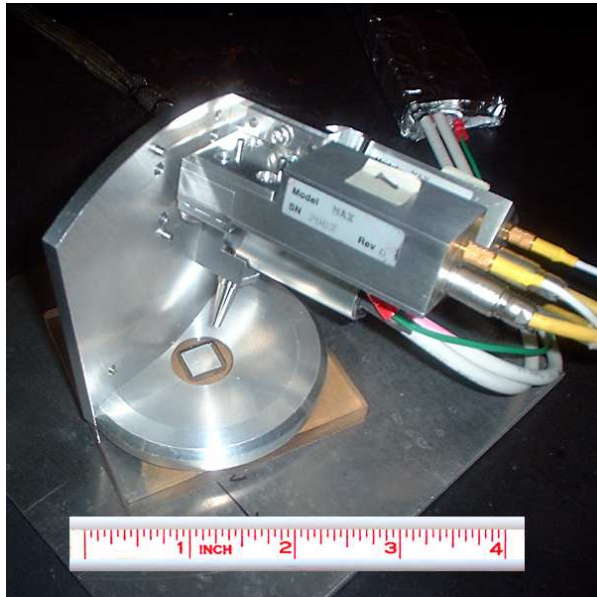


**For Immediate Release**

**TEC Materials Testing Introduces MAX**



MAX, a Miniature Advanced X-ray Diffraction System, offered by Technology for Energy Corporation (TEC) Materials Testing Division, promises to have a profound effect on the stress measurement industry. Meeting customer needs with a miniaturized, portable device for measuring surface residual stresses on site, TEC offers unparalleled compatibility, convenience, and reduction in time and costs with this precision instrument. This innovative, powerful new product was developed under an Air Force SBIR program to measure residual stresses in hard-to-access locations on aircraft.

The miniaturized system measurement head fits within a space six inches in diameter (!) and uses x-ray diffraction to measure stresses in common engineering materials. MAX's many other industrial and real world, time-saving applications seem limitless. It is small, user friendly, smart, light weight, versatile, portable, uncomplicated, fast and accurate.

The MAX system consists of hardware and software packaged in two rugged traveling cases, plus a laptop PC. The hardware consists of a measurement head, safety system, and electronics. The measurement head contains a low-powered x-ray tube with a 3-Watt high-voltage power supply and two detectors. The detectors are miniature position-sensitive proportional counters. Data obtained by the detectors are analyzed with re-designed electronics that incorporate the capabilities of a full-sized NIM bin on two boards. The measurement head is small enough to fit inside a 6-inch opening. The MAX system uses the single-exposure technique that does not require the x-ray head to move during measurement. Accurate measurements can be made in as few as 2-3 minutes.

Also designed for field use, MAX only requires 110V/15A service. The entire system is controlled by software from a laptop computer. Rigorous peak fitting routines provide excellent data analysis for this low-powered system. Users may choose from several commonly used routines to optimize analysis accuracy. Software guides the user through the entire measurement and analysis routines with simple, easy-to-use visual guides. An interlocked optical beam provides a barrier to protect personnel from the emitted x-rays during system operation.

Different x-ray measurement heads are needed for the different alloy systems to be measured. Thus far, aluminum, steel, titanium and nickel alloys have been the primary focus for MAX. Additional materials may be measured through x-ray tube selection and detector placement.

For more information, contact the TEC Materials Testing Division, 10737 Lexington Drive, Knoxville, TN, 37932-3294, Phone: 865-966-5856, Fax: 865-675-1241