AHS-1

The AHS-1 is a specialized scanner for inspecting the tube-to-tube sheet weld in heat exchangers. The scanner is optimized for scanning speed and it can be adapted to the heat exchanger geometry.

**Scanner Features**
- Versions with 1 to 3 scanning units available
- Integrated remote control unit with status LEDs
- 4 standard ID-ranges
  - 19 - 25 mm
  - 25 - 30 mm
  - 30 - 40 mm
  - 40 - 50 mm
- other sizes available on request.

**System Features**
- P-scan system 4 is used for scanner control, data processing and data analysis:
  - Up to 3 welds can be scanned simultaneously
  - Inspection rate: up to 300 welds per hour
  - Automatic Job name generation
  - Automatic rewind of transducer
  - Automatic Job selection during data analysis.
Tube-to-tubesheet inspection in heat exchanger

Technical Specifications for AHS-1

Important note!
The probeholder system is tailored to the actual tube geometry. The specifications below are an example.

Velocities
X direction 0 - 2 mm/s (pitch 1 mm)
Y direction (revolving) 0 - 200 rev/s

Object Dimensions
Tube inner diameter range 19 - 51 mm (3/4" - 2")
Tube center distance with multi unit configuration > 35 mm
X-stroke 35 mm

Physical Specifications
Width x length x height (3 units) 365 x 232 x 143 mm
Weight (3 unit configuration) 7.5 kg

Options
Number of scanning units: 1 - 3.
Geometry specific probe holders with normal beam probe for tubes with ID in range 19 - 51 mm (3/4" - 2").
Special probe holders for non standard geometry range or probe type.

Measurement Principle
The AHS-1 uses a dual crystal 0° probe to scan the weld in pulse-echo mode. The transducer revolves while it moves in, resulting in a spiral shaped scan pattern.

AHS-1 scanner with integrated remote control unit

Inspection principle