INSIDE VESSEL AUTOMATED SCANNER (SIIVAS)

Accurate placement and precise movement of NDE probes is critical to the success of an inspection. The SIIVAS is a custom scanner designed and fabricated by SI. It utilizes four (4) axes of motion to accurately position an ultrasonic phased array probe or eddy current array probe on any inside vessel surface. The center beam and cross arm sections are constructed of aluminum extrusion due to its light weight and high rigidity. This also makes the scanner very portable and easy to assemble on site. The vertical and rotational axes are encoded and use a motor control drive unit (MCDU) to control the speed, zero point, and position to an accuracy of 0.001 inch (0.03 mm). The third and fourth axes are controlled with the MCDU as well and control the radial position and the orientation of the probe holder. Various mounting configurations are possible to accommodate vessels with differing top and bottom openings. The scanner is also equipped with a vision system consisting of two or more cameras with LED lights, time stamp, and recording capabilities.

Used to deploy ultrasonic and eddy current probes on the inner surface of a vessel

Modular design allows for vessel inspection up to 24 feet (7.3 m) in length and 16 inch (406 mm) to 6 feet (1.83 m) in diameter with various mounting configurations

Encoded 4 axis motion allows for precise probe placement