

FHDK 14 and MDFK Used in Automated Stamping Process

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Diagram 1

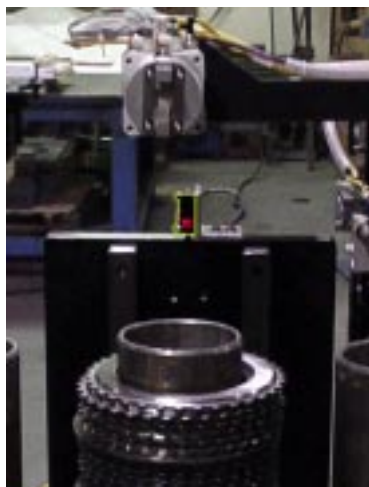


Diagram 2



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Product: FHDK 14, MDFK

Market: Material handling

The Application: The customer manufactures a robotic off-loading carousel-style conveying system for a metal stamping application. The finished stamped parts are off-loaded, from the stamping process by a robotic gripper, and are placed onto one of 12 storage rods on a carousel carriage (Diagram 1).

In this case, the parts are gears for a truck transmission. They used the FHDK 14 photoelectric sensor with background suppression to determine when the storage rods are full (Diagram 2).

Once a storage rod is full, the carousel rotates until an empty rod is in place. The rotation is monitored by the MDFK non-contact magnetic incremental encoder (Diagram 3).

To make sure that the carousel carriage is in place, and sitting straight, the customer used three FHDK 14 photos. If one end is off of the turnstile, the carriage will not rotate (Diagram 4).

Customer Benefit:

The customer chose the FHDK 14 with true background suppression for its



Diagram 3

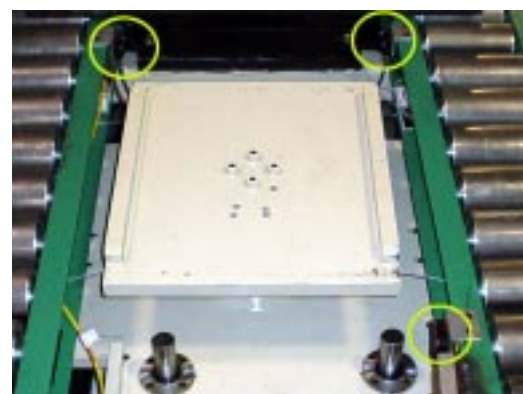


Diagram 4

ability to accurately sense the gears while simultaneously ignoring the shiny background of the storage rods. For more on background suppression technology, refer to the technical essay page at www.baumrelectric.com/usa/news/tech. They chose the MDFK non-contact magnetic encoder because of its small size, its ease of mounting, and its simplicity to integrate into their control system. An added benefit is its virtual immunity to wear and low \$110 list price.