

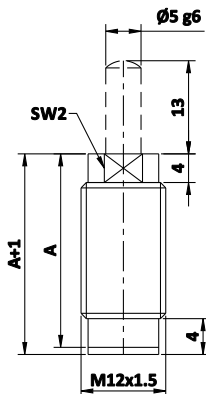


Hydraulic Mini Threaded Cylinders

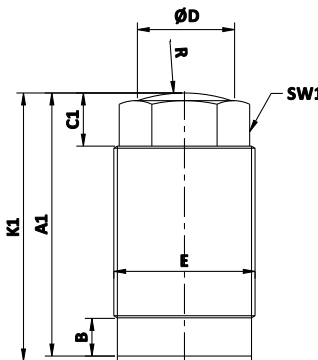
Single Acting, Spring Return



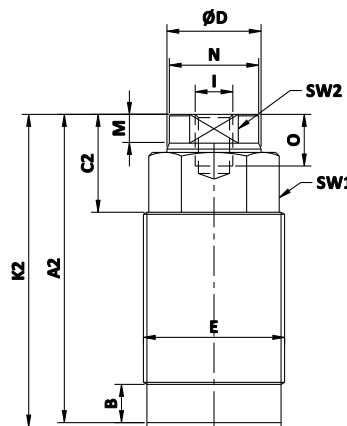
Type-A



Type-B



Type-C



Description

- These cylinders can be threaded directly into the tapped holes of the fixture, down to hexagonal/ slotted section of cylinders body. Spacings between cylinders can be reduced when arranged in a row.

Features

- Type : Single Acting
- Max. working pressure : 200 kg/cm²
- Since oil is supplied through drilled passages in the fixture, special seals are provided for self sealing.

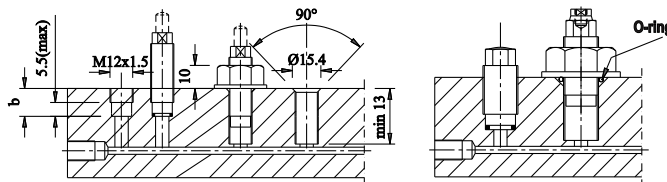
Application

- Used in multiple clamping fixture to hold small parts. These cylinders can be arranged in a clamping bar.

Important Notes

- Threaded body cylinders must not be loaded in the retracted position.
- Cylinder should be protected from cutting liquids and coolants.

Mounting Arrangement



- All dimensions are in mm
- Overall dimensional tolerance ±0.5 mm

| SPECIFICATIONS | TYPE-A | | TYPE-B & TYPE-C | | | | | | |
|---------------------------------------|--------------|----------|-----------------|---------|----------|----------|----------|----------|----------|
| | | | | | | | | | |
| BORE DIA D | 8 | 8 | 12 | 16 | 20 | 25 | 32 | | |
| STROKE ±0.5mm | 5 | 10 | 10 | 12 | 15 | 16 | 20 | | |
| FORCE IN kgf @ 200 kg/cm ² | 100 | 100 | 220 | 400 | 628 | 980 | 1600 | | |
| Min. PRESSURE (bar) | 10 | 10 | 10 | 10 | 10 | 10 | 10 | | |
| OIL VOLUME (cc) | 0.25 | 0.5 | 1.13 | 2.4 | 4.65 | 7.86 | 16 | | |
| PISTON AREA sq. cm. | 0.5 | 0.5 | 1.13 | 2 | 3.1 | 4.91 | 8 | | |
| A | 27 | 40 | --- | --- | --- | --- | --- | | |
| A1 | --- | --- | 37 | 45.5 | 55 | 58 | 85 | | |
| A2 | --- | --- | 44 | 51.5 | 64.5 | 67 | 96 | | |
| B | --- | --- | 7 | 8 | 8 | 11 | 12 | | |
| C1 | --- | --- | 7 | 10 | 11 | 13.5 | 17 | | |
| C2 | --- | --- | 14 | 16 | 20.5 | 22.5 | 28 | | |
| ØD | --- | --- | 12 | 16 | 20 | 25 | 32 | | |
| E | --- | --- | M22x1.5 | M26x1.5 | M30x1.5 | M38x1.5 | M48x1.5 | | |
| K1 | --- | --- | 38 | 46.5 | 56 | 59.5 | 87 | | |
| K2 | --- | --- | 45 | 52.5 | 65.5 | 68.5 | 98 | | |
| ØI | --- | --- | 11 | 15 | 19 | 23 | 30 | | |
| M | --- | --- | 5.5 | 5.5 | 6 | 7 | 9 | | |
| N | --- | --- | M6 | M6 | M8 | M8 | M12 | | |
| O | --- | --- | 6 | 6 | 8 | 8 | 12 | | |
| R | --- | --- | 20 | 25 | 32 | 40 | 50 | | |
| SW1 (HEX) | --- | --- | 17 | 22 | 24 | 32 | 41 | | |
| SW2 (A/F) | 9 | 9 | 10 | 13 | 17 | 19 | 24 | | |
| STANDARD PART Nos | WITHOUT EXTN | 4451-111 | 4451-112 | TYPE-B | 4451-211 | 4451-311 | 4451-411 | 4451-511 | 4451-611 |
| | WITH EXTN. | 4451-121 | 4451-122 | TYPE-C | 4451-221 | 4451-321 | 4451-421 | 4451-521 | 4451-621 |