

Solid Weld



Solid Weld

Solid Weld s.r.o.

Oldřicha Blažka 250
679 02 Rájec Jestřebí
Czech Republic
Phone: +420 777 598 600
E-mail: travnicek@solidweld.cz
www.solidweld.cz

**Business and Service Representation
in the Slovak Republic**

SOLID WELD SLOVAKIA s.r.o.
Kratinová 71, 036 08 Martin
Slovak Republic
Phone: +421 905695343
E-mail: solidweld@solidweld.sk
www.solidweld.sk

... when quality matters

CNC Burning Machines

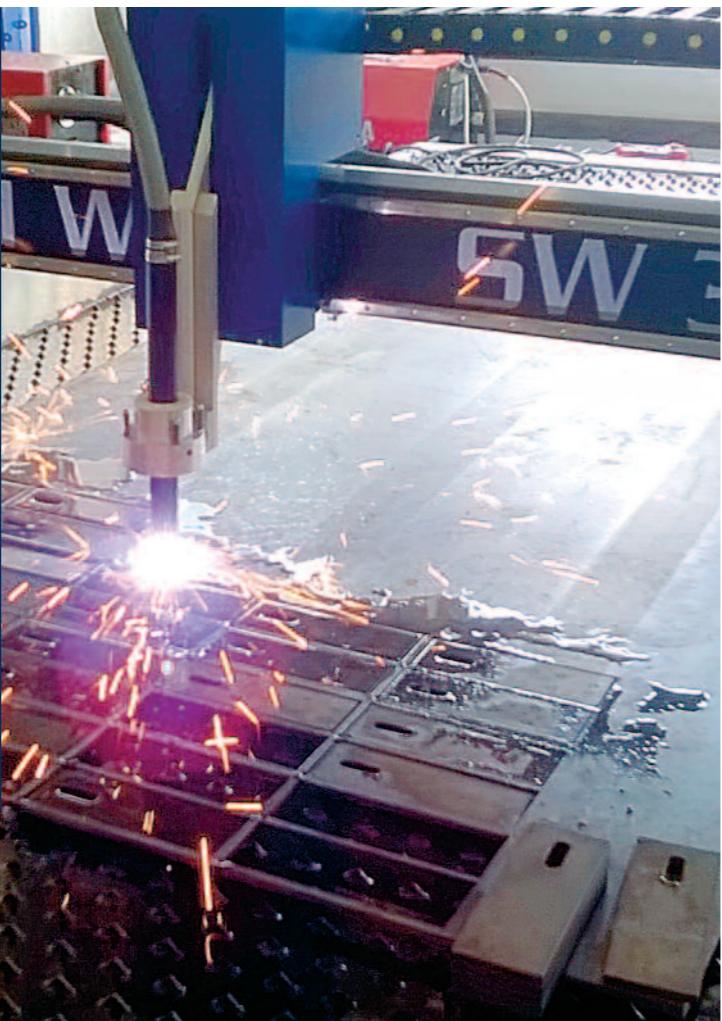
Solid Weld s.r.o. is a young, dynamically developing czech company which deals with development, manufacturing and sale of CNC plasma burning machines.

We apply our own innovative solutions in the key technological areas and thus bring a significant rejuvenation to the burning machine market.

The solution offered to our customers is financially attainable solution with excellent quality that used to be missing on the czech market.

Customers satisfaction is our priority, we are not a "sell and forget" organisation.

Individual approach is preffered, that us why we fully focus on needs and requirements of each individual customer, which we implement professionally and precisely.



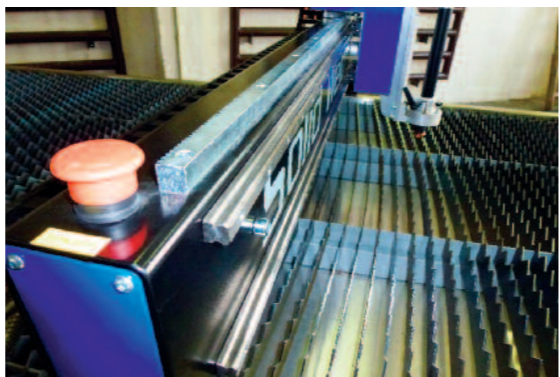
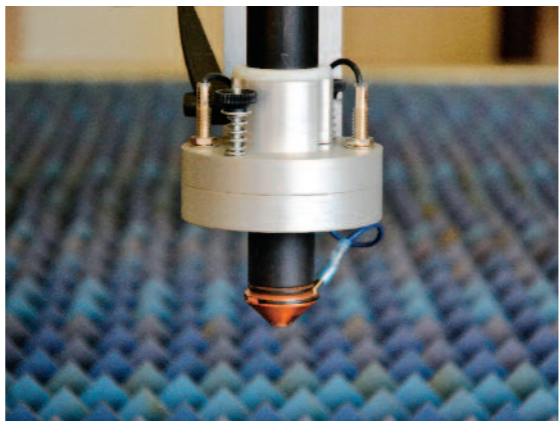
CNC Burning machines

Our burning machines are compact, advanced and high efficient CNC plasma burning machines for thermal cutting of electrically conductive materials.

During the manufacturing, great emphasis is given on usage of quality materials and components from prestigious world-renowned manufacturers while also maintaining favorable price of the final product.

Machine can be manufactured in three different variants according to customers requirements – EASY, SEMI or PROFI.

Our machines are best suited for light to mid size manufacturing plants.



EASY Variant

- Compact construction
- Massive welded frame
- Dimensions of the cutting table are 1x2 m – 1.5x3 m
- Cutting table
 - water tank (grate is submerged in the water without air suction)
- Linear lead on all axes for more solid and precise movement
- two-sided portal propulsion
- 3 Stepper motors with planetary gears and rack and pinions are used for propulsion
- Positioning precision of 0.2 mm
- Positioning velocity up to 10 m/min
- Cutting speed up to 7 m/min
- Grate made from steel lamellas submerged in water
- table (no need for fume extraction)
- The THC technology for automatic Torch Height Control
- Laser Pointer – torch position indicator
- Torch anticollision system
- Control console with up to 24" display size operator panel
- Industrial Embedded PLC/PLC Beckhoff
- Beckhoff TwinCAT 3 Control system
- 2D CAD for creating geometry
- Simple programming using the preset shape database
- Advanced data collecting system for diagnosis
- LAN network connection support

SEMI Variant

- Compact construction
- Massive welded frame
- Dimensions of the cutting table are 1x2 m – 1.5x3 m
- Cutting table
 - water tank (grate is submerged in the water without air suction)
 - section table with electronically controlled valves prepared for use with suction
- Linear lead on all axes for more solid and precise movement
- two-sided portal propulsion
- 3 x AC servomotors with absolute encoders and rack and pinions are used for propulsion
- Positioning precision of 0.1 mm
- Positioning velocity up to 15 m/min
- Cutting speed up to 10 m/min
- The THC technology for automatic Torch Height Control
- Laser Pointer – torch position indicator
- Torch anticollision system
- Control console with fully integrated industrial multi-touch panel 16" display size
- Industrial Embedded PLC/PLC Beckhoff
- Beckhoff TwinCAT 3 Control system
- 2D CAD for creating geometry
- Simple programming using the preset shape database
- Advanced data collection system for diagnostics
- Technology tables
- LAN network connection support

PROFI Variant

- Compact construction
- Massive welded frame
- Dimensions of the cutting table are 1,5x3 m – 2x6 m
- Cutting table
 - water tank (grate is submerged in the water without air suction)
 - section table with electronically controlled valves prepared for use with suction
- Linear lead on all axes for more solid and precise movement
- two-sided portal propulsion
- Effecient AC servomotors with absolute encoders
- Anti-backlash planetary gears, helical rack and pinions
- Positioning precision of 0.01 mm
- Positioning velocity up to 25 m/min
- Cutting speed up to 15 m/min
- The THC technology for automatic Torch Height Control
- Laser Pointer – torch position indicator
- Torch anticollision system
- Control console with fully integrated industrial multi-touch panel up to 19" display size
- Industrial Embedded PLC/PLC Beckhoff
- Beckhoff TwinCAT 3 Control system
- 2D CAD for creating geometry
- Simple programming using the preset shape database
- Advanced data collection system for diagnostics
- Simple programming using the preset shape database
- LAN network connection support

Accesories

- We can supply plasma aggregates made by renowned producers(Cebora, Victor, Mahe, Hyperthem, Kjellberg) with machine torches
- CAD/CAM software for creating the burned part geometry and generating G-code
- Water table – made from alluminum steel with grate submerged in the water. Largely reduces the amount of fumes and thermal deformation of burned steel.
- Extraction table with sectional extraction
- Suction units with filtration
- Wireless remote control

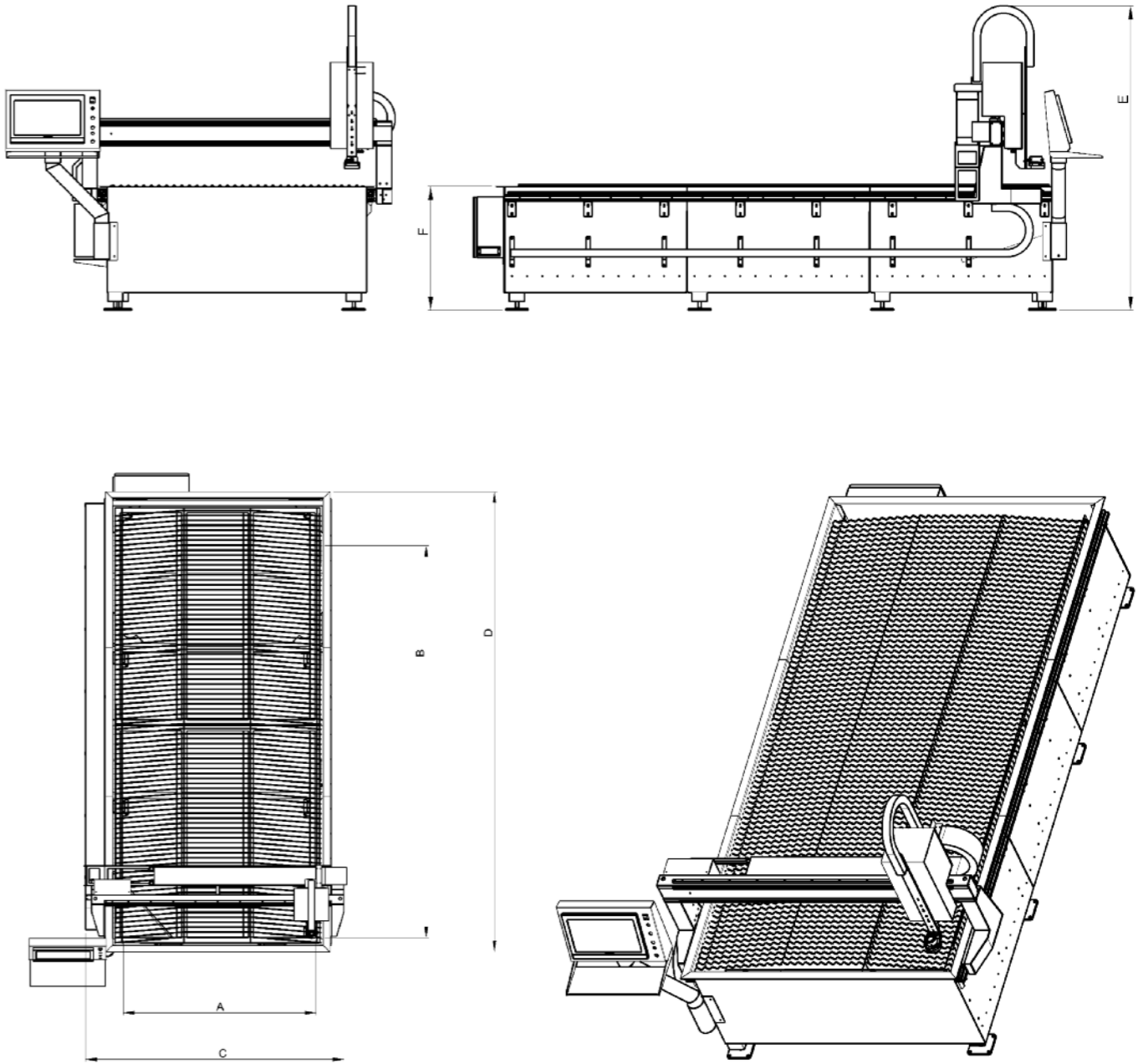
TYPE OF MACHINE	EASY	SEMI	PROFI
Format (m)	1x2; 1,5x3	1x2; 1,5x3	1,5x3; 2x4; 2x6
Material table	water tank / Extraction table	water tank / Extraction table	water tank / Extraction table
Lead	Linear lead on all axes	Linear lead on all axes	Linear lead on all axes
two-sided portal propulsion	YES	YES	YES
Motors	3x Stepper motors	3x AC servomotors, with absolute encoders	4x AC servomotors, with absolute encoders
Gears	planetary gears < 15 arc.min	planetary gears < 10 arc.min	planetary gears < 4 arc.min
Racks	straight	straight	helical
Positioning precision	0,2 mm	0,1 mm	0,01 mm
Positioning velocity	up to 10 m/min	up to 15 m/min	up to 25 m/min
Cutting speed	up to 7 m/min	up to 10 m/min	up to 15 m/min
THC	YES	YES	YES
Automatic pierce	YES	YES	YES
Torch anticollision system	YES	YES	YES
Laser pointer	YES	YES	YES
Control system	Beckhoff twinCAT3	Beckhoff twinCAT3	Beckhoff twinCAT3
Hidden linear leads	NO	NO	YES
Control console	LCD 22"	Multitouch 16–22"	Multitouch 16–22"
LAN-Network	YES	YES	YES
Remote diagnostics	YES	YES	YES
Shape macros	YES	YES	YES
Cutting tables	NO	YES	YES
Marking	YES	YES	YES
Permanent memory position	NO	YES	YES
Axis homing	YES	NO	NO

Main strengths

- simplicity operation
- minimal maintenance
- long-life
- high performance
- safety
- high profitability

Size	SW-1000	SW-2000	SW-3000	SW-4000	SW-6000
A	1000	1000	1500	2000	2000
B	1000	2000	3000	4000	6000
C	1600	1600	2100	2600	2600
D	1800	2800	3800	4800	6800
E	2000	2000	2000	2000	2000
F	850	850	850	850	850
weight (kg)	600	800	1100	1600	2500

A – working width of the machine / B – working length of the machines / C – total width of the machine / D – total length of the machine / E – total height of the machine / F – height material table

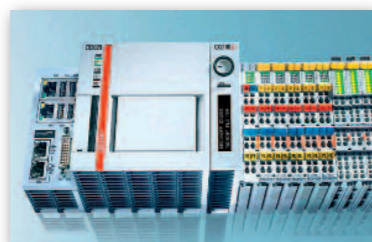


Beckhoff Automation



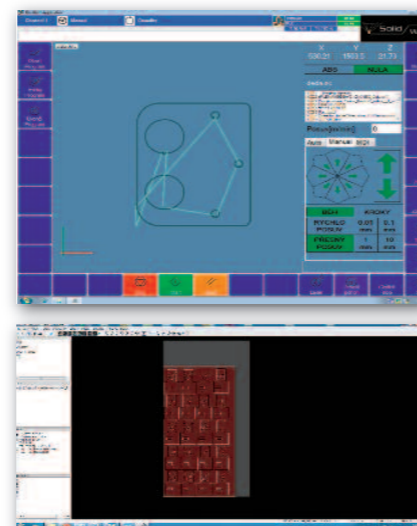
Beckhoff Automation company offers one of the best CNC systems for burning machines on the market. It is used by thousands of manufacturers all over the world. Quality and reliability of this system is best proven by the fact that thousands of machines of machines are built with its use. Beckhoff Automation is a family company that takes pride in local development, manufacturing and worldwide technical support. All the services for Czech and Slovakian markets are provided by a subsidiary company Beckhoff Czech Republic s.r.o. with headquarters in Brno, Czech Republic. Contact information can be found on www.beckhoff.com.

Quality and reliability



The system is built on an industrial PC platform using Windows 7 Embedded or Windows 7 Professional operating systems, with TwinCAT 3 run-time system. The industrial PCs are designed in cooperation with Intel and Microsoft companies to ensure maximal stability and reliability. One of the very pleasant facts about TwinCAT 3 is that all the updates are free. Industrial PCs Beckhoff have been available for 15-20 years, so reliable supply of spare parts is ensured virtually everywhere in the world.

CNC for burning machines



User interface of the CNC System Beckhoff is very intuitive with support of all the functions that are commonly requested on CNC machines. Some of the functions are burning plan, burning process, ability to set parameters for different materials, etc. Standard ISO G-Code for CNC machines is used to ensure simple adaptation to CAM systems commonly available on the market.

COMPONENTS



Extensibility of the system

Finally one of the advantages of the Beckhoff system is extensibility. Thanks to our EtherCAT real-time bus more technologies can at any time be included in the system, to add for example manipulators, robots, measuring devices, etc.



The CNC machines are provided with plasma aggregates produced by world-renowned manufacturers.

When choosing a suitable type of plasma aggregate we focus on needs and requirements of each customer individually.



www.cebora.it



www.kjellberg.de



www.Hypertherm.com



www.thermal-dynamics.com



www.mahe-geraetebau.de

