



**VALVE AND FLOW CONTROL SPECIALISTS**  
*SERVICE AND RELIABILITY*

## 180 Degree Pneumatic Rack and Pinion Actuator

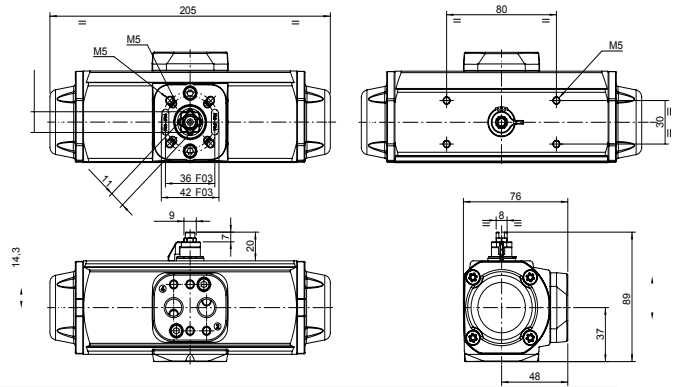
The majority of Pneumatic Actuators are 90 Degree, the 180 degree actuators allow rotation suitable for diverting valves. Available in Double Acting and Spring Return

### Materials of Construction

| Description                | Quant. | Material                  |
|----------------------------|--------|---------------------------|
| CAP COUNTERSUNK SCREW      | 8      | AISI-304 STAINLESS STEEL  |
| CAP                        | 2      | ALUMINIUM ALLOY (2) + (7) |
| CAP-O-RING                 | 2      | N.B.R.                    |
| PISTON                     | 2      | ALUMINIUM ALLOY (2)       |
| CYLINDER                   | 1      | ALUMINIUM ALLOY (2) + (1) |
| WASHER                     | 1      | POLYACETAL                |
| SPRING CLIP                | 1      | STAINLESS STEEL           |
| POSITION INDICATOR         | 1      | POLYACETAL                |
| PISTON GUIDE               | 2      | NYLON                     |
| GUIDE RING                 | 2      | POLYACETAL + Mb           |
| PISTON O-RING              | 2      | N.B.R.                    |
| SHAFT O-RING               | 2      | N.B.R.                    |
| SHAFT O-RING               | 2      | N.B.R.                    |
| SPRINGS SET                | 2      | DIN-17223-C (2) (4)       |
| BASE PLATE (ISO-5211)      | 1      | POLYAMIDE + FG            |
| SHAFT                      | 1      | POLYAMIDE + S.S. INSERT   |
| DRIVE ADAPTER              | 1      | AISI-316 STAINLESS STEEL  |
| ALLEN SCREW                | 2      | AISI-304 STAINLESS STEEL  |
| NUT                        | 4      | AISI-304 STAINLESS STEEL  |
| PLATE O-RING               | 2      | N.B.R.                    |
| NUT                        | 4      | AISI-304 STAINLESS STEEL  |
| PNEUMATIC CONNECTION PLATE | 1      | POLYAMIDE + FG            |
| PLATE ALLEN SCREW          | 2      | AISI-304 STAINLESS STEEL  |



| AGW8  | 8 Cl 6 @ '57 HxB;<br>AIR PRESSURE 'H' Hcfel Yg |      |       |       |       |       |       |       |
|-------|--|------|-------|-------|-------|-------|-------|-------|
| bar   | 3  | 4    | 4,5   | 5     | 5,5   | 6     | 7     | 8     |
| p.s.i | 43,5   | 58   | 65,3  | 72,5  | 79,8  | 87    | 101,5 | 116   |
| Nm    | 7,9  | 11,3 | 12,7  | 14,1  | 15,5  | 17    | 19,8  | 22,9  |
| Lb.in | 69,9   | 100  | 112,4 | 124,8 | 137,2 | 150,5 | 175,2 | 202,7 |



| AGWS | Values<br>SPRING<br>TORQUES |      | AIR TORQUE AT INDICATED PRESSURE |      |         |      |         |      |         |      |         |      |         |       |         |       |         |       |       |  |
|------|-----------------------------|------|----------------------------------|------|---------|------|---------|------|---------|------|---------|------|---------|-------|---------|-------|---------|-------|-------|--|
|      |                             |      | 3                                |      | 4       |      | 4,5     |      | 5       |      | 5,5     |      | 6       |       | 7       |       | 8       |       | bar   |  |
|      |                             |      | 43,5                             | 58   | 65,3    | 72,5 | 79,8    | 87   | 101,5   | 116  | p.s.i   |      |         |       |         |       |         |       |       |  |
| N    | INITIAL                     | END  | INITIAL                          | END  | INITIAL | END  | INITIAL | END  | INITIAL | END  | INITIAL | END  | INITIAL | END   | INITIAL | END   | INITIAL | END   |       |  |
|      | 9,7                         | 6,1  |                                  |      | 6,6     | 3    | 8       | 4,4  | 9,4     | 5,8  | 10,9    | 7,3  | 13,7    | 10,1  | 16,8    | 13,2  |         |       | Nm    |  |
| 4*   | 86,1                        | 53,8 |                                  |      | 58,6    | 26,3 | 71      | 38,7 | 83,4    | 51,1 | 96,6    | 64,3 | 121,4   | 89,1  | 148,9   | 116,6 |         |       | Lb.in |  |
|      | 8,8                         | 5,5  |                                  |      | 5,8     | 2,5  | 7,2     | 3,9  | 8,6     | 5,3  | 10      | 6,7  | 11,5    | 8,2   | 14,3    | 11    | 17,4    | 14,1  | Nm    |  |
| 3    | 78,1                        | 48,4 |                                  |      | 51,6    | 21,9 | 64      | 34,3 | 76,4    | 46,7 | 88,8    | 59,1 | 102     | 72,4  | 126,8   | 97,2  | 154,3   | 124,6 | Lb.in |  |
|      | 6,7                         | 4,3  | 3,6                              | 1,2  | 7       | 4,6  | 8,4     | 6    | 9,8     | 7,4  | 11,2    | 8,8  | 12,7    | 10,3  | 15,5    | 13,1  |         |       | Nm    |  |
| 2    | 59                          | 37,7 | 32,2                             | 10,7 | 62,3    | 40,8 | 74,7    | 53,4 | 87,1    | 65,6 | 99,5    | 78   | 112,8   | 91,3  | 137,5   | 116   |         |       | Lb.in |  |
|      | 4,3                         | 2,4  | 5,5                              | 3,6  | 8,9     | 7    | 10,3    | 8,4  | 11,7    | 9,8  | 13,1    | 11,2 | 14,6    | 12,7  |         |       |         |       | Nm    |  |
| 1    | 37,7                        | 21,5 | 48,4                             | 32,2 | 78,5    | 62,3 | 90,9    | 74,7 | 103,3   | 87,1 | 115,7   | 99,5 | 129     | 112,8 |         |       |         |       | Lb.in |  |

N: Number of springs each side

\* Number of springs in standard actuator

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