Automatic Subsea Scanner

AUS-4

The AUS-4 is a rugged, guideable, magnetic wheel XY scanner primarily designed for subsea inspection of ferritic structures.

Features
- Operational depth 1 000 m
- Integrated scanner body with three motors, angle sensor and control electronics with interface to P-scan system 4 UT system
- ROV or diver operation versions available
- Free movement on structures with diameter larger than OD 2 m
- Scanning of pipes with diameter down to OD 200 mm.

Applications
These features make the scanner ideal for subsea inspection of critical areas where automated inspection is required, or ROV based inspection at large water depth, e.g.
- Key area corrosion mapping and weld inspection of large subsea ferritic structures
- Weld inspection of pipes
- TOFD defect sizing.
**Mechanical Design**

The AUS-4 is built using a compact, general purpose, sealed scanner body with three integrated gear motors, angle sensor, motor driver and control electronics for interface to P-scan System 4. The Y-module and the magnetic wheels are attached to the standard output coupling on the front and sides of the scanner body. For diver operation the scanner has a sealed emergency stop push button.

![Scanner body mounted with Y-module and set of magnetic wheels](image)

**Technical Specifications**

**Motors and Motor control**

Scanner interfaces to P-Scan System 4 without additional electronics.

Integrated emergency push button and 360° angle sensor.

**Y-module**

Standard modular scanner Y-module with 500 mm rail and timing belt driven slide with integrated tilt adapter.

**Pipe diameter**

Circumferential drive direction: from OD 200 mm from OD 2 000 mm from OD 2 500 mm

Longitudinal drive direction:

Free operation: 

**Stroke**

Y-stroke 5 - 410 mm (with standard Y-module rail)

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**Velocities** (with standard gear)

X-direction 2 - 25 mm/s

Y-direction 5 - 100 mm/s

**Physical Specifications**

Weight

Diver version 16 kg

ROV version (immersed) 20 kg

W x L x H (Diver version) 125 x 510 x 280 mm

W x L x H (ROV version) 330 x 510 x 360 mm

**Options**

Y-modules in different lengths

1000 m operational water depth