

DEPAC



Part of **DENSIQ** Group

**TS80/TS81, TS71,
TS46S/TS46D, TS3.0,
TS11, SP200**



Seal supply system

www.depac.eu

Thermosyphon system TS80/TS81



Thermosyphon system TS80/TS81

The DEPAC thermosyphon system TS80|TS81 is an easy and reliable working seal supply system for double acting mechanical seals. It can be used for DEPAC mechanical seals as well as for any other brand of mechanical seals. The basic system is equipped with a level indicator to check the level and all system connectors. Other components are available upon request.

Advantages

- Modular system
- Compact design for limited space
- Optional system components can be added
- No accreditation by authorities needed
- Can be disassembled completely to clean and service the system
- Low on maintenance
- Conforms to ATEX directive
- Refillable while pressurized

Definition

TS80 supply system without cooling coil

TS81 supply system with cooling coil

Cooling coil can be refitted at any time

Technical specifications

Vessel

Material:	wetted parts SS316 / FKM
Connections:	G 1/2", G 1/4", 1/4" NPT
Nominal volume:	7.5l
Working volume:	2l
Maximum pressure:	25bar
Testing pressure:	33bar
Allowable working temperatures*:	-10°C to +110°C
Cooling capability**:	app. 1kW with natural circulation app. 3kW with forced circulation

* Stated values are depending on certain application parameters

** At 60°C barrier media temperature and 20°C cooling water temperature

Thermosyphon system TS80/TS81

Thermosyphon system TS80/TS81

A. Level switch TS40

Material: wetted parts SS316
 Working pressure: max. 30bar
 Working temperature: max. 150°C
 Specific gravity barrier media: min. 0.7g/cm³
 Electrical contacts: HI - LOW
 EX class: II 1/2 G Ex ia IIC T3-T6 Ga/Gb

Special level switches upon request

B. Pressure gauge TS30

Material: wetted parts SS316
 Range: 0 – 25bar
 Size: NG100

Special pressure gauges upon request

C. Thermometer TS20

Material: wetted parts SS316
 Range: 0-120°C
 Size: NG100

Special pressure gauges upon request

D. Refilling unit TS09

Material: wetted parts SS316/POM/FKM
 1.4571/ POM / FKM
 Pumping volume: 18cm³ per stroke

E. Mounting console TS74

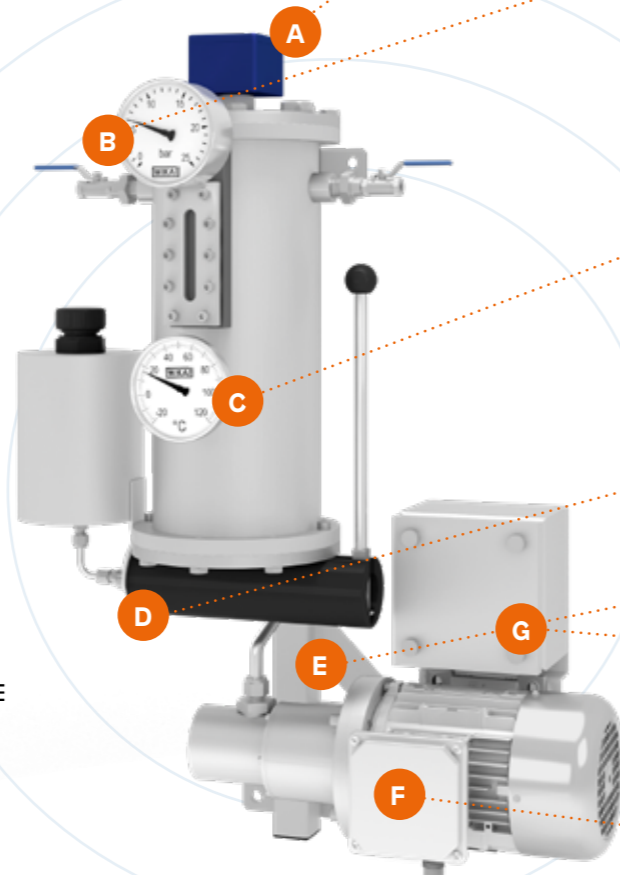
Material: stainless Steel

F. Circulation pump TS71

Material: wetted parts SS316/PEEK/PTFE
 Seal: magnetic coupling
 Max. viscosity: 100mm²/s
 Max. working temperature: 110°C
 Nominal flow: 3.5l/min
 EX class: II 2GD c X
 Supply voltage: 400V/50Hz
 Nom. Current: 1.3A

G. Connector box TS77

Material: stainless steel



Level switch



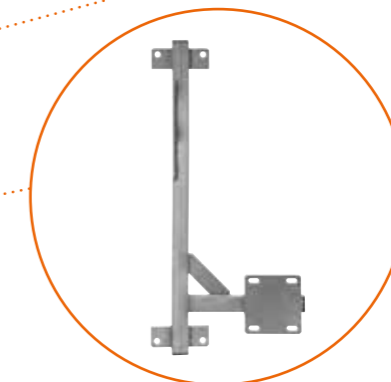
Pressure gauge



Thermometer



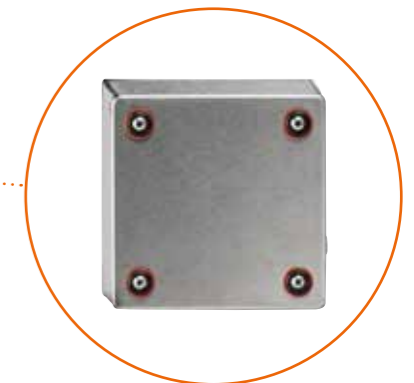
Refilling unit



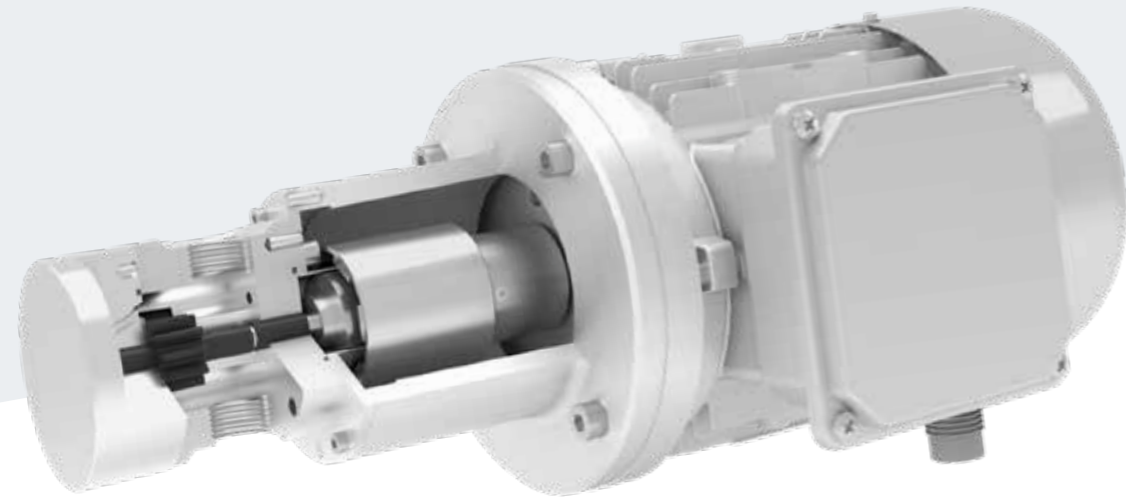
Mounting console



Circulation pump



Connector box



The DEPAC circulation pump TS71 is a magnetic coupled circulation pump to ensure the constant flow of the barrier fluid (max. viscosity 100mm²/s) in double acting mechanical seals.

Advantages

- Ensures a reliable flow of the barrier fluid
- Best possible supply of double acting mechanical seals
- Increase of cooling and lubrication
- Extension of the lifetime of double acting mechanical seals
- Magnetic coupled (seal less) pump
- Low on maintenance
- Conforms to ATEX directive

Technical specifications

Circulation pump TS71

Connections:	G ½"
Nominal flow rate:	3.5l/min
Max. pressure:	25bar
Max. viscosity:	100mm ² /s
RPM:	700 (standard not to be operated with inverter)
Temperature range:	up to 110°C barrier fluid
EX class:	II 2GD c X

Materials

Housing:	SS316
Shafts:	SS316
Gears:	PEEK mod.
Bearings:	PEEK mod.
O-rings:	PTFE

Electric motor

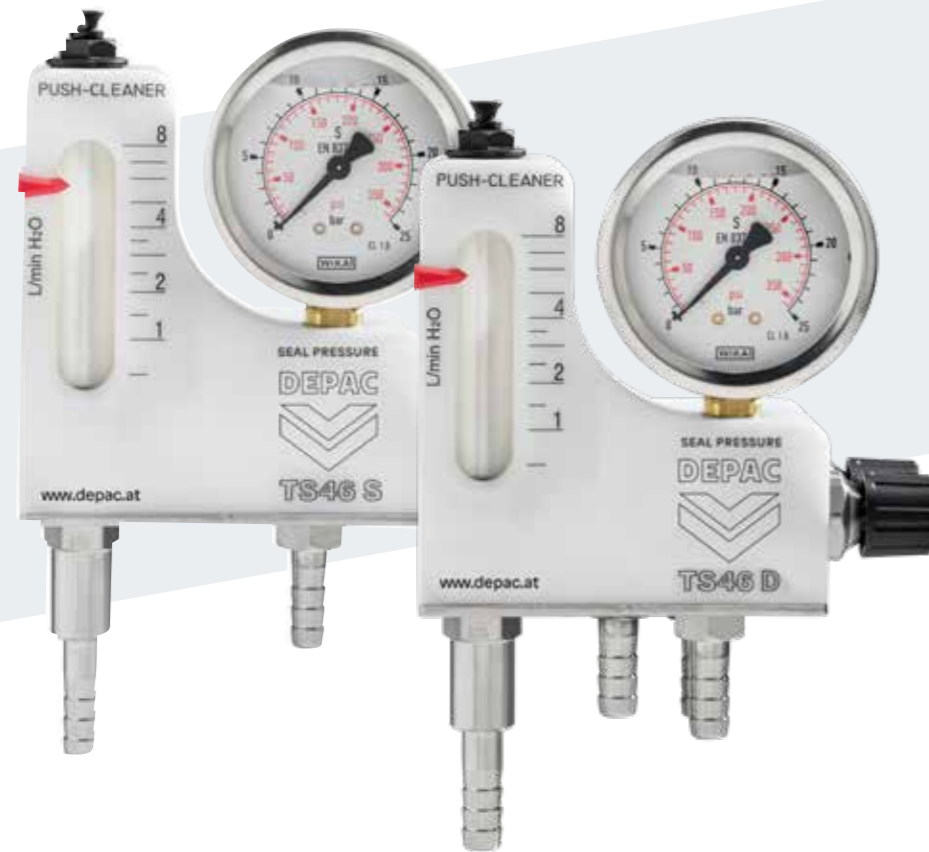
RPM:	700
Supply voltage:	400V
Nominal current:	1.3A
Rated power:	250W
Material:	aluminium
EX class:	II 2GD c X

Other electric motors upon request



Picture:
Mounting options of TS71 circulation pump directly on mounting console TS74 with TS80 thermosyphon system incl. optional parts

Thermosyphon system TS46S & TS46D



System guard TS46

The barrier fluid control system - TS46 system guard – is designed for equipment in need of a reliable supply of barrier fluid.

The TS46S model is especially designed to be used with single acting mechanical seals with flush connector working according to API plan 32. The flow rate of the flush can be set and controlled.

The TS46D model is used with double acting mechanical seals working according to API plan 54. The flow rate and pressure of the barrier fluid can be adjusted and controlled.

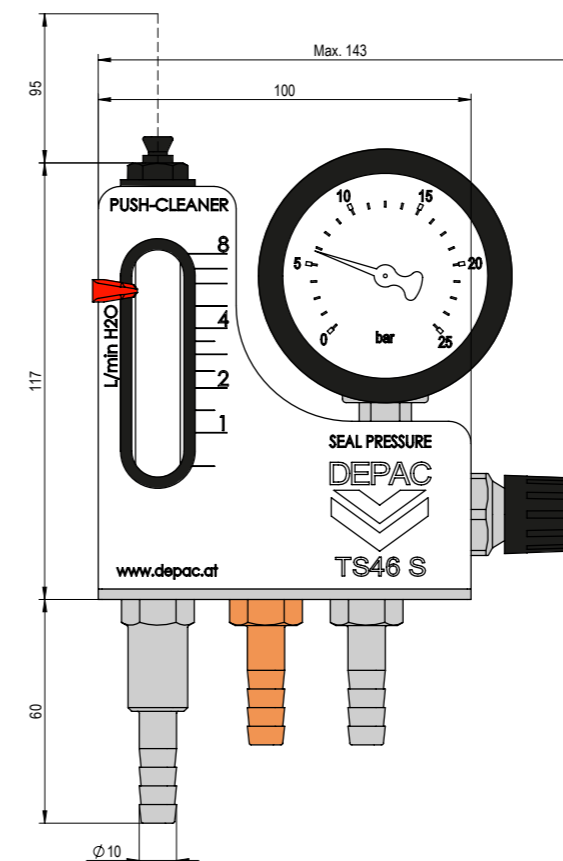
Both units are capable of working in contaminated water. The sight glass can be cleaned in operation.

Thermosyphon system TS46S & TS46D

Technical specification

TS46S

System guard for use in single mechanical seal applications to adjust the flow rate of flush media in a API plan 32 setup.



Materials

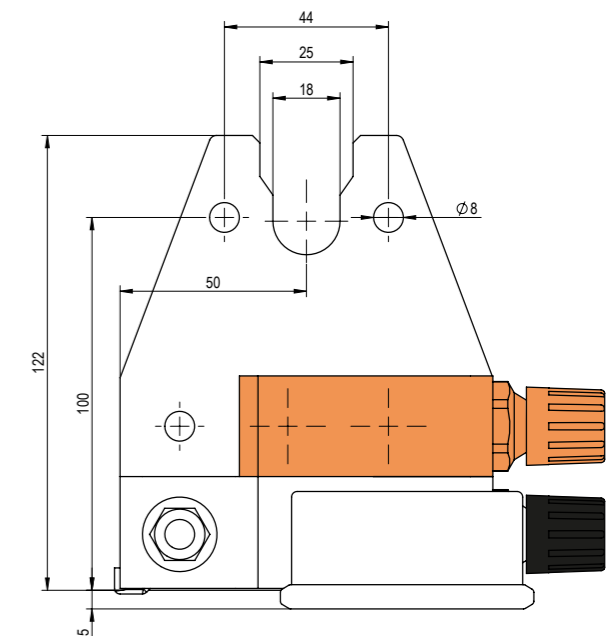
Housing:	POM
Sight glass:	borsilicate glass
Metal parts:	stainless steel
O-rings:	FKM

Operation parameters

Max. pressure:	20bar
Max. temperature:	100°C
Flow rate range:	0.5-8.0l/min

TS46D

System guard for use in double acting mechanical seal applications to adjust the flow rate of the barrier fluid in a API plan 54 set up.



Optional equipment

Flow rate sensor	
Usable flow rate range:	0.8-3.0l/min
Supply voltage:	10-55VDCC
Max. current:	400mA
Protection class:	IP67
Conector:	PUR cable 2m; 2x0.5mm ²

Thermosyphon system TS3.0



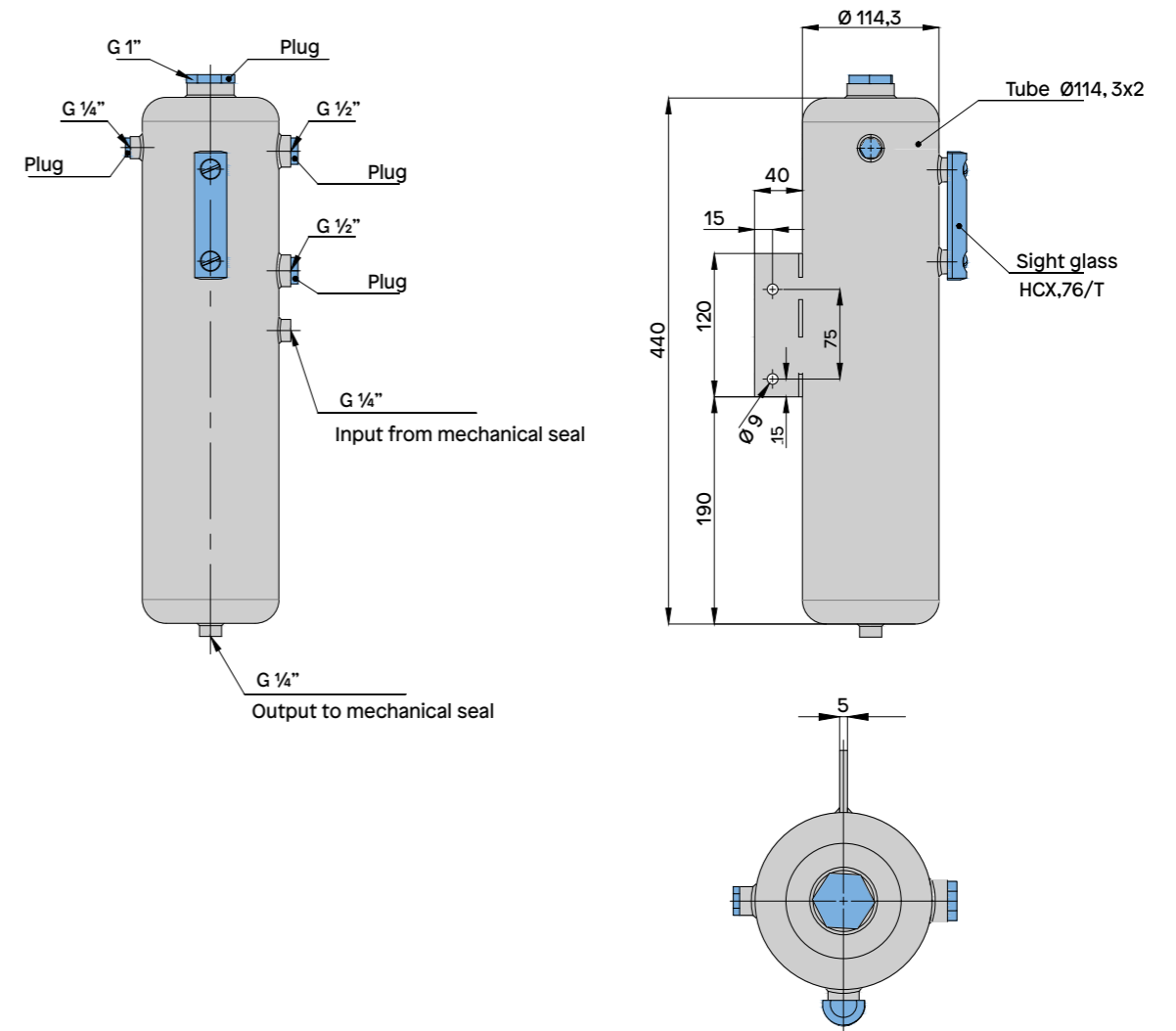
Thermosyphon system TS3.0

Barrier system with 3l volume without cooling coil as an alternative to the TS80/81 thermosyphon system. The system can be used without pressure as quench vessel in API plan 51 od 52. Also the system can be used pressurized in an API plan 53A setup.

Advantages

- Compact design
- Thermometer integrated in level indicator
- Supply of barrier fluid pressure less or pressurized

Thermosyphon system TS3.0



Materials

Vessel:	stainless steel
Level indicator:	plastic
Connectors:	see drawing

Operation parameters

Volume:	3l
Max. pressure:	16bar
Max. temperature:	110°C

Optional equipment

Level switch with HI LOW connectors
also available EX classified



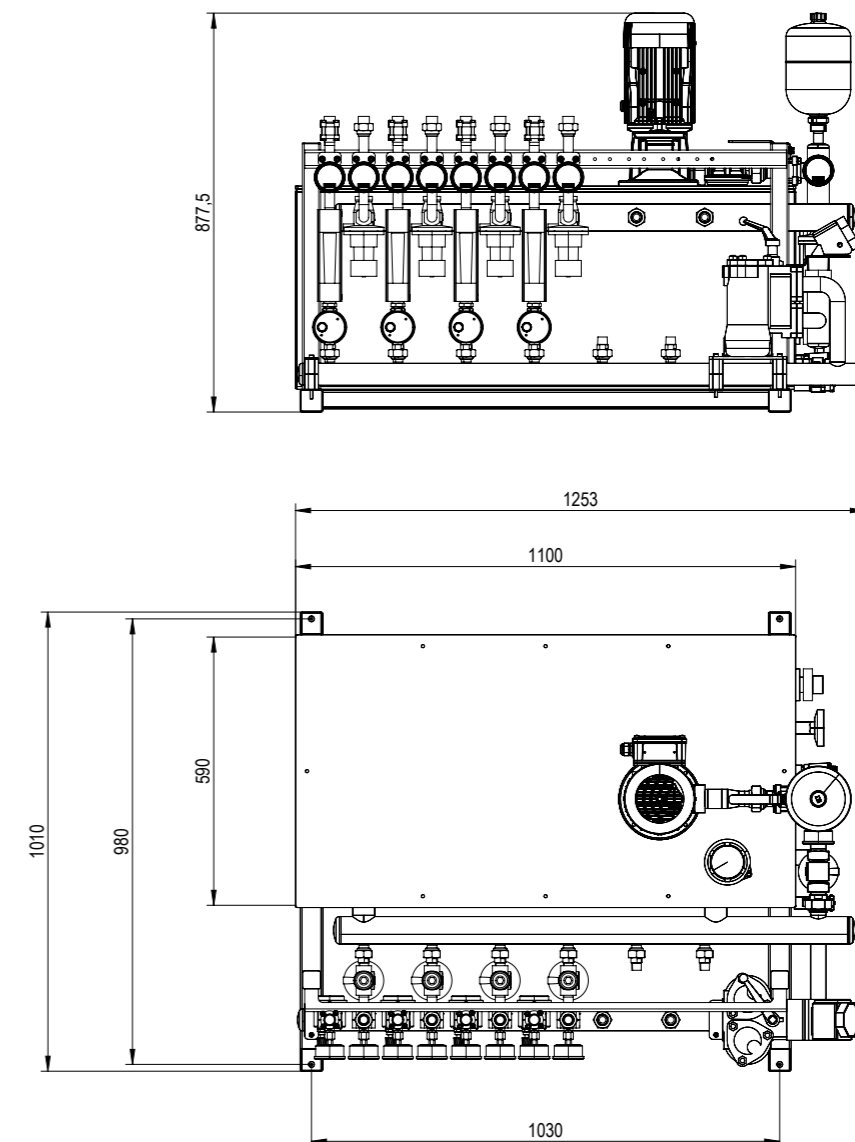
Barrier Pressure System SP200

Reliable Supply for Mechanical Seals

The SP200 barrier pressure system offers an efficient solution for supplying up to 8 mechanical seals with barrier fluid. Each mechanical seal is equipped with its own pressure and flow regulator, allowing precise and individual settings for each seal.

Even in the event of a leak in one of the seals, the barrier fluid supply to the remaining seals is reliably maintained. This ensures maximum operational safety and minimizes potential downtime.

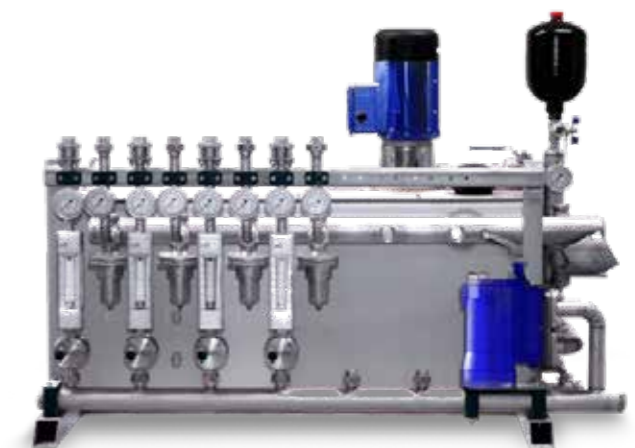
The system's 200-liter tank is equipped with a connection for cooling or heating the barrier fluid, allowing optimal adaptation to the respective process conditions. The SP200 is specifically designed for the needs of plant operators in the process industry who rely on reliability and flexibility in seal monitoring and supply.



Technical specification

SP 200 Barrier Pressure System

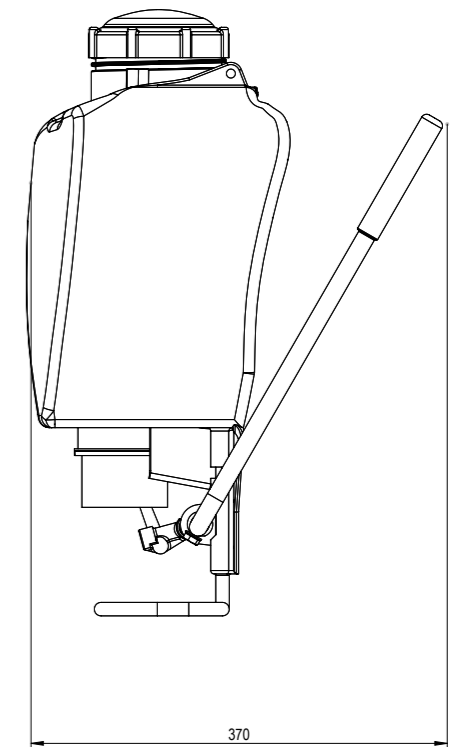
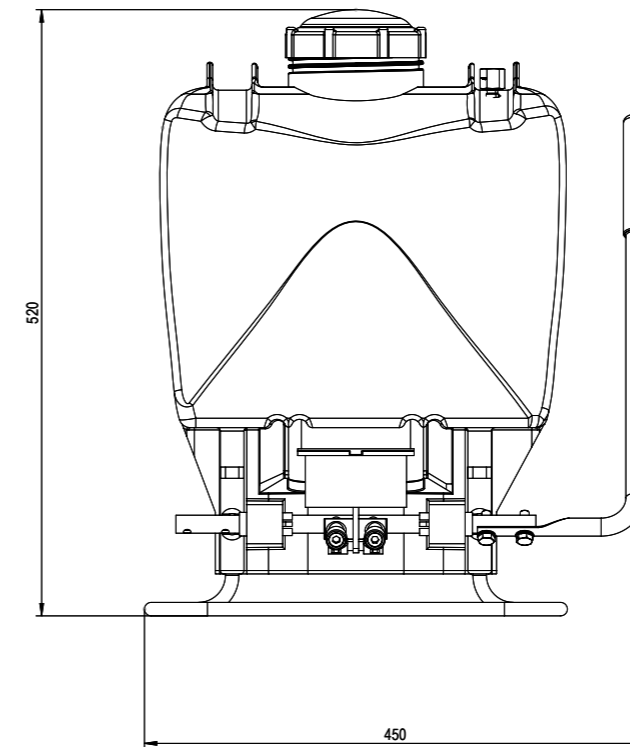
Material of the Tank	Stainless Steel
Capacity	200 liters
Max. Flow Rate	25 liters/min
Max. Pressure:	25 bar
Connection	Up to 8 mechanical seals can be connected



Thermosyphon system TS11



Thermosyphon system TS11



Refill Backpack TS11

Efficient and Ergonomic Refilling of Seal Systems

The TS11 refill backpack offers an ergonomic solution for refilling seal containers directly on-site. With a capacity of 15 liters for sealing fluid, the transparent container allows for the convenient supply of multiple sealing systems in a single operation.

Thanks to the integrated hand lever, pressure of up to 25 bar can be generated, making it easy to refill pressurized sealing systems even during ongoing operations. This minimizes downtime and ensures the continuous functionality of your equipment.

Versatile: The TS11 refill backpack is compatible with sealing systems from all brands, making it universally usable in any process plant.

Specifically designed for the maintenance needs of the process industry, the refill backpack impresses with its robust yet mobile design – ideal for use in demanding conditions.

Technical specification

TS11 – Refill Backpack

Dimensions L/W/H	22cm/42cm/52cm
Container material	semi-transparent plastic
Capacity	15l
Quantity per stroke	30cm ³
Maximum pressure	25bar
Connection	¼" NPR or hose with refill valve
Lever	for left and right handed users



DEPAC



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