

# American Stress Technologies

## INTRODUCES NEW INSPECTION SYSTEM



**F**or the gear manufacturer plagued with nightmares about the possibility of grinding damage, GearScan 600 from American Stress Technologies may bring some relief.

Also referred to as the RoboScan for gears, the inspection system is non-destructive and robot-driven. The system can scan for all kinds of microstructural defects in gears like soft spots, etc. RoboScan is intended for audit inspections in production environments.

Robert Ehrmann, marketing manager at American Stress Technologies, says the product was released this year and has already been used with automotive and transmission gears, mainly for automobile companies in North America.

“This is a mostly automated version of our earlier manual inspection systems,” says Ehrmann. “We aim to assure metallurgical quality of the surface and ensure the properties are what they’re supposed to be.”

The system includes a safety enclosure with the robot and Barkhausen noise sensor, a Rollscan 200 non-destructive testing and quality assurance device for changes in metallic surfaces, an electric cabinet with the PLC panel for programming, a rack for the Rollscan 200, system computer and printer, and ViewScan software.

Gears are loaded and unloaded manually onto the system, which then automatically inspects for defects. Additionally, the RoboScan can measure both sides of a gear tooth as well as numerous gear types.

Like most Barkhausen analysis, this machine is intended for use on the shop floor. According to Ehrmann, the system can also be integrated with a robot or pick-and-place system. American Stress Technologies offers this integration service per customer request.

Most functions are handled by the controls on the electric cabinet, where the control panel of the PLC program can be found.

The gear inspection process is completely programmable and can be accomplished in a matter of seconds, depending on the test program, according to Ehrmann. Part-to-part changeover is also quick.

“The part setup is a matter of selecting a different template and takes the same amount of time as pressing a mouse button. If the part’s totally different, it could require a change in hardware, which could be a few minutes,” says Ehrmann.

Once the GearScan has been sold and shipped, American Stress Technologies personnel will train the customer on operations and perform inspection on the machine at least once a year. ■

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