



OFFLINE FILTRATION UNIT

TECHNICAL DATA

Model - HDU 27 27 PV-PVY

Pump flow, per min (std.)	ltr	3
Pump type (Monoblock gear pump)		IL - 20
Pump inlet pressure	bar	0.5
Max. Operation Pressure	bar	6
Filter Insert 27/27	pcs.	1
Power consumption, aver.	kW	0.18
Pressure drop, max.	bar	1.8
Oil temperature, max.*)	°C	80
Dirt holding capacity, appr.	ltr	4
Water absorption capacity	Ltr	2
Dry weight	Kg	60
Operating weight, wet	Kg	68
Design pressure, filter	Bar	4
Ambient temperature, max.	°C	52
Viscosity Range Min	cSt	10
Viscosity Range Max	cSt	320
Viscosity Range (Max only for cold start)	cSt	800
Protection Glass	IP	55
Fluid Compatibility		Mineral & Synthetic Oil

APPLICATION

The **HDU 27 27 PV-PVY FILTER** used for the Gear Box Lubrication in Wind Turbines. The HDU 27 27 PV-PVY is ideal for removal of **particles, degradation products and water**.

EQUIPMENT

- Differential Clogging indicator - Visual (setting 3 bar $\pm 10\%$)
- Differential Clogging indicator - Electrical (Setting 3 bar $\pm 10\%$)

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• Particle Removal

All Filter Inserts have the following filtration degree:

- 3 μm absolute:

98.7% of all solid particles $> 3 \mu\text{m}$

- 0.8 μm nominal:

50% of all solid particles $> 0.8 \mu\text{m}$ are retained in each pass.

The **dirt holding capacity** is 4-16 litres of evenly distributed solids.

• Degradation Products

Oxidation products, resin / sludge, and varnish are retained by the cellulose material, which will retain appr. 4-16 kgs of oil degradation products.

• Water Removal

The water absorption potential is up to 50% (i.e. 2,000-8,000 mL H_2O) of the total contaminant holding capacity.

THE FILTER PUMP

The Monoblock gear pump coupled with electric motor. There are two pumping elements with gear in gear principle. As a shaft rotates, they mesh & un-mesh displacing the liquid axially through its pumping elements. Axial flow through elements ensure better suction, very low noise level and nearly pulsation free flow.

FILTER INSERT

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

FUNCTION

The filter pump draws fluid from the system tank (at lowest point) and presses it through the filter insert. From the center of the insert the fluid flows through the filter base and returns to the tank.

The pressure drop over the filter - and consequently the contaminant absorption of the filter insert - is monitored on the pressure gauge on the filter top.

The filter outlet port is placed in the filter base. The filtered fluid should be returned to the tank close to the suction pipe of the main system pump.

Note that the return point preferably should be non-pressurized. Contact us in case this is not possible.