



**The Pall® VRFII varnish removal trolley is a portable off-line filter unit designed to reduce or eliminate the presence of varnish in hydraulic and lubrication systems.**

Varnish is the thin, insoluble film deposit that forms on oil-wetted surfaces inside a hydraulic or lube system, such as bearings and servo valves.

When varnish forms, the effects can be devastating to the operation and availability of the equipment, and may include:

- Sluggish controls and servo valve stiction
- Costly downtime from unscheduled outages
- Start-up delays from unresponsive control systems

The demand for reliability, availability, and seamless operation of today's fluid systems requires an efficient, easy, and reliable method for removing varnish not only from the oil, but also from the wetted metal surfaces inside the machine.

**Varnish Removal**

Varnish in hydraulic or lubrication fluids can be effectively removed or reduced to acceptable levels by passing the fluid through the on-board SUPRADisc II filter module.

SUPRADisc II filter modules feature an innovative design incorporating a double separator concept, whereby the filter medium and separators are stacked on a central core and compressed to produce a stable high strength unit

Each sheet of filtration medium is individually sealed and separated resulting in close to 100 % effective filtration area that is dimensionally stable during shipment and handling, filtration and maintenance.



SUPRADisc filter module

In addition to removing varnish, the SUPRADisc filter module can:

- Improve fluid filterability properties
- Remove gel & colloids
- Remove free water (in small quantity)
- Retain fine contaminants at high loading rate.

**SUPRADisc™ VRFII  
Varnish Removal Filter Trolley  
Fluid Conditioning Unit**



Pall VRFII Filter trolley

**Notes and Specifications**

**Operating Pressure Limits**

**Inlet:** -0.5 barg (-7.3 psig) to 0.7 barg (10.1 psig)

**System back pressure:** 2 barg (29 psig) max.

**Fluid Compatibility:** Mineral and synthetic oils

**Temperature range:** 15° C (59° F) min to 40° C (104° F) max if no water cooler fitted, 70° C (158° F) Max if water cooler fitted

**Approx. Dry Mass:** 100-130kg (220-286 lbs)

**Fluid connections:** 1" BSP male

**Water Inlet /outlet:** ¾" BSP

**Materials of Construction:**

**Vessel:** Stainless Steel (316L)

**Frame:** Carbon Steel, painted

**Hydraulic fittings:** Carbon steel, painted

**Seals:** Fluorocarbon

## Ordering Information

Filter Housing P/N: **VRF 1 2 3 4 CP 5 6 7**

(Filter housing supplied empty. Filter modules must be ordered separately)

Replacement filter module P/N: **200ME 8 C232VP**

Code	Number of modules
1	1
2	2

Code	Flowrate
4	15 L/min (4 US gpm)
8	30 L/min (8 US gpm)

Code	Voltage & Frequency
M5	220 V – 50 Hz, single phase
R3	380 V – 50 Hz, 3 phases
S3	400 V – 50 Hz, 3 phases

Code	Water Cooler options
N	No cooler
W	Standard cooler Fluid Temp 60°C (140°F) max
H	High capacity cooler Fluid Temp 70°C (158°F) max

Code	Motor
S	Without variable speed drive
V	With variable speed drive

Code	Language (IOM)
EN	English
FR	French
IT	Italian
DE	German
ES	Spanish

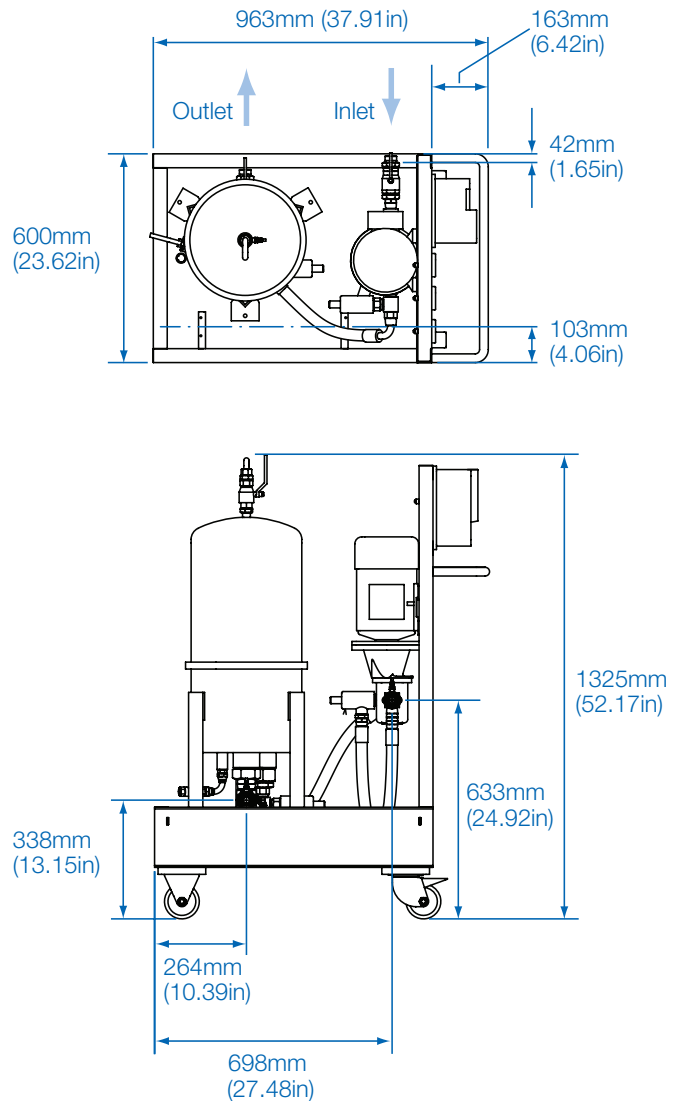
Code	Optional Kits
A	No optional Kit
B	5 m inlet/outlet hoses
C	Auto air bleed + option A
D	Auto air bleed + option B

Code	Media <sup>1</sup>
30	300
70	700
90	900

<sup>1</sup>Other media available on request

## Technical Specifications

**Example:** Typical mobile unit without water cooler and air bleed



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
*Filtration. Separation. Solution.<sup>SM</sup>*



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