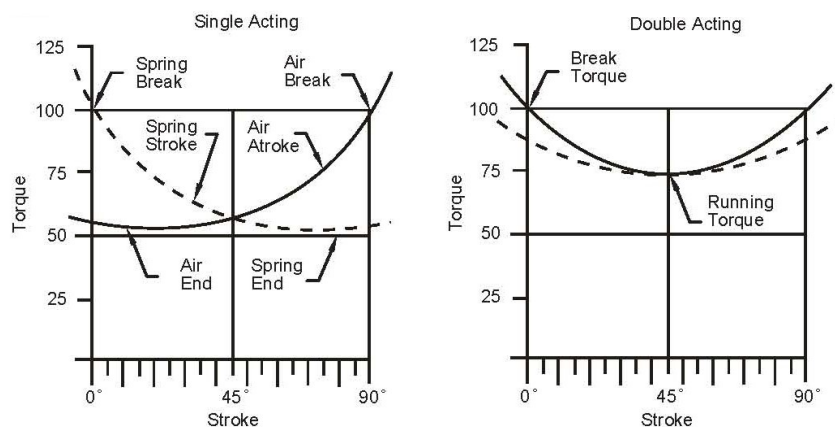
Spring Return Acting

Spring for Air Pressure is 4Bar

Unit: N.m

CF SERIES OUTPUT TORQUE

**Solutions for your
company needs**



Model	Max Torque of Drive Module	Spring break	Spring end	Air break	Air end
CF14 - 200	2000Nm	789	506	877	594
CF14 - 250		1345	815	1347	818
CF14 - 300		1880	1206	1908	1235
CF16 - 250	4000Nm	1553	1011	1692	1150
CF16 - 300		2421	1455	2438	1472
CF16 - 350		3194	2085	3215	2106
CF25 - 350	8000Nm	3960	2534	3826	2400
CF25 - 400		4955	2999	5309	3352
CF25 - 450		6326	3726	6788	4188
CF30 - 450	16000Nm	7929	4869	7892	4922
CF30 - 500		9375	5824	10042	6490
CF30 - 550		11426	7092	12106	7772
CF35 - 550	32000Nm	14449	8907	15527	9984
CF35 - 600		18185	10752	18327	10894
CF35 - 700		23864	14109	25470	15715
CF40 - 600	63000Nm	21426	13666	21644	13884
CF40 - 700		30015	18757	29304	18046
CF40 - 800		35425	21679	41095	27349
CF48 - 800	125000Nm	45789	29097	44755	28063
CF48 - 900		57348	35200	58269	36121
CF48 - 1000		69602	42618	72776	45792
CF60 - 800	250000Nm	63398	38261	61439	36302
CF60 - 900		78878	49217	76967	47305
CF60 - 1000		95891	58177	97605	59891
CF60 - 1100		112369	71764	116733	76127

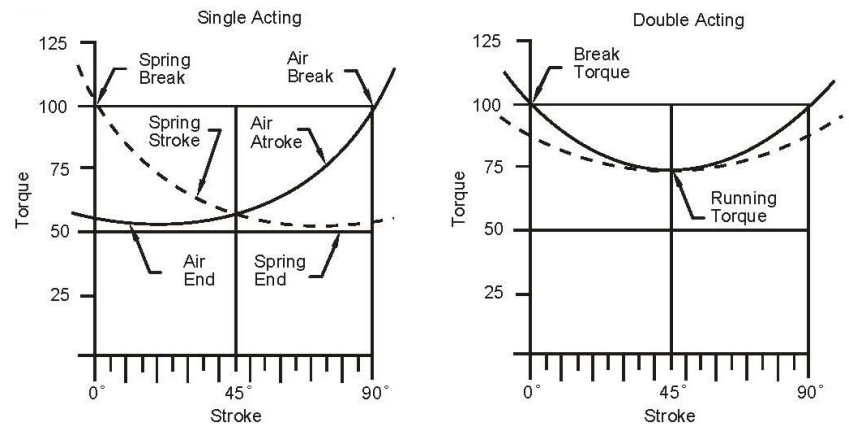
Spring Return Acting

Spring for Air Pressure is 5Bar

Unit: N.m

CF SERIES OUTPUT TORQUE

**Solutions for your
company needs**



Model	Max Torque of Drive Module	Spring break	Spring end	Air break	Air end
CF14 - 200	2000Nm	1028	623	1037	633
CF14 - 250		1477	948	1648	1118
CF14 - 300		2291	1458	2280	1447
CF16 - 250	4000Nm	1896	1227	2018	1348
CF16 - 300		2595	1629	3044	2077
CF16 - 350		3858	2446	3914	2502
CF25 - 350	8000Nm	4955	2999	4633	2677
CF25 - 400		6326	3726	6243	3643
CF25 - 450		8261	4720	7897	4357
CF30 - 450	16000Nm	9375	5824	9598	6046
CF30 - 500		11426	7092	11962	7613
CF30 - 550		14080	8344	14694	8957
CF35 - 550	32000Nm	18185	10752	18569	11136
CF35 - 600		22471	12716	22179	12424
CF35 - 700		28953	17288	30207	18543
CF40 - 600	63000Nm	26630	16828	25544	15471
CF40 - 700		35425	21679	35995	22248
CF40 - 800		47742	29300	46029	28593
CF48 - 800	125000Nm	57348	35200	5342	31275
CF48 - 900		69602	42618	69545	42561
CF48 - 1000		82680	51976	86497	55793
CF60 - 800	250000Nm	78878	49217	70724	40762
CF60 - 900		95891	58177	93243	55529
CF60 - 1000		112369	71764	115175	74570
CF60 - 1100					

Spring Return Acting

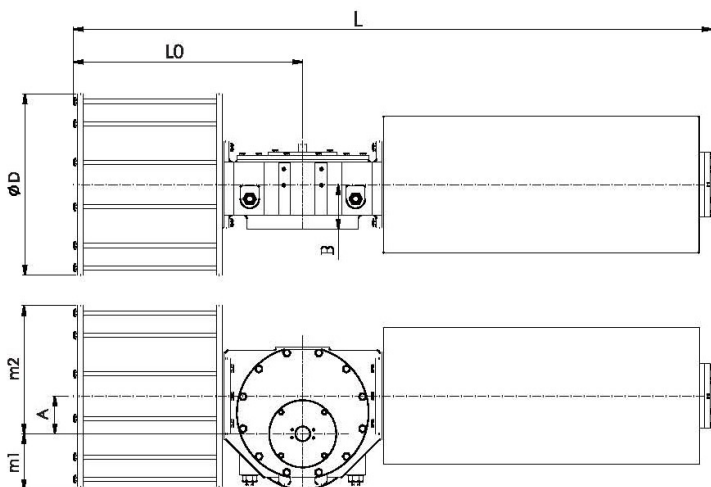
Spring for Air Pressure is 6Bar

Unit: N.m

Weir Concepts offers technical consulting and provides a total end to end solution.

CF SERIES SPRING RETURN ACTING DIMENSIONS

Model	Connect Flange	L	L0	m1	m2	A	B	D	Air Port
CF14-200SR4	F14	1105	449	87.5	187.5	60	88	255	RC3/8"
CF14-250 SR4		1105	449	87.5	212.5	60	88	305	RC1/2"
CF14-300 SR4		1125	449	87.5	237.5	60	88	360	RC1/2"
CF16-250 SR4	F16	1289	499	105	222.5	70	92	305	RC1/2"
CF16-300 SR4		1289	499	105	247.5	70	92	360	RC1/2"
CF16-350 SR4		1318	499	105	272.5	70	92	415	RC1/2"
CF25-350 SR4	F25	1576	556	150	292.5	90	104	415	RC1/2"
CF25-400 SR4		1576	556	150	317.5	90	104	465	RC3/4"
CF25-450 SR4		1674	556	150	350	90	104	520	RC3/4"
CF30-450 SR4	F30	1807	662	175	370	110	130	520	RC3/4"
CF30-500 SR4		1807	662	175	395	110	130	570	RC3/4"
CF30-550 SR4		1807	662	175	420	110	130	620	RC3/4"
CF35-550 SR4	F35	2005	817	207.5	450	140	165	620	RC3/4"
CF35-600 SR4		2005	817	207.5	450	140	165	670	RC1"
CF35-700 SR4		2005	817	207.5	475	140	165	770	RC1"
CF40-600 SR4	F40	2695	960	237.5	505	170	200	670	RC1"
CF40-700 SR4		2695	960	237.5	555	170	200	770	RC1"
CF40-800 SR4		2695	960	237.5	607.5	170	200	875	RC1.1/2"
CF48-800 SR4	F48	3395	1130	280	637.5	200	210	875	RC1.1/2"
CF48-900 SR4		3395	1130	280	687.5	200	210	975	RC2"
CF48-1000SR4		3585	1130	280	787.5	200	210	1075	RC2"
CF60-800 SR4	F60	4185	1380	343	707.5	270	230	875	RC1.1/2"
CF60-900 SR4		4185	1380	343	757.5	270	230	975	RC2"
CF60-1000 SR4		4750	1380	343	807.5	270	230	1075	RC2"
CF60-1100 SR4		4750	1380	343	857.5	270	230	1175	RC2"



Spring Return Acting

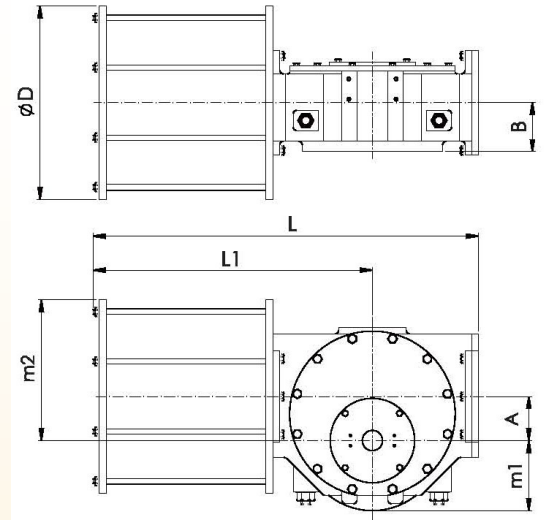
Dimension above chart are only for the spring return actuators.

Spring size is 4Bar

For more information contact our tech support (780.462.1910)

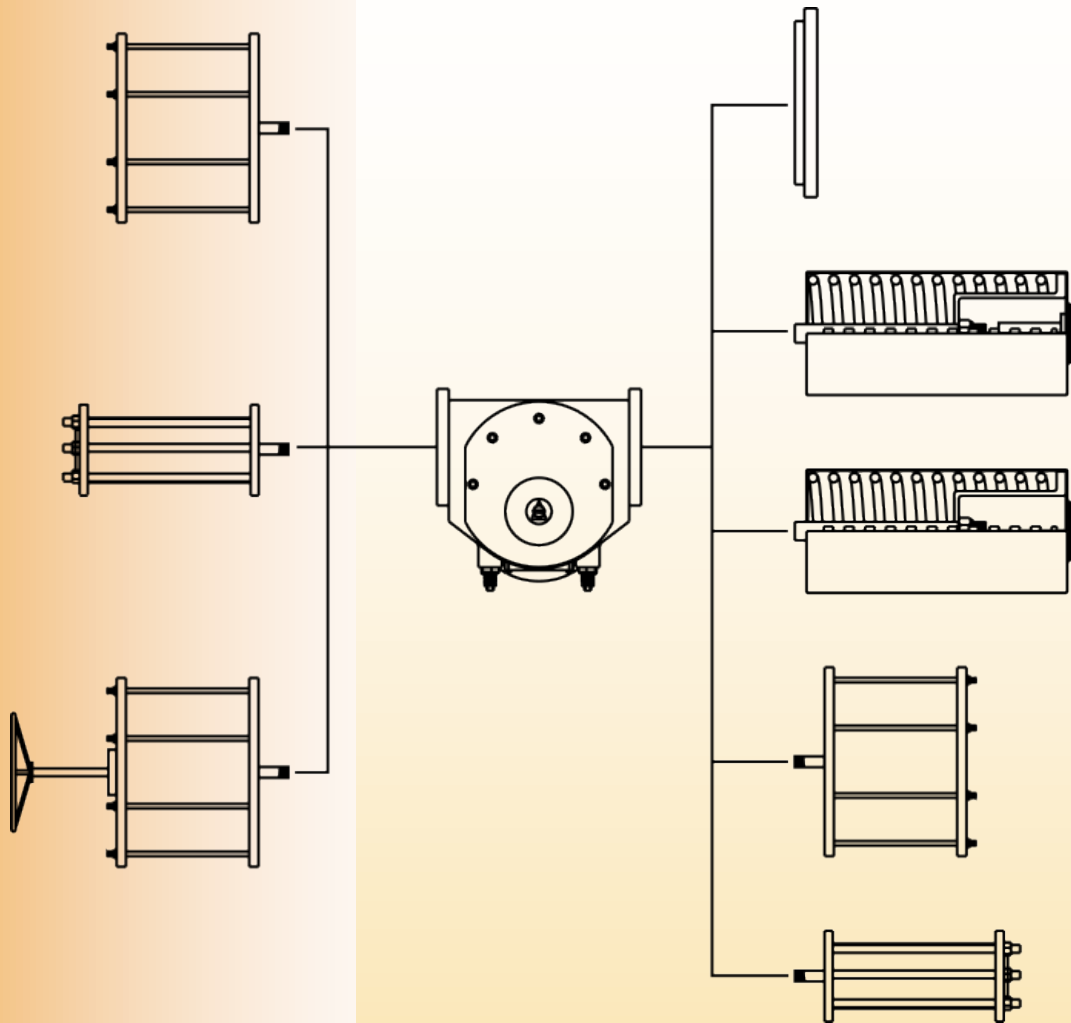
CF SERIES SPRING RETURN ACTING DIMENSIONS

**Solutions for your
company needs**



Model	Connect Flange	L	L1	m1	m2	A	B	D	Air Port
CF14-200DA	F14	594	449	87.5	187.5	60	88	255	RC3/8"
CF14-250 DA		594	449	87.5	212.5	60	88	305	RC1/2"
CF14-300 DA		594	449	87.5	237.5	60	88	360	RC1/2"
CF16-250DA	F16	679	499	105	222.5	70	92	305	RC1/2"
CF16-300DA		679	499	105	247.5	70	92	360	RC1/2"
CF16-350DA		679	499	105	272.5	70	92	415	RC1/2"
CF25-350DA	F25	766	556	150	292.5	90	104	415	RC1/2"
CF25-400DA		766	556	150	317.5	90	104	465	RC3/4"
CF25-450DA		766	556	150	350	90	104	520	RC3/4"
CF30-450DA	F30	922	662	175	370	110	130	520	RC3/4"
CF30-500DA		922	662	175	395	110	130	570	RC3/4"
CF30-550DA		922	662	175	420	110	130	620	RC3/4"
CF35-550DA	F35	1130	817	207.5	450	140	165	620	RC3/4"
CF35-600DA		1130	817	207.5	450	140	165	670	RC1"
CF35-700DA		1130	817	207.5	475	140	165	770	RC1"
CF40-600DA	F40	1320	960	237.5	505	170	200	670	RC1"
CF40-700 DA		1320	960	237.5	555	170	200	770	RC1"
CF40-800 DA		1320	960	237.5	607.5	170	200	875	RC1.1/2"
CF48-800 DA	F48	1580	1130	280	637.5	200	210	875	RC1.1/2"
CF48-900 DA		1580	1130	280	687.5	200	210	975	RC2"
CF48-1000DA		1580	1130	280	787.5	200	210	1075	RC2"
CF60-800 DA	F60	1960	1380	343	707.5	270	230	875	RC1.1/2"
CF60-900 DA		1960	1380	343	757.5	270	230	975	RC2"
CF60-1000 DA		1960	1380	343	807.5	270	230	1075	RC2"
CF60-1100 DA		1960	1380	343	857.5	270	230	1175	RC2"

CF SERIES - Your Guide for Placing Orders



- 1. Body Size. : SF14 to SF60
- 2. Cylinder Size : 200 to 1100
- 3. Acting Type
DA : Double Acting
SA : Single Acting
- 4. Spring Size:
3 : 3Bar 4 : 4Bar
5 : 5Bar 6 : 6Bar

- 5. Temperature:
LT : Low temperature (-45~80°C)
HT : High temperature (20~120°C)
- 6. Special Code (Selective) :
H : Jack Screw Manual Override
EX : Extended Travel Stop
HY : Hydraulic Override

- 7. Air failure (Single acting)
STC : Spring to close
STO : Spring to open

PRODUCT GUIDE

WEIR CONCEPTS WC-CF SERIES PNEUMATIC ACTUATOR



SOLUTIONS FOR YOUR COMPANY NEEDS

- HELP DESK -

FOR YOUR SUPPORT AND SERVICE

24 hours a day, 7 days a week

NO CHARGE ON CALLS SERVICE

We offer technical assistance, product knowledge, and reliable trouble shooting

Brochures/Maintenance info available online www.weirconcepts.com

HELP DESK EXPERTISE PROVIDED AT WEIR CONCEPTS

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Version 3.0

