# **SEAL REPAIR KITS AND SEAL OPTIONS**

### **Part Numbers For Seal Repair Kits**

A752 ACTUATOR PARTS LOCATION

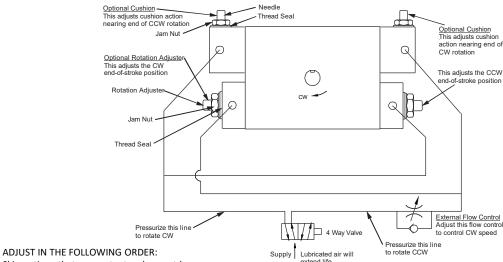
SRK - A752 -FKM PRETENSIONED SERIES CUSHIONS ROTATION ADJUSTERS TYPE SEALS

EXAMPLES: SEAL KIT FOR A752-90-TC-S37-3C2-1A-3RL-1/8-1 = SRK-A752-CA SEAL KIT FOR A752-180-TC-D37-10.32-2 = SRK-A752-STD SEAL KIT FOR SPECIAL, SUCH AS A752-B004 = SRK-A752-B004 IF PART NUMBER IS NOT KNOWN, PROVIDE UNIT SERIAL NUMBER FROM LABEL OR STAMPED INTO BODY UNDER LABEL.

> **BODY CAP** BEARINGS END CAP CAP SEAL PISTON/RACKASSEMBLY BOTTOM PISTON/RACK ASSEMBLY TOP **PISTON SEAL** PINION SHAFT PISTON SEAL

# **OR SERIAL NUMBER** NUMBER NAME AND COMPLETE PART NOTE: ORDER PARTS BY

# A752 ROTARY ACTUATOR INSTALLATION AND SETUP



# Skip options that your actuator does not have.

- 1) To adjust rotation "A" option Apply pressure to rotate in the desired direction
  - Loosen jam nut using the correct size wrench
  - Adjust the position using the hex key wrench in the rotation adjuster
  - Tighten the jam nut while holding the rotation adjuster steady

# To adjust the magnetic switch, "R or S" option

- DISABLE THE AUTOMATIC CONTROL. KEEP CLEAR OF THE SHART AND SHAFT-MOUNTED PARTS!
- Apply voltage to the switch only, place the switch at the end cap, the cable toward the body

# 2a) For signal at the end of the rotation

- a) Drive the unit to the end of the rotation
- Start with the switch fully out against the end cap then move the switch toward the body until the LED glows, then clamp
- Set the flow controls for low speed
- d) Cycle to check the operating point, adjust as required

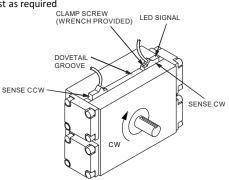
# 2b) For signal before the end of the rotation

- a) Position the shaft to the switching point
- Move the switch toward the body until the LED glows, then clamp
- Set the flow controls for low speed
- d) Cycle to check the operating point, adjust as required

# Adjust cushion "C" option

- a) Loosen the jam nut
- b) Tighten needle to increase the stiffness of cushion, loosen to decrease

# **ACTUATOR SWITCH REPLACEMENT**



# ROTARY MOTION FOR AUTOMATION www.rotomation.com



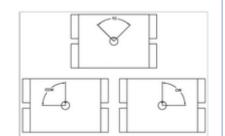


#### A752 DISASSEMBLY & ASSEMBLY INSTRUCTIONS

The following instruction is for complete disassembly of an A752 rotary actuator for the purpose of rebuilding or for replacing internal components such as seals, rack assemblies, pinion shaft, or shaft bearings. Please refer to the part location drawing on the facing page.

For actuators with the hollow shaft (HS37 option), you will need a pressing tool to remove and install the front bearing.

- 1. Take note of the location and orientation of the end caps (ports, needles, etc.). Photographs are useful.
- 2. If the full model number of the actuator is not known, rotate the shaft by hand to the extremes of stroke and note the orientation of the keyway.
- 3. Remove the rear snap ring and tap the projecting end of the shaft with a mallet to push it out the back, along with the rear bearing and body cap. The front bearing may or may not come out also.
- 4. Remove the end caps.
- 5. Remove the rack assemblies, noting their location and orientation.
- 6. To rebuild, remove all seals using a rounded plastic or brass probe to avoid scratching the sealing surfaces.
- 7. Clean all parts thoroughly using a degreaser or solvent. If the unit is equipped with magnets, do not use a solvent that will attack nitrile.
- 8. Lubricate the piston seal grooves with oil or grease and install new U-Cup seals with their open sides facing away from the center of the rack.
- Install new O-rings, cushion seals, and thread seals in the end caps as needed, depending on which optional features the actuator has.
- 10. Install the front shaft bearing.
- 11. Apply grease liberally to the rack teeth, pistons, and U-cups. Install the rack assemblies in their original location and orientation, being careful to tuck the lips of the U-cups into the cylinder bores to avoid damage. The upper rack (closest to the label) is slightly longer than the lower rack. There is a small punch mark at one end of each rack. For the CW keyway orientation, the punch marks should be at the top left and bottom right. For CCW, they should be at the top right and bottom left. For TC, it doesn't matter.
- For CW, push the top rack all the way to the left and the bottom rack all the way to the right. Pull the bottom rack back very slightly, about 1/32".
- For CCW, push the top rack all the way to the right and the bottom rack all the way to the left. Pull the bottom rack very slightly, about 1/32".
- For TC, center both racks using the tail of a caliper or other measuring device.
- 15. Orient the teeth to accept the gear.
- Install the shaft with the keyway pointing straight up toward the label (12:00), being careful to get the teeth in the mesh before pushing in fully.
- 17. Double-check for full rotation and correct orientation.
- 18. Install rear bearing and snap ring.
- 19. Reinstall end caps and air test.



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# MAGNETIC CONTROL OPTIONS

Optional magnetic pistons and switches may be installed to provide position signals to the control system, usually at the end of the stroke.

# ROTOMATION SINKING (NPN) SWITCH - OPTION R

PN), LED		
Rating		
5-28 VDC		
.2A Max.	4 4	
4.8W Max.	$3(0^{\circ}0)_{1}$ $1(\bullet^{\bullet}0)_{3}$	
1.0V	Connector	Male nnector
-20 to +80C	MS-DRC COINCECTOR	meetor
NEMA 6		
	BRN or BRN Pin 1  GRN OR BLK Pin 4  LOAD  OR BLI Pin 3	5-28 VDC POWER SUPPLY
	5-28 VDC .2A Max. 4.8W Max. 1.0V -20 to +80C	Rating 5-28 VDC .2A Max. 4.8W Max. 1.0V -20 to +80C NEMA 6  GRN or BRN Pin 1  Or BLK Pin 4  WHT  WHT  GRN UOAD  Or BLK Pin 4  WHT

# ROTOMATION SOURCING (PNP) SWITCH - OPTION S

NO Sourcing (PNP), LED

Description	Rating		
Switching voltage:	5-28 VDC		
Switching current:	.2A Max.	4 4	
Switching power:	4.8W Max.	3(0 ° 0) <sub>1 1</sub> (• • •) <sub>3</sub>	
Voltage drop:	1.0V	Female Male Connector	
Temperature range:	-20 to +80C	MS-DSC Connector	
Environment:	NEMA 6		
OBSERVE POLARITY AND MAXIMUM RATING	GS	BRN or BRN Pin 1 + 5-28 VDC POWER	

or BLK Pin

or BLU Pin3

#### **SWITCH LEADS**

MS-DSC

Description	Specify
9ft. PVC cable, 3 conductor, color-coded	L
6 in. pigtail with 8mm quick disconnect	С

### **EXTENSION CABLES - ORDER SEPARATELY:**

SUPPLY

Cables have 8 mm locking connectors to connect to "C" switches, above 3 conductors color-coded brown, black, and blue.

Part Number
MS-CC2
MS-CC5
MS-CC10

ROTOMATION TESTS ALL SWITCHES FOR PROPER FUNCTION BEFORE SHIPMENT AND CANNOT REPLACE THEREAFTER. SWITCHES FROM OTHER MANUFACTURES HAVE NO GUARANTEE OF COMPATIBLE PERFORMANCE BY ROTOMATION, INC.

