POWTECH 2016 Exhibitor Preview

WORK Microwave — Stand 1-415

At POWTECH 2016, WORK Microwave will demonstrate a powerful range of sensor solutions that accurately measure moisture, mass, density, or foreign particles of powder, granules; and bulk solids, including food, plastics, wood, glass, and paper.

In particular, WORK Microwave will showcase how its sensors meet the demanding requirements of the pharmaceutical industry, highlighting the negative impact that an insufficient moisture level can have on the make-up of pharmaceutical pills and capsules, with effective methods for mass measurement.

WORK Microwave sensor solutions offer superior speed and precision, making them perfect for inline production applications. By optimizing product quality and production safety, the sensors assure quality control in any manufacturing environment.

Key Products and Technology Demos

Interactive Sensor Demos
At POWTECH 2016, WORK Microwave will demonstrate a new sensor system for high-speed inline mass measurement of tablets and other smaller objects. Offering easy integration into modern tablet presses, the advanced measurement system processes tablets without any special treatment or requirement for a guide system, streamlining manufacturing operations. Thanks to an enhanced sensor design, pharmaceutical manufacturers no longer need to separate tablets and measurement scales; the sensor can be mounted directly onto the assembly line, continuing the flow of the tablet production.

With the new system, mass measurement can be carried out while the tablet is moving though the microwave sensor. The sensor is capable of taking a very high measurement rate down to 10 µs, enabling tablets to be measured during free-fall conditions. The high number of individual measurement values per tablet allows for an extremely accurate determination of its mass. Tablets can pass by the sensor in any order; precise orientation is not needed. These unique design capabilities ensure manufacturers can measure up to 100,000 tablets per hour.

Based on a flexible, modular design, the sensor system can easily be adapted to meet different measurement requirements, such as measuring large tablets or those with special shapes. The system consists of a control box containing the complete measurement electronics and high-speed data processing, along with the passive microwave sensor.

Pharmaceutical Capsule Mass and Powder Throughput Demo
A key challenge that manufacturers face in pharmaceutical production is control over the filling of capsules. Measurement of the powder material throughput and final inspection of the filled capsule is important.

WORK Microwave will demonstrate a special version of its sensor system for high-speed control and
measurement of capsules and tablets at POWTECH 2016. Within this system, the microwave sensor has been adapted to the size of the capsule, allowing a large quantity of measurements to be taken while the capsule passes the sensor in free fall or is transported by a pressurized system. The small size of the sensor ensures easy integration into existing production machines. Using the system, a measurement rate of more than 100,000 capsules per hour can be achieved.

Company Overview:

About WORK Microwave (www.work-microwave.com)
Headquartered in Holzkirchen (near Munich), Germany, and comprised of four operating divisions — Satellite Technologies, Navigation Simulators, Defence Electronics, and Sensors & Measurement — WORK Microwave leverages more than 30 years of experience to anticipate market needs and apply an innovative and creative approach to the development of frequency converters, DVB-S2/S2X equipment, and other digital signal processing technologies while maintaining the highest standards for quality, reliability, and performance.

WORK Microwave's Sensors division develops and manufactures high-precision sensor solutions for a wide range of measurements and applications used by the food, pharmaceutical, automotive, recycling, chemical, paper processing, and tobacco industries.

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