

# ROBO-WELD

FULLY AUTOMATED ROBOTIC WELDING CELL





50 +**Projects Completed** 









BOROSIL



adani

Power















Image: Second constraintMULTI ROBOTCOORDINATION

3D SEAM TRACKING

TP

ROBO-WELD

SELF PROGRAMMING

# THE SOLUTION

Gridbots Roboweld is automated Welding cell which incoporates 9 – 12 Axis rugged robotic arms and positioners to automate the task of batch welding with high accuracy and repeatability.

The system utilises high precision robotic arms with extended capabilities to achieve two objectives – First one being the high repeatability in the process and second is the cycle time for the process is drastically reduced. The multi-axis robotic arms can reach to places where its difficult to weld and scan and automates the complete process.

The system can operate fully autonomously and utilises state of art 3D image capture system to form the 3D structure of the objects to be welded. The system then self programs its trajectories to ensure optimum weld and finish.

## PERFORMANCE

9/12/15 Axis Platform	3 Linear/6/9/12 Rotary Axis
Linear Speed	Upto 0.1 M/Sec Weld Speed
System Dimensions	20x8x8 Feet/Customisable
Air Pressure Required	8 Bar@5CFM
Weld Weave Mode	Stringer Bead, Zigzag Weave,
	Circular Weave ,J-Weave,
	C-Weave, Figure-8 Weave,
	Wiggle or Oscillating Weave
Transport Capable	Yes - Via Truck

#### **CHASSIS**

Dimensions	20x10x10 Feet [LxBxH]
Weight	750 Kgs
Suspension	Passive
Ground Clearance	900 MM
Built Material	Mild Steel
Fume Extractor	Anti-500 Sp

#### **POWER SYSTEM**

Power Requirement Power Rating IOT System Power Consumption Performance Monitoring Powered Conveyor

### SAFETY

Curtain Sensors Interlocks Safety Lidar E-Stop Over Current Collision with Workpiece

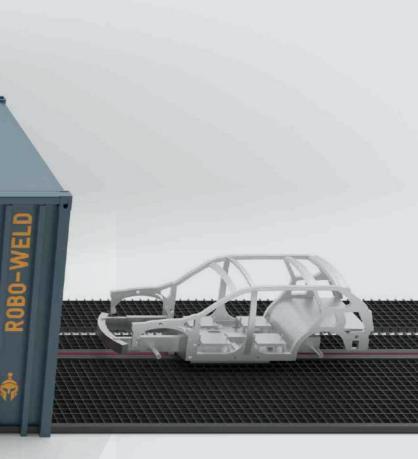
### **3D RECONSTRUCTION**

Technology

Model Accuracy 3D Capture Speed Physical to Digital Model Transfer

### ENVIRONMENTAL

IP Rating	
Temperature	
Humidity	



Single Phase +3 Phase AC Upto 3 Kw System Yes - Health and Performance Monitor Metered and Monitored Active [IOT Based] Servo Driven + Jigs

4 Laser Curtain
All Axis
2x [SICk or Equivalent]
4x
Yes - All Axis
Yes - TOF Based - On TCP

Stereo Vision/ Optional TOF Sensor/ Optional Laser Projector +-5 mm 1 Cubic Meter per minute Yes- Direct Capture to CAD to CAM Module

# **GRIDBOTS TECHNOLOGIES PVT. LTD.**

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