COOPERATION SERVICES

Technical parameters:

- **Area of use:** plazmavágás és fúrás, menetfúrás
- **Cuttable thickness:** 1-100 mm from carbon steel and acid resistant
- **Piercable material:** max. 50 mm
- **Bevelling (root preparation):** up to 30-50 degrees, smallest nosepart 2 mm
- **Available root types:** A,V, Y with upper nose part, with lower, X, K
- **Smallest hole that can be cuttet by plasma:** dubble size of the material thickness
- **Marking and engraving with plasma:** Markings and engrravings can be made with decimal precision (for plate bending, welding)
- **Cuttable flat plate dimensions:** 6.000 x 3.000 mm

- **Cuttable pipe and profile length:** 6.000 mm
- **Cuttable pipe diameters:** D30 mm-D700 mm
- **Cuttable closed section sizes:** 30 mm x 30 mm – 500 mm x 500 mm
- **Cuttable dished end sizes:** D300 mm –D3000 mm
- **Max. dished end height:** 800 mm
- **Inkjet ReaJet 32 jets printer:** printing on plates (batch number, lot number, etc.)

PLASMA CUTTING
MICROSTEP CNC PLASMA CUTTER

PICKLING AND PASSIVATION

- **Acid pickling-passivation of stainless steel surfaces:**
- **Size of the pickling pool: 3.02 x 3.02 m**
- **deepness: 2.99 m**
- **useful volume: 27.3 m3**
- **operating temperature: ambient**

- **The workpieces are pickled in 3 steps in the dip system equipment:**
- **• dip pickling**
- **• rinsing in a tub**
- **• rinsing with desalted water by spraying**

- **Passivation**
- **The passivation of pickled surfaces is created by the reaction of the oxygen content of the surface and the air**
- **If we want to achieve quick and complete passivation, we recommend treating surfaces with a dipping or spray process, with a 15-20% nitric acid solution**
- **After passivation, the products must be thoroughly rinsed after at least 30 minutes of exposure time at room temperature, and use of a high pressure washer is also recommended here**

PASSIVATION

- **FARROS BSA 3000 tank grinder**
- **Vertical workspace:** **1850 mm**
- **Horizontal work scope:** **4000 mm**
- **The best available surface quality** **Ra 0,1**
- **It can be equipped with 3 heads:**
- **Special pipe grinding head:** **∅200 mm – ∅540 mm**
  2500 mm range

- **Torispherical/semi-elliptical dished end grinding head:** **∅800 mm - ∅5000 mm**

- **Grindinghead:** **∅550 mm - ∅4000 mm**
  (if the tank is open on both sides, then 8000 mm)

GRINDING, POLISHING

GRINDING, POLISHING

- **KUHLMEYER ZBS 3 double belt grinding machine**
- **Maximum table size that can be assembled from separate segments: 4000 x 1000 mm**
- **Best acheivable surface quality: Ra 0,1**

GRINDING AND POLISHING

- Useful working width: 1350 mm
- Longitudinal sanding belt lenght: 2620 mm
- Width of longitudinal sanding belts to obtain maximum working width: W+30 mm
- Standard working thickness: 0,5/150 mm
- Constant pass-line height of feed table from floor: 920 mm
- VT-11-Digital thickness read-out for 1 axe, with demical accuracy: 0,1 mm
- Programming and control unit:
- HMI-Vision – Cumpetrized system for machine programming
- Pressure units (Pressure units to hold the work pieces on the feed belt; are positioned in front and rear of each working unit, independent variable prressure control)
- Dust collector (Centralization in a single main collector of the dust hoods of all working units: units 4+1)
- Feed system (feed system variable in continous from 0,5/10 mm)
- Central section of feed table with stronger pull to channel very short pieces W. 250 mm

COSTA MD5-CCRC+S 1350 GRINDING MACHINE

- **FACCIN 4 roller with linear design: 4HEL-3146**
- **Main technical datas:**
- **Number of rollers:** 4pcs
- **Max. plate width:** 3050 mm
- **Upper roller diameter:** 460 mm
- **Lower roller diameter:** 430 mm
- **Side roller diameter:** 340 mm
- **Certificated resistance of rollers:** 2> 950 – 1050 N/mm
- **Bending force on the upper roller:** 400 tons
- **Full size of the machine:** 6,4 x 2,15 x 2,65 m

ROLLING

- **Summary of guaranteed capacity:**
- **Guaranteed capacities with yield point:** **260 N/mm²**
- **Rolling thickness (full length):** **Ø 2300 mm** **36 mm**
- **Thickness before rolling (full length):** **Ø 2300 mm** **30 mm**
- **Rollding thickness (full length):** **Ø 595 mm** **28,9 mm**
- **Thickness before rolling (full length):** **Ø 595 mm** **25 mm**
- **Rolling thickness (half length):** **Ø 2300 mm** **45 mm**
- **Thickness before Rolling (half length):** **Ø 2300 mm** **38 mm**

ROLLING

- *Guaranteed capacities with yield point* **360 N/mm²**
- **Rolling thickness (full length):** **Ø 2300 mm** **31 mm**
- **Thickness before rolling (full length):** **Ø 2300 mm** **24 mm**
- **Rolling thickness (full length):** **Ø 595 mm** **25 mm**
- **Thickness before rolling (full length):** **Ø 595 mm** **20 mm**
- **Rolling thickness (half length):** **Ø 2300 mm** **39 mm**
- **Thickness before rolling (half length):** **Ø 2300 mm** **30 mm**

ROLLING

- **FACCIN 4 roller with linear design: 4HEL-1620**
- **Main technical datas:**
- **Number of rollers:** 4pcs
- **Max. plate width:** 1500 mm
- **Upper roller diameter:** 205 mm
- **Lower roller diameter:** 185 mm
- **Side roller diameter:** 145 mm
- **Certificated resistance of rollers:** N/mm2 > 950 - 1050

- **Bending force on the upper roller:** 90 tons
- **Full size of the machine:** 3,45 x 1,2 x 1,2 m

ROLLING

- **Summary of guaranteed capacity:**
- **Guaranteed capacity with yield point** **260 N/mm²**
- Bending thickness (full length) Ø 1025 mm 10 mm
- Thickness before bending (full length) Ø 1025 mm 8 mm
- Bending thickness (full length) Ø 265 mm 6 mm
- Thickness before bending (full length) Ø 265 mm 6 mm
- Bending thickness (half length) Ø 1025 mm 13 mm
- Thickness before bending (half length) Ø 1025 mm 10 mm

ROLLING

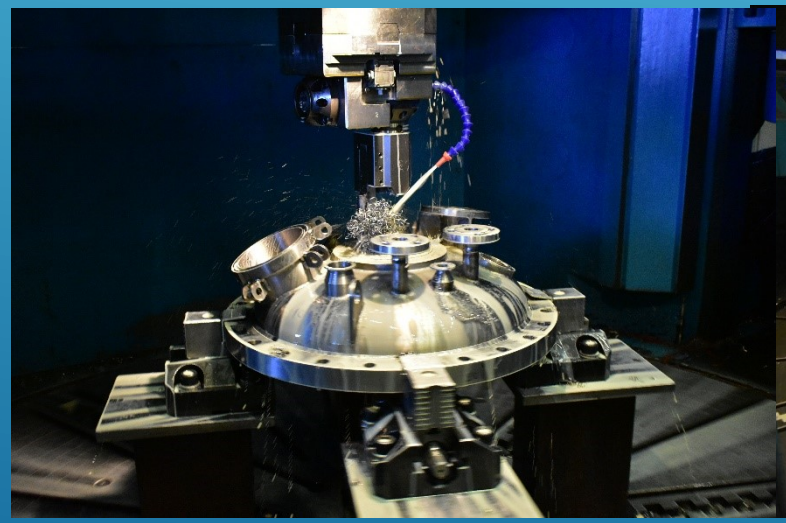
- **Guaranteed capacity with yield point** **360 N/mm²**
- Bending thickness (teljes hossz) Ø 1025 mm 8,5 mm
- Thickness before bending (teljes hossz) Ø 1025 mm 6,5 mm
- Bending thickness (teljes hossz) Ø 265 mm 5,5 mm
- Thickness before bending (teljes hossz) Ø 265 mm 5 mm
- Bending thickness (teljes hossz) Ø 1025 mm 11 mm
- Thickness before bending (teljes hossz) Ø 1025 mm 8,5 mm

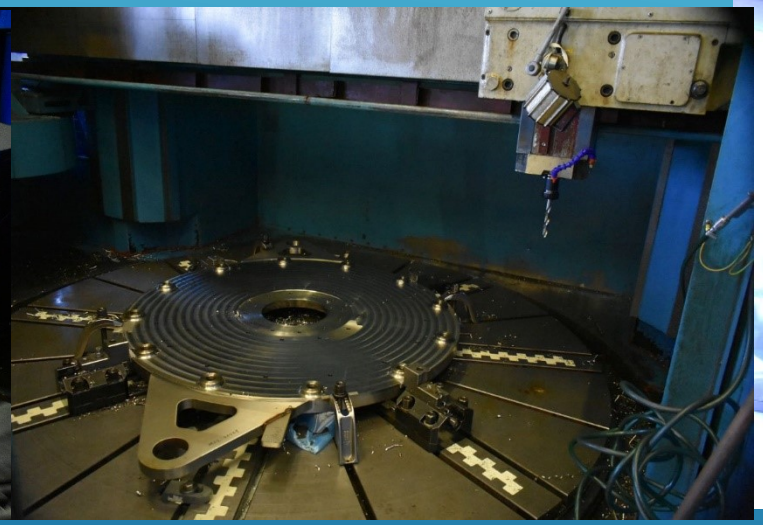
ROLLING

MACHINING

- **WD 130A CNC horizontal drilling-milling machine**
- **Range of motion: 3200 x 2300 x 1570 mm**
- **Size of the turnable table: 2200 x 2000 mm**
- **The macine can be used for precise drilling, milling and precise drilling of holes on a large diameter pitch circle, the accuracy of which is ensured by the CNC control**
- **Equipping the machine with accessories enables horizontal and angled machining or flat surfaces**

- **Vertical lathe, controlled by CNC**
- SC33 TITAN vertical lathe: Ø3300x2300mm
- Effective ranges: X:3200mm; Y:2300mm; Z:1120mm W:450mm;





MACHINING

- **MAIN TECHNICAL DATA PRESS PPM 400-5500:**
- **Maximum adjustable force** **400 Ton**
- **Distance between the uprights** **5500 mm**
- **Distance between the crossbeams** **2200 mm**
- **Lower die holder** **900x900 mm**
- **Upper die holder** **850x850 mm**
- **Cylinder stroke** **850 mm**
- **Quick forward speed** **280 mm/sec**
- **Compression speed** **28 mm/sec**
- **Quick return speed** **280 mm/sec**
- **Installed power input** **82.5 Kw**
- **Approx. machine weight** **54 Ton**

FACCIN HYDRAULIC DISHING PRESS PPM 400-5500

FLANGING MACHINE BF 22-4600

- **Geometrical and general performances:**
- **Max. flanging thickness – mild steel (max. yield point 260 N/mm2) 22 mm**
- **Max. flanging thickness – stainless steel (max. yield point 360 N/mm2) 18 mm**
- **Max. flat head diameter 5.000 mm**
- **Max. torispherical head diameter (DIN 28011) 4.600 mm**
- **Max. semi-elliptical head diameter (DIN 28013) 2.800 mm**
- **Min. head diameter (without extension) 700 mm**
- **Min. knuckle radius 20 mm**
- **Max. knuckle radius 460 mm**
- **Machine overall dimensions 6x1,4 x 3,5m**

- Information about the available tan heads: **https://patentkftedenyfenekgyartas.hu/en/products/**
- Our lids and bottoms are made by cold forming, for which we use the following material qualities:

  Austenitic and duplex stainless steels (1.4301/304;1.4404/316L, 1.4462, LDX2101 etc.)

- **Acronyms of the technical datas:**

D_o = outer bottom diameter
D_i = inner bottom diameter
CR = crown radius
KR = knuckle radius
SF = straight flange height
DH = depth of head
TH_i = full inner bottom height
t = wall thickness

PATENT
IPARI SZERELŐ ÉS GYÁRTÓ KFT

FORMING & WELDING OF HALF PIPE HEATING-COOLING SYSTEM

- **Tank size:**
- **Useful tank lenght: 15 mt**
- **Minimum tank diameter: 1500 mm**
- **Maximum tank diameter: 4500 mm**
- **Maximum tank weight: 30 tons**
- **Motorized positioner (Nr. 1 positioner made**
- **of steel welded frame)**
- **Weight capacity:15 tons**
- **Frame fixed on the floor**
- **Nr. 2 trolleys include 4 tilting rolls (2+2 tilting rolls)**
- **Motorized rolls by electric motors and gearbox**
- **Total Power: 7,5 Kw**

- Forming line of ½ pipe
- Steel welded frame
- Idle decoiler with brake
- Maxmimum coil weight 1,5 tons
- Maximum width of coil: 160 mm
- Forming head
- Nr. 1 forming head for ½ pipe
- Nr. 1 bending roll
- Nr. 1 calbiration roll
- Electric position bending of bending roll and calibration roll
- Total power 1Kw
- Max. thickness: 3 mm
- Min. diameter: 1500 mm
- Max. diameter: 4500 mm

- Welding the pipe ½
- Telescopic steel welded arm
- Head with double welding torch setting
- Start/stop from CNC control desk
- Beginning of spiral 300 mm from head

(600 mm with option for tank 60 tons)

- Ending of spiral 300 mm from bottom

(600 mm with option for tank 60 tons)

- Setting spiral steps from 30 to 300 mm

SHEARING - FLANGING MACHINE MODEL CB 5000

- **Machine suitable to cut and flange circular flat bottoms, rounded and conical, with a max. top height of 400/500mm. The machine is equipped with proportional valves allowing to change rotation and approaching speed of cut and flange tools according to requested power, allowing flange with uniform junction radius.**
- **The positioning of piece-holder trolley occurs through a worm screw and it is visualized on control desk. The same control desk collects operation buttons. One set of sensors positioned on the pendant control keeps the operator at a safety distance.**
- **The rotation movements occur through satellite reduction gear coupled to hydraulic motor, while head approaching movement occurs through hydraulic cylinder.**
- **The adjustment of distance between blades and border tools occurs through a threaded ring easily adjustable. This adjustment allows to get high quality workings, thicknesses from 2mm to 8mm. Fixing of the pieces is by hydraulic piston.**
- **The machine is built in electro-welded steel and worked with high precision machines**

- Cut maximum thickness stainless steel R 700 N/mm² 6 mm
- Cut minimum thickness R 400 – 700 N/mm² 2 mm
- Flange maximum diameter 5000 mm
- Flange minimum diameter 700 mm
- Cut maximum diameter from square 3.600 mm
- Cut maximum diameter from octagon 5.000 mm
- Notch depth 1250 mm
- Cut blades diameter 170 mm
- Cut and border speed 10/42 mt/1’
- Installed power 12 kW

- Standard configuration
- Basement and frame of thick electro-welded steel to have maximum rigidity
- Special notch 1250mm
- Hydraulic motors coupled to epicyclical gearboxes for the rotation of flanging tools
- Manual lateral pinching of plate to fix the pieces during the rotation

- Fixing of plate on tailstock
- Rotation speed adjustment through hydraulic device assembled in the machine
- Nr.1 set of cut circular blades
- Nr.5 set of flanging tools (20-25-30-50-55)

- Visualization of piece-holder trolley position
- Motorized positioning of piece-holder trolley
- Trolley to support the piece on highly precision linear guides
- Motorized arising and descending
- Separate control desk with pedals and buttons control for the movements
- Service keys
- Electrical cabinet according to security norms
- Instructions manual
- Machine according to CE security norms
- Painting grey RAL 7016-7032

PATENT
IPARI SZERELŐ ÉS GYÁRTÓ KFT

WELDING TABLE 6100X25MM FOR STRAIGHT PLATES AND/OR TANK SHELLS

- **Technical datas:**
- **Total weight:** 9 Tons
- **Size:**
- **Length** 8.000mm
- **Width** 1.600mm
- **Height** 2.000mm
- **Total Power (without welding equipment)** 2,2 KW + 0,25 KW
- **Hydraulic oil unit** 50 lt
- **Pneumatic unit required** 50 Lt/min
- **Clamping unit length** 100mm
- **Clamping unit number** 60+60
- **Clamping power** 6 Tons + 6 Tons
- **Working pression** 40 bar
- **Trolley speed** 75mm/min ÷ 1500mm/min

- **Siemens TP 1200 panel controls mounted on operator optimally positioned. The controls include all the buttons for manual operation, including the potentiometer for adjusting the travel speed and the programmable welding length.**
- **Welding Generator Plasma FRONIUS**
- **Fronius TT 5000**
- **Plasma Module 10**
- **Cold wire feeder KD 4000**
- **Cooling Chylly 15**
- **Remote control desk**
- **Plasma torch PTW 3500 pup**
- **Tig Torch with easy interchangeable**

PATENT
IPARI SZERELŐ ÉS GYÁRTÓ KFT

WELDING COLUMN

- **Thanks to it’s quality of movement, this column and boom that has been designed for the most demanding applications, especially when used with automatic welding processes, will provide the operator with precision and comfort of use for better welding quality.**
- **The column and boom can be associated with other positioning equipment (rotator, positioner, seamer, turn-table…)**
- **The C&B type LM has square shaft and corresponding to large range, which allows to carry out heavy heads at the end of arm**

- **Detailed description:**
- **The column and boom has been designed for total safety of the operator against electrical hazards, by using a voltage of 24 volts isolated from the mains**
- **This characteristic is particularly interesting for welding collars of large diameter in which case the operator usually works inside and is more exposed to electrical hazards**

- **Dimensions:**
- **Vertical stroke of the arm 3900 mm**
- **Horizontal stroke of the arm 4300 mm**
- **L 6240 mm**
- **H 6205 mm**
- **X 5140 mm**
- **Y 4755 mm**
- **Max. load at the end of the arm 300 kg**
- **Vertical speed of the arm: 1 fixed speed V1 100** cm/min**
- **Horizontal speed of the arm: variable speed V2 20 to 500* cm/min**
- **Carriage speed: variable speed V3 20 to 500* cm/min**
- **Characteristics: * In complement possibility to have 5 to 500 cm/min**
  **** In complement possibility to have 5 to 160 cm/min**

Description plasma-TIG welding base:

- **The equipment proposed provides the highest quality PLASMA welding in all thickness 2.5 to 8mm without edge bevel and below 2.5 mm by DC TIG process**
- **Multipurpose welding installation for the implementation of the following processes:**
- **Smooth or pulsed D TIG**
- **Variable polarity AC TIG (optional device)**
- **Smooth or pulsed DC PLASMA**

- **Main components of the base:**
- **The welding control panel with its tube holder**
- **The power source NERTAMATIC 450 PLUS**
- **The HF and torch connection interface**
- **The installation harness length 10,17,22 or 25 meters**

FULL HYDRAULIC 3 ROLL DOUBLE PINCH ANGLE ROLL DAVI „MCP 14”

TECHNICAL SPECIFICATIONS

100% manufactured in Italy by DAVI

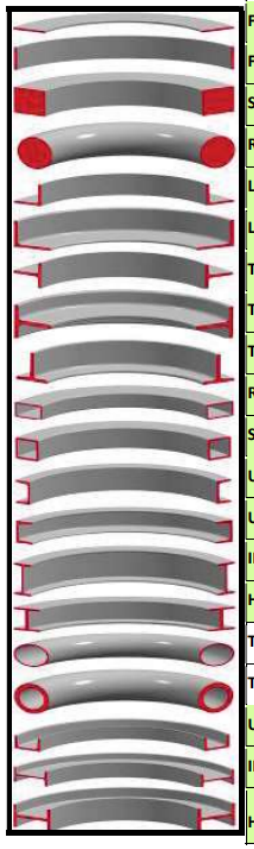
Model	MCP 14
Number of shafts/rolls	3
Shafts Type	Vertical/Horizontal
Top Shafts Diameter	140 mm
Side Shafts Diameter	120 mm
Rolls Diameter (external)	385 mm
Powered Rolls	All 3 rolls are powered as standard feature
Rolling Speed	7 m/min
Installed Power	HP 25 (Power Saving Technology)
Power Supply	400 V., 50 Hz (different upon request)
Rolls material	High resistance, tested & certified chromium molybdenum Alloy steel
Rolls periph. speed compensation	Automatic, by the hydraulic system, without any power loss
Side Roll Movement	“Planetary Guides”, Hydraulic protected by overload protection system

Customer Applications

- **Machine has the capacity to bend as requested as per drawings:**
- Flat 25 mm thick Diameter 1191, height 110 , yield 360
- Flat 25 mm thick Diameter 1188 Height 190 yield 360
- Flat 25 mm thick Diameter 1587 height 145 yield 360
- Flat 60 mm thick Diameter 1587 height 145 yield 360
- Flat 25 mm thick Diameter 1584 height 205 yield 360
- Angle 120x120 x8 yield 360 diameter 2000-12000 mm
- Angle 80x80x6 yield 360 diameter 2000-12000 mm

TECHNICAL DATA

Machine Capacities



Section Type				Dimensions
Flat on edge	1	a		125x32 ø1000
Flat on flat	2	a		220x50 ø1000
Square	3	a		85 ø1200
Round	4	a		90 ø1100
L leg out	5	a**		120x15 ø1300
L leg in	6	a**		120x13 ø1100
T leg out	7	a		120x15 ø1000
T leg in	8	a		120x13 ø1000
T on one side	9	a		120x15 ø1000
Rectangular Hollow Section	10	a*		150x50x5
Square Hollow Section	11	a*		100x8
UPN leg out	12	a**		UPN 220 ø900
UPN leg in	13	a**		UPN 220ø1100
IPE easy way	14	a**		IPE 220 ø1000
HEA easy way	15	a**		HEA 150 ø1100
Tube	16	b*		168 x 3,4 ø2500
Tube	17	b		141 x 6 ø1150
UPN hard way	18	a**	c**	UPN 160 ø8000
IPE hard way	19	a**	c**	IPE 160 ø5000
HEA hard way	20	a**	c**	HEA 120 ø3000 / HEB 120 ø3600

THANK YOU FOR YOUR ATTENTION!