

PNEUMATIC CYLINDERS

**ROTATING CYLINDERS COMPACT
CYLINDERS UNITOP - SERIES CU**



Compact short stroke cylinders series CU.
According to U.N.I.T.O.P. - RUP/7 Standards.

Bores from 16 to 100 mm.,
with magnetic piston, single and double
acting, with rubber end of stroke cushions.

THE RANGE

SINGLE ACTING
front spring

SINGLE ACTING
rear spring

DOUBLE ACTING

DOUBLE ACTING
double ended rod



SINGLE ACTING
double ended rod

SINGLE ACTING
non-rotating - 2 slide
bar

DOUBLE ACTING
non-rotating - double
ended rod



BORE AND STROKES

| BORE | SINGLE ACTING | | | DOUBLE ACTING | | | | | |
|------|-------------------|------------------|----------|-------------------|------------------|----------|-------------------|------------------|----|
| | Standard strokes | Possible strokes | | Standard strokes | Possible strokes | | Standard strokes | Possible strokes | |
| | mm. | mm. | | mm. | mm. | | mm. | mm. | |
| 16 | 5,10,15, 20,25 | 1:25 | 16 | 5,10,15, 20,25 | 1:25 | 16 | 5,10,15, 20,25 | 1:25 | 16 |
| 20 | | | 20 25 | | | 20 25 | | | |

| | | | | | | | | |
|-----|-------------|--|----|------------------------------|-------|----|-------------|----|
| 25 | | | 32 | 20,25,30,40,50 | | | | |
| 32 | | | 40 | | | | | |
| 40 | | | 50 | 5,10,15,20,25,30,40,50,60,80 | | 32 | | 32 |
| 50 | | | 63 | | 1:300 | 40 | | 40 |
| 63 | 10,15,20,25 | | 80 | | | 50 | 10,15,20,25 | 50 |
| 80 | | | | 10,15,20,25 | | 63 | | 63 |
| 100 | | | | | 1:400 | 80 | | 80 |

*theoretic values

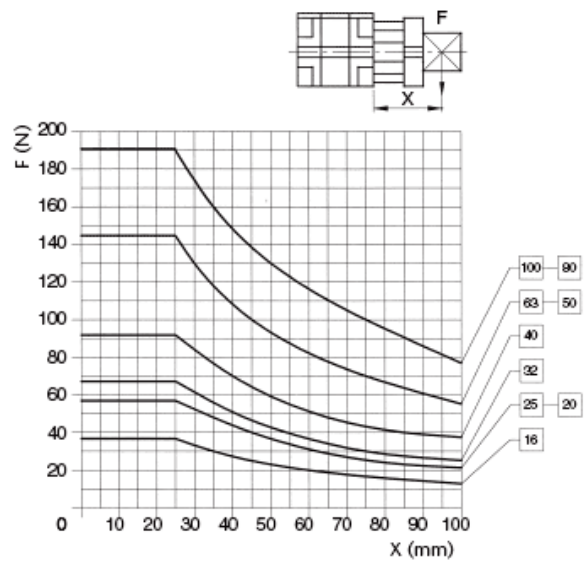
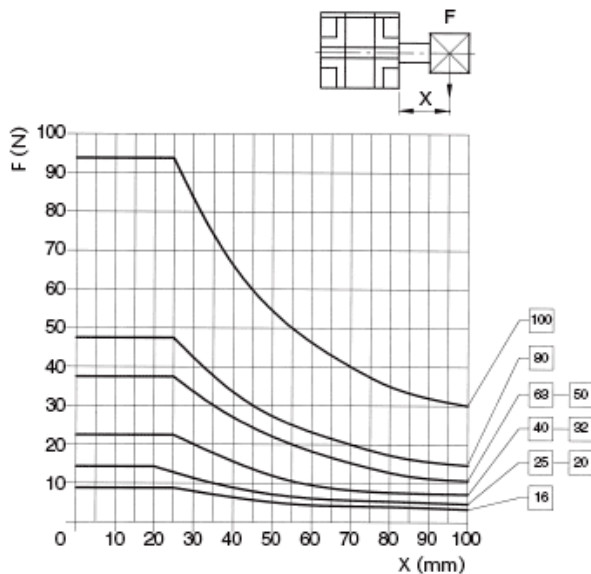
TECHNICAL FEATURES

| | |
|--|---|
| <p>Squeeze casted end caps in black anodized kight alloy, slide bush for piston rod in self-lubricating sintered bronze,</p>  | <p>The body, aesthetic and functional component, manufactured in light alloy, honed and anodized inside and outside (class 20 micron)</p>  |
| <p>Piston rod in rolled stainless steel. Piston in light alloy with a permanent magnet fixed on it.</p>  | <p>Seals in polyurethane for high resistance to wear. After first lubrication, they can be used with only filtered air.</p>  |
| <p>Fasteners for fixing or oscillating installation of cylinders.</p>  | |

PERFORMANCES DIAGRAMS

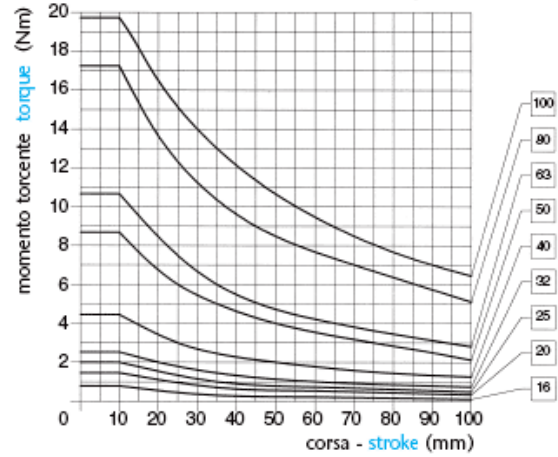
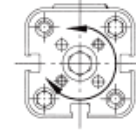
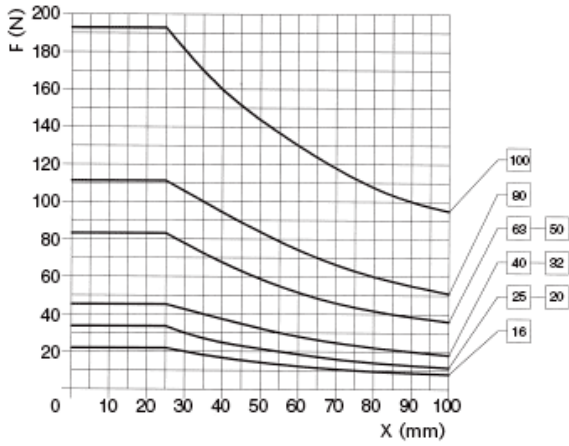
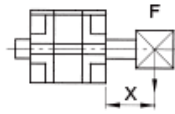
double acting CUD

non-rotating rod (loading diagram)CUD...A

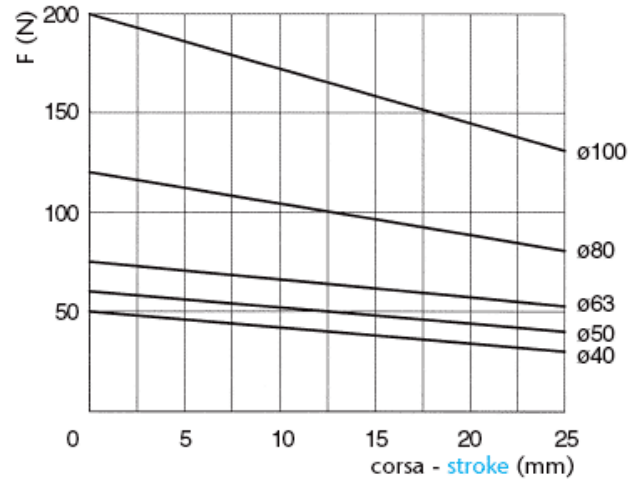
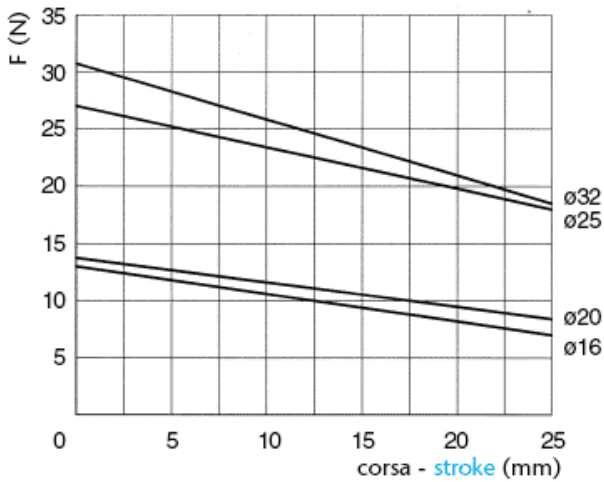


non-rotating double ended rod **CUDP...A**

non-rotating rod (torque diagram) **CUD...A**



RETURN FORCE OF SPRINGS



DIMENSIONS

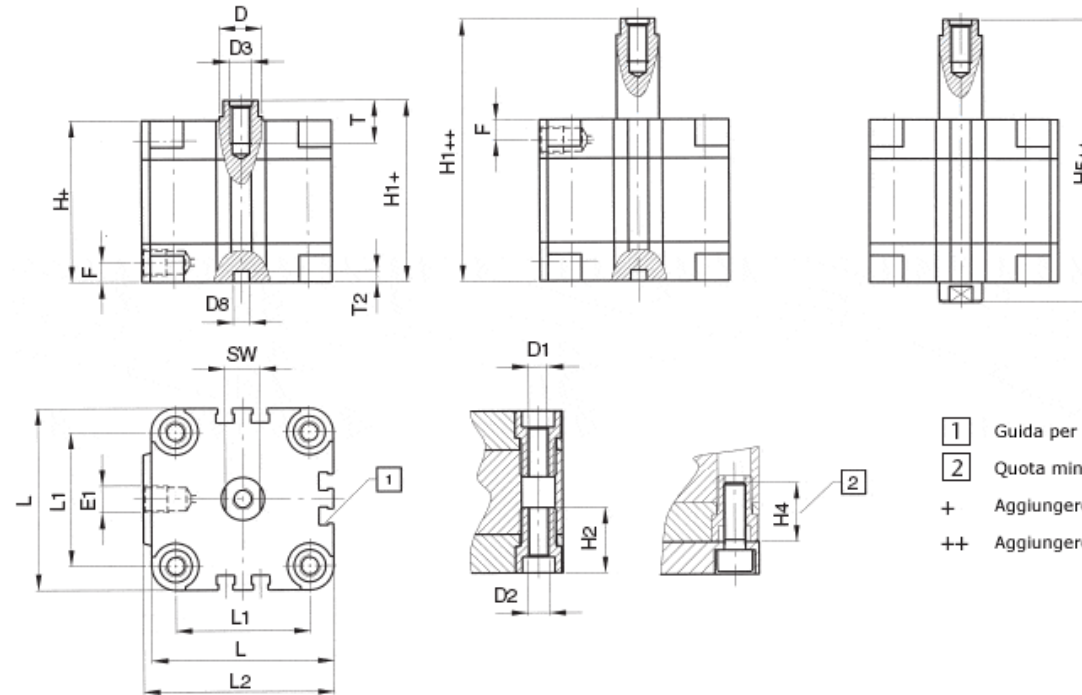
WITH FEMALE PISTON ROD



CUS...-FA
CUD...-F

CUS...-FP

CUSP...-F
CUDP...-F



- 1 Guida per fine corsa magnetico
- 2 Quota minima di avvitatura
- + Aggiungere la corsa
- ++ Aggiungere 2 volte la corsa

- DOUBLE ACTING
- SINGLE and DOUBLE acting DOUBLE ENDED ROD
- SINGLE acting FRONT and REAR spring

CUD ... -F
CUSP ... -F / CUDP ... -F
CUS ... -FA / CUS ... -FP

| BORE SIZE | D mm. | D1 mm. | D2 | D3 | D6 mm. | D7 | D8 | E1 | F | H | H1 | H2 | H4 | H5 | K1 | L | L1 | L2 | SW | T | T1 | T2 |
|-----------|-------|--------|-----|----|--------|----|----|------|---|------|------|------|----|------|----------|----|----|------|----|----|----|----|
| 16 | 8 | 3.3 | M4 | M4 | 3.2 | - | 6 | M5 | 8 | 38 | 42.5 | 18.5 | 16 | 47 | M8 | 29 | 18 | 30 | 7 | 10 | 20 | 4 |
| 20 | 10 | 4.2 | M5 | M5 | 3.8 | - | 6 | M5 | 8 | 38 | 42.5 | 18.5 | 18 | 47 | M10x1,25 | 36 | 22 | 37.5 | 8 | 10 | 22 | 4 |
| 25 | 10 | 4.2 | M5 | M5 | 3.8 | - | 6 | M5 | 8 | 39.5 | 45 | 18.5 | 18 | 50.5 | M10x1,25 | 0 | 26 | 41.5 | 8 | 10 | 22 | 4 |
| 32 | 12 | 5.2 | M6 | M6 | 4.5 | - | 6 | G1/8 | 8 | 44.5 | 50.5 | 21.5 | 20 | 56.5 | M10x1,25 | 50 | 32 | 52 | 10 | 12 | 22 | 4 |
| 40 | 12 | 5.2 | M6 | M6 | 4.5 | - | 6 | G1/8 | 8 | 45.5 | 52 | 21.5 | 20 | 58.5 | M10x1,25 | 60 | 42 | 62.5 | 10 | 12 | 22 | 4 |
| 50 | 16 | 6.8 | M8 | M8 | 6 | - | 6 | G1/8 | 8 | 45.5 | 53 | 22 | 20 | 60.5 | M12x1,25 | 68 | 50 | 71 | 13 | 16 | 24 | 4 |
| 63 | 16 | 8.5 | M10 | M8 | 6 | - | 8 | G1/8 | 8 | 50 | 57.5 | 24.5 | 25 | 65 | M12x1,25 | 87 | 65 | 91 | 13 | 16 | 24 | 4 |



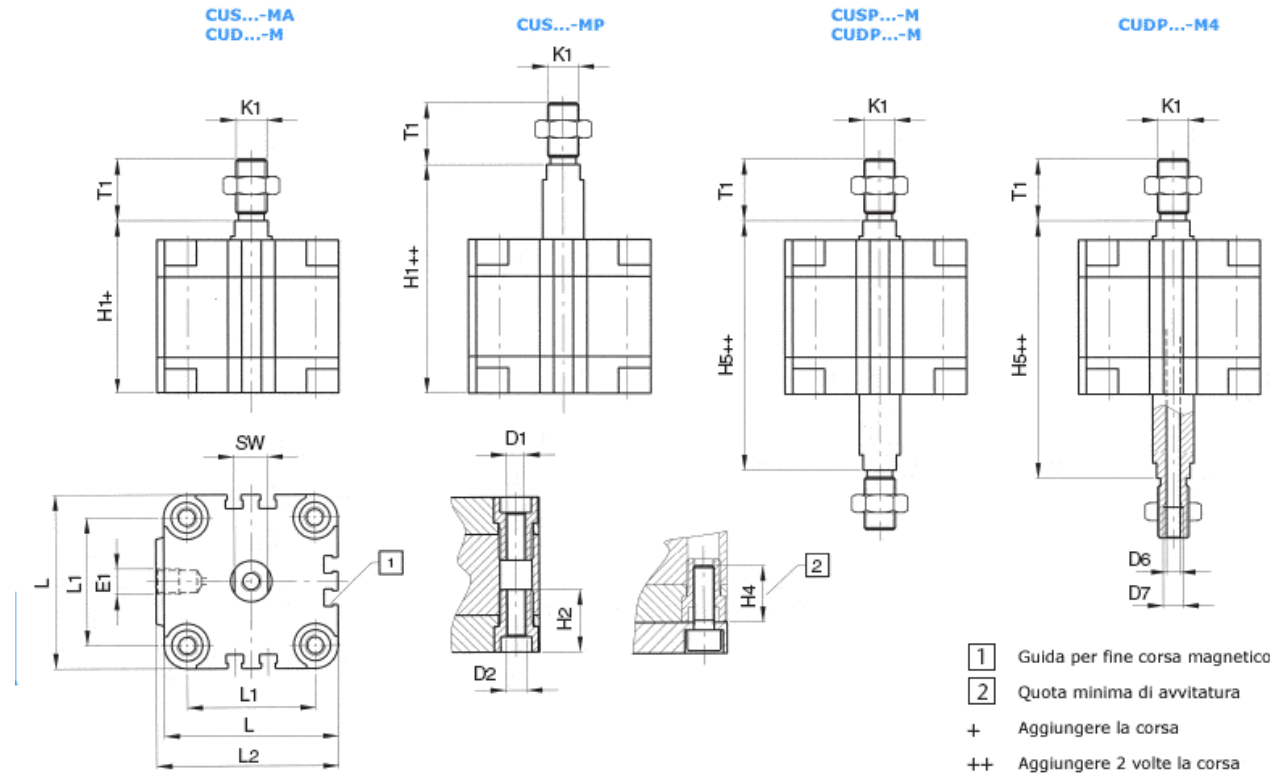
| | | | | | | | | | | | | | | | | | | | | | | |
|-----|----|-----|-----|-----|------|------|---|------|------|------|------|------|----|------|---------|-----|-----|-----|----|----|----|---|
| 80 | 20 | 8.5 | M10 | M10 | 8 | G1/8 | 8 | G1/8 | 8.5 | 56 | 64 | 27.5 | 25 | 72 | M16x1,5 | 107 | 82 | 111 | 17 | 20 | 32 | 4 |
| 100 | 25 | 8.5 | M10 | M12 | 11.7 | G1/4 | 8 | G1/4 | 10.5 | 66.5 | 76.5 | 32.5 | 25 | 86.5 | M20x1,5 | 128 | 103 | 133 | 22 | 24 | 40 | 4 |

WITH MALE PISTON ROD



- DOUBLE ACTING
- SINGLE and DOUBLE acting DOUBLE ENDED ROD
- SINGLE and DOUBLE acting DOUBLE ENDED HOLLOW ROD
- SINGLE acting FRONT and REAR spring

CUD ... -M
CUSP ... -M / CUDP ... -M
CUSP ... -M4 / CUDP ... -M4
CUS ... -MA / CUS ... -MP



| Bore | D | D1 | D2 | D3 | D6 | D7 | D8 H9 | E1 | F | H | H1 | H2 | H4 | H5 | K1 | L | L1 | L2 | SW | T | T1 | T2 |
|------|-------|-------|----|----|-------|----|-------|------|-----|------|------|------|-----|------|----------|-----|-----|------|-----|-----|-----|-----|
| | ∅ mm. | ∅ mm. | | | ∅ mm. | | ∅ mm. | | mm. | mm. | mm. | mm. | mm. | mm. | | mm. | mm. | mm. | mm. | mm. | mm. | mm. |
| 16 | 8 | 3.3 | M4 | M4 | 3.2 | - | 6 | M5 | 8 | 38 | 42.5 | 18.5 | 16 | 47 | M8 | 29 | 18 | 30 | 7 | 10 | 20 | 4 |
| 20 | 10 | 4.2 | M5 | M5 | 3.8 | - | 6 | M5 | 8 | 38 | 42.5 | 18.5 | 18 | 47 | M10x1,25 | 36 | 22 | 37.5 | 8 | 10 | 22 | 4 |
| 25 | 10 | 4.2 | M5 | M5 | 3.8 | - | 6 | M5 | 8 | 39.5 | 45 | 18.5 | 18 | 50.5 | M10x1,25 | 40 | 26 | 41.5 | 8 | 10 | 22 | 4 |
| 32 | 12 | 5.2 | M6 | M6 | 4.5 | - | 6 | G1/8 | 8 | 44.5 | 50.5 | 23 | 20 | 56.5 | M10x1,25 | 50 | 32 | 52 | 10 | 12 | 22 | 4 |



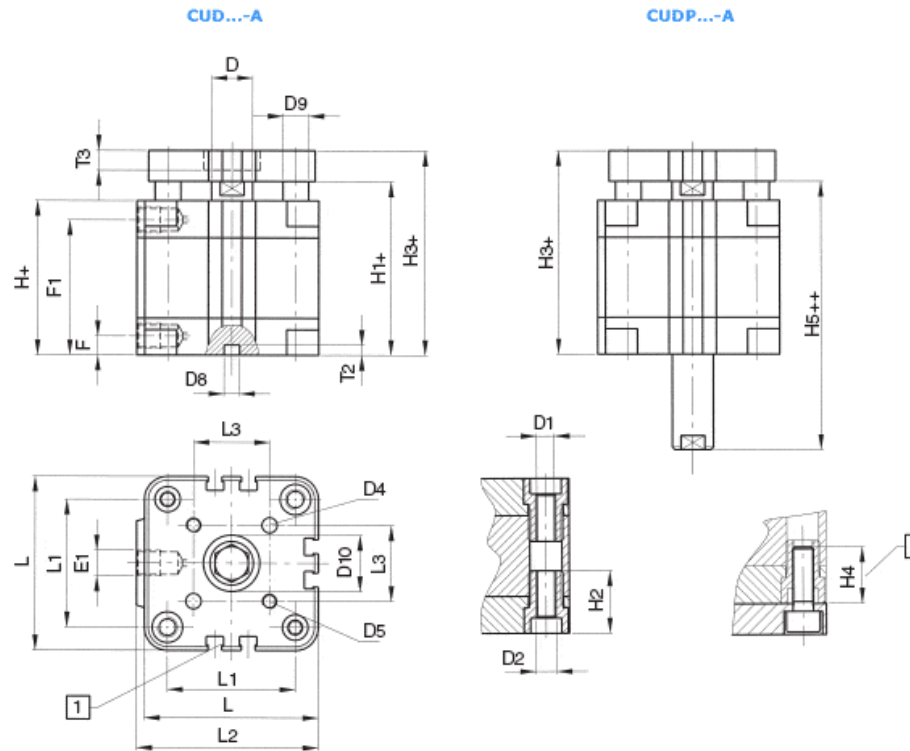
| | | | | | | | | | | | | | | | | | | | | | | |
|-----|----|-----|-----|-----|------|------|---|------|------|------|------|------|----|------|----------|-----|-----|------|----|----|----|---|
| 40 | 12 | 5.2 | M6 | M6 | 4.5 | - | 6 | G1/8 | 8 | 45.5 | 52 | 23 | 20 | 58.5 | M10x1,25 | 60 | 42 | 62.5 | 10 | 12 | 22 | 4 |
| 50 | 16 | 6.8 | M8 | M8 | 6 | - | 6 | G1/8 | 8 | 45.5 | 53 | 24.5 | 20 | 60.5 | M12x1,25 | 68 | 50 | 71 | 13 | 16 | 24 | 4 |
| 63 | 16 | 8.5 | M10 | M8 | 6 | - | 8 | G1/8 | 8 | 50 | 57.5 | 27 | 25 | 65 | M12x1,25 | 87 | 62 | 91 | 13 | 16 | 24 | 4 |
| 80 | 20 | 8.5 | M10 | M10 | 8 | G1/8 | 8 | G1/8 | 8.5 | 56 | 64 | 27 | 25 | 72 | M16x1,5 | 107 | 82 | 111 | 17 | 20 | 32 | 4 |
| 100 | 25 | 8.5 | M10 | M12 | 11.7 | G1/4 | 8 | G1/4 | 10.5 | 66.5 | 76.5 | 32.5 | 25 | 86.5 | M20x1,5 | 128 | 103 | 133 | 22 | 24 | 40 | 4 |

WITH NON-ROTATING PISTON ROD



- DOUBLE acting
- DOUBLE acting DOUBLE ENDED ROD

CUD ... -X
CUDP ... -X



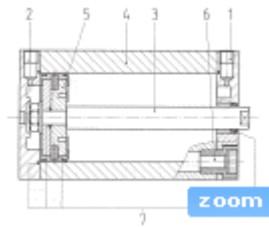
- 1 Guida per fine corsa magnetico
- 2 Quota minima di avvitatura
- + Aggiungere la corsa
- ++ Aggiungere 2 volte la corsa



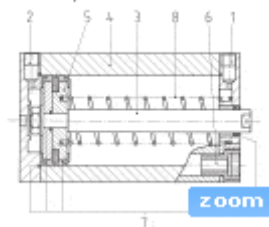
| Bore | D | D1 | D2 | D3 | D6 | D7 | D8 H9 | E1 | F | H | H1 | H2 | H4 | H5 | K1 | L | L1 | L2 | SW | T | T1 | T2 |
|------|----------|----------|-----|-----|----------|------|----------|------|------|------|------|------|-----|------|----------|-----|-----|------|-----|-----|-----|-----|
| | ∅ mm. | ∅ mm. | | | ∅ mm. | | ∅ mm. | | mm. | mm. | mm. | mm. | mm. | mm. | | mm. | mm. | mm. | mm. | mm. | mm. | mm. |
| 16 | 8 | 3.3 | M4 | M4 | 3.2 | - | 6 | M5 | 8 | 38 | 42.5 | 18.5 | 16 | 47 | M8 | 29 | 18 | 30 | 7 | 10 | 20 | 4 |
| 20 | 10 | 4.2 | M5 | M5 | 3.8 | - | 6 | M5 | 8 | 38 | 42.5 | 18.5 | 18 | 47 | M10x1,25 | 36 | 22 | 37.5 | 8 | 10 | 22 | 4 |
| 25 | 10 | 4.2 | M5 | M5 | 3.8 | - | 6 | M5 | 8 | 39.5 | 45 | 18.5 | 18 | 50.5 | M10x1,25 | 40 | 26 | 41.5 | 8 | 10 | 22 | 4 |
| 32 | 12 | 5.2 | M6 | M6 | 4.5 | - | 6 | G1/8 | 8 | 44.5 | 50.5 | 23 | 20 | 56.5 | M10x1,25 | 50 | 32 | 52 | 10 | 12 | 22 | 4 |
| 40 | 12 | 5.2 | M6 | M6 | 4.5 | - | 6 | G1/8 | 8 | 45.5 | 52 | 23 | 20 | 58.5 | M10x1,25 | 60 | 42 | 62.5 | 10 | 12 | 22 | 4 |
| 50 | 16 | 6.8 | M8 | M8 | 6 | - | 6 | G1/8 | 8 | 45.5 | 53 | 24.5 | 20 | 60.5 | M12x1,25 | 68 | 50 | 71 | 13 | 16 | 24 | 4 |
| 63 | 16 | 8.5 | M10 | M8 | 6 | - | 8 | G1/8 | 8 | 50 | 57.5 | 27 | 25 | 65 | M12x1,25 | 87 | 62 | 91 | 13 | 16 | 24 | 4 |
| 80 | 20 | 8.5 | M10 | M10 | 8 | G1/8 | 8 | G1/8 | 8.5 | 56 | 64 | 27 | 25 | 72 | M16x1,5 | 107 | 82 | 111 | 17 | 20 | 32 | 4 |
| 100 | 25 | 8.5 | M10 | M12 | 11.7 | G1/4 | 8 | G1/4 | 10.5 | 66.5 | 76.5 | 32.5 | 25 | 86.5 | M20x1,5 | 128 | 103 | 133 | 22 | 24 | 40 | 4 |



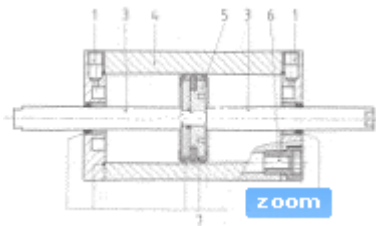
PNEUMATIC CYLINDERS: compact CYLINDERS UNITOP – spare parts



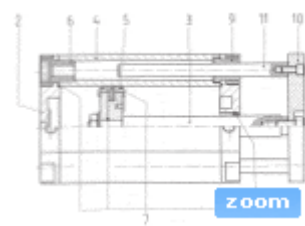
CUD...-F
CUD...-M



CUS...-FA
CUS...-FP
CUS...-MA
CUS...-MP



CUSP...-F
CUSP...-M
CUDP...-F
CUDP...-M
CUDP...-M4



CUD...-A
CUDP...-A



| ITEM | QUANTITY (each cylinder) | MODEL | DESCRIPTION |
|------|--------------------------|-------|----------------------------|
| 1 | 1 | GTA | Front end cap group |
| 2 | 1 | GTP | Rear end cap group |
| 3 | 1 | ST | Piston rod |
| 4 | 1 | CM | Body |
| 5 | 1 | GPT | Piston group |
| 6 | 8 | VT | Screw |
| 7 | 1 | SGM | Seals kit |
| 8 | 1 | ML | Spring |
| 9 | 1 | GTR | Non-rotating front end cap |
| 10 | 1 | GSA | Non-rotating bracket group |
| 11 | 2 | SA | Slide bar |
| 12 | 1 | DS | Piston rod nut |

