

**THINK OF QUARTER TURN VALVE AUTOMATION,
THINK FLUIDTECQ**



ROTARY ACTUATOR

**COMPACT & HIGH PERFORMANCE
DOUBLE PISTON DESIGN**

Rotary Actuator :

General Description

Fluidtecq Rotary Actuator find application for 90 angular Movement (180°) on request and are most suitable for Closing and opening Ball valve. Plug valve. Butterfly valve. Dampers, Positioning. Sorting equipments, Indexing Mechanisms, Furnace doors, Ducting flaps etc. by using Other pneumatic control elements like solenoid valve etc. Simple 90° or quarter turn is possible directly without Cumbersome lever mechanisms

Constructions

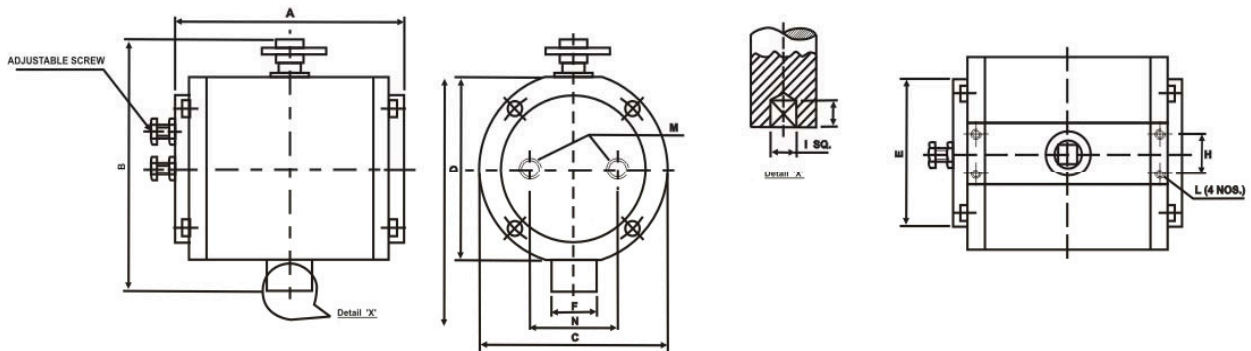
The main body housing rack and pinions etc is made from Solid bar stock or close grained casting. The housing is made of aluminum and is given a special corrosion resistance treatments and has a hardness of 45 to 50 RC. Seats and

Seal are made of various synthetic elastomers, like Nitrile, Neoprene etc. The pinion is made of En series steel. The Entire rack and the housing is coated with high temperature Anti ceasing silicon grease and other special components

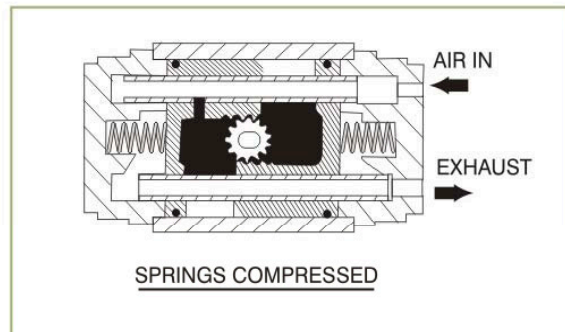
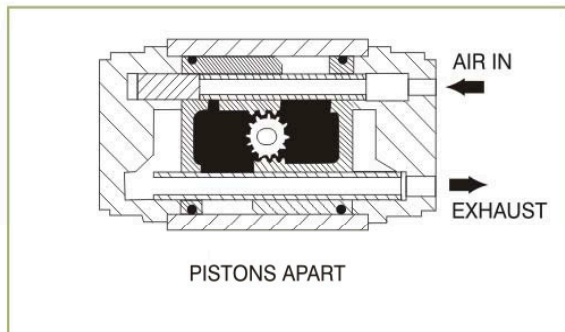
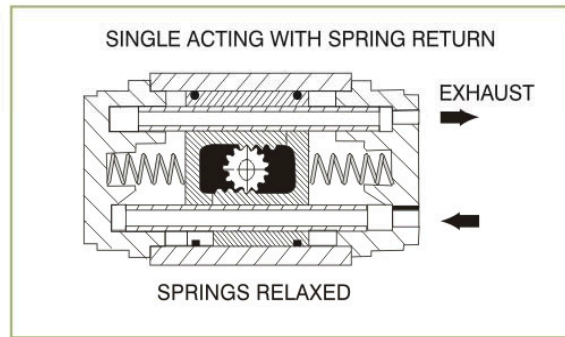
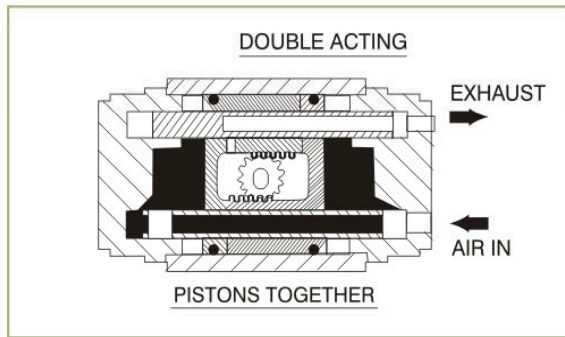
Working

The design uses two opposite moving pistons with the help Of rack and pinion mechanism to generate powerful uniform torque. It has two ports, when air is admitted in one port the pinion rotates in one direction at the Same time air is exhausted through the other port and Vice versa . this is a very compact design to give Powerful torques. It works maintenance free for years

FLUIDTECQ MODELS



MODEL NO.	A	B	C	D	E	F	H	I	L	N	M
FRD 1	127	100	75	65	50	22	21	8X8 sq	M5	28	1/4 "BSP
FRD 2	134	117	88	76	65	30	28	12X12 sq	M5	34	1/4 "BSP
FRD 3	158	151	124	118	94	30	30	12X12 sq	M6	60	1/4 "BSP
FRD 4	195	208	150	141	120	40	30	16x16sq	M8	60	3/8 "BSP
FRD 5	222	218	175	164	145	46	30	20x20 sq	M8	60	3/8 "BSP



PNEUMATIC DOUBLE ACTING ROTARY ACTUATOR: 90° Rotation

Pressure - Torque Data (1kgm = 85 lbs. inch Approx)

OPERATING PRESSURE kg/cm² →

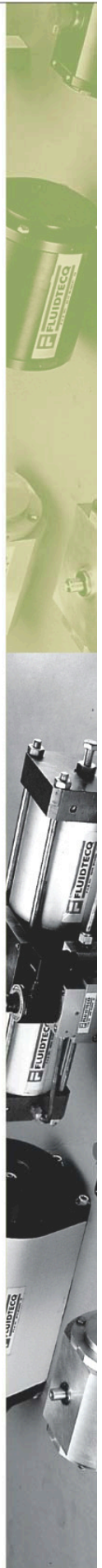
MODEL NO.	BORE DIA. MM.	APPROX WT.KG	2	3	4	5	6	7	8
FRD 1	50	0.8	0.50	0.75	1.00	130	160	190	2.20
FRD 2	63	1.7	1.10	1.70	2.30	2.80	3.40	3.90	4.50
FRD 3	102	3.9	2.80	4.20	5.75	7.30	8.50	9.80	11.10
FRD 4	127	7.1	6.70	10.00	13.40	16.80	19.90	23.00	26.20
FRD 5	152	12.0	11.90	18.00	24.00	30.10	36.10	42.00	48.00
FRD 6	200	28.5	34.40	52.00	68.70	85.90	103.00	119.20	135.90

PNEUMATIC SINGLE ACTING ROTARY ACTUATOR: 90° Rotation

Pressure - Torque Data (1kgm = 85 lbs. inch Approx) (1Kgm = 85 lbs. Approx.)

OPERATING PRESSURE kg/cm² →

MODEL NO.	APPROX WT.KG	5		6		7		8	
		Start	End	Start	End	Start	End	Start	End
FRS 1	0.9	0.8	0.2	1.1	0.5	1.3	0.8	1.6	1
FRS 2	1.85	1.7	0.5	2.3	1	2.9	1.6	3.5	2.2
FRS 3	4.15	4.7	1.2	6.4	2.9	8	4.5	9.5	6.2
FRS 4	7.65	9.9	2.6	13.3	6	16.7	9.5	20.2	12.9
FRS 5	13.15	18.3	4.9	24.6	11.2	31	17.6	37.3	23.9
FRS 6	30.75	50.7	13.6	68.3	31.1	85.9	48.7	103.4	66.3



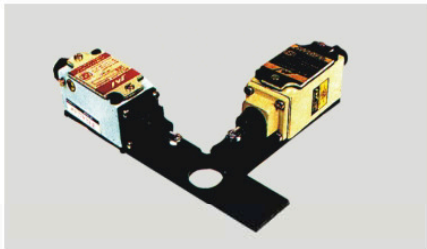
ACCESSORIES



Gearbox : Available with clutch for manual operation of valve in case of power failure



Solenoid Valve : A variety of Solenoid Valves are offered in 3/2, 4/2, 5/2 way for various coil voltage refer our leaflet. Solenoid Valves can be mounted on Rotary Actuators. Enclosure - General Purpose, Weatherproof or Flameproof, duty certified, tested and approved by CMRS Dhanbad.



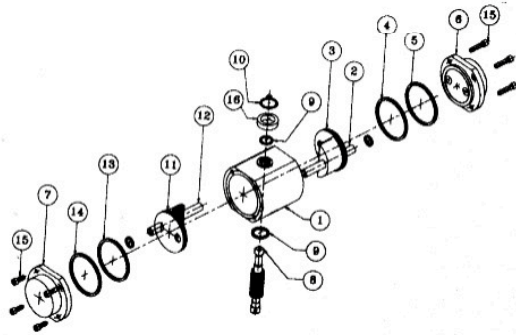
Limit Switches : Limit Switches can be provided directly on the actuator. These Limit Switches are of general purpose specifications or flameproof as per IS 2148 1981 for Group II A and IIB.



Micro Switch Box : Micro Switch with NO & NC contacts fitted in a compact weatherproof box are also available.

Special Rotary Actuators & Accessories on request

Rotary Actuators above 900 rotation
Cylinder Type Rotary Actuators with Single rack
De-clutchable Gear box
Dome type indicator with Limit switch box having
2Nos or 4Nos No & Nc micro switch
3/2 way 4/2 way Solenoid Valves
Pneumatic Valve Positioner
Electro Pneumatic valve Positioner



SR.	DESCRIPTION	MATL	QTY.
16	SPACER	BRASS	1
15	ALLEN SCREW	STD	8
14	'O' RING	NBR/VITON	1
13	'O' RING	NBR/VITON	1
12	SPINDLE	EN P	1
11	WORM GEAR	AL	1
10	CIRCLIP	CTD	1
9	'O' RING	NBR/VITON	1
8	PINION	EN-9	1
7	COVER	AL	1
6	COVER	AL	1
5	'O' RING	NBR/VITON	1
4	'O' RING	NBR/VITON	1
3	RACK	AL	1
2	SPINDLE	EN-9	1
1	BODY	AL	1

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with effect from 01-06-2003
As development is a continuous process, designs and dimensions are subject to change without notice.

FLUIDTECQ ... QUALITY WITH RESPONSIBILITY