

Safety Information

To make absolutely sure that no one can be injured when operating a valve equipped with an actuator (pneumatic, electric or hydraulic), outside the pipe system, fingers, hands or arms should not be placed inside the valve or at the sealing surface when the supply energy is connected to the actuator.

GENERAL

The Somas pneumatic actuator type C is a double-acting type for quarter turn operation with an overtravel of 5° in each end position.

Among other criteria low friction and lack of backlash between the moving parts have been given priority. These features prevent hysteresis for control applications. Besides control applications the actuator is suitable for on-off applications.

The Somas actuator type CR is single-acting with spring return. The spring return system is built on a new concept where the traditional spiral springs have been replaced with one or two gas springs. The feature of a gas spring device is a smoother operation, which will contribute to an improved control performance.

Both types are designed to meet the demands from the process industry where accuracy and reliability are concerned. The design is also very compact.

STORING AND HANDLING

Make sure the actuator has not been damaged during transport and handling. Store the actuator in such way that it is protected from contamination. A good storage area will usually be dry, cool and clean.

SECURITY

When the supply air is connected, handle the actuator and valve carefully and make sure that no fingers are inside the valve during movement of the actuator.

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LIFTING

If the actuator is mounted on a valve, follow the instructions for the individual valve types. If the actuator is equipped with positioner or other accessories the lifting sling must be located in such a way that cables and tubing are not damaged.

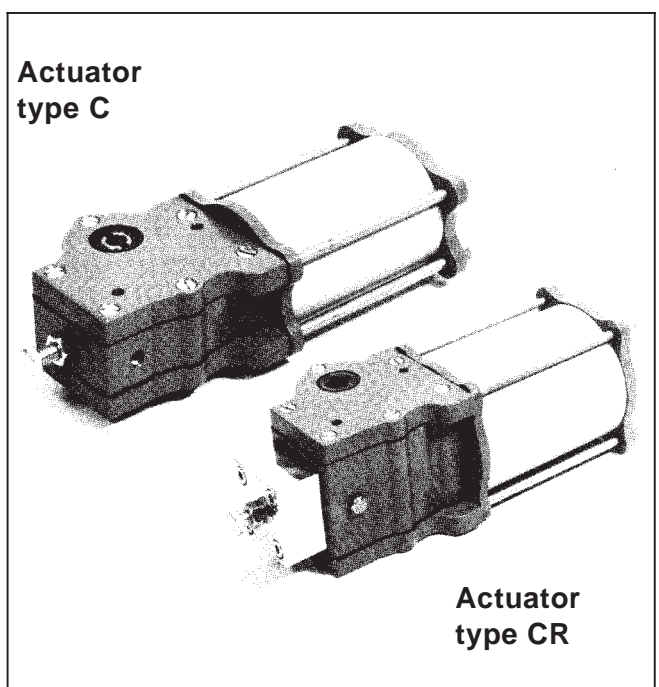
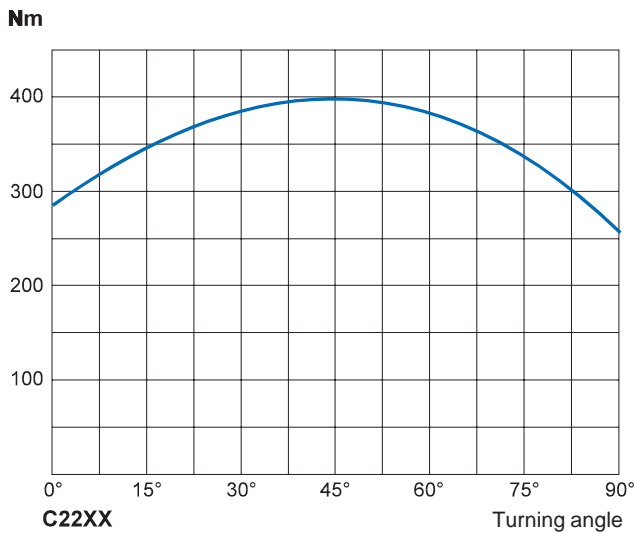
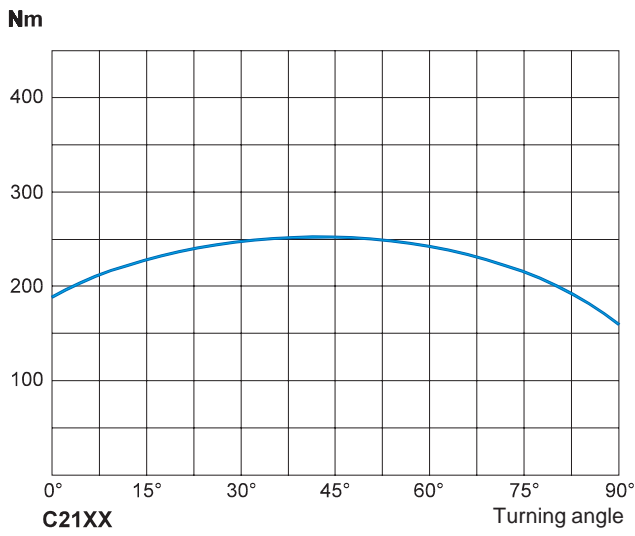
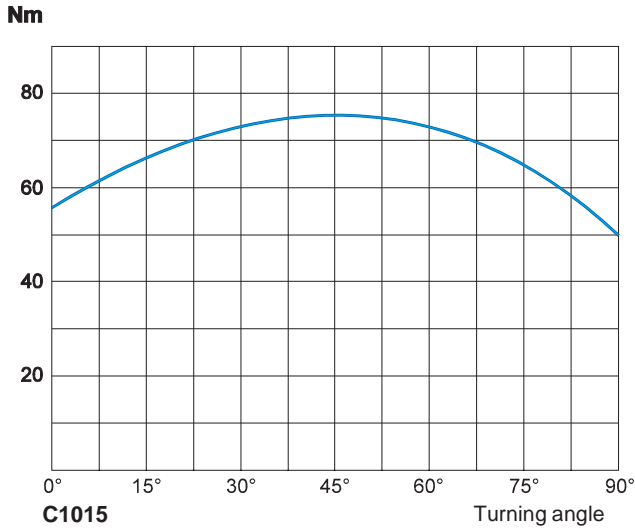


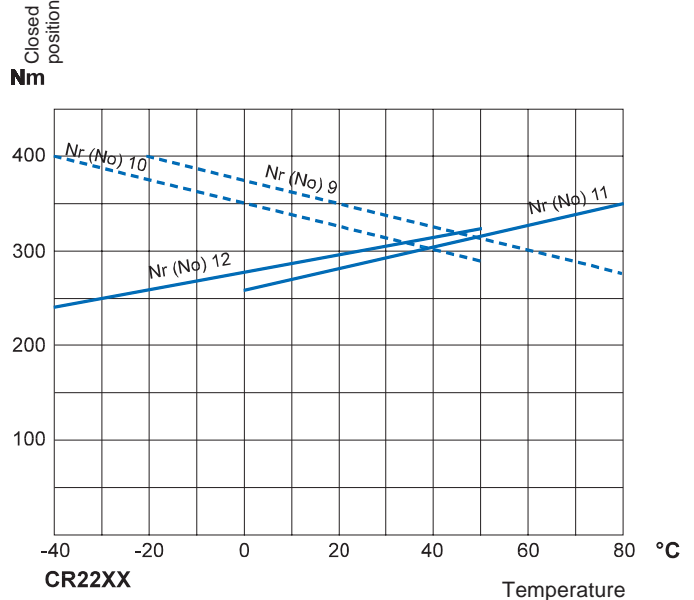
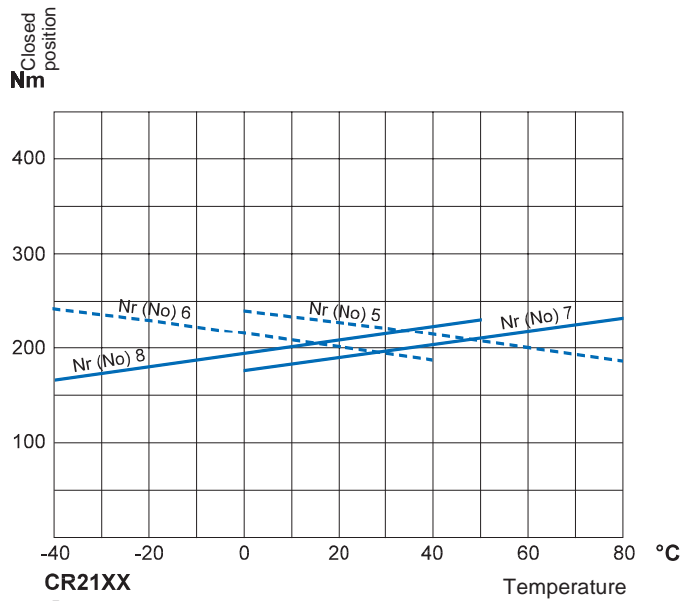
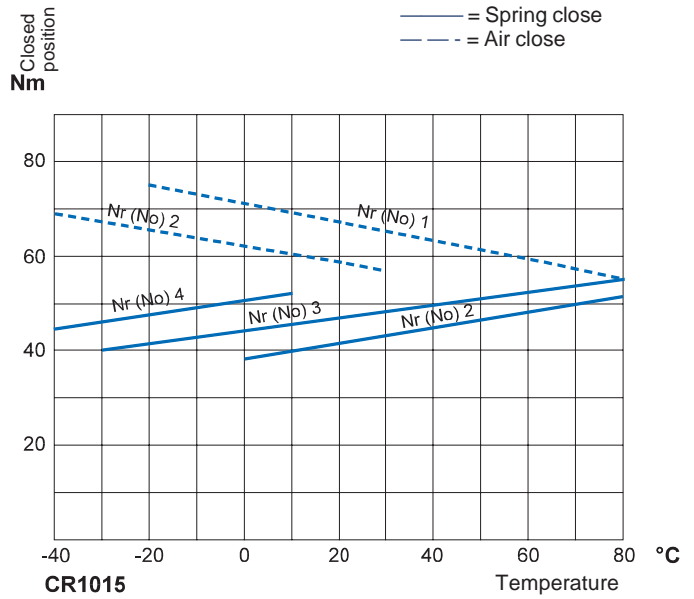
Fig. 1



TORQUE GRAPH, at 5.5 bar
Actuator, type C, double-acting



Actuator, type CR, spring return with a gas spring





FITTING TO THE VALVE

The basic position is closed valve and actuator in closed position.

The actuators type C and CR are mounted to the Somas valves by means of a bracket. In the bottom of the housing there are drilled tapped holes which are used for mounting.

Check that the keyway and the key on the valve shaft are undamaged.

Decide the mounting position of the actuator and fit the bracket to the valve.

Locate the actuator on the valve shaft. Use a plastic or a rubber mallet to drive down the actuator. Mount the screws.

When the actuator has been mounted, the end positions must be adjusted. See "ADJUSTMENT".

MOUNTING ALTERNATIVES

The actuators type C and CR will work in any position and are mounted perpendicularly to the pipe line according to positions 1 and 3.

Positions 1 below is the standard position, if nothing else is specified. Alternative positions can be chosen according to the mounting circumstances. See fig 2.

Installation parallel to the pipe line according to positions 2 and 4 on request.

CHANGE OF MOUNTING POSITION

Loosen the screws between the valve and the bracket. If necessary, remove positioner and other accessories so the torque arm becomes accessible. Use a screw M12x130 in accordance with fig. 3. By this, the valve shaft is pressed out from the torque arm in the actuator. When the actuator is free from the valve, loosen the screw from the actuator and mount the actuator in the new position. See "FITTING TO THE VALVE".

When the actuator has been mounted in a new position, check and if necessary, adjust the end positions. See "ADJUSTMENT".

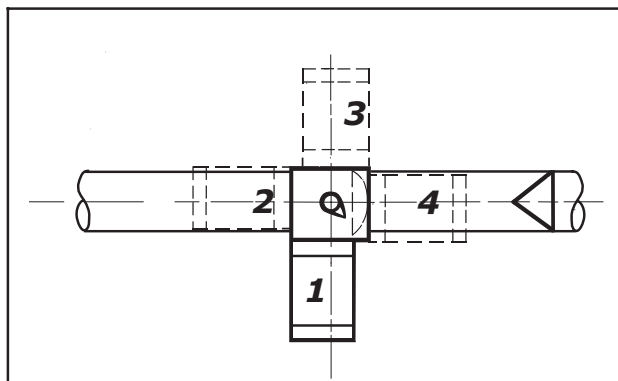


Fig. 2

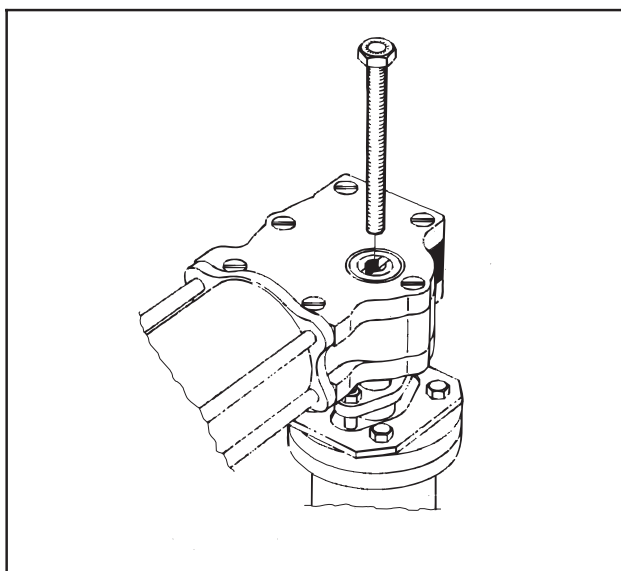


Fig. 3

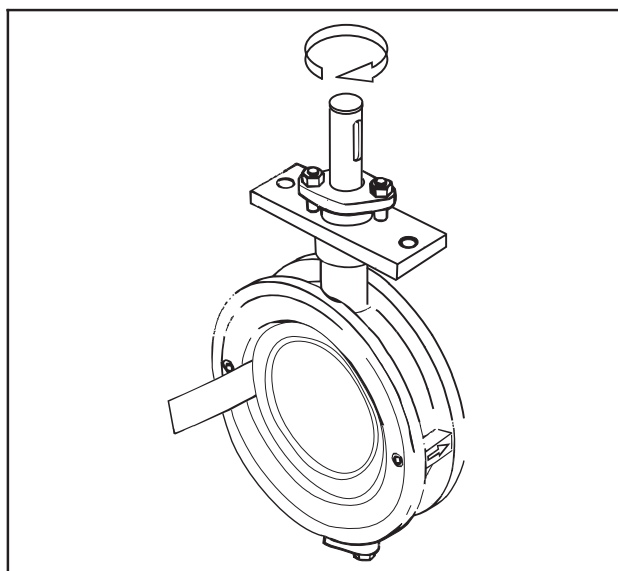


Fig. 4



ADJUSTMENT

The motion of the actuator is limited in the closed and open position by limit position screws.

The limit position screw in closed position allows the rotation angle of closing to $\pm 5^\circ$.

The limit position screw in open position is used to limit the operation angle of the valve.

Each screw must be operative when the actuator is in the respective end position.

ADJUSTMENT OF THE CLOSED POSITION

Before starting the adjustment, make sure the supply pressure is correct and connected to the actuator.

Loosen the locking nut (2 or 26) and unscrew the limit position screw (1 or 25) a few turns (see text below).

All ball segment valves type KVT with reduced bore have the ball segment in a certain angle in closed position.

Make sure that the edge of the ball segment covers the seat.

Ball segment valve type KVT with Double-acting actuator type C

Operate the actuator by means of the supply air to the closed position. If the limit position screw (25) in closed position has been screwed out far enough the valve will now overclose. By looking into the valve from the outlet side this can easily be seen. Use the limit position screw (25) to move the ball segment to the central position in the seat. At correct position tighten the locking nut (26).

Ball segment valve type KVT with Single-acting actuator type CR

Spring to close

Release the air pressure in the piston so the gas spring can close the valve. Tighten the limit position screw (1) until the ball segment is centred in the seat.

Tighten the locking nut (2).

Ball segment valve type KVT with Single-acting actuator type CR

Spring to open

Connect the supply air and close the actuator by means of the supply pressure. Tighten the limit position screw (25) until the ball segment is centred in the seat ring.

Tighten the locking nut (26).

Ball segment valve type KVX with Double-acting actuator type C

Move the actuator by means of the supply air to the closed position.

Tighten the limit position screw (25) until it reaches the torque arm. From this position tighten one more turn.

Tighten the locking nut (26).

Ball segment valve type KVX with Single-acting actuator type CR

Spring to close

Release the air pressure in the piston so the gas spring can close the valve.

Tighten the limit position screw (1) until it reaches the piston. From this position, tighten one more turn.

Tighten the locking nut (2).

Ball segment valve type KVX with Single-acting actuator type CR

Spring to open

Connect the supply air and close the valve by means of the supply pressure.

Tighten the limit position screw (25) until the valve shaft starts to move. From this position, tighten one more turn.

Tighten the locking nut (26).

Butterfly valves type MTV and VSS with Double-acting actuator type C

In order to control the surface pressure between the disc and the seat, use a 2-3 cm wide strip of writing paper.

Put the strip between the disc and the seat and close the valve. *Note! Be careful, not to cut your fingers.*

The limit position screw (25) is correctly adjusted when the surface pressure almost cuts the paper strip. Place the paper strip acc. to fig. 4.

Butterfly valves type MTV and VSS with Single-acting actuator type CR

Spring to close

See above paragraph for double-acting actuator.

Adjustment of limit position is carried out by means of screw (1).

Butterfly valves type MTV and VSS with Single-acting actuator type CR

Spring to open

See above paragraph for double-acting actuator. Use limit position screw (25) for adjustment of closed position.



ADJUSTMENT OF OPEN POSITION

Before adjustment make sure the valve has a proper action. Loosen the limit position screw (1 or 25, see text below) a few turns.

Ball segment valve type KVT/KVX with Double-acting actuator type C

For control and on-off applications the opening angle is 90°.

For ball segment valves, DN 25 and DN 40 with reduced bore the following opening angles are valid:

DN/ Bore	Degree of opening
25/2	75°
25/3	75°
25/5	75°
25/7	80°
25/10	80°
25/15	80°
25/20	80°
40/32	80°

Open the valve by means of the supply pressure. Make sure the valve is fully open.

Tighten the limit position screw (1) until the ball segment is in open position.

Tighten the locking nut (2).

Ball segment valve type KVT/KVX with Single-acting actuator type CR Function: Spring to close

Open the valve by means of the supply pressure. Make sure the valve is fully open. If the valve has opened too far, tighten the limit position screw (25) until the segment is in correct position. If the valve has not reached the fully open position (the limit position), untighten the screw a few more turns.

At the correct position, tighten the locking nut (26).

Ball segment valve type KVT/KVX with Single-acting actuator type CR Function: Spring to open

Release the air pressure in the piston so the spring device can open the valve. If the valve opens too far, tighten the limit position screw (1) until the correct position is achieved. If the valve does not open enough, untighten the limit position screw a few more turns.

At the correct position, tighten the locking nut (2).

Butterfly valves type MTV and VSS with Double-acting actuators type C

For on-off applications an opening angle of 80° is valid while for control applications an opening of 70° is used.

For correct adjustment open the valve to selected degree of opening and adjust the limit position screw (1). Tighten the locking nut (2).

Butterfly valve type MTV and VSS with Single-acting actuator type CR Function: Spring to close

For correct degree of opening see double-acting actuator above.

Connect the supply pressure and open the valve. If the valve opens too far, tighten the limit position screw (25) until correct position is achieved. If the valve does not open far enough, untighten the limit positions screw correspondingly.

At the correct position, tighten the locking nut (26).

Butterfly valve type MTV and VSS with Single-acting actuator type CR Function: Spring to open

For the correct degree of opening, see double-acting actuator above!

Release the supply pressure so the gas spring can open the valve.

If the valve has opened too far, tighten the limit position screw (1) a few turns. In the contrary case untighten. At the correct position, tighten the locking nut (2).



MAINTENANCE

Actuators type C and CR are practically maintenance-free as long as the supply air consists of dry and clean instrument air of correct pressure.

Spare parts are available as sealing kits and repair kits.

Sealing kits

This kit contains a required number of sealings and gaskets necessary for a normal overhaul of the actuator.

For ordering number see the spare parts list.

Repair kits

In order to restore the actuator to its former condition a repair kit is available. This kit contains the sealing kit as well as necessary bushings and bearings.

For ordering number see the spare parts list.

WORKING INSTRUCTION - DOUBLE-ACTING ACTUATOR TYPE C

The exploded views (figures 5 and 6) are self-explanatory as far as disassembly and reassembly is concerned.

Below are instructions on how to make specific repairs.

Replacement of the piston seal and support ring

1. Remove the rear cylinder end plate (5) and if necessary the tie rods (8). Pull the cylinder tube (7) off the piston (12). Check the inside surface of the piston cylinder.
2. Remove the old piston ring (10) and the support rings (9). Clean the locations for piston ring and support ring.
3. Fit a new piston seal.
Heat the PTFE-ring in hot water prior to mounting.
NOTE! Do not use any tools, just use hand assembly!
Mount the support rings (9).
4. If necessary, replace the O-rings (6) at the piston cylinder end plates.
5. Remount the cylinder tube carefully not to damage the piston ring.
6. Refit the rear end plate and the tie rods.

Replacement of torque arm and link arm

1. Remove the rear end plate (5) and unscrew the two upper tie rods (8).
2. Remove the cylinder tube (7).
3. Remove the upper cover (20).
4. Remove the piston (12) by knocking out the piston bolt (13).
5. Remove link arm (18) and lever (24).
6. The lever and link arm are taken apart by removing swivel bolt (19).
7. Replace torque arm and/or link arm, necessary gaskets, O-rings and reassemble in the reverse order.

Replacement of torque arm bearings

1. Remove the tie rods (8) on the side you intend to change the bearing.
2. Remove the cover (20 or 28) and press out the bushing (22).
3. Place the new bushing in the cover and change the O-ring (23).
4. Reassemble the cover and the tie rods.
5. Repeat the operation on the other side.

Replacement of link arm bushings

When changing the link arm bushings (17) the same operation is valid as for replacement of lever and link arm.



SPARE PARTS LIST, Actuator type C1015

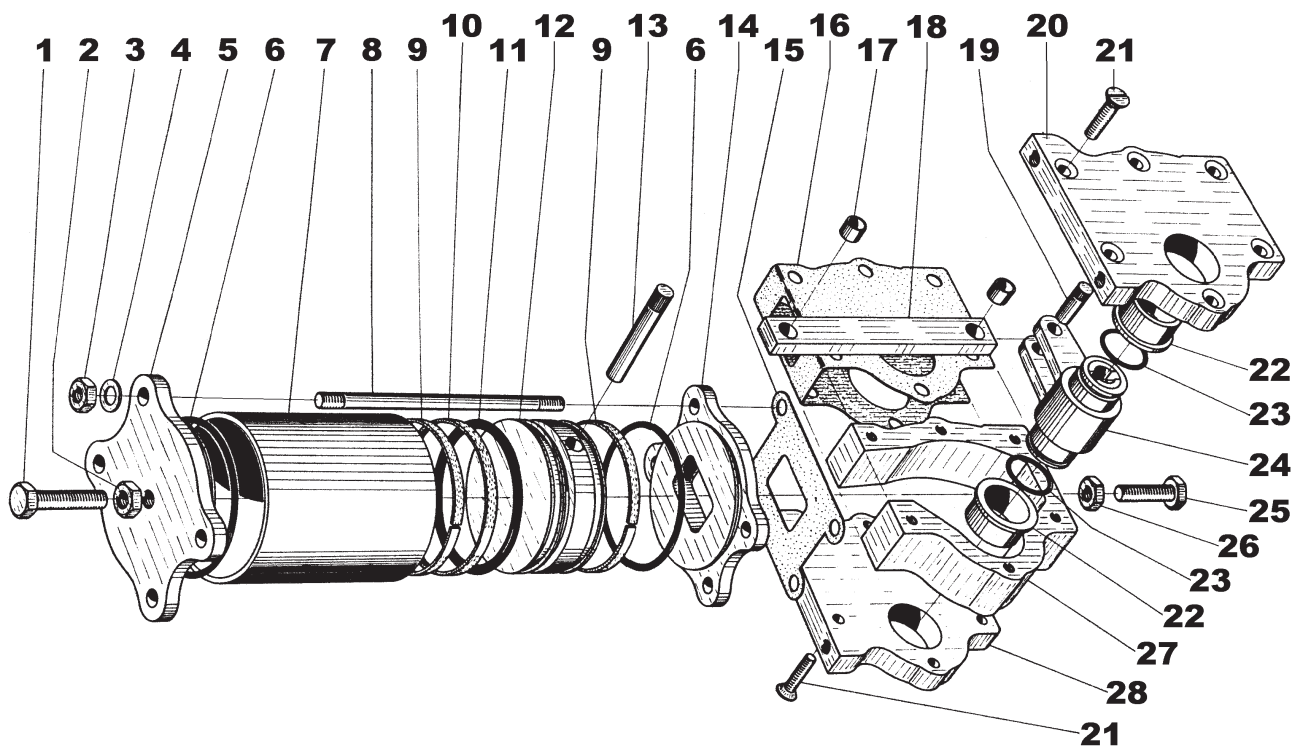


Fig 5

Item	Q'ty	Description	Material	Item	Q'ty	Description	Material
1	1	Screw, M10x40, (SS-ISO 4017)	A4	16	1	Gasket	Nitrile
2	1	Nut, M10, Z.Pl. Seal-Lock-type	Steel	17	2	Bushing	
3	4	Nut, M8, Z.Pl. (DIN 934)	Steel	18	1	Link arm	Steel
4	4	Washer, dia. 8,4x16, Z.Pl. (DIN 125)	Steel	19	1	Swivel bolt	SS 2331
5	1	Rear end plate	Aluminium	20	1	Cover, upper	Aluminium
6	2	O-ring, dia. 74,5x3,0	Nitrile	21	12	Screw, M6x25, Z.Pl. (SS-ISO 7046)	Steel
7	1	Cylinder tube	Aluminium	22	2	Bushing	PDE-F
8	4	Tie rod	SS 2346	23	2	O-ring, dia.22,2x3,0	Nitrile
9	2	Support ring	PE	24	1	Lever, compl. for C1015	
10	1	Piston ring	PTFE	25	1	Screw, M10x40 (SS-ISO 4017)	A4
11	1	O-ring, dia. 67,5x5,7	Nitrile	26	1	Nut, M10, Z.Pl. Seal-Lock-type	Steel
12	1	Piston	Aluminium	27	1	Housing	Aluminium
13	1	Piston bolt	SS 2331	28	1	Cover, lower	Aluminium
14	1	Front end plate	Aluminium				
15	1	Gasket	Nitrile				
				13545	1	Sealing kit, C1015	
				13572	1	Repair kit, C1015	

Items No. 6, 9, 10, 11, 15, 16 and 23 are included in the sealing kit.

Items No. 6, 9, 10, 11, 13, 15, 16, 17, 18, 19, 22 and 23 are included in the repair kit.



SPARE PARTS LIST, Actuator type C2120/2220/2225/2230

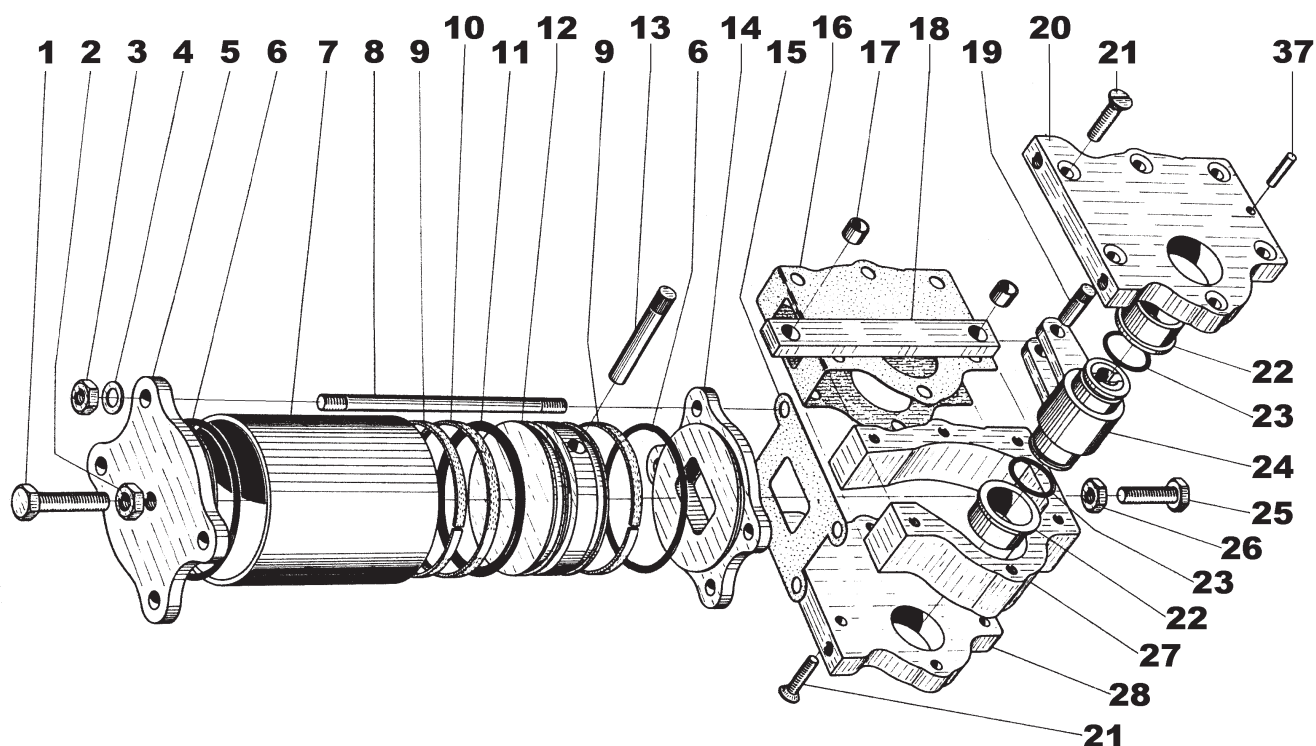


Fig 6

Item	Q'ty	Description	Material	Item	Q'ty	Description	Material
1	1	Screw, M12x50, (SS-ISO 4017)	A4	16	1	Gasket	Nitrile
2	1	Nut, M12, Z.Pl. Seal-Lock-type	Steel	17	2	Bushing	
3	4	Nut, M10, Z.Pl. (DIN 934)	Steel	18	1	Link arm	Steel
4	4	Washer, dia. 10,5x22, Z.Pl.(DIN 125)	Steel	19	1	Swivel bolt	SS 2331
5	1	Rear end plate	Aluminium	20	1	Cover, upper	Aluminium
6	2	O-ring, dia. 94,5x3,0 (C2120)	Nitrile	21	12	Screw, M10x25, Z.Pl. (SS-ISO 7046)	Steel
7	1	Cylinder tube	Aluminium	22	2	Bushing	PDE-F
8	4	Tie rod	SS 2346	23	2	O-ring, dia.44,5x3,0	Nitrile
9	2	Support ring	PE	24	1	Lever, compl. for C2120	
10	1	Piston ring	PTFE	25	1	Lever, compl. for C2220	
11	1	O-ring, dia. 87,2x5,7 (C2120)	Nitrile	26	1	Lever, compl. for C2225	
12	1	Piston	Aluminium	27	1	Lever, compl. for C2230	
13	1	Piston bolt	SS 2331	28	1	Screw, M12x50 (SS-ISO 4017)	A4
14	1	Front end plate	Aluminium	37	2	Nut, M12, Z.Pl. Seal-Lock-type	Steel
15	1	Gasket	Nitrile	27	1	Housing	Aluminium
				28	1	Cover, lower	Aluminium
				37	2	Pin, 4x24	A2
				19019	1	Sealing kit, C21	
				19031	1	Repair kit, C21	
				19020	1	Sealing kit, C22	
				19032	1	Repair kit, C22	

Items No. 6, 9, 10, 11, 15, 16 and 23 are included in the sealing kit.

Items No. 6, 9, 10, 11, 13, 15, 16, 17, 18, 19, 22 and 23 are included in the repair kit.



WORKING INSTRUCTION - SINGLE-ACTING ACTUATOR TYPE CR

The instruction below refer to the exploded views fig 7 and 8.

Replacement of piston seal and support rings

1. Unscrew the limit position screws (1 and 25).
2. For further information see points 1 - 6 for double-acting actuator.
3. When the actuator is mounted on the valve, carry out new adjustments of open and closed positions in accordance with instructions above.

Replacement of torque arm and link arm -

Function: Spring to open

1. Unscrew the limit position screws (1 and 25).
2. Remove the spring holder (30).
3. Remove the gas spring/springs (34) by pulling backwards.
4. Remove the rear end plate (5).
5. Remove the two upper tie rods (8).
6. Remove the cylinder tube (7).
7. Remove the piston (12) from the link arm (18) by knocking out the piston bolt (13).
8. Remove the upper cover (20).
9. Remove the front end plate (14) by pulling it backwards.
10. Lift out the torque arm and link arm.
11. Remove the swivel bolts (19).
12. Replace the necessary parts and reassemble in reverse order.
13. With the actuator fitted to the valve, make the adjustments of open and closed position in accordance with the instructions above.

Replacement of gas spring/springs

Actuator type CR has a safe position in case of air failure.

The fail action is achieved by using gas springs.

The gas springs may be replaced if required.

The following springs are available:

Actuator No. 1

Function: Spring to close

Spring No.	Spring force	Temperature range
2	1700 N	from $\pm 0^\circ$ up to $+ 80^\circ\text{C}$
3	2000 N	from $- 30^\circ$ up to $+ 60^\circ\text{C}$
4	2300 N	from $- 40^\circ$ up to $+ 10^\circ\text{C}$

Function: Spring to open

Spring No.	Spring force	Temperature range
1	1400 N	from $- 20^\circ$ up to $+ 80^\circ\text{C}$
2	1700 N	from $- 40^\circ$ up to $+ 20^\circ\text{C}$

Actuator No. 2

Function: Spring to close

Spring No.	Spring force	Temperature range
7	1600 N	from 0°C up to $+ 80^\circ\text{C}$
8	1800 N	from $- 40^\circ\text{C}$ up to $+ 50^\circ\text{C}$
11	2400 N	from 0°C up to $+ 80^\circ\text{C}$
12	2500 N	from $- 40^\circ\text{C}$ up to $+ 50^\circ\text{C}$

Function: Spring to open

Spring No.	Spring force	Temperature range
5	1200 N	from 0°C up to $+ 80^\circ\text{C}$
6	1400 N	from $- 40^\circ\text{C}$ up to $+ 40^\circ\text{C}$
9	2100 N	from $- 20^\circ\text{C}$ up to $+ 80^\circ\text{C}$
10	2300 N	from $- 40^\circ\text{C}$ up to $+ 50^\circ\text{C}$

When replacing the gas spring/springs proceed as follows:

1. Unscrew the limit position screws (1 and 25).
2. Remove the spring holder (30).
3. Remove the old gas spring/spring by pulling it/them backwards.
4. Mount a new spring/springs and reassemble the gas spring holder.
5. With the actuator fitted on the valve, make a new adjustment of open and closed position in accordance with the instruction above.



SPARE PARTS LIST, Actuator type CR1015

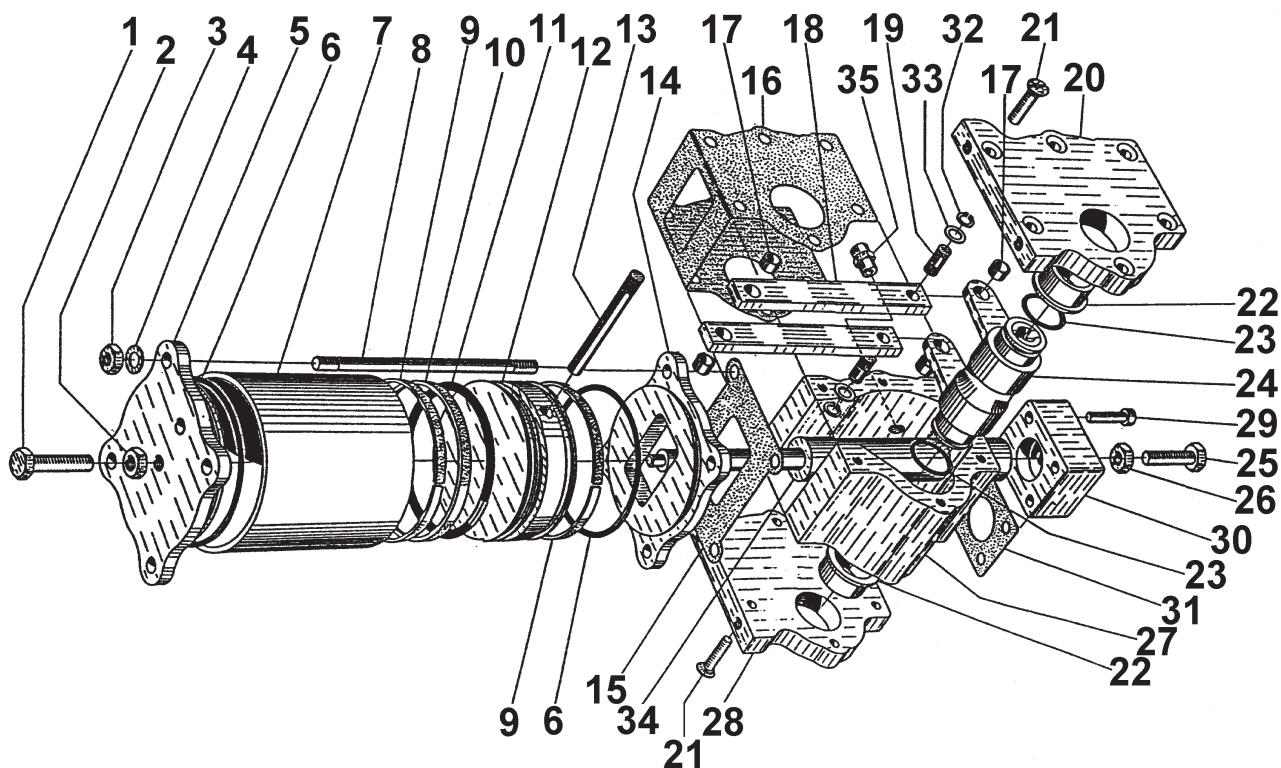


Fig 7

Item	Q'ty	Description	Material	Item	Q'ty	Description	Material
1	1	Screw, M10x50 (SS-ISO 4017)	A4	21	12	Screw, M6x25, Z.PI. (SS-ISO 7046)	Steel
2	1	Nut, M10, Z.PI. Seal-Lock-type	Steel	22	2	Bushing	PDE-F
3	4	Nut, M8, Z.PI. (DIN 934)	Steel	23	2	O-ring, dia.22,2x3,0	Nitrile
4	4	Washer, dia. 8,4x16, Z.PI. (DIN 125)	Steel	24	1	Lever, compl. for CR1015	
5	1	Rear end plate	Aluminium	25	1	Screw, M10x50, (SS-ISO 4017)	A4
6	2	O-ring, dia. 94,5x3,0	Nitrile	26	1	Nut, M10, Z.PI. Seal-Lock-type	Steel
7	1	Cylinder tube	Aluminium	27	1	Housing	Aluminium
8	4	Tie rod	SS 2346	28	1	Cover, lower	Aluminium
9	2	Support ring	PE	29	4	Screw, M8x40, Z.PI. (SS-ISO 4762)	Steel
10	1	Piston ring	PTFE	30	1	Spring holder	Aluminium
11	1	O-ring, dia. 87,2x5,7	Nitrile	31	1	Gasket	Nitrile
12	1	Piston	Aluminium	32	2	Locking ring, SGA 10	Steel
13	1	Piston bolt	SS 2331	33	2	Washer	Steel
14	1	Front end plate	Aluminium	34	1	Gas spring, see page 9	
15	1	Gasket	Nitrile	35	1	Filter, 1/8"	Brass
16	1	Gasket	Nitrile				
17	4	Bushing					
18	2	Link arm	Steel				
19	2	Swivel bolt	SS 2331				
20	1	Cover, upper	Aluminium				
				13546	1	Sealing kit, CR1015	
				13573	1	Repair kit, CR1015	

Items No. 6, 9, 10, 11, 15, 16, 23 and 31 are included in the sealing kit.

Items No. 6, 9, 10, 11, 13, 15, 16, 17, 18, 19, 22, 23, 31 and 32 are included in the repair kit.



SPARE PARTS LIST, Actuator Type CR, CR2120/2220/2225/2230

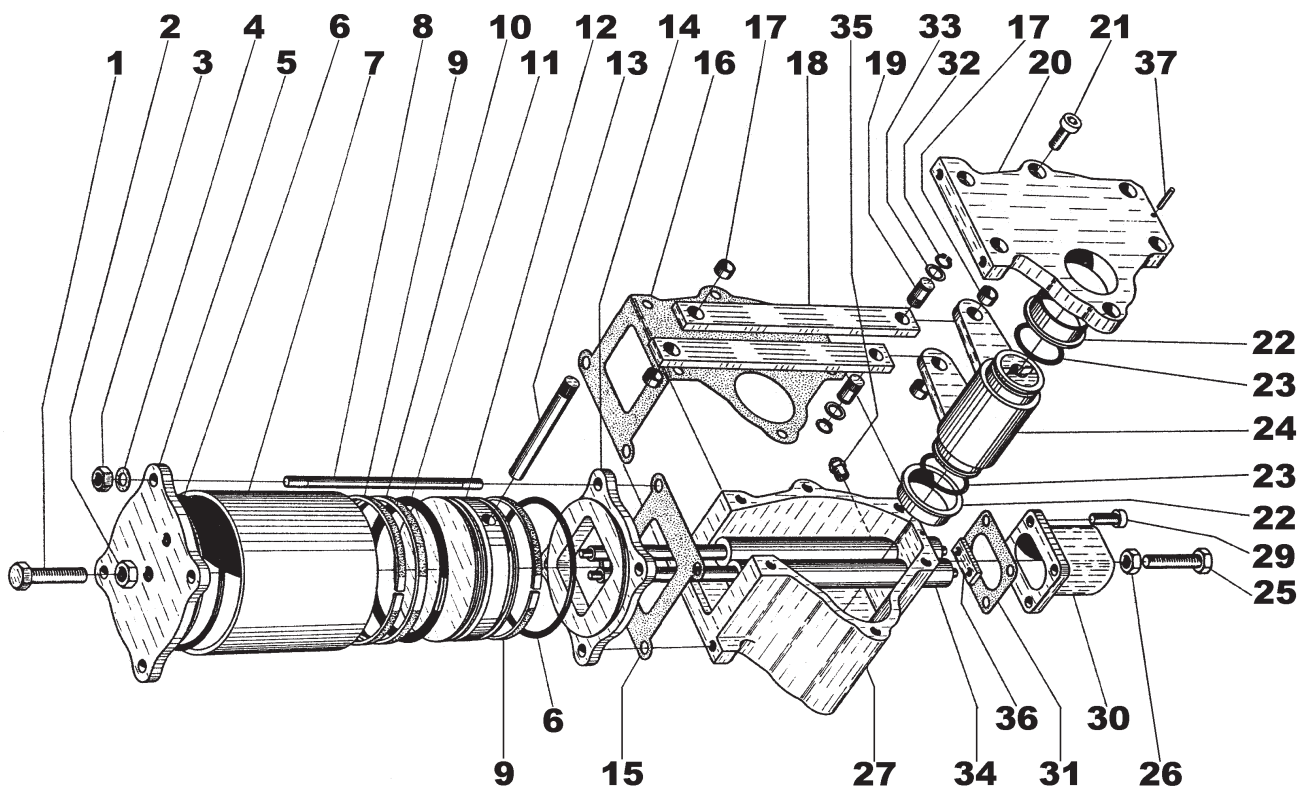


Fig 8

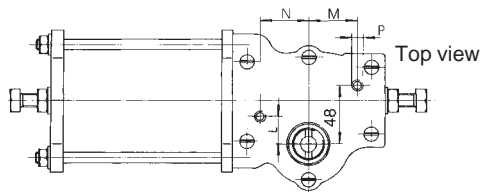
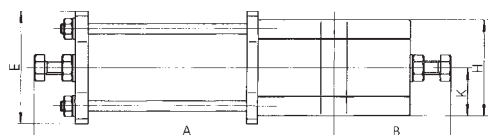
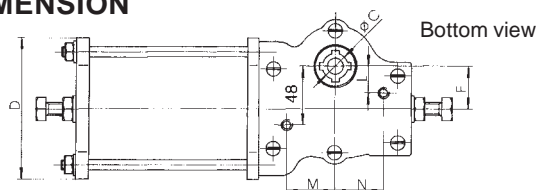
Item	Q'ty	Description	Material	Item	Q'ty	Description	Material
1	1	Screw, M12x50, (SS-ISO 4017)	A4	21	6	Screw, M10x25, Z.PI. (SS-ISO 7046)	Steel
2	1	Nut, M12, Z.PI. Seal-Lock-type	Steel	22	2	Bushing	PDE-F
3	4	Nut, M10, Z.PI. (DIN 934)	Steel	23	2	O-ring, dia.44,5x3,0	Nitrile
4	4	Washer, dia. 10,5x22, Z.PI. (DIN 125)	Steel	24	1	Lever, compl. for CR 2120	
5	1	Rear end plate	Aluminium		1	Lever, compl. for CR 2220	
6	2	O-ring, dia. 119,5x3,0(CR2120)	Nitrile		1	Lever, compl. for CR2225	
7	1	Cylinder tube	Aluminium		1	Lever, compl. for CR2230	
8	4	Tie rod	SS 2346	25	1	Screw, M12x70, (SS-ISO 4017)	A4
9	2	Support ring	PE	26	1	Nut, M12, Z.PI. Sea l-Lock-type	Steel
10	1	Piston ring	PTFE	27	1	Housing	Aluminium
11	1	O-ring, dia. 112,3x5,7(CR2120)	Nitrile	29	4	Screw, M10x25, Z.PI. (SS-ISO 4762)	Steel
	1	O-ring, dia. 144,3x5,7(CR2220/2225/2230)	Nitrile	30	1	Spring holder	Aluminium
12	1	Piston	Aluminium	31	1	Gasket	Nitrile
13	1	Piston bolt	SS 2331	32	2	Locking ring, SGA 10	Steel
14	1	Front end plate	Aluminium	33	2	Washer	Steel
15	1	Gasket	Nitrile	34	1	Gas spring kit, see page 9	
16	1	Gasket	Nitrile	35	1	Filter, 1/8"	Brass
17	4	Bushing		36	1	Support plate for gas spring	Steel
18	2	Link arm	Steel	37	1	Pin, 4x24	A2
19	2	Swivel bolt	SS 2331				
20	1	Cover, upper	Aluminium				
				NOTE:		Item No. 36 is included in the gas spring kit No. 34	
				19021	1	Sealing kit, CR21	
				19033	1	Repair kit, CR21	
				19022	1	Sealing kit, CR22	
				19034	1	Repair kit, CR22	

Items No. 6, 9, 10, 11, 15, 16, 23 and 31 are included in the sealing kit.

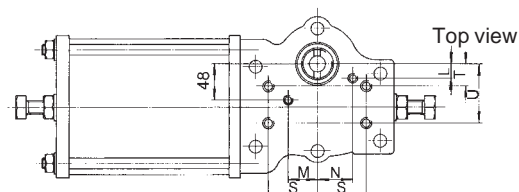
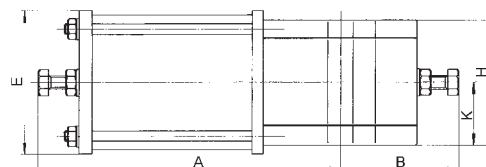
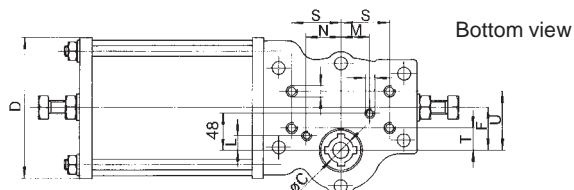
Items No. 6, 9, 10, 11, 13, 15, 16, 17, 18, 19, 22, 23, 31 and 32 are included in the repair kit.



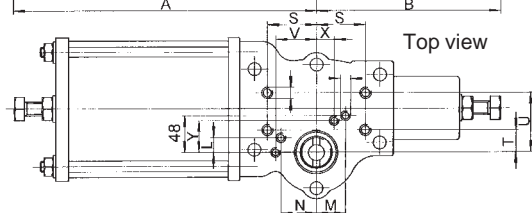
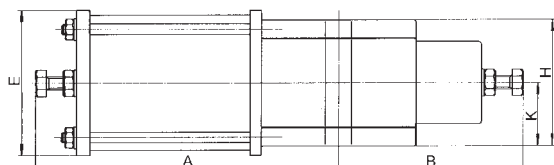
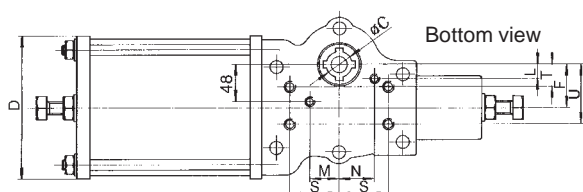
DIMENSION



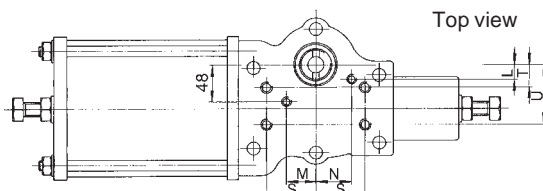
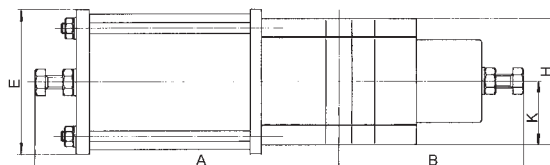
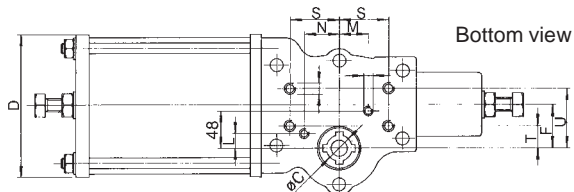
C1



C2



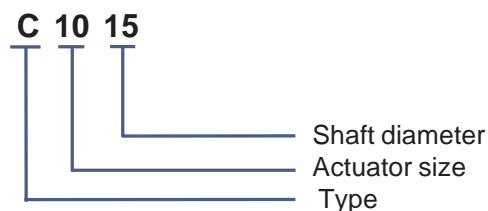
CR1, CR2
Function: Spring open



CR1, CR2
Function: Spring close

Actuator	A	B	ØC	D	E	F	H	K	L	M	N	P	R	S	T	U	V	X	Y	Air conn.
C1015	240	100	15	109	86	33	63	31.5	20	34	44	M8	—	—	—	—	—	—	—	G1/8"
C1115	250	100	15	110	100	33	63	31.5	20	34	44	M8	—	—	—	—	—	—	—	G1/8"
C21XX	325	130	20-30	158	110	53	86	43	20	34	44	M8	M10	60	28	84	—	—	—	G1/4"
C22XX	325	130	20-30	158	138	53	86	43	20	34	44	M8	M10	60	28	84	—	—	—	G1/4"
C24XX	345	130	20-30	218	218	53	86	43	20	34	44	M8	M10	60	28	84	—	—	—	G1/4"
CR1015	240	135	15	100	113	33	106	53	20	34	44	M8	—	—	—	—	—	—	—	G1/8"
CR1115	250	135	15	154	134	33	106	53	20	34	44	M8	—	—	—	—	—	—	—	G1/8"
CR21XX	420	250	20-30	170	136	78	128	64	20	34	44	M8	M10	60	28	84	—	—	—	G1/4"
CR22XX	425	250	20-30	170	170	78	128	64	20	34	44	M8	M10	60	28	84	48	20	44	G1/4"
CR24XX	440	250	20-30	220	220	78	128	64	20	34	44	M8	M10	60	28	84	48	20	44	G1/4"

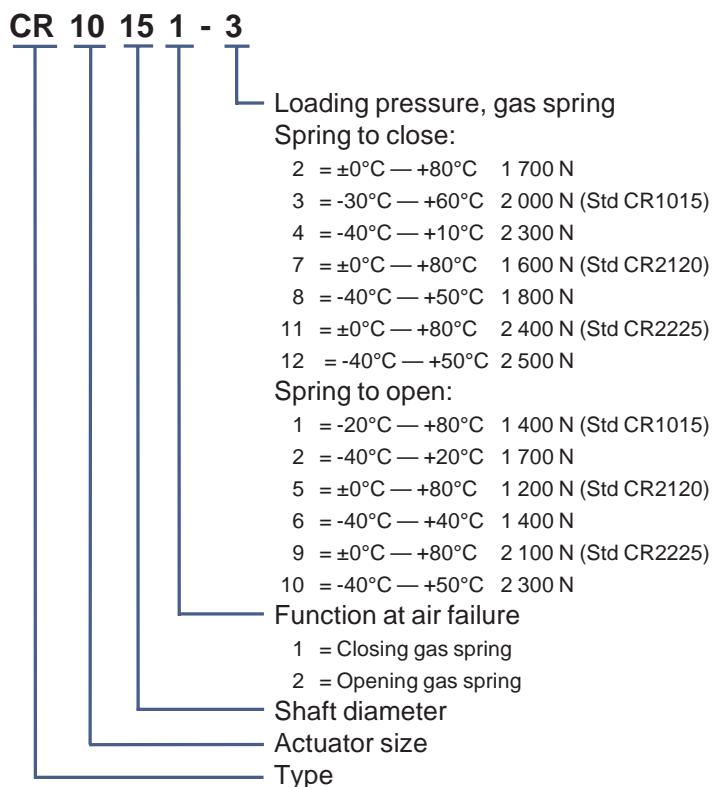
Dimension ØC is always valid for the bottom view.

**TYPE DESIGNATION, double-acting actuator****Ordering example**

When ordering actuators separately, please specify also mounting kit for the actual valve type.

Example: Double-acting actuator type C1015 complete with kit for Somas valve type KVT DN25.

When ordering single acting actuators type CR, please state loading pressure. See "Type designation, single-acting actuator". Standard actuator, according to the table will be delivered if loading pressure is not stated.

TYPE DESIGNATION, single-acting actuator

Springs from No. 1 up to No. 4 are for the actuator type CR1015.

Springs from No. 5 up to No. 8 are for actuators type CR21XX.

Springs from No. 9 up to No. 12 are for actuators type CR22XX.

Technical data

Air supply:	Double-acting: 5,5 - 8 bar Single-acting: 5,5 - 8 bar	Connection between actuator and accessories:	Plastic tubing (Standard) Stainless steel tubes (Option)
Rotary motion:	Max 95°, adjustable travel stops	OPTION	
Ambient temperature:	Type C: -40°C — +80°C Type CR: See text above or see table page 9	Solenoid valve, standard:	Herion
		Switches, standard:	— Open and/or closed position — Micro switches — Proximity switches

Somas reserve the right to make improvements without prior notice.



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