

MAGNA 3D

Gantry High Frequency Welder

for tensile structures, membranes, tents, high speed doors etc.

MAGNA 3D Gantry HF Welder has output power of 10-25kW, pneumatic press, automatic PLC steering control. The machine is suspended from a gantry-system that is designed (height and width) according to conditions and requirements of each manufacturer factory. It is equipped with a true 360°+ rotation function. The dimensions of the welding/work table are custom made in accordance with the welding electrode length. Machine allow open and easy access to the work table and the welding head.



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HF Welders - Impulse Welders - Heat Sealers - Boxmakers - Die Cutters
Thermoformers - Hydraulic and Pneumatic Presses - Custom machines

CE  Made in EU



Welding head drive

- Servomotors based welding head robotic drive with APEX planetary gears
- HIWIN linear guides for effective and precise movement
- Ability to set weld head track movement along any X,Y axis parameters
- 4 standalone support pillars independent of work table
- Movement controlled by servomotor
- Precision of positioning $\pm 0,5$ mm

Rotation of welding head

- True 360°+ degrees rotation with preset zero starting point (-90°/+270°)
- Rotation movement controlled by servomotor with precision of positioning $\pm 0,5^\circ$
- X,Y position on work table controlled by multipoint encoder

Applications

- Large format technical textiles
- Tensile structures, tents, shade systems, truck covers and side curtains
- Swimming pool liners and covers, oil booms, flood dams and water tanks
- Airport hangars, portable storage structures, containment pools, ground liners
- Advertising signs and large format billboards, high speed doors

Features

- 10" HMI with color touch screen
- Remote HMI - handheld iPad AIR, ability to connect up to 5 independent touch-pads
- ZTG WeldSave™
- Unlimited number of saved recipes
- Storing weld parameters on USB
- Password secured multilevel editing of weld settings
- ZTG iCOM™ internet interface
- VNC Server - machine control from web browser
- ZTG ATStm™ autotuning
- ZTG SafeDOWN™ - anti-crush electrode motion safety system
- Pressure Logic System PLS™
- Manual or automatic weld cycle
- Fully programmable work and output power
- ZTG AntiFlash™ - solid state anti-flash
- Laser guide projectors (optional)
- Keder welding assembly (optional)
- FLEXel™ flexible electrode (optional)
- One or two sides trough for fabric (optional)
- Fully CE, FCC compliant, EMC tested

MAGNA3D
GANTRY STYLE HF WELDER

Custom built tooling and electrodes available upon request. Each machine is built according to customers needs. Parameters can be modified or adjusted - if required - at additional cost.

Technical specification	Magna 3D 10 kW	Magna 3D 15 kW	Magna 3D 20 kW	Magna 3D 25 kW
HF output power	10 kW	15 kW	20 kW	25 kW
Weld surface (up to 40cm ² from 1kW)	≤400 cm ²	≤600 cm ²	≤800 cm ²	≤1000 cm ²
Installed power	15 kW	22 kW	30 kW	38 kW
Power supply	3x400 V ; 50Hz			
Main fuse	32 A	40 A	40 A	50 A
Working frequency	27,12 MHz $\pm 0,6\%$ Hi-Q Gen5 HF Generator			
Electron tube	air cooled metal-ceramic triode			
Antiflash system	ultra-fast solid state ZTG AntiFlash™			
Autotuning system	standard, ATStm™			
Control system	PLC and 10" touch screen HMI			
Electrode length	1500 mm			
Push down pressure	1600 kg		2400 kg	
Push down pressure regulation	280 - 1600 kg		350 - 2400 kg	
Electrode stroke	10 - 160 mm (ability to stop at any height)			
Space behind electrode axis	open 360°			
Cooling system	liquid chiller (30-60°C)			
Working table size	custom made (eg. 2500mm x 8000mm)			
Air consumption	max. 60nl/cycle			
Electrode tool-holder	fast clamping system			
Welding electrode drive	pneumatic cylinder			



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60 YEARS STRONG
1957-2017

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