



SOUTHWEST RESEARCH INSTITUTE

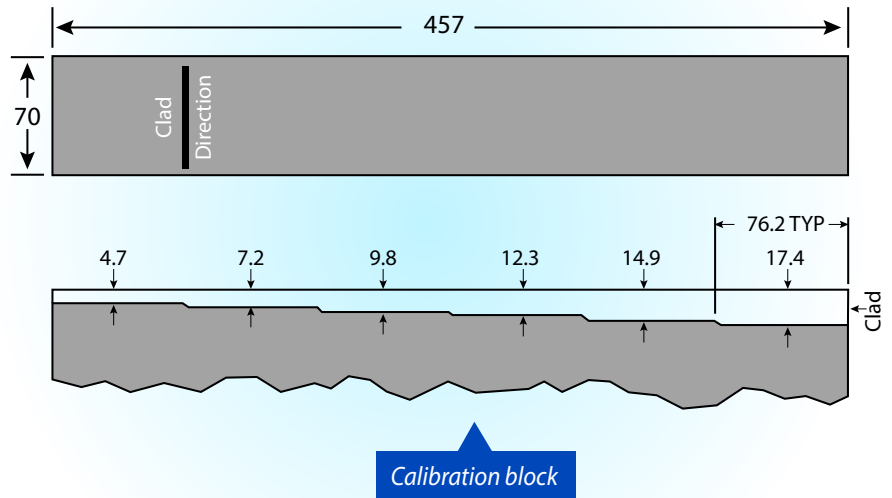


Clad Thickness Sensor

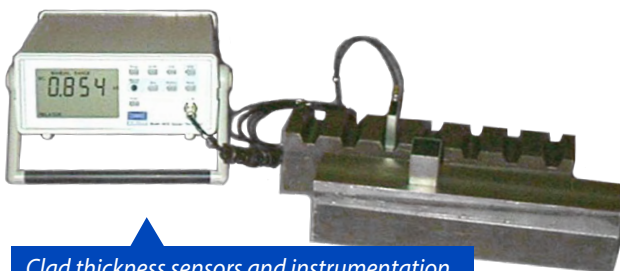
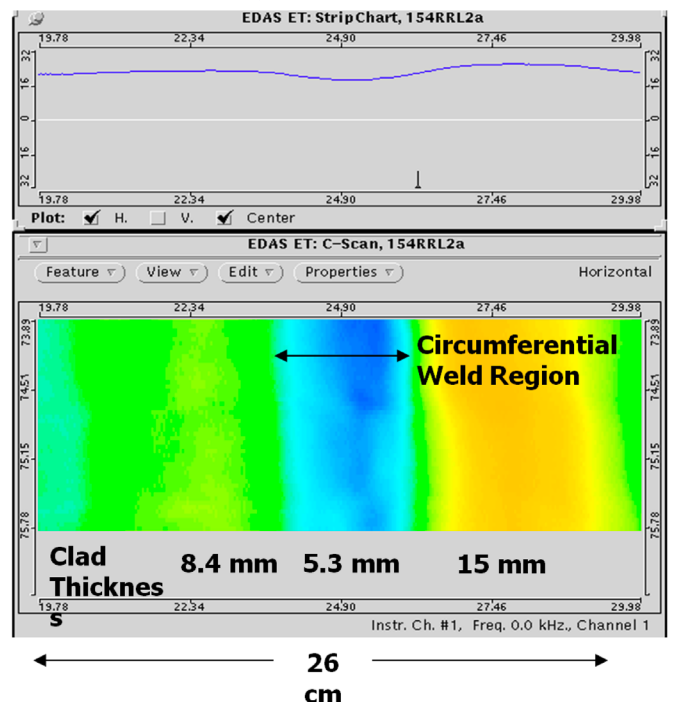
Southwest Research Institute® (SwRI®) has developed a magnetic sensor for measurement of stainless steel cladding thickness. Applications include clad pressure vessels used in nuclear reactors, petrochemical plants, and paper mills.

According to ASME Section XI, evaluation of flaw acceptability requires that the depth of the flaw into the base metal be determined. Ultrasonic inspection measures only the total flaw depth from the examination surface; however, the base metal depth can be found by subtracting the thickness measured by the clad sensor.

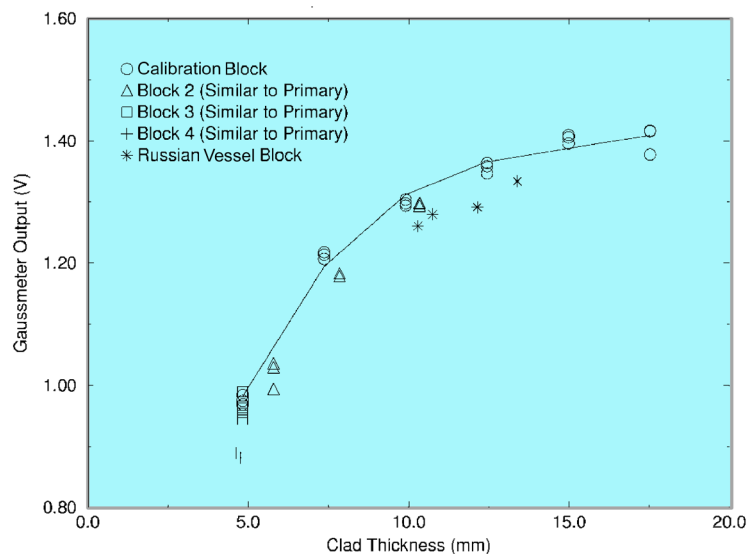
The sensor can be used for manual measurements or can be incorporated into a mechanized scanning system with an automated data acquisition system. The sensor has been successfully used during an inservice inspection of a commercial nuclear reactor pressure vessel using the SwRI EDAS™ system. Sensors can be configured in various sizes to accommodate accessibility requirements.



Clad thickness data from circumferential weld of reactor pressure vessel.



Clad thickness sensors and instrumentation with calibration block



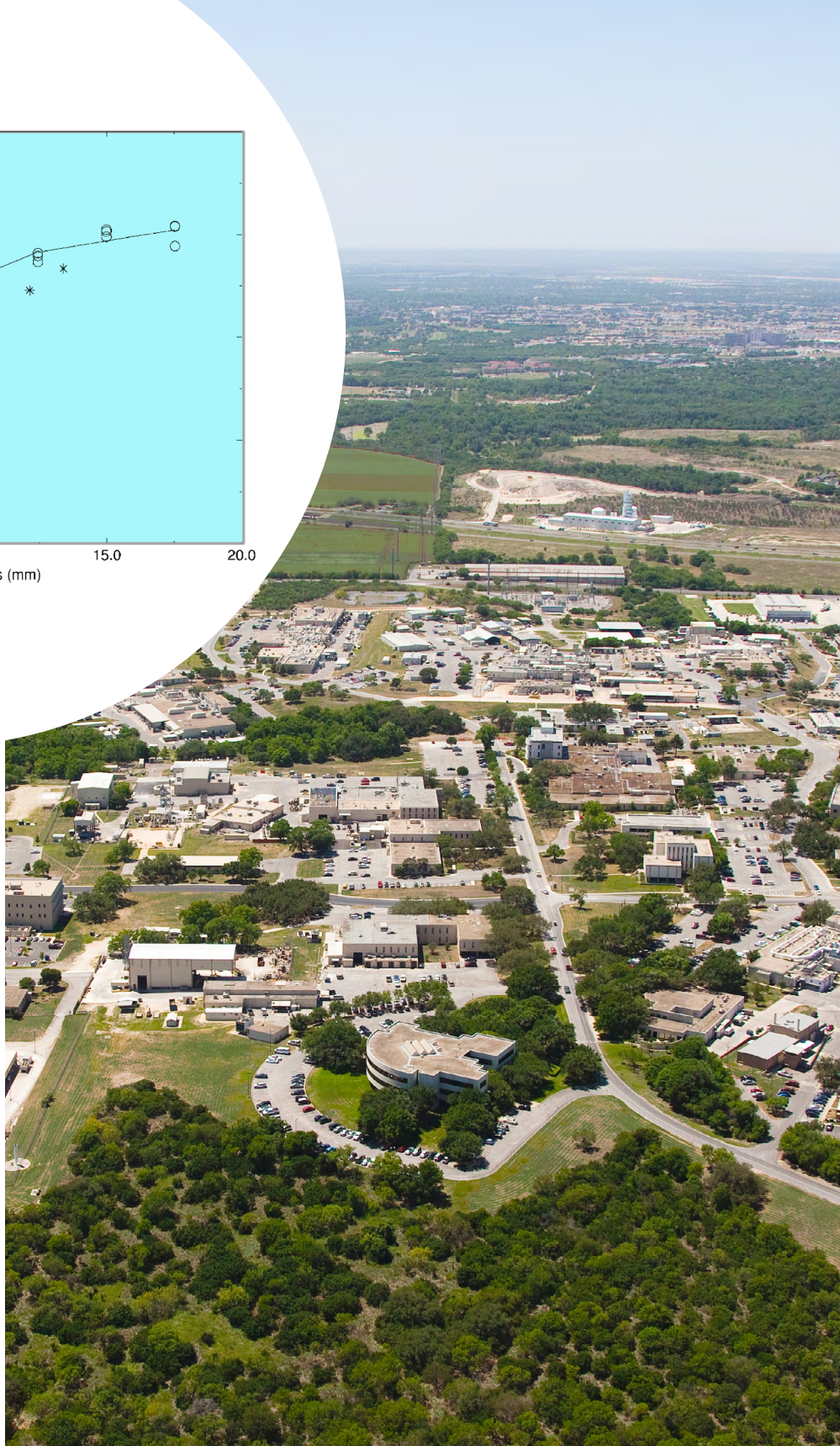
Response from
multiple test blocks

**We welcome
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SOUTHWEST RESEARCH INSTITUTE

Southwest Research Institute is a premier independent, nonprofit research and development organization using multidisciplinary services to provide solutions to some of the world's most challenging scientific and engineering problems. Headquartered in San Antonio, Texas, our client-focused, client-funded organization occupies 1,200 acres, providing more than 2 million square feet of laboratories, test facilities, workshops, and offices for nearly 2,600 employees who perform contract work for government and industry clients.

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Benefiting
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public through
innovative science
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