

Laboratory-Filtrationequipment Type FUNDABAC®

The indispensable bench tool for sound planning of your production filter



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The TSD Pocket Filter offers the same features as the full-scale industrial FUNDABAC® Filter on a bench scale. The unique features of the FUNDABAC® filter element of OD 82 mm at full scale have been scaled down to 30 mm. The resulting filter area is 0.012 m² (0.13 ft²). The same types of filter media which are applied on the industrial filter have been made available on the TSD. The filters offer the same functions, such as filtration and cake washing under pressure and cake discharge as slurry by back-wash. For dry discharge the cake is dried by gas-blowing prior

blow-back. The TSD enables the chemist to demonstrate process concepts to the chemical engineer and the project manager. The chemist's work will even demonstrate the optimum manner of cake discharge. The filterability can be determined at various cake thicknesses and pressures as well as the correct levels of precoat and body-aid to be used. The provided heating/cooling jacket further enhances the flexibility of the TSD Pocket Filter.

The pocket filter is built of the following main parts:

Upper part

consists of the following parts:

Welded connectors with 4 ball valves for the following functions:

1. Prefiltration and filtration (outlet)
 2. Air vent and/or homogenization (outlet)
 3. Compressed air inlet with pressure regulator for draining and cake drying
 4. Compressed air inlet with pressure regulator for cake discharge
- Pressure gauge 0-6 barg with 1/4" threaded connection
 - Flow meter for measuring gas flow
 - Heating jacket with two 1/4" threaded connections for steam or hot water inlet/outlet (only 316L version)
 - Inside: a threaded M20 connection for the fixation of the

filter element

- Tri-clamp connection at the lower part of the cylinder for the fixation of the bottom cone
- Gasket material : PTFE and EPDM

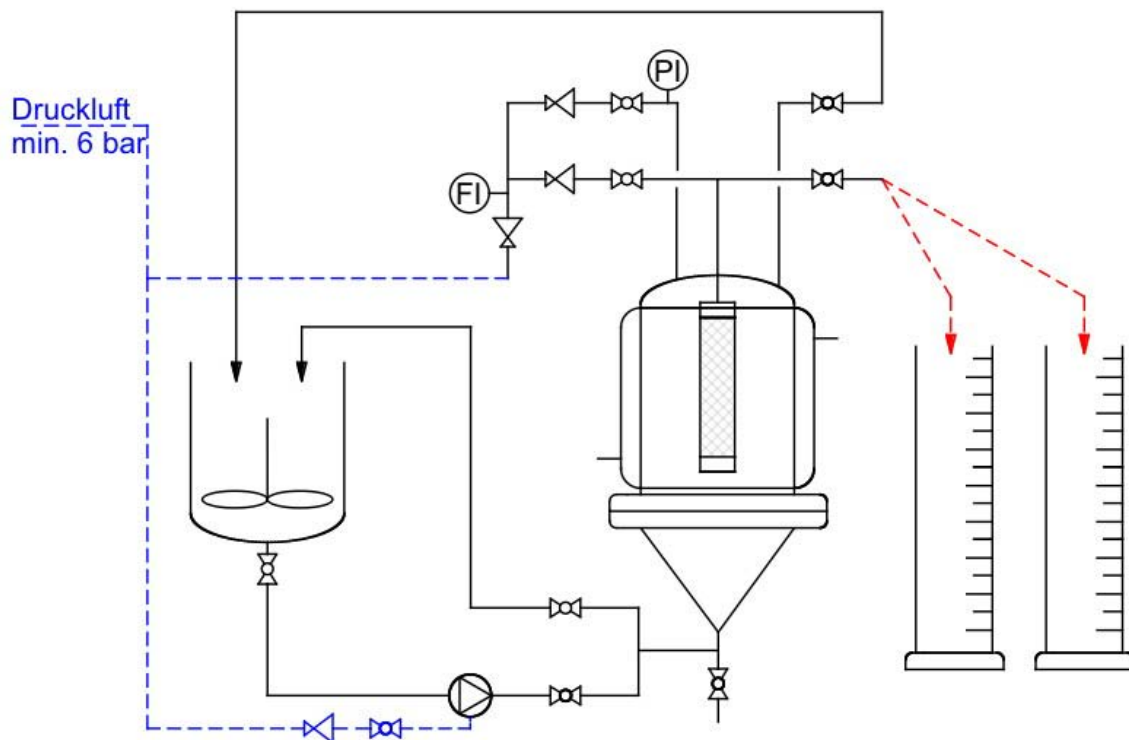
Lower part

Cone with tri-clamp connection for fixation with upper part and welded connections for 3 ball valves with the following functions:

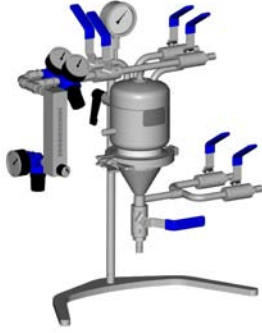
- Suspension inlet
- Slurry outlet
- Wash liquid inlet

Filter element dia. 30 mm

Mat.	30 mm
Total height	125 mm
Filtration height	105 mm
Filtration area	120 cm ²
Thread	M 20



Flowsheet of a complete filter setup including feed and filtrate tanks

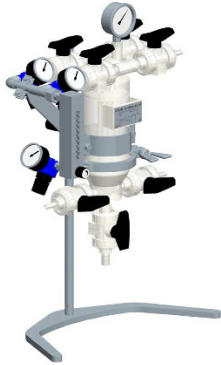


Pocket filter TSD Stainless steel (0.012 m²)

complete with several ball valve, cone, manometer, pressure regulator, flow meter, filter candle and stand.

Filter area	120 cm ² (0.012 m ²)
Inner dia.	82 mm
Filling volume	0.95 liter
Weight	ca. 10.7 kg
Max. operating pressure	-1 / +20 bar
Max. operating temp.	250 °C
Mat. cylinder / heating jacket	316L / 316L

850151.88



Pocket filter TSD PVDF

complete with several ball valve, cone, manometer, pressure regulator, flow meter, filter candle und stand.

Filter area	120 cm ² (0.012 m ²)
Inner dia.	82 mm
Filling volume	0.95 liter
Weight	ca. 7.3 kg
Max. operating pressure	5 bar
Max. operating temp.	80 °C
Mat. cylinder	PVDF
Option	Manom. with pres. mediator 1/4"

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850160.31

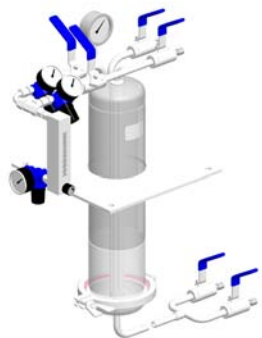


Glas extension for Pocket filter TSD Stainless steel

complete with candle extension, gasket, Tri-Clamp und splinter protection

Inner dia.	80 mm
Filling volume	1.35 liter
Weight	ca. 5.6 kg
Max. operating pressure	6 bar
Max. operating temp.	150 °C
Mat. cylinder	borosilicate
Mat. connections	316L

850157.68



Pocket filter TSD-XXL Stainless steel

complete with several ball valve, manometer, pressure regulator, flow meter, filter candle

Filter area	480 cm ² (0.048 m ²)
Inner dia.	109 mm
Filling volume	4.5 liter
Weight	ca. 15.2 kg
Max. operating pressure	10 bar
Max. operating temp.	150 °C
Mat. cylinder	316L
Option	heating jacket

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Feed tank for Filtrationequipment

Inner dia.	267 mm
Volume vessel / jacket	20.3 liter / 3.2 liter
Weight	ca. 25 kg
Max. operating pressure tank	0.95 barg
Max. operating pressure jacket	5.2 barg
Max. operating temp.	160° C
Material	316L

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Option	
Agitator	pneumatic (max. 6 barg)



Auxiliary kit for Pocket filter Stainless steel / PVDF

consisting of:
 10 pcs. Cloth L = 0.14 m
 Seal tape (Teflon)
 Clamps
 Pincer (Fe)
 Profil-gasket (Viton)
 O-Ring (Silicon-FEP)
 various Spanner
 Hexagonal screw wrench

SS / 850223.00
 PVDF / 850224.00



Assembly - Set for Pocket filter Stainless steel / PVDF

consisting of:
 9 pcs. Screw joint (SS)
 9 pcs. Support sleeve (SS)
 9 m Pipe \varnothing 6 x 1 mm (PTFE)
 1 pcs. Seal tape (PTFE)

SS / 850222.00
 PVDF / 850221.00



Pump for Pocket filter Stainless steel

Air-driven double diaphragm pump, with pulsation dampener, pressure regulator. stroke 0.02 L, feed max. 18.9 L/min, operating temp. -25/+105°C, max. pressure 8.5 barg

Executing for Pocket filter TSD Stainless steel:
 Body: Stainless steel
 Membrane PVDF with PTFE
 Connection 1/4"

all mounted on solid stainless steel platform.

SS / 850158.04
 PVDF / 850158.31



Pressure Nutsche with stand

complete with several ball valve, manometer, pressure regulator, Tri-Clamp, down cap and stand

Filter area	10 cm ² (0.001 m ²)
Inner dia.	35.7 mm
Filling Volume	0.2 Liter
Weight	ca. 6 kg
Max. operating pressure	15 bar
Max. operating temp.	150 °C
Mat. Cylinder / Heating jacket	316L / 316L

SS / 850226.35
 PVDF / 850226.31



Assembly - Set for Pressure Nutsche Stainless steel

consisting of:
 12 Stk. Cloth
 Gasket (Viton)
 Profil-gasket (Viton)
 O-Ring (Viton)
 Hexagonal screw wrench
 Hook-key
 Filling-T

850227.00