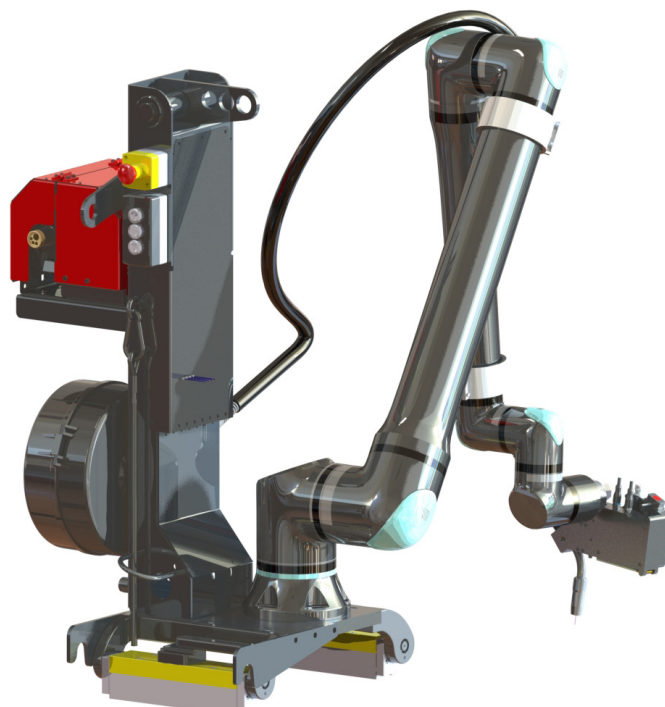


INROTECH-GROOVIT™

ROBOTIC WELDING SYSTEMS



Renders are for reference only

INROTECH-GROOVIT™ ROBOTIC WELDING SYSTEMS

The Inrotech-Groovit™ is designed to increase welding capacity without increasing operator resources. One operator can manage multiple Groovit systems, allowing several multipass welding operations to run in parallel. With automated groove scanning, pass planning and execution, Groovit reduces the need for continuous operator involvement while supporting consistent weld quality. The system handles groove depths from 20–80 mm, multiple welding positions and common welding processes, making it a flexible solution for demanding thick-section welding applications.

SYSTEMS INCLUDES

- UR8 Long 6-axis industrial robot
- Magnetic robot base
- Mobile frame with controllers
- Lincoln Electric® R450 Power Wave
- AutoDrive® 4R220 wire feeder
- Lincoln Electric® Cool Arc 50 water cooler
- Water-cooled Abicor Binzel welding torch
- Integrated laser scanning
- Tablet-based HMI
- 14 m supply cable
- Wire spool mounted on robot unit

APPLICATIONS

- Heavy plate fabrication
- Thick-section multipass welding
- Large structures
- V, Half-V & Tulip grooves
- PA, PB, PF, PE & PC positions
- Groove depths from 20–80 mm
- Customer-specific multipass applications

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KEY FEATURE THE GROOVIT APP

Automated Welding Technology

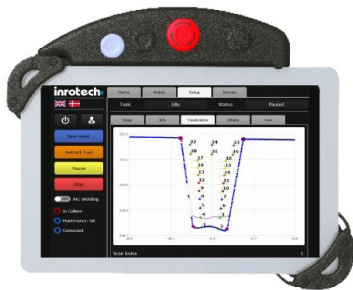
- Automated groove scanning identifies the actual joint geometry before welding.
- The system automatically calculates the required layers, passes, bead positions and welding parameters.
- Re-scanning during the process allows the welding strategy to account for variations in the actual groove.
- Mobile, magnetically mounted design brings robotic multipass welding directly to large structures.

Adaptive Groove Scanning

The groove is scanned to determine its actual geometry and dimensions. Based on the scan, the system generates the multipass welding strategy and adapts the weld to the actual joint rather than relying only on predefined geometry.

Automated Multipass Welding

Based on groove type, dimensions, welding position and defined welding parameters, Groovit automatically calculates the number of layers and passes required to complete the weld.



Mobile & Flexible Deployment

Inrotech-Groovit is manually positioned directly on the workpiece and secured using its magnetic base. Once a section is completed, the robot can be repositioned to continue welding elsewhere on the structure—making it suitable for large structures where bringing the workpiece to a fixed robot cell is impractical.

BENEFITS

The Inrotech-Groovit™ System Gives You Flexibility

The mobile design brings robotic welding directly to the workpiece. The magnetic base allows Groovit to be quickly positioned and repositioned across large structures and different welding areas.

The Power Wave R450 Makes It Possible

The industry-leading Power Wave R450 power source provides fast travel speeds and low spatter generation.

Data retention and reporting

- System can store weld job logs per panel or part
- Reports can be extracted for QA/QC or customer documentation
- Potential to integrate with MES or ERP systems via API/OPC-UA



PRODUCT SPECIFICATIONS

Part number	Model	Robot reach	Payload	Robot weight	Mounting	Power source
AD2651-4	Inrotech-Groovit	1,750 mm / 68.9 in	8 kg / 17.6 lbs	44.7 kg / 98.5 lbs	Magnetic base	Lincoln Electric R450 Power Wave

*Options
**Can be customized

CUSTOMER ASSISTANCE POLICY

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