



# CJC™ Filter Separator

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



80% of all breakdowns in oil systems are related to particle and water contamination of the oil



# Your Challenge

80% of all breakdowns in oil systems are related to particle and water contamination of the oil

## In-line filters do not keep the oil system clean

Particle and water contamination of an oil system will lead to various problems which can cause machinery breakdowns, frequent repairs of equipment and reduced oil lifetime. This will result in inefficient production, unnecessary expenses for repairs and frequent oil changes.



Water Contaminated Oil



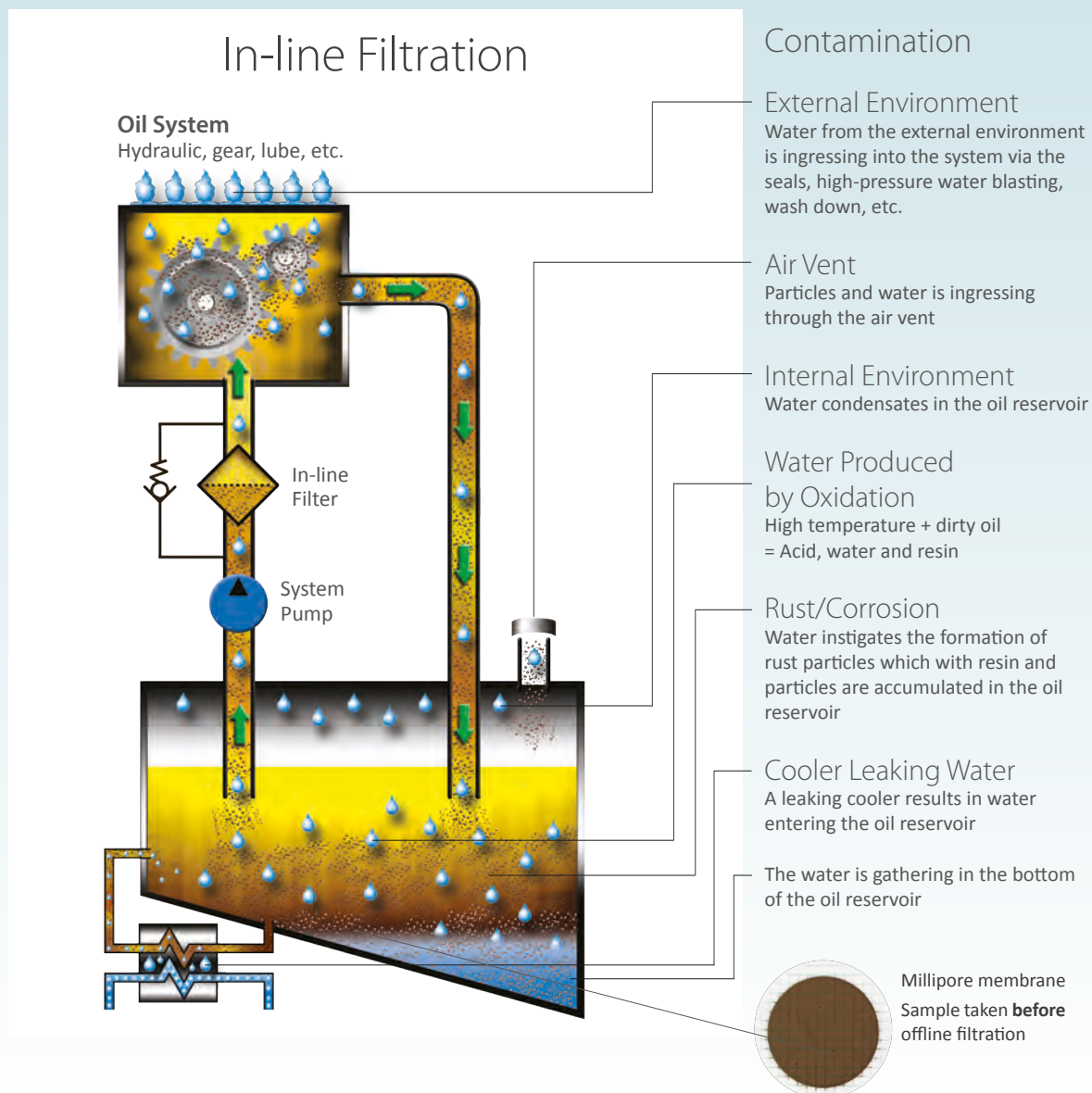
Abrasion



Corrosion/Rust



Resin/Varnish



## The most common types of wear caused by contamination

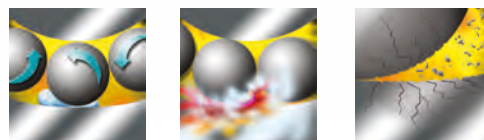
### "Sand blasting"

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



### Cavitation & pitting

Occurs in areas where water is present and oil is compressed; the water implodes, causing the metal surfaces to crackle and release more particles.



### Abrasive wear

When clearance size particles are wedged between movable metal parts, they destroy the metal surface.



# Our Solution

Water and particle free oil through offline filtration and separation

## 1 Filter - 4 Solutions

The benefits that you get when implementing a CJC™ Filter Separator will have a positive effect on your maintenance budget as well as increase your productivity and reduce your energy consumption.



PTU 15/25



PTU2 27/27



PTU1 27/54



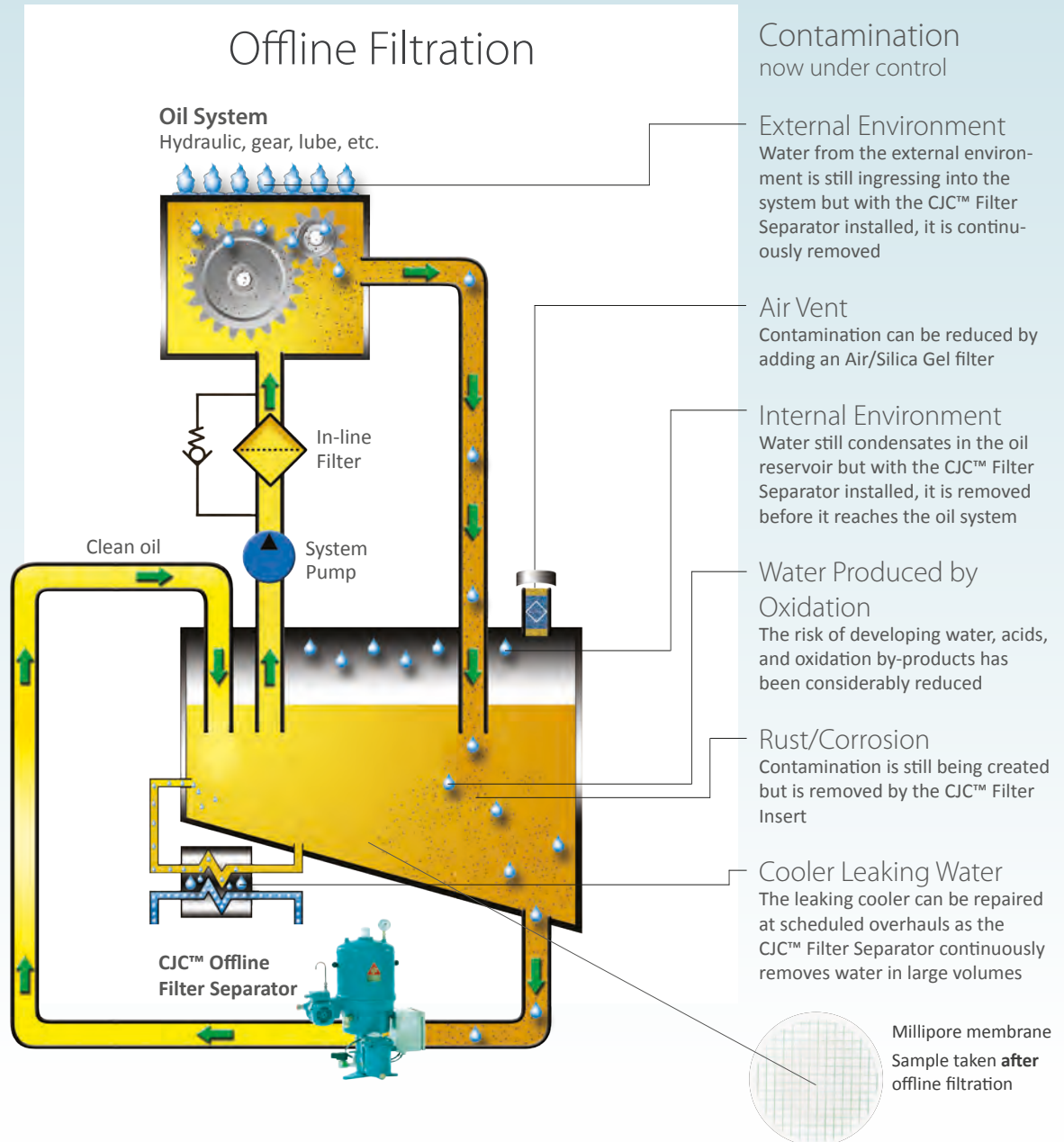
Thruster



PTU3 4x27/108



Marine Diesel Purifier



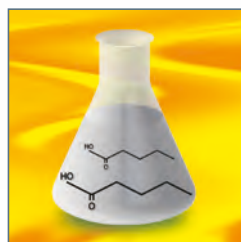
## The most common types of contamination sources



**Removal of Particles**  
Particles down to 0.8 µm are retained in the filter mass



**Separation of Water**  
The filter insert and coalescer element separates the water



**Removal of Acid**  
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™ Filters - Simple, Efficient and Low Maintenance

## Key Features of the CJC™ Filter Separators

The CJC™ Filter Separators are depth filters for diesel, hydraulic and lubricating oils for all sizes of oil systems.

### Main Components PTU2 27/27 Series

**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

**CJC™ Filter Insert**  
3 µm absolute filtration ratio

**Oil Inlet**  
Contaminated oil is entering the filter

**Coalescer Element**  
Cleanable stainless steel

**Gear Pump**  
Reliable gear wheel pump

**Filter Base**  
Constructed with fixture holes

**Water Drain Valve**



**Coalescing of Water in the CJC™ Fine Filter Insert**  
The coalescing process starts in the filter insert. On their way through the cellulose fibres, microscopic water particles aggregate into water droplets, sinking down into the coalescing element



**Separation of Water in the CJC™ Coalescing Element**  
The droplets aggregate (coalesce) in the coalescing element and settle in the bottom of the housing and filter base

**Electrical Motor**  
Low energy consumption

**Oil Outlet**  
Clean oil is returning to the reservoir and oil system

**Automatic Water Discharge Unit**  
Simple, mechanical level control and discharge unit



Dirty and clean CJC™ Filter Inserts

### The CJC™ Filter Insert System

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



Insert 15/12



Insert 15/25



Insert 27/27



Insert 2x27/27 (27/54)



Insert 3x27/27 (27/81)



Insert 4x27/27 (27/108)

# Your Benefits

Reduce your maintenance cost, fewer breakdowns, fewer oil changes  
- install a CJC™ Filter Separator!

The cleanliness level achieved and maintained by offline 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™ Offline Filter Separators will have a positive effect on many parameters such as:

## Financial Benefits / Increased Productivity

- Increased uptime
- Reduced maintenance budget
- Fewer unplanned breakdowns and stops of production
- Enhanced operational precision
- Leaking coolers can be repaired at schedule overhauls

## Less Maintenance

- Less wear and increased lifetime of components, oil and filter inserts
- Longer time between service intervals
- Enhanced operational precision



## Lower Energy Consumption

- Lubricating capabilities remain intact
- Reduced friction
- Reduced pressure drop over in-line pressure filters
- Viscosity index is kept stable and efficiency is maintained

## Environmental Benefits

- Fewer oil changes
- Reduced top-up of oil
- Less waste oil - less use of natural resources

**-all advantages to the total economy!**

## Satisfied Customers

### MARINE:

Mr. Bjørn Helge Amundsen  
Tech. Superintendent  
Gulf Offshore Norway, North Truck, Norway  
Application: Supply vessel / work boat  
Solution: CJC™ Filter Separator PTU2 27/27



*"After having tested nearly every piece of water removing equipment on the market in order to solve our water and contamination problem, we went for the CJC™ Filter system, because it was simply the best. The filters did the job to our greatest satisfaction, removing particles, water and other waste products.*

*CJC™ Filter systems for oil maintenance are a very good investment. The return of investment is very short."*

### MINING:

Mr. Dave J. Gamble  
Senior tribologist  
Anglo American, South Africa  
Application: Crusher  
Solution: CJC™ Filter Separator 27/108



*"The CJC™ Filter will release benefits as reduced downtime for maintenance, greatly reduced wear and consequent failures, increased availability, utilisation and production. All together, this results in extended oil life time.*

*This filter can easily clean the oil according to my recommendations, which is 16/14 on this type of application."*

### POWER:

Mr. Javier Gonzales  
Mech. Maintenance Department  
C.N. Vandellós II Tarragona, Spain  
Application: Main Turbine, Nuclear Power Plant  
Solution: CJC™ Filter Separator PTU3 5x27/108



*"We bought this filter as a substitute for a centrifuge to remove the large amount of water that is generated in the turbine at start-up. But, unexpectedly, we have gained more benefits. Before installing the filter it was necessary to clean the varnish deposits off the walls in the heat exchanger at each stop of the plant. Now we just look at the system to verify that it is clean. We have never seen the oil so clean. The reliability of the equipment is increasing with time."*

### INDUSTRY:

Mr. Sylvester Kapias  
Manager Heat Treatment  
Nedschroef Altena GmbH  
Application: Quench washing bath  
Solution: CJC™ Filter Separator PTU1 27/108



*"We already filter our quenching bath with a CJC™ Fine Filter. Therefore, we decided to run this test with the skimmed oil. By using the CJC™ Filter Separator we can annually save up to approximately EUR 70,000."*

C.C.JENSEN will back you up  
**- we have 60 years of experience!**

# C.C.JENSEN - contact us today!



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