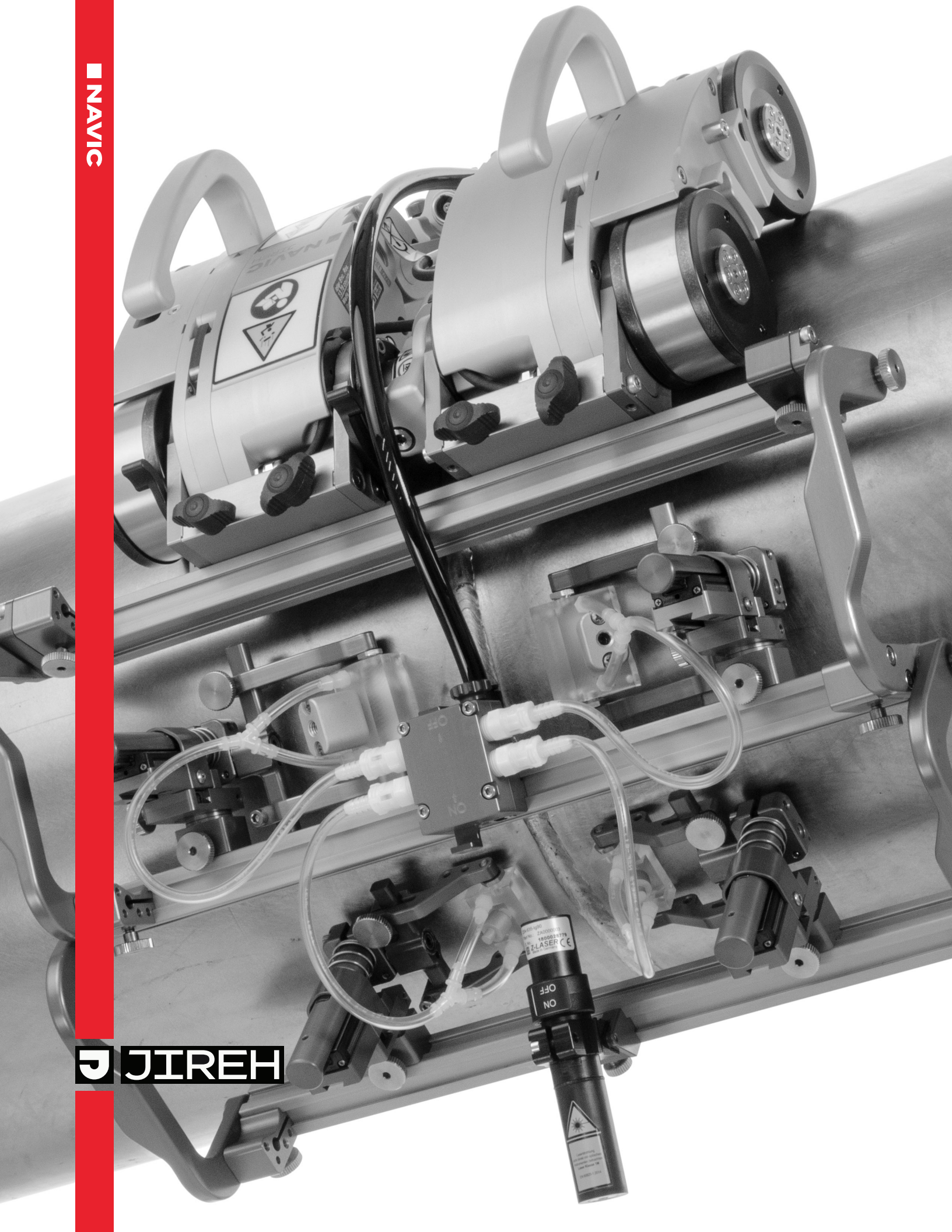


NAVIC

JIREH



CAPABILITIES

Weld Scanning

- Track welds circumferentially or longitudinally with up to six probes.
- Enhance the NAVIC's capabilities with automated, laser-guided weld tracking.

Corrosion Mapping

- Perform precision c-scans, line scans, HydroFORM and more with motorized raster arms of up to 1160 mm (45 in) in length.
- Program various scan paths using the remote handheld controller.

Tank Inspection

- Deliver state-of-the-art thickness inspection using the actuated probe lift.
- Operate remotely at a distance of up to 30 m (100 ft), controlling probe actuation and crawler steering.

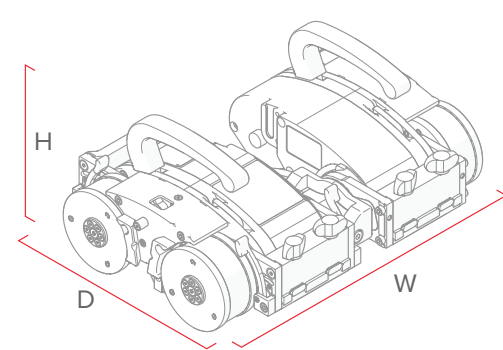
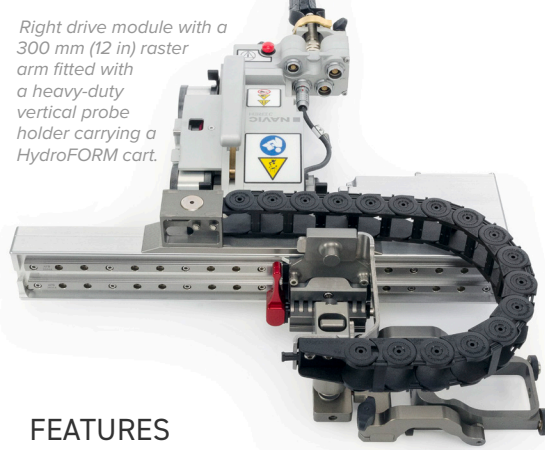
3-Axis Nozzle Scanning

- Utilize a single pod to carry a specialized probe holder around nozzles and fitting welds.
- Receive encoded feedback from the positional, y-axis and skew encoders.

Medium Temperature Scanning

- Install the optional add-on kit to allow the NAVIC crawler to operate on inspection surfaces with temperatures up to 150°C (302°F).¹

Right drive module with a 300 mm (12 in) raster arm fitted with a heavy-duty vertical probe holder carrying a HydroFORM cart.



Crawler dimensions

FEATURES

Motorized Driving and Steering

- The handheld controller offers variable drive speed and steering control.

Low Profile Design

- Radial clearance of 7 cm (2.75 in)² and 8.15 cm (3.2 in) on pipes over 20 cm (8 in) OD.

Magnetic Wheels

- Operate on vertical, horizontal and inverted ferrous surfaces.

Scan Versatility

- Circumferential scanning on pipes as small as 7 cm (2.75 in) OD.

Remote Control

- The ergonomic handheld controller includes programing raster patterns, drive paths and diagnostics.

Modular

- Crawler module separation, various mounting points and a host of accessories allow one unit to perform many types of inspection.

Rugged

- Designed to handle intense tasks and challenging environments. (*dust-tight, watertight*.³)

WEIGHT AND DIMENSIONS

Crawler Weight

- 7.7 kg (17 lb)

Crawler Dimensions

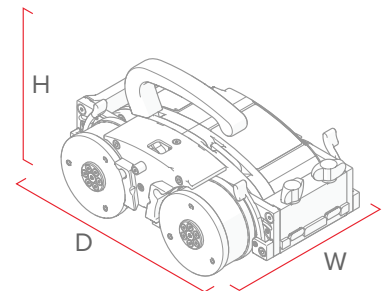
- Height: 12.5 cm (4.9 in)
- Height:⁴ 8.1 cm (3.2 in)
- Width: 28.2 cm (11.1 in)
- Depth: 22.6 cm (9 in)

Right Drive Module Weight

- 4.2 kg (9.3 lb)

Right Drive Module Dimensions

- Height: 12.5 cm (4.9 in)
- Height:⁴ 8.1 cm (3.2 in)
- Width: 13.4 cm (5.3 in)
- Depth: 22.6 cm (9 in)



Right drive module dimensions

Probes remain centred on the weld with the Tracker's laser guidance. A two probe, pivoting weld frame allows for longitudinal inspection.

Automated Crawler Medium Temperature Add-On Kit



1. Duty cycling may be required if the ambient temperature is >25°C (77°F).
 2. Clearance on pipes under 200 mm (8 in) OD.
 3. Not submersible.
 4. Handles removed.

SPECIFICATIONS

Circumferential Pipe Range

- 7 cm (2.75 in) OD to flat

Longitudinal Pipe Range

- 30.5 cm (12 in) OD to flat

Internal, Circumferential Pipe Range

- 61 cm (24 in) ID to flat

Nozzle Size Range

- 7 cm (2.75 in)

Radial Clearance¹

- 7 cm (2.75 in) Pipes under 20 cm (8 in)
- 8.15 cm (3.2 in) Pipes over 20 cm (8 in)

Vertical Nozzle Clearance

- 23 cm (9 in)

Idler Encoder (Right Module)

- 13.78 counts/mm (349.9 counts/inch)

Motor Encoder (Left Module)

- 872.5 counts/mm (22162.8 counts/inch)

Y-Axis Encode (Nozzle Application)

- 161.3 counts/mm (4096 counts/inch)

Skew Axis Encoder (Nozzle Application)

- 2.84 counts/degrees

Driving Speed

- Variable 0-25 cm/sec (0-10 in/sec)

Crawler's Vertical Payload

- 10 kg (22 lb)²

Power Requirements

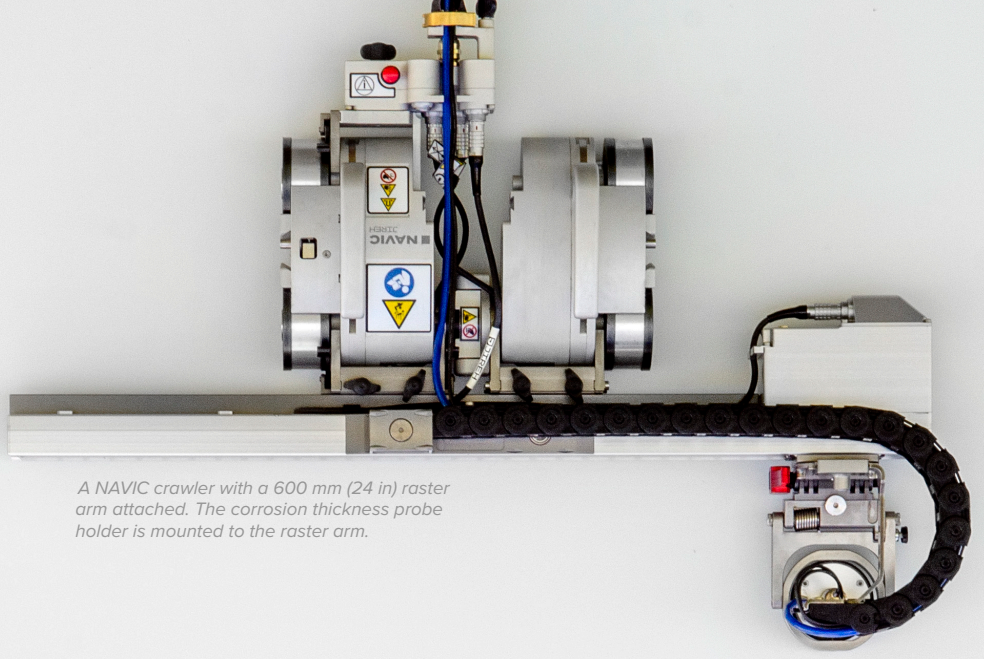
- 100-240VAC, 50/60Hz, 3.5 Amps

Inspection Surface

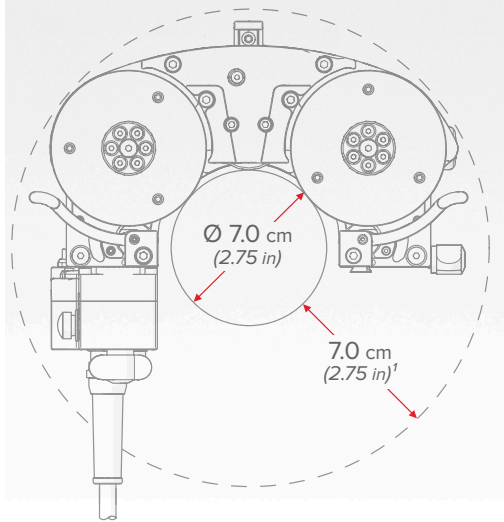
- Ferrous

Maximum Backpack Payload

- 1.36 kg (3 lb)³



A NAVIC crawler with a 600 mm (24 in) raster arm attached. The corrosion thickness probe holder is mounted to the raster arm.



NAVIC radial clearance on a minimum pipe diameter

The Actuated Probe Lift mounted to the swivel mount of the NAVIC crawler.

ACCESSORIES

Tracker

- Automatically follow a weld profile.

Motorized Raster Arm

- Two-axis, automated, corrosion scanning.

Backpack

- Carry peripherals on the crawler.

Preamp Bracket

- Mount preamp to the crawler.

Motorized Couplant Pump

- Consistent couplant supply.

Optical Guide

- Guide crawler along welds.

NAVIC Camera Mount

- Monitor scanner operation.



1. Handles removed.
2. Performance may vary with the surface type. Heavy payloads may require reduced speeds.
3. The backpack is not compatible with older generation NAVIC crawlers.
4. The automated crawler medium temperature add-on kit is required when the inspection surface temperature measures between 50°C (122°F) and 150°C (302°F). Duty cycling may be required if the ambient temperature is >25°C (77°F).

REGULATORY COMPLIANCE

CE

FCC Part 15

CAN ICES-003(A) / NMB-003(A)

UKCA

- For a complete description of regulatory compliance, please contact JIREH.

ENVIRONMENTAL SPECIFICATIONS

Operating Environment

- -20°C (-4°F) to 50°C (122°F)

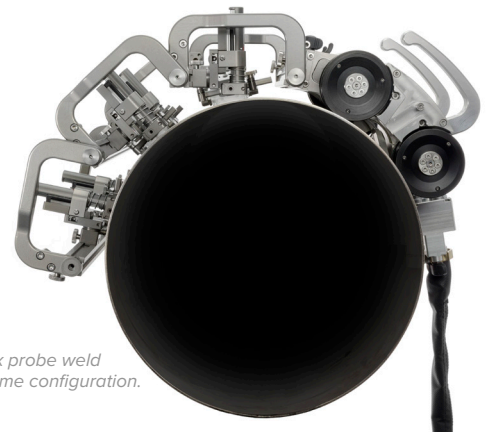
Max. Inspection Surface Temperature

- 150°C (302°F)⁴

Environmental Sealing

- Dust-tight, watertight (Not Submersible)

Six probe weld frame configuration.





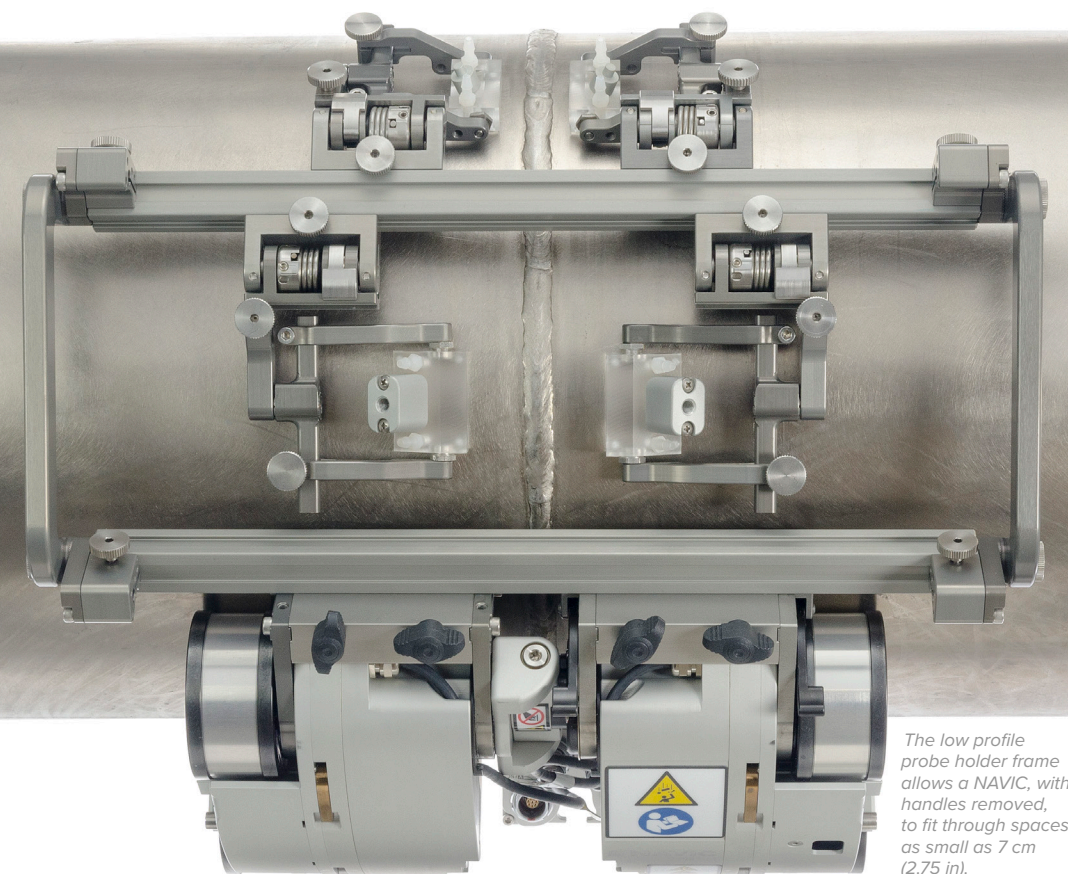
The power supply is compatible with various international plug styles.



The Preamp amplifies the return signal from an ultrasonic transducer to improve the signal-to-noise ratio for transmission over long cables.

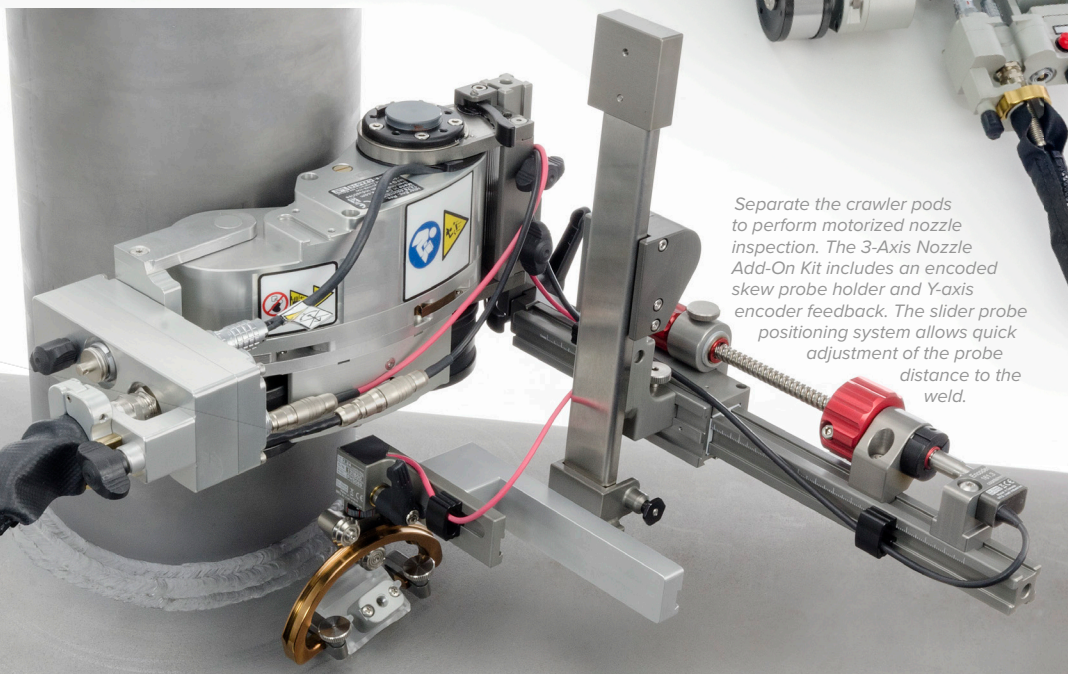
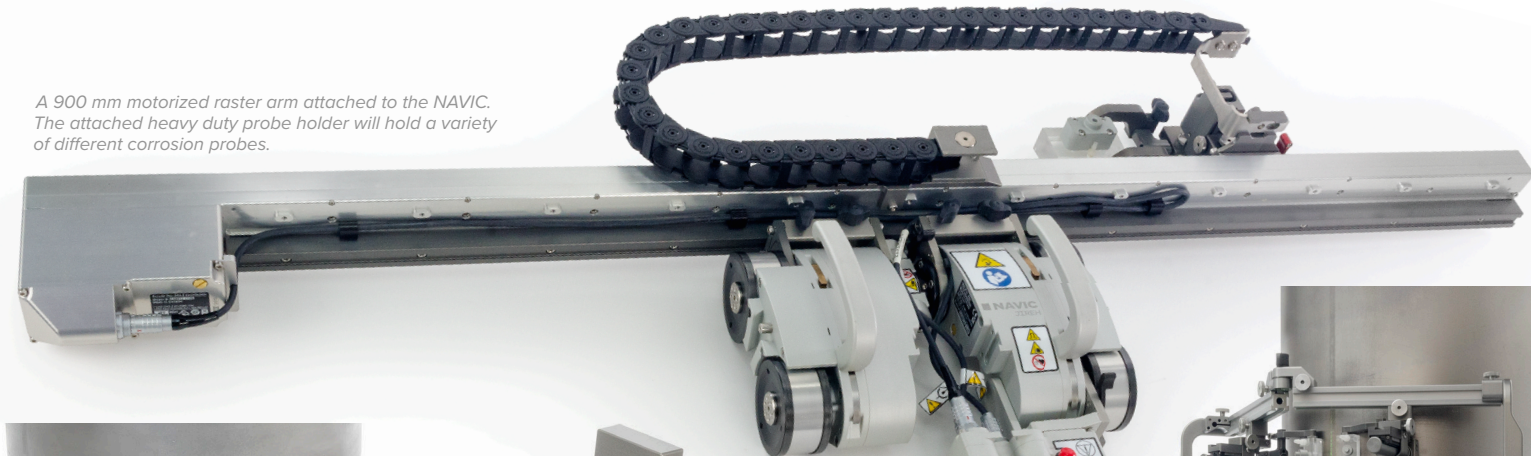


The handheld controller with colour touchscreen offers steering, speed manipulation, raster arm programming, actuated probe lift control and system diagnostics.



The low profile probe holder frame allows a NAVIC, with handles removed, to fit through spaces as small as 7 cm (2.75 in).

A 900 mm motorized raster arm attached to the NAVIC. The attached heavy duty probe holder will hold a variety of different corrosion probes.



Separate the crawler pods to perform motorized nozzle inspection. The 3-Axis Nozzle Add-On Kit includes an encoded skew probe holder and Y-axis encoder feedback. The slider probe positioning system allows quick adjustment of the probe distance to the weld.



A NAVIC carrying a four probe pivoting probe holder frame. An optical guide is attached, which assists the user with following the weld.