

TECHNOLOGICAL CAPABILITIES

MACHINING - CUTTING AND BENDING SERVICES - SUBCONTRACTING
WE OFFER HUGE RANGE OF WELDING EQUIPMENT AT LOW COST

www.sigmat.hr

Who we are

"Customer is the last controller" stands for number of years in our manufacturing facilities as a reminder of the company's mission, which started back in 1986th year. Market orientation, ability to adapt to changes in business and customer satisfaction are guidelines for more than 27 years.



Sigmat production began with a lathe by making metalware products. Production facilities and physical capacities over the year have been expanded and upgraded and the activity has been expanded to industrial equipment trade.

Production program:

- Equipment for welders (furnace and electrode drying ovens, pipe alignment clamps, seals for welders, cylinder gas trolleys)
- Locksmithing (fences, lightweight constructions, municipal equipment, decorative elements of the buildings)
- Equipment for the food industry (appliances for food preparation, gas and solid fuel grills, fryers, stoves, barbecue skewers)
- We cooperate and offer sub-contractor services to many other big companies.

In the field of trade we offer everything you need for modern welding. Our current clients are numerous companies in the metal industry and companies that sell welding equipment in Croatia and abroad.



Our mission:

We provide excellent services and tools for industrial and construction companies. We are doing everything to ensure customer satisfaction and boost common development. Our main focus is in the European market where we want to keep the status of a reliable partner, recognizable in our part of Europe for quality of services, products, rich warehouse, innovation and social responsibilities.



Our marks:

We protected our name and company logo as well as industrial design of our products in the State Office for Intellectual Property.

You can recognize us by the following signs and labels on our products:

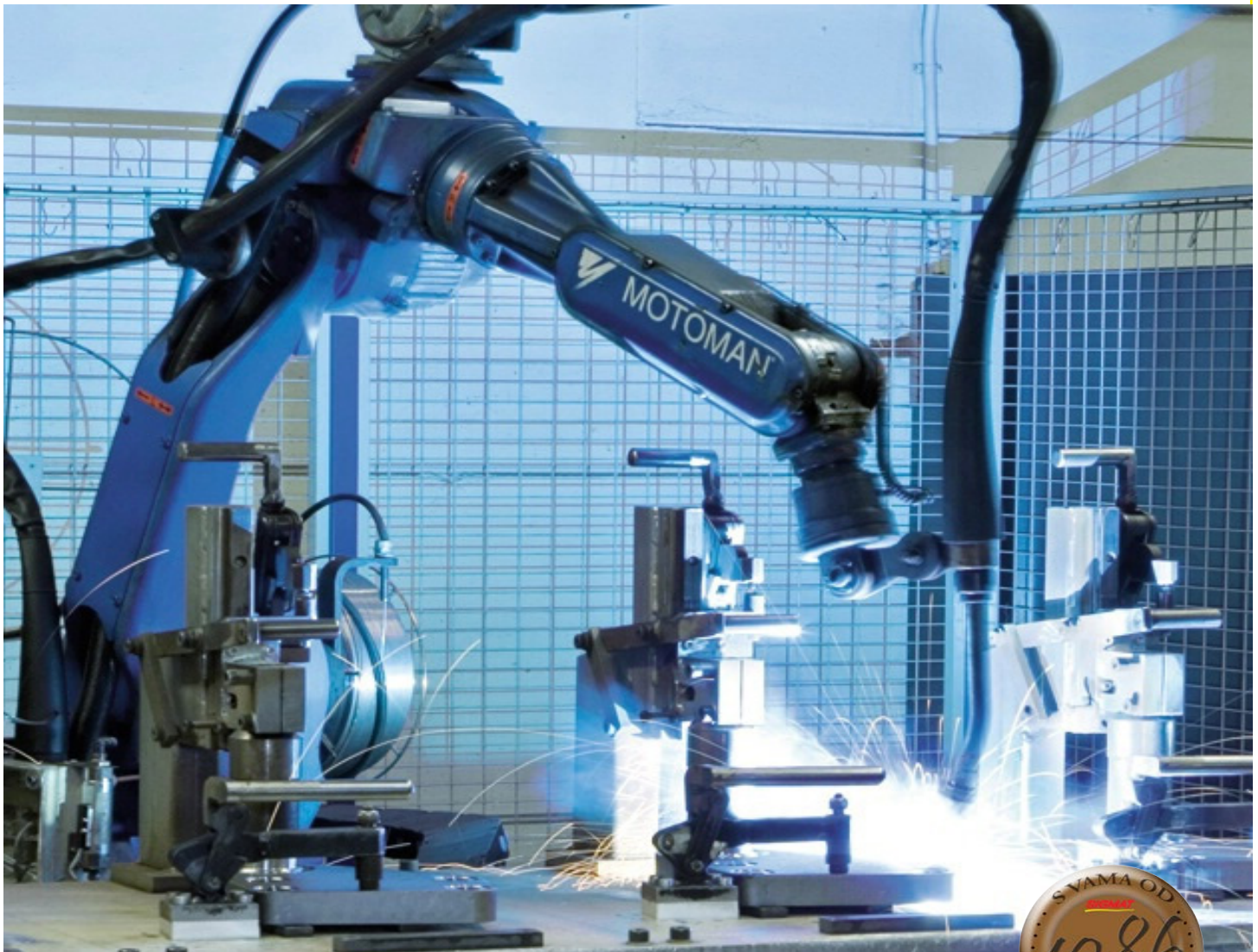
Protected design::

- railings: D20120166-2, D20120166-2
- food preparation appliances: D20120167-1, D20120167-2, D20120167-3, D20120167-4
- centering clamps: D20130127

SIGMAT



MOTOMAN-MA1900



MOTOMAN-MA1900 is developed to achieve optimal results in extremely heavy operating conditions. Quality of welding is significantly improved by using advanced wire supply system and maximum working range of 1904mm in 6 axis.

That ensures easy welding of massive parts and complex shapes. Fast movement reduces time of welding cycle. Cables are integrated in robotic arm to avoid electric shock and separate them from workpiece and robot parts.

AXES	MAX. WORKING RANGE	MAX. SPEED (°/sec.)	TORQUE	MOMENT OF INERTIA
S	± 180	197	-	-
L	+ 155/-110	175	-	-
U	+ 220/-165	185	-	-
R	± 150	410	8.8	0.27
B	+ 180/-45	410	8.8	0.27
T	± 200	610	2.9	0.03

NUMBER OF AXES CONTROLLED	6
MAX. WEIGHT LIMIT (KG)	3
REPEAT ACCURACY	± 0.08
MAXIMUM WORKING RANGE	1904
WORKING TEMPERATURE RANGE (°C)	0 DO +45
HUMIDITY RANGE (%)	20 - 80
TOTAL WEIGHT	280
POWER (KVA)	2.8

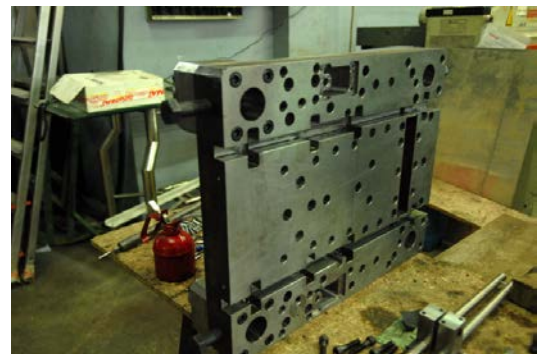
CNC MILLING MACHINE HAAS VF-1



- 4 axes
- 122Nm
- 2000 rpm
- 22kW

Technical characteristics:

4 axis
 table dimensions: 764x406x508mm
 engraving speed 30000rpm
 spindle speed: 0-8100 rpm
 max power 22kW
 max moment 122Nm, 2000 rpm
 spindle bearing: ABEC class 7
 orientation: electronic



Welded construction CE norm
 20 tool positions
 Automatic lubrication
 Spindle deflation at tool change

Number of axis controlled: 4
 Axis range: X-Y-Z (762x406x508mm)
 Possible manufacturing of keyways and gearings.

CNC OKUMA - GENOS L200E-M



Technical characteristics:

- axis controlled: 3
- spindle diameter: 50mm
- max. workpiece diameter: 200mm
- max. workpiece length: 380mm
- max. rpm: 4500rpm
- number of tools: 12
- number of axis: 5
- tolls for radial and axial drilling and milling



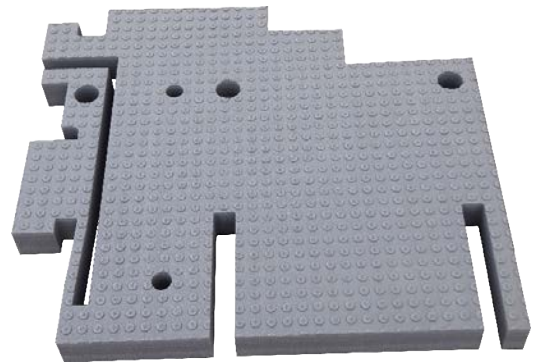
Technical characteristics:	
Axis controlled	3
Spindle diameter	50mm
Max. workpiece diameter	200mm
Max. workpiece length	380mm
Max. rpm	4500 o/min
Number of tools	12

WATER JET CUTTING MACHINE



Suitable for cutting of:

- stainless steel
- wood
- glass
- ceramics
- plastics
- stone
- copper
- aluminum
- steel



Cutting is performed by water jet with 4000 bar pressure. For some materials abrasives can be added for more efficient cutting. Plate sheet with dimensions 3000x2000mm can be placed on the

- cutting thickness: 100mm and more (depends on the material)
- cut width: up to 0,5mm
- capable of cutting wide range of materials
- doesn't have heat treated areas
- capable of cutting "sandwich" materials

Suitable for cutting		
1	Stainless steel	70mm
2	Wood	150mm
3	Glass	50mm
4	Ceramics	30mm
5	Plastics	130mm
6	Stone	90mm
7	Copper	80mm
8	Aluminium	100mm
9	Steel	100mm

PLASMA CUTTING MACHINE NC-P1530



CE NORM
HIGH PRECISION

WORKING AREA
2000x6000MM

Technical characteristics:

CE norm

Working area 2000x6000mm

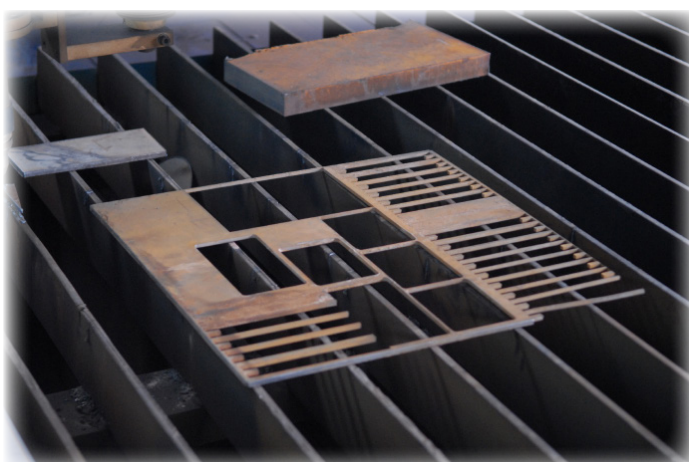
High precision

Control system:

Germany Fastacam software

Capable of cutting steel and stainless steel up to 30mm thick

Gas: up to 200mm



ENGRAVING LASER



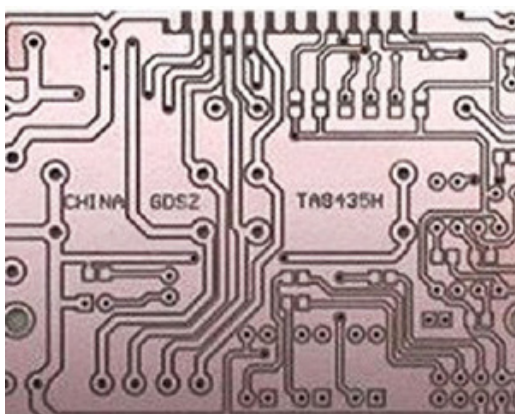
- high precision of engraving
- high repeat accuracy
- high working speed

Capability of text or logo engraving on metal and other materials (stainless steel, aluminum, copper, silver etc.)

Capability of engraving on flat and curved surfaces.

High engraving precision

High quality of laser beam



Windows operating system
 Supports: CORALDRAW, AUTO-CAD, PHOTOSHOP etc. And PLT, PCX, DXF, BMP file formats.

Power	50 W	Engraving speed	≤7000 mm/s
Wavelength	1064 nm	Minimum line width	0.01 mm
Beam quality	<8 M2	Minimum mark	0.2 mm
Re-positioning	≤50KHz	Repeat accuracy	± 0.002 mm
Working area: 200x200mm	200mm x 200 mm	Maximum power	≤ 1.5 kW
Engraving depth: up to 1.2mm	≤1.2 mm		

BENDING MACHINE 304 HV



- universal pipe bending machine
- capable of different profile bending
- capable of bending materials with full cross section

Technical characteristics:

- Axle diameter: 60mm
- Roller diameter: 205mm
- Working speed: 5,2 m/min
- Power: 3,5kW
- Dimensions: 950x1120x1120mm



- Three rollers
- Hydraulic drive with capability of radial and axial movement
- Roller position can be checked at any time on digital indicator, precision 0,25mm
- Possible working in combination of horizontal and vertical positions

profil	dimenzija(mm)	ID [mm]
1.	70 x 12	Ø 600
2.	100 x 25	Ø 500
3.	40 x 40	Ø 600
4.	Ø 45	Ø 450
5.	Ø 76,1x2,9	Ø 1200
6.	Ø 60,3x4,5	Ø 600
7.	75x30x3	
8.	60 x 3	
9.	70x7	Ø 750
10.	60 x 6	Ø 600
11.	70x70x8	Ø 700
12.	60x60x7	Ø 700
13.	80x80x9	Ø 800
14.	30 x 4	Ø 400
15.	85 x 45	Ø 800
16.	100 x 50	Ø 700

HYDRAULIC BENDING MACHINE SOMMER S03-50



Technical characteristics:
Capable of bending pipes:
- circular section: up to $\phi 60$
- square section: up to 80mm

ROLLER BIRLIK MSM



Plate sheet dimensions:

width: 1530mm
thickness: 2mm

HYDRAULIC PRESS 200T

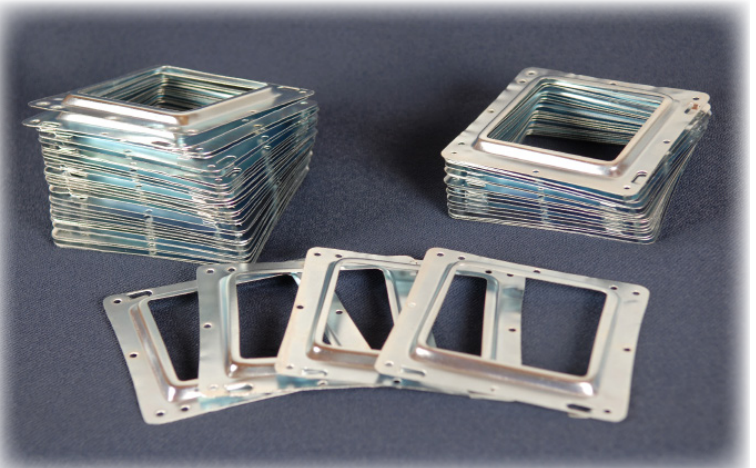
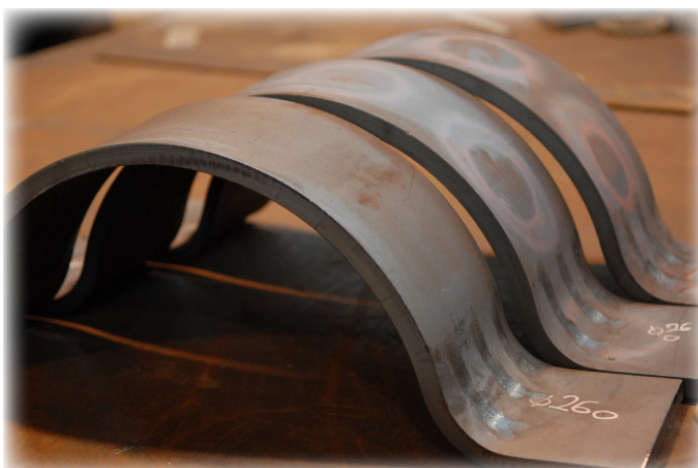


- capacity: 200t
- working area: 1250x850
- working height: 850mm
- speed: 10-15mm/s

Technical characteristics:

- capacity: 200t
- hydraulic pillow: 40t
- shift: 500mm
- pillow shift: 250mm
- working area: 1250x850

- Maximum opening height: 1000mm
- Working speed: 10-15mm/s
- Working height: 850mm
- Motor: Siemens 11kW
- Dimension: 1750x155x3350



CNC PRESS FOR PROFILE BENDING TYPE E



Technical characteristics:

Type:	CNC press E3090
Bending force:	90t
Bending length:	3050mm
Spacing between rows:	2550mm
Approaching speed:	100mm/s
Bending speed:	8mm/s
Shift:	160mm
Throat depth:	350mm

HAND BENDER



Plate sheet dimensions:

width:	2060mm
thickness:	1,5mm

ECCENTRIC PRESS FRESAN TYP EP 30



Technical characteristics:

motor power: 3kW
interior diameter: fi
40mm
depth: 10-60mm
workload: 30t
external diameter: fi
150mm

PLATE SHEAR DURMAZLAR IW45M



Multifunctional plate shear (perforation, cutting, cropping)

PLATE SHEAR DURMAZLAR REG 2525



Width: 3100mm
Thickness: 2mm

GRINDING MACHINE



- safe operating
- easy to operate
- automatic lifting and lowering of working area

Capability of grinding various positions.
High precision, high grinding speed

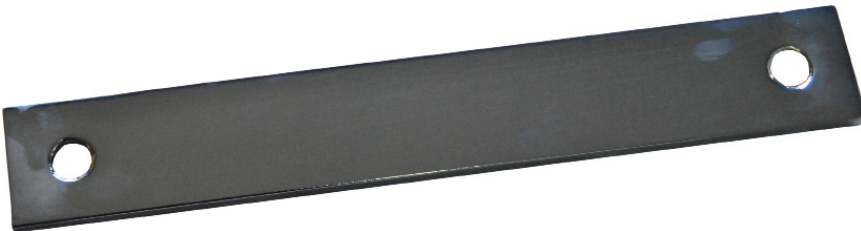
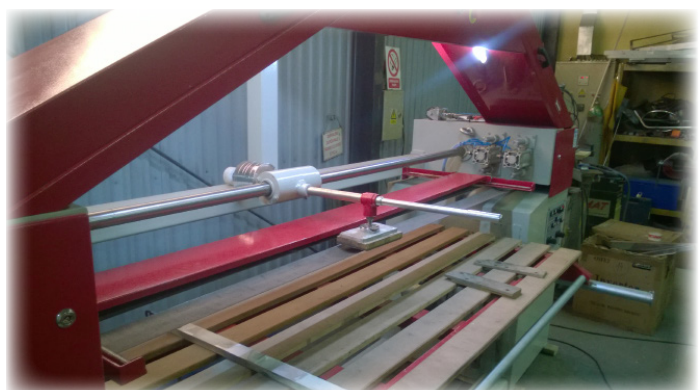


Table dimensions: 2100x800
Capability of table lowering: 600mm
Power: 5,5HP, 1500rpm
Suction unit power: 2HP, 3000rpm
Machine dimensions: 950x3700x2400mm
Weight: 1200kg



TUBE BEVELLING MACHINE



For tubes with fi20 to fi 60mm

GULLCO KBM-28



Technical characteristics

voltage: 400V, 3 phase
power: 2150W
frequency: 50Hz
year built: 2007

Portable machine for edge chamfer
Chamfer angle: 22,5 - 50°
Speed: 2m/min

VIBRATION POLISHING MACHINE



Main switch - rpm regulation

Work container - interior diameter 485 mm

NORMS: VDE, UVV, CE

Technical characteristics:

Purpose: polishing after cutting or machining.

Worn resistant container coating

Engine Power 2,2 kW with safety switch.

Display shows:

- treatment time
- treatment time passed
- start-stop button
- rpm regulation
- main switch

Voltage: 230V, 50/60Hz, max 16A

Protection: IP54

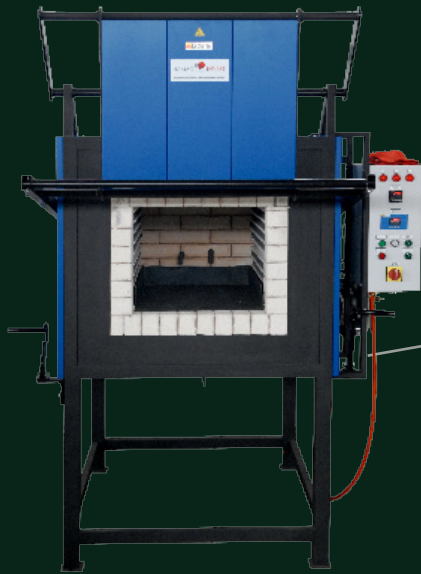
Operating environment temperature: 10-40°C

Norm: VDE, UVV, CE



*SIMPLE POLISHING OF SENSITIVE ELEMENTS, CLEANING AND FINAL PROCESSING.
WET SURFACE TREATMENT IS MADE IN THREE PHASES FOR HIGH SURFACE QUALITY.
POSSIBLE APPLICATION ON DIFFERENT MATERIALS AND DIMENSIONS.*

HEAT TREATMENT FURNACE



Computer controlled heat treatment

Gasification system Propane +N2



Technical characteristics

Model:	VPH125
Maximum temperature:	1200°C
Working area dimensions:	500x350x700mm
Oven dimensions:	1000x1700x1250mm
Working area volume:	125l
Power:	18kW (3x6kW)
Voltage:	400V/50Hz
Weight:	400kg



Nitrogen protective atmosphere, butane is added to stop disfigurement. It maintains hard surface layer. Computer controlled heat treatment process. Oven records actual heat treatment diagram. Oven is calibrated and certified.

Oven automatic is placed in special locker on the oven and it consists of digital temperature regulator with capability of temperature, speed and heating time adjustment. Annealing data can be saved. Safety temperature regulator stops gasification if temperature is lower than 600°C.

Device for hardness testing

It is used for hardness testing of materials for bearings, pressure vessels and steam generators etc after heat treatment. Wide screen with backlight shows informations and parameters. Printing on paper.



SPOT WELDING MACHINE

CEA PPN 53

- voltage drop compensation
- up slope
- preheating time and current
- 8 welding programs

CAN WELD:

PLATE SHEETS 3MM ON 3MM

WIRE Φ 12MM TO Φ 12MM



Technical characteristics

Only with ERW butt welding it is possible to achieve hard weld, without melting, while with other ERW welding processes melting occurs.

Huge advantage of this process is that it is clean, fast and no additional material is needed.

It is used specially in vehicle production (car, bicycle, motorcycle, airplane, rail vehicle, nuclear and war industry), construction equipment, military industry, food production industry, home appliances etc.



Machine equipped with curved hand with height adjustment possibility.
Easy adjustment on projection welding.
Used in mechanical engineering for bolt and nuts welding, toy production industry and home appliance industry.

FCAW WELDING MACHINE

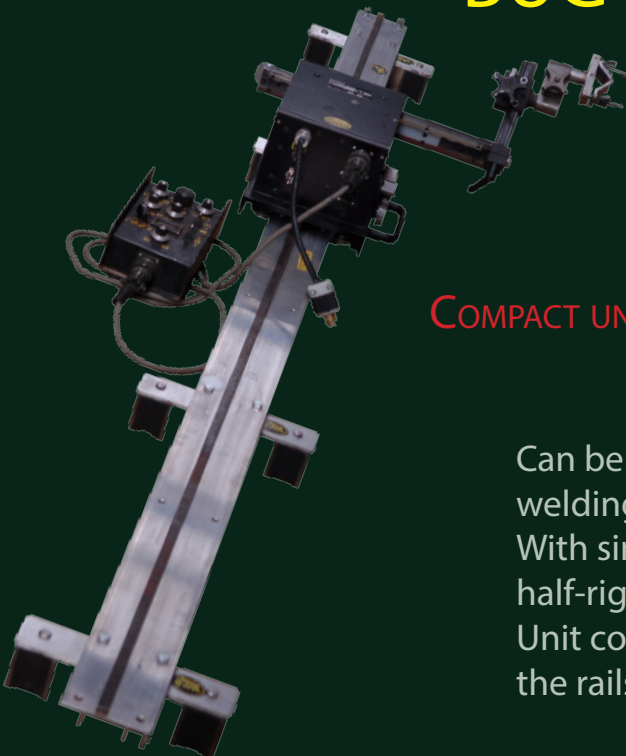


Configuration:

- A2 multiarc
- PEH processing unit
- Power source: LAF 1000
- Processing and control cable 25m long
- Cables: 90mm^2 , 2x25m
- Transportation container



BUG-O MATIC WELDING MACHINE



COMPACT UNIT WITH OSCILLATOR

Can be used in all positions, vertical and overhead welding.

With simple carrier change, unit can work on rigid, half-rigid and flexible rails and additionally on pipes. Unit construction enables unit to stop at any point on the rails.

ARISTO TIG 400 ESAB



Slow safety fuse 25A
Allowed load at 35%
Duty cycle A400/26
Allowed load at 60%
Duty cycle A320/23
Allowed load at 100%
Duty cycle A250/20
Idle voltage 78-90V
Regulation Area 4-400A

ORIGO MIG 320 ESAB



Voltage, three-phases
400/415V
Duty cycle 30% 320A
Duty cycle 60% 250A
Duty cycle 100% 195A
IP32 protection

WARRIOR400i/500iCC/CV



Multi-process machine for MIG/MAG, REL and LIVE TIG welding and gouging with carbon electrode.

This machine is used for most demanding operations and high productivity.

Inverter technology, robust appearance, IP 23 protection.

HOT START and automatic arc regulation.

Has 400A and 500A version.

LATHE PRVOMAJSKA TVP 190



Maximum turning diameter: $\phi 320$

Technical characteristics:

Longitudinal feed: 10

Spindle bore: 49mm

Head bore: 45mm

LATHE PRVOMAJSKA TVP 430



Technical characteristics

Maximum torque: 560Nm

Longitudinal feed: 12 mm/
rev, 0,075-0,95

Spindle bore: 51mm

Spindle head bore: 80mm

Transverse support

BENDER GLASER



Technical characteristics:

Round pipes bending up to $\phi 60\text{mm}$
Square pipes bending up to 80mm

Container dimensions:
Length: 980mm
Width: 680mm
Depth: 700mm

ELECTRICAL POLISHING MACHINE



ALUMINUM CUTTING SAW



Possibility of cutting under 45°
slope and blade slope 45° .
Used for cutting aluminum profiles.

MILLING MACHINE FOR ALUMINUM



Table dimensions:
 $400 \times 300\text{mm}$
Used for locksmithing
processing.

METAL CUTTING BENDSAW



USED FOR PIPE, ROD AND PROFILE CUTTING

- casted frame
- adjustable bearing

Metal cutting bendsaw Imet BS 350 SHI-E

Used for pipe, rod and profile cutting.

Cutting range on left angle 0°-60° and right angle 0°-45°.

Casted frame, adjustable bearings, emulsion cooling, blade tension detection.

Programmable electric control panel with control functions.

Hydraulic tightening, hydraulic control of cutting feed. Material height detection and cutting speed optimization.

After cutting, cutting arms returns by itself to starting position.



Imet BS 350 SHI-E	Piece diameter	Square	Rectangular
Cutting angle: 0°	305	250	350x200
Cutting angle: 45°	250	230	230x200
Cutting angle: 60°	175	155	170x100
Cutting angle: -45°	250	230	230x200
Motor power	Cutting speed	Saw dimensions	Weight
1,5/1,8kW	18-100 m/min	3370 x 27 x 0,9	655k

PRVOMAJSKA HAP 260 SAW



Technical characteristics:
Jaw shift up to 50°
Jaw grip 300mm

MILLING MACHINE FU 251



Steel locksmithing production
Table dimensions: 1200x1000mm

PILLAR DRILLING MACHINE SBR-32



Drilling:
Steel: 32mm
Cast iron: 34mm
Depth: 200mm

PILLAR DRILLING MACHINE RBS-32



Drilling:
Steel: 28mm
Cast iron: 32mm
Depth: 1800mm

SANDBLASTING



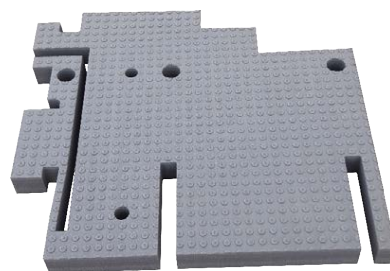
LONGITUDINAL WELDING



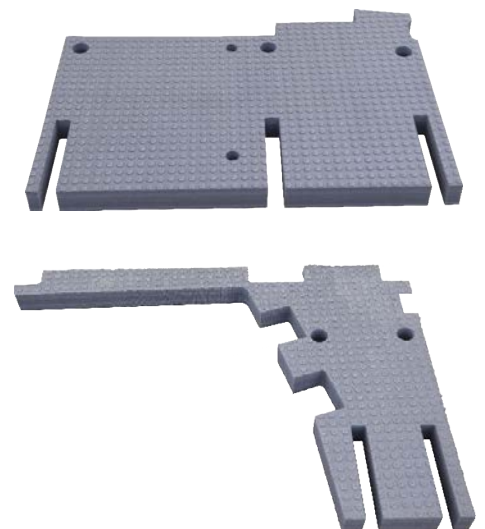
SUBCONTRACTING



Production of various types of doors with special sealing and welding systems. Top quality isolation.



Cutting of all shapes and various materials. We use water jet cutting, slot milling and sponge cutting.



High precision in production.

INDUSTRIAL EQUIPMENT

Electrode drying oven PS20/400

Consisted of control unit and drying container (100kg). Thermostat, thermometer, switch, light bulb. 3 phase connector.

	PS20/400
Temp.	400 °C
Power	1,2 kW
Capacity	200 kg
Cat.Nr.	16486



Portable electrode drying oven TS1/400

Dimensions 130x150x550. With handle for easier transport. One phase connector.

	TS1/400
Temp.	400 °C
Power	0,6 kW
Capacity	5 kg
Cat.Nr.	



Electrode drying oven TS2/400

Dimensions: 220x370x650. Equipped with temperature regulator, light bulb to show if heater is working and with handle for easier manipulation.

	TS2/400	TS4/400
Temp.	400 °C	400 °C
Power	0,6 kW	0,6 kW
Capacity	10 kg	20 kg
Cat.Nr.	16534	17014



Pipe alignment clamps

Made of steel, galvanized, with screws for fine position adjusting in three points. Trapezoidal thread because of self-locking.



Type	Pipe diameter (mm)	Cat.Nr.
1"-3"	25-76	15955
2"-5"	50-127	15956
4"-7"	114-192	16453
5"-9"	127-230	15957
10"-14"	254-356	16439

Portable electrode drying oven TS1/160

Dimensions: 130x150x550. with handle for transportation.

1 phase connector.

	TS1/160
Temp.	160 °C
Power	0,12 kW
Capacity	5 kg
Cat.Nr.	16485



Tungsten electrode sharpener

Tungsten electrode sharpener for diameters 1,0-4,0mm. Voltage: 230V. Diamond grinding wheel included.



Container for 20 electrodes.



Heater for preheating



Gas heaters with different dimensions and shapes
Fast heating and safe to operate with.



Welding marks



Marks on customers order.
All marks are heat treated.

Material	Dimensions	Cat.Nr.
R ST 37-2	Ø13,5x100mm	14447

Electrode holder



Used for electrode holding for electric arc welding processes.

Cat.Nr.	6606
---------	------

Hydraulic pipe alignment clamps



Hydraulic pipe alignment clamps for larger pipe diameters.
Diameters from fi200 to fi1200mm



SIGMAT

Sigmat d.o.o.
Gromačnik 35
35000 Slavonski Brod
Republika Hrvatska

tel: +385 35 465 459; +385 35 465 994; +385 35 465 942
fax: +385 35 465 498

e-mail sigmat@sigmat.hr
web: www.sigmat.hr