## NAV 30 Vacuum Dehydrator Quick Water Removal with Simple Operation

# FA57Fifteen

Give us 15 - we will give you targeted fluid cleanliness concepts **for your machine.** 



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## NAV30 - WHY DO YOU NEED THEM?

Water, particulate and gaseous contamination in fluid systems is a fact of life and needs to be addressed

 NAV dehydrators can <u>effectively and efficiently</u> provide very clean (ISO14/12 or better) and very dry oil for the customer's fluid system.

- will remove 100% of the free water and 80% (or more) of the dissolved water
- will also remove 100% of the free / entrained air and up to 75% of the dissolved air.
- Can accomplish this without the need for excessive heat or high vacuum
- Can be used on a very wide range of fluids with no adjustments required



## **Sources of Water Contamination**

- Through system vents
- From coolers and heat exchangers
- Precipitation due to temperature fluctuations
- Introduction of contaminated top off fluid
- Rain in external reservoirs
- Rain leaking into incorrectly stowed barrels
- Wash downs
- Many other routes





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## **Effects of Water Contamination**

Corrosion of component surfaces
Degradation of fluid performance
Precipitation of additives
Oxidation of hydrocarbon fluids
Deterioration of fluid lubricating properties
Icing at low temperatures
Promotion of bacterial growth





## **Oil Saturation Levels**

To minimize the corrosive effects of <u>free water</u>, concentration in oil should be kept as far below the oil saturation level as possible.

#### **Typical Saturation Levels**

Hydraulic fluid : 200-400 ppm (0.02-0.04%)Lubrication : 200-750 ppm (0.02-0.075%)Transformer : 30-50 ppm (0.003%-0.005%)







#### Oil saturation point is affected by temperature:

Reference: EPRI CS-4555 Turbine Oil

## **NAV30 Vacuum Dehydrator**

### **Dewatering Results**





Chart#4: Free water removal rates at various oil temp set points.

## Interested to learn more?

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- Mention "Fast Fifteen" in the comments section and a representative will be in touch

