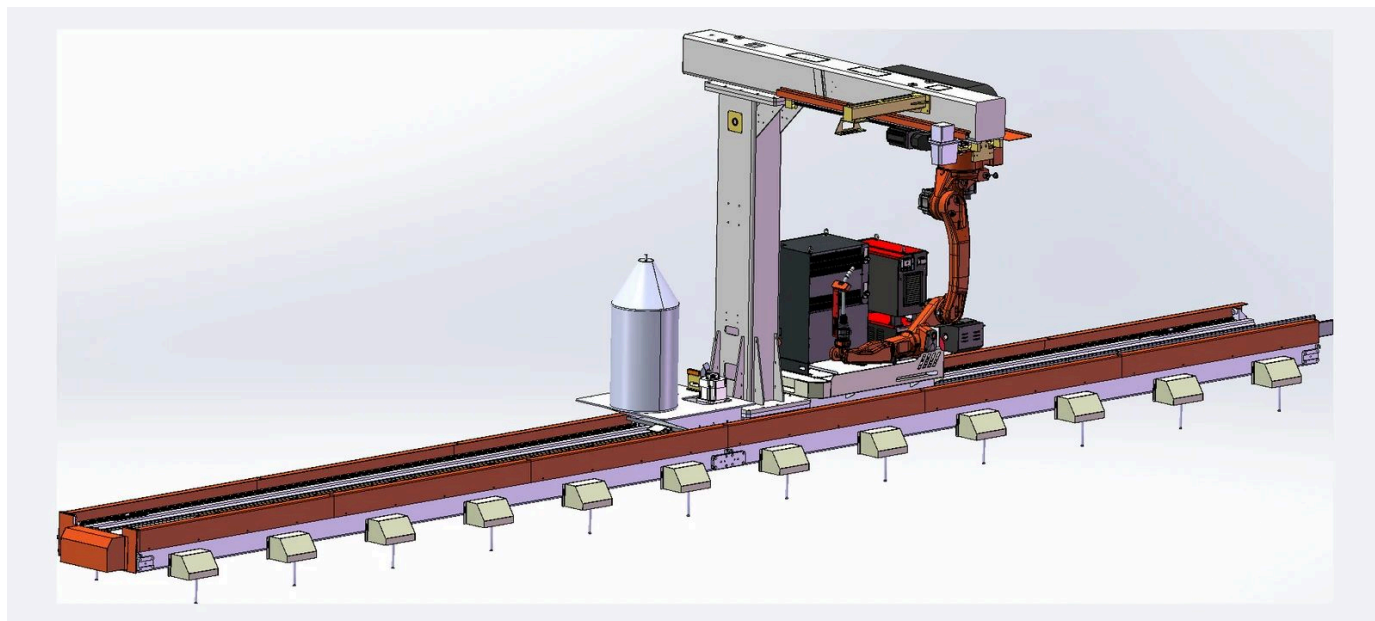


8-Axis Cantilever Welding Robot for Bridge Steel & Plates

Welds bridge plate units, diaphragms and wide stiffened plates up to 3,500 mm across — from a 3D model, or from a scan when there is no drawing.



The 8-axis cantilever layout.

Key figures

3,500 mm

Maximum component width

600 mm

Maximum stiffener height

12 m

Effective travel on the standard 15 m frame

1–5 days

Operator training time

Specifications

Item	8-Axis Cantilever Welding Robot
Component width	Up to 3,500 mm
Stiffener height	Up to 600 mm
Frame length (standard)	15 m
Effective travel (standard)	12 m
Robot reach	2,014 mm
Robot payload	6 kg
Robot repeatability	±0.08 mm
Frame material	Q355 steel
Welding process	GMAW: CO ₂ / MAG / MIG
3D model import	STEP, IFC
Programming	Teachless from the 3D model; reverse modelling from a scan when there is no drawing; parametric modelling; simple teach mode for special welds
Staffing	One operator runs 3–6 stations
Material	Carbon structural steel

Contact

Send drawings, a model or photos of the parts you want to weld for a free part evaluation.

<https://steelweldingrobot.com/8-axis-cantilever-welding-robot/>
sales@steelweldingrobot.com

8-Axis Cantilever Welding Robot for Bridge Steel & Plates

What it welds

- Bridge plate units
- Stiffened plates
- Wide planar assemblies
- Plate-unit diaphragms
- Plates with openings

Station configuration

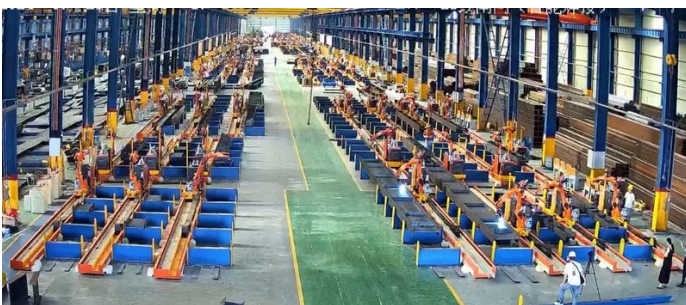
- **Cantilever frame** in Q355 steel, travelling along the station to carry the robot over the part.
- **Welding robot** mounted upside down beneath the cantilever.
- **Large laser line scanner** that captures the plate, locates the part and finds each seam before welding.
- **Teachless software** for model-based work, reverse modelling from a scan and parametric modelling.
- **Welding power source** with a structural steel process library.
- **QR code job loading:** scan the part label to load its model; the welded length is reported after each job.

Workflow

- 1 Load or scan the part**
Open the STEP or IFC model, or scan a stiffened plate that has no drawing — the software builds its model.
- 2 Plan automatically**
The software extracts the welds, takes parameters from the process library, plans the path and checks it for collisions.
- 3 Locate the part**
A laser line scan finds where the plate lies on the station and matches it to the model.
- 4 Find each seam and weld**
Before each weld the robot scans the seam to locate it, then welds from above.

Services

- Free part evaluation
- We reply within one business day.
- Book a live video tour, or visit our plants in China and operate a robot yourself.
- Software updates are free for the life of the station.
- Free Tekla Structures plug-in for batch IFC export



Rows of welding stations in our factory.

Contact

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