



CJC™ FineFilter

Solutions for removal of particles, absorption of water, adsorption of oxidation by-products and varnish from oils



Intended for:

- Gear oils
- Transmission oils
- Hydraulic fluids
- Various lube oils
- Quenching oils
- Heat transfer oils
 - Esters
 - Water glycols
- Transformer oils

Application examples: Light and Heavy Industry, Power Stations, Wind Turbines, Mining

Oil Maintenance



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The Problem

80% of all break downs in oil systems are related to contamination of the oil

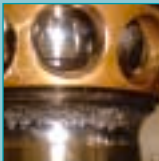
Inline filters do not keep the oil system clean

CJC™ Offline FineFilters are successfully controlling the level of oil contamination in many oil systems around the world. CJC™ FineFilters are utilized for maintenance of machinery in various industries e.g. steel, plastic, paper, chemical, heat and power generation, marine and fishing industries.

Abrasion



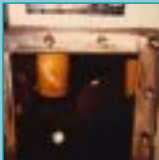
Grinding



Varnish



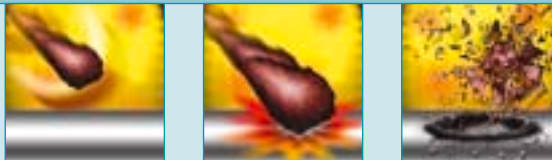
Resin



The most common types of wear caused by contamination:

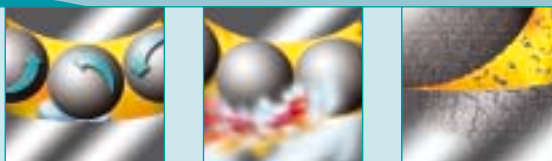
"Sandblasting"

When particles are transported with the oil with high flow, the particles collide with metal parts, destroy the metal surface and form new particles.



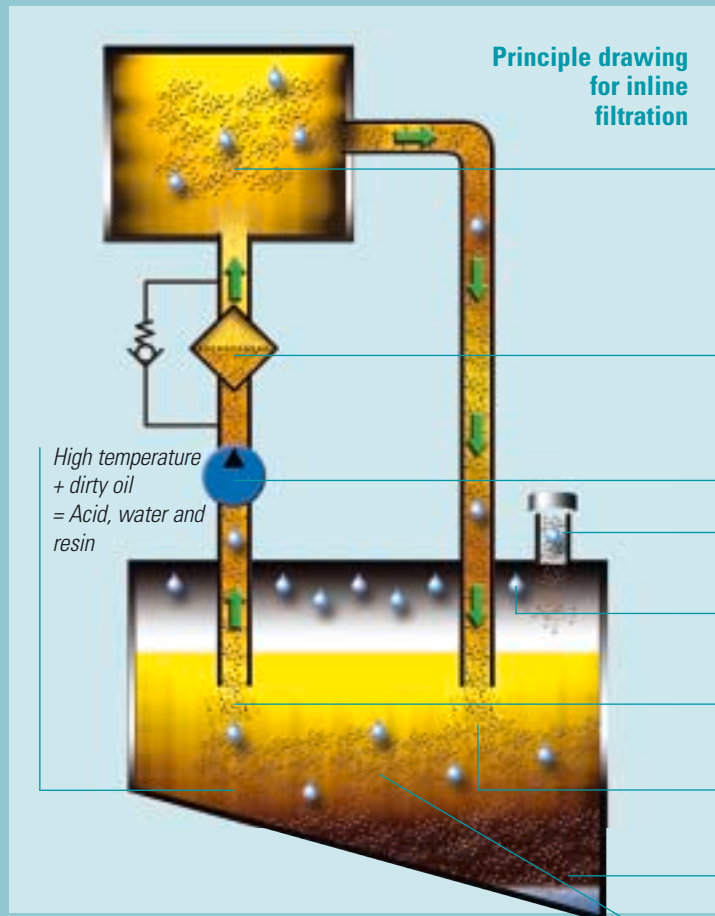
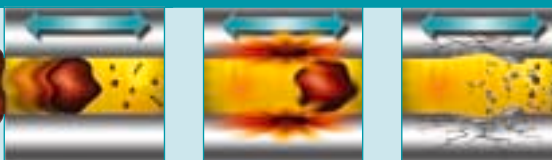
Cavitation

Cavitation occurs in areas where water is present and oil is compressed; the water implodes and blows particles off the metal surface, which can crackle.



Grinding

When hard particles are wedged between movable metal parts, it can result in destruction of the metals surface and further chemical subversion.



Principle drawing for inline filtration

Oil system

Hydraulic, gear, lube etc.

Inline filter

The inline filter is in most applications not the right tool to keep an oil system clean

System pump

Air vent

Contamination is ingressing through the air vent

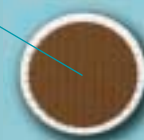
Water

Oil reservoir

Contamination is entering from the oil reservoir into the machinery

Contamination is entering the oil reservoir from the oil system

Resin, micro particles and water are accumulated in the bottom of the oil reservoir



Millipore membrane
Sample taken **before** offline filtration

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The Solution

Clean oil through off-line filtration and highly qualified technical back-up

**CJC™
Offline
FineFilters
fit all
oil systems**

The CJC™ depth filter element has a very large dirt holding capacity. CJC™ Filters therefore are almost maintenance free and have low operation costs.

All CJC™ FineFilter Inserts have a 3 µm absolute filtration ratio and will remove particles, resin and water in one and the same operation.

HDU
15/25 PV



HDU
27/27 P
(sliced)



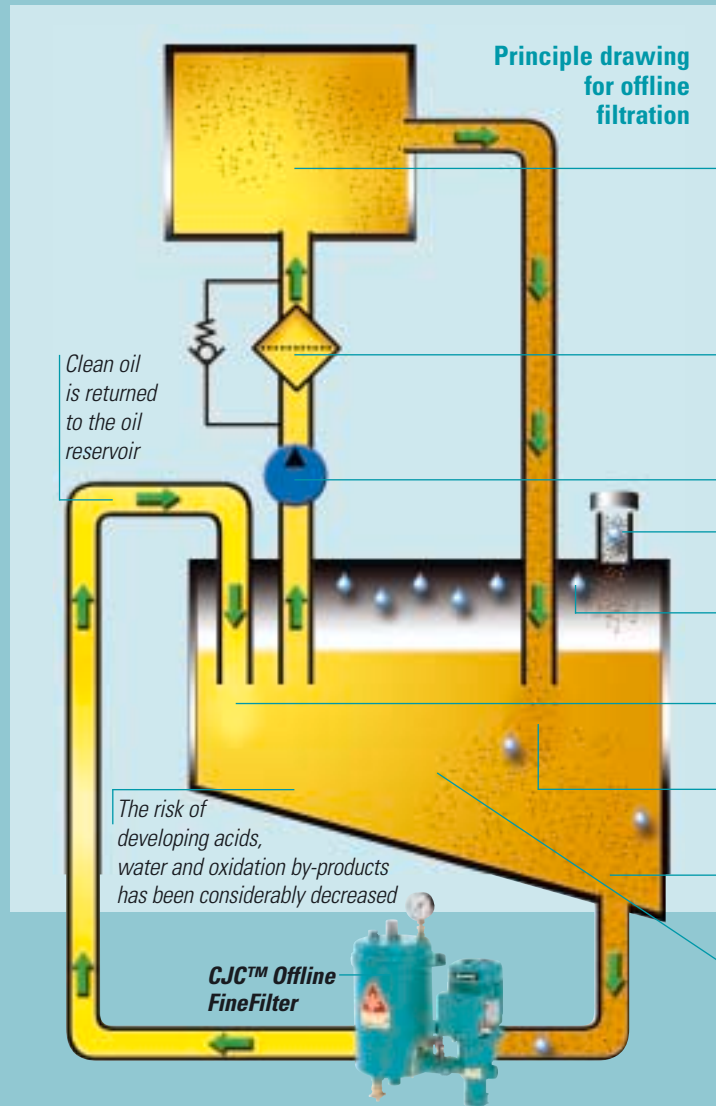
HDU
27/54 P



HDU
2x27/
108 P
GP-EPT



HDU
427/
108 P



Removal of particles

Particles down to 0.8 µm are retained in the filter mass

Absorption of water

The cellulose fibres in the filter mass absorb the water

Adsorption of oxidation by-products

Resin in the oil attracts to the polar fibres in the filter mass and is being retained

One filter - 3 solutions



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The Result

Less maintenance, increased productivity and lower energy consumption

Oil samples taken before and after installation of a CJC™ filter



Oil sample taken before installation of the CJC™ FineFilter on a wind turbine gear box

The benefits you achieve when implementing CJC™ Offline FineFilters will have a positive effect on your maintenance budgets. As 80% of all machinery break downs are caused by dirty oil we hereby introduce you to the benefits of using CJC™ FineFilters.

Economical consequences of oil maintenance



Oil sample taken 24 hours after installation of the CJC™ FineFilter on a wind turbine gearbox

The cleanliness level achieved and maintained by offline filtration means that the predicted lifetime of machine components and oil is expected to be extended by a factor of 2-10

Less Maintenance

- Less wear and increased lifetime of components and oil
- Increased service intervals
- Longer lifetime for filter inserts
- Enhanced operational precision

Increased productivity

- Fewer unplanned break downs and stops of production

Lower energy consumption

- Lubricating capabilities remain intact
- Internal friction is lowered
- Efficiency is maintained
- Viscosity index is kept stable
- Loss by friction is lowered by high/low temperatures
- Pressure loss over in-line filters is reduced (only by use of offline fine filters)

- all advantages to the total economy!



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The CJC™ FineFilter

C.C.JENSEN has designed and manufactured CJC™ FineFilters since 1953

Key features of the CJC™ FineFilters

The CJC™ FineFilters are depth filters for hydraulic and lubricating oils and have flow rates from 45 to 20,000 L/h.

Main components (HDU 27/-Series)

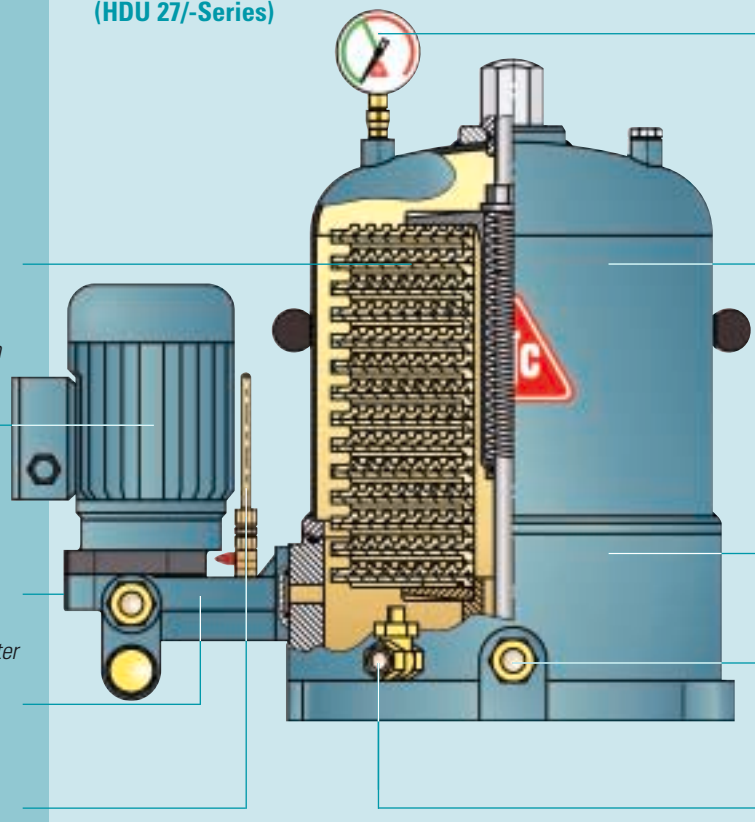
CJC™ FilterInsert
The key to effective filtration

E-motor
Low energy consumption

Oil Inlet
Contaminated oil is entering the filter

Pump
Strong gear wheel pump

Sampling Valve
For oil sampling and survey of the contamination level



Pressure Gauge
When the gauge indicates a pressure drop of 2 bar the filter insert is due for replacement

Filter Housing
Easy to remove when changing the insert

Filter Base
Constructed with fixture holes

Oil Outlet
Clean oil is returning to the oil system

Drain Valve
Easy to drain the filter housing before insert change

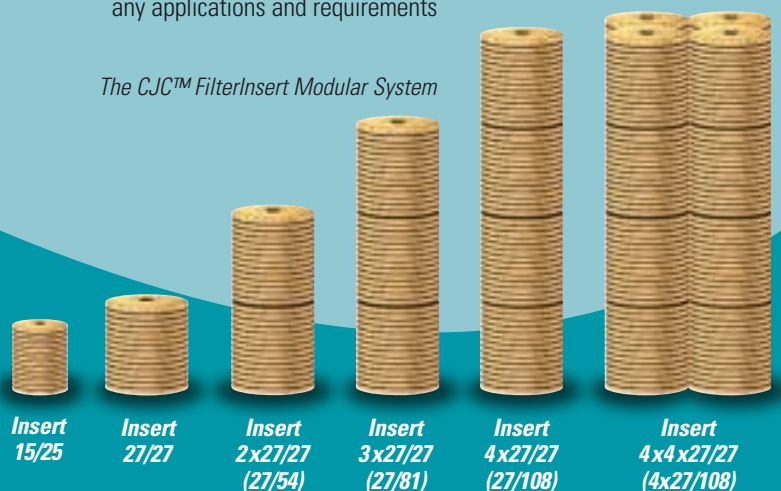
A used cut through filter insert (cut half way down) showing the large dirt holding capacity.



The CJC™ FilterInsert System

The modular built-up of the CJC™ FilterInserts means that a CJC™ FineFilter can be designed to fit any applications and requirements

The CJC™ FilterInsert Modular System





C.C.JENSEN all over the World

The CJC™ Offline Filters are distributed by our own international sales organisation and designated distributors

*CJC™
stands for
reliable supply
all over
the world*



Manufacturer

Denmark:

C.C.JENSEN A/S • Løvholmen 13 • DK-5700 Svendborg • Denmark
Tel.: +45 63 21 20 14 • Fax: +45 62 22 46 15 • E-mail: filter@cjc.dk • www.cjc.dk

Subsidiaries

UK:

C.C.JENSEN LTD. • Tel. +44 1 388 420 721 • E-mail: filtration@ccjensen.co.uk • www.ccjensen.co.uk

USA:

C.C.JENSEN INC. • Tel.: +1 206 789 1710 • E-mail: ccjensen@ccjensen.com • www.ccjensen.com

Spain:

C.C.JENSEN Ibérica, S. L. • Tel.: +34 93 590 63 31 • E-mail: ccjensen.es.@cjc.dk

Poland:

C.C.JENSEN Polska Sp. z o.o. • Tel.: +48 22 648 83 43 • E-mail: ccjensen@ccjensen.com.pl • www.ccjensen.com.pl

Netherlands:

C.C.JENSEN A/S (Nederland) • Tel.: +31 182 37 90 29 • E-mail: ccjensen.nl.@cjc.dk

Ireland:

C.C.JENSEN A/S (Ireland) • Tel.: +353 61 923 225 • E-mail: ccjensen.ir@cjc.dk

Chile:

C.C.JENSEN S.L. Limitada • Tel.: +56 2 696 9564 • E-mail: ccjensen.ch@cjc.dk

Greece:

C.C.JENSEN Greece LTD. • Tel.: +30 210 42 81 260 • E-mail: ccjensen.gr@cjc.dk

We are represented all over the world by distributors

Find the distributor nearest to you on our website: www.cjc.dk - or give us a call.

Your local CJC™ distributor

Oil Maintenance

Headoffice:

C.C.JENSEN A/S • Denmark
Løvholmen 13 • DK 5700 Svendborg
Tel. +45 63 21 20 14 • Fax: +45 62 22 46 15
E-mail: filter@cjc.dk • www.cjc.dk

