

# PFANNENBERG

Remote monitoring of connected refrigeration units



- Medium-sized company with locations in 50 countries
- Product spectrum in electrical engineering from air conditioning for switchboards through process cooling to signal technology
- Customer-specific solutions as additional focus

## THE PRODUCT Condition Monitoring

There must be a constant temperature of 35 degrees in control cabinets. Expensive machine damage and production stops may result if functions fail. Climate control and process cooling help prevent this. The cooling devices from Pfannenberg in the eCOOL X series can be integrated into users' processes and be monitored remotely via cloud.

### THE CHALLENGE

- High risk of damage if the climate control in cooling units is affected or fails
- Prevention of reduced productivity
- Reducing expensive travels of service technicians
- Optimization of control of cooling units
- Improvement of customer service
- Boost in innovation in terms of Industry 4.0

### THE SOLUTION AND USPS

- Read-out of measurement data, such as the temperature in the control cabinet and revolutions per minute of fans, control of cooling units
- MODBUS interface for integration of the cooling device into the flows of machines and processes
- M2M mobile communications connection
- Data storage and analysis in a secure, ISO certified data center
- Automatic notification of service technician in case of failure

### THE CUSTOMER BENEFITS



#### More transparency

Call-up of installation condition via the internet at any time on PC, laptop, tablet and smartphone



#### Longer machine life span

Constant temperature control prevents damage to the built-in semi-conductors



#### Higher availability

Rapid reaction to incidents and reduction of downtimes



#### More productivity

Savings on manual checks and trips to machine location



#### Predictive service

Possibility of preventative maintenance through automatic data analysis and evaluation



#### Corporate IT is not affected

Cooling units are connected to the Cloud of Things via mobile communications