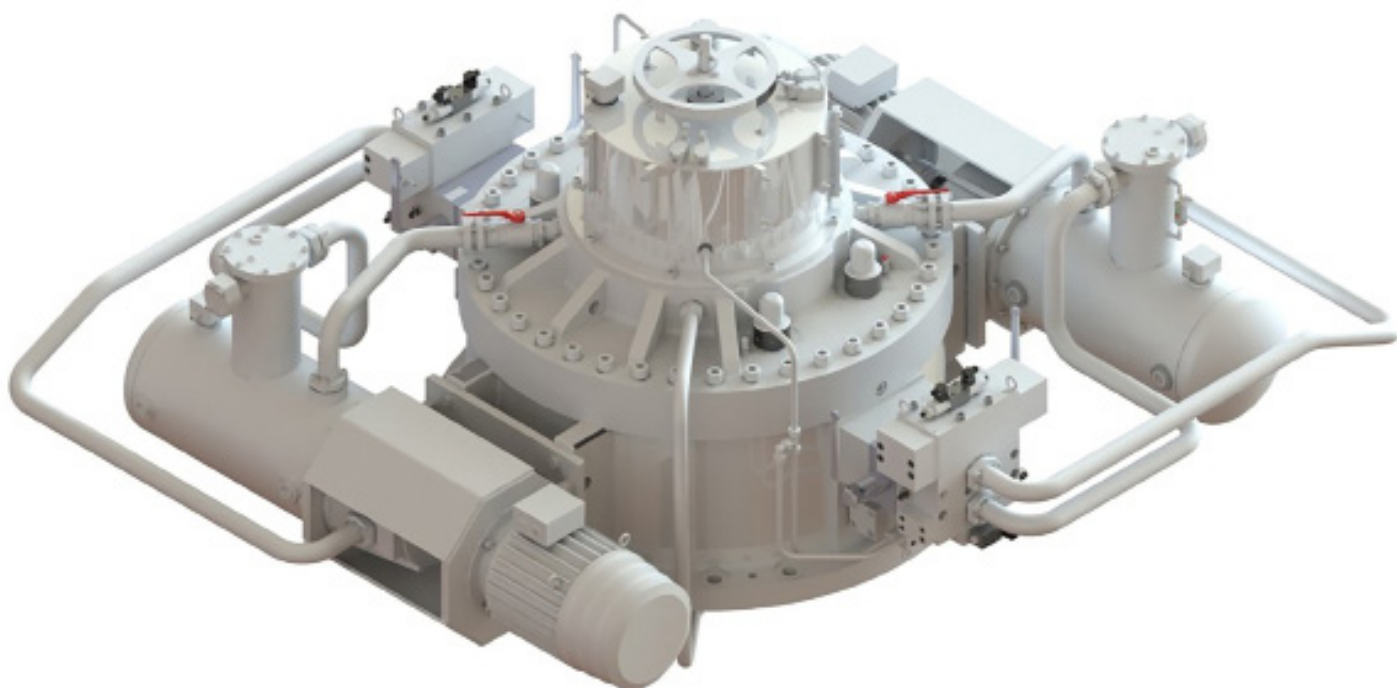


At your service

**MACGREGOR**



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# Steering gear

MacGregor Porsgrunn VFD Upgrade

This sustainable upgrade of your existing equipment will come along with several benefits and new methods of the steering gear operation. The scope of supply will be an external cabinet including the frequency controller which will be integrated into the existing system.

### Reduced operational costs

- This vfd upgrade of the steering gear system will reduce the power consumption and ensure energy savings compared to traditional solutions.

### Reduced lifecycle costs

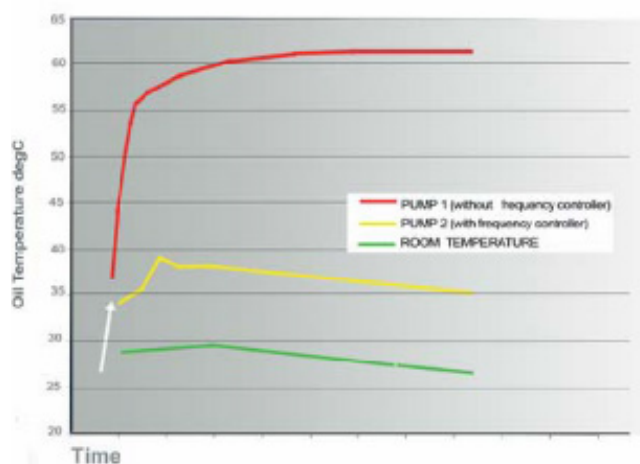
- Due to the modified operation method of the system, the hydraulic oil temperature will be lower and therefore less stress to the complete hydraulic system and linked components.
- On the other hand this will result in a reduction of noise and vibrations, which will improve the working environment for your crew/guests.
- We have developed a supporting tool for the potential savings to enter your specific numbers to demonstrate the theoretical savings.

### Installation time

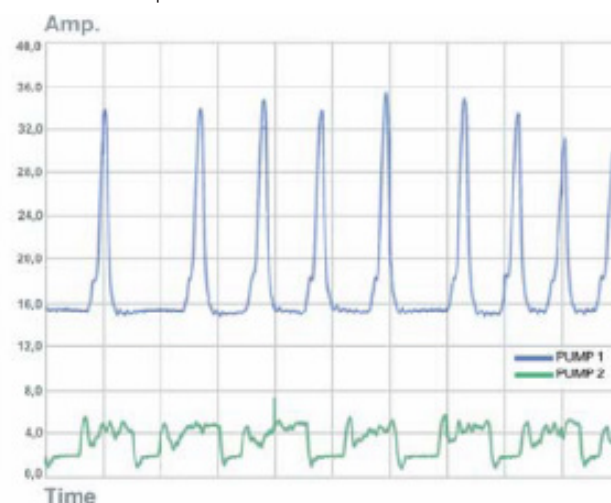
- The common scenario is an upgrade of 1-4 pump unit starter cabinets. According to our experience, our service engineers are able to complete the installation / upgrade within 2-3 days.

MacGregors online Green Calculator we are able to help you check the benefits of the Variable Frequency Drive (VFD)

Temp. development



Power consumption



Real measurements from a Steering Gear system during a sea-travel



Installed Steering Gear system cabinets

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