Robotic Welding Line
For Structural Steel

**Welding Specifications**

- **Welding speed**
  - Fillet welds (2F)
  - 17 inches/min for 1/4" weld
  - 22 inches/min for 3/16" weld
  - 27 inches/min for 6.4mm fillet weld

- **Gap tolerances**
  - No gap detection (Maximum gap 1mm)

- **Joint detection**
  - Laser Touch Sensing

- **Process and position**
  - MCAW - Spray and pulse transfer - Horizontal (2F)

- **Wire classification**
  - AWS A5.18, A5.18M: E70C-6M H4 / CSA W48-06: E491C-6MJ-H4

- **Shielding gas**
  - 90%Ar-10%CO2 mix

- **Surface finish**
  - All parts and beam must be clean with low scale level

- **Weld types**
  - Fillet welds

- **Weld sizes**
  - 3/16" to 3/8" (4.8mm to 10.0mm)

- **Welding paths**
  - Linear

- **Welding progression**
  - Continuous and stitch (The stitch weld variables must be defined in the 3D model)

- **Number of passes**
  - 1-3 (single pass up to 8mm)
Why automate your plant?

The typical steel fabrication shop will spend up to 30% of the entire shop fabrication time on welding operations. Along with fitting, it’s the most labour intensive operation of the entire fabrication process.

Have you invested in automated equipment for beam and part preparation? It’s now time to bring your shop to the next phase: Robotic Welding.

Why automate your plant?

- Increased Production
  Automated production flow from CAD to production.
- Consistent Quality
  Robotic brings high-quality and repetitive results.
- Automatic
  No more labour shortage. Reassign current welders to complex tasks.
- Easy Implementation
  Small footprint with a modular design.
- Flexible
  Modular configurations. One or two zone operation. With or without rotators. Third and fourth station can be setup to be used for sub-assemblies.
- Adaptable
  Works with non-perfect parts. Welding program is offset to adjust to fitting tolerances. Joints are found by laser touch.
- Support
  On-site technical support. Offline 24th technical support.

Operation Mode: 3 Easy Steps

1. Load Beam
2. Load Robot Sequence
3. Execution of Robotic Sequence

Highly Efficient Rotators

- Feeding
- Cutting
- Marking
- Drilling
- Fitting
- Welding
  ø QC
  ø Painting
  ø Mat. handling
  ø Maintenance

Productivity x2

While the robot is busy welding in one zone, an operator can safely fit, tack and flip in the other zone.

Reliable Welding Robot

Robots were designed to work in harsh conditions for years with minimal maintenance.

Safe Operations

Laser curtains ensure a safe working environment for the operators.

Be in control

An easy-to-use interface is provided to build production lists and monitor the equipment performance.

Efficient Rotating Units

Automatic beam flippers ensure maximized productivity.

Job Planning & Reporting Software

- go.export
  - Export welds
  - Generate paths for the welding tool
  - Generate paths for the robot arm
- go.sequence
  - Generate the welding sequences
- go.robotpath
  - Generate paths for the robot arm

Increase Production

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