



QUALITY CONTROLS, INC.
NORTHFIELD, NH 03276
1-603-286-3321



**ROTARY PNEUMATIC / HYDRAULIC
ACTUATORS
RAMCON COMPATIBLE**

Q.C.I. Pneumatic Actuators for quarter-turn applications

Extra drive power—Scotch yoke with single-or double-piston drive provides maximum starting torque at the actuator drive shaft.

Easy conversion to fail-safe—Retainer key design permits actuator end cap to be replaced with spring capsule for fail-safe operation—without removing the actuator from the line. Torque output is reduced...see Spring Return Torque chart.

Fail-safe capsule—Spring is factory assembled into a locked capsule for safe, simple installation and removal. O-ring seal prevents internal corrosion due to moisture and other contaminants.

Weather-guard feature—Protects all fail-safe models against rain and snow entering the capsule.

Mount in any position—Stem is located at the center bore of the power piston for mounting horizontally, vertically, or at any angle.

Double-mounting pad—Top and bottom pads are identical for multi position mounting. Top pad accepts wide variety of auxiliary equipment such as limit switches, positioners, etc.

Manual override—Actuator drive shaft extends above the actuator—permits 90° turn for operation in the event of power failure. Manual declutch able gearing may be required for larger models.

Mounting brackets and drive systems—Available in a wide range of configurations to match your specific requirements.

11 basic models— Air to open, air to close; air to open, spring to close; air to close, spring to open • 35 to 137,000 lb-in. maximum starting torque • Choice of double-acting or spring-return fail-safe models.

Options and Auxiliary Equipment

Position indicator switches—A wide range of mechanical, proximity, hermetically sealed switches are available to handle all types of position indication applications. Two, three or four-way cam actuated valves may be mounted on actuators for pneumatic or fluidic circuits.

Adjustable travel stops—For mechanically limiting travel of the actuator in one direction only.

Positioner—Accepts an instrument air or electric signal and controls the shaft position of the actuator.

Direction control valves—Actuator may be supplied with piped and mounted direction control valves. These may have solenoid, manual, pilot, or fluidic operators. The solenoid travel is available in various enclosures and coil voltages.

Manual operation—For manual operation of Model R-450 and larger, and fail-safe models, a declutch able gear train is required. On smaller models, flatted shafts provide for easy wrench operation.

Air filters, regulators, lubricators—Individual items or combination units can be furnished for mounting in air supply line to actuator. This equipment is supplied loose for field installation unless otherwise specified.

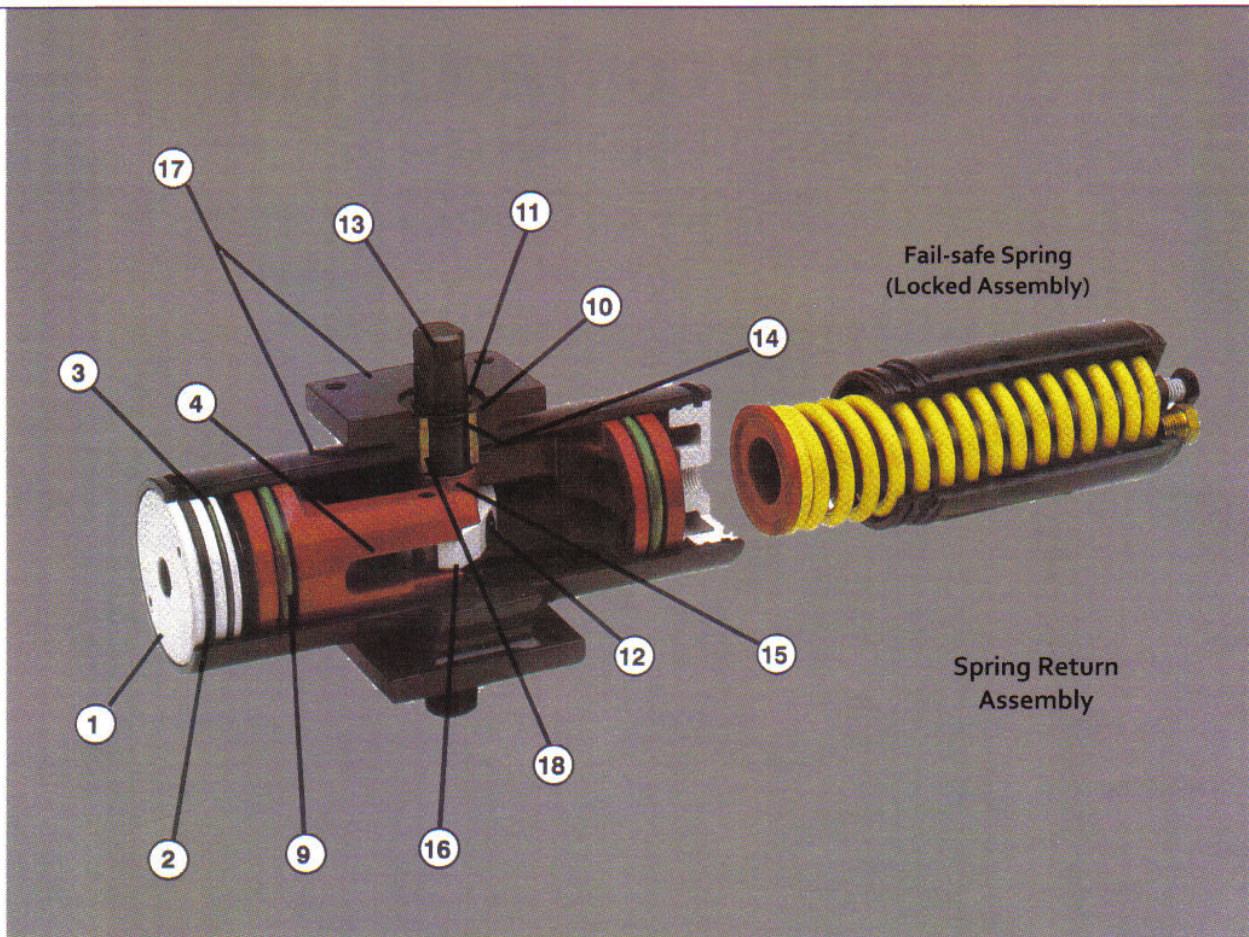
Air speed control—Accurately regulates air to adjust speed of actuation.

Special coatings—For increased corrosion resistance. Specify applications and requirements.

High-temperature preparation—Special seals, lubricants, etc., are available. Consult Q.C.I.

| DOUBLE ACTING PNEUMATIC ACTUATOR OUTPUT TORQUE | | | | | | | | | | | SPRING RETURN PNEUMATIC ACTUATOR OUTPUT TORQUE | | | | |
|--|------------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|--|--------------------------------|----------------|----------------|----------------|
| MODEL | | lb - IN. | | | | | | | | | MODEL | | lb - IN. | | |
| | | 40 PSI | 50 PSI | 60 PSI | 70 PSI | 80 PSI | 90 PSI | 100 PSI | 110 PSI | 120 PSI | | | 60 PSI | 80 PSI | 100 PSI |
| R16C | BREAK RUNNING | 70 40 | 95 55 | 120 70 | 145 85 | 175 95 | 200 110 | 225 120 | 250 140 | 280 150 | R16CFS | FINISH AIR FINISH SPRING | 50 35 | 60 50 | 90 70 |
| R35C | BREAK RUNNING | 177 95 | 236 120 | 295 145 | 351 173 | 407 200 | 459 228 | 510 255 | 566 282 | 621 319 | R35CFS | FINISH AIR FINISH SPRING | 80 90 | 120 115 | 155 160 |
| R70C | BREAK RUNNING | 385 200 | 503 256 | 620 312 | 730 370 | 840 427 | 968 486 | 1095 545 | 1213 603 | 1332 660 | R70CFS | FINISH AIR FINISH SPRING | 185 165 | 250 245 | 315 320 |
| R120C | BREAK RUNNING | 625 307 | 810 410 | 995 495 | 1188 580 | 1380 665 | 1543 755 | 1705 845 | 1885 935 | 2065 1025 | R120CFS | FINISH AIR FINISH SPRING | 300 280 | 430 390 | 510 550 |
| R260C | BREAK RUNNING | 1303 665 | 1700 863 | 2097 1060 | 2496 1248 | 2895 1435 | 3290 1623 | 3685 1810 | 4082 2001 | 4479 2192 | R260CFS | FINISH AIR FINISH SPRING | 630 580 | 890 810 | 1050 1150 |
| R450C | BREAK RUNNING | 2300 1145 | 2963 1463 | 3645 1780 | 4280 2095 | 4935 2410 | 5548 2695 | 6160 2980 | 6803 3285 | 7446 3590 | R450CFS | FINISH AIR FINISH SPRING | 1020 1100 | 1500 1480 | 1920 1850 |
| R960C | BREAK RUNNING | 4810 2420 | 6185 3085 | 7560 3750 | 8960 4410 | 10360 5070 | 11595 5678 | 12830 6285 | 14167 6929 | 15504 7573 | R960CFS | FINISH AIR FINISH SPRING | 2120 2300 | 3110 3060 | 3950 3820 |
| R2000D | BREAK RUNNING | 10350 5100 | 13150 6400 | 15950 7700 | 18825 9100 | 21700 10500 | 24500 11750 | 27300 13000 | 30125 14317 | 32950 15634 | R2000DFS | FINISH AIR FINISH SPRING | 4650 5150 | 6500 6650 | 8200 8550 |
| R4200D | BREAK RUNNING | 21600 10600 | 27500 13450 | 33400 16300 | 39200 19150 | 45000 22000 | 51050 24850 | 57100 27700 | 63017 30550 | 68934 33400 | R4200DFS | FINISH AIR FINISH SPRING | 9550 10600 | 13300 13800 | 16900 17600 |
| R6200D | BREAK RUNNING | 31900 15700 | 40600 19800 | 49300 24000 | 58000 28200 | 66700 32500 | 75500 36600 | 84400 40700 | 93100 44800 | 100000 49000 | R6200DFS | FINISH AIR FINISH SPRING | 14200 15700 | 19800 20400 | 25100 26100 |
| R8400D | BREAK RUNNING | 43200 21200 | 55000 26900 | 66800 32600 | 78400 38300 | 90000 44000 | 100000 49700 | 114200 55400 | 126034 61100 | 137868 66800 | R8400DFS | FINISH AIR FINISH SPRING | 19100 21200 | 26600 27600 | 33800 35200 |

CONSULT FACTORY FOR PRESSURES OTHER THAN THOSE SPECIFIED.
AVAILABLE AIR PRESSURE MUST BE SPECIFIED.
COMPLETE TECHNICAL SPECIFICATIONS ARE AVAILABLE FOR EACH MODEL LISTED.
WHEN POSITIONER IS USED, SIZE FROM RUNNING TORQUE.



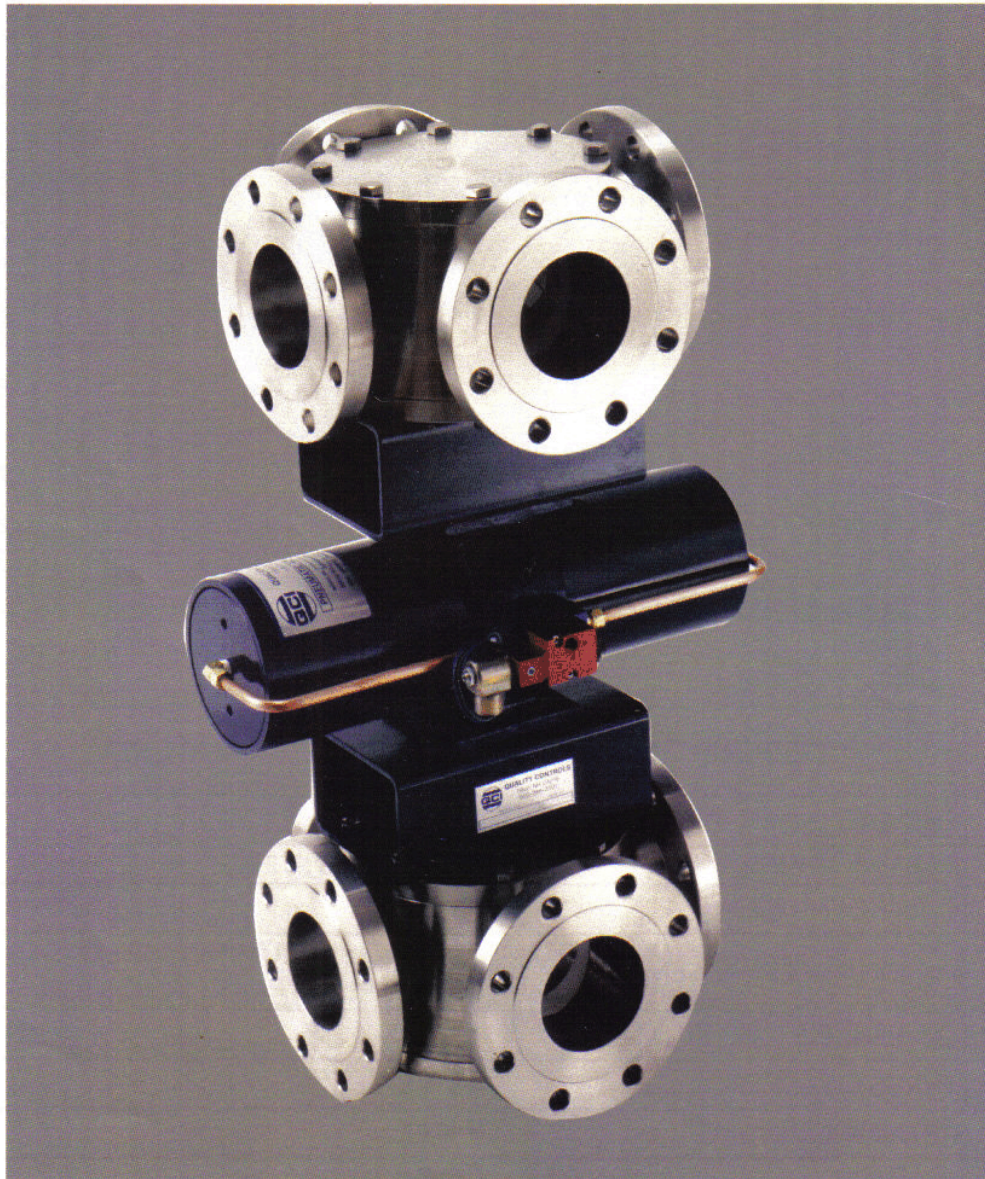
| ITEM NO. | DESCRIPTION | MATERIAL |
|---|------------------------|--|
| 1 | END CAP | STEEL |
| 2 | RETAINING KEY | STAINLESS STEEL |
| 3 | O-RING, END CAP | VITON |
| 4 | PISTON/ROLLER ASSEMBLY | R16 – R70 = ALUMINUM/STEEL R120 – R8400 = CAST IRON/STEEL |
| 9 | O—RING, PISTON | VITON |
| 10 | THRUST WASHER | STEEL |
| 11 | RETAINING RING | STEEL |
| 12 | YOKE PIN | STEEL |
| 13 | OUTPUT SHAFT | STEEL |
| 14 | O-RING, OUTPUT SHAFT | VITON |
| 15 | BEARING SLEEVE | STEEL |
| 16 | YOKE | STEEL |
| 17 | CYLINDER/BODY ASSEMBLY | STEEL/CAST IRON |
| 18 | BEARING, SLEEVE | BRONZE |
| ITEM NUMBERS 5 THRU 8 (NOT LISTED) ARE COMPONENT PARTS OF ASSEMBLY ITEMS. | | |



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**ASSEMBLY, QCI 4.0 VALVES GANG MOUNTED
TO A QCR 960C-NAMUR(OPTIONAL)
WITH SOLENOID (OPTIONAL)**