**Mobile Trolleys** 

# Mobile Filtration Units

Available with a flow rate up to 50 l/min



## PASSION TO PERFORM



## Mobile Filtration Trolleys



### **System Cleaning Requirements**

Typical Hydraulic Applications	Cleanliness Class Required		Outlet Filter Required	
Component Types	IS04406	NAS1638	Туре	Element Types
High-precision and laboratory servo-systems	14/12/9	3	3 Micron absolute	A03
Robotic and servo-systems	17/15/11	6	3-6 Micron absolute	A03, A06
Very sensitive, high-reliability systems	18/16/13	7	10-12 Micron absolute	A10, A16
Sensitive, reliable systems	20/18/14	9	12-15 Micron absolute	A10, A16
General equipment	21/19/16	10	15-25 Micron absolute	A16, A25
Low-pressure equipment not in continuous service	23/21/18	12	25-40 Micron absolute	A25

## **Approximate System Cleaning Times**

GRF 100								
Resevoir Capacity (litres)	100	200						
Cleaning time (mins/hours)	1hr	2hrs						
GRF 261								
Resevoir Capacity (litres)	100	200	400					
Cleaning time (mins/hours)	30mins	45mins	1hr 30mins					
GRF / GRM 302								
Resevoir Capacity (litres)	100	200	400	600				
Cleaning time (mins/hours)	20mins	40mins	1hr 20mins	2hrs				
GRF / GRM 503								
Resevoir Capacity (litres)		200	400	600	800	1000	1200	1500
Cleaning time (mins/hours)		30mins	45mins	1hr	1hr 15mins	2hrs	3hrs 30mins	4hrs 30mins

Clean-up rates based on an initial contamination rating of ISO 4406 23/21/19 (NAS 1638 Class 12) to 17/15/12 (NAS Class ??) Using MTD - Please note more than one element might be required



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FTU 080

Equipped with ICM 2.0 In-line Contamination Monitor

#### Mobile Filtration Unit

#### Fluid Transfer Unit 80 Litre onboard resevoir Flow rate up to 15 L/Min

Designed for filling; recirculation (via an onboard 80L reservoir), and emptying filtered hydraulic fluids and lubrication tanks.

The FTU can be utilised either as additional filtration for a system with a high incidence of contamination, or as a standalone recirculating filtration circuit to clean fluid to a predetermined contamination level monitored by the onboard ICM - prior to transfer of fluid to the system.

### **Key features:**

- Continuous operation at 3.5 bar
- Specialist onboard filtration unit
- Easy to maintain
- Large dirt-holding capacity
- Comes with LMP4305 and MPS100 spin on filters as standard
- Water removal spin on option
- Compatible with Mineral Oil
- Calibrated to relevant ISO standards ICM
- Electric control box
- Indicators: Outlet filter with electric cut-out switch
- Nitrile Seals
- ICM 2.0 included for real time monitoring
- Data logging and storage of up to 4000 test memory results

## **Applications:**

- Low flow rate for filling of reservoirs
- Low-flow filtration for off-line tanks
- Pre-filtration ability of fluid prior to filling of the hydraulic system
- Configuration with start / stop automatic motor cut-out from differential pressure indicator electrical / visual
- Configuration with start / stop phase inverter automatic motor cut-out from differential pressure indicator electrical / visual



Pump	Gear Pump		
Electric Motor	0.75kW 1400rpm, 110/230V single phase		
Flow Rate	15 L/min		
Max Operating Pressure	3.5 bar		
Inlet	Inlet (pump protection) filtration steel 250µm Y-type strainer		
Viscosity Range	Maximum 150 cSt		
Tank Filter	250 $\mu m$ metal mesh suction strainers		
Outlet Filter	In-line filtration 3 $\mu m$ absolute ß 1000 element bypass set at 3 bar.		
Bypass Valve	Rating 3.5 bar with bypass Water removal "spin-on" type, bypass set at 1.75 bar.		
Controls	Electrical Control Box		
Indicator	Delivery line electric cut out switch		
Fluid Temperature	From -10° to +80°C *		
Ambient Temperature	From 0° to $+40$ °C* (*viscosity dependent)		
Protection Class	IP 55		
Seal	NBR		
Fluid Compatibility	Mineral oil compatible		
Hose	Flexible hoses - SAE100R4 fw 1" BSP swaged females 2mtr long hose		
Dimensions	Weight: 200kg Dimensions: 1155mm (H); 1082mm (D); 665mm(W)		
Equipment	ICM 2.0 Version available		



#### Mobile Filtration Unit

Mobile Filtration Unit Maximum working pressure up to 5 bar Flow rate up to 10 l/min

A highly portable oil transfer/filtration unit, designed for both filling/transferring hydraulic oils from containers to the hydraulic tank as well as filtering and cleaning hydraulic systems.

The unit utilises Spin-On standard cartridge (supplied as option), available in two lengths, thus increasing the dirtholding capacity and lowering pressure drop of the unit.

Light and compact, it supports a wide range of medias and micron ratings to suit multiple applications.

### **Available features:**

- 10 L/min Flow rate
- Continuous operation at 5 bar
- Light and portable
- Compact design
- Quick and easy to set up
- High-efficiency filtration
- Easy to maintain
- Comes with MPS100 filter head filters as standard
- Water removal (optional element)
- Compatible with Mineral Oil
- Electric control box
- Visual indicator
- Nitrile seals

## **Applications:**

- Filling/transferring hydraulic oils from containers to the hydraulic tank
- Filtering and cleaning hydraulic systems.



Pump	Gear Pump
Electric Motor	0.37 Kw 110/230 Volt single phase electric motor
Flow Rate	10 L/min
Max Operating Pressure	5 bar
Viscosity Range	Min. operation 10 cSt Max. operation 120 cSt
Inlet Filter	250 µm metal mesh strainer
Outlet Filter	1/3/6/10/25 $\mu m$ B>1000 flow through the element Out/In
Bypass Indicator set at 1.75bar	Visual clogging indicator gauge - pop-up manual reset.
Fluid Temperature	From 0° to +80°C
Ambient Temperature	From 0° to +45°C
Protection Class	IP 55
Seal	NBR
Fluid Compatibility	Mineral oil
Suction / pressure hose	SAE100R4 1" swaged female 2000mm hose SAE100R4 3/4" swaged female 2000mm hose
Dimensions	Weight: 18kg Dimensions: 697mm (H); 400mm (D); 215mm(W)
Equipment	N/A



#### Mobile Filtration Unit

Mobile Filtration Unit Maximum working pressure up to 5 bar Flow rate up to 26 l/min

GRF 261 mobile filtration units have been created for filling and refilling filtered hydraulic fluids and lubrication tanks.

The filter unit connected to off-line to the tank (recommended maximum volume 400L), can be used as a support to the filtration plant on start-up for fast flushing action, or as additional filtration for systems with a high incidence of contamination.

Light and compact, it supports a wide range of medias and micron ratings to suit multiple applications.

### **Available features:**

- 26 L/min Flow rate
- Continuous operation at 5 bar
- Light and portable
- Fast clean-up times
- Compact design
- Quick and easy to set up
- High-efficiency filtration
- Easy to maintain
- Comes with MPS100 filter head filters as standard
- Water removal (optional element)
- Compatible with Mineral Oil
- Electric control box
- Visual indicator
- Nitrile seals

## **Applications:**

- Filling/transferring hydraulic oils from containers to the hydraulic tank
- Filtering and cleaning hydraulic systems.

Pump	Gear Pump
Electric Motor	0.55 Kw 110/230 Volt single phase electric motor
Flow Rate	26 L/min
Max Operating Pressure	5 bar
Viscosity Range	Min. operation 10 cSt Max. operation 120 cSt
Inlet Filter	250 µm metal mesh strainer
Outlet Filter	1/3/6/10/25 $\mu m$ B>1000 flow through the element Out/In
Bypass Indicator set at 1.75bar	Visual clogging indicator gauge pop-up, manual reset.
Fluid Temperature	From 0° to +80°C
Ambient Temperature	From 0° to +45°C
Protection Class	IP 55
Seal	NBR
Fluid Compatibility	Mineral oil
Suction / Pressure hose	SAE100R4 1" swaged female 2000mm hose SAE100R4 3/4" swaged female 2000mm hose
Dimensions	<b>Weight:</b> 18kg <b>Dimensions</b> : 697mm (H); 400mm (D); 215mm(W)
Equipment	N/A



## GRF 302 / GRM 302

Available with ICM 2.0 In-line Contamination Monitor

#### Mobile Filtration Unit

#### Mobile Filtration Unit Maximum working pressure up to 5 bar Flow rate up to 30 l/min

Compact and simple to use, the GRF and GRM302 mobile filtration units enable service teams to clean oil and hydraulic fluids quickly and easily - protecting complex components, machines and systems from particulate contamination.

GRF/GRM 302 units are ideal for filling and filtering hydraulic fluids and lubrication tanks.

The unit can be connected off-line to the tank (recommended max volume of 500 L), and can be used as a support to the filtration plant on start-up for fast flushing or as an additional filtration system for highly contaminated systems.

#### **Available features:**

- 30 L/min Flow rate
- Continuous operation at 3.5 bar
- Compact size
- Comes with MPS100 filter as standard option for LMP4305 filter to be fitted
- Water removal (optional element)
- Compatible with Mineral Oil
- Electric control box
- Calibrated to relevant ISO standards (GRM only)
- Electric control box
- Visual electrical indicator
- Nitrile seals
- ICM included for real-time monitoring (GRM only)
- Data logging and storage of up to 4000 test memory results (GRM only)

#### **Applications:**

- Filling and filtering hydraulic fluids and lubrication tanks.
- Filter unit can be connected off-line to the tank (recommended max volume500 L), and can be used as a support to the filtration plant on start-up for fast flushing action - or as an additional filtration system for highly contaminated systems



Pump	Gear Pump or Screw Pump (for diesel)
Electric Motor	0.75 Kw, 1400rpm, 110V/240V single phase, 415V three-phase
Flow Rate	30 L/min
Max Operating Pressure	3.5 bar
Viscosity Range	Maximum 150 cSt
Inlet Filter	100 mesh washable as standard
Outlet Filter	1/3/6/10/25 $\mu m$ B>1000 flow through the element Out/In
Bypass Indicator set at 1.75bar	Rating 3.5 bar with bypass (LMP) 1.75 bar bypass (MPS) Visual/electrical indicator (on LMP) set at 2 bar
Fluid Temperature	From -10° to +80°C
Ambient Temperature	From 0° to +45 °C
Protection Class	IP 55
Seal	NBR
Fluid Compatibility	Mineral oil and diesel oil variants
Suction and hose	SAE100R4 1" swaged female 2000mm hose - available with lances
Dimensions	<b>GRF</b> - 75kg, 860mm (H); 560mm (D); 500mm(W) / <b>GRM</b> - 80kg, 860mm (H); 560mm (D); 500mm (W)
Equipment	ICM 2.0 Version available (GRM Models)



## GRF / GRM 503

Available with ICM 2.0 In-line Contamination Monitor

#### Mobile Filtration Unit

#### Mobile Filtration Unit Maximum working pressure up to 3.5 bar Flow rate up to 50 l/min

With fast cleaning times and the option of adding a state of the art ICM 2.0 particle counter, the GRF and GRM503 mobile filtration units enable service teams to clean oil and hydraulic fluids quickly and easily - protecting complex components, machines and systems from particulate contamination.

GRF/GRM 503 units are ideal for filling and filtering hydraulic fluids and lubrication tanks. The unit can be connected off-line to the tank (recommended max volume of 1000 L), and used as a support to the filtration plant on start-up for fast flushing or as an additional filtration system for highly contaminated systems.

#### **Available features:**

- 50 L/min Flow rate
- Continuous operation at 3.5 bar
- Portable
- Water removal (optional element)
- Quick and easy to set up
- Compatible with Mineral Oil
- Calibrated to relevant ISO standards (GRM only)
- Wide variety of communication protocols as standard
- Electric control box w/pressure safety switch
- Indicators: Outlet filter w/electric cut-out switch
- Nitrile seals
- ICM included for real-time monitoring (GRM only)
- Data logging and storage of up to 4000 test memory results (GRM only)

## **Applications:**

- Filling and filtering hydraulic fluids and lubrication tanks.
- Filter unit can be connected off-line to the tank (recommended max volume 1000 L), and can be used as a support to the filtration plant on start-up for fast flushing action - or as an additional filtration system for highly contaminated systems



Pump	Gear Pump or Screw Pump (for diesel)
Electric Motor	1.1Kw, 1400rpm, 110V/240V single phase, 415V three-phase
Flow Rate	50 L/min
Max Operating Pressure	3.5 bar
Viscosity Range	Maximum 150 cSt
Inlet Filter	250 µm Y type strainer
Outlet Filter	1/3/6/10/25 $\mu m$ B>1000 flow through the element Out/In
Bypass Indicator set at 1.75bar	Rating 3.5 bar with bypass (LMP) 1.75 bar bypass (MPS) Visual/electrical indicator (on LMP) set at 2 bar
Fluid Temperature	From -10° to +80°C
Ambient Temperature	From 0° to +45 °C
Protection Class	IP 55
Seal	NBR
Fluid Compatibility	Mineral oil and diesel oil variants
Suction and pressure hose	SAE100R4 1" swaged female 2000mm hose - available with lances
Weight	<b>GRF</b> - 92kg, 1151mm (H); 816mm (D); 544mm(W) / <b>GRM</b> - 97kg, 1151mm (H); 816mm (D); 544mm (W)
Equipment	ICM 2.0 Version available (GRM Models)





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