

RCE-SR

Electro-hydraulic actuator with spring return

ROTORK SWEDEN AB is manufacturing
pneumatic actuators in Sweden since 1961



Rotork Fluid Systems RCE electrohydraulic actuators is a range of rigid actuators for on/off and positioning with high torques in relation to size. Torques ranging from 50-5,000 Nm. The function is a cost effective alternative to a spring return electric actuator.

The unit consists of a hydraulic spring return actuator with manual override, electric motor, hydraulic pump and tank.

The series has a wide range of applications and is resistant to environmental influence, even in marine environments. The electro-hydraulic actuators are recommended within district heating plants, oil and gas depots where Explosion-proof equipment is required and where pressurized air is not available or unsuitable.

Within the oil and power industry, safety is of the highest importance. In emergency situations the failsafe function close or open the valve automatically with the aid of a return spring in the actuator.

RCE is available in designs where spring opens or spring closes.

The actuator is constructed for direct mounting on valves according to ISO-standards.

Technical Data

- 50 Nm – 5,000 Nm.
442 lbf. in. – 44,248 lbf. in.
On – Off and positioning.
Through impulse control from external system.
- Max pressure: 10 bar/ 145 psi*
Temp: -20°C to +40°C
-4°F to +104°F
*RCE265 8bar/115psi
- Mounting face according to international standard
ISO5211, DIN3337, DIN79, NAMUR, VDI/VDE 3845.
- Mounting kits for all 90° valves and accessories.
- Spring cartridge with pre-tensioned springs.
Blow-out-proof drive shaft.
- Scotch Yoke provides increased torque in the end positions, smooth action, precise control, low air consumption and compact dimensions.
- High-quality materials for long working life and optimum corrosion resistance.
Extruded anodized aluminium housing, RCE 210-260 have drive shafts and screws of stainless steel.
- Long life, maximum reliability.

Rotork has long experience of electro-hydraulic actuators. Actuators which have been in operation in arduous environments since the beginning of the eighties still work faultlessly. We can with a clear conscience say that they are a very high quality product. Please also look at Rotork Fluid Systems: Skilmatic- electro-hydraulic actuators or EH- linear electric hydraulic actuators.

www.remotecontrol.se



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Quality - Strength - Reliability

Quality

All RC actuators are made under strict quality control. We are certified to ISO 9001 and ISO 14001.

Our RC actuators comply with all standard international requirements, and all our products are CE-marked according to PED and ATEX.

The recognised high quality of our RCE actuators ensure our customers get top class actuating.

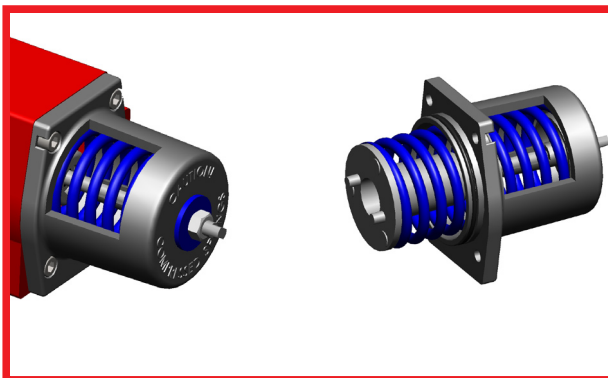
Strength

RCE actuators are strong. RCE200 with Scotch Yoke gives at least 50% more torque in the end positions, precisely where valves need it most. This ensures that valves work even after prolonged standstills.

RCE200 actuators have the lowest weight and smallest external dimensions for their torque output. Giving compact, light valve and actuator units, especially when using RC-M1 manual override. This reduces stresses on pipe work, especially when there is vibration in the pipe system.

Reliability

Simple, robust design. We use only top-quality materials in production, so our actuators last.



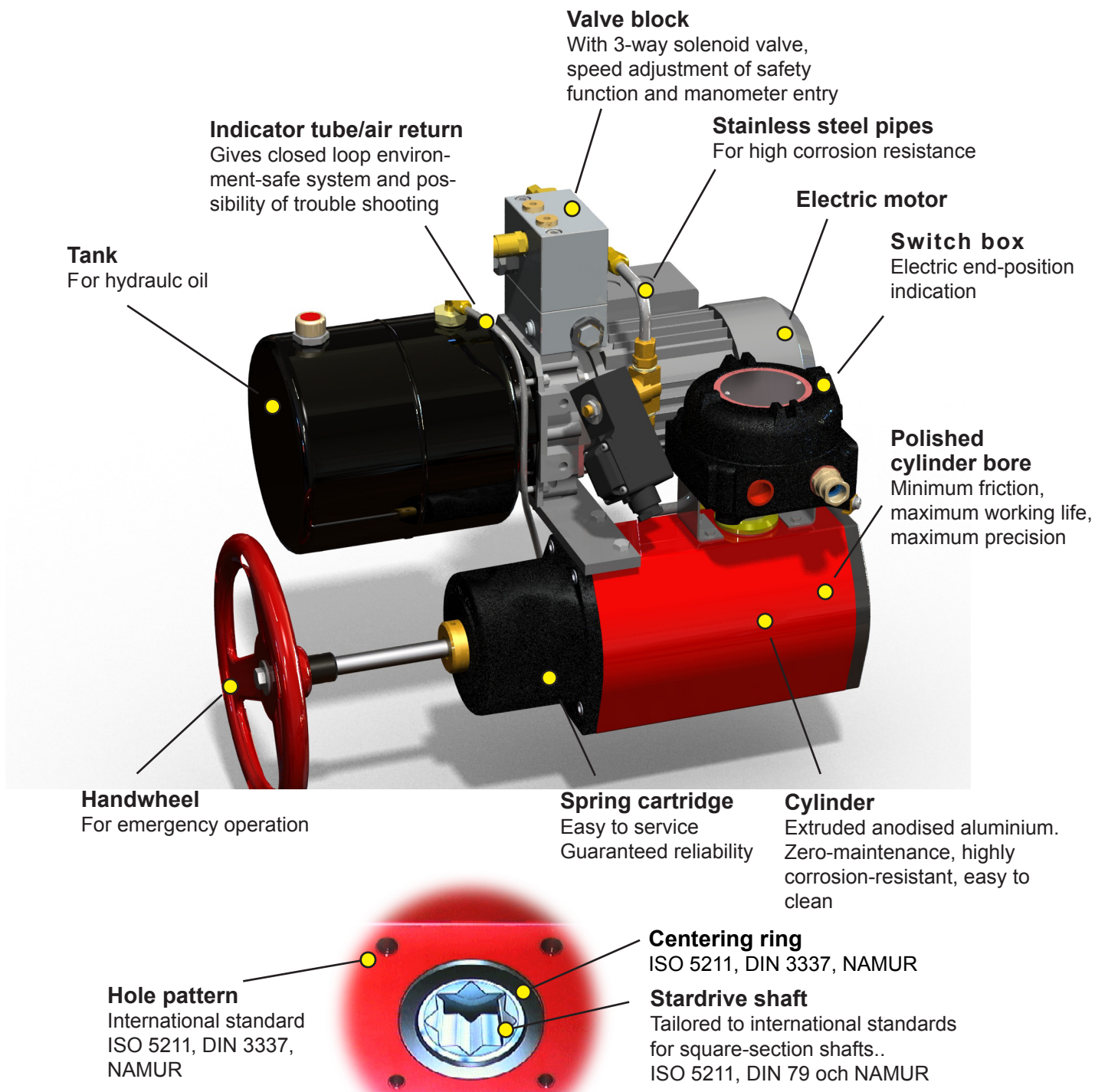
RC 200-SR spring return

Remote Control is always out in front when it comes to technology. Customers who switch to RC 200-SR have told us about the problems they had with other actuators and their small, weak springs. In contrast, all RC 200-SR actuators come with powerful pre-tensioned springs which are simple and easy to use.

RC 200-SR with its powerful return springs ensures that springs shut or open by air failure.

RCE-SR - The flexible power package

Quality - Strength - Reliability



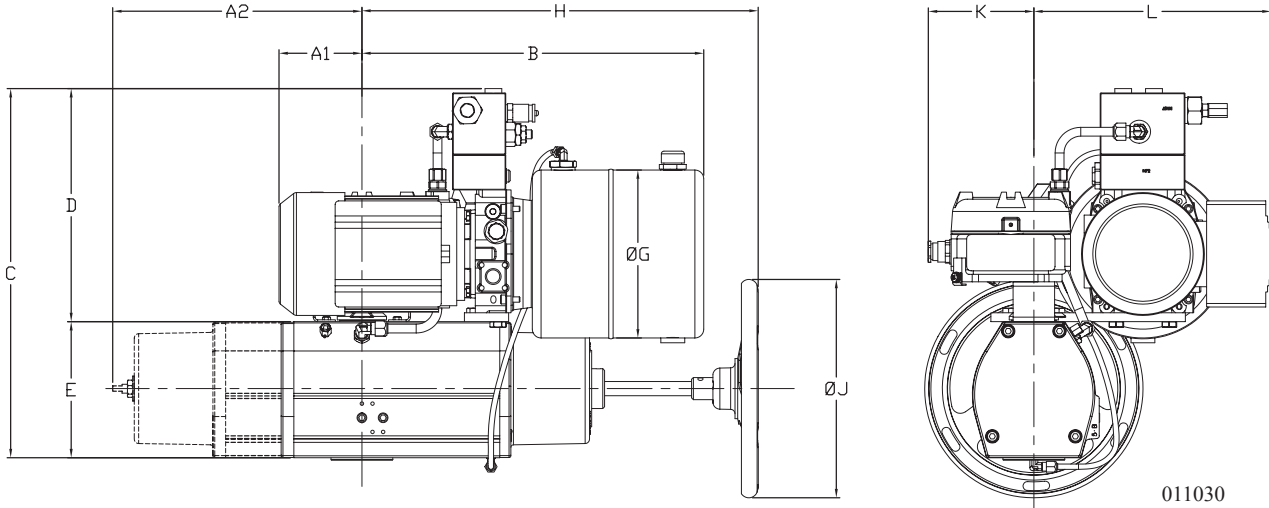
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RCE-SR - Dimensions

For horizontal piping with vertical stem see figure A page 6.



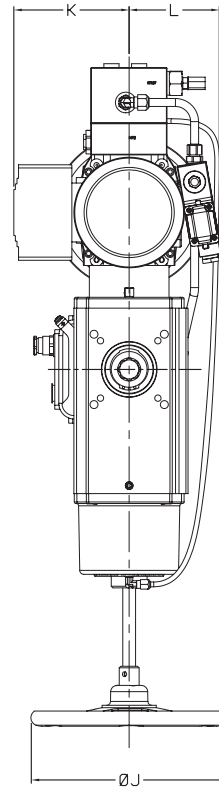
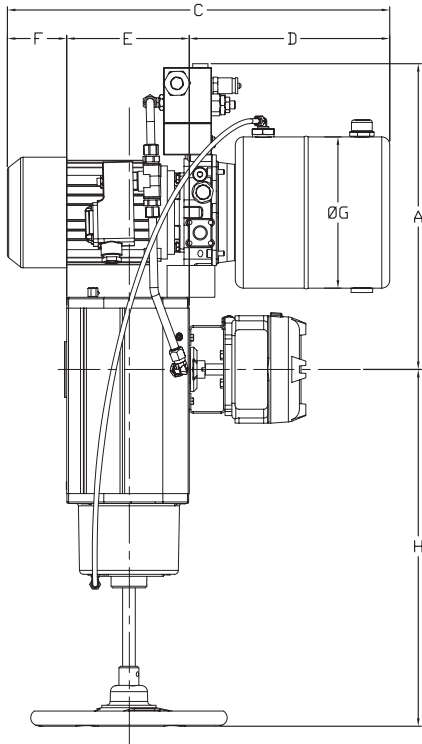
	A1					A2	B	C		D		E	Ø G	H	Ø J	K	L					WEIGHT *
	1-PHASE STD	1-PHASE EX	3-PHASE STD	3-PHASE EX	3-PHASE EXD			On-off	Positioning	On-off	Positioning						1-PHASE STD	1-PHASE EX	3-PHASE STD	3-PHASE EX	3-PHASE EXD	
RCE230-SRM	165	180	140	140	180	200	292	375	420	265	310	110	126	340	180	130	235	325	235	280	290	22
RCE240-SRM																						
RCE250-SRM	120	130	95	95	130	285	390	420	490	265	335	155	190	460-540	250	130	225	310	225	270	280	34
RCE260-SRM																						
RC265-SRM	195	205	170	170	205	317	390	470	515	265	310	202	190	600	315	130	225	310	225	270	280	51
RCE270-SRM	375	390	355	355	390	510	360	520	565	265	310	248	190	812	400-600	130	270-250	360-340	270-250	320-300	330-310	78
RCE280-SRM	380	395	360	360	395																	

* Weights refer to on-off actuators with 1 or 3-phase engine and RCE4L switch box.
 +5,5kg for Ex proof with EEx e engine and 1990 switch box.
 +18,5kg for Ex proof with EEx d 3-phase engine and 1990 switch box.
 +20,5kg for Ex proof with EEx d 1-phase engine and 1990 switch box.
 +2,5kg for positioning.



RCE-SR - Dimensions

For vertical piping with horizontal stem see figure D page 6.



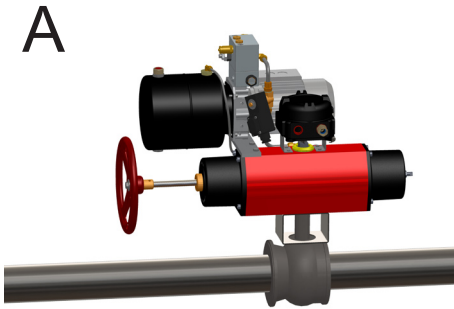
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	A		C					D	E	F					G Ø	H	J Ø	K					L		WEIGHT *			
	On-off	Positioning	1-PHASE STD	1-PHASE EX	3-PHASE STD	3-PHASE EX	3-PHASE EXD			1-PHASE STD	1-PHASE EX	3-PHASE STD	3-PHASE EX	3-PHASE EXD				1-PHASE STD	1-PHASE EX	3-PHASE STD	3-PHASE EX	3-PHASE EXD	On-off	Positioning				
RCE230-SRM	360	405						210		150	165	130	130	165														22
RCE240-SRM	470	515	470	480	450	450	480	270	110	90	105	70	70	105	126	345	180	100	185	100	145	155	130	155			25	
RCE250-SRM	390	435						255		100	115	75	75														34	
RCE260-SRM	560	605	510	525	485	485	525	235	155	120	135	95	95	115	190	460-540	250	100	185	100	145	155	130	155			41	
RC265-SRM	640	685	510	525	485	485	525	225	202	80	95	55	55	95	190	600	315	100	185	100	145	155	130	155			51	
RCE270-SRM	500	545	735	750	715	715	750	425	248	65	80	45	45	80	190	500	400-600	110	185	110	145	155	130	155			78	
RCE280-SRM	830	875																									102	

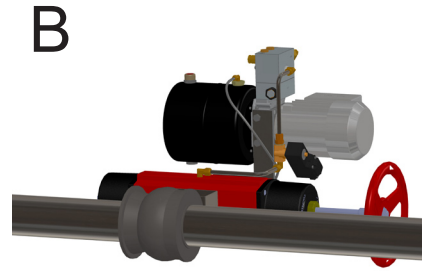
- * Weights refer to on-off actuators with 1 or 3-phase engine and RCE4L switch box.
- +5,5kg for Ex proof with EEx e engine and 1990 switch box.
- +18,5kg for Ex proof with EEx d 3-phase engine and 1990 switch box.
- +20,5kg for Ex proof with EEx d 1-phase engine and 1990 switch box.
- +2,5kg for positioning.



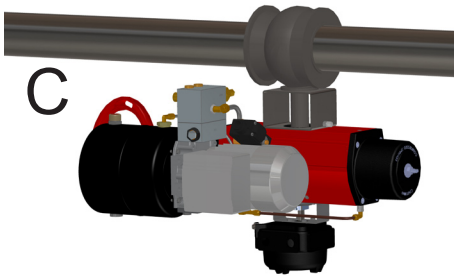
RCE-SR - Installing positions



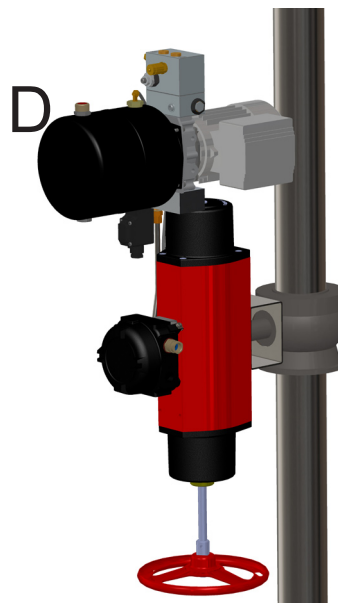
A: Horizontal piping, valve stem vertical upwards.
Recommended standard mounting.



B: Horizontal piping, valve stem horizontal.
B1: (picture) Actuator along piping, Special design.
B2: Actuator mounted across piping, Recommended standard mounting.



C: Horizontal piping, valve stem vertical downwards.
Special design.



D: Vertical piping, valve stem horizontal.
D1: (picture) Actuator along piping

NOTE!

The actuators on these pictures are only illustrations of the mounting positions. Dimensions and measurements varies depending on actuator size and classification. Dimensions please see page 4 & 5.



RCE-SR - Technical data

Torque and hole pattern

Type	Torque Nm, Springs adapted for 7 bar. Hydraulic pressure 8 bar						Valve fittings measurements	
	Hydraulic pressure opens			Spring closes			Hole pattern	Shaft [] mm
	0°	60°	90°	90°	60°	0°		
RCE230-SRM	113	50	65	81	39	55	F07/F10	17
RCE240-SRM	226	104	133	163	80	115	F10/F07	22
RCE250-SRM	355	160	210	255	125	175	F10/F12	22
RCE260-SRM	710	325	420	515	250	350	F12/F10	27
RCE265-SRM	1145	470	580	695	355	525	F12/F10	27
RCE270-SRM	1480	670	870	1060	520	720	F14	36
RCE280-SRM	2970	1360	1750	2150	1050	1470	F16	46

Electrical data

Motors				Solenoid valve, coils			
0,37kW 4 poles	Power consumption			Coils	Output		
	400V 3-phase	230V 3-phase	230V 1-phase		481865	495905	496555
Std	1,0-1,2A	1,7-1,9A	-	24 VDC	9W	8W	6W
Std	-	-	2,9A	220-230VAC	8W	8W	6W
Exe	1,0-1,2A	1,8-2,1A	-				
Exd	1,0-1,2A	-	2,3A *				

*0,25kW

Hydraulic

Pump:	Gear pump
Pump pressure:	Pre-adjusted at 8 bar. Max 10 bar. Connection for pressure gauge.
Temp range:	-20°C to +40°C and Ex zon 1. Other ranges on request.
Oil type:	Standard: ExxonMobile Unvis HVI 13. Optional: Aero Shell Fluid 4 or 41. Castrol Aero HF585B.

Operation times

Type	On off		On off		Positioning	
	With blocking valve		Without blocking valve		Open	Close
	Open	Close	Open	Close		
RCE230-SRM	6	9	3	3	4	2
RCE240-SRM	8	8	5	5	6	3
RCE250-SRM	13	13	8	7	8	4
RCE260-SRM	29	29	16	13	16	10
RCE265-SRM	26	22	26	23	26	12
RCE270-SRM	33	32	33	26	35	14
RCE280-SRM	62	54	62	50	61	26



RC accessories

Control equipment

Solenoid valves are available for all voltages, in standard or Ex-proof versions.

Installation

Rotork Swedens mounting kits are ideally suited to fitting actuators to valves, ensuring reliable operation and long life. We offer installation and testing at the client's premises or at any of our workshops.

Training

To ensure our products are used correctly and effectively, we offer product training on site at the customer's premises when commissioning or at Rotork companies anywhere in the world.

Service

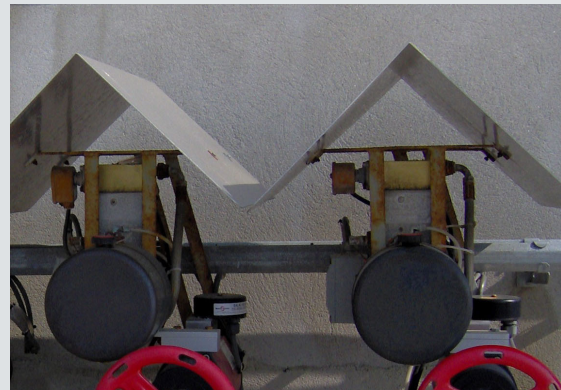
Our factory trained engineers can assist you with installation and commissioning, service and maintenance.

**All Remote Control actuators are
100% leak and function tested
Delivered with instructions in all EU languages**



Firejacket

Where function under extreme conditions is required.
Are available on request.
Temperatures and exposure conditions shall be set on request.



Roof

Weather protection for exterior-mounted actuators.

We reserve the right to changes without previous notification.

