# Gear Filter insert, GFi 27/27

CJC<sup>™</sup> Oil Filtration & Flushing insert for Wind Turbine Gearboxes



## **CJC<sup>™</sup>** Product Sheet

#### APPLICATION

The **CJC<sup>TM</sup> Gear Filter insert, GFi 27/27** is specially designed for filtration and flushing of wind turbine gears. The CJC<sup>TM</sup> GFi 27/27 has a high capacity for submicron particles and is documented to remove considerable amounts of particles down to the size of 0.1 microns.

#### The filter insert is optimized for high performance in:

- air-containing oil
- variable temperature conditions
  used oil
- useu oli

This filter insert is applicable for viscosities in the range ISO VG 320-480 cSt.

#### FILTRATION CAPABILITY

### • Particle Removal

The CJC<sup>TM</sup> GFi 27/27 has been designed for efficient removal of both hard and soft particles. Particles above approx. > 1 microns are removed by mechanical filtration, smaller particles <1 micron are removed primarily by means of Van der Waal forces and electrochemical forces.

#### Filtration degree:

 $\mu$ m absolute: >99.9 % of all solid particles > 21  $\mu$ m  $\mu$ m absolute: >99.5 % of all solid particles > 6  $\mu$ m  $\mu$ m absolute: >99.0 % of all solid particles > 4  $\mu$ m  $\mu$ m absolute: >80.0 % of all solid particles > 2  $\mu$ m  $\mu$ m absolute: >50.0 % of all solid particles > 1  $\mu$ m 0.1  $\mu$ m absolute: >10.0 % of all solid particles >0.1  $\mu$ m

#### Degradation Products

Oxidation by-products, resin/sludge, used additives and wax formations are retained by the cellulose material. The cellulose will absorb and adsorb up to approx. 1 kg of soluble oxidation products. Used wind turbine oil will typically contain a small amount of highly catalytically active atomic iron (Fe). The CJC<sup>TM</sup> cellulose combination has been documented by ICP analysis to effectively reduce the amount of free iron in oil.

#### Water Removal

The CJC<sup>TM</sup> GFi 27/27 will remove large amounts of free water if present in the oil, in documented cases up to 4000 ml of water. Please refer to the CJC<sup>TM</sup> Water/Cellulose/ Oil Equilibrium datasheet for specification of the removal capacity of dissolved water.

#### DIMENSIONS

The figures below are nominal:	
Diameter:	27 cm (10.6")
Height:	27 cm (10.6")

#### COMPONENT

The CJC<sup>TM</sup> GFi 27/27 consist of bonded double discs consisting of 4 different types of cellulose fibres. Each type of fiber performs a special function in terms of filtration and conditioning of the oil. Due to the large internal surface area of the cellulosic fibers the CJC<sup>TM</sup> GFi 27/27 has the capability of acting as a free radical scavenger thus reducing the degradation rate of the oil.

IDENTIFICATION To order the CJC™ GFi 27/27, please use: <u>Article No:</u> 1 x GFi 27/27: PA5601365

