

MAC'S New Rotoflux® AC Flux Leakage Tester for Testing Hot Rolled Bar

Magnetic Analysis Corp. has recently introduced a new Rotoflux® AC flux leakage tester. The highly sensitive AC Flux Leakage technology is especially well suited to test hot rolled black steel bars and rods that have surface conditions which used to make finding shallow defects very difficult, if not impossible.

MAC's latest model is designed to test bar from 15mm to 130mm, detecting longitudinal flaws as small as 0.1mm deep depending on surface conditions. Wireless signal transfer features minimize noise while maximizing sensitivity. Two surface ride probe arrays, each with eight elements, cover up to 160mm per rotation. A simple adjusting tool allows quick resetting for dimensional changes, and triple guide roll assemblies on incoming and outgoing sides swing open conveniently for easy access.

An easy to use operator interface includes a choice of all phase and chord gates and a new probe screen offers sensitivity and phase adjustment for each individual channel. Full quadrature detection is offered to preserve phase selectability. Throughput

speeds of up to 4m/s (800 FPM) are achievable with larger diameters requiring slower speeds. The tester operates at up to 1500 rpm, depending on product diameter. The mechanical design ensures ease of maintenance with full access to any replaceable parts.

MAC'S AC flux leakage systems use two magnetization yokes and alternating current to induce an alternating magnetic field. Without contact, these yokes magnetize the test material in the transverse direction. The magnetic flux is concentrated on the material's surface due to an eddy current effect, and is particularly sensitive to minor surface defects since the operating probe examines a very small portion of the entire surface at any one moment.

Magnetic Analysis Corp. based in Elmsford, NY and Östersund, Sweden, is celebrating 90 years of providing NDT systems to the metals industry, including ultrasonic, eddy current and flux leakage test systems. The company has a long history in developing flux leakage technology and introduced its first DC Rotoflux® Flux Leakage test system in the 1970's. ■

www.mac-ndt.com

MAC's Rotoflux® AC Flux Leakage Tester for hot rolled bar, shown in it's off line easy access position for quick resetting for dimensional changes.

