# CJC® Fine Filters

Solutions for removal of particles, water, acidity and oil degradation products from oils and other fluids
- a must-have for your oil system!


80% of all oil related failures and breakdowns are caused by contaminated oil

# Your challenge

80% of all oil related failures and breakdowns are caused by contaminated oil - avoid expenses on repairs and oil changes

## Remember, in-line filtration alone is insufficient!

In-line filtration protects your oil system against larger particles, but CJC® Offline Oil Filters maintain your oil continuously clean and dry, free of also small and harmful particles using a constant pressure and flow. This is the best way to extend lifetime of components and oil, minimizing breakdowns. You get 24/7/365 oil filtration, even during system shutdown and with the market's highest dirt holding capacity.

Abrasion on gear

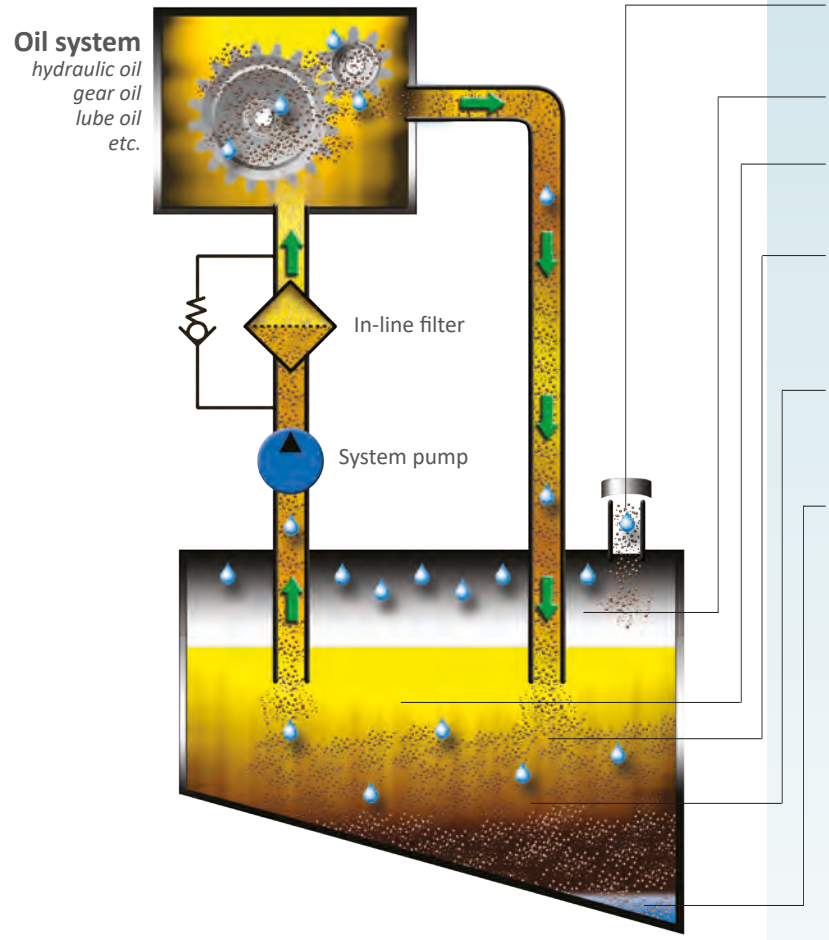
Pitting on bearing

Varnish on valve

Sludge in tank

A contaminated oil system with only in-line filtration

**without** CJC® Oil Filter installed




### Contamination

**Air vent**
Particles and water ingress through the air vent and worn seals

**Internal environment**
Water condensate in the oil reservoir

**Oil reservoir**
Contamination is returned to the oil reservoir from the system

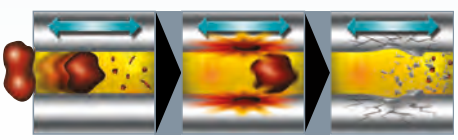
**Oil degradation**
Wear metals, water and high oil temperature act as catalysts and lead to oil degradation. The result is dirty oil, acidity, sludge and varnish formation

**Rust/corrosion**
Water causes formation of rust particles which separate out at the bottom of the reservoir

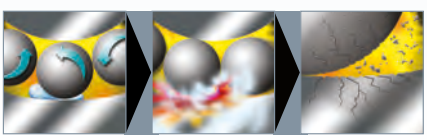
**Bottom sediment**
Water settles at the bottom of the oil reservoir resulting in bacteria growth, sludge and oil degradation. Wear particles act as catalysts to speed up the varnish formation

## Most common types of contamination

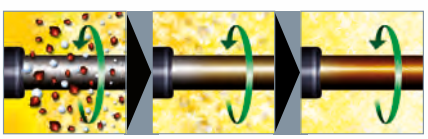
**Particles** (abrasive wear / grinding)
When clearance sized hard particles are wedged between movable metal parts, they destroy the metal surface further and can result in additional wear.



**Water** (cavitation & pitting)
Occurs in areas where water is present and oil is compressed; the water implodes, causing the metal surfaces to crack and release more particles.



**Oil degradation**
Wear metal, water and high temperatures lead to oil degradation, which is the precursor of varnish. This results in sticky varnish that deposits on metal surfaces.



**Acidity**
Acidity can be found in oil as by-products of oil degradation, combustion of gas or fuel, hydrolysis of Ester-based fluids etc. The amount of acidity in oil should be limited, since acidity will cause chemical corrosion of machine components and shorten the lifetime of the oil, just to mention a few of the unwanted effects.

# Your natural solution

Clean & dry oil and guaranteed success through oil filtration
- we offer highly qualified technical back-up

## 1 Oil Filter - 4 solutions

Installing a CJC® Offline Oil Filter solution, you ensure clean & dry oil in your systems, removing both particles, water, acidity and oil degradation products - in one and the same process.


HDU 15/12


HDU 15/25 PV

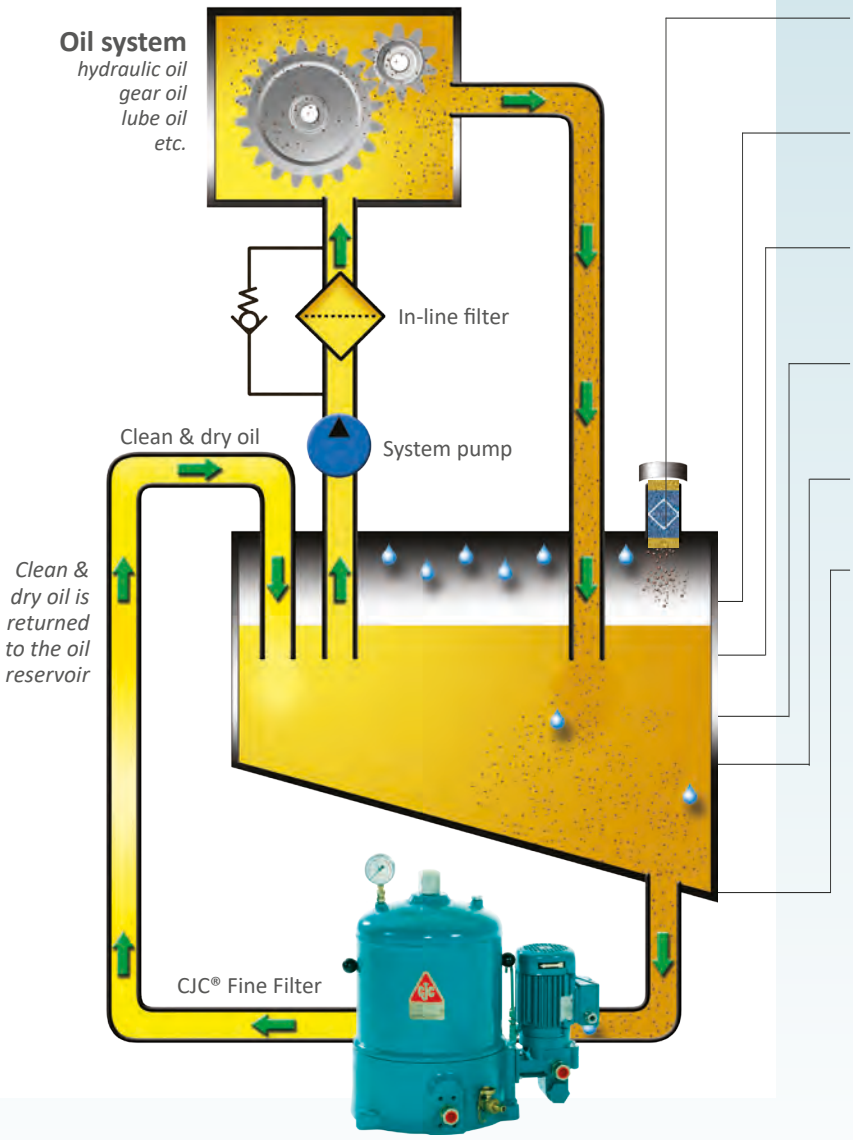

HDU 27/27 P


HDU 2x27/108 P


HDU 427/108 P


Marine Lube Oil Purifier

A clean & dry oil system
**with** CJC® Oil Filter installed




### Contamination
- now under control

**Air vent**
Contamination can be reduced by adding an air breather filter that eliminates particles and moisture.

**Internal environment**
Water still condensates in the oil reservoir, but with the CJC® Fine Filter it will be absorbed

**Oil reservoir**
Clean & dry oil from the CJC® Fine Filter is returned to the oil reservoir - ready to be used in the system

**Oil degradation**
The risk of developing acidity, and oxidation by-products has been considerably decreased

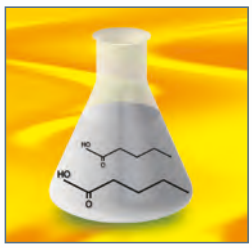
**Rust/corrosion**
Contamination is still being created but is removed by the CJC® Fine Filter

**Bottom sediment**
Water and particles no longer settle. No more bacteria or varnish

## The most common types of contamination sources

**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



**Removal of acidity**
Special inserts neutralise acidic components in the fluid

**Adsorption of oxidation**
Sludge/varnish in the oil is attracted to the polar sites of the filter mass and is retained there

# Our product

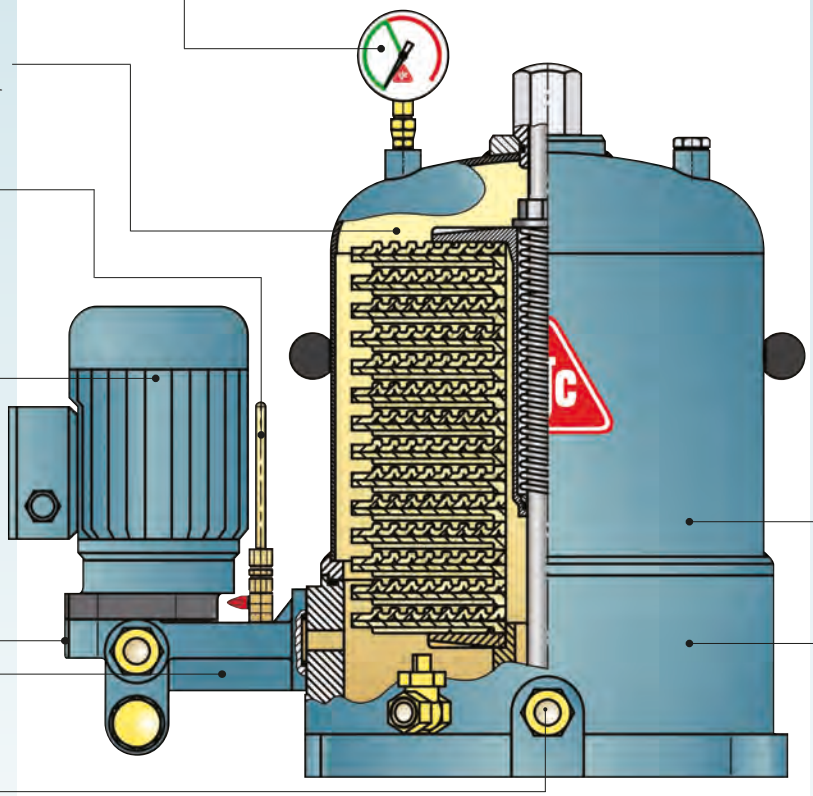
CJC® Fine Filters - simple, efficient and low maintenance
- will guarantee your success!

## Key features of the CJC® Fine Filters

The CJC® Fine Filters are offline depth filters for hydraulic and lubricating oils, to all sizes of oil systems from 2 litres to above 200,000 litres. Our oil filters are installed offline, meaning they are not system critical (e.g. machinery shut-down is not necessary when changing filter insert.)

## Main components

HDU 27/- Series



**Pressure gauge**
The CJC® Filter Insert must be replaced at least once a year or according to the pressure gauge indicator

**CJC® Filter Insert**
Increased lifetime of your in-line filter

**Sampling valve**
For oil sampling
Check your oil contamination frequently

**Electrical motor**
Low energy consumption

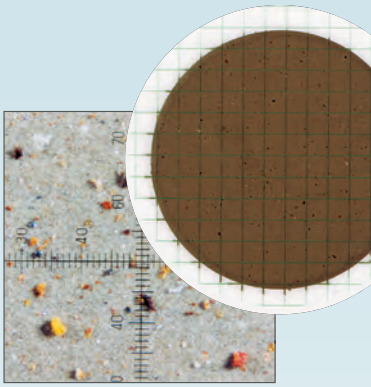
**Oil inlet**
Easy to connect with hose

**Pump**
Reliable gear wheel pump, robust design incorporating a bypass safety valve

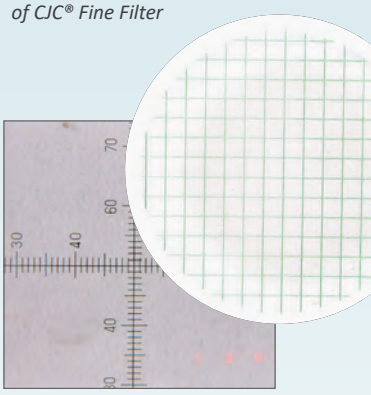
**Oil outlet**
Clean & dry oil returns to the reservoir and the oil system

**Filter housing**
Easy to service
- only one top nut

**Filter base**
Designed for quick mounting



*Oil sample, **before** installation of CJC® Fine Filter*



*Oil sample, **after** installation of CJC® Fine Filter*

### The good advice

Remember to change CJC® Filter Inserts at least once a year in order to ensure clean & dry oil in your system!

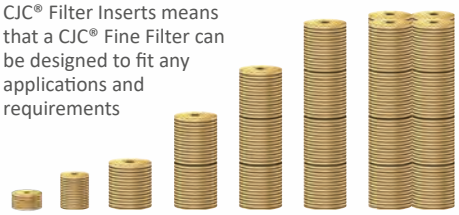
## CJC® Filter Insert system

All CJC® Filter Inserts have a 3 µm absolute filtration ratio. The CJC® Filter Inserts are produced of **100% natural cellulose fibres** from sustainable resources - no metal, no plastic, no chemicals.

- **Particles** down to 0.8 µm are retained in the unique CJC® depth filter media (cellulose).
- **Water** is removed either by absorption or separation according to oil system requirements.
- **Acidity** can be neutralized with ion exchange resin media.
- **Oil degradation products** are removed by the attraction to the polar fibers.

### Modular build-up

The modular build-up of the CJC® Filter Inserts means that a CJC® Fine Filter can be designed to fit any applications and requirements



# Your benefits

Reduce your maintenance cost, fewer breakdowns, fewer oil changes
- install a CJC® Fine Filter!

The cleanliness level achieved and maintained by oil filtration means that the predicted lifetime of machine components and oil is expected to be extended 2-10 times!
The benefits that you can achieve when implementing CJC® Fine Filters will have a positive effect on many parameters such as:

### Financial benefits

- Increased uptime
- Reduced maintenance budget
- Fewer unplanned breakdowns and stops of production
- Enhanced operational precision

### Less maintenance

- Increased equipment reliability
- Less wear and increased lifetime of components and oil
- Longer lifetime of in-line filter


### Lower energy consumption

- Lubricating capabilities remain intact
- Reduced friction

### Environmental benefits

- Fewer oil changes
- Reduced top-up of oil
- Less waist oil
- Reduced carbon footprint

**-all advantages add to increased profit!**

## Satisfied customers

WIND:
Mr. Jason de la Tova,
Wind Turbine Specialist,
Windward Energy, USA:

*"Your oil filters are worth their* weight in gold!"

MINING:
Mrs. Leanne MacAdams,
Reliability Engineer,
BHP Billiton Iron Ore, Australia:

*"This project successfully reduced the contamination level in the crusher to below the target cleanliness level. This has significant impact on the life of the wear components in the crushers."*

INDUSTRY:
Mr. Medir Lecha,
Maintenance Chief, RUFFINI, S.A., Spain:

*"After knowing C.C.JENSEN Filters and having installed them on our injection machines, we have got the suitable oil quality and reduction of yearly unplanned stops from 18 to 2 times."*

MARINE:
Mr. Ivan Seistrup,
Vice President,
Maersk Supply Service,
Denmark:

*"Clean Oil is a Must!*
*The investment optimises performance, reduces the risk of errors and breakdowns, and saves maintenance costs!"*

POWER:
Mr. Jørgen Brix Andersen,
Studstrupværket,
Elsam, Denmark:

*"Oil analyses show, we have achieved cleaner oil, after we have installed CJC® Oil Filters on our 8 coal mills. The need for oil change is gone, and the risk of a breakdown in the bearings has been extremely reduced. An oil change cost € 3,230 per gear."*

C.C.JENSEN will back you up
**- we have over 68 years of experience!**

# C.C.JENSEN
# - contact us today!

1953-2021 68 Over 68 years of increasing reliability and reducing costs

## Manufacturing & headquarters


C.C.JENSEN A/S
Løvholmen 13 | DK - 5700 Svendborg | Denmark
Tel. +45 6321 2014
sales@cjc.dk | www.cjc.dk


## C.C.JENSEN worldwide


**Benelux**
C.C.JENSEN Benelux B.V.
Tel.: +31 182 37 90 29
info.nl@cjc.dk
www.ccjensen.nl

**Chile**
C.C.JENSEN S.L. Limitada
Tel.: +56 2 739 2910
ccjensen.cl@cjc.dk
www.ccjensen.cl

**China**
C.C.JENSEN Filtration Equipment (Tianjin) Co. Ltd.
Tel: +86 10 6436 4838
ccjensen.cn@cjc.dk
www.ccjensen.cn

**Denmark**
C.C.JENSEN Danmark
Tel: +45 7228 2222
ccjensen.dk@cjc.dk
www.cjc.dk

**France**
C.C.JENSEN France
Tel: +33 366 753 170
contact.fr@cjc.dk
www.ccjensen.fr

**Germany**
KARBERG & HENNEMANN GmbH & Co. KG
Tel: +49 (0)40 855 04 79 0
kontakt@cjc.de
www.cjc.de

**Greece**
C.C.JENSEN Greece Ltd.
Tel.: +30 210 42 81 260
ccjensen.gr@cjc.dk
www.ccjensen.gr

**India**
C.C.JENSEN India
Tel.: +91 4426241364
ccjensen.in@cjc.dk
www.ccjensen.in

**Ireland**
C.C.JENSEN Ireland
Tel.: +353 86 827 1508
ccjensen.ie@cjc.dk
www.ccjensen.ie

**Italy**
KARBERG & HENNEMANN srl
Tel: +39 059 29 29 498
info@cjc.it
www.cjc.it

**Poland**
C.C.JENSEN Polska Sp. z o.o.
Tel.: +48 22 648 83 43
ccjensen@ccjensen.com.pl
www.ccjensen.pl

**Spain**
C.C.JENSEN Ibérica, S. L.
Tel.: +34 93 590 63 31
ccjensen.es@cjc.dk
www.cjc.dk

**Sweden**
C.C.JENSEN AB
Tel.: +46 8 755 4411
sales@ccjensen.se
www.ccjensen.se

**United Arab Emirates**
C.C.JENSEN Middle East
Tel.: +971 4 447 2886
ccjensen.uae@cjc.dk
www.cjc.ae

**United Kingdom**
C.C.JENSEN Ltd.
Tel.: +44 1 388 420 721
filtration@cjcuk.co.uk
www.ccjensen.co.uk

**USA**
C.C.JENSEN Inc.
Tel.: +1 770 692 6001
ccjensen@ccjensen.com
www.ccjensen.com


Scan the QR code and find your nearest distributors at www.cjc.dk/contact

- or give us a call!

**C.C.JENSEN A/S**
www.cjc.dk