



CLEAN OIL
BRIGHT IDEAS

HPS 27/27-108

CJC™ Off-line Fine Filter, High Pressure, Outdoor Installations

CJC™ Product Sheet

APPLICATION

The CJC™ HPS 27/- series of CJC™ Off-line Fine Filters are used for the maintenance of fluids for **power transmission, lubrication, cooling and quenching**. The HPS 27/27-108 is ideal for **removal of particles, degradation products and water**.

The HPS 27/- Filter is made from **stainless steel (AISI 304)** and the pump/motor is painted with a 2-pack epoxy paint suited for corrosion classification C3.

The filter has been tested to what is equivalent to 20 years of operation in coastal environment.

Main Applications:

- Outdoor installations
- Light industrial areas
- Cooling tower gearboxes
- Areas affected by the coast
- High pressure applications up to 10 Bar

Other Applications:

- Atmosphere with a certain amount of salt or a moderate amount of air pollutants
- Bulk oil tankers
- Off-shore
- Outdoor deck machinery
- Quenching system
- Tap changers
- Urban areas
- Washing water
- Wind Industry

FUNCTION

The filter pump draws fluid from the system tank (at lowest point) and presses it through the filter insert. From the centre 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.

THE FILTER PUMP

The filter pump is a gear wheel pump. The enclosed electric motor can be supplied for most standard AC and DC voltages.

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.

OPTIONS

- Preheater
- Tank
- Drip pan
- Control box
- Pressure switch

FILTRATION ABILITY

- **Particle Removal**
All CJC™ Filter Inserts have the following filtration degree:
- **3.0 µm absolute:** 98.7% of all solid particles > 3.0 µm
- **0.8 µm nominal:** 50.0% of all solid particles > 0.8 µm
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 H₂O) of the total contaminant holding capacity.



The CJC™ Fine Filter
HPS 27/27 PVM

TECHNICAL DATA

| Model | 27/27 | 27/54 | 27/81 | 27/108 |
|--------------------------------------|-----------------------------|--------|---------|---------|
| Pump flow, per hour (std.) | ltr/gal 45 - 3000/ 12 - 793 | | | |
| Pump type | PVM / MZ / GP | | | |
| Pump inlet pressure, max. | bar/psi 7 / 102 | | | |
| Filter Insert 27/27 | pcs. 1 | 2 | 3 | 4 |
| Power consumption, aver. | kW 0.12 - 0.21 | | | |
| Pressure drop, max. | bar/psi 1.8 / 26 | | | |
| Oil temperature, max. *) | °C / °F 80 / 176 | | | |
| Dirt holding capacity, appr. | ltr/gal 4/1.1 | 8/2.1 | 12/3.2 | 16/4.2 |
| Water absorption capacity | ltr/gal 2/0.5 | 4/1.1 | 6/1.6 | 8/2.1 |
| Dry weight | kg/lb 60/132 | 80/176 | 97/214 | 117/258 |
| Operating weight, wet | kg/lb 68/150 | 97/214 | 122/269 | 150/331 |
| Design pressure, filter | bar/psi 10 / 145 | | | |
| Ambient temperature, max. **) | °C / °F 40 / 104 | | | |

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

**) The standard filter can be modified for an ambient temperature of 70°C, but the control box (if fitted) must be kept below 40°C

APPLICABLE FILTER INSERTS

| Type | Application for |
|-------|---|
| A: | Low flow (small system fluid volumes). |
| B: | Higher flow (larger system fluid volumes) |
| F: | Quenching oils and diesel oils. *) |
| BLA: | Water-based fluids and emulsions. *) |
| BLDA: | Glycol-based flame proof hydraulic fluids. *) |

*) Does not hold water permanently



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| COMPONENTS | |
|------------|----------------------|
| Item | Part |
| 1 | Sampling point |
| 2 | Plug |
| 3 | Drain valve |
| 4 | Filter plate |
| 5 | No-return valve |
| 6 | Pump |
| 7 | O-ring |
| 8 | Filter Insert |
| 9 | Spring guide |
| 10 | Filter housing |
| 11 | Pressure gauge |
| 12 | O-ring |
| 13 | Vent screw |
| 14 | Nut for spring |
| 15 | Spring |
| 16 | Filter base |
| 17 | Stay bolt |
| 18 | Pressure switch |
| 19 | Sight glass |
| A | 3/4", Oil inlet |
| B | 3/4", Oil outlet |
| C | 1/2" BSP drain valve |
| D | 1/4" Vent |
| E | Sampling point |
| F | Pressure switch |

