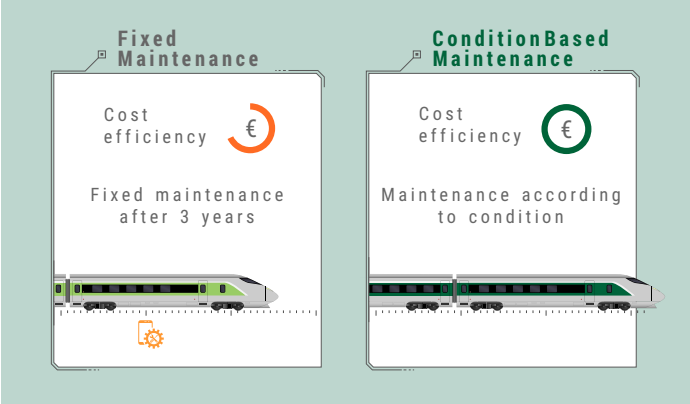
NEW DEVELOPMENTS

MAINTENANCE TOOLS

CBM – CONDITION BASED MAINTENANCE



Since 01/03/2022 our vacuum toilet systems can be optionally equipped or upgraded with a function to visualize the need for a service. This option is available as “CBM – Condition Based Maintenance”.

Contrary to the conventional approach with fixed service intervals, the new system monitors the real condition of relevant components and notifies when a service is necessary.

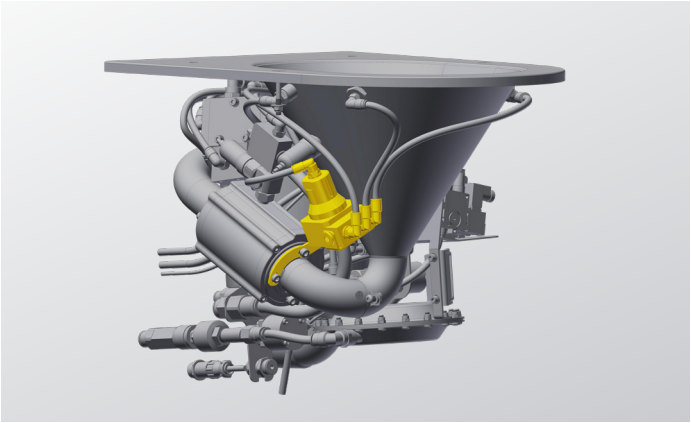
Test results clearly indicate that service periods can be extended and costs for the train operators can be reduced.

Our vacuum toilet systems have been proving their worth in the railway industry for many years. The components of our toilet are designed in a way that ensures no decalcification is required before the preventive 3-year maintenance is undertaken.

The extent of decalcification of water lines before and after the vacuum toilet is specified by the train manufacturers. So far, in agreement with the operators and manufacturers of the rail vehicles we have supplied software modules that support discontinuous decalcification. As an option we now offer a descaling dosing pump which provides for the continuous decalcification of the complete system.

Our technicians are also happy to provide advice in the case of an upgrade.

DESCALING DOSING PUMP



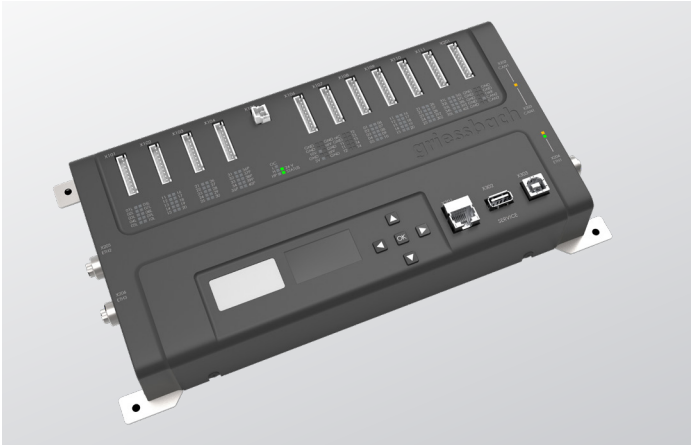
dowaldwerke

CONTACTLESS TOILET ACTIVATION

Our solution for hygienically unobjectionable toilet activation: the combination of TSI PRM-compliant activation with contactless sensor triggering.

UPGRADE OF OUR TOILET CONTROL UNIT

From 06/2022 our new WCS2 sanitary control unit will be used in new projects. With this upgrade we are responding on the one hand to the discontinuation of the present controller and on the other hand extending the capabilities of the system with the addition of key features.



- HMI interface for external displays (optional)
- secure web-based service interface
- encoded and signed firmware and parameter uploads (cybersecurity)
- real-time monitoring and detail data logging for up to 48h
  - all signal sequencessecure
  - VCU communication
  - temperature and FW level sequences
  - HMI interactions
- storage capacity for min. 5000 incidents (1000 incidents per year on average)
- simulation of signals by web interface for debugging purposes
- customer-specific user administration
- optional provision of libraries for application development according to EN/IEC 61131
- optional interface for Duagon module
- available protocols: TRDP, IPTCom, UDP, SibasPN, CANOpen, ...
- interfaces to rail vehicle:
  - Ethernet (M12 D-coded)
  - CAN (D-Sub 9)
- Subdevice interfaces
  - 2x CAN
- project-specific parameter sets (control is identically applicable for other projects)

CONTACT

Dowaldwerke GmbH
Industriering 8-12
D-01744 Dippoldiswalde

Tel: +49 (0) 3504 6468 0
mail@dowaldwerke.de
www.dowaldwerke.de