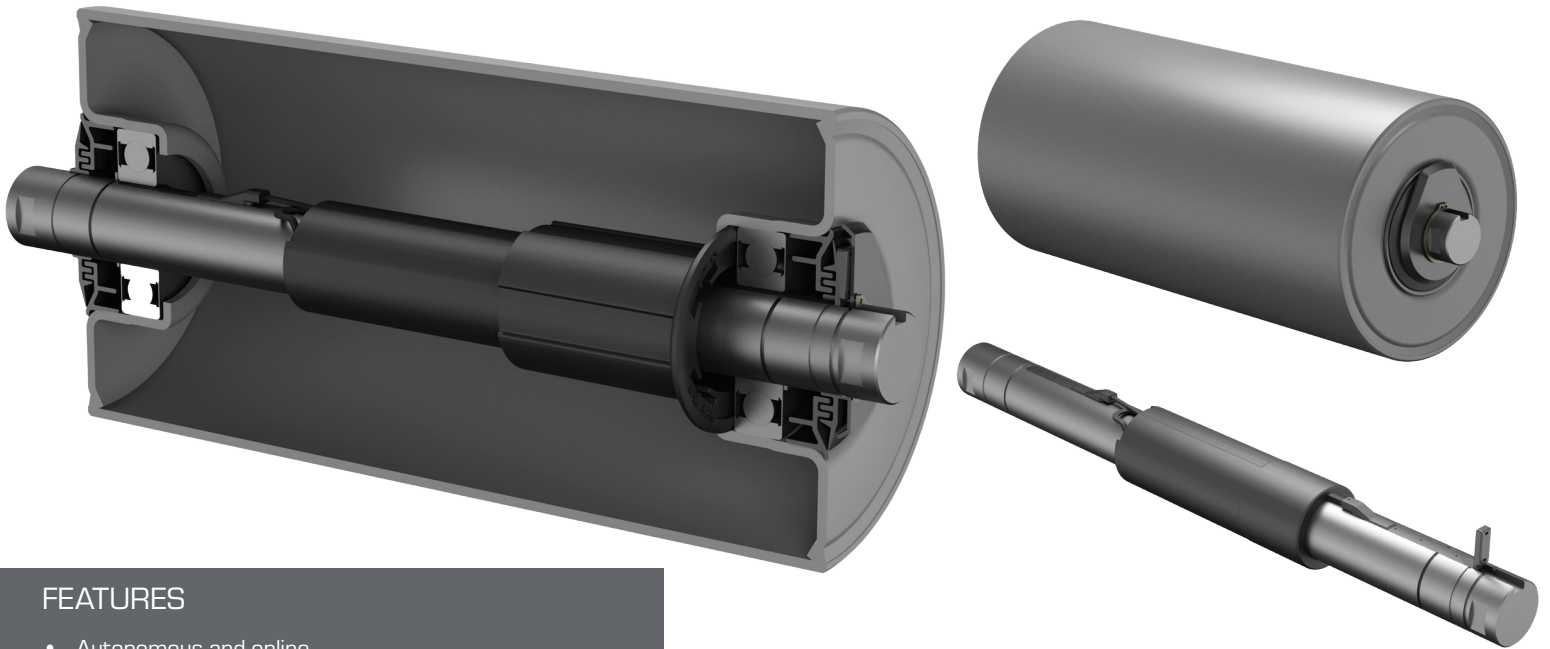


PPI IDLER ROLLS EQUIPPED WITH VAYERON SMART TECHNOLOGY



FEATURES

- Autonomous and online 24/7 monitoring
- Predictive maintenance insight
- Preemptive detection of idler failure
- Increased safety
- Reduced downtime
- Reduction in spares inventory
- Increased productivity
- Improved operational data

CAPABILITIES

- Bearing Temperature sensing
- Vibration sensing – Acceleration Enveloping Spectral Analysis to detect bearing problems early
- RPM sensing
- Shell wear and buildup detection
- Wireless communication

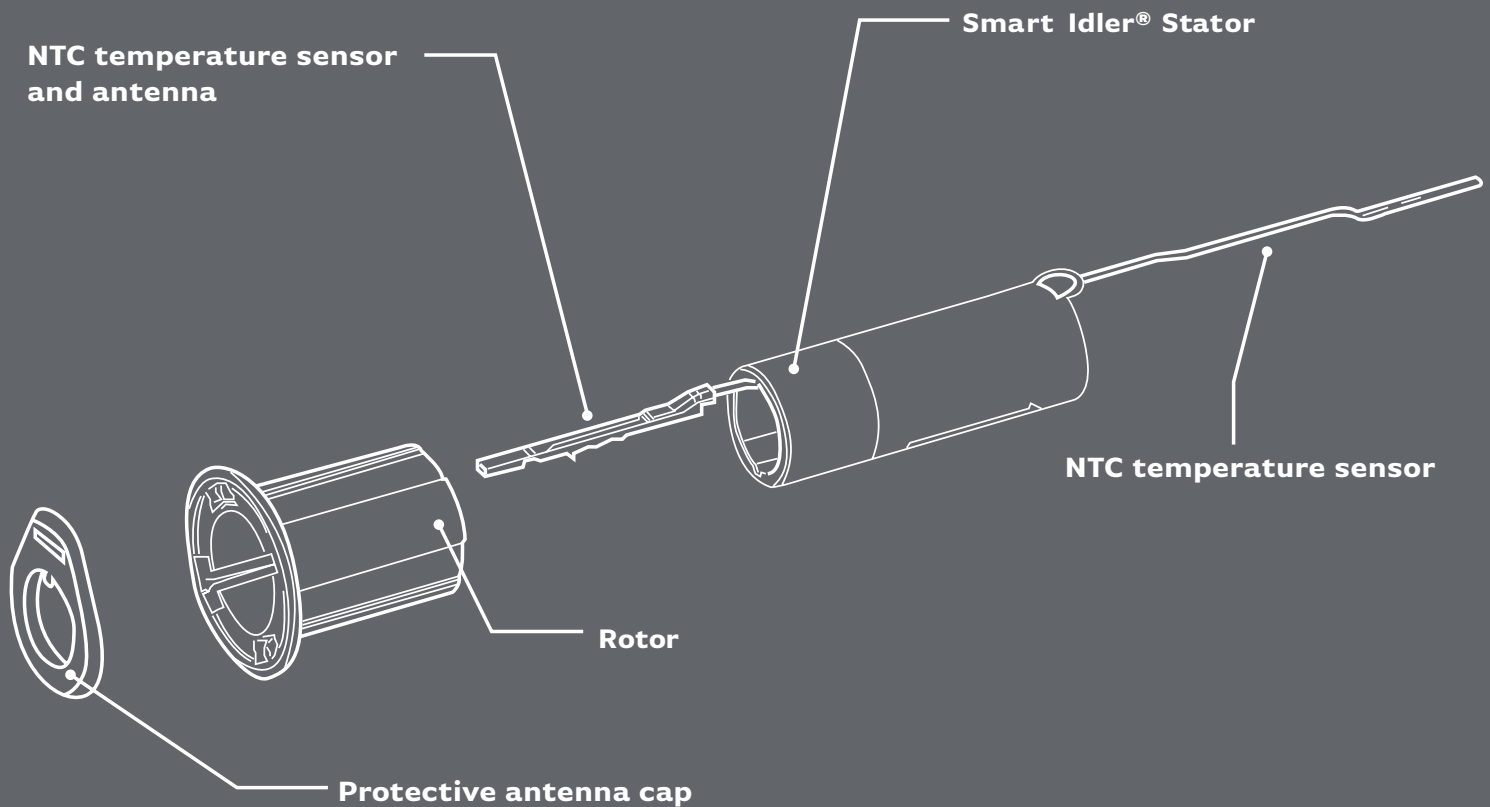
THE NEXT LEVEL OF CONFIDENCE IN IDLER ROLL PERFORMANCE

Now you can get the PPI Idlers you trust with Vayeron Smart-Idler® technology incorporated. Failed and failing idlers can cause conveyor belt damage, over-heat temperatures and noise pollution. Vayeron has developed an innovative new product for the global mining sector called the Smart-Idler®. The product predicts and reports idler failure. The system reduces costly conveyor downtime and lowers conveyor maintenance costs while improving safety. Now you can get this technology in PPI Idler Rolls.

Idler rolls are wireless and self-generate power.

Integrated into PPI proven idler rolls and seal technology along with PPI's customer service

SMART-IDLER® AND SYSTEM COMPONENTS



The components of the Vayeron system are defined as follows:

Smart Idler® - an electronic device that is housed within an idler roll. The electronics monitors the temperature and vibration within the Idler and communicates this data to the Gateway via a wireless network. The Smart-Idler® is powered directly from the rotation of the Idler roller. Sub-components of the Smart-Idler® sensor device are as follows:

1. Rotor - The rotor rotates about the stator in order to harvest the rotational energy for the Smart-Idler® processes.
2. Stator - Shaft-mounted unit which contains the on-board processing capability.
3. Antenna Cap - Protective cover to ensure that the Smart-Idler® antenna is not damaged in the field.

Gateway - an electronic device that collects idler roll data and interfaces to a server or the cloud via PLC, cell tower, Wi-Fi, or TCP/IP based on customer preference.