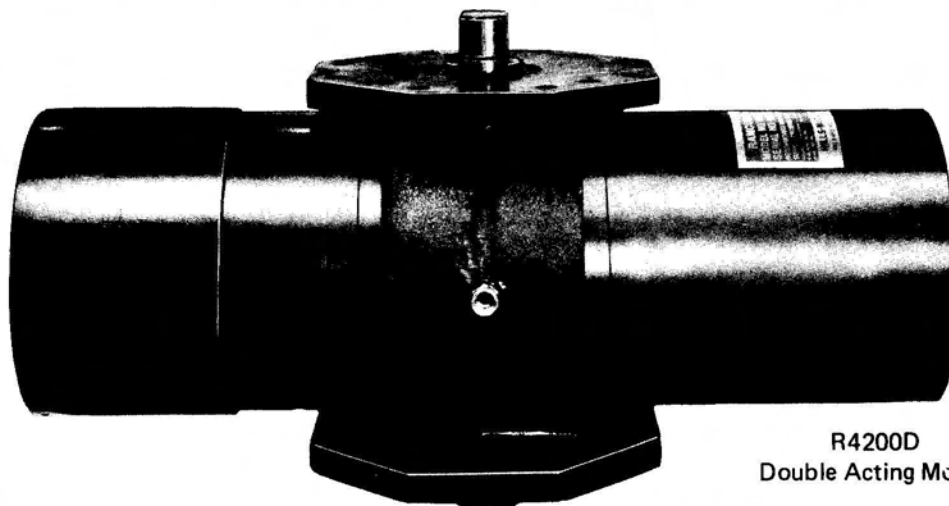


QUALITY CONTROLS, INC.

FAX 1-603-286-7648 1-603-286-3321

ROTARY PNEUMATIC/HYDRAULIC ACTUATOR Models R4200D* and R4200DFS*



R4200D
Double Acting Model

FEATURES AND SPECIFICATIONS

DOUBLE SCOTCH YOKE DRIVE ACTION

Double scotch yoke provides for single or double piston drive with maximum starting torque transmission to actuator drive shaft.

RETAINER KEY FASTENER

The end cap is fastened to the actuator body by a retainer key. A matched groove around the end cap and the actuator body accepts the retainer key which provides full 360° contact for positive lock. The same retainer key is used to replace the end cap with a spring capsule for conversion to Fail Safe actuation without removing the actuator from the line.

FAIL SAFE SPRING CAPSULE

The spring is factory assembled into a locked capsule for safe, simple installation and removal. Special O-ring seal prevents internal corrosion due to moisture and other contaminants. When ordered with a solenoid valve, actuator will be piped with a spring loaded check valve and breather cap for system exhaust.

DOUBLE MOUNTING PAD

Top and bottom pads are identical. Bottom pads provide for multi-position, rugged attachment to mounting bracket. Top pad provides versatile mounting of auxiliary items such as limit switches, positioners, etc.

STEM LOCATION IS CENTERBORE OF PISTON

Provides for unlimited mounting positions. Actuator can be installed parallel to pipe line or at 90° position.

MANUAL OVERRIDE

Actuator drive shaft extends from top of actuator providing for emergency manual operation.

WEATHER GUARD

Standard on fail safe models for protection against rain and snow entering the fail safe capsule.

OPTIONAL EQUIPMENT

SOLENOID VALVES - Mounted and Piped

Specify enclosure - NEMA I, III, IV, VII, etc.

AIR PILOT VALVES - Mounted and Piped

Air control in lieu of solenoids.

LIMIT SWITCHES - Mounted

For open/close position indication. Specify type - NEMA I, III, IV, VII, etc.

POSITIONER - Mounted and Piped

3 - 15 psi instrument air standard. If other signal range is required, please specify.

ADJUSTABLE TRAVEL STOPS

Mechanically limit travel of actuator.

SPECIAL COATING

For corrosion resistance. Specify requirements.

AIR PREPARATION ACCESSORIES

Furnished loose, but can be mounted and piped if specified.

AIR REGULATOR

Adjusts air pressure leading to actuator.

AIR FILTER

Assures clean air for actuator.

AIR LUBRICATOR

Provides oil mist for internal lubrication of actuator.

AIR SPEED CONTROL

Controls air to actuator to adjust speed of actuation.

DECLUTCHABLE GEARBOX FOR MANUAL OPERATION

HIGH TEMPERATURE PREPARATION

Special seals, heat shields, extended brackets, etc.

SYSTEM MODULES

Can be quoted upon receipt of complete specifications.

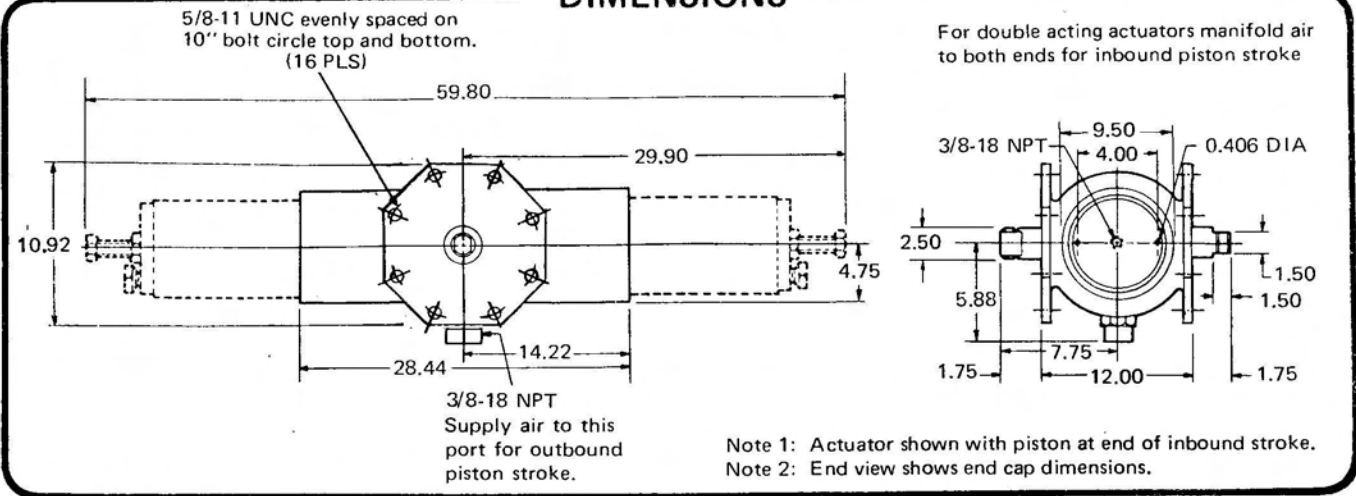
*Patented and patents applied for.



ROTARY PNEUMATIC/HYDRAULIC ACTUATOR

MODELS R4200D and R4200DFS

DIMENSIONS



TECHNICAL DATA

BORE	8.56 In.	CYLINDER VOLUME	
STROKE	5.81 In.	Double Acting	
NO. OF PISTONS	2	inner	1080 Cu. In.
		outer	660 Cu. In.
		Fail Safe	1080 Cu. In.
MAXIMUM WORKING PRESSURE		OUTPUT DRIVE TRAVEL	90°
Pneumatic	125 psi	WEIGHT	
Hydraulic	125 psi	Double Acting	320 Lbs.
		Fail Safe	460 Lbs.

DOUBLE ACTING ACTUATOR (R4200D) OUTPUT TORQUES

TORQUE lb-in.	OPERATING PRESSURE*								
	*Available air pressure must be specified								
	40 PSI	50 PSI	60 PSI	70 PSI	80 PSI	90 PSI	100 PSI	110 PSI	120 PSI
BREAK	21600	27500	33400	39200	45000	51050	57100	63017	68934
RUNNING	10600	13450	16300	19150	22000	24850	27700	30550	33400

FAIL SAFE ACTUATOR (R4200DFS) OUTPUT TORQUES

TORQUE lb-in.	OPERATING PRESSURE*				
	*Available air pressure must be specified				
	40 PSI	60 PSI	70 PSI	80 PSI	100 PSI
BREAK-AIR	11750	18500	20960	26200	33000
FINISH-AIR	6000	9550	11340	13300	16900
BREAK-SPRING	13900	21500	22800	28800	36200
FINISH-SPRING	6700	10600	11970	13800	17600

RECOMMENDED SPARE PARTS: One complete set of O-rings, and one set of retaining keys.



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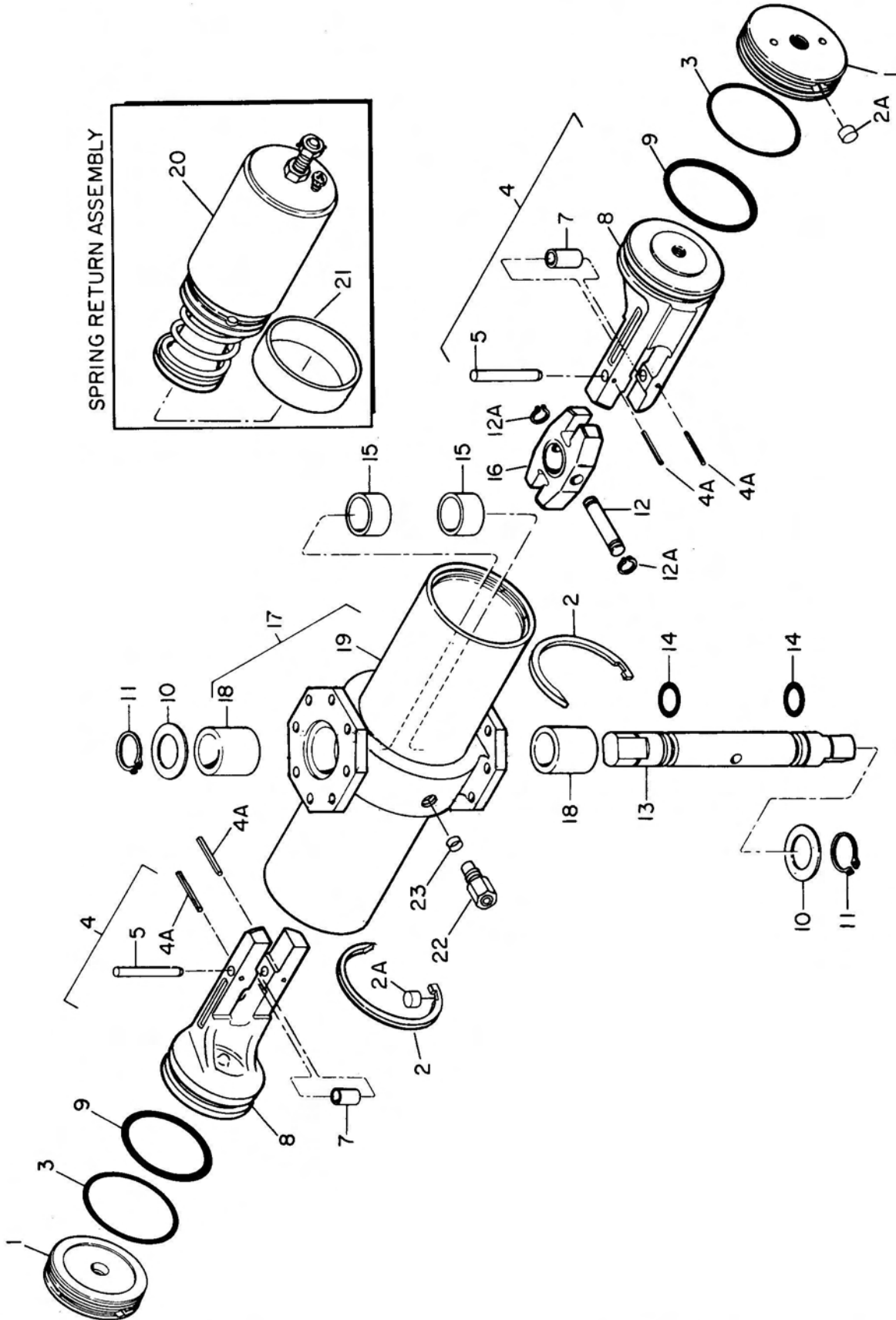
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MODEL R4200D and R4200DFS

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PARTS LIST

MODEL R4200D and R4200DFS

INDEX NO.	PART NUMBER	DESCRIPTION	QTY	U/O CODE
REF. R4200D		ACTUATOR, Pneumatic, rotary	REF.	A
REF. R4200DFS		ACTUATOR, Pneumatic, rotary (Fail Safe).	REF.	B
1	460-1016	. CAP, End (see note 1)	2	
2	460-2904	. KEY, Retaining (AP)	2	
2A	400-2901	. SLUG, Key retainer	2	
3	952-0172-410	. O-RING, End cap (see note 2)	2	
4	4600-3201	. PISTON AND ROLLER ASSEMBLY	2	
4A	943-2250-11P	. PIN, Spring	2	
5	460-2502	. PIN, Straight, headless	1	
7	460-2203	. BEARING, Sleeve	1	
8	460-3210	. PISTON	1	
9	952-0445-1A0	. O-RING, Piston (see note 2)	2	
10	460-2204	. WASHER, Thrust	2	
11	959-3001-000	. RING, Retaining (AP)	2	
12	460-2503	. PIN, Straight, headless	1	
12A	959-2601-000	. RING, Retaining (AP)	2	
13	460-2101	. SHAFT, Output	1	
14	952-0228-430	. O-RING, Output shaft	2	
15	460-2202	. BEARING, Sleeve	2	
16	460-4102	. YOKE	1	
17	4602-3303	. CYLINDER BODY & STEM BEARING ASSEMBLY	1	
18	460-2201	. BEARING, Sleeve	2	
19	460-3323	. CYLINDER, Body	1	
20	4600-7501	. SPRING RETURN ASSEMBLY (40 psi) (See Warning Note)	2	B
20	4600-7502	. SPRING RETURN ASSEMBLY (60 psi) (See Warning Note)	2	B
20	4600-7509	. SPRING RETURN ASSEMBLY (70 psi) (See Warning Note)	2	B
20	4600-7503	. SPRING RETURN ASSEMBLY (80 psi) (See Warning Note)	2	B
20	4600-7504	. SPRING RETURN ASSEMBLY (100 psi) (See Warning Note)	2	B
21	400-1405-004	. WEATHER GUARD	2	B
22	971-2319-02P	. AIR FITTING	1	
23	971-2312-000	. FLARE GASKET	1	

WARNING

The spring is factory assembled into a locked capsule. This provides for simple and safe removal of the spring return assembly during maintenance. Do not attempt to disassemble the spring return assembly. This unit is spring loaded under high spring pressure.

Note 1. Not used on Model R4200DFS

Note 2. Optional O-rings
 952-0172-430 - VITON O-RING, End cap
 952-0445-430 - VITON O-RING, Piston

(AP) - Attaching Parts

U/O - "Used on" code

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