

Reliable Piracy Protection for Print Drums

RFID tags ensure quality and secure spare parts business

At a Glance

- RFID tags with a tamper-proof algorithm identify genuine parts
- The use of counterfeits is excluded
- Reliable quality assurance during drum replacement
- Automatic control of maintenance cycles is possible
- Spare parts business is secured



The Application

The process for producing ceramic tiles is made up of integrated stages. During one of these process steps, the ceramic tiles are printed with different designs. The print control system monitors the production of the often numerous versions. The high quality of the end product depends largely on the print drums and bearings used for the process. Consequently, it is

of vital importance that genuine print drums supplied by the manufacturer are used in the event of replacement. However, numerous counterfeits and lower-quality replicas are available on the market, meaning there is a risk that inferior print drums may be used.

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The Goal

The consistently high product quality of the tiles must be guaranteed throughout the entire life cycle of the machine. It is crucial that genuine parts supplied by the manufacturer are used when replacing print drums. The use of counterfeits and cheap replicas must be excluded. Furthermore, the unrestricted availability of the machines, high productivity, and the greatest possible flexibility in the production process must be guaranteed.

The Solution

For this purpose, each genuine print drum is equipped with an RFID tag. A read/write head installed in the machine detects the tag and reads the data stored on it. The manufacturer has equipped these with a tamper-proof algorithm. The machine continues to run after the drum is replaced only if the drum has been recognized as a genuine part. Rugged LF read/write heads are used to ensure that this is the case. They function perfectly in the metallic environment of machines and offer good EMC properties in combination with read-only code tags. The data collected can be used to determine needs-based maintenance cycles and to control the spare parts business. Quality is guaranteed, since replicas are not used at all.

For more information, visit
www.pepperl-fuchs.com/px-rfid

The Benefits

RFID technology ensures reliable piracy protection and quality assurance in the printing process. Consequently, the press has an additional unique selling point over replicas. Only genuine parts can be used in production; complaints due to quality fluctuations can thus be largely excluded. As a desirable side effect, the machine builder retains 100 % control over the spare parts business.

Technical Features

IPH-18GM-V1:

- Cylindrical read/write head with M18 x 1 thread
- Connection with V1 connector (M12 x 1)
- Multi-hole LED for function indicator
- IP67 rating
- For connection to the IDENTControl control interface

IPH-30GM-V1:

- Cylindrical read/write head with M30 x 1.5 thread
- Connection with V1 connector (M12 x 1)
- Multi-hole LED for function indicator
- IP67 rating
- For connection to the IDENTControl control interface