



# Mobile Flushing Unit, MFU

## Oil filtration and gear flushing for mining applications

### CJC™ Product Sheet

#### APPLICATION

The CJC™ Mobile Flushing Unit, MFU is used for flushing of gear-boxes in rough environments, especially within the mining sector, such as truck shops, service sites etc. The MFU is equipped with wheels for high mobility and constructed for high viscous gear oils.

#### BENEFITS

- Maximize fleet availability
- Avoid unexpected and expensive breakdowns
- Reduce maintenance costs - less component wear
- Monitoring and logging of oil cleanliness level
- Efficient maintenance service
- Fast flushing – 30 min. up to a few hours
- User-friendly and easy to operate
- Avoid oil changes and save the environment

#### FEATURES

- Optimized for gear oils in differential / planetary gears in heavy mobile equipment
- Complete drain to MFU tank using the integrated funnel followed by flushing of the gear
- Flushing of the gear without use of MFU tank
- Oil filtration on MFU tank
- Filtration and transferring of new oil to the gear
- CJC™ Oil Contamination Monitor for monitoring of oil cleanliness before or after the filter
- Automatic flow regulation based on oil viscosity
- Preheaters to maintain an optimal oil temperature
- Large dirt holding capacity
- Cam-Lock couplings for easy mounting
- Removable tool box for storage

#### FUNCTION

The flushing is performed with a pump flow of approx. 800 l/h circulating the gearbox volume several times through the system. The flushing speed depends on the oil temperature / viscosity and is automatically controlled by a pressure transmitter in combination with a frequency inverter. Preheaters maintain an optimal oil temperature, thus making the maximum flushing speed possible. The MFU is hose connected to the gear using Camlock couplings for easy mounting and low pressure loss. Alternatively the gear can be drained directly to the MFU tank using the integrated funnel. A built in CJC™ Oil Contamination Monitor, OCM makes it possible to do monitoring and logging of the oil cleanliness, before or after the CJC™ Offline Fine Filter, during the flushing process.

#### THE PUMP

The pump is a gear wheel pump. The electric motor can be supplied for all standard AC voltages and for 50/60 Hz.

#### FILTER INSERT

The CJC™ Filter Inserts consist of several discs bonded together. The material is either cellulose or cotton linters depending on the fluid to be filtered.

#### FILTRATION ABILITY

- **Particle Removal**  
All CJC™ Filter Inserts have the following filtration degree:  
- **3 µm absolute:** 98.7% of all solid particles > 3 µm  
- **0.8 µm nominal:** 50% of all solid particles > 0.8 µm are retained in each pass.  
The dirt holding capacity is 16 L of evenly distributed solids.
- **Degradation Products**  
Oxidation products, resin/sludge, and varnish are retained by the cellulose material, retaining appr. 16 kgs of oil degr. products.
- **Water Removal**  
The water absorption potential is up to 50% (i.e. 2,000-8,000 mL H<sub>2</sub>O) of the total contaminant holding capacity.



The CJC™ Mobile Flushing Unit, MFU  
HDU 27/108 GP

#### TECHNICAL DATA

		MFU 27/108 GP
Pump flow, 50/60 Hz	ltr/h / gal/h	700/850 / 185/225
Pump type		GP 26-8
Pump inlet pressure, max.	bar/psi	0.5 / 7
Tank capacity	ltr/gal	240 / 63
Filter Inserts 27/27	pcs.	4
Power consumption, aver.	kW	10.7
Pressure drop, max.	bar/psi	1.8 / 26
Oil temperature, max.	°C / °F	80 / 176
Dirt hold. capacity, appr.	ltr/gal	16 / 4.2
Water absorption capacity	ltr/gal	8 / 2.1
Dry weight	kg/lb	470 / 1036
Operating weight, wet		710 / 1565
Design pressure, filter	bar/psi	4 / 58
Ambient temp. max	°C / °F	40 / 104

\*) The standard filters are designed for a max. temp. of 80°C / 176°F. Other conditions, please contact us.

#### APPLICABLE FILTER INSERTS

Type	Application for
B	Higher flow (larger system fluid volumes)



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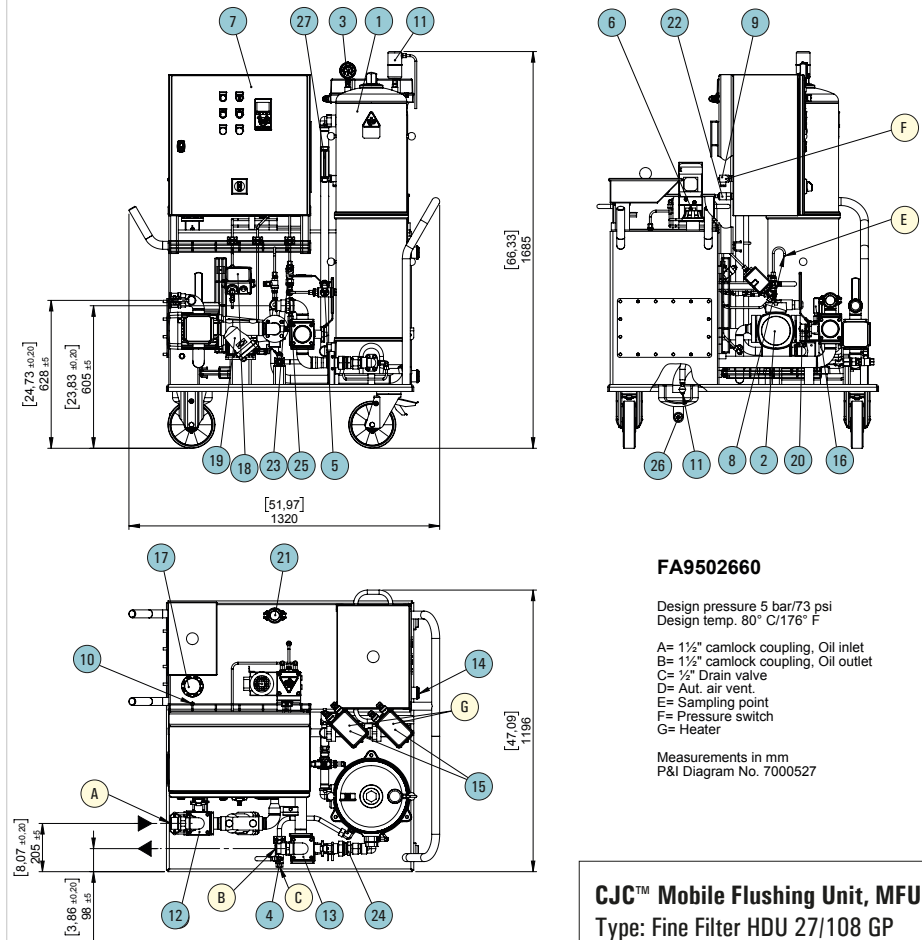
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## CJC™ Product Sheet

### COMPONENTS

Item	Part
1	CJC™ Fine Filter type HDU 27/108
2	Pump type GP 26-8
3	Pressure gauge 0 - 7 bar
4	Drain ball valve ½"
5	3-way valve for CJC™ OCM 15x
6	Pump type Marzocchi 0.25 R 18
7	Control box
8	Sampling point
9	Pressure switch
10	Level switch
11	Automatic air vent
12	Inlet 3-way valve L
13	Outlet 3-way valve T
14	Sight glass
15	Electric immersion heater 4.4 kW
16	Vacuummeter -1-3 bar
17	Air vent for tank
18	CJC™ OCM 15x
19	Strainer (1000 µm)
20	Position indicator
21	Inlet tank 1½" Camlock coupling
22	Pressure transmitter
23	Strainer for OCM
24	Non return valve
25	Shut off valve 1/4"
26	Drain plug
27	Thermometer

### DIMENSIONS



**CJC™ Mobile Flushing Unit, MFU**  
Type: Fine Filter HDU 27/108 GP

### INSTALLATION PRINCIPLE

