



Note

It is necessary to use a device having F.R.L.* function for these pneumatic swing cylinders in order to effectively remove moisture, lubricate and extend the use life of the cylinder.

*F: Filters R: Regulators L: Lubricators

Application

When machining a workpiece by means of a machine tool, a pneumatic swing clamping cylinder will be your best choice if the placing and taking of the workpiece are not allowed to be interfered by the clasper.

Function

This cylinder belongs to a pull cylinder of which the total stroke is equal to the sum of a swing stroke and a clamping stroke, and is usually used within the clamping stroke.

Type

This swing cylinder belongs to a double-acting type which is operated mainly in a downward pressing manner, including clockwise swing and counterclockwise swing; standard angle is 90°, and optional angles include 0°, 45°, 60°; clamping means includes single arm or double arms; the mounting manner includes square base type, threaded type and flange type for manifold mounting with O-ring seal.

Material

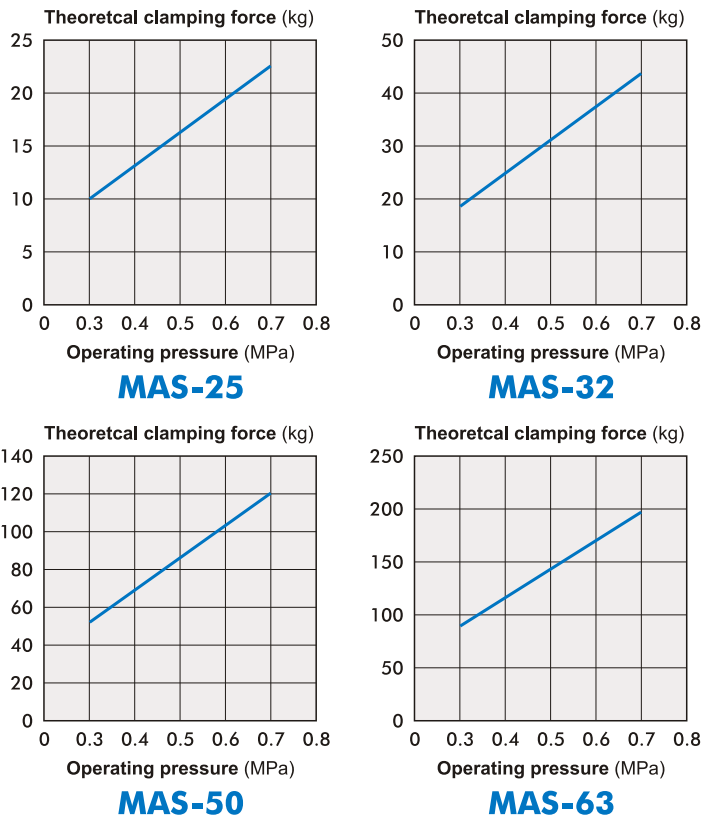
This material of the main body is aluminum alloy.

Order example

| | | | | | |
|------------|------------------|----------|---------------|----------|-----------|
| MAS | L | — | 40 | × | 90 |
| MODEL | SWIVEL DIRECTION | | PISTON ϕ | | ANGLE |
| MAS | R: CW | | 25 | | 0° |
| MASD | L: CCW | | 32 | | 45° |
| MATS | P: Nonswing | | 40 | | 60° |
| MATSD | | | 50 | | 90° |
| | | | 63 | | 180° |

Note: MATS and MATSD produced by order

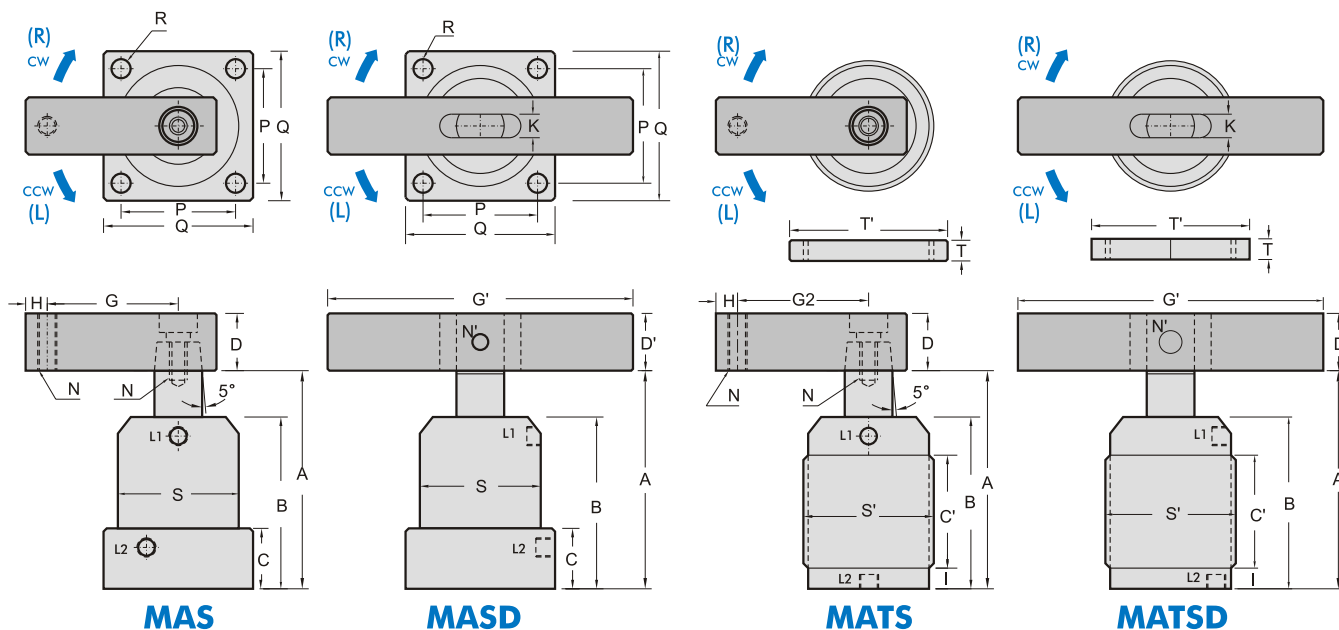
Schematic view showing a theoretical clamping force under different pneumatic pressure:



MAS* / MATS* Max. operating pressure 0.7MPa



Pneumatic Swing Clamping Cylinder Double-acting, operating pressure 0.4~0.6 MPa **mindman**



| Flange type | MAS-25 | MAS-32 MASD-32 | MAS-40 MASD-40 | MAS-50 MASD-50 | MAS-63 MASD-63 |
|--------------------------------------|---------------------------|---------------------|---------------------|---------------------|---------------------|
| Threaded type (produced by order) | MATS-25 | MATS-32 MATSD-32 | MATS-40 MATSD-40 | MATS-50 MATSD-50 | MATS-63 MATSD-63 |
| Max. operating pressure | 0.7 MPa | | | | |
| Normal operating pressure | 0.4~0.6 MPa | | | | |
| Cylinder operating | Double-acting | | | | |
| Swivel angle | 90° (0° 45° 60° 180°)±2° | | | | |
| Swivel stroke (mm) | 12/*21 | 12/*21 | 12/*21 | 14/*21 | 14/*21 |
| Clamping stroke (mm) | 14/*5 | 14/*5 | 15/*6 | 15/*8 | 15/*8 |
| Piston-φ (mm) | 25 | 32 | 40 | 50 | 63 |
| Piston rod-φ (mm) | 14 | 16 | 16 | 20 | 20 |
| Theoretical force (0.5 MPa) | 16kg | 30kg | 50kg | 85kg | 140kg |
| A (unclamp) (mm) | 95.5 | 102.5 | 106 | 113 | 119 |
| B (mm) | 66.5 | 71 | 75 | 80 | 86 |
| C (mm) | 23 | 23 | 26 | 26 | 30 |
| C' (mm) | 35 | 40 | 45 | 50 | 56 |
| D (mm) | □16 | □19 | □19 | □25.4 | □25.4 |
| D' (mm) | | □19 | □19 | □22 | □22 |
| G (mm) | 30 | 50 | 50 | 70 | 70 |
| G' (mm) | | 100 | 100 | 120 | 120 |
| G2 (mm) | 50 | 60 | 70 | 80 | 90 |
| H (mm) | 8 | 9 | 9 | 10 | 10 |
| I (mm) | 10 | 13 | 13 | 13 | 13 |
| K (mm) | | 9 | 9 | 10 | 10 |
| L1 (clamp) L2 (unclamp) | M5×0.8 | Rc1/8 | Rc1/8 | Rc1/8 | Rc1/8 |
| N (mm) | M6×1 | M8×1.25 | M8×1.25 | M10×1.5 | M10×1.5 |
| N' (mm) | | φ8 | φ8 | φ8 | φ8 |
| P (mm) | 30 | 44 | 48 | 55 | 64 |
| Q (mm) | 40 | 54 | 58 | 68 | 80 |
| R (mm) | φ4.5 | φ6.5 | φ6.5 | φ8.5 | φ8.5 |
| S (mm) | φ35 | φ50 | φ55 | φ65 | φ75 |
| S' (mm) | M40×1.5 | M50×1.5 | M55×1.5 | M65×1.5 | M80×1.5 |
| T (×2 pcs) (mm) | 9 | 11 | 11 | 12 | 15 |
| T' (mm) | φ58 | φ70 | φ75 | φ85 | φ105 |

Note: Dimension for 180° .



mindman