

MAB 16 S [Stroke] [Mounting] [Rod End]

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

Mounting Options: (N) Nose Mount, (S) Front & Rear Stud Mount

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: 15.9 mm

Piston Area: 198 mm²

Supply: Clean, Dry, Unlubricated Air

Pressure Range (Cylinder Vertical): 0.03 to 0.7 MPa

Pressure Range (Cylinder Horizontal): 0.15 to 0.7 MPa

The air bearing piston requires the minimum pressures noted above to work properly. Operating below minimum pressures can damage the cylinder!

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.

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 piston damage 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: 3.4 to 4.5 Nm

Rod Nut Torque: 0.56 to 1.7 Nm

Note: Apply tightening/support wrench to the end being mounted only.

Output: Single acting (push only)

Push Force (Vertical) (N) = Supply pressure (MPa) x 198

5.9 N minimum at 0.03 MPa

139 N maximum at 0.7 MPa

Push Force (Horizontal) (N) = Supply pressure (MPa) x 198

29.7 N minimum at 0.15 MPa

139 N maximum at 0.7 MPa

Piston Friction: Zero

Leak

Piston Leak: <6 standard L/min at 0.2 MPa

4 standard L/min at 0.2 MPa TYPICAL

Environment

Temperature Range: -20 °C to +60 °C

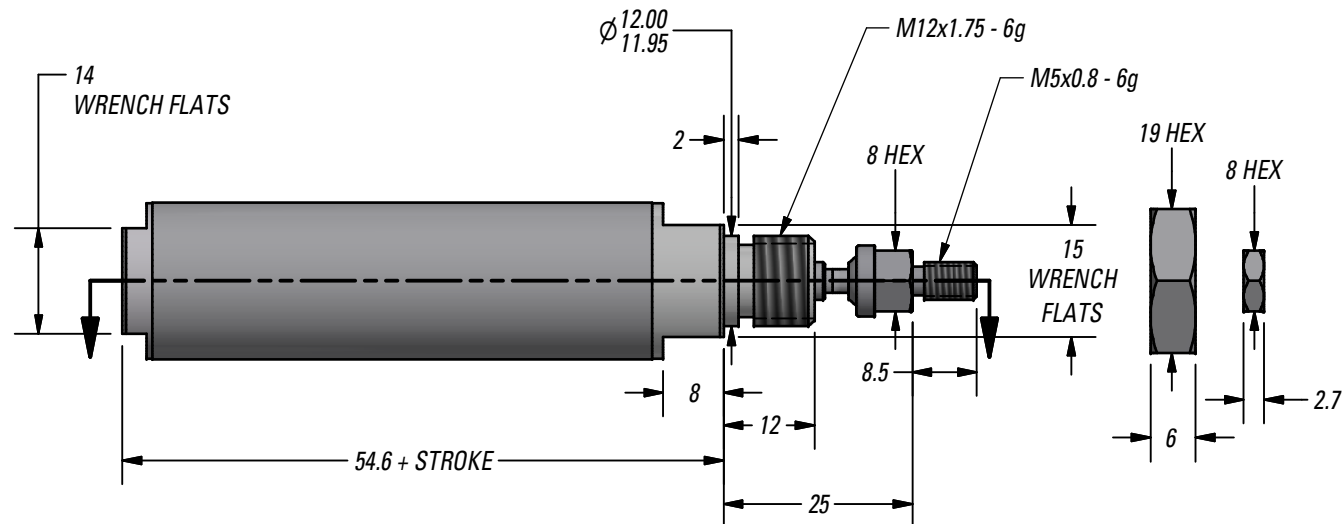
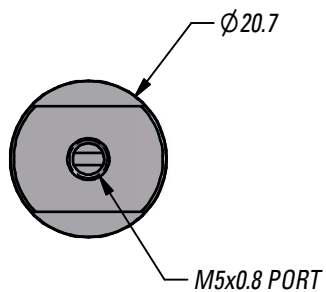
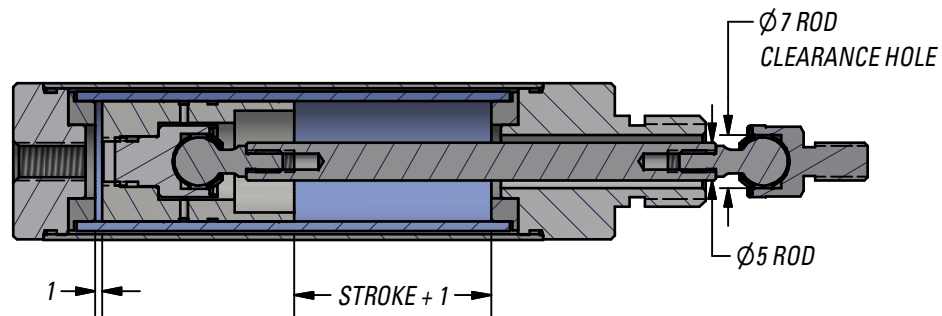
Cycle Life

When the air cleanliness requirements are met and the units are used per specifications, the piston should not wear significantly throughout the life of the machine.

Mass

Total Mass (g) = 72 + (0.66 x stroke)

Moving Mass (g) = 34.9 + (0.15 x stroke)



STROKE	PART NUMBER
10.0	MAB 16 S 10.0 NX
25.0	MAB 16 S 25.0 NX
40.0	MAB 16 S 40.0 NX
50.0	MAB 16 S 50.0 NX
80.0	MAB 16 S 80.0 NX
100.0	MAB 16 S 100.0 NX
160.0	MAB 16 S 160.0 NX
200.0	MAB 16 S 200.0 NX
250.0	MAB 16 S 250.0 NX
300.0	MAB 16 S 300.0 NX

Airpot® 35 LOIS ST NORWALK CT 06851 US		203-846-2021 www.airpot.com
PART MAB 16 S - NX		REV 0909AE
AIRPEL-AB, MODEL 16	UNITS IN mm	 3RD ANGLE PROJECTION