

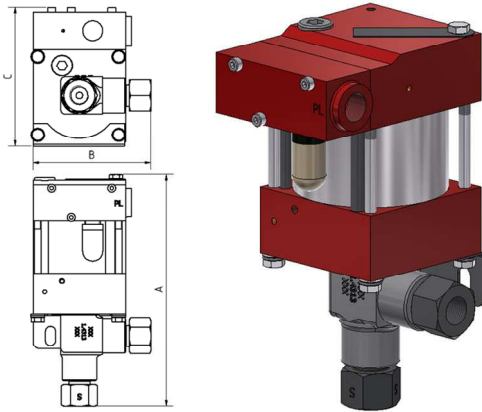
## Technical Data Sheet

M111 (L)

» Oil service

M111 (L) VE

» Water service



M111 (L)  
single acting, single air drive head  
(Standard= Bottom inlet)

### Technical Data:

Air drive pressure: 1 - 10 bar / 14.5 - 145 psi

Calculated working pressure: 1300 bar / 18850 psi

Pressure ratio: 1:130

Displacement volume/double stroke: 1.0 cm<sup>3</sup> / 0.06 cu.inch

### Connections:

Inlet: Standard: Bottom Inlet 3/8" BSP

Outlet: 3/8" BSP

Air drive: 3/8" BSP

Maximum operating temperature: 60°C

Net weight: 2.8 kg

Pressure and flow performances, please see enclosed graph.

### Wetted materials of construction:

Seal package: M111(L): Polyurethane  
M111(L)VE: UHMWPE, FKM

Pump Body: 1.4313

Piston: 1.4112

Fittings: 1.4542

### Approximate Dimensions:

A: 202.5 mm

B: 104 mm

C: 120 mm

### Available Options:

Seal material for oil service: M111(L)

Seal material for water service: M111(L)VE

Side inlet: M111(L)S/ M111(L)VES

Hand lever/ Spring return: M111-HL  
(only available with seal package Polyurethane, NBR)

External pilot port modification: M111(L)-DIR

Special inlet and outlet ports, i.e. NPT: M111(L)-NPT

M111(L)VE-NPT

Special seal material to handle special fluids on request.

### Available Accessories:

Air control units for M series with filter pressure regulator, control pressure gauge and shut off valve: M111(L) with C1

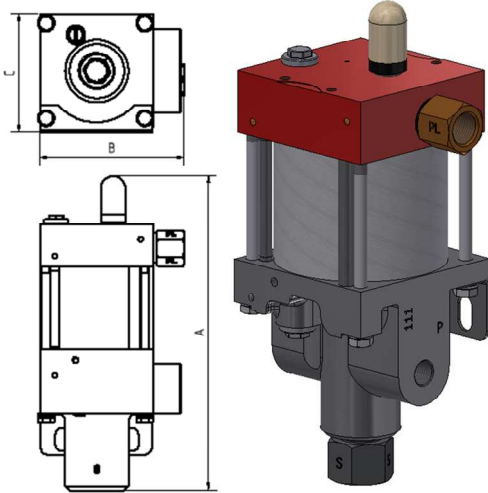
To protect the pump against excessive outlet pressures or to limit the outlet pressure, a safety valve M111(L) with C1/SV-air (The required outlet pressure has to be indicated.) can be fitted to the air control unit in the air drive line.

**Please consult factory for more information.** All technical and dimensional information subject to change. All General Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.

## Technical Data Sheet

MO111

» Oil service



MO111  
single acting, single air drive head  
(Standard= Bottom inlet)

### Technical Data:

Air drive pressure:	1 - 10 bar / 14.5 - 145 psi
Calculated working pressure:	1000 bar / 14504 psi
Pressure ratio:	1:133
Displacement volume/double stroke:	1.0 cm <sup>3</sup> / 0.06 cu.inch

### Connections:

Inlet:	Standard: Bottom Inlet 3/8" BSP
Outlet:	1/4" BSP
Air drive:	3/8" BSP
Maximum operating temperature:	60°C
Net weight:	3.0 kg

Pressure and flow performances, please see enclosed graph.

### Wetted materials of construction:

Top cap:	3.1645
Air cylinder:	3.3206
Seal package:	Polyurethane, NBR
Pump Body:	0.7050
Piston:	1.4112

### Approximate Dimensions:

A:	227.5 mm
B:	103 mm
C:	85 mm

### Available Options:

Side inlet:	MO111S
External pilot port modification:	MO111-DIR
Special inlet and outlet ports, i.e. NPT:	MO111-NPT
Special seal material to handle special fluids on request.	

### Available Accessories:

Air control units for M series with filter pressure regulator, control pressure gauge and shut off valve:	MO111 with C1
To protect the pump against excessive outlet pressures or to limit the outlet pressure, a safety valve can be fitted to the air control unit in the air drive line.	MO111 with C1/SV-air (The required outlet pressure has to be indicated.)

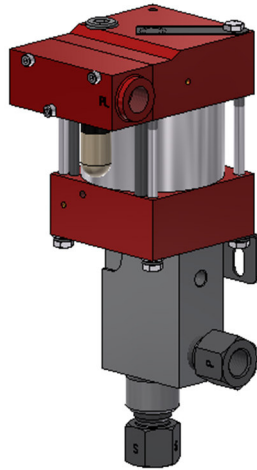
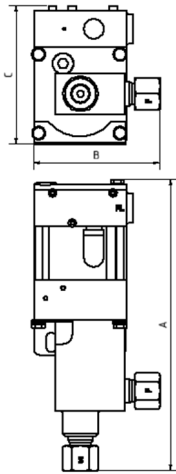
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Technical Data Sheet

MSF111(L)

» Special liquids



MSF111(L)  
single acting, single air drive head and

**Technical Data:**

Air drive pressure:	1 - 10 bar / 14.5 - 145 psi
Calculated working pressure:	1000 bar / 14500 psi
Pressure ratio:	1:130
Displacement volume/double stroke:	1.0 cm <sup>3</sup> / 0.06 cu.inch

**Connections:**

Inlet:	Standard: Bottom Inlet 3/8" BSP
Outlet:	3/8" BSP
Air drive:	3/8" BSP
Maximum operating temperature:	60°C
Net weight:	3.5 kg

Pressure and flow performances, please see enclosed graph.

**Wetted materials of construction:**

Seal package:	MSF111(L): PTFE, FKM
Pump Body:	1.4305
Piston:	1.4112
Fittings:	1.4404

**Approximate Dimensions:**

A:	252 mm
B:	120 mm
C:	108 mm

**Available Options:**

Side inlet:	MSF111(L)S
Special inlet and outlet ports, i.e. NPT:	MSF111(L)-NPT
Special seal material to handle special fluids on request.	

**Available Accessories:**

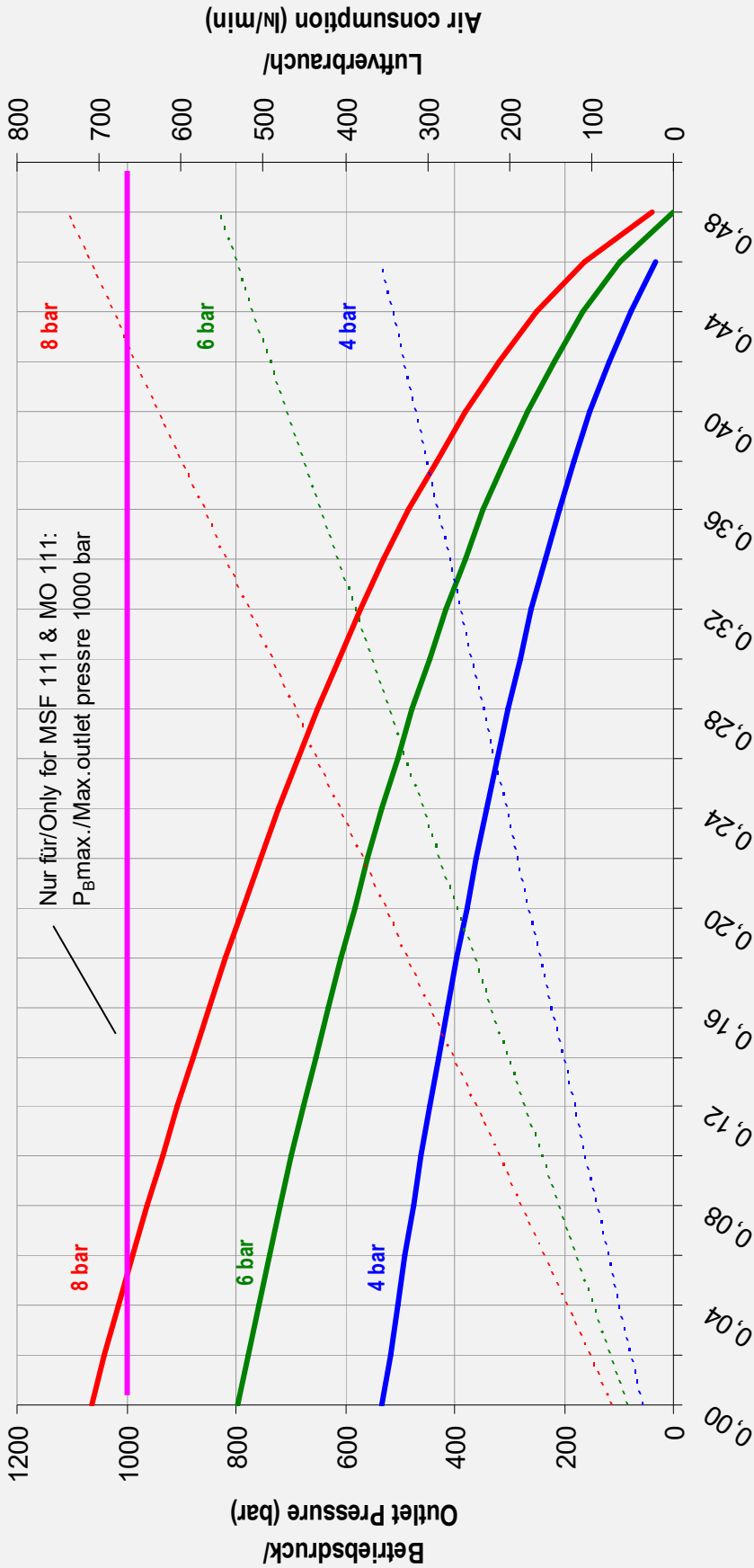
Air control units with filter pressure regulator, control pressure gauge and shut off valve:	MSF111(L) with C1
To protect the pump against excessive outlet pressures or to limit the outlet pressure, a safety valve can be fitted to the air control unit in the air drive line.	MSF111(L) with C1/SV-air (The required outlet pressure has to be indicated.)

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# Leistungsdiagramm/Performance Graph M(O)(SF) 111

Prüfflüssigkeit/ Test Liquid: Wasser-Öl-Emulsion/Water Oil Emulsion ca. 1 - 10 cst



- Betriebsdruck bei/Outlet Pressure at 4 bar
- Betriebsdruck bei/Outlet Pressure at 6 bar
- Betriebsdruck bei/Outlet Pressure at 8 bar
- - - Luftverbrauch bei/Air consumption at 4 bar
- - - Luftverbrauch bei/Air consumption at 6 bar
- - - Luftverbrauch bei/Air consumption at 8 bar