MAC’s Echomac® FD-6A and TACTIC UT Immersion System for Critical Applications

A recent test system supplied to a producer of titanium tubes for nuclear applications incorporates MAC’s (Magnetic Analysis Corp.) Echomac® FD-6A ultrasonic instrumentation with TACTIC’s, (TAC Technical Instrument Corp.) ultrasonic transducer immersion tank, mechanical handling, controls, and “spin the tube” conveyors, to provide a complete turn-key installation.

For this critical application, the ultrasonic test is conducted directly after the drawing operation to verify the tube meets the required specifications, before more pieces are run. The Echomac® uses 4 test channels to verify the OD, ID dimensions, eccentricity and ovality conditions, and 2 channels for flaw detection.

Tube sizes range from 1/4” to 3” diameter. The immersion tank containing the transducers feeds directly to the FD-6A. The conveyor system consists of a 16’ inlet and 16’ outlet. Tactic’s rollers maintain the correct helix as the tube is fed through the tester, a critical part of ensuring accuracy during the test.
The Echomac® FD-6A, Magnetic Analysis Corp’s latest UT instrument model, achieves a new level of improved signal to noise ratio, finer adjustments, improved thickness resolution, repeatability, and reliability. Featuring MAC’s user friendly Echohunter® interface software and versatile intuitive operation, control of all key test parameters is on a single screen, and thresholds can be moved by selecting and dragging on screen. A “Global” key allows parameters for several test channels to be adjusted at once, or copied from one channel to another. The 6A model has also received GE qualification for P3TF31, Class A & B, & P29TF82 Class A &B, a typical requirement for nuclear and aerospace applications. New installations or older ones that need to be upgraded can benefit from use of the Echomac® FD6A instrumentation.

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. TAC Technical Instrument Corp., based in Trenton, NJ, has been supplying tube producers since 1962 with immersion test systems to inspect cylindrical materials including tube, pipe and bars. TACTIC is now a subsidiary of Hatfield, Pa.-based Laboratory Testing Inc., a metals testing laboratory.

www.mac-ndt.com


Molecor has published the new edition of the “Technical Manual for Networks Design and Use. TOM® PVC-O pipes” which collects updates for the extension of the range of TOM® Oriented PVC pipes as well as the first fittings in the world in Oriented PVC (PVC-O), ecoFIT TOM®.

The manual brings together the characteristics, advantages, applications, suitability of use and sustainability of these products, offering a wide range of practical cases of mechanical and hydraulic calculations of the pipes and fittings manufactured with the exclusive Molecor technology, with the aim of supporting and improving the knowledge to the user regarding the design of the project, execution and operation of networks for the conveyance of water under pressure.

Any material requires adequate installation conditions in order to get the trench-fill-pipe system works properly to achieve the necessary stability that guarantees a greater durability of the network.

The manual allows to know the characteristics and advantages of a system that is presented as the best existing alternative in networks for the conveyance of water under pressure, thanks to its hydraulic capacity, efficiency in the exploitation phase and to its low maintenance costs, due to its high physical-mechanical and chemical properties.

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