



CLEAN OIL
BRIGHT IDEAS

Heavy Duty Filter, HD HDU 27/-

CJC™ Offline Fine Filter for Severe Conditions

CJC™ Product Sheet

APPLICATION

The CJC™ Heavy Duty Filter, HD HDU 27/- is used for maintenance of diesel, hydraulic and lube oils at mobile machinery, specially within the mining industry, working under severe conditions such as e.g. excavators, dump trucks, drilling rigs, etc.

BENEFITS

The CJC™ HD HDU 27/- is specially designed for heavy vibrations and shocks and gives you the following benefits:

- Avoid unexpected breakdowns
- Increase machinery uptime
- Reduce maintenance costs
- Extend oil and component life time
- Reduce environmental impact

FILTER INFO

The filter is mounted on a shock absorbed drip pan. To prevent leaks due to shocks/vibration, the filter is equipped with a minimes test-nipple for pressure readings (a pressure gauge prepared for minimes connection is included).

Furthermore, the filter is equipped with a pressure switch.

The HD HDU 27/- is ideal for removal of particles, degradation products and water.

FUNCTION

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

The pressure drop across the filter insert - 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 is to be returned to the tank close to the suction pipe of the main system pump.

Note: The return point should be non-pressurized. Contact us if this is not possible.

FILTER PUMP

The filter pump is a CJC™ gear wheel pump. The motor can be supplied as standard AC motors and 24 VDC.

FILTER INSERT

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

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, 4-8 L of evenly distributed solids.

• Degradation Products

Oxidation products, resin / sludge, and varnish are retained by the cellulose material, which will retain appr. 4-8 kg of oil degradation products.

• Water Removal

The water absorption potential is up to 50% (i.e. 2,000-4,000 ml H₂O) of the total contaminant holding capacity.



The CJC™ Heavy Duty Filter, HD HDU 27/27

TECHNICAL DATA

| | | Heavy Duty Filter | |
|-----------------------------|---------|-------------------|--------------|
| | | HD HDU 27/27 | HD HDU 27/54 |
| Pump flow, per hour (std.) | L/gal | 120-1260 / 66-332 | |
| Pump type | | PV4 / MZ | |
| Pump inlet pressure, max. | bar/psi | 0.5 / 7 | |
| Filter Inserts 27/27 | pcs. | 1 | 2 |
| Power consumption, aver. | kW | 0.18 / 0.55 | |
| Pressure drop, max. | bar/psi | 1.8 / 26 | |
| Oil temperature, max. *) | °C / °F | 80 / 176 | |
| Dirt hold. capacity, appr. | L/gal | 4 / 1.1 | 8 / 2.1 |
| Water absorption capacity | L/gal | 2 / 0.5 | 4 / 1.1 |
| Dry weight, max. | kg/lb | 70 / 154 | 90 / 198 |
| Operating weight, wet, max. | kg/lb | 78 / 172 | 107 / 236 |
| Design pressure, filter | bar/psi | 4 / 58 | |
| 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.

APPLICABLE FILTER INSERTS

| Type | Application for |
|-------|--|
| A: | Low flow (small system fluid volumes) |
| B: | Higher flow (larger system fluid volumes) |
| 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 | Drain valve |
| 2 | Pump |
| 3 | Sampling point |
| 4 | Pressure switch |
| 5 | Motor |
| 6 | Vent screw |
| 7 | Top nut |
| 8 | Lifting eye |
| 9 | Pressure gauge |
| 10 | Filter housing |
| 11 | Nut for spring |
| 12 | Spring |
| 13 | Spring guide |
| 14 | Stay bolt |
| 15 | Filter insert |
| 16 | O-ring |
| 17 | Filter plate |
| 18 | Filter base |
| 19 | Drip pan |
| 20 | Shock absorber |
| A | 3/4" BSP (PV4 & MZ16-21), 1/2" BSP (MZ 9-11), Oil inlet |
| B | 3/4" BSP, Oil outlet |
| C | 1/2" BSP, Drain valve |
| D | Sampling point |
| E | Pressure switch |

