CJC® Desorber Conditioning Unit D40CU

Drying, Cleaning and Care of Oils and Fluids

Product Sheet

APPLICATION

The CJC® Desorber Conditioning Unit (D40CU) reduces quickly and efficiently the water content in your oils and fluids down to below < 100 ppm and simultaneously minimizes the content of particles and oil ageing products (acids, sludge, varnish). The CJC® D40CU breaks even stable emulsions with a water content of up to 70 %. Typical applications are e. g.:

Systems:
- Hydraulic- & hydrostatic systems
- Gearboxes & lube oil systems
- Oil recovery:
  - Machining oil
  - Leakage oil
  - Quenching oil

Fluids:
- Mineral oil
- Bio-oil / EAL
- Ester
- PAG
- PAO
- synthetic fluids

In the paper, steel, plastic moulding and metalworking industries, just as in maritime applications, exists – environment- and process-related a high risk for water ingress in the oil systems.

ADVANTAGES

You can install the CJC® D40CU quickly and easily at a free-standing tank or in the off-line flow. The independent circuit enables continuous depth filtration and desorption (24/7) and ensures clean and dry oil within the shortest time. The CJC® D40CU ...

- removes free, emulsified and dissolved water, and particles and oil ageing products (acids, sludge, varnish)
- prevents oil and additive degradation, and microorganisms
- enables maximum corrosion and wear protection
- extends the lifetime of oil and system components by factor 3 to 4
- helps to reduce unplanned downtime and costs
- is easy to install and operate and low-maintenance

The water separation based on desorption occurs independently from viscosity and air content in the oil. It has no impact on the additive package.

FUNCTION

Fine filter unit:
The pump in the oil inlet sucks in the oil from the tank. In the first stage, the fluid flow passes through the filter with the integrated fine and depth filter cartridge before it is fed into the desorber chamber in the second stage. Water but also particles in the oil accelerate the degradation of base oil and additives (oil ageing). The filter removes particles and already by oil degradation processes formed reaction products.

Desorber:
In the desorber chamber, the still moist, warm oil meets a cold, dry air counterflow. The oil heats the cold air so that the air gets the ability to absorb a lot of moisture (system pressure constantly low < 2 bar). In a subsequent process, the warm, moist air cools down again, and the water condenses.

CJC® D40CU

TECHNICAL DATA

CJC® D40CU				
Oil volume, dimensioning, e. g.	L	25,000		
Viscosity range (ISO 3448)		up to ISO VG 1000		
Water content in oil		max. 700,000 (70 %)		
Water separation		Water content permanent < 100 ppm (0,01 %)		
Dirt holding capacity	kg	up to 192		
Filtration degree		3 µm absolute down to 1 µm		
Depth fiter inserts	Pcs.	16		
Supply voltage	V	3 x 525	3 x 575	3 x 440/460
Frequency	Hz	50	60	50/60
Power consumption	kW	7–25		
Current	A	36		
Pump flow (24/7)	L/h	1,400		
System pressure (suction side), max.	bar	0.5		
Dimensions, L x B x H	mm	2,565 x 1,795 x 1,868		
Weight, ca.	kg	1,694		

Equipment and features

Standard:
- Pump with motor
- electrical control with an integrated alarm reporting system
- Leakage monitoring
- continuous de-aeration
- Sample point for oil/fluid analysis
- automatic water separation

Optional:
- Air, water or coolant cooling system
- independent placement of the filter pump for flexible integration in your machine room

FACTS

Water in oil changes the viscosity and deteriorates the lubricity of the oil. Furthermore, water accelerates oxidative oil ageing processes and decimates the additive package. Wear, corrosion, cavitation, increased foam risk, and bacterial growth are the result – all factors that lead to a reduced lifetime of both system components and the oil.

DNV-GL

The Classification Society, DNV-GL, has stated for their Clean Design Class Notification:

„If a biodegradable oil is used, an arrangement shall be in place to keep the water content of the oil under control.“

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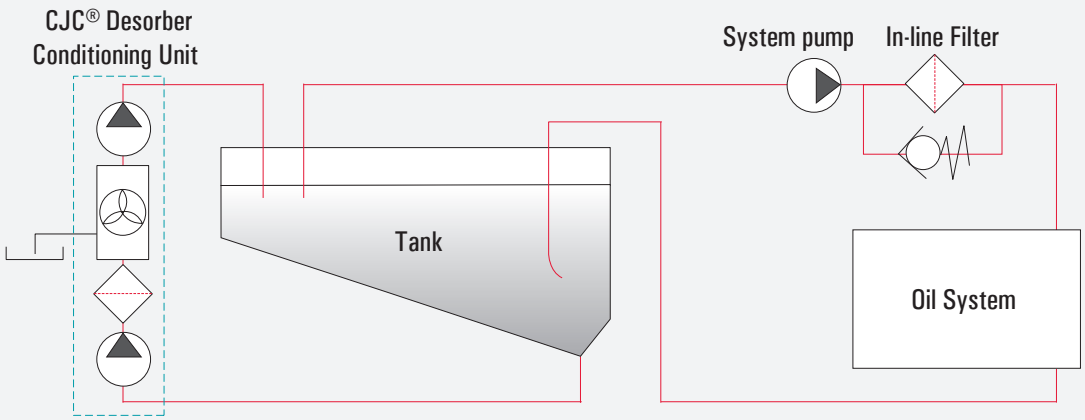
OFF-LINE PRINCIPLE



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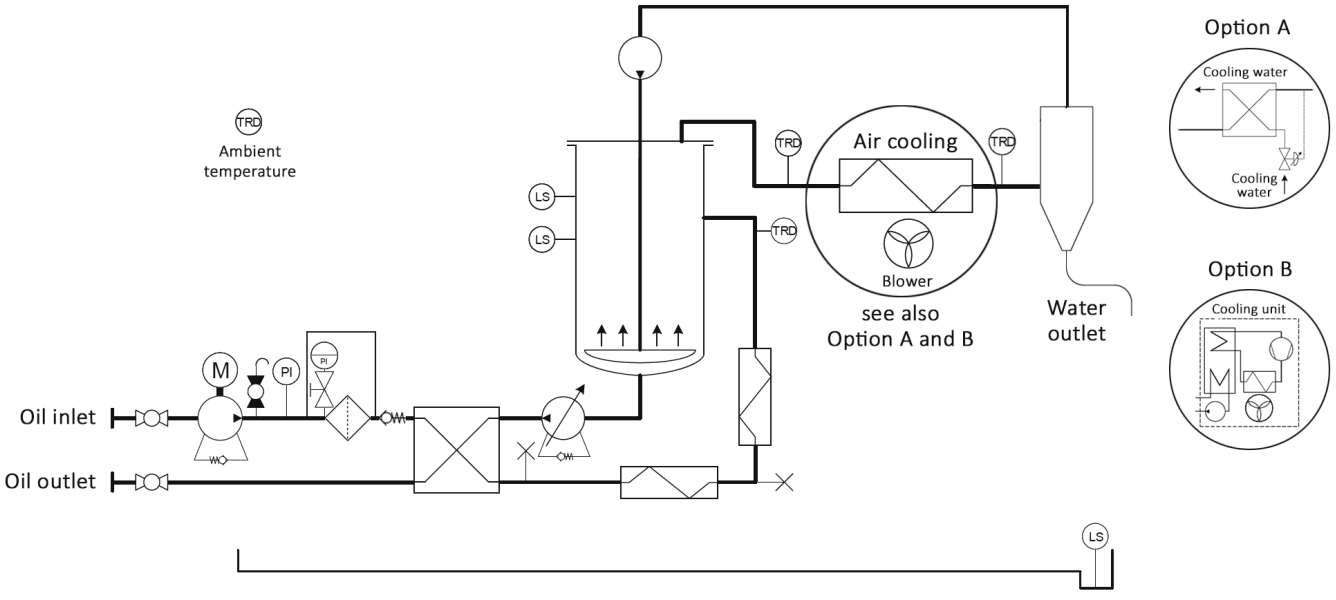

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