

## MANUAL OPERATED LINEAR ACTUATORS MAH

### DESCRIPTION

The ADCATrol MAH is a series of manual linear actuators with top mounted handwheel designed for use with modulating and shut off valves. These actuators are particularly interesting for control applications where a precise manual adjustment of flow is required. These actuators can also be quickly assembled to control valves allowing processes to continue operation while the original actuator is being serviced or replaced.

### MAIN FEATURES

Compact and simple to install.

Strokes up to 60 mm.

Operating temperature range from -20 °C to 100 °C.

Locking mechanism to lock the valve stem in place and prevent accidental or unauthorized operation.

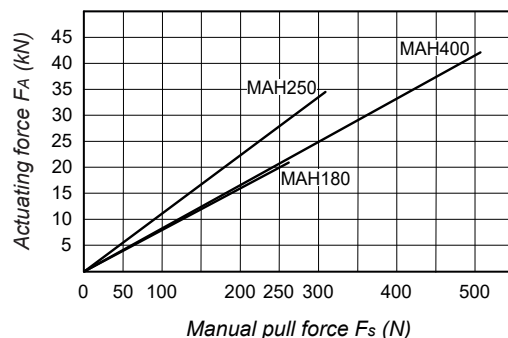
OPTIONS:               Stainless steel construction.

USE:                    Actuation of ADCATrol control valves, or others on request.

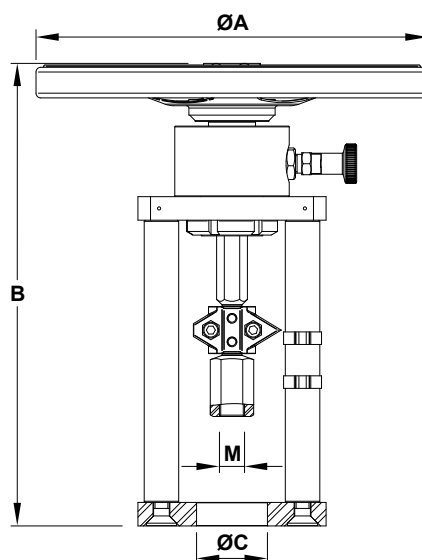
AVAILABLE  
MODELS:             MAH180, MAH250 and MAH400.



## ACTUATOR FORCE AND MANUAL FORCE RELATIONSHIP



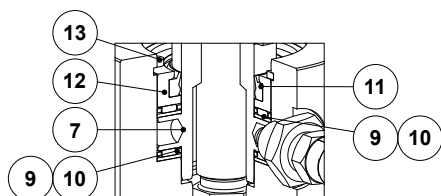
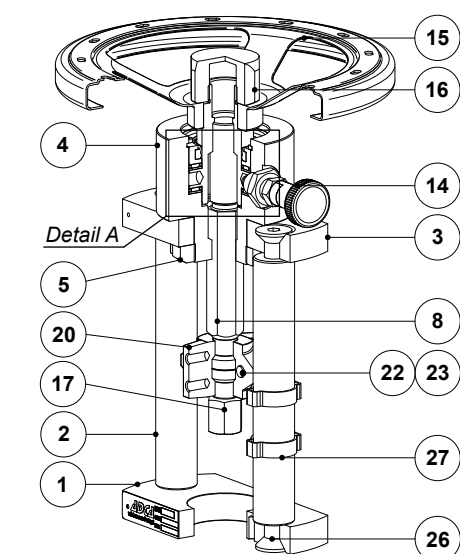
| TECHNICAL DATA                 |        |        |        |
|--------------------------------|--------|--------|--------|
| ACTUATOR MODEL                 | MAH180 | MAH250 | MAH400 |
| Handwheel diameter (mm)        | 180    | 250    | 400    |
| Rated stroke (mm)              | 30     | 30     | 60     |
| Maximum force (kN)             | 20     | 33,5   | 41,5   |
| Required manual pull force (N) | 250    | 300    | 500    |



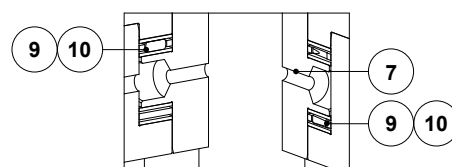
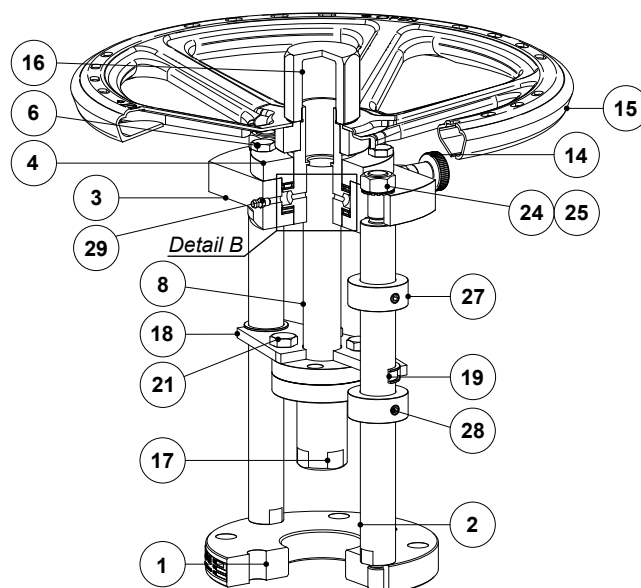
| DIMENSIONS (mm) |     |     |           |                   |             |
|-----------------|-----|-----|-----------|-------------------|-------------|
| MODEL           | ØA  | B   | ØC        | M *               | WEIGHT (kg) |
| MAH180          | 180 | 260 | 40,5 / 45 | M10x1             | 4,8         |
| MAH250          | 250 | 295 | 45 / 65   | M16x1,5           | 5,3         |
| MAH400          | 400 | 428 | 65 / 80   | M16x1,5 / M27x1,5 | 18,6        |

\* Depending on valve stem thread. Can be coarse or fine thread. Other dimensions on request.

Remarks: Stem coupling, yoke dimensions and design may vary depending on the ADCATrol control valve model. Refer to its corresponding information sheet or consult the manufacturer.



Detail A



Detail B

#### MATERIALS

| POS. N° | DESIGNATION           | MATERIAL                                | POS. N° | DESIGNATION                  | MATERIAL           |
|---------|-----------------------|-----------------------------------------|---------|------------------------------|--------------------|
| 1       | Lower actuator flange | AISI304 / 1.4301;<br>S235 JRG2 / 1.0038 | 16      | Top cap                      | C45E / 1.1191      |
| 2       | Yoke column           | C45E / 1.1191                           | 17      | Adaptor                      | Steel              |
| 3       | Upper actuator flange | AISI304 / 1.4301;<br>C45E / 1.1191      | 18      | Bracket                      | AISI 304 / 1.4301  |
| 4       | Body                  | C45E / 1.1191                           | 19      | Guide                        | Plastic            |
| 5       | Lock nut              | A351 CF8 / 1.4308                       | 20      | Coupling / Travel indicator  | A351 CF8 / 1.4308  |
| 6       | Bolt                  | Zinc plated steel                       | 21      | Bolt                         | Zinc plated steel  |
| 7       | Stem nut              | Stainless steel                         | 22      | Bolt                         | Zinc plated steel  |
| 8       | Actuator stem         | Stainless steel                         | 23      | Nut                          | Zinc plated steel  |
| 9       | * Axial bearing       | Steel                                   | 24      | Nut                          | Zinc plated steel  |
| 10      | * Washer              | Steel                                   | 25      | Washer                       | Zinc plated steel  |
| 11      | * Scraper ring        | NBR                                     | 26      | Bolt                         | Zinc plated steel  |
| 12      | Spacer ring           | AISI 304 / 1.4301                       | 27      | Crimp clamp / Adjusting ring | Steel              |
| 13      | * Retaining ring      | Steel                                   | 28      | Socket screw                 | Stainless steel A2 |
| 14      | Locking pin           | Steel                                   | 29      | Nipple                       | Zinc plated steel  |
| 15      | Handwheel             | Steel                                   |         |                              |                    |

\* Available spare parts.

| ORDERING CODES MAH                                                                       |     |    |   |   |    |    |    |
|------------------------------------------------------------------------------------------|-----|----|---|---|----|----|----|
| Group designation                                                                        | MAH | 18 | S | X | XX | A1 |    |
| MAH – Manual operated linear actuator                                                    | MAH |    |   |   |    |    |    |
| Actuator model                                                                           |     |    |   |   |    |    |    |
| MAH180                                                                                   |     | 18 |   |   |    |    |    |
| MAH250                                                                                   |     | 25 |   |   |    |    |    |
| MAH400                                                                                   |     | 40 |   |   |    |    |    |
| Actuator construction                                                                    |     |    |   |   |    |    |    |
| Carbon steel construction (standard)                                                     |     |    | S |   |    |    |    |
| Stainless steel construction (special execution)                                         |     |    | I |   |    |    |    |
| Options                                                                                  |     |    |   |   |    |    |    |
| None                                                                                     |     |    |   | X |    |    |    |
| Special features                                                                         |     |    |   |   |    |    |    |
| None                                                                                     |     |    |   |   | XX |    |    |
| Yoke design and coupling                                                                 |     |    |   |   |    |    |    |
| ADCATrol VPC26, V16/2, V25/2 and V303 series (DN 15 to DN 50 – 1/2" to 2")               |     |    |   |   |    |    | A1 |
| ADCAPure V926H, V926A (1/2" to 2 1/2") and V928 series (DN 15 to DN 50)                  |     |    |   |   |    |    | A3 |
| ADCATrol V16/2 series (DN 65 to DN 100 – 2 1/2" to 4")                                   |     |    |   |   |    |    | B1 |
| ADCATrol V25/2 and V303 series (DN 65 to DN 100 – 2 1/2" to 4")                          |     |    |   |   |    |    | B2 |
| ADCAPure V926H (3" and 4") and V928 series (DN 65 to DN 100)                             |     |    |   |   |    |    | B3 |
| ADCATrol V25/2 series (DN 125 to DN 150 – 5" to 6")                                      |     |    |   |   |    |    | C2 |
| ADCATrol V25/2 series (DN 200 – 8")                                                      |     |    |   |   |    |    | D2 |
| Other ADCATrol valves a)                                                                 |     |    |   |   |    |    | XX |
| Special construction / Additional options                                                |     |    |   |   |    |    |    |
| A full description must be provided and validated in case of a non-standard construction |     |    |   |   |    |    | E  |

a) Exact model and size must be specified – consult the manufacturer.