

MPA Micro Pump Pneumatic



General

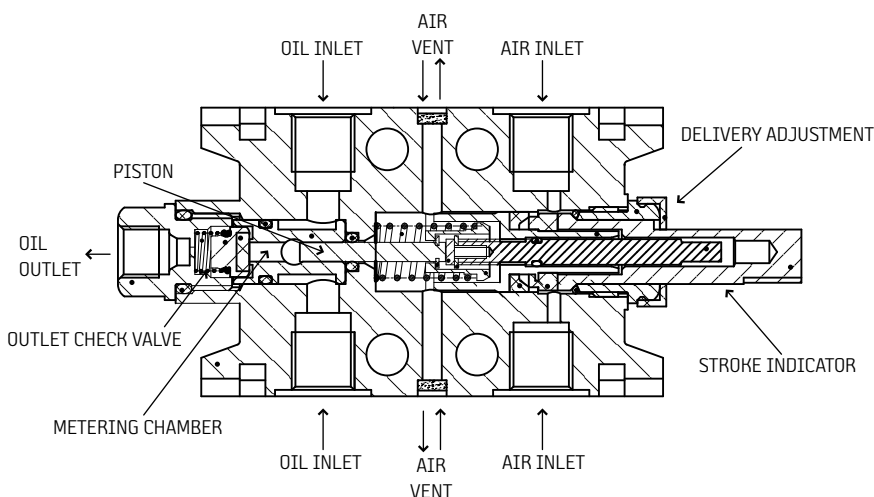
The MPA micro pump is a pneumatically operated miniature piston pump used to deliver lubricant in small, metered quantities. This pump has applications in lubricating cutting tools during various machining operations including drilling, reaming, thread forming and broaching. There are 3 products in the family; a single injector pump, a 3-way injector pump with individual actuation and a 3-way injector pump with group actuation. The units may be combined to form a manifold of 12 outlets maximum.

Technical Data

| | |
|-----------------------|-------------------------------|
| Supply Air Pressure | 44 - 103 psi (3-7 bar) |
| Discharge | 0 to 0.03 cc |
| Cycle Frequency | 60 strokes/min max |
| Max Pressure Ratio | 15 : 1 |
| Oil Inlet Pressure | Max 44 psi (3 bar) |
| Operating Temperature | 32 °F - 176 °F (0 °C - 80 °C) |
| Lubricant Viscosity | Oil from 10 - 1100 cSt |
| Oil Inlet & Air Inlet | 1/8BSPP |
| Oil Outlet | MBX1 |

Operation

Oil is supplied to the unit, either gravity fed from a reservoir, or under pressure from another pump to a maximum of 43psi (3 bar). Compressed Air is supplied to the unit and actuated using a 3/2 solenoid valve (for the 3-way injector unit with individual actuation, 3 solenoid valves are necessary). As pressurised air is fed to the injector, the piston moves forward and forces the oil in the metering chamber out through the check valve. The air behind the piston is displaced out through the air vent. De-actuating the 3/2 solenoid valve enables the main spring to return the piston to its original position and allows oil to be drawn into the metering chamber once more. Air is drawn in through the air vent to prevent a vacuum being created. The metered volume may be adjusted by rotating the adjustment nut.



MPA 5107831E



MPA 5107811E

Refer to the following documents:

+ Brochure #151:
Fittings Catalog

How to Order

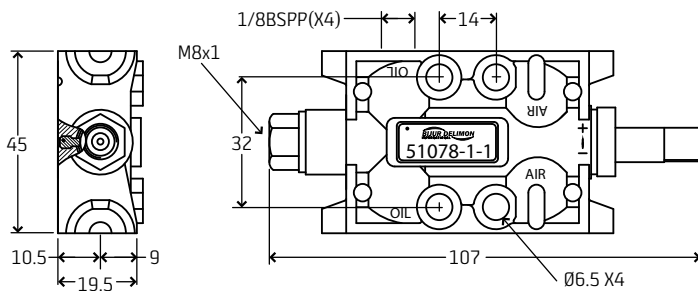
| Name | Part # | |
|---|----------|---------|
| MPA Single Injector | 5107811E | |
| MPA 3-Way Injector - Group Actuation | 5107831E | |
| MPA 3-Way Injector - Individual Actuation | 5107832E | |
| Reservoirs | 70 cc | 533251E |
| | 320 cc | 533252E |
| | 400 cc | 533253E |
| | 1 Liter | 533254E |

Accessories:

- + Connector Kit: p.n. 52674
Includes: 2-Orings, 2-Bolts,
2 Connection Caps & 2-Nuts
- + Closure Plug: p.n. 28516-2

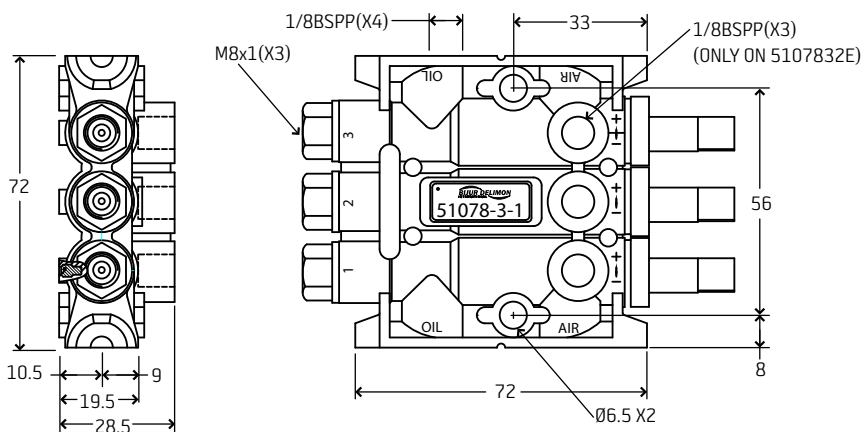
Dimensions

5107811E

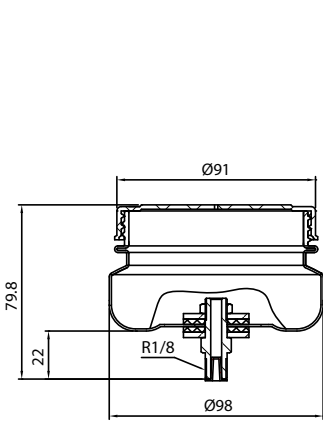


Note: Dimensions are in millimeters.

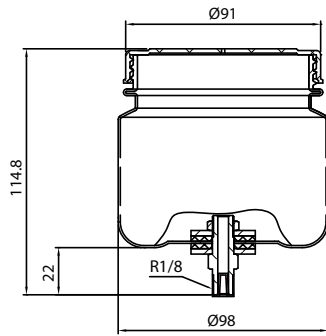
5107831E & 5107832E



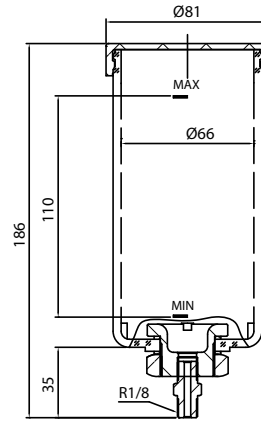
RESERVOIRS



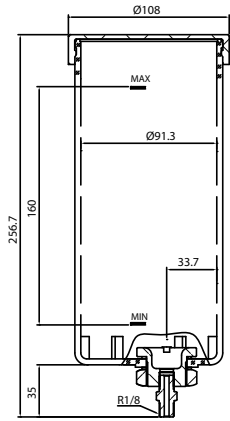
P.N.533251E



P.N.533252E



P.N.533253E



P.N.533254E

TYPICAL INSTALLATION USING 1-WAY AND 3-WAY INJECTORS 5107831E & 5107832E

