

Automatic Pipe Scanners

APS-3

The **APS-3** scanners are a family of specialized scanners for pipe scanning. They have been designed with emphasis on flexibility and fast set-up time.



Features

The APS-3 series scanners are robust XY scanners for pipe inspection. They are designed with special attention to:

- Reduced set-up time
- Set-up by one operator
- Austenitic and carbon steel piping
- Inspection of pipe-to-pipe/pipe-to-elbow welds and corrosion mapping

Applications

These features make the scanners ideal for use in areas where there is a need for a scanner with fast and easy mounting and operation, e.g.

- By-pass systems (high radiation level)
- Small pipes in penetrations (access problems)
- Pressurizer safety/relief nozzles (restrictions)
- Off-shore corrosion mapping

Mechanical Design

The APS-3 is designed around a fork shaped frame structure that permits easy mounting on the pipe. The scanner is attached to the pipe with a simple, integrated, and manually operated clamp system. The clamps center the scanner to the pipe.

Integrated in the scanner frame is a fork shaped rotating ring performing the X movement around the pipe. The Y-module is mounted on the ring. The scanning operation is performed by the slide running on the Y-module rail and holding the inspection probes.



Technical Specifications for APS-3

Motors

X and Y motors.

FORCE Technology modular motors type MTR-2 with integrated motor driver and standard Miter gear unit as output gear.

Motor control

Scanner interface to P-Scan ultrasonic data acquisition system through scanner mounted Master Module, MST-3.

Y-module

Standard Modular scanner Y-module with 350 mm rail and timing belt driven slide with integrated tilt adapter.

Pipe diameter

APS-3/120 scanner version: 50 - 120 mm

APS-3/225 scanner version: 100 - 225 mm

Stroke

X-stroke: 0 - 400°

Y-stroke: 0 - 280 mm
(with standard Y-module rail)

Velocities

X-direction: 0 - 50 °/sec

Y-direction: 0 - 150 mm/sec

Weight

APS-3/120 scanner version: 10 kg

APS-3/225 scanner version: 13 kg

Options

- X and Y motors without integrated drivers for interface to 3rd part motor controller system
- Cable guide for scanner and Y-module
- Probeholder for all types of probes
- Straight Y-module rails with optional length
- Clamps for specific diameters