

AIR CYLINDER

Series A53, A54

Cat No A53, A54 - 01 - 01 - B

AIR CYLINDERS Double Acting Double End (Ø12 - 25 mm)

Features

- Elastomer cushioning at both ends.
- Wide varieties of mountings.
- Low friction.
- Long life.



Technical Specifications

| | | | | |
|---------------------------|--|----|----|----|
| Bore dia (mm) | 12 | 16 | 20 | 25 |
| Standard strokes * (mm) | 10 25 40 50 80 100 125 160 200 250 300 | | | |
| Medium | Compressed air - filtered - lubricated | | | |
| Working pressure | 0.5 - 10 bar | | | |
| Medium temperature | 5° - 60° C | | | |
| Materials of construction | Aluminium, Brass, Nitrile, Polyurethane, Steel, Acetal | | | |
| Mountings | Double foot mounting, Flange, Trunnion | | | |
| Accessories | Trunnion bracket, Rod end fork, Rod end aligner, Rod end spherical eye | | | |

* For Non standard or longer stroke cylinders, contact your regional dealer or JANATICS

Output force (force in N : 1N = 0.1 kgf)

| Bore dia (in mm) | Rod dia (in mm) | Working pressure in bar | | | | | | | | |
|------------------|-----------------|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 12 | 6 | 15 | 22 | 30 | 38 | 46 | 53 | 61 | 68 | 76 |
| 16 | 6 | 31 | 46 | 62 | 78 | 94 | 108 | 124 | 140 | 156 |
| 20 | 8 | 47 | 71 | 95 | 118 | 142 | 166 | 189 | 214 | 237 |
| 25 | 10 | 74 | 111 | 148 | 185 | 222 | 260 | 296 | 334 | 371 |

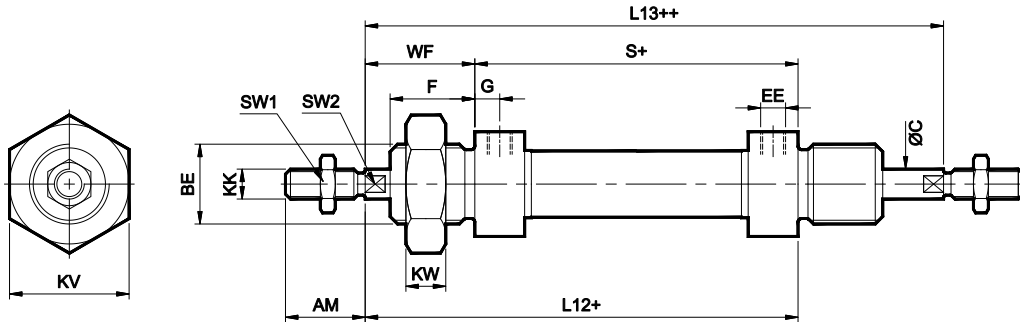
(Above values have been worked out taking frictional loss into consideration)

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Basic cylinder

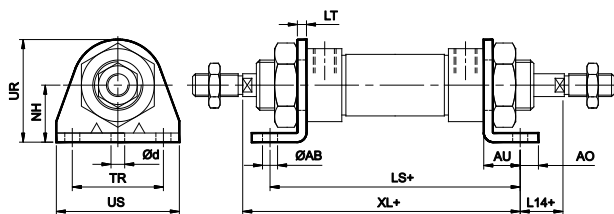


+ Add stroke
++ Add twice stroke

| Bore Dia | BE | F | G | EE | S | tol | KW | C | SW1 | SW2 | KK | AM | WF ±1.2 | L12 ±1.5 | KV | L13 ±1.5 | Stroke tol | |
|----------|-----------|----|---|----------|----|-------|----|----|-----|-----|------------|----|---------|----------|----|----------|--------------|--------------|
| | | | | | | | | | | | | | | | | | 10 - 100 | 125 - 300 |
| 12 | M16 X 1.5 | 17 | 6 | M5 X 0.8 | 51 | ± 0.5 | 8 | 6 | 10 | 5 | M6 X 1 | 16 | 22 | 73 | 24 | 96 | + 1.5 + 0 | + 2.5 + 0 |
| 16 | M16 X 1.5 | 17 | 6 | M5 X 0.8 | 58 | ± 0.5 | 8 | 6 | 10 | 5 | M6 X 1 | 16 | 22 | 80 | 24 | 103 | | |
| 20 | M22 X 1.5 | 20 | 8 | G 1/8 | 67 | ± 0.7 | 10 | 8 | 13 | 7 | M8 X 1.25 | 20 | 24 | 91 | 32 | 116 | | |
| 25 | M22 X 1.5 | 22 | 8 | G 1/8 | 71 | ± 0.7 | 10 | 10 | 17 | 9 | M10 X 1.25 | 22 | 28 | 99 | 32 | 128 | | |

MOUNTINGS FOR AIR CYLINDER Series A53, A54

Double Foot Mounting

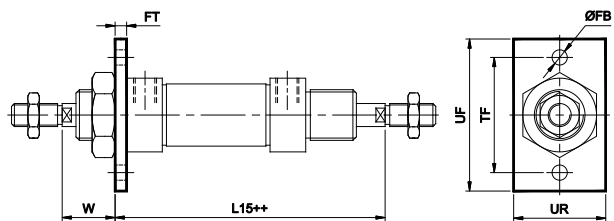


+ Add stroke

| Bore Dia | UR | AB H13 | TR Js14 | NH ±0.3 | AO | AU | d* | LT | US | LS ±0.7 | XL ±1 | L14 ±1.3 | Ordering No |
|----------|----|--------|---------|---------|----|----|-----|----|----|---------|-------|----------|-------------|
| 12 | 33 | 5.5 | 32 | 20 | 6 | 12 | 4.8 | 2 | 42 | 75 | 85 | 11 | MS016 |
| 16 | 33 | 5.5 | 32 | 20 | 6 | 12 | 4.8 | 2 | 42 | 82 | 92 | 11 | MS016 |
| 20 | 45 | 6.6 | 40 | 25 | 8 | 16 | 5.8 | 4 | 54 | 99 | 107 | 9 | MS022 |
| 25 | 45 | 6.6 | 40 | 25 | 8 | 16 | 5.8 | 4 | 54 | 103 | 115 | 13 | MS022 |

* Suitable for reaming

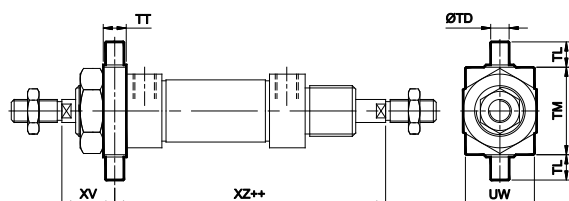
Flange



++ Add twice stroke

| Bore dia | TF Js14 | UF | UR | FB H13 | FT | L15 ±1.2 | W ± 1.4 | Ordering No |
|----------|---------|----|----|--------|----|----------|---------|-------------|
| 12 | 40 | 50 | 30 | 5.5 | 4 | 78 | 18 | MF016 |
| 16 | 40 | 50 | 30 | 5.5 | 4 | 85 | 18 | MF016 |
| 20 | 50 | 66 | 40 | 6.6 | 5 | 97 | 19 | MF022 |
| 25 | 50 | 66 | 40 | 6.6 | 5 | 105 | 23 | MF022 |

Trunnion



++ Add twice stroke

| Bore dia | TM h14 | UW | TD e9 | TT | TL h14 | XZ ±1.2 | XV ±1.4 | Ordering No |
|----------|--------|----|-------|----|--------|---------|---------|-------------|
| 12 | 30 | 25 | 6 | 8 | 10 | 78 | 18 | MT016 |
| 16 | 30 | 25 | 6 | 8 | 10 | 85 | 18 | MT016 |
| 20 | 40 | 30 | 8 | 10 | 10 | 97 | 19 | MT022 |
| 25 | 40 | 30 | 8 | 10 | 10 | 105 | 23 | MT022 |

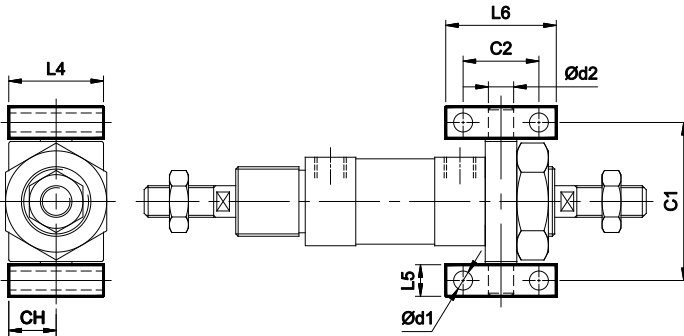
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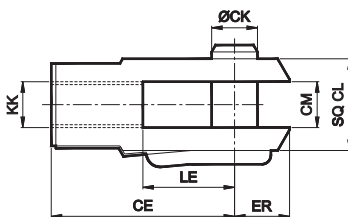
ACCESSORIES FOR AIR CYLINDER Series A53, A54

Trunnion bracket



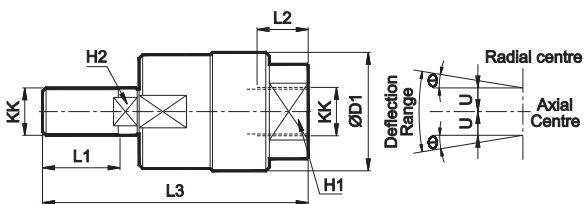
| Bore dia | C1 | C2 Js14 | d1 H13 | L4 | L5 | L6 | CH | d2 H9 | Ordering no. |
|----------|----|---------|--------|----|----|----|----|-------|--------------|
| 12 | 38 | 20 | 4.3 | 25 | 8 | 30 | 16 | 6 | AT016 |
| 16 | 38 | 20 | 4.3 | 25 | 8 | 30 | 16 | 6 | AT016 |
| 20 | 50 | 24 | 6.6 | 30 | 10 | 35 | 20 | 8 | AT022 |
| 25 | 50 | 24 | 6.6 | 30 | 10 | 35 | 20 | 8 | AT022 |

Rod end Fork (ISO 8140)



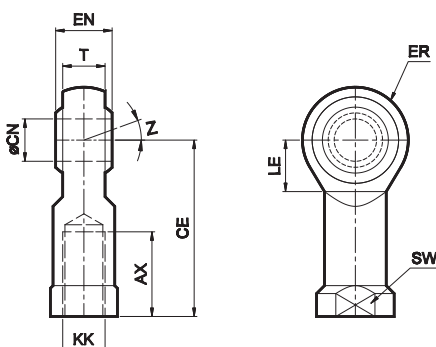
| Bore dia | KK | LE | CM B12 | CE | CK f8 | CL | ER | Ordering no. |
|----------|----------|----|--------|----|-------|----|-----|--------------|
| 12 | M6X1 | 12 | 6 | 24 | 6 | 12 | 9.5 | AF006 |
| 16 | M6X1 | 12 | 6 | 24 | 6 | 12 | 9.5 | AF006 |
| 20 | M8X1.25 | 16 | 8 | 32 | 8 | 16 | 13 | AF008 |
| 25 | M10X1.25 | 20 | 10 | 40 | 10 | 20 | 16 | AF010 |

Rod end Aligner



| Bore dia | KK | L1 | L2 | L3 | D1 | H1 | H2 | $\pm\theta^\circ$ | U | Ordering no. |
|----------|----------|----|----|----|----|----|----|-------------------|------|--------------|
| 12 / 16 | M6X1 | 12 | 8 | 38 | 18 | 10 | 4 | 5 | 0.75 | AR006 |
| 20 | M8X1.25 | 15 | 10 | 48 | 20 | 12 | 7 | 5 | 0.75 | AR008 |
| 25 | M10X1.25 | 20 | 14 | 65 | 28 | 17 | 8 | 5 | 0.75 | AR010 |

Rod end spherical eye



| Bore dia | KK | CN H9 | T | EN h12 | CE | LE min | ER max | AX | SW h13 | Z | Ordering no. |
|----------|----------|-------|------|--------|----|--------|--------|----|-----------------|-----|--------------|
| 12 / 16 | M6X1 | 6 | 6.75 | 9 | 30 | 11 | 10 | 12 | 11 | | AP006 |
| 20 | M8X1.25 | 8 | 9 | 12 | 36 | 13 | 12 | 16 | $\frac{13}{14}$ | 13° | AP008 |
| 25 | M10X1.25 | 10 | 10.5 | 14 | 43 | 15 | 14 | 20 | 17 | | AP010 |


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How to order

A




| Model | |
|-------|-------------------|
| 53 | Magnetic cylinder |
| 54 | Standard cylinder |


For details of accessories for magnetic cylinders refer Product Catalogue **Series A51, A52 (Page no. 1.7.5)**



| Bore Ø (mm) | |
|-------------|--------|
| 012 | - Ø 12 |
| 016 | - Ø 16 |
| 020 | - Ø 20 |
| 025 | - Ø 25 |



| Stroke (mm) | |
|-------------|-------|
| 010 | - 10 |
| 025 | - 25 |
| 040 | - 40 |
| 050 | - 50 |
| 080 | - 80 |
| 100 | - 100 |
| 125 | - 125 |
| 160 | - 160 |
| 200 | - 200 |
| 250 | - 250 |
| 300 | - 300 |



| Mountings | |
|-----------|------------------------|
| O | - Basic |
| D | - Double Foot Mounting |
| F | - Flange |
| M | - Trunnion |

Example:

Ordering no. for standard cylinder with 16 dia bore, 50 mm stroke with Double foot mounting : **A54 016 050 D**


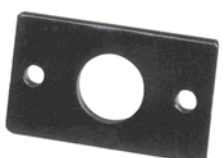
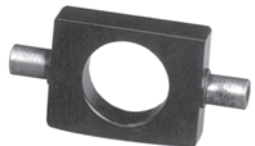
Note:

If ordered as 16 dia, 50 mm stroke cylinder, Basic cylinder **A54 016 050 O** will be supplied.

For repeat order when the details are taken from cylinder nameplate, mention the mounting style separately.

For ordering **Accessories**: mention part numbers in corresponding tables.

For ordering individual **Mounting** kits (If needed separately): mention the ordering numbers as below

| Cylinder bore Ø | Double Foot mounting | Flange (Front or Rear) | Trunnion (Front or Rear) |
|-----------------|---|---|---|
| |  |  |  |
| 12 | MS016 | MF016 | MT016 |
| 16 | MS016 | MF016 | MT016 |
| 20 | MS022 | MF022 | MT022 |
| 25 | MS022 | MF022 | MT022 |

For your special requirements of cylinders or for further informations contact your regional dealer or **JANATICS**