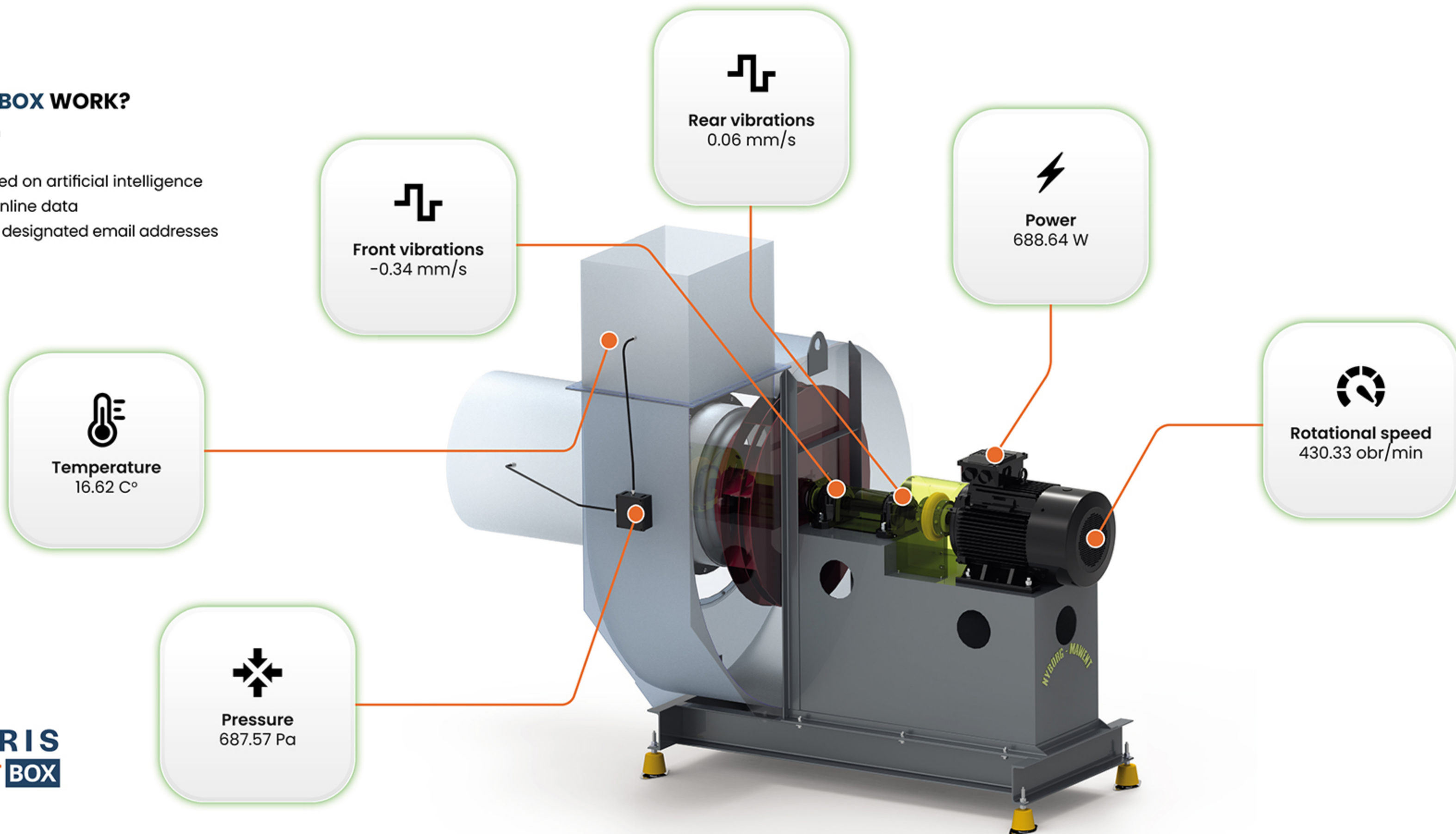


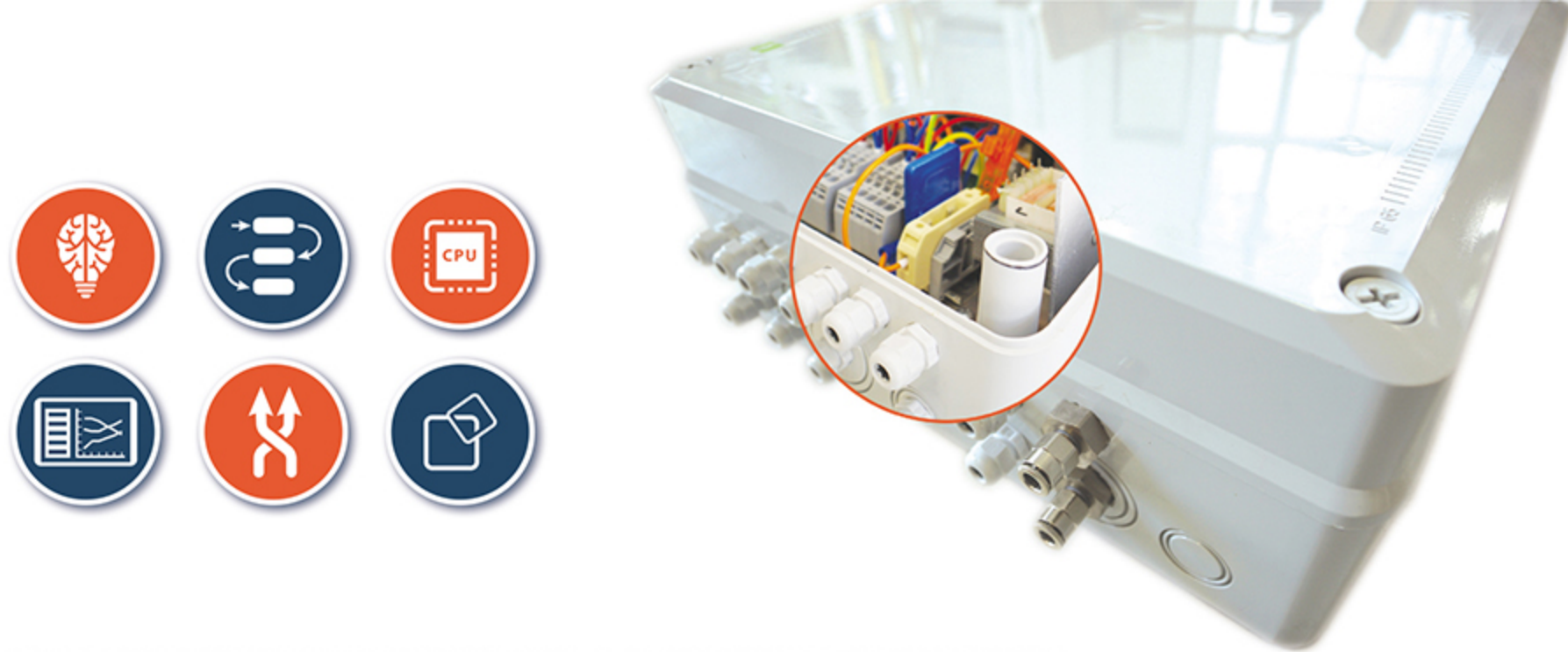


Intelligent monitoring system
for industrial fans

HOW DOES COLUBRIS SMART BOX WORK?

- Sensor data acquisition
- Real-time transmission
- Advanced analysis based on artificial intelligence
- Continuous access to online data
- Automatic alerts sent to designated email addresses





INTELLIGENT REMOTE DIAGNOSTICS AND DATA ANALYSIS SYSTEM

As part of a research and development project, we have developed and created an intelligent system for remote diagnostics of fan parameters. Its task is to collect and analyze operating parameters recorded directly on the devices to ensure their uninterrupted and efficient operation. This provides an early warning diagnostic system that monitors deviations from optimal parameters and standards for operating devices connected to a complete ventilation system, installation system, or production line.

The remote diagnostics system is used for:

- measuring devices, e.g., fans, in installations, and long-term data collection on the machine's condition, such as vibrations, temperature, flow, and power consumption
- monitoring the operating parameters of the device on which it is installed
- monitoring the operating parameters of the installation, production line, and processes
- ensuring early fault detection by dynamically tracking deviations of operating parameters from optimal and safe conditions for the devices operating in the installation, e.g., increased bearing vibration levels, abnormally high temperatures, exceeding rotational speeds, and increased power consumption. The system is available online, allowing 24-hour monitoring of device data
- providing online access to results for continuous monitoring of operating conditions
- the system and sensors do not require an additional external power source, what simplifies installation

✿ **COLUBRIS SMART BOX** is an advanced monitoring system that fits all types of industrial fans. It provides complete control over key operating parameters of the device, increasing its reliability, safety, and efficiency.

✿ MONITORED PARAMETERS:

- Pressure difference (input/output)
- Temperature
- Bearing vibrations (current) and electric motor vibrations (coming soon)
- Energy consumption
- Rotation speed



✿ A REVOLUTION IN MAINTENANCE THANKS TO AI AND MACHINE LEARNING

- Learns from historical data
- Analyzes the broad context of fan operation
- Detects failure symptoms early
- Enables suitable service planning in advance
- Continuously improves – the more data, the more accurate the forecasts

✿ A SMART INVESTMENT – LONG-TERM BENEFITS:

- Optimal maintenance planning – You know exactly when and which fan requires service
- Preventive part replacement – replace only what actually needs replacing
- Extended component life
- Smarter maintenance budget management
- Lower risk of failures and downtime

✿ KEY ADVANTAGES:

- **Powered directly from the electric motor:** No additional wiring or batteries required – the system operates independently and maintenance-free, even in sleep mode.
- **GSM connectivity:** Full access to data from anywhere – without the need for a Wi-Fi or Ethernet connection. An ideal solution for hard-to-reach installations.
- **Rapid installation:** Intuitive installation without interfering with existing systems.
- **Early warning of faults:** The system automatically reports irregularities, helping to prevent more serious faults and production downtime.

WHY CHOOSE THE NYBORG-MAWENT SOLUTION AND THE COLUBRIS SMART BOX SYSTEM?

- **Leadership Experience:**

System created by Nyborg-Mawent, a renowned manufacturer of industrial fans with many years of experience in the industry

- **Comprehensive Approach:**

Full insight into the fans' technical condition, operating history, and accurate statistics

- **Future Technology:**

Modern sensors and algorithms for real-time data analysis

- **Hassle-Free Installation:**

Power supplied by the fan motor simplifies installation and eliminates external energy sources

WANT TO LEARN MORE OR TEST THE COLUBRIS SMART BOX IN YOUR INSTALLATION?

Contact us – we'll be happy to advise you on the best solution.

CONTACT

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