



Since 1911

# UNIO SA – ROMANIA

## TECHNOLOGICAL CAPACITIES





1911

**UNIO**

2011

100 YEARS OF EXPERIENCE

# GENERAL PRESENTATION

## Address

**UNIO SA**

**35, Lucian Blaga Blvd.**

**440227 – SATU MARE, ROMANIA**

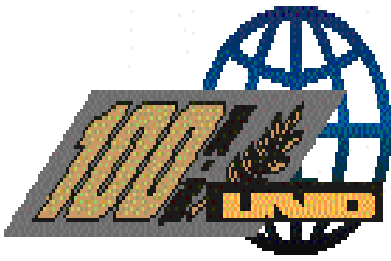
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## Location

**UNIO SA is located in SATU MARE, a 120 000 inhabitants town, situated in North-West of Romania, at 10 Km from Hungarian border and at 90 Km from M3 Highway**



## Material cutting



**Computer controlled oxy-gas cutting machines:**

**Carbon steel plates**

Thickness ( max.): 200 mm

Length : 12 000 mm

Width: 2500 mm



**Computer controlled plasma cutting machines:**

**Stainless steel**

Thickness ( max.): 20 mm

Length : 12 000 mm

Width: 2500 mm



**Sawing machines :**

**Round bars , tubes and pipes**

Diameter ( max.) : 400 mm

Length : 12 000 mm

## Material calandring



**Three roll Calander :**

**Steel Plates**

Thickness ( max.) : 22 mm at  
3 000 mm width

Diameter (max): 6000 mm



**600 tons Bending machine**

**Steel Plates**

Thickness ( max.) : 12 mm at  
4 000 mm width



**Open die die:**

**Rings : up to 1200mm  
diameter**

**Shafts: up to Dia. 450 mm  
and 4000 mm  
length**

## Mechanical processing

### Turning

#### Vertical turning

**Diameter: max. 5000 mm**

**Height: max 2800 mm**



# Milling and boring

## Machining centers ( CNC )

**X: max 14000 mm**

**Z: max 3800 mm**

**Y : max 2500 mm**





## Horizontal milling and boring machine **TOS WHN 13 CNC**

Max diam. 1200mm

Profile depth : 55mm

Module max ~25mm

Stroke length : max 600mm

Rotary table load : max 7000kg

Grinding wheel

Diameter: max 350mm

Width : max 80mm

Speed : max 3550 min<sup>-1</sup>



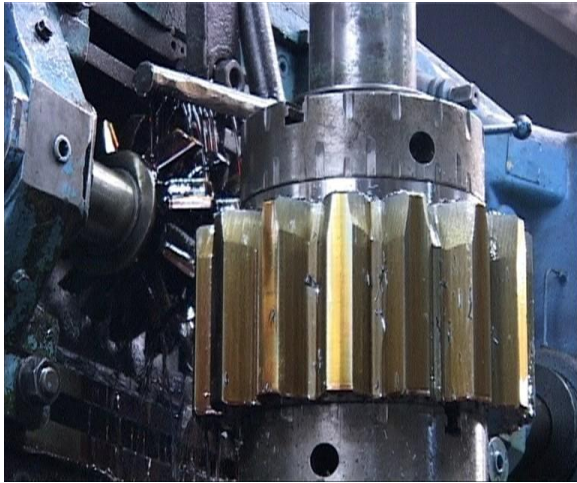
## Gear cutting

### *Spur and helicoidal gear cutting machines*

**Diameter :max. 5000 mm**

**Modul: max.42 mm**

**Precision class: 9-11**



## Gear grinding

### *Spur and helicoidal gear grinding machines ( Niles):*

**Diameter: max. 1200 mm**

**Modul: max. 24 mm**

**Precision class: 4-5**



**Heat treatment**



**Hardening, Annealing,  
Induction hardening**



**Stress relieving**

**Dimensions :  
3700 x 3500 x 11000 mm**

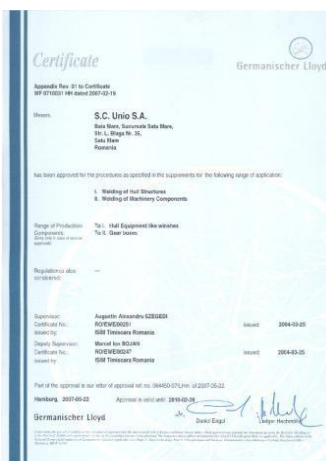
# Welding



**Welding processes: 111, 135, 136 –MIG, MAG**  
**Authorized welders: 30 ( GL, SLV, TUV) International**  
**Welding Engineers: 3**

## Certificates and authorizations:

- AD 2000- Merkblatt HP0, TRD 201 and ISO 3834-2 ( **TUV** )
- DIN 18800- 7:2002-09 Klasse E ( **SLV** )
- Approval for welding – Germanischer Lloyd Rules ( **GL** )
- Approval for welding – Germanischer Lloyd Rules ( **GL** )
- 3 INTERNATIONAL WELDERS ENGINEERS
- 50 TUV, GL and SLV authorized welders



## Assembling works

**Mechanical assembling:  
On assembling platforms, max. crane capacity 50 Tons**



**Hydraulic, electric and pneumatic assembling:**



## Surface protection

- Sandblasting
- Painting
- Galvanizing, Browning



## Control possibilities



**Nondestructive testing:**

**Ultrasonic testing**

**Magnetic particle inspection**

**Liquid penetrant testing**

**X- rays testing**



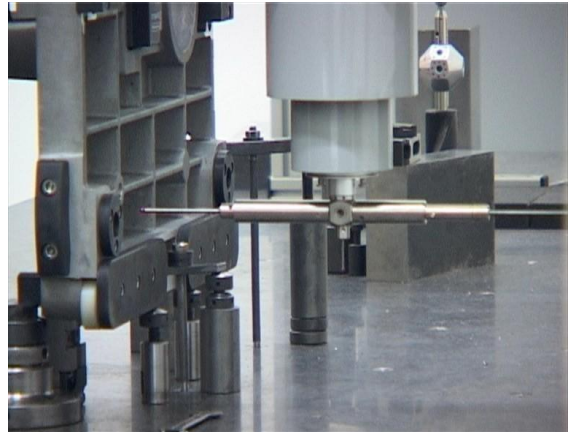
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**Hardness tests:**

Brinell Vickers Rockwell  
Microhardness

**Destructive tests:**

Stress tests Impact tests  
Chemical tests  
Metallographic tests

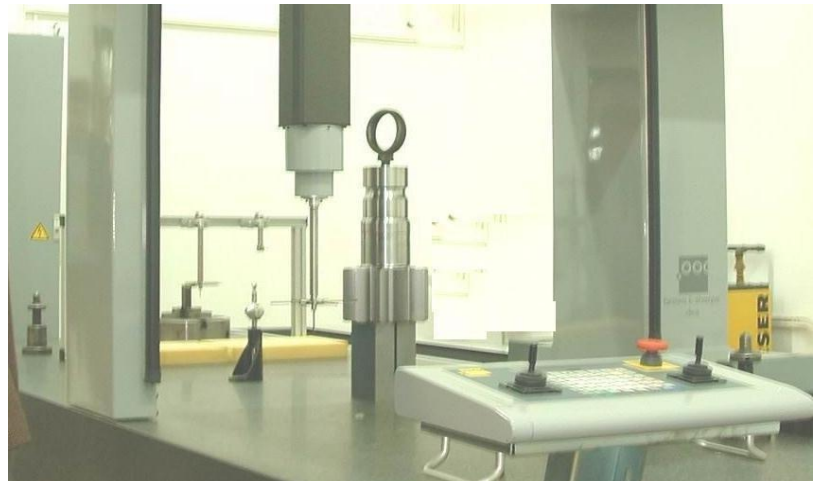


***Computer Measuring Machines (CMM) CMM***

**Ghibli Trax – Brown&Sharpe – DEA**

**Table dimensions: 2600x1200x1000 mm**

**Precision: 0.0025 mm**



**CMM Stiefelmeyer**

**Table dimensions: 6000x3000x2000  
mm**

**Precision: 0.0025 mm**

