

# CJC® T<sup>2</sup>render Solutions - Basic & Pro

Online solution for monitoring oil & equipment conditions

## APPLICATION

The CJC® T<sup>2</sup>render Solution provides surveillance of the oil system in connection with a CJC® Offline Oil Filter including access to data stored on a CJC® Cloud Solution.

### C.C.JENSEN offers two levels of monitoring:

- CJC® T<sup>2</sup>render Basic
- CJC® T<sup>2</sup>render Pro

## FUNCTION

The CJC® T<sup>2</sup>render Solution consists of a CJC® Cloud Solution to treat and share data from the configured sensors mounted in conjunction with the CJC® Offline Oil Filter either as individual sensors or as part of the CJC® Condition Monitoring Unit CMU, see figure 1. See the CJC® CMU Product Sheet (PSMO4009-UK) for more information about the sensors and local data access options.

- **CJC® T<sup>2</sup>render Basic:**  
CJC® T<sup>2</sup>render Basic solution generates warning messages to the equipment owner when the individual sensor values exceed user defined limits.
- **CJC® T<sup>2</sup>render Pro:**  
CJC® T<sup>2</sup>render Pro performs statistical model based automatic analysis of many sensor signals converted into one oil condition and one equipment condition value. The models are made for each individual oil system and thereby taking care of the fact that each individual oil system makes its own unique footprint in the oil. CJC® T<sup>2</sup>render Pro generates warning messages to the equipment owner when either oil or equipment operating conditions on each individual system differ from normal.

## BENEFITS

The CJC® T<sup>2</sup>render Solution in combination with offline oil filtration provide the user a deeper insight of the operation of their machinery.

- The CJC® Offline Oil Filter maintains the oil clean thus reducing the risk of breakdowns and extends the lifetime of oil and machinery.
- The CJC® T<sup>2</sup>render Solution enables condition-based oil sampling which reduces cost for oil sampling and enables optimized operation of the CJC® Offline Oil Filter.
- **T<sup>2</sup>render Basic** provides sensor data monitoring and alert messages when user defined thresholds are exceeded.
- Additionally, **CJC® T<sup>2</sup>render Pro** provides early warnings enabling preventive equipment handling and thereby reduce the cost per unforeseen breakdown.
- Furthermore, the CJC® T<sup>2</sup>render Pro is uniquely adapted to each individual oil system and requires no manual, complex and individual sensor data interpretations as the mathematics (T<sup>2</sup>) provide the intelligence.

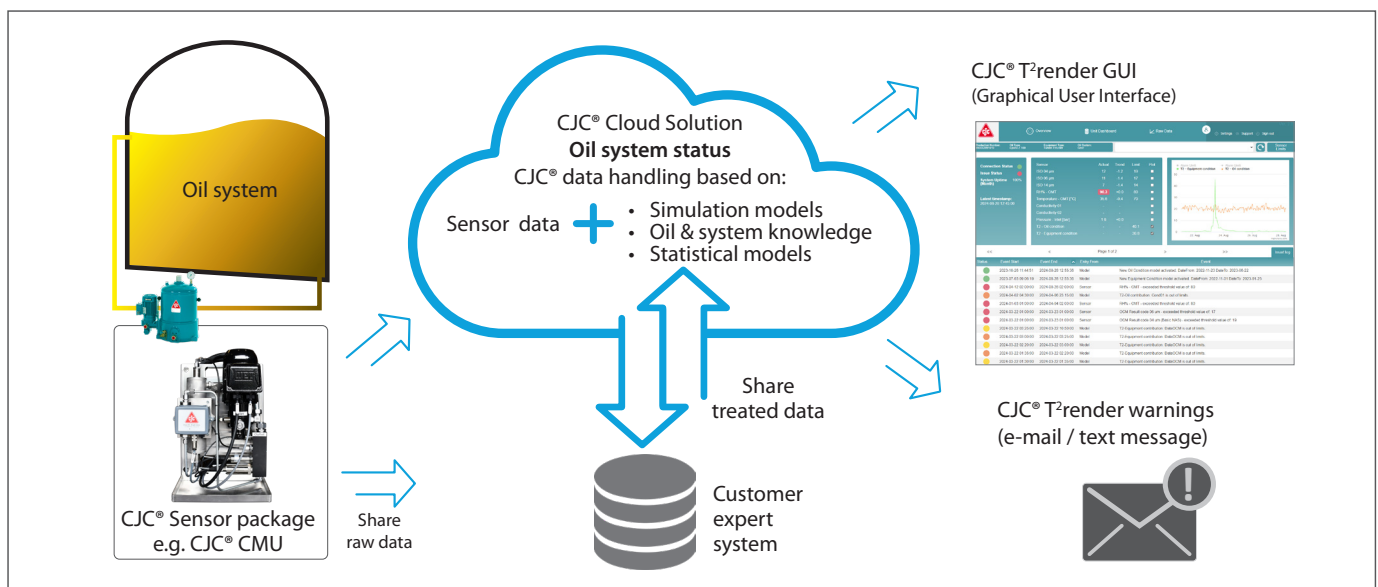


Figure 1: CJC® T<sup>2</sup>render Solution overview with CJC® Condition Monitoring Unit CMU



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## FEATURES

The two CJC® T<sup>2</sup>render Solution variants, Basic and Pro offer different feature and service levels:

Features	T <sup>2</sup> render Basic	T <sup>2</sup> render Pro
Sensors / CMU w. up to 30 days of-line data logging & CJC® Cloud data storage	●	●
Web Portal with overview dashboard, monitoring of validated sensor data & logbook of historical & current events	●	●
Share raw & treated sensor data via API	●	●
Offline filtration performance analysis	●	●
Warning status & messages based on individual sensor limits	●	●
Retrofit installation guide & support	●	●
Tailored T <sup>2</sup> render data cloud setup and start up support	●	●
Automatic analysis of many sensor signals converted into one oil condition and one equipment condition value		●
Detection of abnormal equipment and oil conditions for predictive maintenance		●
Automatic and valid warnings uniquely adapted to each oil system with appointed direct cause		●
General support to use the system		●
Yearly review of system conditions & retraining of models		●
Recalibration of sensors		●

## INSTALLATION, OPERATION & MAINTENANCE

The CJC® Sensor Packages are available as retrofit on an existing or as part of a new CJC® Offline Oil Filter. See Product Sheet for CJC® CMU (PSMO4009-UK) and CJC® OCM15 (PSMO4005-UK) for more information.

The CJC® Cloud Solution is setup by C.C.JENSEN based on a CJC® T<sup>2</sup>render Registration Form filled in by the equipment owner. Specific sensor limits are set by the equipment owner via the User Interface.

CJC® T<sup>2</sup>render Pro commissioning is initiated by the equipment owner defining the normal operating conditions period, C.C.JENSEN then performs the statistical modelling and finally CJC® T<sup>2</sup>render Pro monitors the system conditions based on the model. Warning messages point out which sensors have triggered the warning and from which a service technician appointed by the equipment owner must initiate the root cause investigation. The statistical model will be reviewed once a year or when needed.

## DATA COMMUNICATION

C.C.JENSEN ensures data logging and a secure data communication platform from the sensor package to the CJC® Cloud System. Equipment owner must supply the data connection from the sensor package to the CJC® Cloud either via Ethernet TCP/IP (LAN), WiFi or Cellular (via a SIM card into the 4G/LTE modem).

## DATA OWNERSHIP

Ownership of all the sensor data lies with the equipment owner. All sensor data are stored with full confidentiality on a secure server owned by C.C.JENSEN. Data can be used by C.C.JENSEN in anonymous form to improve CJC® T<sup>2</sup>render Solutions and CJC® Offline Oil Filters.

## HOW TO ORDER

Contact your C.C.JENSEN Sales representative at

[www.cjc.dk/contact](http://www.cjc.dk/contact) or contact us at

[FilterTechnicalSupport@cjc.dk](mailto:FilterTechnicalSupport@cjc.dk) to receive more information.

Article no.	
CMU for retrofit	Different configurations based on article no. FA7617231
CMU as part of an Oil Filter	Contact C.C.JENSEN
T <sup>2</sup> render Pro License	91 000 000 15
T <sup>2</sup> render Basic License	91 000 000 16

Additional support and services, e.g. installation & commissioning, monitoring, report generation and data interpretation can be provided on request.

