

Temco i-Bearing
The monitoring system

TEMCO

i-Bearing

Technical information



Experience goes digital

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i-Bearing – the monitoring system

In the future, IIOT Systems (Industrial Internet of Things) such as smart factories or proactive device monitoring will be the key to success and cost management. Temco provides a proactive device monitoring system for all ball bearings under the product range of Temco. The intelligence of the i-Bearing allows the constant condition monitoring of every single bearing within the plant. In the future, predictive maintenance (based on the real load situation) will be a reality.

Temco's intelligent bearing solution i-Bearing for filament machines, among others, allows condition monitoring online. By identifying critical conditions, bearings can be replaced before they fail which helps to minimize machine downtimes. The user can extract other parameters from these measured values and calculate them for his or her specific application. For example, it is possible to determine the process speed from the bearing speed (rotational speed).



The i-Bearing monitoring system consisting of a bearing equipped with sensors, which are connected directly to a PC via USB, offers a broad field of applications. Customers benefit from a clear understanding about the status of their bearings. In the future, items with potential defects will be identified immediately, allowing replacement before a malfunction or more serious problem occurs. Thanks to this timely insight, customers can plan machine maintenance and associated downtime in advance and align it with the most efficient maintenance schedule.

Key performance factors

- Higher efficiency of production & improved machine availability
- Reduction of overall operational costs
- Continuous improvement of operations & equipment
- Vibration, temperature and rotation measurement of the bearing
- Detection of bearing damage by comparing measured values with set limits
- Vibration plotting in diagram
- Vibration, temperature and rotation measurement of the bearing
- Online monitoring of parameters in regular intervals through powerful visual analytics
- Data tracking and analysing capability

For continuous development and optimization, internal tests are carried out with the Separator roller VR60 and the Nip roller series LR . But of course, the monitoring system can be installed in a wide range of Temco bearing arrangements. Thus, field studies have already started at the customer's site with the LR press roll.

Developments for a wireless variant are already underway.





Rieter Components Germany GmbH

Temco
Fuldaer Straße 19
97762 Hammelburg
Germany
T +49 (0)9732 87 0
info@temco.com

www.temco.de

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3509-v1 en 2205