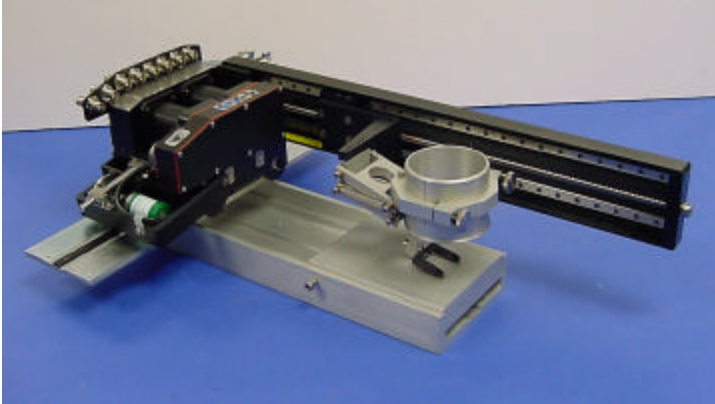


# Model 5080 Automated Scanner

The Model 5080 is a remotely controlled automated scanner. It is designed to permit the deployment of a variety of sensing elements including ultrasonic transducers and eddy current probes and is compatible with all Wesdyne AMDATA data acquisition systems. It is designed for fast installation on a wide range of flat or curved surfaces. It uses magnetic wheels to mount to a variety of scanning tracks.



5080 scanner on calibration stand, shown without cabling attached. Also shown with manual skewing collar and spring loaded gimbal.

The scanner uses DC servo motors to power each of the two axes. Position feedback is provided by optical encoders that are housed in a sealed body.

The X axis consists of a gear driven tractor arrangement with magnetic rollers. The Y-axis uses a precision lead screw to actuate a slide carriage that supports a transducer. The Y-axis arm has a standard stroke length of 10". Y-axis arms with up to 24" stroke are available. The 5080 scanner can use the same Y arms used on 2090 and 5090 scanners.

Variations in the height of the inspection surface are absorbed by the end effector assembly. The 5080 scanner is equipped with a spring loaded end effector that affords 2.5 inches of stroke and 2.5 inches of fixed height adjustment.

For applications that require greater end effector stroke, the 5080 can alternatively be equipped with a pneumatic thruster system.

## Physical Characteristics

- Scanner height: 4.5 inches (excluding thruster)
- Scanner width: 10.38 inches (including idler encoder)
- Scanner length: 5.75 inches\*
- Scanner weight: 11 lbs.\*
- Min. Pipe Diameter: 6.625 inches\*\*

\* With out Y-Arm.

\*\* Without collar style track, 4" with collar style track.

## X Axis

- Max. Scan Speed: 10 inch/sec
- Encoder resolution: 1310 pulses/inch
- Positional accuracy:  $\pm 0.100$  inch per 3 feet
- Min. Scan Increment: 0.008 inches
- Payload Capacity: 30 lbs. vertical,  
15 lbs. on 6" pipe
- Drive Description: Servo motor, belt drive gear head, gear drive, magnetic roller

## Y Axis

- Max. Scan Speed: 10 inch/sec
- Encoder resolution: 12,444 counts/inch
- Positional accuracy:  $\pm 0.020$  inch per 10 in.
- Min. Scan Increment: 0.001 inches
- Payload Capacity: 8 lbs.
- Drive Description: Servo motor, timing belt, lead screw, travel block
- Available Arm Lengths: 4 to 24 inches

*Minimum required equipment to operate a Model 5080 Scanner - IntraSpectä imaging system with GA-1002 scan control subsystem, 2-axis joystick, cabling. Recommended optional equipment for operation is a scanner track.*



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