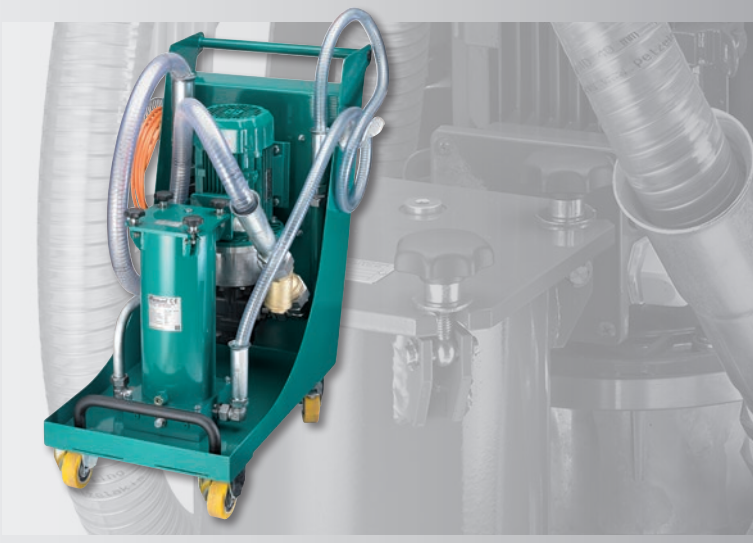
STAUFF®

Local Solutions For Individual Customers Worldwide

SMFS-U-060



SMFS-U-110



SMFS-U-CM-110



Mobile Filtration Systems

SMFS-U series

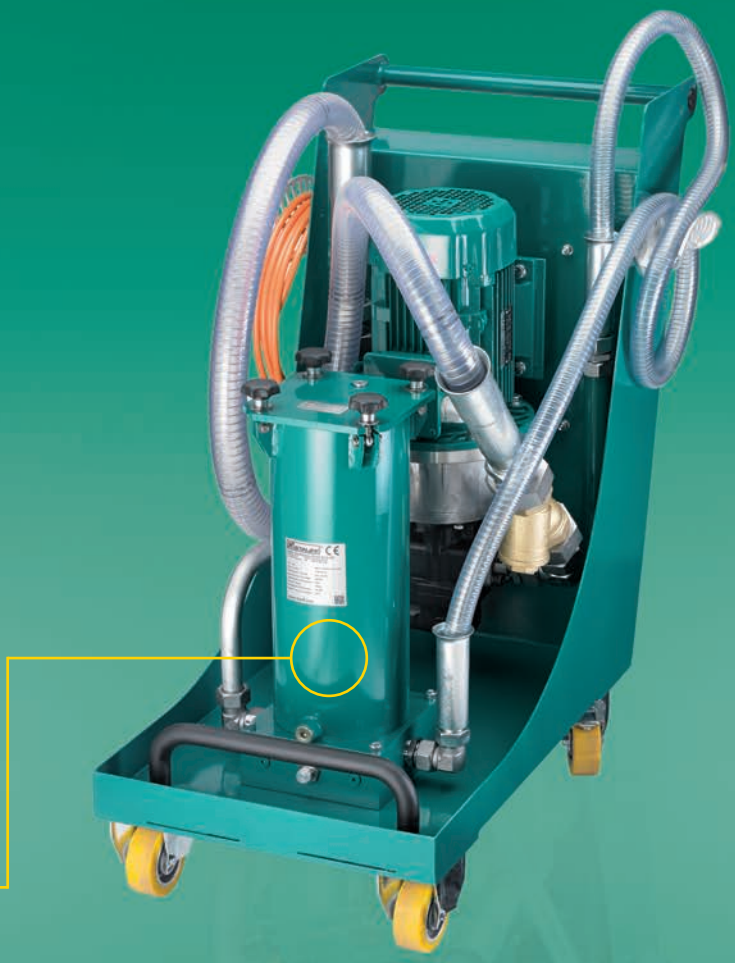
Info Brochure

Mobile Filtration Systems by STAUFF

MADE IN GERMANY



Filter housing for NR-630 filter elements.
Inorganic glass fibre elements with high dirt holding capacity available in 3, 6, 10, 16 and 25µm.



SMFS-U-060

The STAUFF SMFS-U series

STAUFF Mobile Filtration Systems type SMFS-U are designed to cover a wide application range in the area of offline-filtration.

Being compact, powerful and robust the units assist the preventive maintenance, either when transferring fresh oils or purifying existing hydraulic and lubrication oil systems.

By selecting high-quality components, the SMFS-U is suitable for purifying small and medium size systems in a very short time or for a permanent offline-filtration on large hydraulic systems.

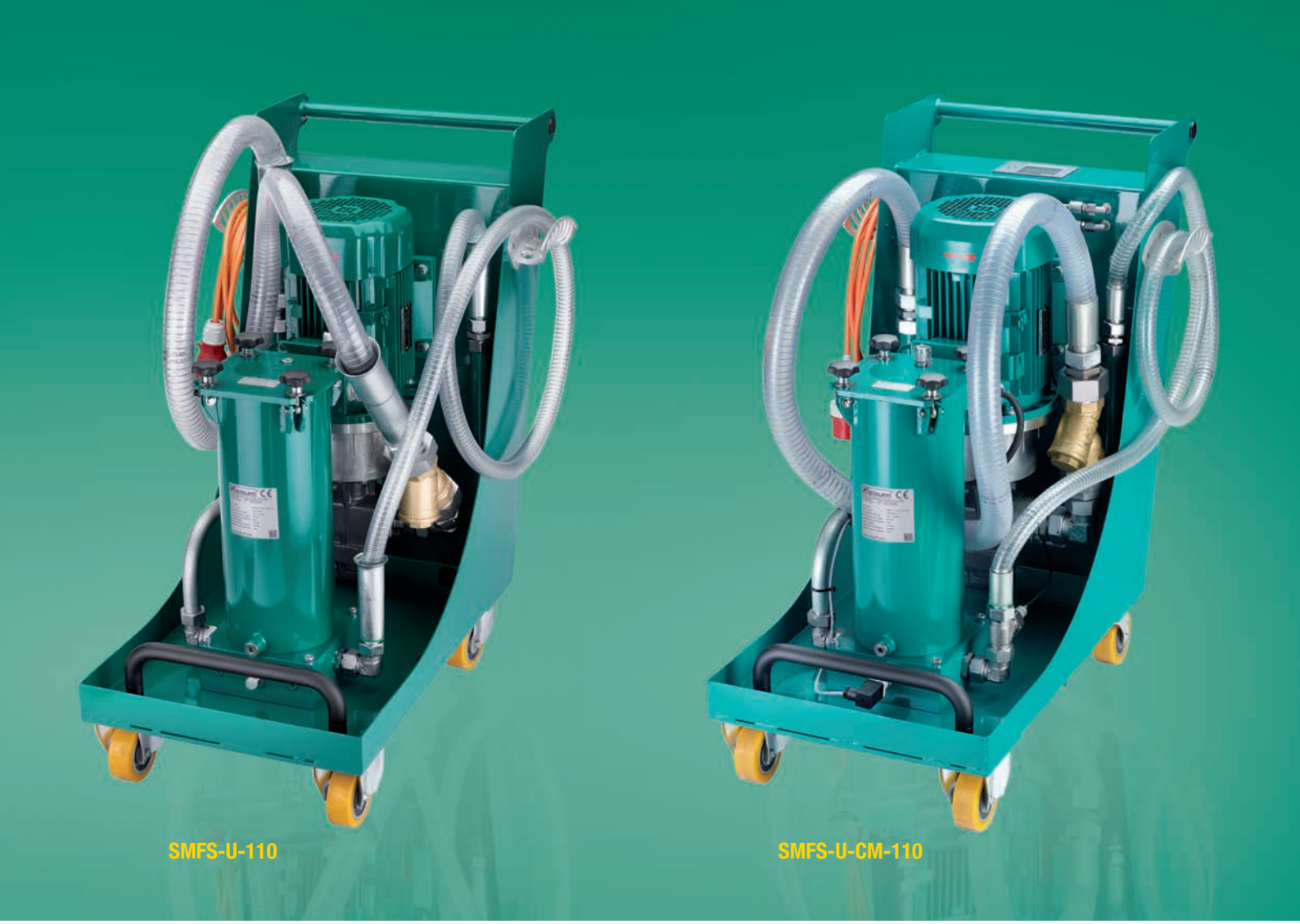
- High nominal flow rates of 60 l/min / 15 US GPM respectively 110 l/min / 30 US GPM by using high-quality gear pumps and energy-efficient, high-performance three phase motors suitable for continuous duty cycle
- Flexible use (mobile or stationary offline-filtration, filter elements available in different micro ratings)
- Easy and safe handling
- Rugged construction
- Filter elements with 4Pro media provide high dirt holding capacity and filtration performance
- Made in Germany

Transferring with SMFS-U-CM-110



Operating conditions

Oil volume	800 l / 211 US GAL
Oil type	HLP-HM 68 (viscosity 68 mm²/s / 68 cSt at 40°C / 104°F)
Oil temperature	14°C / 57°F
Oil viscosity at 14°C / 57°F	300 mm²/s / 300 cSt
Duration of transfer	7 minutes
Filter fineness	3µm (inorganic glass fibre filter element)

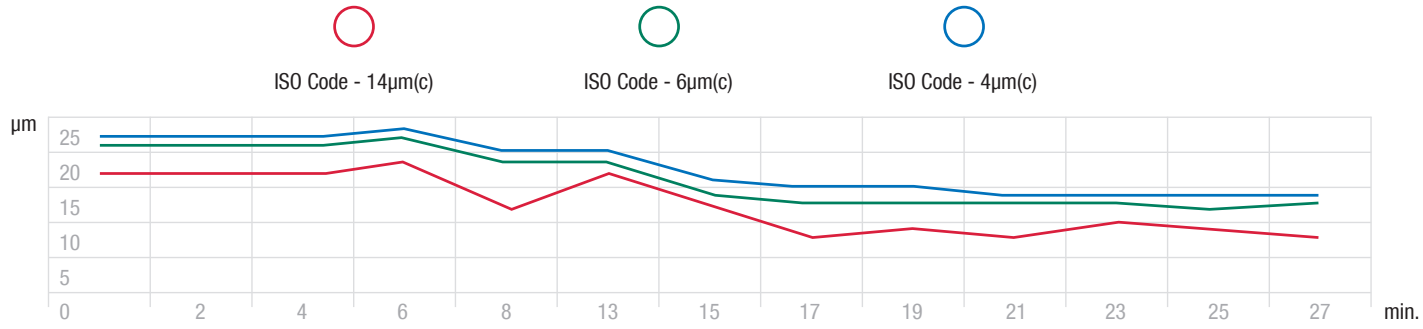


SMFS-U-110

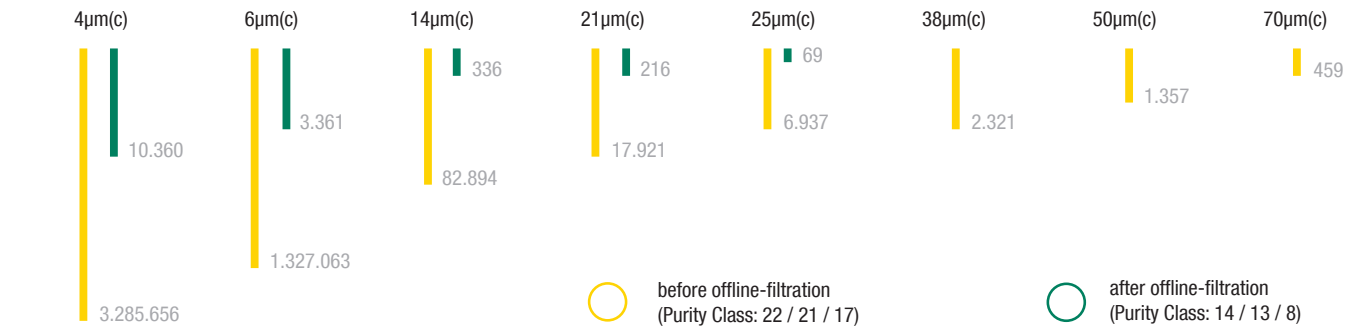
SMFS-U-CM-110

Offline-Filtration with SMFS-U-CM-110

Distribution of particles according to ISO 4406



Number of particles (/100ml / /3.38 us fl oz)



Mobile Filtration System SMFS-U-060

flow rate of 60 l/min / 15 US GPM

Suction- and Return- line hoses with reinforced wire wrapping
Length: 3 m / 9.84 ft



Lance holder for Suction- and Return-line hose

Robust grip for easy handling or to be used as fastening point for tension belts while transportation

Four heavy-duty roller, steerable on the rear side

2.2kW or 4kW high efficiency electric motor

The gear pumps are driven by three phase motors (3x400VAC/50Hz) providing efficiency class IE2 and IP55 protection class:

2.2kW for SMFS-U-060 and 4kW electric motors for SMFS-U-110 and SMFS-U-CM-110.

For optimal pump protection the SMFS-U is equipped with a washable 200µm stainless mesh coarse filter.

The filter housing features screw caps allowing a fast and simple change of the filter element without special tools.



Pump

The gear pump is protected by a pressure control valve (p=10bar / 145 PSI).

To prevent damage of pump, filter housing and filter element the electric motor shuts off before a critical pressure occurs.
The shut off is activated by a switch that permanently monitors the pressure between pump and filter housing.

Bended pressure hoses, too viscous oils, but also a non-observance of the clogging indicator are reasons for critical pressures.



Mobile Filtration System SMFS-U-110

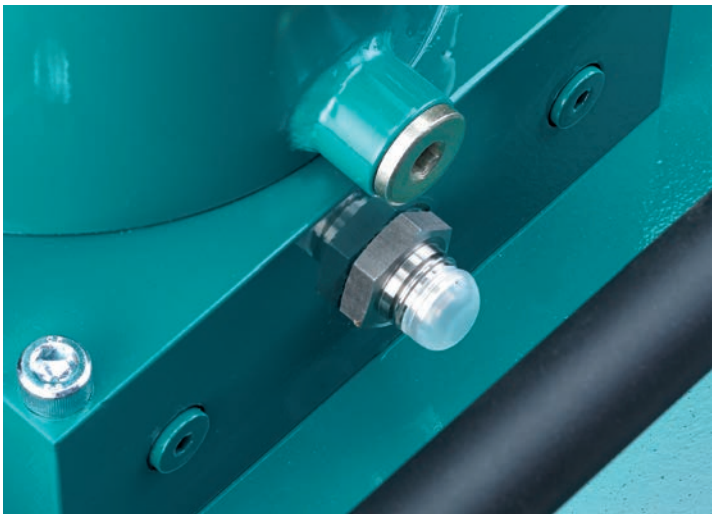
flow rate of 110 l/min / 30 US GPM



Hose bracket for Suction- and Return- line hose

Bend protection on each side of Suction- and Return- line hose

Drip pan for residual oil



Clogging Indicator

For the SMFS-U-060 and SMFS-U-110 series the filter change is indicated by a visual clogging indicator with automatic reset.

The SMFS-U-CM-110 is equipped with an electrical clogging indicator that is connected to the machine control. The message „change filter“ appears on the display of the control panel.

If necessary, a drain plug allows a complete emptying of the filter housing.



Electrical connection

To activate and deactivate the SMFS-U the units are equipped with a motor protecting switch with a bi-metal to protect the electric motor from overload. In case of an overload release the motor protective switch disconnects all poles of the supply voltage for the motor.

The undervoltage circuit breaker, which is part of the motor protective switch, prevents the automatic restart of the electric motor after a voltage breakdown or phase failure.

The plug connector (CEE 400V, 16A, 6H) with phase inverter allows to change the rotating direction of the motor without opening of the control box. The rotating direction on the motor has to be observed.

Connecting cable: H07BQ-F 5G 1,5, l=5 m / 16.40 ft, good oil, abrasion and impact resistance.

Mobile Filtration System SMFS-U-CM-110

flow rate of 110 l/min / 30 US GPM, particle counter, control panel with display and electric clogging indicator.



Integrated 8-chanel particle counter



Control panel

Electric clogging indicator / Signal „Change Element“ is displayed on the control panel

Control panel with display

The operating unit is used to select the operating mode, to display the operating conditions and measurement results of the particle counter.

In addition, the control panel provides two operating hours counter. On the one hand the entire time of the SMFS-U is detected and secondly, the resettable operating hours counter for accurate determination of the operating time at the respective place of use.

Following operation conditions are displayed by the control panel:

- cleanliness class according to ISO 4406 (>4µm, >6µm, >14µm)
- oil temperature (°C)
- relative humidity (RH in %)
- operating hours

Additionally, a cleanliness class can be preset up to which should be filtered. The filtration systems shuts off the electric motor after reaching the cleanliness class with a delay of one minute.





Control enclosure and particle counter

Machine control and particle counter are integrated in the rear control enclosure. To isolate the electric from the hydraulic circuit the particle counter is placed in a separate cabinet.

8-chanel particle counter incl. moisture / temperature sensor

Cleanliness class according to ISO 4406, relative humidity (in %) and temperature (in °C) are transmitted to the display of the control panel.

For the configuration of the particle counter and a detailed analysis of measurements the operating software LasPaC II View is included in the delivery scope of the SMFS-U-CM-110 system.

The connection between the application software LasPaC II View and the Particle Counter is done via a USB interface.

The interface is easily accessible on the side of the control cabinet and allowing access to the particle counter via the LasPaC II View Software, without opening the control cabinet.



Technical data

Type	SMFS-U-060	SMFS-U-110	SMFS-U-CM-110
Nominal Flow	60 l/min / 15 US GPM (depends on the viscosity of fluid)	110 l/min / 30 US GPM (depends on the viscosity of fluid)	110 l/min / 30 US GPM (depends on the viscosity of fluid)
Viscosity: Admissible Recommended (with continuous strain)	 12 ... 800 mm²/sec / 12…800 cSt 20 ... 100 mm²/sec / 20…100 cSt	 12 ... 800 mm²/sec / 12…800 cSt 20 ... 100 mm²/sec / 20…100 cSt	 12 ... 800 mm²/sec / 12…800 cSt 20 ... 100 mm²/sec / 20…100 cSt
Motors	2,2 kW; 1440 U/min	4 kW; 1445 U/min	4 kW; 1445 U/min
Electrical Connection	400 V AC @ 50 Hz - 3 phases Plug CEE 16A 3P+N+PE IP 55 protection rating	400 V AC @ 50 Hz - 3 phases Plug CEE 16A 3P+N+PE IP 55 protection rating	400 V AC @ 50 Hz - 3 phases Plug CEE 16A 3P+N+PE IP 55 protection rating
Filter Element	NR-630	NR-630	NR-630
Micron Rating	3-25 µm	3-25 µm	3-25 µm
Media Compatibility	mineral oils	mineral oils	mineral oils
Clogging Indicator	STAUFF Clogging Indicator HI-A	STAUFF Clogging Indicator HI-A	STAUFF Clolgging Indicator HI-E
Hoses Length: Suction Side Pressure Side	 3 m / 9.84 ft 3 m / 9.84 ft	 3 m / 9.84 ft 3 m / 9.84 ft	 3 m / 9.84 ft 3 m / 9.84 ft
Particle Counter	-	-	STAUFF Particle Monitor LPM II

Find the suitable STAUFF replacement filter element at

filterinterchange.com

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