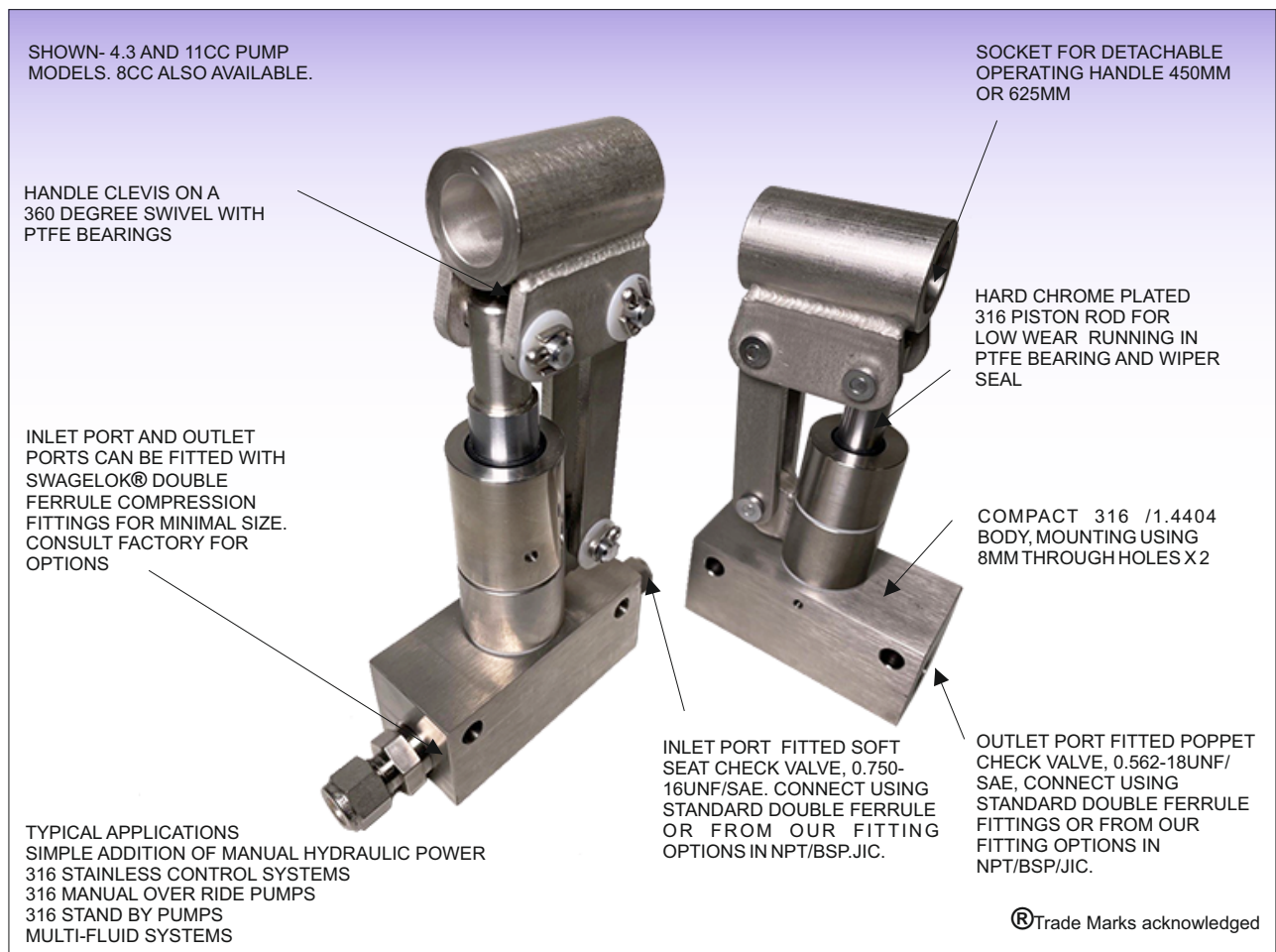


# 316 System Builder



**SARUM**  
**HYDRAULICS**  
Designers & Manufacturers of Micropac® Hydraulics

## MICROPAC® PPS Hand pump 100% 316 Stainless & polymer. To 400 bar. Small envelope & cost-effective.



## FEATURES

- 100% 316 Stainless and polymer at low cost
- Small space envelope. Pipe into your system
- 3 models, 4.3cc/400 bar, 8cc/200 bar, 11cc/125 bar
- 450mm or 625mm detachable handle
- 360 degree swivel allows easy operation
- NPT, JIC, double ferrule & BSP adaptors available
- Cost effective 316 manual power for designers
- No inlet strainer fitted
- Temperature range +80 to -30 degrees C
- Low temperature seals available to -50 degrees C
- Connect using standard "Swagelok®" fittings
- Suitable for water, oil and other operating media
- Fit relief valve and release valve externally
- Easily serviced using low cost service kits
- All material EU or US.
- ISO9001 Design and Manufacture
- Use in any orientation
- Quality British manufacture - 1 year warranty
- Factory support for product and application
- Single material for minimal galvanic corrosion
- Hard chrome plated 316 stainless piston rod
- Rugged design



## APPLICATION, INSTALLATION & MAINTENANCE

### APPLICATION

The unit is suitable for any application requiring manual generation of hydraulic power e.g. operating hydraulic cylinders or actuators, piloting valves, charging accumulators or hydrostatic testing. This component pump is a 100% 316 stainless and polymer unit offering a very small space envelope, wide flexibility on connections and would typically be specified by 316 system designers. Use of a single grade of stainless steel will provide minimal galvanic corrosion risk. It is a single acting unit generating pressure on the down stroke only and is simply fitted with inlet and outlet check valves. A designer would fit a hold/release valve, a relief valve, an inlet strainer or a four way directional valve elsewhere in the system. Note that we can offer alternative ranges of pump with an integral release and relief valve but not in the single grade of stainless that some users require for specialist applications. Our MW range uses 316 stainless and bronze plus small amounts of 302/303/304/420/431. We would be pleased to discuss your precise pump requirements for your application.

### MOUNTING AND CONNECTION

Suitable for bolting to a side plate using two M8 screws. The inlet is 0.750-16UNF/SAE female and the outlet 0.562-18UNF/SAE female industry standard ports. There are no other connections. Fit double ferrule compression fittings from "Swagelok®" or other ranges. Or specify our hexagon fittings to provide NPT female, BSP female or other configurations. Consult the factory if in doubt. Ensure that the required cleanliness is maintained.

The mounting orientation is universal.

Sealing is by nitrile rubber o rings. Other materials such as fluorocarbon or ethylene propylene are available to order.

### MOUNTING AND CONNECTIONS (continued)

An inlet strainer should be fitted upstream of the inlet of the pump, as with any hand pump. The handle mechanism rotates 360° on the body to allow fitting in restricted space envelopes. As with any hand pump, the inlet line back to tank should be kept as short and unconstricted as possible for optimum performance. Note that we do not recommend the use of 6.35 or 6mm (or smaller) pipe on the inlet.

### COMMISSIONING

The pump should be operated after installation to leak test and bleed the hydraulic circuit. Failure to do so will result in reduced pump displacement and a spongy action.

### MAINTENANCE

The inlet and outlet check valves are easily serviced. Seals are replaced using standard tools. Service kits are available. The valve components should all be protected from dirt during maintenance.

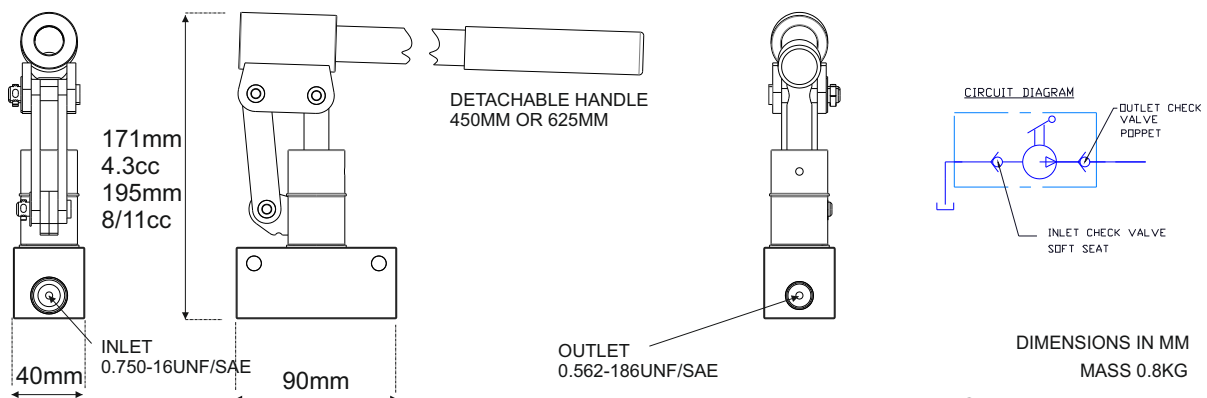
### MATERIALS OF CONSTRUCTION

Seals: PTFE, PU and nitrile. Optional alternative compounds are available including low temperature compounds and EPDM for "skydrol." 100% 316 stainless and polymer for wetted and external parts. All EU or US stainless steel. Piston rod and pivot pins are hard chrome plated.

### SAFETY

This pump is a component forming part of a hydraulic pressure system. The system should be designed, operated and maintained in accordance with statutory requirements and other relevant instructions.

## DIMENSIONS



® Trade Marks acknowledged

# 316 System Builder



**SARUM**  
HYDRAULICS  
Designers & Manufacturers of Micropac® Hydraulics

ORDER CODE FOR MICROPAC® PPS  
100% 316 stainless and polymer Hand Pump

Model	
Displacement and maximum pressure. All single acting on down stroke only	
43	4.3cc /400 bar
80	8cc /190 bar
11	11cc/125 bar
Handle	
0	No handle
4	450mm
6	625mm
Seal material	
N	Nitrile, PU
V	Viton Fluorocarbon,PU
Test fluid	
W	Water
O	Oil
S	Special
Inlet Fitting	
00	Base Unit- 0.750-16UNF/SAE female
17	3/8NPT female hexagon adaptor
22	3/8BSP female hexagon adaptor
Swagelok® list double ferrule tube fittings	
9.52, 12.7, 10, 12mm. Don't use 6.35mm on inlet	
Enquire on JIC male, other BSP male and female	
Outlet Fitting	
00	Base Unit- 0.562-18UNF/SAE female
17	3/8NPT female hexagon adaptor
22	3/8BSP female hexagon adaptor
26	1/4BSP male coned hexagon adaptor
Swagelok® list double ferrule tube fittings	
6.35, 9.52, 12.7, 6, 10, 12mm.	
Enquire on JIC male, other BSP male and female	

®Trade Marks acknowledged

**CE marking:** this product is classified under 'Sound Engineering Practice' of the Pressure Equipment Directive (PED) 2014/68/EU. As such, it does not carry the CE marking.

Sarum Hydraulics are an ISO 9001:2015 registered company with over 35 years experience in design and manufacture of hydraulic equipment. Call us, email us or visit our website to find out more about our extensive product range. Enquiries are welcomed for bespoke solutions.

**Sarum Hydraulics Limited**  
Unit 1 Danebury Court, Salisbury, SP4 6EB, UK  
Tel: 44(0)1722 328388 Fax: 44(0)1722 414307  
email: [pumpsales@sarum-hydraulics.co.uk](mailto:pumpsales@sarum-hydraulics.co.uk)  
[www.sarum-hydraulics.co.uk](http://www.sarum-hydraulics.co.uk)



**SARUM**  
HYDRAULICS  
Designers & Manufacturers of Micropac® Hydraulics

We invest heavily and continuously in product development.  
Specifications are therefore liable to change without prior notification.  
®Micropac is a Registered Trade Mark of Sarum Hydraulics