



Operating manual

# Barrel oil Dispenser PPe

Item-No.: 015 431 501

Translation of the  
original operating manual

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## **Important!**

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**The operating manual is always to be read before commissioning the equipment. No warranty claim will be granted for faults and damage to the equipment arising from insufficient knowledge of the operating manual.**

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**Service Hotline +49 1805 900 301**

(0,14 €/Min: on the German landline network, Mobile telephone max. 0,42 €/Min.)

**[service@tecalem.it](mailto:service@tecalem.it)**

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## 1 Safety instructions

The device is a state of the art piece of equipment and has been constructed according to recognised safety specifications. It is nevertheless possible that use of the device will present hazards to the operator or to third parties, or may damage the device or other property. It is therefore essential to act in accordance with these safety instructions, and in particular with those sections identified as warnings.

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### Warning notices and symbols

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In the operating manual, the following signs are used for highlighting important information.



**Special information for economical use of the equipment.**



**Special information or "dos and don'ts" for damage prevention.**



**Information or "dos and don'ts" for the prevention of damage to persons or equipment.**

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### Appropriate use

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The device may only be used if it is in perfect condition, and then only for its intended purpose, in compliance with all safety regulations, with an awareness of the potential risks, and according to the operating manual. Any faults that may impair the safety must be rectified immediately.



The device and its components are only to be used for handling the liquids listed and the purpose described. Using the machine for any other purpose would constitute inappropriate use. The manufacturer is not responsible for any loss arising as a result of this, the risk for this is borne only by the operating company.

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### Organisational measures

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This operating manual should always be kept readily available at the site of operation! Each person concerned with the assembly, commissioning, maintenance and operation of the equipment must have read and understood the entire operating manual. It is essential that the type plate and the warning notices attached to the device are observed, and are maintained in a fully readable condition.

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### Qualified personnel

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The operating, maintenance and assembly personnel must be appropriately qualified for their work. The areas of responsibility, competences and supervision of the personnel must be precisely regulated by the operating company. If the personnel do not have the required knowledge, they must be trained and instructed. The operating company must also ensure that the contents of the operating manual are properly understood by the personnel.

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### Waters protection

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The device has been designed to handle water hazardous substances. The regulations on the operating place (e.g. Water Resources Act WHG, = ordinance on installations for handling of substances hazardous to water VAWS) must be adhered to.

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## Maintenance and Service

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According to the regulations of the water resources law only authorized services may work on devices for flammable and/or water endangering substances. During such works, appropriate tools are to be used (avoid sparking). Before any kind of work on the device, all fuel lines are to be completely emptied and aerated.

Do not make any changes. Modifications or additions to the device which may affect the safety cannot be carried out without consent of the manufacturer. Exclusively genuine spare parts made by the manufacturer may be used.

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## Electric power

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Work on the electrical equipment may only be carried out by a qualified electrician or by trained persons under the guidance and supervision of a qualified electrician according to electro-technical guidelines. Machine or system components, on which inspection, maintenance or repair work is to be carried out must be de-energised.

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## Hydraulics

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Only persons with special knowledge and experience with hydraulic systems may carry out work on hydraulic parts and equipment. All lines, hoses and screw joints should regularly be checked for leaks and visible external damage. Any damage must be rectified immediately. Any oil spurting out can cause injuries and fire.

The relevant safety regulations for the product must be followed when handling oils, greases or other chemical substances!

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## Compressed air

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Only persons with special knowledge and experience with pneumatic systems may carry out work on pneumatic parts and equipment. Prior to any inspection, maintenance or repair work, ensure that the equipment is not under pressure. All lines, hoses and screw joints should regularly be checked for leaks and external damage. Any damage must be rectified immediately.

## 2 Technical description

### 2.1 Appropriate use

The barrel oil dispenser is designed for use in industry, workshops, filling stations and similar sites. It can be used for delivery of lubricating oils or hydraulic fluids with self-lubricating properties.



**The device may not be operated with flammable and explosive fluids with a burning point below 55°C (hazard classes A1, A2 and B). Fluids with a burning point above 55°C (A3) may not be pumped if they have been heated above their burning point. The operation in areas with potentially explosive atmosphere is not permitted. In these cases there is danger of explosion.**

### 2.2 Product description

The barrel oil dispenser is a portable, pneumatically operated device for the calibrated conveyance of lubricating oils and similar fluids. It is used for conveyance directly from 220 L original barrels.

The pump is a double-action piston pump driven by an air motor. The suction tube is mounted directly on the suction inlet of the pump. In operation it is installed in the oil barrel via the 2"-retainer. A gas separator is installed at the pressure outlet of the pump. It is equipped with a return line to the barrel for returning the fluid including separated air in a continuous overflow. The required oil pressure is to be adjusted with the compressed air pressure regulator at the inlet of the air motor.

Various dispensing accessories like hoses or nozzles are provided.

### 2.3 Technical data

<b>Actuator</b>	Axial piston air motor	<b>Fluids</b>	Lubricating oils and similar liquids
<b>Pump type</b>	Double-action, axial piston pump	<b>Viscosity max.</b>	5000 mm <sup>2</sup> /s
<b>Compressed air inlet pressure max.</b>	10 bar	<b>Strainer</b>	500 µm
<b>Compressed air consumption max.</b>	300 l/min	<b>Ambient temperature</b>	0° C ... +40° C
<b>Transmission ratio</b>	4:1	<b>Fluid temperature</b>	0° C ... +55° C
<b>Adjustment range air pressure regulator</b>	0,5 ... 3 bar	<b>Sound pressure level</b>	73 dB (A)
<b>Operating pressure max.</b>	10 bar	<b>Dimensions (HxWxD)</b>	approx. 1250x245x130 mm
<b>Delivery rate max.</b>	10 l/min *	<b>Weight</b>	7.5 kg

\* depending on viscosity

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## 2.4 Calibration approval

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The device is equipped with a gas separator according to the principle of continuous overflow. This is approved for the calibrated dispensing of lubricating oils with a viscosity of more than 20 mPas. The remote oil equipment can thus be installed in a corresponding measuring equipment. The valid calibration regulations are to be followed.

Number of the German PTB-type approval: 

5.124
90.10

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## 2.1 Accessories

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The following items can be used as accessories depending on the application:

	<b>Item No.</b>
Dispensing hoses DN 12 G ½" male	
2,25 m long	<b>029041221</b>
3,15 m long	<b>029041231</b>
4,5 m long	<b>029041241</b>
Nozzles with hand flow meter, calibratable	
For engine oil analogue display	<b>027170512</b>
For engine oil digital display	<b>027170011</b>
For gearbox oil analogue display	<b>027170522</b>
For gear box oil analogue display	<b>027170021</b>

Further accessories for completing your oil delivery system you will find in our catalogue.

## 3 Commissioning

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### 3.1 Place of operation

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The barrel oil dispenser is designed for operation inside buildings. It is to be installed directly on the barrel to be discharged.

The conditions in the place of operation must meet the local legal regulations according to the handling of water endangering liquids.

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### 3.2 Installation position

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**The barrel oil dispenser may only be operated in an upright position (see photo on the title page).**

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### 3.3 Temperature

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Optimum delivery capacity is achieved at an ambient and fluid temperature of at least 18 °C. On no account should the temperature sink below 10 °C. The delivery capacity is limited in the case of high viscosity fluids.

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### 3.4 Compressed air

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The distance between the compressed air connection and the place of operation of the barrel oil dispenser should not be more than 1.5 meters.

Trouble-free, low maintenance operation of compressed air driven appliances is only ensured if the compressed air supplied is free of soiled or condensed water and oiled. If the air quality is insufficient, it is recommended to use a maintenance unit at the compressed air take-off point.

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### 3.5 Installation

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Insert the suction tube into the retainer of the barrel and fix it with the supporting ring. The dispensing hose (accessory) is to be screwed into the outlet of the pump. On the other side it is to be connected to the axial swivel of the nozzle (accessory). The connections have to be sealed pressure proof.



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### 3.6 Return line

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The gas separator operates according to the principle of continuous overflow. While delivering, a small part of the oil is permanently returned into the barrel via the overflow valve.

Push the return line of the overflow valve through the  $\frac{3}{4}$ "-retainer off the barrel. In order to avoid foaming of the oil push the hose as deep as possible into the barrel.


 **Check the correct installation of the return line before starting the pump.**

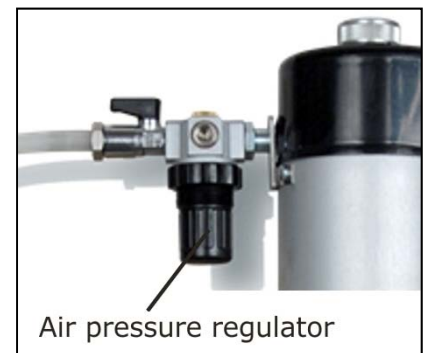
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### 3.7 Conveyance pressure

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The required conveyance pressure can be adjusted with the air pressure regulator installed at the air motor inlet. The pump is operating with a transmission ratio of 4 : 1 (oil conveyance pressure : air inlet pressure).

 **In calibrated systems a delivery rate of 10 L/min and a delivery pressure of 10 bars may not be exceeded.**



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### 3.8 Bleeding the system

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Hold the nozzle in a suitable vessel and connect the air motor to the compressed air supply.

 **After connecting the air supply the oil delivery system will be under pressure.**

Open the nozzle and allow the pump to deliver until oil without any air bubbles is dispensed.

## 4 Operation

Connect the barrel oil dispenser to the compressed air mains and open the ball valve at the air motor inlet. The pump switches on and off automatically when oil is drawn off by opening the nozzle.

 **Close the ball valve and disconnect the air hose before longer breaks in operation.**

When the barrel is running empty, air is taken into the suction tube. Frequently check the fluid level in the barrel to avoid delivery of oil with air bubbles. Change the barrel in time.

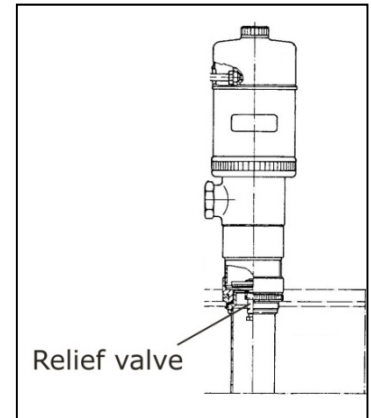
## 5 Maintenance

### 5.1 Safety equipment

The barrel oil dispenser is a device in sense of the pressure equipment directive 97/23/EC. Due to its low pressure holding volume it is designed, manufactured and tested according to article 3, paragraph 3 of this directive.

**!** **The operator has to take the necessary precautions to ensure risk-free operation.**

In particular the function and correct setting of the safety equipment (air pressure regulator and relief valve) is to be assured.



### 5.2 Leak test

The device and the other components of the system have to be checked for leakage and damage regularly. If necessary the system has to be sealed or parts have to be renewed.

### 5.3 Strainer

The sieve insert at bottom the suction tube is to be cleaned after changing the barrel several times. Renew a damaged sieve insert.

### 5.4 Repair of Air Motor

**!** **The air motor may only be repaired by the HornTecalemit service. This also applies for the exchange of parts.**

Apart from this, wear parts and parts listed in the spare parts list can be exchanged by qualified personnel.

### 5.5 Cleaning

In the event of superficial fouling clean the device carefully with suitable materials, do not use corrosive cleaning materials. Flush with diesel to clean the interior parts and pipes.

## 6 Error Display - What to do when ...?

- ... no oil is delivered although the nozzle is open?
  - The connection to the compressed air system is interrupted
  - The barrel is empty
- ... the oil flow stops, even though the barrel is not empty?
  - There is a leak in the suction tube: Locate the leak and seal it appropriately
- ... the delivery capacity is too low?
  - The delivery pressure is too low: Increase the adjusted inlet pressure on the air pressure regulator
  - The strainer is blocked: clean it or replace it (see chapter maintenance)
  - Viscous or very cold oils are difficult to suck in. This results in a lower delivery capacity and noise emission.

## 7 Disposal

The device is to be emptied completely and the liquids properly disposed of in case it is taken out of service.

The equipment is to be disposed of properly when taken permanently out of service:



- Return old metal for recycling.
- Return plastic parts for recycling.



**The water legal regulations are to be followed.**



**Konformitätserklärung  
Declaration of Conformity**

Hiermit erklären wir, dass die Bauart  
*We herewith declare that the construction type*

Typ: **Druckluftpumpe PPe / PPne**  
*Type: Pneumatic pump PPe / PPne*

Bezeichnung: **pneumatisches Ölförderaggregat**  
*Designation: pneumatical oil dispensing device*

Artikel-Nr.: **015431012, 015431501, 015431551,**  
*Item No.: 015431581*

in der von uns gelieferten Ausführung folgenden einschlägigen Bestimmungen entspricht:  
*in the form as delivered by us complies with the following applicable regulations:*

- Maschinenrichtlinie 2006/42/EG -  
*Machinery safety 2006/42/EC*

Angewendete harmonisierte Normen:  
*Applied harmonised standards:*  
EN ISO 12100-1, -2

EG-Dokumentationsbevollmächtigter: Jörg Mohr Horn GmbH & Co. KG  
*EC official agent for documentation:* Munketoft 42  
24937 Flensburg

11.04.2013  
Datum  
*Date*

  
.....  
i.V. Dipl.-Ing. Jörg Mohr  
Entwicklungsleiter / *Engineering Manager*

HORN GmbH & Co. KG  
Munketoft 42  
D-24937 Flensburg  
Germany

T +49 461 8696-0  
F +49 461 8696-66  
info@tecalem.it.de  
www.tecalem.it.de

Geschäftsführer: Commerzbank AG  
Torsten H. Kutschinski BLZ 215 400 60  
Konto-Nr. 2476000

SWIFT COBADEFFXXX  
IBAN DE33215400600247600000  
Amtsgericht Flensburg HRA 4264  
USt-IdNr. DE813038919







**HORN GmbH & Co. KG**

Munketoft 42  
24937 Flensburg  
Germany

T +49 461-8696-0  
F +49 461-8696-66

[www.tecalemit.de](http://www.tecalemit.de)  
[info@tecalemit.de](mailto:info@tecalemit.de)