MAS* / MATS* series

Pneumatic Swing Clamping Cylinder

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

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 clamper.

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.

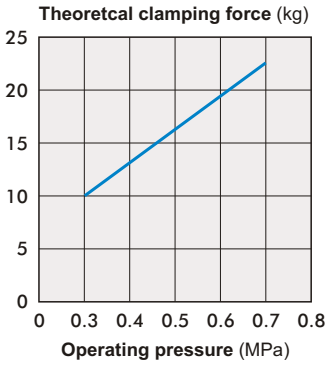
Type

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.

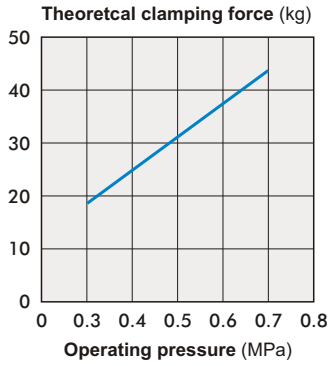
Material

This material of the main body is aluminum alloy.

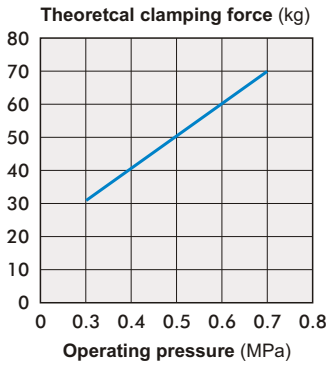
Schematic view showing a theoretical clamping force under different pneumatic pressure:



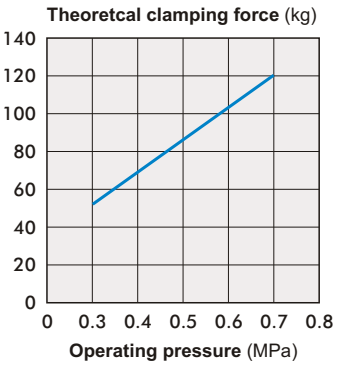
MAS-25



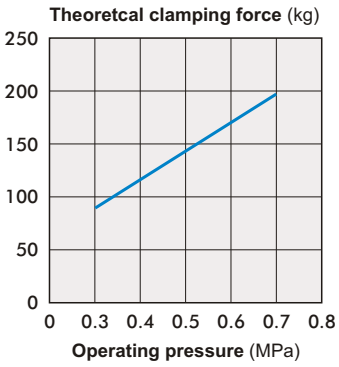
MAS-32



MAS-40



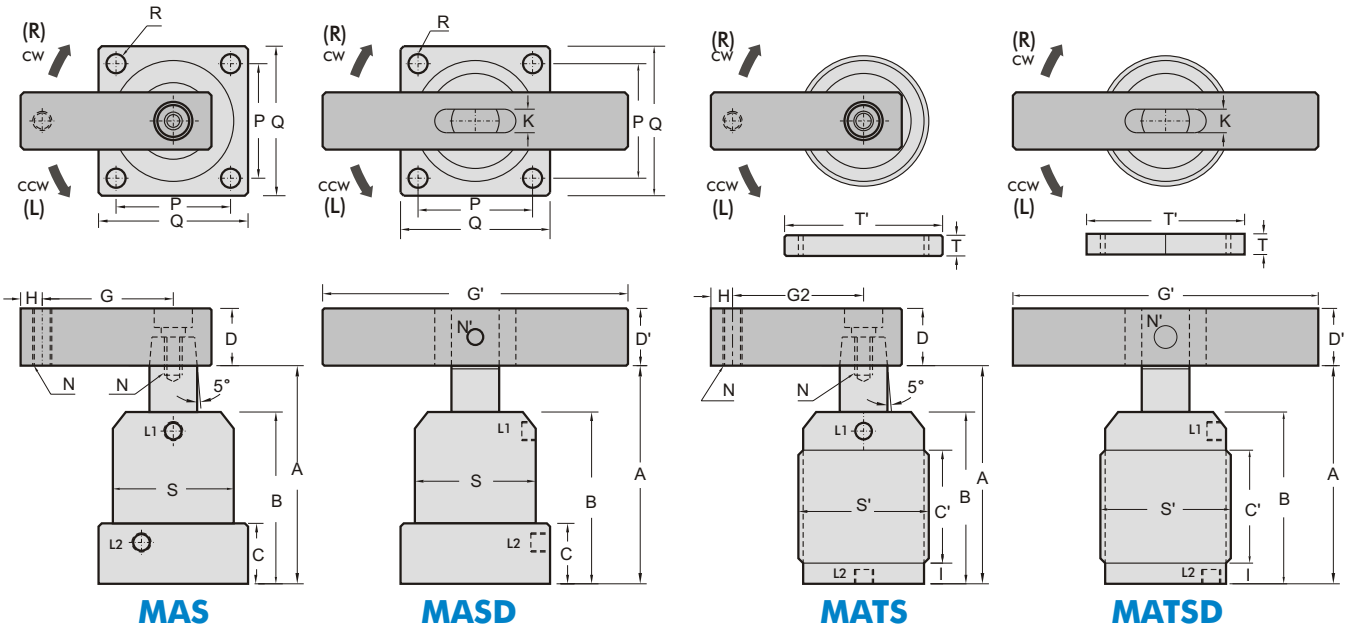
MAS-50



MAS-63

MAS* / MATS* Max. operating pressure 0.7MPa

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



MAS MASD MATS MATSD

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
Pistion rod-ϕ (mm)	14	16	16	20	20
Theoretcal 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° .