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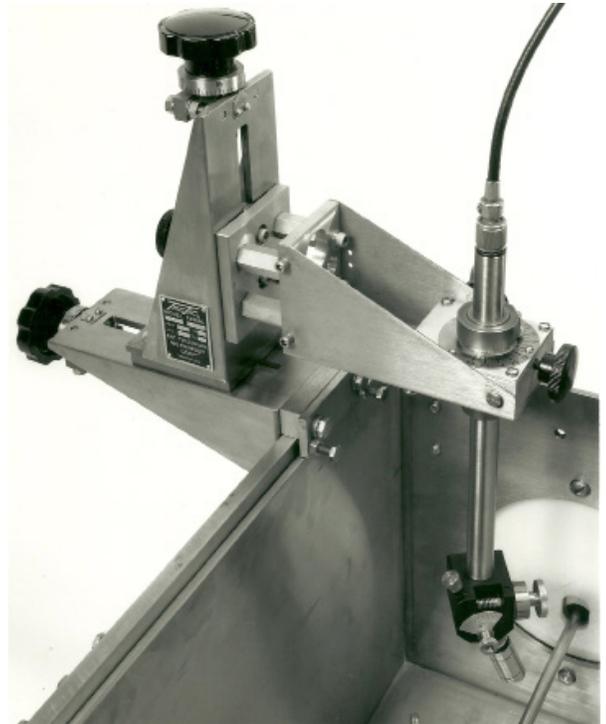
Model 140 Transducer Manipulator

The Model 140 Manipulator mounts on the end of a standard 3/4 inch "search tube" for ultrasonic immersion transducers. Its bottom connector receives a standard UHF threaded transducer which may then be adjusted over a wide range of highly calibrated angles in one plane.

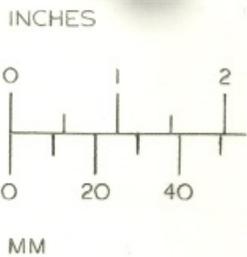
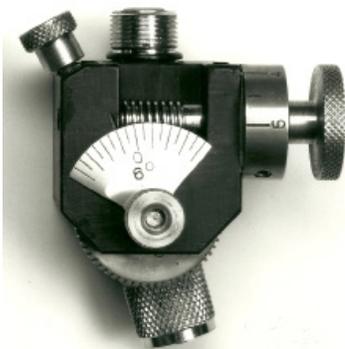
The top and bottom connectors are rotatable to allow compensation to be made for "off-axis" beams or to provide proper focal direction for cylindrically focused transducers. The top and bottom connectors, with their sealed interconnections, may be removed for easy field replacement should this ever become necessary.

A lock knob is provided to prevent unwanted transducer motion during high speed scanning. Adjustment set screws are included to minimize backlash and to insure continued precise worm-to-gear fit.

When used with a TACTIC Model 45-9L Transducer Positioner, as shown, the Model 140 may easily be applied to the detection of defects with various off-axis angles in cylindrical products. In this application, the highly calibrated search tube rotation control of the Model 45-9L unit is set to the suspected defect angle and the Model 140 control is set to the desired incidence angle. (The search tube rotation portion of the 45-9L is available separately for use on any scanning bridge.)



Model 140 Transducer Positioner



Model 140 miniature Transducer Manipulator

SPECIFICATIONS

Size (from search tube fitting to transducer fitting)	Overall width = 2 3/4 inches (70 mm) Overall length = 3 1/4 inches (83 mm)
Weight	11 1/2 ounces (326 grams)
Angulation	Continuous ± 54 degrees in one plane
Calibration	Coarse scale= 6 degrees/division Fine scale = 1/4 degree/division
Connectors	3/4 inch waterproof UHF male and female
Case Material	Anodized Teflon-coated aluminum