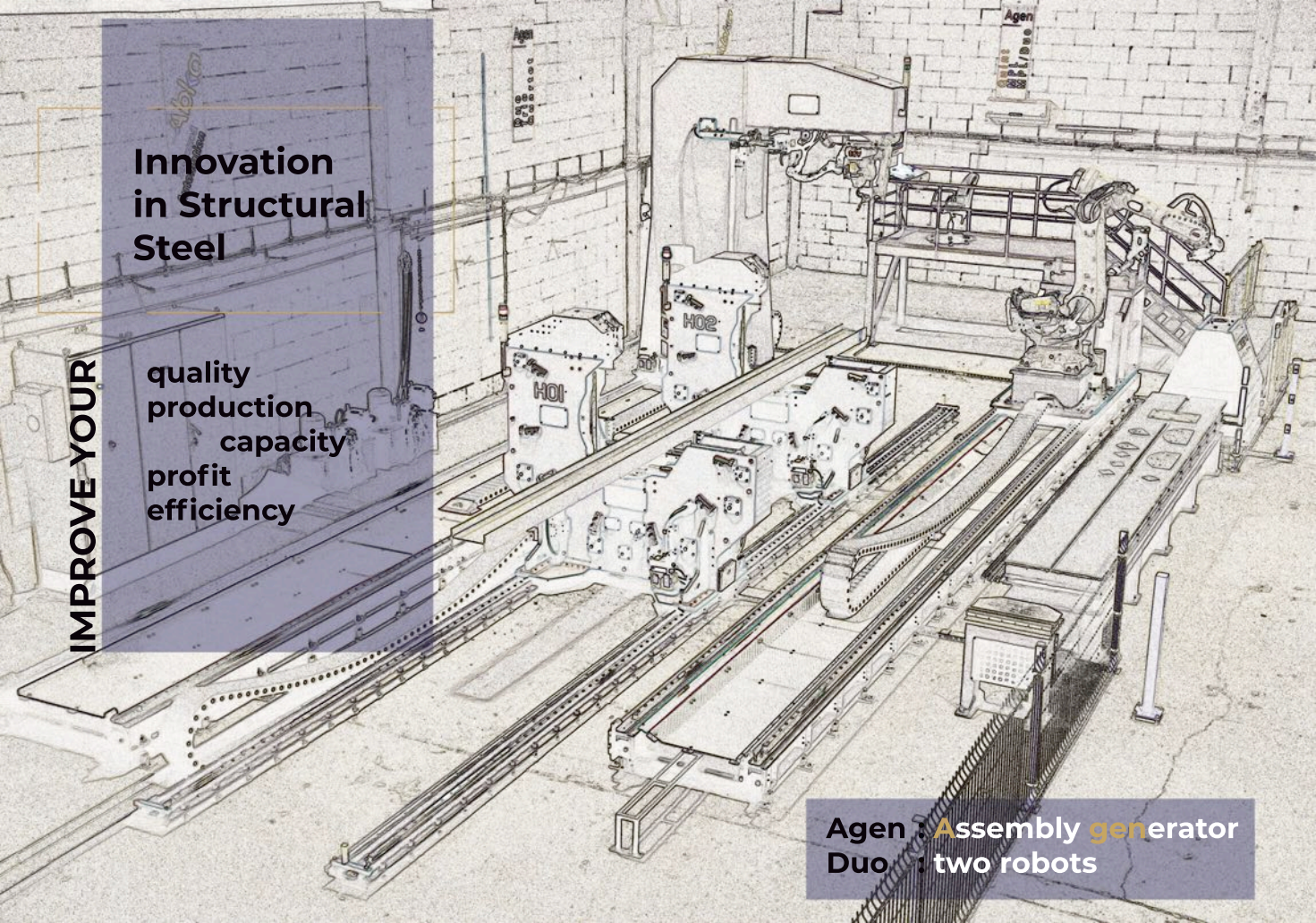




Robotic
Structural
Steel
Assembler

AGEN
— D U O —

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Innovation in Structural Steel

IMPROVE YOUR

quality
production
capacity
profit
efficiency

Agen : Assembly generator
Duo : two robots

AGEN

Automation
D U O

Hydraulic Units

Main Cabinet

Rotators

Welding Tower

Operator Platform

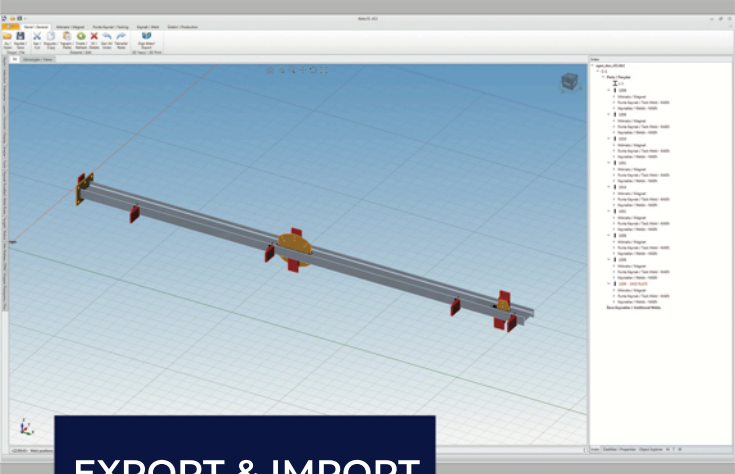
Handling Robot

Scanner

Scan Table

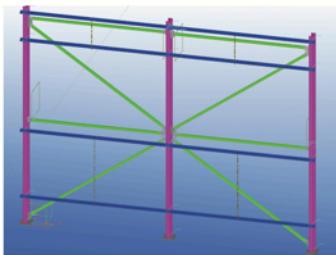
Flip Device





EXPORT & IMPORT

Our software makes it simpler...



Export your BIM/CAD model from TEKLA, SDS/2, Advance Steel etc. with our export module.

Abka01, our design software, automatically finds the magnet, tack and weld positions. Optionally stud weld positions, too.

Also it has advanced collusion check algorithms. For most of the assemblies, total process is only takes couple of minutes. You can not only add, delete, stretch, change thickness of welds but also change weld parameters as well. It's that easy.



SCAN

Place plates, angles, and profiles on the table. Robot picks the scanner and scans the whole table. At the same time, beam scan process starts and it validates the main profile by checking it's width and length. After scanning process, our software starts auto-matching process. Our software creates work orders, and robot flips the plates automatically, if necessary.





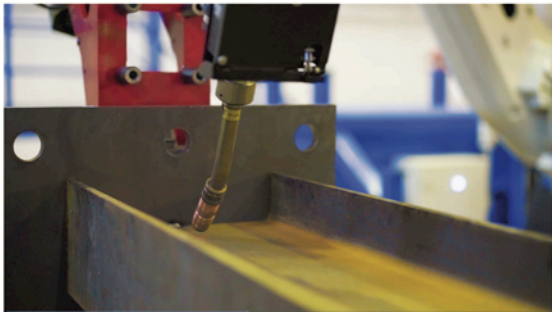
FIT & TACK

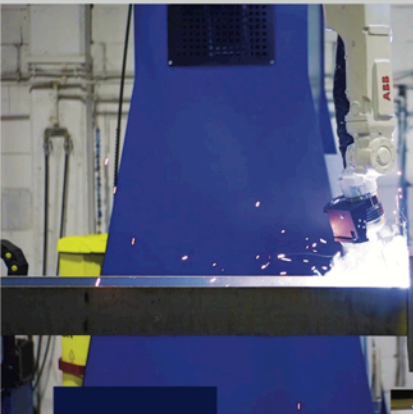
Fit and tack process is totally an unattended process. High precision sensors detect the right spot to tack weld.

Up to 150kg (200kg is optional) plates can be mounted on main parts.

Before fitting, deformation on the beam is calculated and measured, so it fits to the right place. Total fitting tolerance is $\pm 1\text{mm}$.

The new era for fitting.

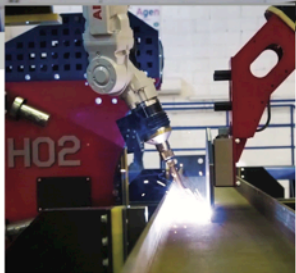




WELD

High quality welds.

Esab power source is industry leader in it's field. Weld Cloud let's traceability in an easier way. From a3 to a6 single layer, a6 to a15 multi layer weld thicknesses can be achieved. Also tandem torches are supported. It's much faster than conventional methods. Torch cleaning unit, cuts wire, cleans the nozzle, sprays anti-spatter spray and calibrates the torch automatically. Welds are second to none.



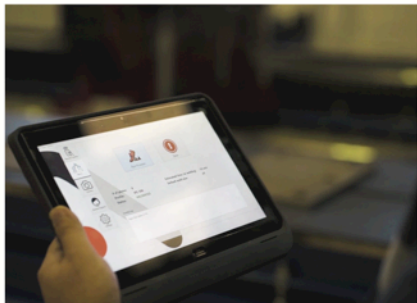


BENEFITS

Agen Duo, with two industrial robot, can boost your production. It's much faster compared with conventional fit&weld process.

It's flexible, so it can easily be converted to Agen Trio. All the softwares running, is developed by our company Abka. So new options can be added easily.

Increase your competitiveness and quality...



AUTOMATED
FAST
EFFICIENT
FLEXIBLE
ACCURATE
CONVENIENT

TECHNICAL SPECIFICATIONS

Industrial Robots:

ABB Handling Robot	- 200kg payload
ABB Welding Robot	
18 meter linear track	- 2 piece

Robotic Welding Power Source:

Fronius / ESAB 500 Amper Water Cooled Power Source - Synergic

Wire diameter	- 1.2mm - 1.6mm
Torch bend angle	- 22 degree
Big pack wire capacity	- 250kg
Weld Shield Gas	- Ar + CO ₂ %5 / Ar + CO ₂ %18

Torch Cleaning Unit:

Wire cutting, rimming, anti-spatter	Included
Torch measurement and calibration	Included

Plate Table:

Table dimensions	800mm x 8.000mm
Plate flipping	Included

Plate Laser Scan Unit:

Tolerance	± 0.50mm
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Laser Touch Sense:

Linearity	0.4mm
Max. distance	750mm

Rotator / Positioner:

2 piece	
Maximum capacity	6.000kg

Magnet Tool:

Mag No.0	20kg	- Optional
Mag No.1	70kg	- Included
Mag No.2	200kg	- Included

Operator Panel:

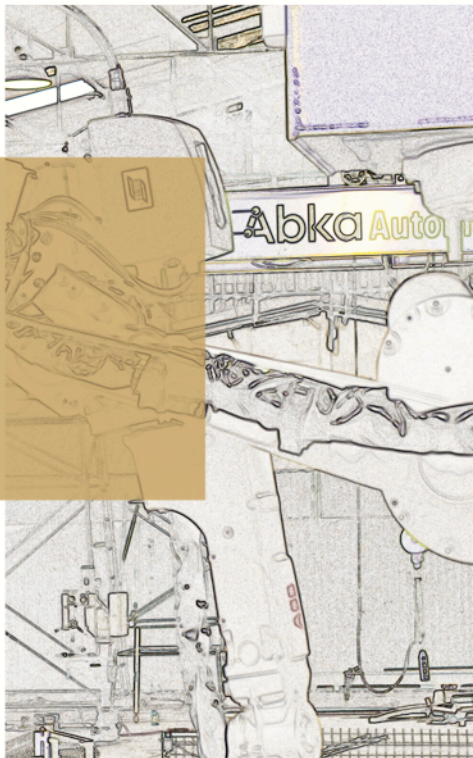
24" multi touch screen

<u>Profil Type</u>	<u>Min. Dimension (mm)</u>	<u>Max. Dimension (mm)</u>
H profiles	120 (4")	1100 (43")
W Profiles	W4x13	W30x391
I profiles	120 (4")	1100 (43")
Box sections	100	600

OPTIONS

Second Weld Tower - Agen Trio Prep.	Optional
1.500mm profile height	Optional
15.000mm profile length	Optional
18.000mm profile length	Optional
Magnet for small parts – Mag No.0	Optional
Corner frame application	Optional
Angle profile processing as ADD part	Optional
Additional workplace license or add. CAD support	Optional
Lights-out manufacturing - Full Remote Control	Optional
Pre-heating unit	Optional
Infeed conveyor	Optional
Outfeed conveyor	Optional
Fronius weld power source instead of ESAB	Optional

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the future
together.



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