

# SR760

**BIG IMPACT SMALL SPACE.**

Single Rail | Automated Fabrication System



# WHAT IS THE CHALLENGE?

Finding skilled welders has become increasingly difficult in today's labor market, posing challenges for many companies in the production process.

The aging workforce exacerbates this issue, with numerous experienced welders nearing retirement age. Being in the structural business since 1965, Zeman understands that welding is an occupation that involves potential hazards when safety measures are overlooked, such as electric shock, overexposure to fumes and gases, arc radiation, fire and explosion. It is also a physically demanding occupation that can involve prolonged standing, heavy lifting, and uncomfortable working positions which can contribute to worker fatigue and injury.



WORKERS NEEDED FOR COMPLEX JOBS



HIGH RISK OF ERRORS



TIME/COST INTENSIVE



HEALTH AND SAFETY ISSUES

Many automation solutions counteracting labor shortages are often too big for existing workshops.



The SR760 system assembly line has a reliable design for harsh ambient conditions and compact spaces to provide you with consistent welding quality.

# THIS IS OUR SOLUTION FOR YOU.

Based on Zeman's first Steel Beam Assembler built in 2010, Zeman developed the SR™ 760 system, a single railed version, designed to meet the demands of any fabricator, regardless of size.

This single-rail and space-efficient system automates complex welding jobs to help increase weld productivity, safety, and quality. Choose from three different options based on your automation needs.



MAKE IT A  
ONE-PERSON JOB



REDUCE ERRORS  
& INCREASE QUALITY



SAVE  
VALUABLE TIME

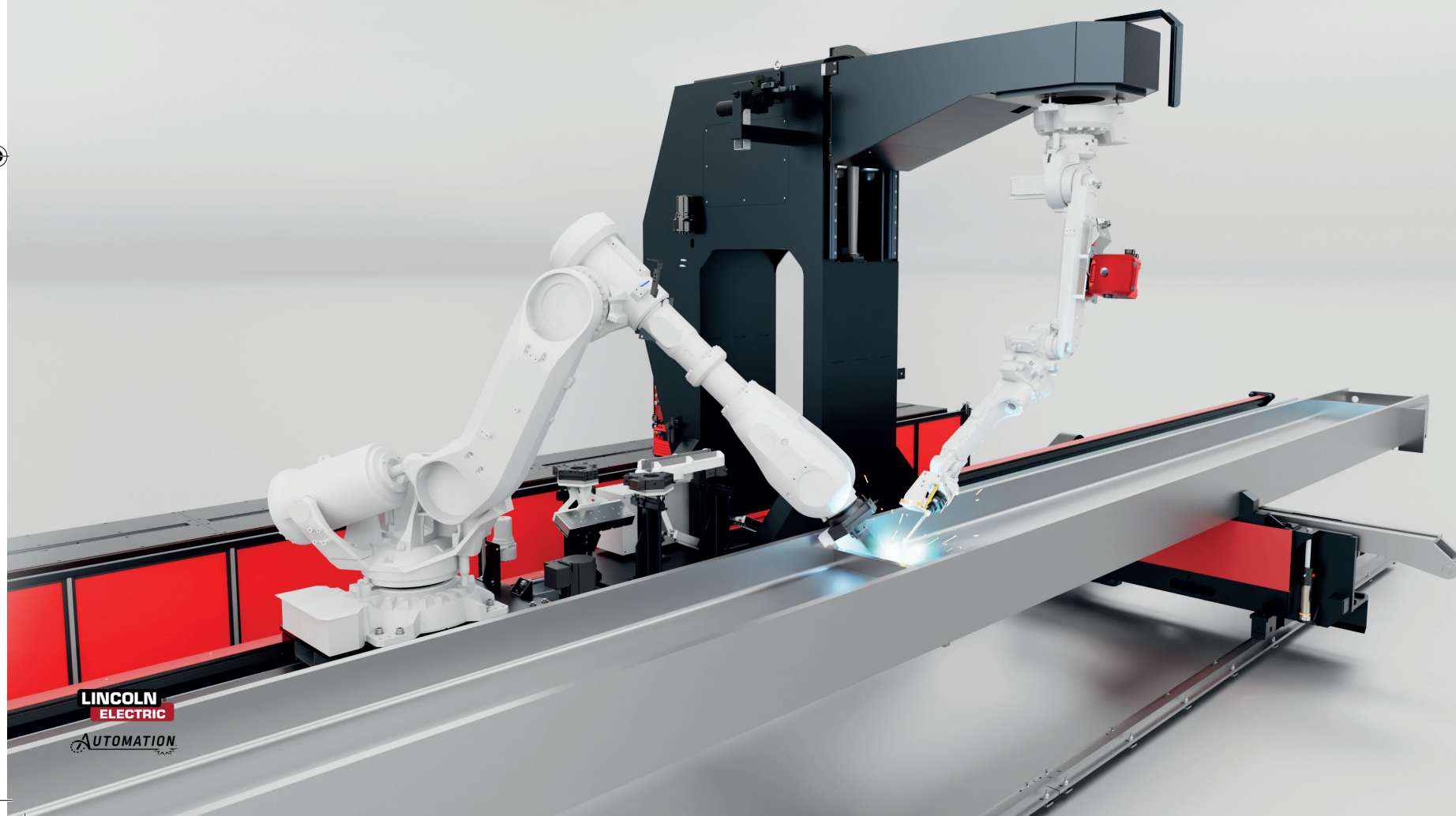


IMPROVE  
SAFETY STANDARDS



# CUTTING-EDGE ROBOTIC WELDING.

Whether you have to assemble or just weld out beams, this versatile cell utilizes the same work file for seamless integration. It can handle large volumes of steel with precision, and its torch-mounted laser measurement offers pinpoint accuracy by identifying the zero reference point.



**LINCOLN  
ELECTRIC**

**ATOMATION**

# SR 760 VALUES.






# STAGES OVERVIEW






“WHAT ARE THE DIFFERENCES & UPGRADE OPTIONS?”

STAGE CONFIGURATIONS	01	02	03
EASY TO USE	✓	✓	✓
BUDGET FRIENDLY	✓		✓
EFFICIENT WORKING	✓	✓	✓
UPGRADE AT ANY TIME	✓	✓	✓
INDEPENDENT INSTALLATION	✓	✓	✓
MATERIAL HANDLING		✓	✓
PART VERIFICATION			✓
ROBOTIC PART ASSEMBLY			✓

## PART DETAILS

BEAM	TUBE	CHANNEL
		
<b>min. 80 mm</b> 3.15 inch - <b>max. 400 mm</b> 15.7 inch	<b>min. 80 mm</b> 3.15 inch - <b>max. 300 mm</b> 11.8 inch	<b>min. 80 mm</b> 3.15 inch - <b>max. 110 mm</b> 4.33 inch
<b>150 - 760 mm</b> 5.9 inch - 29.9 inch		<b>220 - 400 mm</b> 8.66 inch - 15.7 inch
<b>Maximum material weight of 5000kg / 11.000 lbs</b> <b>Maximum material length of 12 [15m] [18m] / 40 [50] [60] ft</b>		

## WELDING DETAILS

Welding System	MAG
Type of Welding	 Fillet
	 Groove
	 Partial Penetration
Welding Wire	G3Si1
Single - Layer Welding Seam Size	 3/16" - 5/16"
Multi - Layer Welding Seam Size	 7/16" - 12/16"

**“CAN I HAVE A LOOK AT THE SR 760 SYSTEM IN ACTION?”**  
**YES.**

**See for yourself on-site!** Get in touch with our sales team to schedule a live demo near you. Alternatively, take a Virtual Factory Tour here: <https://lincolnelectriccutting.com/virtual-factory>



# SR STAGE 01

BASE STAGE

## CONSISTENT WELDING QUALITY

Sequence welds to prevent heat distortion.

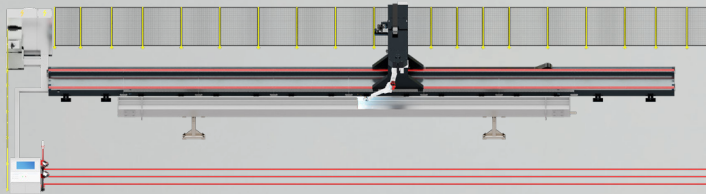
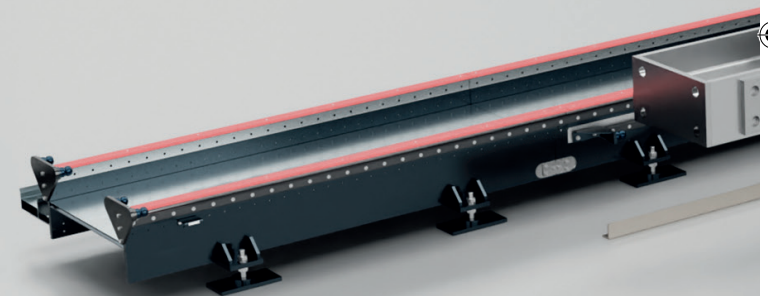
BASE STAGE

## AUTOMATED SOFTWARE PROCESS

The ProFit™ software makes robotic beam welding simple and streamlined.

## UPGRADE OPTIONS

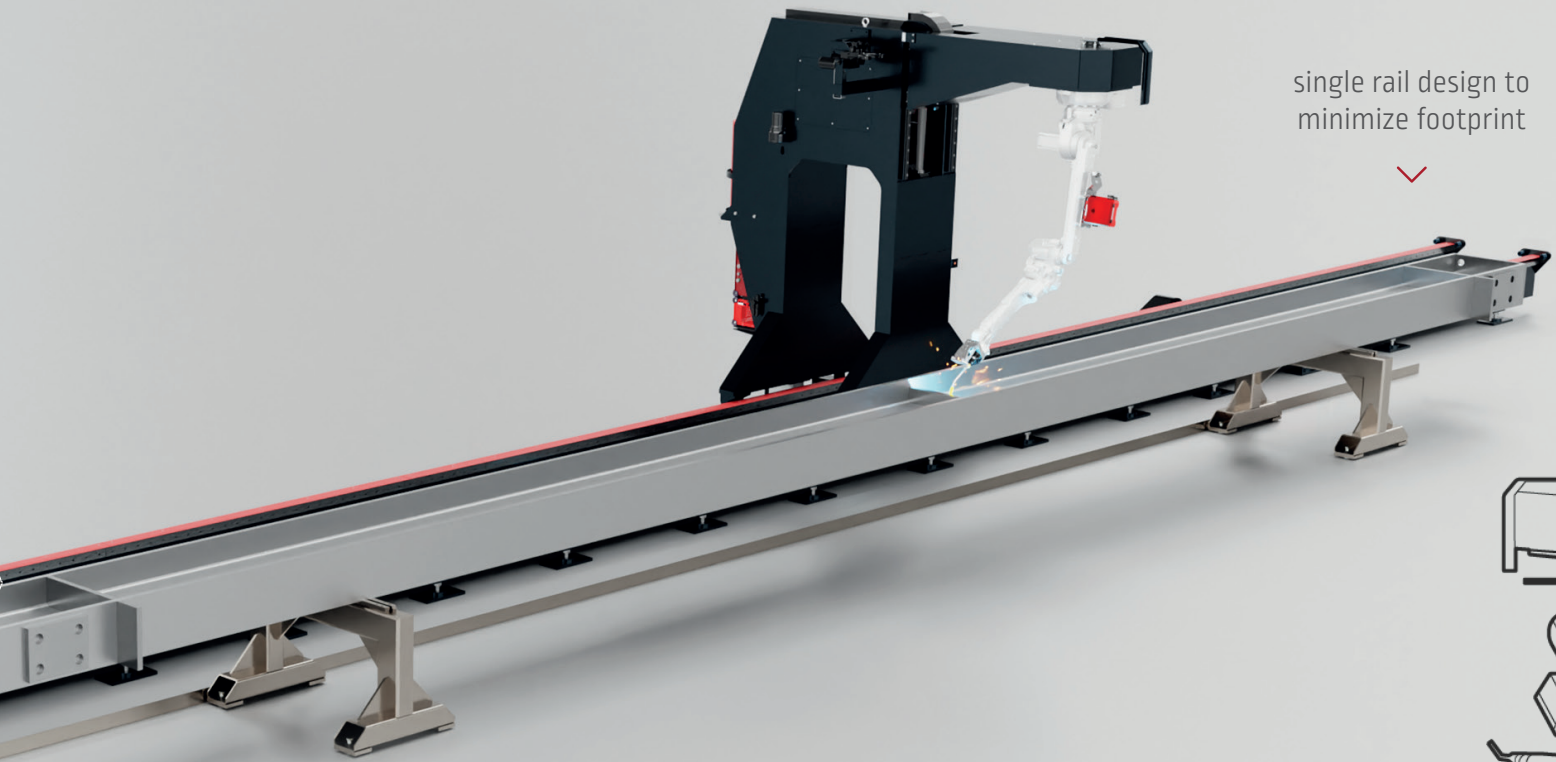
You plan to be more automated in the future? Not a problem, upgrade any time.



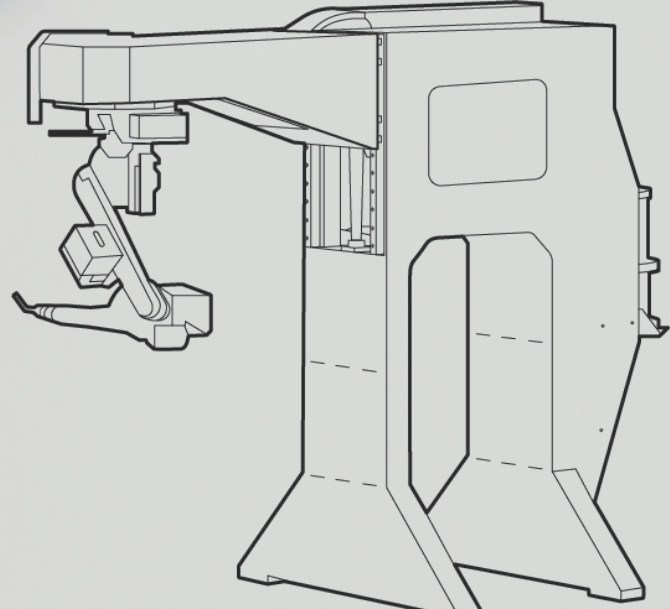
only one operator  
needed >







single rail design to minimize footprint



**SYSTEM INCLUDES**

- Welding Tower & Robot
- Multipass Welding
- Camera System
- Vision System
- Operating Software
- Control Panel
- Safety Equipment



# SR STAGE 02

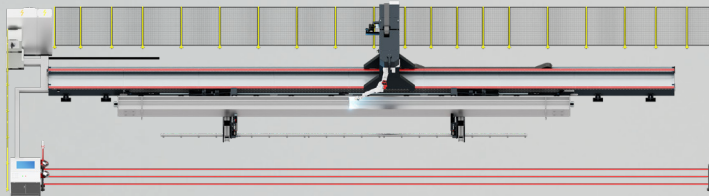
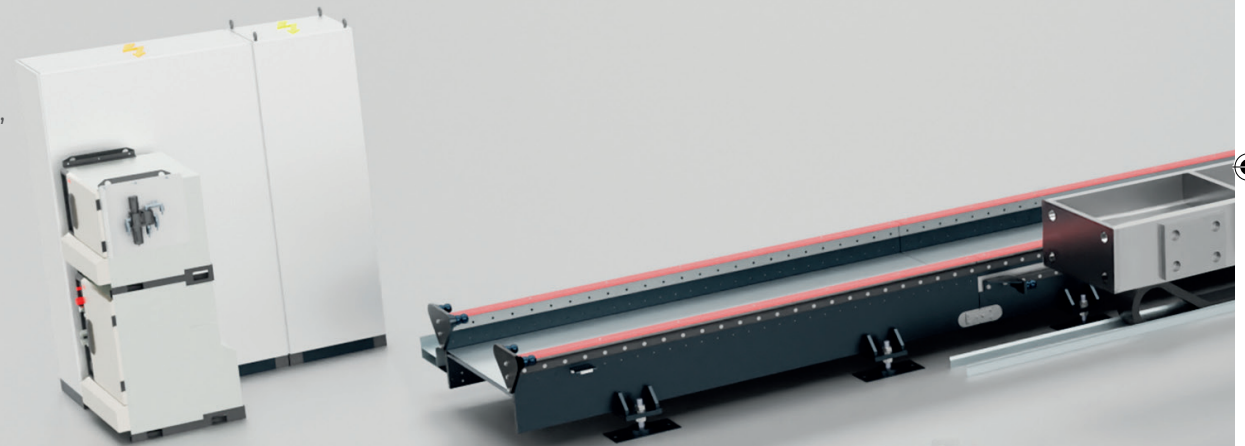
## STAGE 02 UPGRADE

### FLIPPER

Integrated profile turning devices rotate the main profiles as needed for welding on all sides of the material.

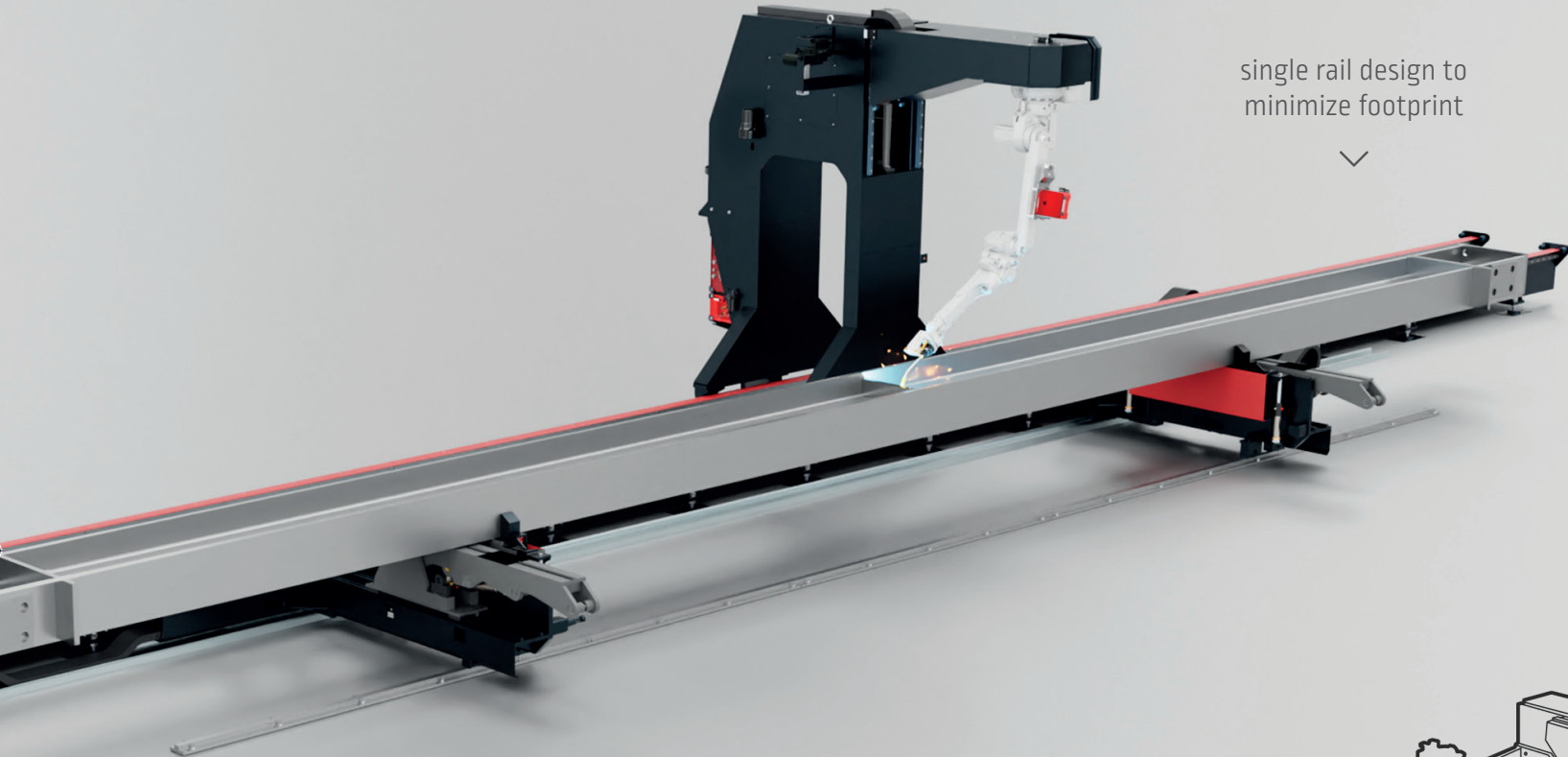
### INCLUDED OPTIONS

Stage 02 Welder includes all options mentioned in Stage 01. You plan to be more automated in the future? Not a problem, upgrade any time.



only one operator  
needed >

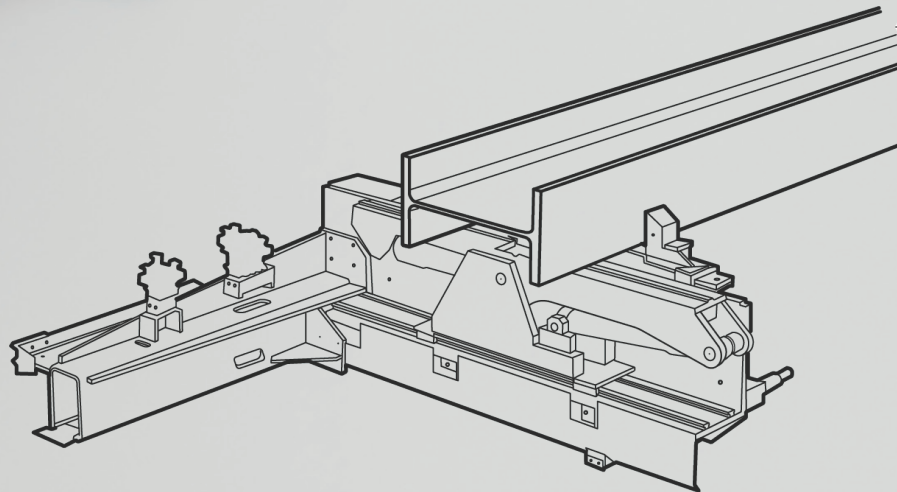




single rail design to minimize footprint



STAGE 02 UPGRADE  
automatic beam handling



**SYSTEM INCLUDES**

- Welding Tower & Robot
- Multipass Welding
- Camera System
- Vision System
- Operating Software
- Control Panel
- Safety Equipment

+ Set of Flippers



# SR STAGE 03

The stage 03 is the most advanced option. Additional upgrades available upon request.

STAGE 03 UPGRADE

## SCANNER AND TABLE

Auto-verifies parts and feeds them through the system.

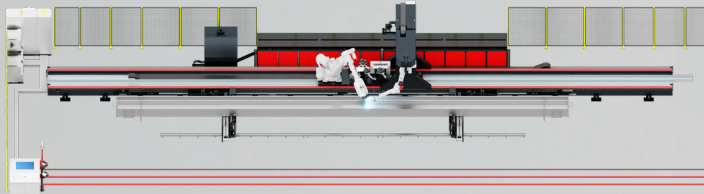
STAGE 03 UPGRADE

## HANDLING ROBOT

Positions the part to the desired position.

## INCLUDED OPTIONS

The Stage 03 Welder includes all options mentioned in Stage 01 and Stage 02.



STAGE 03 UPGRADE

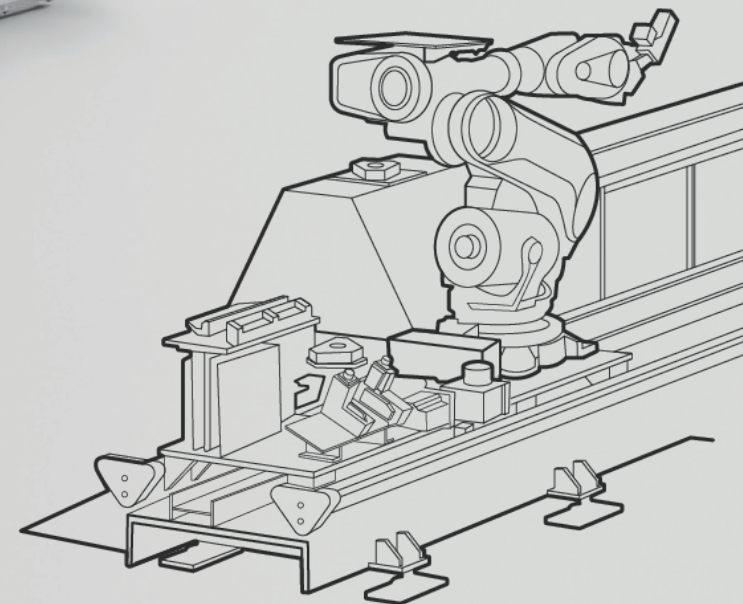
automated part scanning >

only one operator needed >

STAGE 03 UPGRADE  
automated material  
handling

single rail design to  
minimize footprint

automatic beam  
handling



### SYSTEM INCLUDES

- Welding Tower & Robot
- Multipass Welding
- Camera System
- Vision System
- Operating Software
- Control Panel
- Safety Equipment
- + Set of Flippers
- + Scanner and Table
- + Handling Robot





# OUR SOFTWARE SETS US APART.

With every purchase, we are proud to provide you with our user-friendly ProFit™ Software. The mastermind and gamechanger of this industry.

The ProFit software makes robotic beam welding simple and streamlined. Our software intuitively helps the operator throughout the process, from importing and creating to editing, producing a completed product every time. Machine learning or programming is not necessary.

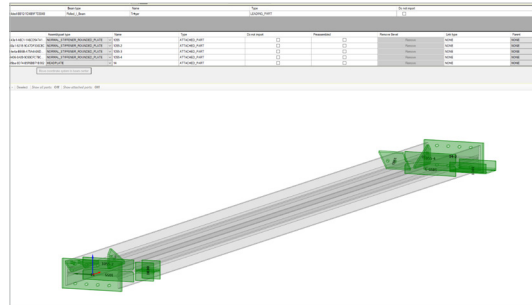
The whole workflow is seamlessly generated by the software, which is compatible with standard 3D software such as Tekla®, SDS2®, Bocad®, Autodesk® Advanced Steel, etc.

## AUTO-GENERATION

The auto-generation bot feature automates the file creation process for selected carriers. The bot performs all the necessary steps and clicks, eliminating manual inputs for time-saving results.

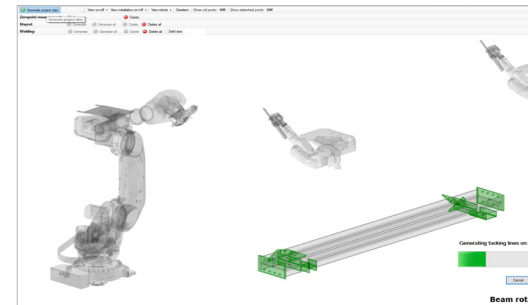


# THE PROFIT SOFTWARE.



## 1 UPLOAD AND IMPORT DRAWING

Load any ProFit compatible CAD file from your computer and click "import". Your beam will be instantly displayed on the screen.



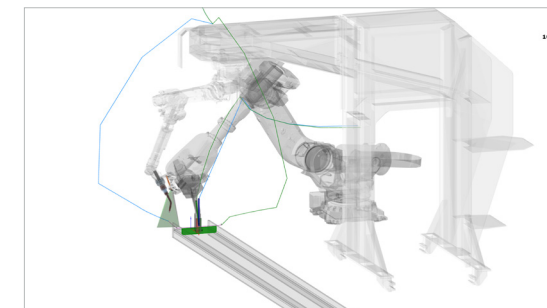
## 3 GENERATE PROJECT DATA

Prepare all necessary jobs by pressing one button. Effortlessly generate Magnet, Tacking, Welding and Measurements. Further adjustments can be done manually as stated in steps 4, 5, and 6.



## 2 DEFINE GRIP POSITIONS

The Smart Welder's integrated flipping devices rotate the beam for all-sided welding. Click, drag, and drop them to position on the beam. If there's a collision risk with other parts, the device turns red; adjust it until it turns green, indicating no collision risk.



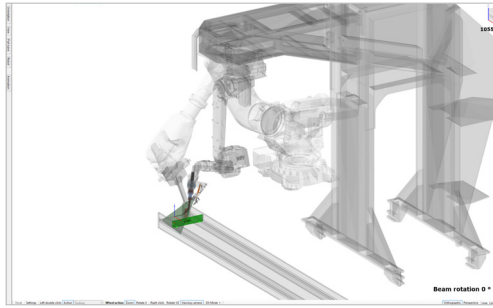
## 4 CREATE MAGNETS

Depending on the size of the parts, the magnet will automatically adjust itself to accommodate the weight (up to 440 lbs / 200kg). You will have an exact overview on how the magnet will handle each part and will have the ability to change the settings.



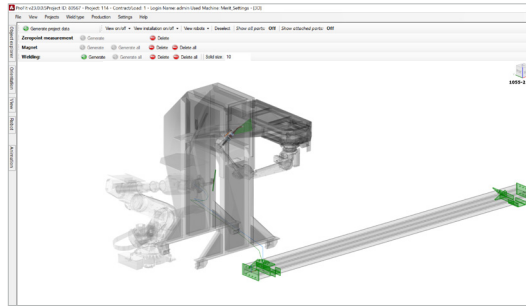
# 5 SET TACKING POINTS

To program each tacking point automatically, click "Set all tacking points". The software will recommend a location for each tack. Tacking points can be manually adjusted, deleted, moved, or resized if necessary.



# 7 TEST RUN

By clicking "Production generate" after all adjustments have been made, the program will detect any potential collisions or errors. If there is any risk of collision or error, an orange warning message will appear. If there are no risks, all fields will turn green.



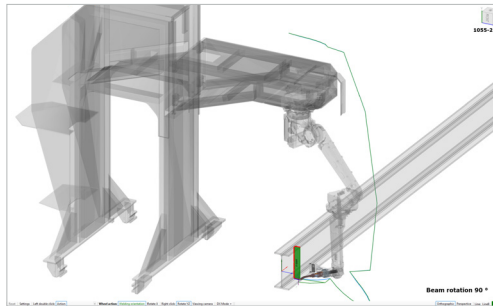
# 9 GO TIME

Once all errors have been corrected, the program is ready for production!

Order	AP's name	Assembly part	Magnet measurement	Pick job	Add job	Tack job	Pulout job	Tack List
14								
2	14.2	001	OK	OK	OK	OK	OK	
3	1055-2	004	OK	OK	OK	OK	OK	
4	17	011	Warn 1095.2	OK	OK	OK	OK	
5	1055-4	006	OK	OK	OK	OK	OK	
6	17.2	012	Warn 1055.3	OK	OK	OK	OK	
7	1030	003	OK	OK	OK	OK	OK	
8	1055	001	OK	OK	OK	OK	OK	
9	1055-3	005	OK	OK	OK	OK	OK	
10	1102	010	OK	OK	OK	OK	OK	
11	1103	009	OK	OK	OK	OK	OK	

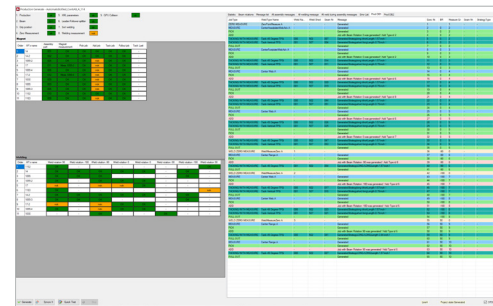
# 6 SET WELDS

To automate each weld automatically, click "Generate all". The software will recommend a location for each weld which can be manually adjusted, if necessary.



# 8 REVIEW WARNINGS & CORRECT ERRORS

Click on each individual error message to display a visual of the detected risk. Assess and adjust each warning message until it turns green and is no longer at risk of collision.



# ZEMAN SERVICE & SUPPORT.

With every machine bought from Zeman, you get the peace of mind that our expert engineers are available to support your operations.



## WE PROVIDE FULL SUPPORT **WORLDWIDE**

- ✓ 24/5 remote support
- ✓ Fully trained field service engineers
- ✓ Fast spare parts fulfillment
- ✓ Online courses and trainings

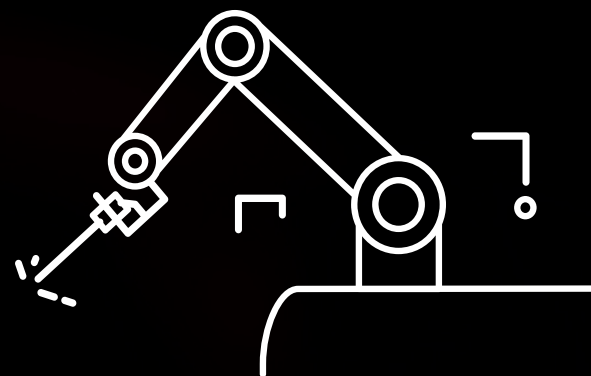
# JOIN THE INNOVATIVE WORLD OF ZEMAN MACHINES!

Custom state-of-the-art tailored solutions set us apart from the rest.

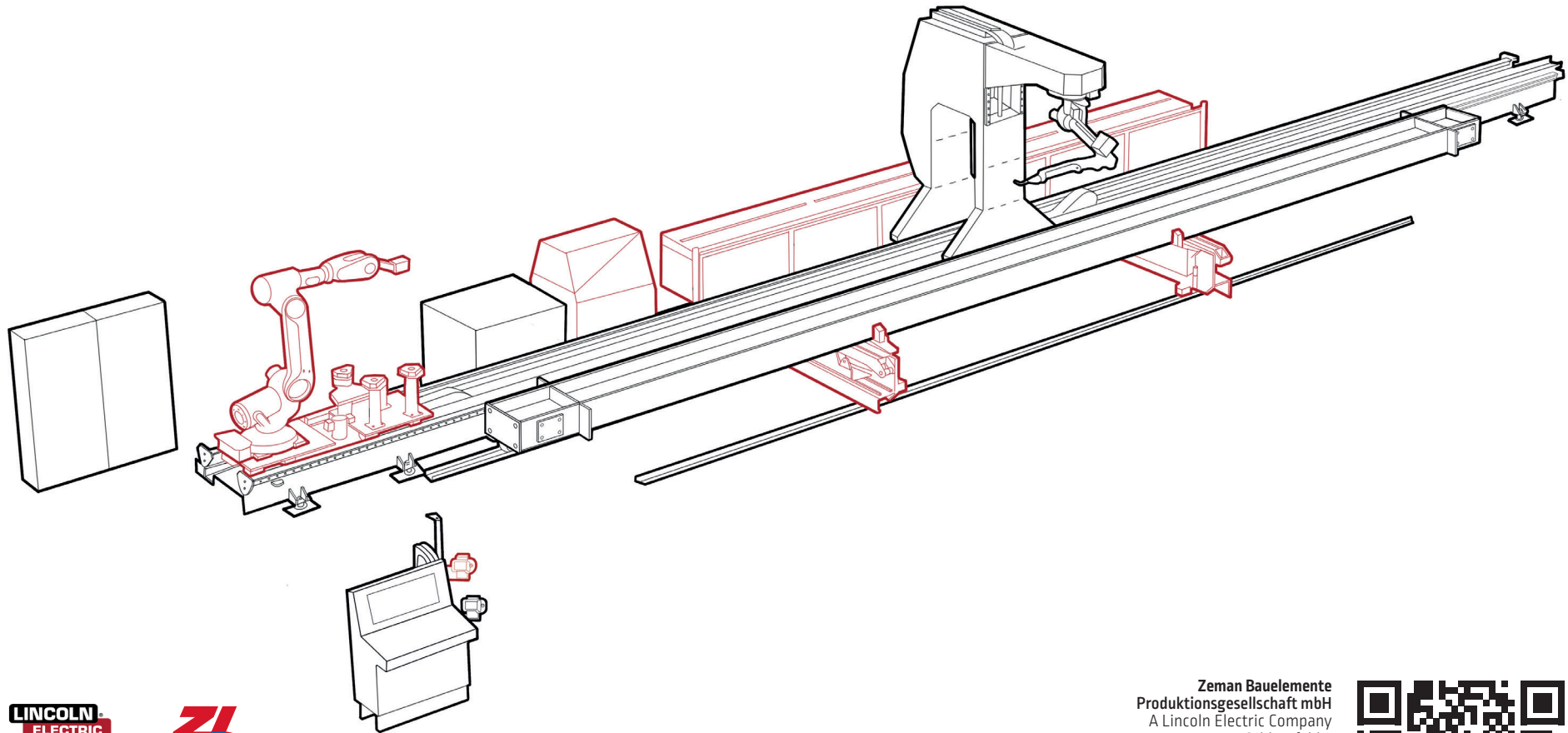
WE COLLABORATE WITH OUR  
CUSTOMERS TO DEFINE **THE RIGHT  
SYSTEM FOR THEIR NEEDS.**

We pay attention to:

- ✓ Given surroundings and onsite conditions
- ✓ Your future expansion plans
- ✓ Process implementation



# TAKE EFFICIENCY TO THE NEXT LEVEL.



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