



BALL STUD INSPECTION SYSTEM



Ball Stud Inspection System



➤ **Division**
CT

➤ **Market**
Automotive

➤ **Production Rate**
1200 parts per hour

➤ **System Description**

The system is designed to inspect Automotive Ball Studs for cracks and proper heat treatment in different zones utilizing eddy current technology. Parts are presented into the machine via the customer's existing feeder. The parts are allowed to slide into four station indexing dial. Here, the parts are indexed to two different test stations and one sorting station.

The first station is a crack detection station. Here the part is pushed against rotating drive wheels, which causes it to spin. At this point, a pencil probe riding on a template scans the profile of the part for flaws. The probe then retracts and the part is pushed back into the dial.

At the second station, an eddy current coil raises around the bottom portion of the ball stud. A test is taken, and then the coil lowers.

When the part is indexed to the third station, the part is pushed out of the dial and into a sorting chute. Here an accept gate opens to allow "good" parts to exit onto a customer-supplied conveyor. Reject parts are dropped into a lockable bin.