CJC® Desorber-Filter-Kombi-Unit D5

Drying, Cleaning and Care of Oils and Fluids

Product Sheet

APPLICATION

The CJC® Desorber-Filter-Combi-Unit (D5) 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 etc.). The CJC® D5 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.

CJC® D5

ADVANTAGES

You can install the CJC® D5 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® D5 ...

- 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

Desorber:
The pump in the oil inlet sucks in the oil from the tank. In the desorber chamber, the warm, moist 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.

Fine filter unit:
After the desorption process, the fluid flow passes the filter with the integrated fine and depth filter insert. 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.

TECHNICAL DATA

CJC® D5							
Oil volume, dimensioning, e. g.	L	800					
Design temperature	°C	80					
Viscosity range (ISO 3448)		up to ISO VG 150					
Water content in oil		max. 700,000 ppm (70 %)					
Water separation		Water content permanent < 100 ppm (0,01 %)					
Dirt holding capacity	kg	up to 2					
Filtration degree		3 µm absolute down to 1 µm					
Depth fiter insert	Pc	1					
Supply voltage	V	1 x 208	1 x 230		3 x 380 –420	3 x 440 –480	
Frequency	Hz	60	50	60	50	60	
Power consumption	kW	1.85					
Current	A	8.4	8.4		3.3		
Pump flow (24/7)	L/h	36	30	36	30	36	
Design pressure, max.	bar	6,5					
Weight	kg	108					
Dimensions, L x B x H	mm	515 x 517 x 786					

Equipment and features

Standard:
- Pump with motor
- electrical control with integrated terminals for common alarm (e. g., pressure and leakage sensors)
- Sample point for oil/fluid analysis
- automatic discharge of separated water
- START/STOP switch – dewatering process

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. Resulting in wear, corrosion, cavitation, increased foam risk, and bacterial growth – 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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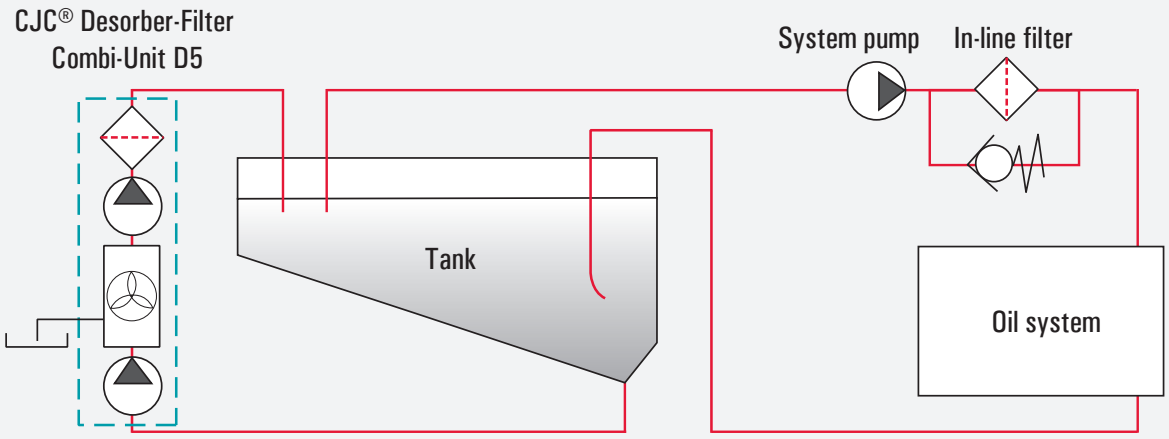
OFF-LINE PRINCIPLE



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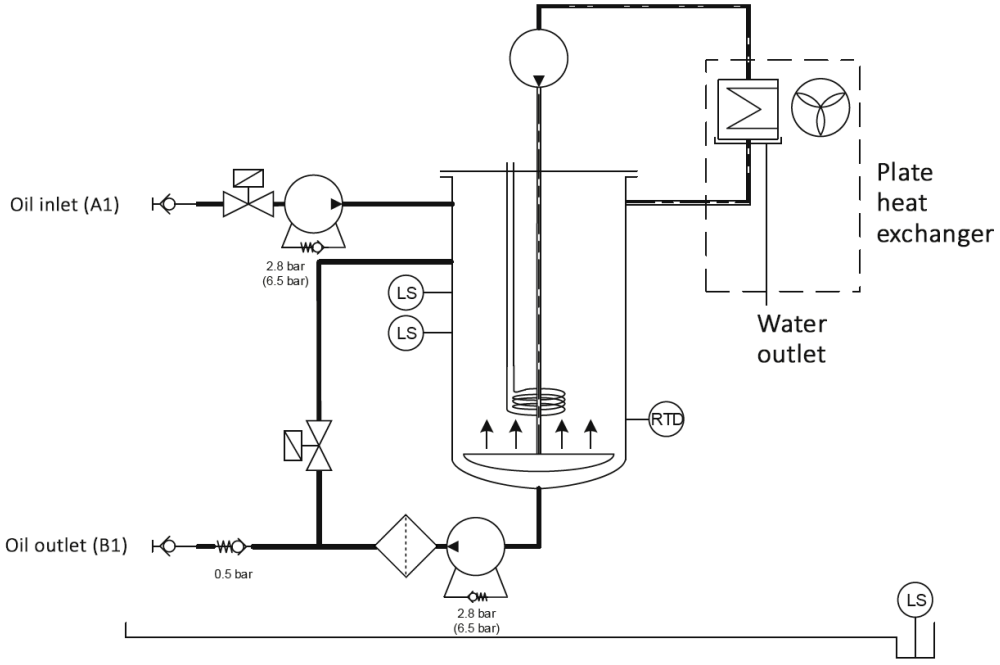

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