



Bulletin MSG30-2801-INST/UK

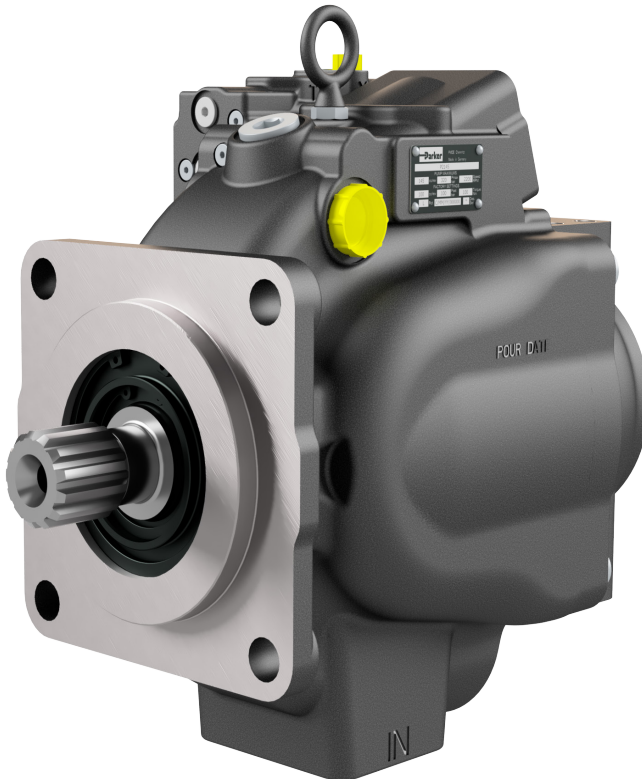


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# Installation, start-up and setup manual Series P2 and P3 Mobile Piston Pump

Effective: September 01, 2019  
Supersedes: December 14, 2018

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## 1. Safety advices before installation and setup

<p><b>Wear the correct safety equipment!</b></p>	
<p><b>Need help with installation? Please contact us.</b></p> <p><b>Parker Hannifin Manufacturing Germany GmbH &amp; Co KG</b> Pump and Motor Division Europe Neefestraße 96 09116 Chemnitz, Germany Tel: +49 (0)371 - 3937 - 0 Fax: +49 (0)371 - 3937 - 488</p> <p>Email: <a href="mailto:eP2-Support.PMD145@parker.com">eP2-Support.PMD145@parker.com</a></p>	

### Warning User responsibilities:

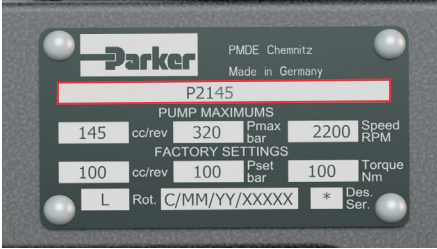
Failure or improper selection or improper use of the products described herein or related items cause death, personal injury and property damage!

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigations by users having technical expertise.

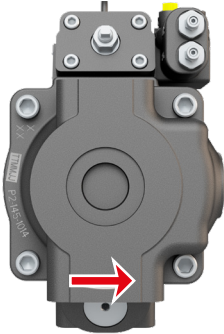
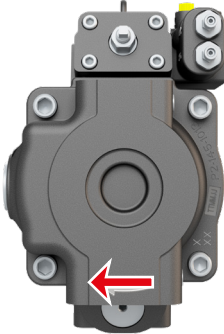
The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintainance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided by Parker or its subsidiaries or authorized distributors.

To the extent that Parker or its subsidiaries or authorized distributors provide the component or system options based upon data or specifications provided by the user. The user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably uses of the components or systems.

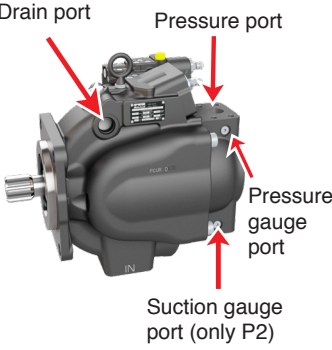
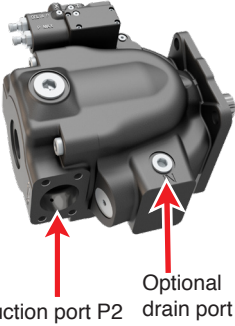
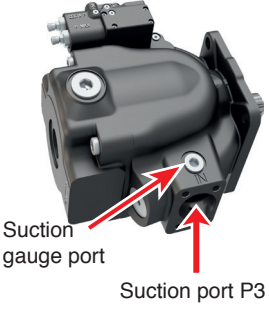
## 2. Check model code

		<p>Nameplate of the pump.          Compare with your paper work.</p>
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## 3. Check rotation of the pump

 <p>Clockwise rotation (right)</p>	 <p>Counter clockwise rotation (left)</p>
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## 4. Suction, pressure, drain line connection

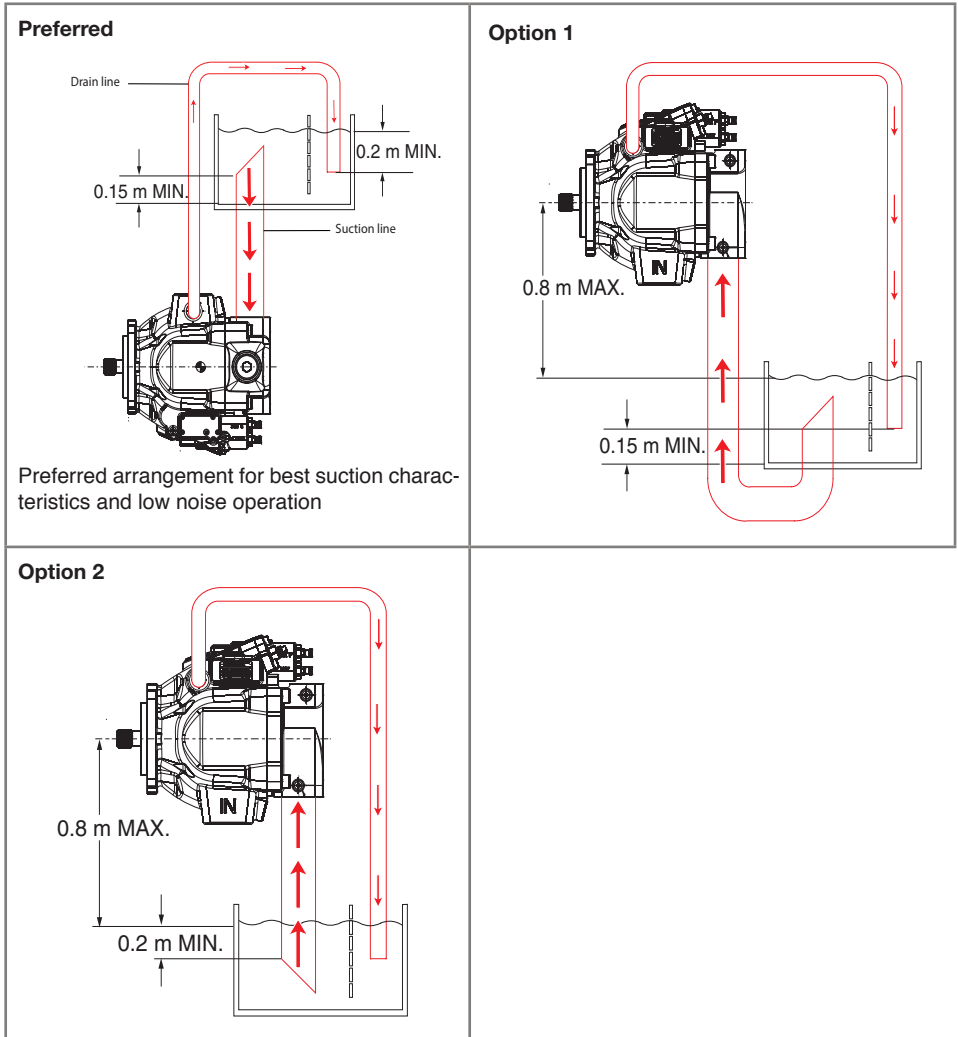
<p><b>P2/P3</b></p>  <p>Drain port</p> <p>Pressure port</p> <p>Pressure gauge port</p> <p>Suction gauge port (only P2)</p>	<p><b>P2</b></p>  <p>Suction port P2</p> <p>Optional drain port</p>	<p><b>P3</b></p>  <p>Suction gauge port</p> <p>Suction port P3</p>
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## 5. Connect the hoses

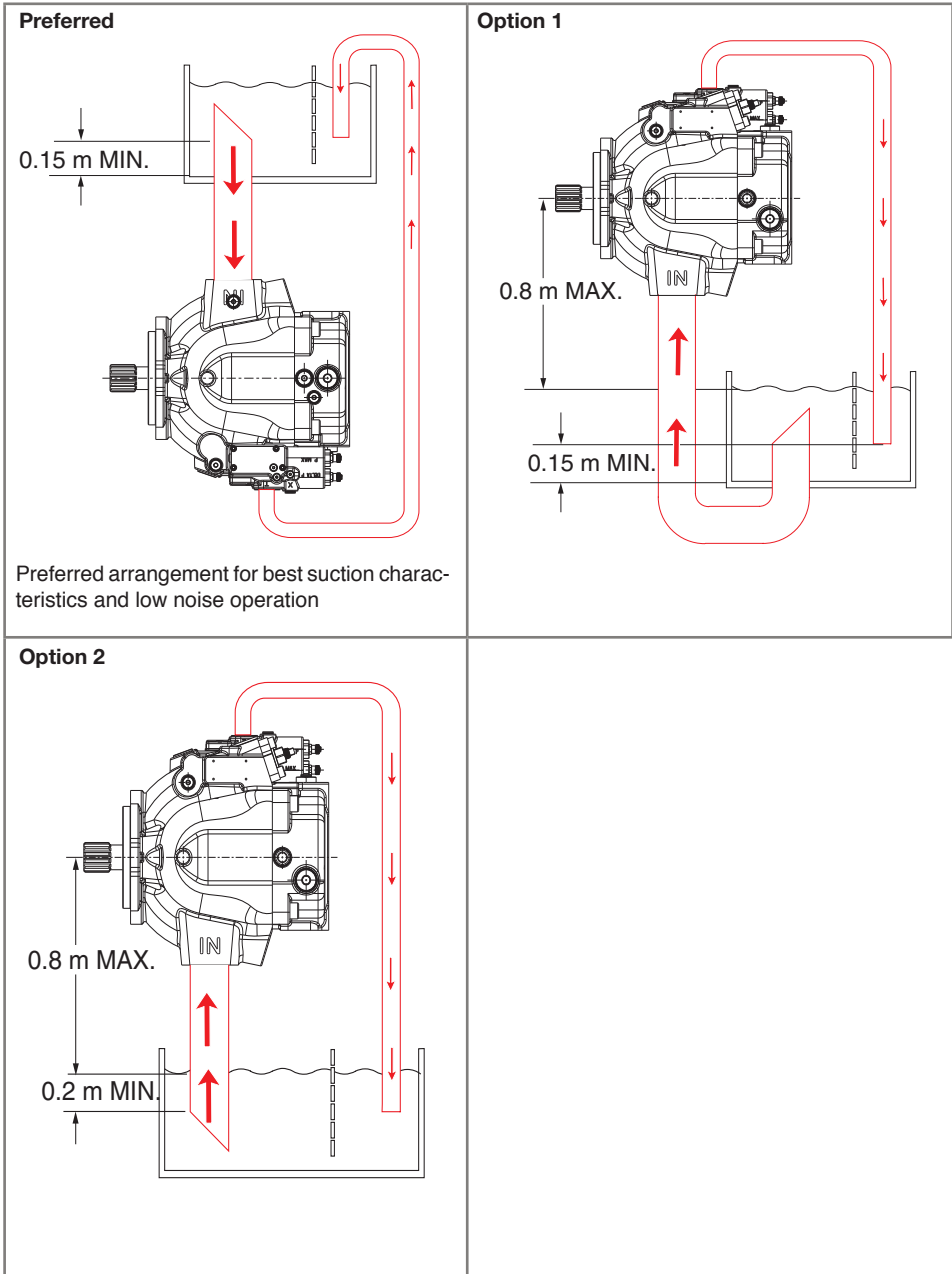
A suction hose with 45° inlet is recommended to reduce the suction resistance. Ensure that always the highest drain port will be used.

	P2	P3
Minimum pump inlet pressure	$p_{in \text{ min}} = 0,8 \text{ bar}$	$p_{in \text{ min}} = 0,8 \text{ bar}$
Maximum pump inlet pressure	$p_{in \text{ max}} = 10 \text{ bar}$	$p_{in \text{ max}} = 1 \text{ bar}$

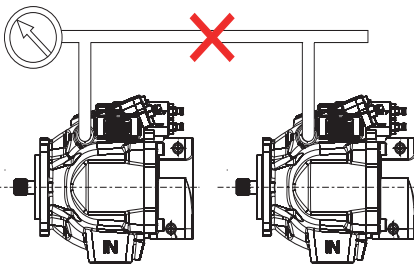
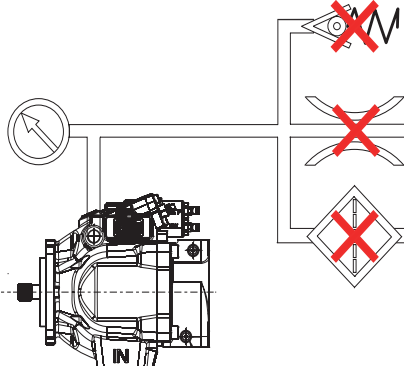
### 5.1 P2-Pump






## 5.2 P3-Pump



### 5.3 Warning - Please avoid

 <p>Don't combine drain lines. Maximum continuous case pressure: <math>p_{case} = 0,5 \text{ bar}</math> Maximum intermittent peak case pressure: <math>p_{case} = 2 \text{ bar}</math></p>	 <p>Do not restrict drain line. A restricted drain line can damage the pump.</p>
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### 6. Start up

 <p>Check all connections for tight fit.</p>	 <p>Fill up oil via upper drain port.</p>	 <p>Start up with zero pressure until pump is full with oil.</p>
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## 7. Hydraulic fluid

### 7.1 Recommended Fluids

- Standard mineral oils
- Premium hydraulic fluids / HLP oils
- Biodegradable hydraulic fluids
- Synthetic hydraulic fluids
- Fire resistant fluids

Remark:

Maximum system pressure reduced to 210 bar for water based fluids.  
Bearing life time reduced to 25 % by using water based fluids.

### 7.2 Fluid quality

Recommendation for maximized component life and reliability:  
Class 21 / 18 / 14 according to ISO 4406

### 7.3 Viscosity range

Minimum viscosity for short periods: 10 mm<sup>2</sup>/s (cSt)  
Normal operating viscosity: 15 – 40 mm<sup>2</sup>/s (cSt)  
Maximum viscosity for short periods: 1000 mm<sup>2</sup>/s (cSt)

## 8. Temperature

Seal option can be found in digit 19 of part number. Please check name plate.

N/D - NBR seals, FPM shaft seal(s)	-25 to +90 °C
B/Q - NBR seals, NBR shaft seal(s)	-40 to +90 °C
V/T - FPM seals, FPM shaft seal(s)	-25 to +115 °C

### Remark:

Check hydraulic fluid specification for chemical resistance of seal material.  
Check temperature range of seal material and compare with maximum system and ambient temperature.

The highest fluid temperature will be at the drain port of the pump (up to 20°C higher than the reservoir).

## **Position notification regarding Machinery Directive 2006/42/EC:**

Products made by the Pump & Motor Division Europe (PMDE) of Parker Hannifin are excluded from the scope of the machinery directive following the “Cetop” Position Paper on the implementation of the Machinery Directive 2006/42/EC in the Fluid Power Industry.

All PMDE products are designed and manufactured considering the basic as well as the proven safety principles according to:

- ISO 13849-1:2015
- SS-EN ISO 4413:2010

so that the machines in which the products are incorporated meet the essential health and safety requirements.

Confirmations for components to be proven component, e. g. for validation of hydraulic systems, can only be provided after an analysis of the specific application, as the fact to be a proven component mainly depends on the specific application.

Chemnitz. March 28, 2017

Parker hannifin Manufacturing Germany GmbH & Co. KG  
Pump & Motor Division Europe

### **Dr. Hans Haas**

General Manager  
Pump & Motor Division Europe



## **WARNING – USER RESPONSIBILITY**

**FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.**

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## **Offer of Sale**

Please contact your Parker representation for a detailed "Offer of Sale".

**For additional information, spare parts or service requirements please contact:**

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