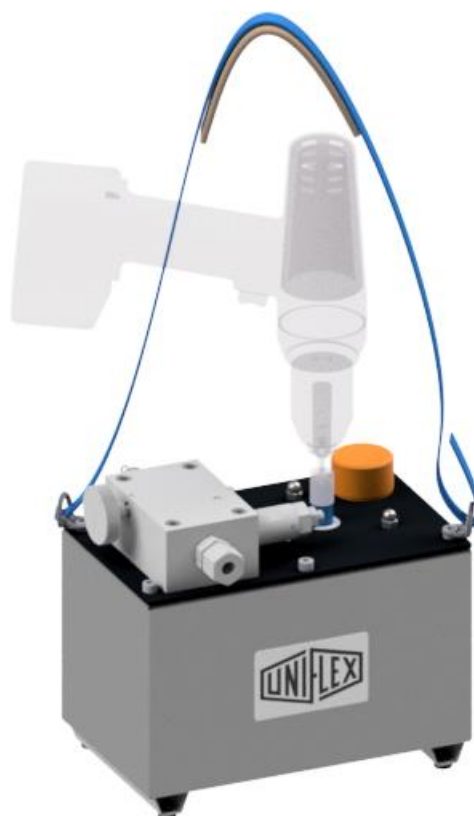


# Operating Manual

PUM\_0.8/3.2-700bar



# Imprint

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**This Operating Manual of the machine is a translation; the original is in German.**

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## EC Declaration of conformity for an incomplete machine

In accordance with EC Machinery Directive 2006/42/EC.

The incomplete machine specified below

PUM\_0.8/3.2-700bar

was developed, designed and manufactured in compliance with EC Directive 2006/42/EC, in the sole responsibility of

**UNIFLEX-Hydraulik GmbH**

Robert-Bosch-Strasse 50 - 52

D-61184 Karben

The following standards, codes and specifications have been applied:

- EC Directive 2006/42/EC
- EN ISO 12100: 2010
- DIN EN ISO 4413

This declaration are invalid when the machine is modified or if unauthorized and unapproved third-party components are used without our prior approval.

Entity authorised for documentation: Uniflex-Hydraulik GmbH, Technical Documentation Dept.

Commissioning this partial machine is prohibited unlessl the machine in which the partial machine is to be installed is in compliance with the provisions of the applicable regulations.

Karben, 23.09.2020



Harald von Waitz, Managing Director

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# 1 About this document

In this Operation Manual, the “hydraulic power unit PUM\_0.8/3.2-700bar” is consistently referred to as machine.

This Operation Manual includes important notes on how you operate your machine/unit safely, properly and economically.

Use not in compliance with the intended purpose may result in hazard to the operator's health and life and/or in the risk of damage to/the machine/unit. Consequently, please only use the machine/unit

- in good order and condition,
- in accordance with its intended purpose,
- in a safety-conscious manner, with awareness of risks and hazards,
- in compliance with all notes included in this Operation Manual.

The machine/unit may only be operated by staff who

- has read the Operation Manual,
- has understood it,
- has been instructed in the operation of the machine/unit, and
- has signed in the Annex.



Figures may include accessories/options. Customer-specific equipment may vary.

The product images shown are for reference only and may differ from the product delivered.

## 1.1 Target groups

The target groups of this Operation Manual are:

### **Owner**

An owner is a natural person or entity using the device himself/herself/itself, or on whose behalf the device is used. An owner may appoint a representative to exercise the owner's rights and obligations.

The owner has to make sure that

- national provisions, occupational safety regulations and applicable environmental protection regulations are fully complied with;

- persons working on the machine/unit are adequately qualified;
- persons working on the machine/unit are suitable for operating the machine/unit;
- the Operation Manual has been read and understood. One hardcopy of the Operation Manual must always be kept at a designated place where the machine/unit is used.
- persons working on the machine/unit are aware of potential risks;
- the operating staff is familiar with the location as well as with operating the fire alarm and fighting means. Free access to this equipment must be ensured.
- personal protection equipment is worn (safety footwear, protection gloves and safety glasses).

### **Machine/unit fitters**

Machine/unit fitters must be at least 18 years old and have completed training for the task, i.e. they must have attended a specialist vocational training.

A fitter

- must observe the instructions in the Operation Manual;
- must inform the owner on failures and damage.

### **Operator**

An operator is a person charged with and instructed in the proper operation of the machine/unit by the owner or the otherwise contractually obliged person.

The operator

- must observe the instructions in the Operation Manual;
- must inform the owner on failures and damage.
- must not perform and maintenance or repair work on the machine/unit.

## **1.2 Storage**

The Operation Manual is part of the machine/unit and must be kept near the machine/unit at all times. Upon disposal of the machine/unit, the Operation Manual must also be handed over.

## **1.3 Name plate**

The name plate is fixed on the machine back.



## 2 Safety instructions

### 2.1 Presentation of warnings

Warning notes in the Operation Manual warn against risks involved with the handling of the machine/unit. Risk levels are identified as follows:

#### **HAZARD!**

The signal word HAZARD identifies an imminent hazard resulting in serious injuries or death. This warning is supplemented by a triangular hazard symbol.

#### **WARNING!**

The signal word WARNING identifies a potentially hazardous situation, which might result in serious injuries or death. This warning is supplemented by a triangular hazard symbol.

#### **CAUTION!**

The signal word CAUTION identifies a potentially hazardous situation, which might result in light injuries. This warning is supplemented by a triangular hazard symbol.

#### **ATTENTION!**

The signal word ATTENTION identifies a potentially hazardous situation, in which the product or property in the environment may be damaged. This warning is supplemented by a hazard symbol or a exclamation mark.

### 2.2 Intended use

The PUM hydraulic power unit is an incomplete machine that does not function independently. The hydraulic power unit may only be operated in combination with a cordless screwdriver See Technical data, page 16.

Intended purposes include:

- The installation must be performed by a specialist;
- The unit must be located on the same level as the tool;
- Maximum system pressure See Technical data, page 16;
- The pressure line must be designed for a minimum system pressure of 700 bar;
- operating temperature between 10 °C and 35 °C,
- The machine must not be operated by persons not capable of operating the machine without any risk. These may include:
  - persons with physical or mental disabilities;
  - children and persons under age;


- persons with a restricted capability for the operation of machines (e.g. under the influence of drugs, alcohol or narcotics)

Use of the control in compliance with the intended purpose also includes compliance with the installation instructions.

### **Use for other than the intended purpose**

Any other use is considered as being not in compliance with the intended purpose, in particular:

- design modification of the machine;
- operating the machine with other drive units must be verified and approved by the manufacturer
- use in explosive environments;
- misuse of consumables and waste materials;
- non-compliance with national environmental protection regulations.

<b>WARNING!</b>	
	<p><b>Risk for life and health!</b></p> <p>Use not in compliance with the intended purpose imposes risks for life and health. Consequences resulting from use for other than the intended purpose shall be under the sole responsibility of the owner.</p> <ul style="list-style-type: none"><li>• Always use the machine in compliance with its intended purpose.</li></ul>

## **2.3 Product-specific risks**

The machine/unit is designed in accordance with the latest state of technology. Nevertheless, the machine/unit may impose risks:

### **2.3.1 Risks posed by mechanical equipment**

#### **Risk of injuries**

A risk of injuries exists if gloves, clothing or hair get caught in the drive shaft.

- Do not touch the drive shaft.
- Do not wear gloves when operating the machine.

- Wear close-fitting clothes.
- Protect long hair (e.g. by using a hairnet)
- Do not wear rings, watches, bracelets or similar objects.

#### **Tilting hazard**

The risk of tilting mainly exists while the machine is being transported.

- Observe the machine's centre of gravity during transport.

### **2.3.2 Risks imposed by hydraulic equipment**

Risks are imposed by all hydraulic lines and connections. Hydraulic systems are subject to special safety provisions. Work on hydraulic equipment may only be performed by persons with expert knowledge of and experience with hydraulic equipment.

- After the machine/unit is deactivated, the given and potentially hazardous residual energy has to be considered.
- Relieve the residual pressure in the system before performing repair or maintenance work on hydraulic systems.
- Regularly check lines and bolted connections for leaks and visible damage. Immediately remedy any damage detected.

Repair work on the hydraulic system of the machine/unit or on its components may only be performed by UNIFLEX specialist staff.

#### **WARNING!**



##### **Risk of injuries**

Impermissibly high pressure on the tool may cause serious injuries and/or damage to the machine.

- The pressure set on the unit (pressure limitation valve) must correspond to the permissible pressure on the tool.

### **2.3.3 Risks imposed by substances**

Oils, greases and emulsions may penetrate the skin. When handling hazardous substances, oils and greases, the manufacturers' safety instructions have to be observed. Apply skin protection appropriate for the hazardous substances used.

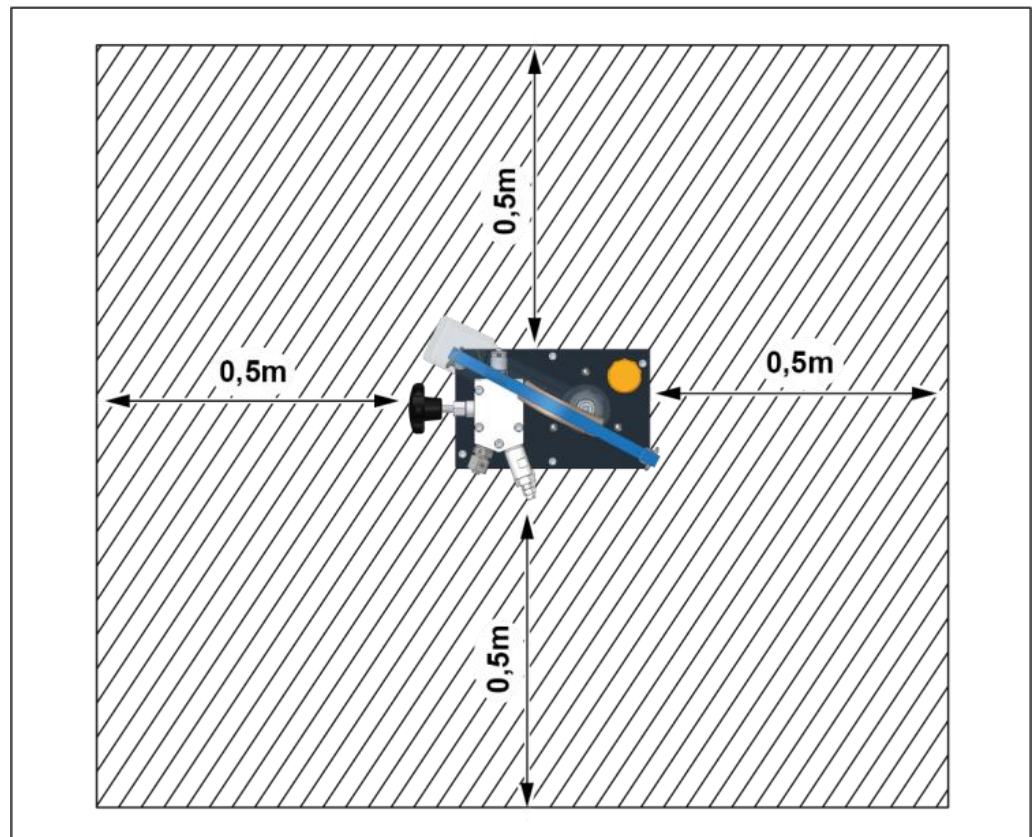
### 2.3.4 Risks in case of fire

The operating staff has to be familiar with the location as well as with operating the fire alarm and fighting means. Free access to this equipment must be ensured.

Never use water to extinguish a fire. For appropriate fire extinguishing action, please read the safety data sheet of the hydraulic oil supplier.

## 2.4 Safety

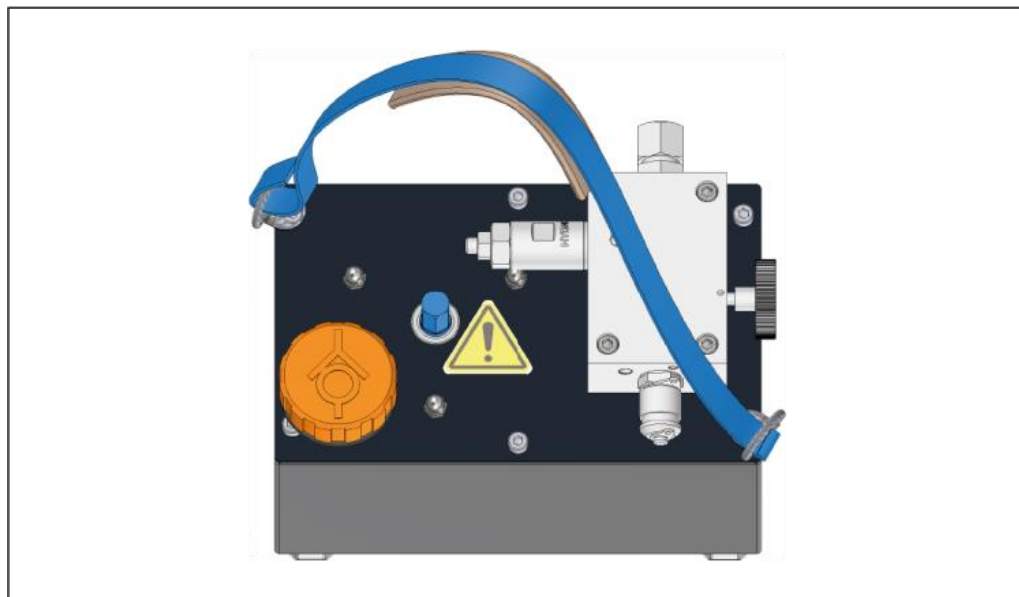
### 2.4.1 Working area



The working area is defined as the area all around the machine (shaded).

- Keep the working area free from trip hazards
- Provide good illumination
- Keep access to hydraulic supply free

### 2.4.2 Warning signs on the machine

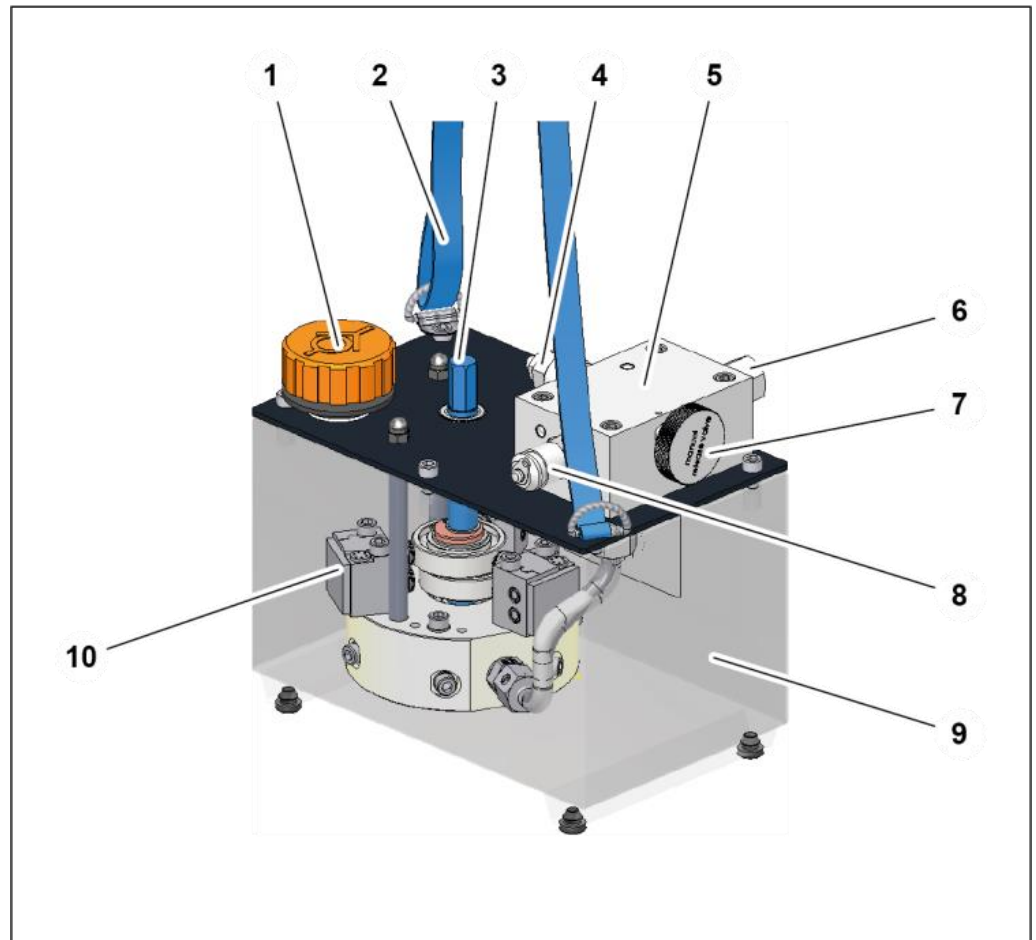


**Risk of injuries**  
on the drive shaft

Illegible or missing warning signs must immediately be replaced by the operator.

## 3 Machine description

### 3.1 Design and function



- (1) Air ventilation cap with oil dipstick
- (2) Shoulder belt
- (3) Drive shaft
- (4) Pressure limitation valve
- (5) Control block
- (6) Connection GE SR-ED OM (tool)
- (7) Relief valve
- (8) Manometer connection for pressure check
- (9) Hydraulic tank
- (10) Pump element

The pressure in the hydraulic power unit is built up in the pump elements (10) via the drive shaft (3) by using an external cordless screwdriver (not included) with eccentric elements. The cordless

screwdriver may be used with counterclockwise or clockwise rotation.

The pressure range is set by default on the pressure limitation valve (4). For tools operating at a lower pressure, the pressure limitation valve (4) must be adjusted accordingly.

The relief valve (7) releases the pressure afterwards.

The oil level can be read on the air ventilation cap with integrated dipstick (1).

## **3.2 Accessories**

The machine may be fitted with accessories. A list of the available accessories is included in the Annex, Section "Accessories".

### 3.3 Technical data

#### Power unit

Dimensions L x W x H	245 x 170 x 220 mm
Weight	approx. 8.5 kg including oil filling
Operation mode	S2
Noise level	< 70 dB(A)*
Protection class	IP 40

#### Function

Nominal pressure	70 MPa / 700 bar
Pressure relief valve	Manually adjustable up to 700 bar
Drive unit	Customary cordless screwdriver
Connection port (Threaded hole)	G 3/8
Hydraulic screw connection (Included in scope of delivery)	GE10SREDOMD

#### Capacity

Supply volume (Pressure loss with increasing line length)	3,2 l/min low pressure up to 5 MPa (50 bar)
	0,8 l/min high pressure from 5 MPa (50 bar)

#### Recommended accessories

Customary cordless screwdriver	Customary cordless screwdriver, 25 Nm minimum torque (e.g. Metabo)
Socket wrench insert	SW 13
Hose assembly	High-pressure hose up to 700 bar



### **Workplace**

Stable, level workbench with a  
carrying capacity of approx. 100 kg

Level area on the floor

### **We recommend industrial flooring meeting the following structural requirements**

Permanent floor loading	Approx. 0.07 kg/mm <sup>2</sup>
Floor carrying capacity	Min. 2500 kg/m <sup>2</sup>
Floor quality	B25
Evenness	Max. unevenness 5 mm/m
Inclination	max. 5 mm/m

### **Hydraulic system**

Oil volume	approx. 2.5 l
Oil type	HLP 22, DIN 51524, 10μ filtered
System pressure	max. 700 bar

### **Ambient conditions**

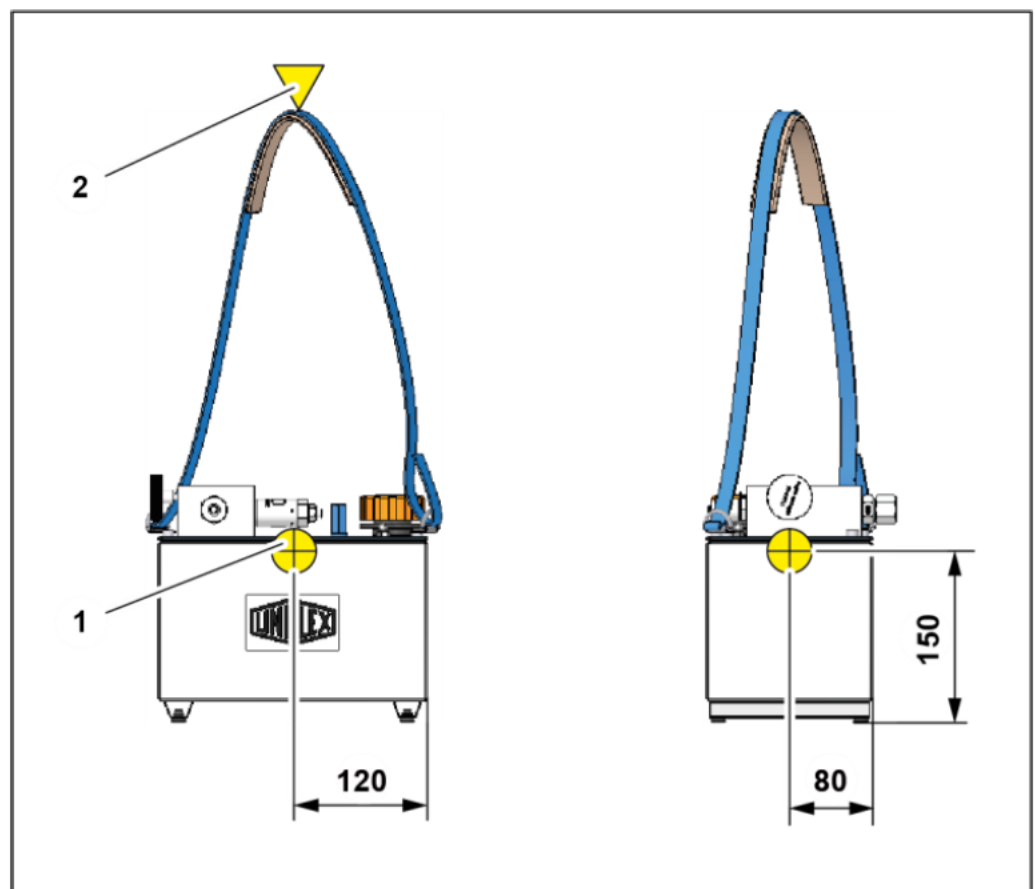
Ambient temperature	10 °C – 35 °C
Air humidity	45 % – 65 %

The \* data are theoretical/computed values, or values measured on a prototype. Actual values may vary slightly, depending on the machine.

## 4 Transport and commissioning

### 4.1 Transport

The goods should be transported in the original packaging. During transport, the goods must be secured safely within the packaging. All applicable laws and regulations relating to securing loads shall be observed during transport.



The machine can be carried on the shoulder belt. Machine weight  
See Technical data, page 16.

#### WARNING!



#### **Danger from falling loads!**

Risk of injury from falling loads.

- Do not stand under suspended loads.

1. Lift the machine on the shoulder belt (2) and carry it to its destination.

## 4.2 Intermediate storage of machine/unit

If the machine/unit cannot be mounted immediately upon delivery, it must be protected against:

- Contamination,
- Weather influences,
- Mechanical damage.

The machine/unit components may only be stored in closed rooms and under the following conditions:

- temperature between 10°C and 35°C,
- maximum air humidity 80% (non-condensating).

## 4.3 Commissioning

The machine is commissioned by the customer's fitter.

### WARNING!



#### Risk for life and health!

The hydraulic hose lines represent a risk of injuries.

- Work on hydraulic systems may only be performed by hydraulic specialists or instructed and trained persons under the supervision of an hydraulic specialist.

1. Place the machine on a stable and level workbench/on the floor.



The workbench must be sufficiently solid and stable.



Place the machine in a way so that it is easily accessible for maintenance work from all sides.

2. Check the machine for damage.
3. Remove the protection caps on the connection (tool).

4. Connect the machine and the tool to a hydraulic hose line in compliance with DIN EN ISO 4413.  
The hydraulic hose line must be installed in a manner so that it is flexible and not under tension. Do not subject the hydraulic hose line to tensile loads or torsion.
5. Secure the hydraulic hose line against whipping.
6. Use a protection hose to secure the hydraulic hose line against oil jet damage, direct UV radiation and contact to harming substances (e.g. acids, lyes or solvents).
7. Put an SW 13 socket wrench insert on the cordless screwdriver.
8. Train the operating staff and record training sessions in "Declaration of trained staff", Section 9.

### WARNING!



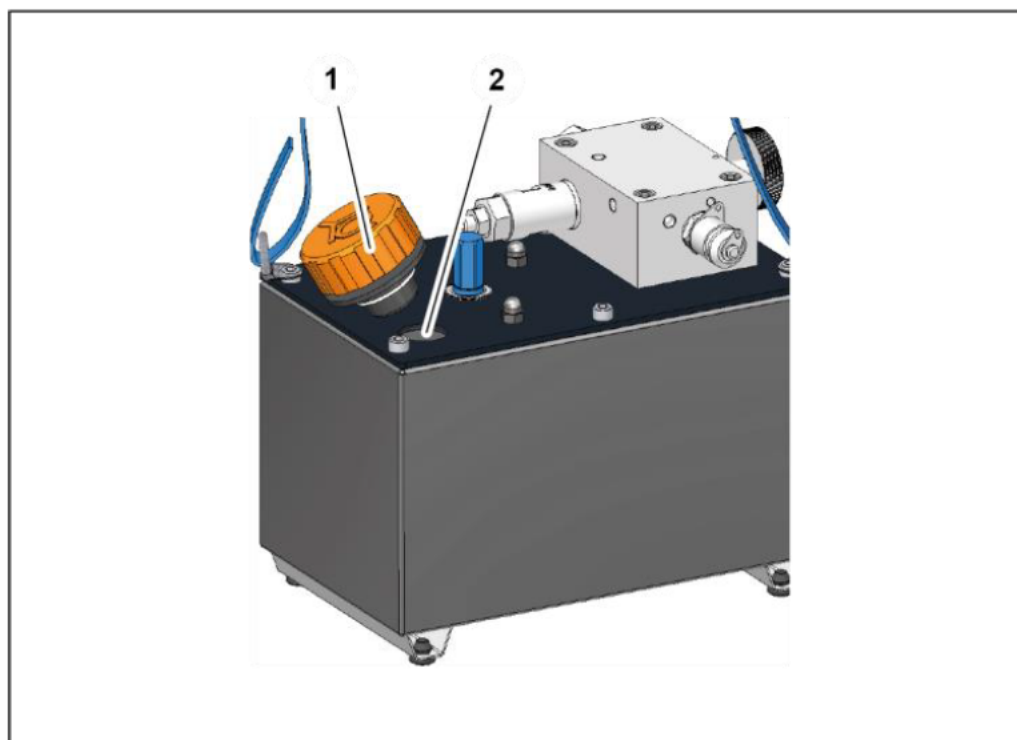
#### **Risk of injuries!**

Machine components might loosen during transport. Such components might be flung out during to the forming process. There is a risk of being injured.

- Perform a pressure check using a manometer on the connection for the pressure check.
- Check the machine for atypical noise.

#### **4.3.1 Filling hydraulic oil**

If the PUM\_0.8/3.2-700bar was purchased without hydraulic oil filling, the appropriate new, clean and pre-filtered hydraulic oil has to be filled before commissioning (See "Technical Data" in Section 3).



### CAUTION!



#### **Risk of injuries!**

Contact with hydraulic oil and other consumables imposes a risk of injuries for the skin, eyes, respiratory and intestinal tracts! Hydraulic liquid spills impose a danger of slipping and falling!

- Observe supplier's protection and safety instructions (see data sheet).
- Wear personal protection equipment.
- Do not eat, drink or smoke in the working area and when handling consumables.
- Ensure good ventilation.
- Avoid floor contamination.

### ATTENTION!



#### **Risk of fire!**

Hydraulic liquid spray or spills impose a risk of fire.

- Avoid ignition sources (welding, cutting and soldering work) near the hydraulic oil filling.

1. Open the air ventilation cap (1).
2. Fill in hydraulic oil (2) (See "Technical Data" in Section 3). The oil level can be read on the dipstick of the air ventilation cap.

3. Close the air ventilation cap (1).
4. Do not operate the machine for a minimum of four hours so that the dirt particles in the system may settle.
5. Further information you will find in section Technical data on page 16.
6. Further information you will find in section Technical data on page 16.

#### 4.3.2 Use cordless screwdriver / mount socket wrench insert

##### ATTENTION!



##### **Risk of damage to machinery!**

Operating the drive shaft with an inadequate socket wrench insert or without oil will destroy the hydraulic pumps and/or the drive shaft

- Use an SW 13 mm hexagon socket wrench insert.
- Make sure that the amount of hydraulic oil in the machine is sufficient before operating the machine.

1. Put an SW 13 mm hexagon socket wrench insert on the cordless screwdriver.
2. The operating Instructions of the cordless screwdriver manufacturer and the accident prevention regulations must be observed.



The direction of rotation of the screwdriver is freely selectable.



The output depends on the cordless screwdriver speed and the actual nominal pressure.

#### 4.3.3 Bleeding the hydraulic system

1. Operate the machine until only oil leaks from the P connection.
2. Check oil level, add hydraulic oil if required.

## 5 Operation

### 5.1 What you have to observe

The operator has received the Operation Manual from the owner, has read and understood it and will observe it.

#### **Before starting and/or re-starting**

- Ensure sufficient illumination of the working area of the machine.

#### **During operation**

- Observe the safety instructions on the machine.
- Make sure that no other persons stay in the working area.
- Use appropriate aids to handle heavy workpiece.
- Each movement of the hand must be observed.
- Eating, drinking and smoking at the workplace is prohibited.
- Wear close-fitting clothes.
- Do not wear watches or jewellery.

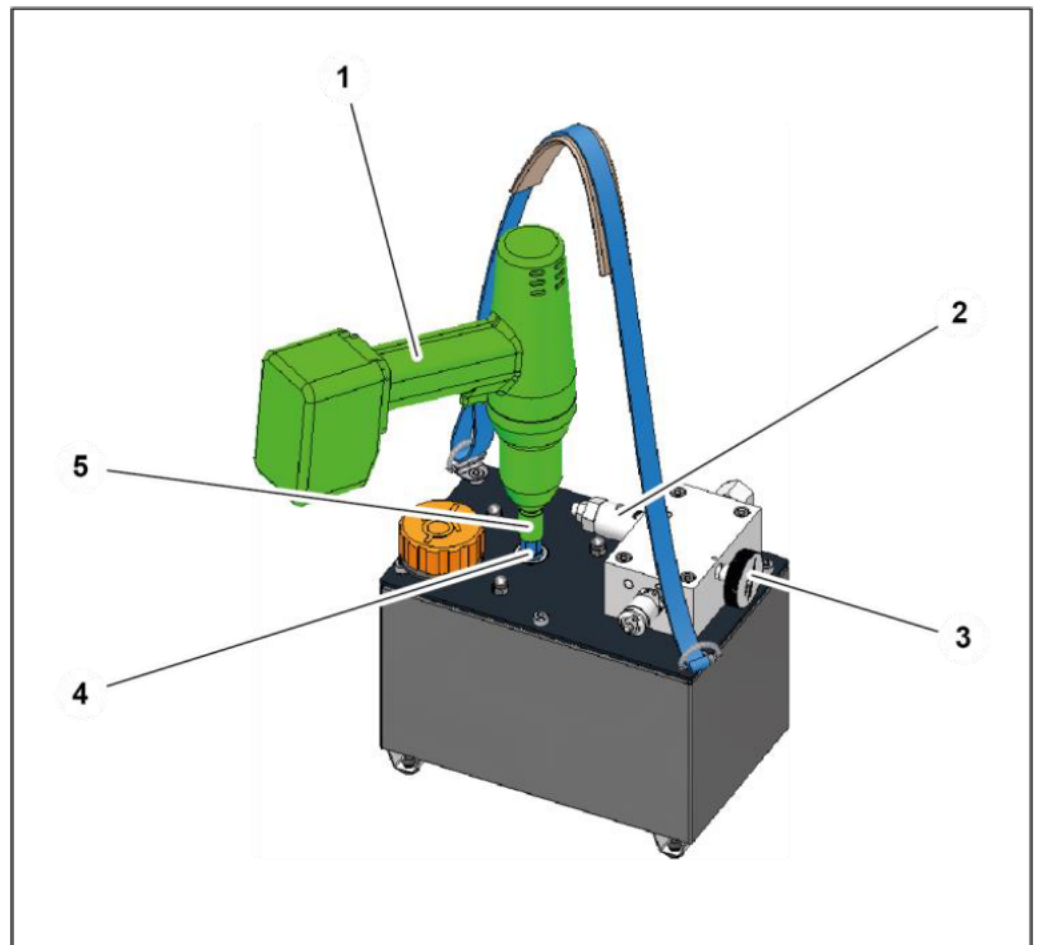
### 5.2 Operating the unit

#### 5.2.1 Prerequisites

Prerequisites for correct operation:

- The unit has been filled with a sufficient quantity of the approved hydraulic oil.
- The hexagon socket wrench insert has a width of SW 13 mm.
- The hexagon socket wrench insert has been inserted correctly in the cordless screwdriver.
- The cordless screwdriver has a minimum torque of 25 Nm.

### 5.2.2 Operationmodes low pressure/high pressure



#### WARNING!



##### **Risk of injuries!**

A risk of injuries exists if gloves, clothing or hair get caught in the drive shaft.

- Do not touch the drive shaft.
- Always let the chuck run, never stop it with your hand.
- Keep a minimum distance of 120 mm to the drive shaft.

#### WARNING!



##### **Risk of injuries!**

Impermissibly high pressure on the tool may cause serious injuries and/or damage to the machine.

- The pressure set on the unit (pressure limitation valve) must correspond to the permissible pressure on the tool.



## WARNING!




### Risk of injuries!

The cordless screwdriver imposes a risk of injuries when it jams on the drive shaft. In this case, the cordless screwdriver will not be controllable.

- Hold the cordless screwdriver tight on the insulated grip areas with one hand.

1. Set the pressure to the requested value on the pressure limitation valve (2).
  - By turning counterclockwise, the pressure will be reduced.
  - By turning clockwise, the pressure will be increased.
2. Use the cordless screwdriver (1) with the socket wrench insert (5) to drive the shaft (4) until the requested pressure is reached in the actor.
3. Disconnect the cordless screwdriver from the drive shaft.
4. Activate the relief valve (3) to release the pressure.

## 5.3 Cleaning

ATTENTION!	
	<p><b>Risk of damage to machinery!</b></p> <p>If the machine is cleaned with a steam jet or compressed air, dirt and water may ingress in the machine and cause serious damage.</p> <ul style="list-style-type: none"><li>• Do not use a steam jet to clean the machine.</li><li>• Do not use compressed air to clean the machine.</li></ul>

1. Use a soft cloth to clean the machine.

## 6 Maintenance

Regular maintenance will ensure the continuous operation reliability of the machine/unit.

### 6.1 What you have to observe

This section describes activities to be performed by you as the operator at regular intervals to ensure smooth operation of the machine/unit.

- Maintenance work may only be performed by qualified maintenance staff (fitter).
- Repair work on the machine/unit or components may only be performed by appropriately qualified expert staff or UNIFLEX experts!
- Welding, flame-cutting and grinding work on and in the machine/unit and its environment must be approved in advance. There is a risk of fire. The machine/unit must be cleaned from dust and inflammable substances. Adequate ventilation must be ensured.

### 6.2 Maintenance schedule

If not specified otherwise, inspections listed in the maintenance schedule are visual inspection. Replace defective parts immediately.

If you work in 2 shifts, the check frequency has to be doubled. If you work in 3 shifts, you proceed as with 2-shift operation.

Record maintenance work performed in the maintenance log.

Maintenance item	Weekly	Monthly	Every 6 months	Number of years
<b>Hydraulic system</b>				
Hydraulic energy lines – hoses: Check for porosity and leaks.	X			
Hydraulic energy lines - bolted connections of hoses and pipes: Check for leaks.	X			

Maintenance item	Weekly	Monthly	Every 6 months	Number of years
Hydraulic oil: Check oil level, add oil if required (see "Replacing hydraulic oil" in Section 6).				
Hydraulic oil: Replace				1
Hydraulic hoses: Have replaced (DIN 20066) no later than six years after manufacture (see label). Make sure that replacement hoses are of equivalent quality (high-pressure hoses).				6
<b>Transport unit</b>				
Shoulder belt Check for wear			X	
<b>Safety equipment</b>				
Pressure limitation valve: Check function Close the supply line to the tool. The pressure limitation valve is set to 700 bar by default. Use a manometer to check the individually adjusted pressure value.		X		
Relief valve: Check function Close the relief valve clockwise. Operate the tool. Observe the pressure build-up. The pre-set pressure must be reached. Open the relief valve counterclockwise. Observe the hydraulic oil reflow.	X			
Fixed guards and covers: Check for completeness and correct installation.		X		
Warning signs on the machine: Check legibility (see "Warning signs on the machine" in Section 2).			X	



Hydraulic oil changes and wear part replacements must be recorded in the maintenance log!

## 6.3 Hydraulic oil change

### CAUTION!



#### Risk of injuries!

Contact with hydraulic oil and other consumables imposes a risk of injuries for the skin, eyes, respiratory and intestinal tracts! Hydraulic liquid spills impose danger of slipping and falling!

- Observe supplier's protection and safety instructions (see data sheet).
- Wear personal protection equipment.
- Do not eat, drink or smoke in the working area and when handling consumables.
- Ensure good ventilation.
- Avoid floor contamination.

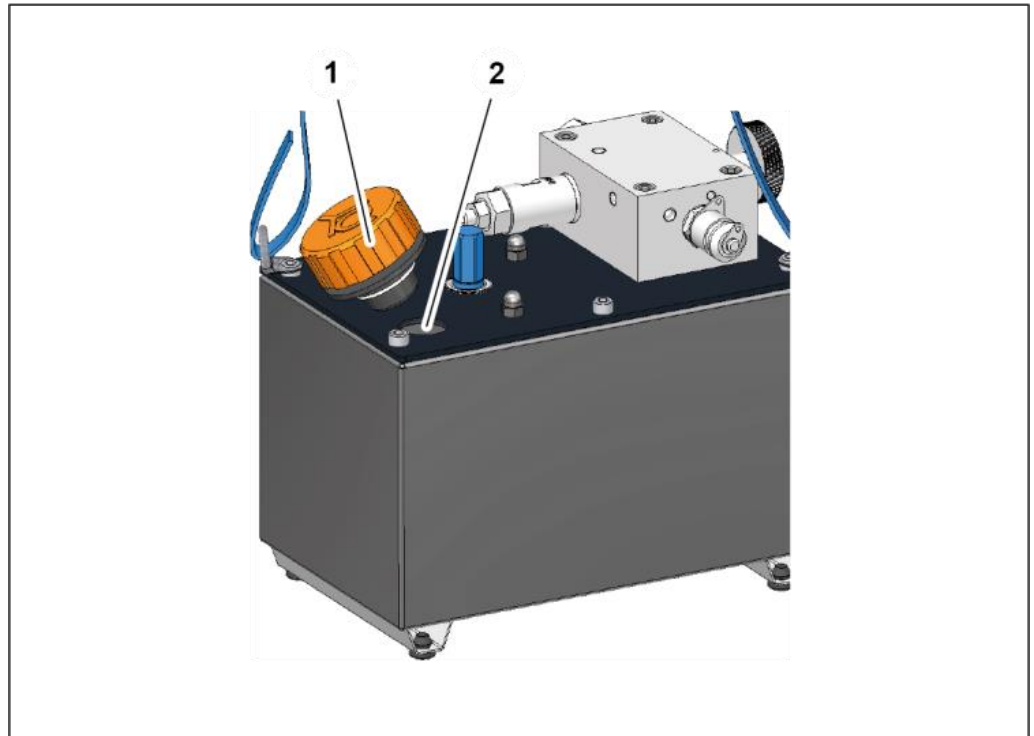
### ATTENTION!



#### Risk of fire!

Hydraulic liquid spray or spills imposes a risk of fire.

- Avoid ignition sources (welding, cutting and soldering work) near the hydraulic oil filling.



1. Disconnect the drive unit (cordless screwdriver) from the drive shaft.
2. Let the hydraulic oil cool down until the tank enclosure is warm to the touch.
3. Open the air ventilation cap (1).
4. Pump out hydraulic oil using an external pump.
5. Fill in new hydraulic oil See Technical data, page 16.
6. Close the air ventilation cap (1).
7. Do not operate the machine for a minimum of four hours so that the dirt particles in the system can settle.
8. Use the cordless screwdriver to reassemble the machine.
9. Operate the machine in the idle mode for 15 seconds.
10. Run the tool several times to bleed the hydraulic oil system.
11. Check oil level. The oil level can be read on the dipstick of the air ventilation cap. The oil level should be in the middle of the marking. Add hydraulic oil if necessary.






Dispose of the oil in compliance with the applicable local environmental protection regulations.

## 7 Troubleshooting

Error	Cause	Remedy
Machine does not build up pressure	Insufficient amount of hydraulic oil	Refill oil
	Cordless screwdriver torque insufficient	Use a cordless screwdriver with a minimum torque of 25 Nm
	Screwdriver battery is empty	Charge the battery
	Pump element defective	Check pump element

## 8 Decommissioning, disposal

CAUTION!	
	<p><b>Risk of injuries!</b></p> <p>Contact with hydraulic oil and other consumables imposes a risk of injuries for the skin, eyes, respiratory and intestinal tracts! Hydraulic liquid spills impose a danger of slipping and falling!</p> <ul style="list-style-type: none"><li>• Observe supplier's protection and safety instructions (see data sheet).</li><li>• Wear personal protection equipment.</li><li>• Do not eat, drink or smoke in the working area and when handling consumables.</li><li>• Ensure good ventilation.</li><li>• Avoid floor contamination.</li></ul>
ATTENTION!	
	<p><b>Risk of fire!</b></p> <p>Hydraulic liquid spray or spills impose a risk of fire.</p> <ul style="list-style-type: none"><li>• Avoid ignition sources (welding, cutting and soldering work) near the hydraulic oil filling.</li></ul>
CAUTION!	
	<p><b>Risk of injuries!</b></p> <p>Parts of the machine may be under pressure and/or tension. Loosening components may impose a risk of injuries!</p> <ul style="list-style-type: none"><li>• De-pressurize the machine before performing any work and check for potential sources of hazard.</li></ul>

### 8.1 Dismantling

This section describes activities to be performed by you as the operator to ensure the safe dismantling of the machine.

- The device may only be dismantled by entrusted and qualified staff.
- Depressurize the machine before dismantling (use cordless screwdriver to disconnect the drive shaft; turn the relief valve



counterclockwise to open and relief it; open hydraulic connections slowly and carefully).

- Check the device for mechanical tension and consider it during dismantling.
- Drain consumables completely. Further information you will find in section Maintenance on page 27.

## **8.2 Recycling**

The machine/unit contains metal, hydraulic hoses, electric cables and electronic components, depending on the type.

As regards disposal, the applicable national environmental protection and waste disposal regulations have to be complied with.

## **8.3 Consumables and waste**

Observe applicable national environmental protection and waste disposal regulations.

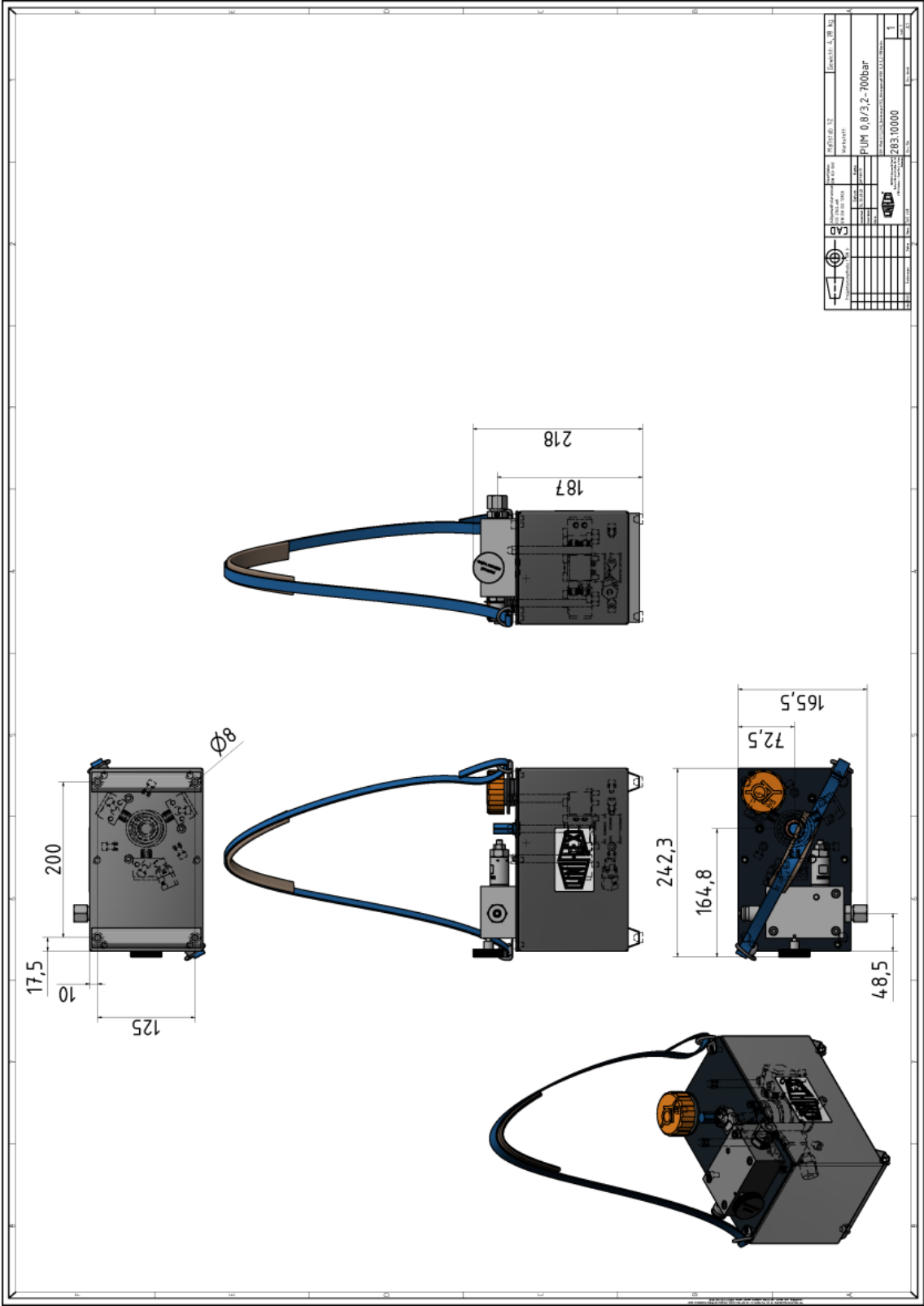
Return consumables, e.g. oils, greases, test media, to supplier - they are hazardous waste. Also observe the information given on the safety data sheet.

## 9 Annex



Individual machine/unit components may deviate in their features. Please indicate the serial number of the machine for spare part orders.

9.1 Machine overview

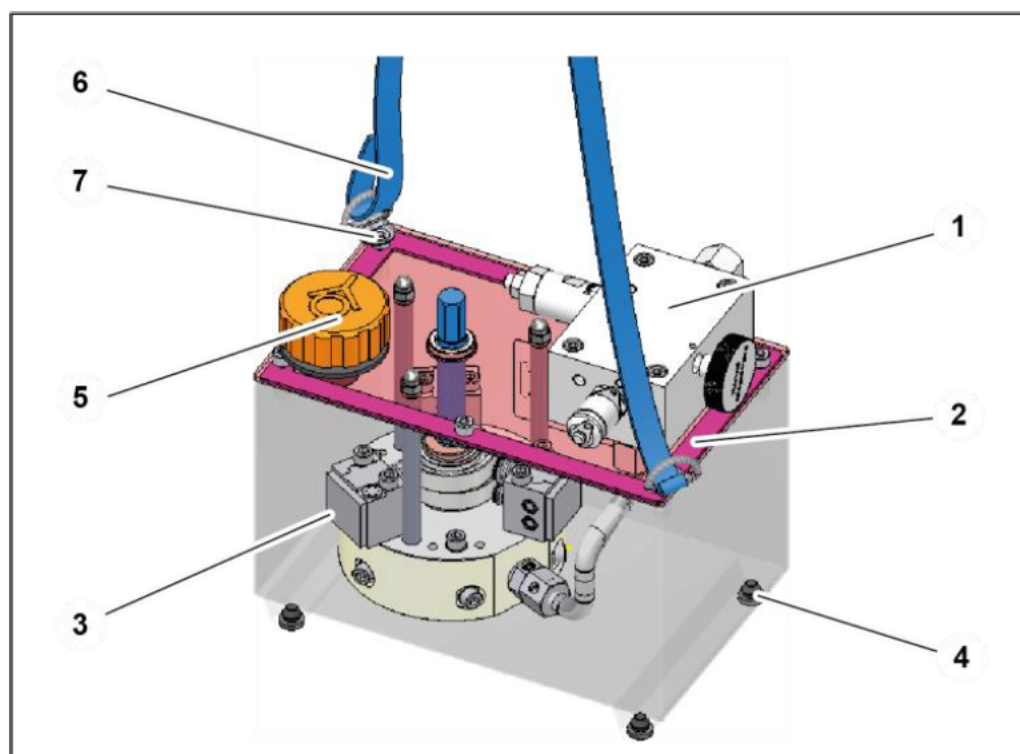


## 9.2 Accessories (retrofitable)

Accessories	Part code
Service press	S 2 Ecoline
Universal table	TU
Socket wrench insert ¼" 13 mm, hexagon DIN 3124-ISO 2725	798.000056
Socket wrench adaptor ¼" square to 6.3 mm hexagon	798.000057
Hydraulic hose line THP 700 bar, 10S UEM/UEM 90°/1400 mm long, type: 1 AW-04 DN6	235.356
Hydraulic hose line THP 700 bar, 10S 650 mm long, type: 1 AW-04 DN6	211.011
Hydraulic hose line THP 700 bar, 10S UEM/UEM 90°/2000 mm long, type: 1 AW-04 DN6	235.372
TGF protection hose against oil jet damage	840.089

Please contact our Sales department for ordering accessories.

## 9.3 Spare parts list



Item	Quantity	Part code	Designation
1	1	283.3003.2	Hydraulic control block 700 bar with relief valve, pressure limitation valve, non-return valve and connections
1.1	1	830.010	Pressure limitation valve (spare part)
2	1	283.028.4	Surface seal
3	3	830.006	Pump element
4	4	798.000045	Plug-in enclosure foot
5	1	830.012	Air ventilation cap
6	1	283.019.4	Shoulder belt
7	1 set	283.020	Lug
No picture	1	777.827	Warning sign

## 9.4 Spare parts kit

Quantity	Part code	Designation
1 item	283.7001	PUM pump set
1 item	283.7002	PUM sealing kit
1 item	283.2002	Tank sheet metal parts + tank plate

## 9.5 Hydraulic diagram



The hydraulic diagram of the machine is in progress and not yet available at the time of publishing this manual.  
Contact UNIFLEX for further information.

## 9.6 Maintenance log

[illegible]

## 9.7 Declaration of qualified staff

I herewith declare that I have attended an internal training for the operation of the UNIFLEX machine and have been informed on all safety-related details. In addition I declare that I have read and understood this Operation Manual completely.

City	Date	Name	Signature

City	Date	Name	Signature

City	Date	Name	Signature

City	Date	Name	Signature

City	Date	Name	Signature

City	Date	Name	Signature









