

# Operation intelligence

### **MAN Energy Solutions**Future in the making

We developed a system to collect your pumps operating data, to give you the opportunity to avoid unplanned downtime.

We want a predictable maintenance for you.



MAN CEON







Downtime Sustainability Efficiency

Sites | CEON Chemicals Plant | Gas Compression Train - Turbomachinery train

Navigate asset structure

> Events and messages

- Data charts

Dry Gas Seal

Nm3/h

bar

4

3

2

1

0.1

### What is new?

Our system is a combination of temperature sensors, vibration sensors and a automatic grease pump. All this components are connected to a preconfigured cabinet with several hardware components placed on the reactor main platform.

The system will collect the operation data of your salt pumps and will take care for relubricating. If any value runs out of the normal range, the system will track this and send them to the PrimeServ Assist module.

All data are uploaded to the MAN CEON Platform, where you can watch your system condition from all over the world.

- Ad-hoc safety and availability notifiycations
- Pro-active maintenance advice
- Pro-active performance optimization advice
- Instant technical support

## PrimeServ Assist

### Let's look into your future

It all starts with a tiny anomaly. Something is off by just a little bit in a machine – not noticeable, even to an experienced operator. But it is not going to go away on its own.

Sooner or later, it will have consequences: performance degradation, safety hazards

### The digital infrastructure

The MAN CEON cloud is a central element of PrimeServ Assist – your equipment is connected to it using fully secured, end-to-end encrypted SSL connections.

- Data collection data from machinery is collected locally at your ship or plant
- Data transmission data is transferred via satellite link or landline from the ship/plant to the MAN CEON cloud, where it is analyzed and stored – accessible to you and our Remote Operations Centers
- Data monitoring and evaluation Our experts in the Remote Operation Centers monitor and evaluate data
- Status and advise for customer Our experts provide notifications, advice and status information to you.



Would you like to know more about the products?

Then do not hesitate to contact us to receive more information about the upgrade!

### **Retrofit & Upgrades**

P + 49 991 381-283 dwe-reactors@man-es.com

Experts in Dear Mister, at MAN We've noticed an Deggendorf vibration rise over the last week. This could be evaluate the a sign for a bearing damage. To investigate contact the this further, we advise costumor you to perform the throught following checks: the MAN - check if greasing and CEON degreasing is good platform.

PrimeServ Assist

Abnormal

vibrations

detected

bearing.

MAN CEON

Bearing

vibration and temperature are collected.

in upper pump

A focused maintenance or adjustment job can then be started.

Customer is notified and advised:



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### **MAN Energy Solutions**

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