



MP 44 S [Stroke] N [Rod End]

Available Strokes (mm): 10, 25, 40, 50, 80, 100, 160, 200, 250, 300

Rod End Options: (X) Ball Joint, (V) Plain Thread

Use external stops. Do not bottom out the piston under pressure as it can damage the unit!

Dimensional

Bore Diameter: 44.45 mm

Piston Area: 1552 mm²

Supply: Clean, Dry, Unlubricated Air

Pressure Range: 0.0015 to 0.7 MPa

Filtration: Coalescing filter required with particle filtration of one micron or less

A Particle filter upstream of the coalescing filter is recommended

Mounting Option S: Has two ports, so one can be used to measure the pressure inside the cylinder.

Environment

Temperature Range: -20 °C to +85 °C

Mounting

Rod End Option X: Misalignment handling is built into the rod design, so no separate misalignment coupling is needed. Rigidly mount the cylinder and then simply attach the rod end to a linearly guided load. Ensure that the rod does not rub against the inside of the rod clearance hole throughout the entire stroke.

Rod End Option V: A customer-supplied ball joint is required to prevent excess friction or binding due to misalignments. Rigidly mount the cylinder and then attach the rod end to a low friction ball joint of your choice, then connect to a linearly guided load. Ensure that the rod does not rub against the inside of the rod clearance hole throughout the entire stroke.

Cylinder Nut Torque: 7 to 11 Nm

Rod Nut Torque

Rod end Option X: 0.56 to 1.7 Nm

Output: Single acting (push only)

Push Force (N) = Supply pressure (MPa) x 1552

2.33 N minimum at 0.0015 MPa

1086 N maximum at 0.7 MPa

Piston Friction: <0.5% of Output Force with supply pressure above 0.2 MPa

Leak

Piston Leak: <4.5 standard L/min at 0.34 MPa

Cycle Life

The very long cycle life of this product depends on how the cylinder is used as well as the requirements of your application. Leak will increase as the piston slowly wears with a high number of cycles. Typically, cylinders will last from 10 to 40 million cycles before they are replaced.

Mass

Total Mass (g) = 574 + (3.15 x stroke)

Moving Mass (g) = 97 + (0.39 x stroke)

Sensors

Proximity switches: GL series sensors mount in T tracks and switch on when the piston magnet is detected. A mounting bracket is required for MP32 cylinders.

Position feedback: GX series sensors mount in T tracks and output a signal proportional to the position of the piston.

NOTE 1 - SIDE MOUNTING HOLES

C'BORED ON TOP AND TAPPED ON BOTTOM
CAN BE USED IN 1 OF 2 WAYS

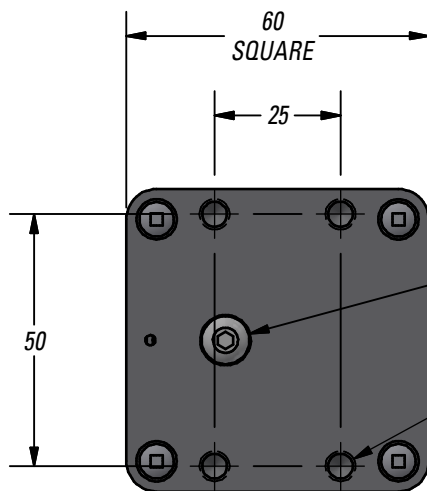
OPTION 1

BOLT THROUGH WITH M6 SHCS

OPTION 2

SCREW INTO M8x1.25 TAPPED HOLES

8 mm MAX SCREW DEPTH



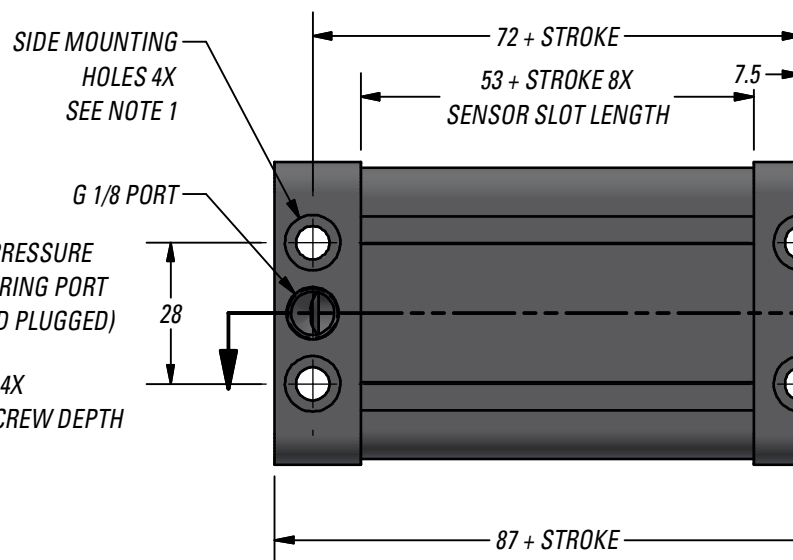
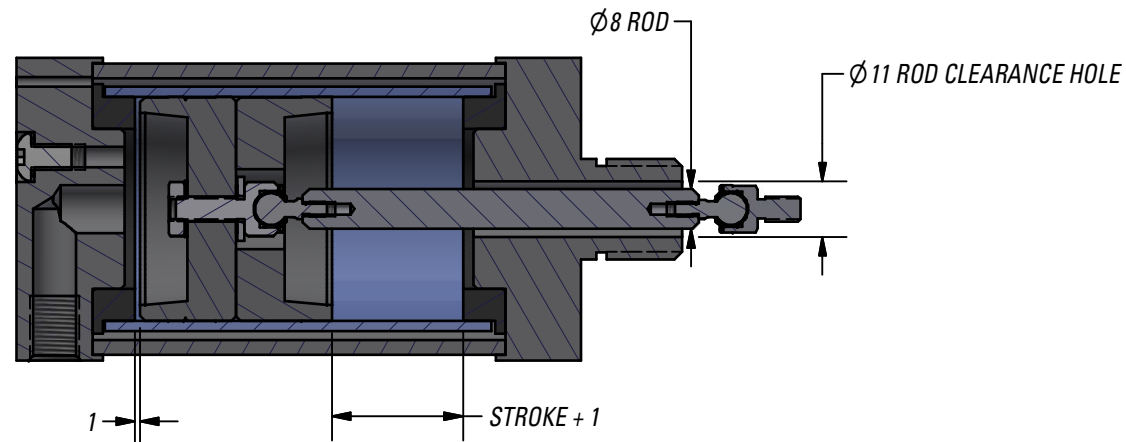
M5x0.8 PRESSURE
MONITORING PORT
(SHIPPED PLUGGED)

M6x1 - 6H 4X
10 MAX SCREW DEPTH

SIDE MOUNTING
HOLES 4X
SEE NOTE 1

G 1/8 PORT

28



M20x2.5 - 6g

M5x0.8 - 6g

30 HEX

8 HEX

8 HEX

10

8.5

2.7

STROKE	PART NUMBER
10.0	MP 44 S 10.0 NX
25.0	MP 44 S 25.0 NX
40.0	MP 44 S 40.0 NX
50.0	MP 44 S 50.0 NX
80.0	MP 44 S 80.0 NX
100.0	MP 44 S 100.0 NX
160.0	MP 44 S 160.0 NX
200.0	MP 44 S 200.0 NX
250.0	MP 44 S 250.0 NX
300.0	MP 44 S 300.0 NX

ADDITIONAL OPTIONS

1. Want a magnet attached to the piston?
Add "M" to the end of the part number.
Example: MP 44 S 25.0 NX M

8 sensor slots are built into the housing,
two on each side of the cylinder.

Airpot® 35 LOIS ST
NORWALK CT 06851
US

203-846-2021
www.airpot.com

PART

MP 44 S - NX

REV
0212AG

AIRPEL PLUS, MODEL 44

UNITS IN mm

