

# Production capabilities

ZUGIL S.A.

Headquarters, Wieluń



# Certificates & approvals

# CERTIFICATE OF MANAGEMENT SYSTEM

## ZUGIL S. A.

98-300 Wieluń, ul. Sieradzka 56

*Certified localisations are indicated in the Enclosure*

ISOCERT sp. z o.o. declares that a certified organisation has implemented and uses a Quality Management System satisfying the requirements of:

## PN-EN ISO 9001:2015-10

### Scope of certification:

- manufacture, assembly and maintenance of equipment for surface preparation and application of protective coatings, industrial waste water treatment plants and process vessels and pressure vessels with a maximum permissible pressure not exceeding 0.5 bar, industrial dryers, heating and ventilation units and equipment and special structures
- design, manufacture, assembly, maintenance of machine and special constructions and machining of castings and structures

*(A detailed scope for certified localisations are determined by a Enclosure to the Certificate)*

Certificate No.: 35193/IC/15  
Date of the certification decision: 04.11.2022  
This Certificate is valid from 06.11.2022 to 05.11.2025  
Issued on: 04.11.2022

Certificate issued by  
ISOCERT sp. z o.o.



Tomasz Wycisk  
Director of certification



AC 139



# CERTIFICATE OF MANAGEMENT SYSTEM

## ZUGIL S. A.

98-300 Wieluń, ul. Sieradzka 56

*Certified localisations are indicated in the Enclosure*

ISO CERT sp. z o.o. declares that a certified organisation has implemented and uses a Environmental Management System satisfying the requirements of:

### PN-EN ISO 14001:2015-09

Scope of certification:

- manufacture, assembly and maintenance of equipment for surface preparation and application of protective coatings, industrial waste water treatment plants and process vessels and pressure vessels with a maximum permissible pressure not exceeding 0.5 bar, industrial dryers, heating and ventilation units and equipment and special structures
- design, manufacture, assembly, maintenance of machine and special constructions and machining of castings and structures

*(A detailed scope for certified localisations are determined by a Enclosure to the Certificate)*

Certificate No.: 35193/C/16  
Date of the certification decision: 04.11.2022  
This Certificate is valid from 06.11.2022 to 05.11.2025  
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Certificate issued by  
ISO CERT sp. z o.o.



Tomasz Wycisk  
Director of certification



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# CERTIFICATE OF MANAGEMENT SYSTEM

## ZUGIL S. A.

98-300 Wieluń, ul. Sieradzka 56

*Certified localisations are indicated in the Enclosure*

ISOCERT sp. z o.o. declares that a certified organisation has implemented and uses a Occupational Health and Safety Management System satisfying the requirements of:

## PN- ISO 45001:2018-06

Scope of certification:

- manufacture, assembly and maintenance of equipment for surface preparation and application of protective coatings, industrial waste water treatment plants and process vessels and pressure vessels with a maximum permissible pressure not exceeding 0.5 bar, industrial dryers, heating and ventilation units and equipment and special structures
- design, manufacture, assembly, maintenance of machine and special constructions and machining of castings and structures

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ISOCERT sp. z o.o.



Tomasz Wycisk  
Director of certification



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PN-EN ISO 3834-2:2007

ZUGIL S.A. 2017

ZERTIFIKAT ♦ CERTIFICATE ♦ CERTIFICADO ♦ CERTIFICAT ♦ CERTIFIKAT ♦ 認証証書 ♦



# CERTIFICATE

No. TSP-3834-644.01

Company



**ZUGIL Spółka Akcyjna**

ul. Sieradzka 56, 98-300 Wieluń, Poland

With production plant

**ZUGIL Spółka Akcyjna**

ul. Sieradzka 56, 98-300 Wieluń, Poland

ul. Kolejowa 1, 46-040 Ozimek, Poland

fulfils the quality requirements for fusion welding processes acc.

**PN-EN ISO 3834-2:2021**

The range of approval is presented in the Annex.

The period of validity of certificate: from 01.07.2021 to 30.06.2026

Next surveillance audit until 25.06.2024 under the pain of expiry of the certificate.

Warsaw, date 15.07.2022

Mieczysław Obiedzinski  
CEO



**TÜV SÜD Polska Sp. z o.o.**

ul. Podwale 17

00 – 252 Warszawa

[www.tuv-sud.com/pl](http://www.tuv-sud.com/pl)



(PP05-700-3834 Issue 5 valid from 01.05.2021)

TUV®



**TÜV SÜD POLSKA Sp. z o.o.**  
ul. Podwale 17  
00-252 WARSZAWA  
**NOTIFIED BODY No. 2527**



## CERTIFICATE OF CONFORMITY OF THE FACTORY PRODUCTION CONTROL

**No. 2527-CPR-1A.019.04**

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product:

### STEEL STRUCTURAL COMPONENTS

welded and screwed execution class up to EXC4  
conformity declaration method: 1, 3a according to EN 1090-1:2009+A1:2011  
declared performance characteristics proved by the manufacture on the basis of:  
initial type testing (ITT)

placed on the market under the name or trade mark of:

**ZUGIL Spółka Akcyjna**  
ul. Sieradzka 56, 98-300 Wieluń, Poland  
and produced in the manufacturing plant:

**ZUGIL Spółka Akcyjna**  
ul. Sieradzka 56, 98-300 Wieluń, Poland  
ul. Kolejowa 1, 46-040 Ozimek, Poland

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard (-s):

### EN 1090-1:2009+A1:2011

under system 2+ are applied and that  
the factory production control is assessed to be in conformity with the applicable requirements.

This certificate was first issued on 17.06.2014, revised on 01.07.2021 and will remain valid as long as neither the harmonized standard, the construction product, the AVCP methods, nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified factory production control certification body.

Next surveillance audit until 09.06.2024 under the pain of expiry of the certificate.



Warsaw, date 1<sup>st</sup> July 2021

Mieczysław Obieczński  
CEO



The validity of the certificate can be verified through the QR-code or under:  
[https://certyfikaty-tuv-sud.pl/certyfikaty\\_wyrobow/](https://certyfikaty-tuv-sud.pl/certyfikaty_wyrobow/)

ZERTIFIKAT ◆ CERTIFICATE ◆ CERTIFICADO ◆ CERTIFICAT ◆ CERTIFIKAT ◆ 認証証書 ◆ CERTIFICATE ◆ ZERTIFIKAT



AC 161



Polska

## CERTIFICATE

WELDING OF RAILWAY VEHICLES  
AND COMPONENTS acc. PN-EN 15085-2:2021

Manufacturer: **ZUGIL Spółka Akcyjna**  
ul. Sieradzka 56  
98-300 Wieluń, Poland  
Production plant:  
ul. Sieradzka 56  
98-300 Wieluń, Poland

fulfills the requirements to perform welding work within the range

**Classification level CL1 according to PN-EN 15085-2:2021**

Type of activity: P  
Type of components: Manufacturing of:  
- rail vehicles and their components  
- non-pressurised containers without special test pressure  
- simple parts of rail vehicles  
- parts of purchased parts of rail vehicles  
- construction parts of rail vehicles

**Range of approval:**

Welding process acc. PN-EN ISO 4063	Material group acc. ISO/EN 15616	Dimensions	Notes
111	1.2	3,0 – 22,0 / Ø ≥ 54,0	---
111	1.2	3,5 – 15,0	FW
111	8.1	3,0 – 12,0	---
111	8.1	≥ 5,0	FW

*Continuation of the range of approval on the subsequent page*

Welding coordinator: Michał Macherzyński, IWE / IWI-C  
Deputy of welding coordinator: Mariusz Mydlarz, IWT  
Additional coordinators: See reverse  
Certificate no.: TSP-15085-189-00  
Valid: From 15.07.2022 to 14.07.2025  
Next surveillance audit: until 28.06.2023  
Date of issue: 15.07.2022  
Auditor: Artur Labus

Miłczysław Ociedziński  
CEO



[P05-F03-15085- Issue 5 valid from 01-09-2021]

**TÜV SÜD Polska Sp. z o.o.**  
ul. Podwale 17  
00 – 252 Warszawa





## CERTIFICATE

### WELDING OF RAILWAY VEHICLES AND COMPONENTS acc. PN-EN 15085-2:2021

Manufacturer: **ZUGIL Spółka Akcyjna**  
ul. Sieradzka 56  
98-300 Wieluń, Poland  
Production plant:  
ul. Kolejowa 1  
46-040 Ozimek, Poland

fulfills the requirements to perform welding work within the range

#### Classification level CL1 according to PN-EN 15085-2:2021

Type of activity: P  
Type of components: Manufacturing of:  
- rail vehicles and their components  
- non-pressurised containers without special test pressure  
- simple parts of rail vehicles  
- parts of purchased parts of rail vehicles  
- construction parts of rail vehicles

#### Range of approval:

Welding process acc. PN-EN ISO 4063	Material group acc. ISO/TR 15606	Dimensions	Notes
111	1.2	3,0 – 22,0 / Ø ≥ 54,0	---
111	1.2	3,5 – 15,0	FW
111	8.1	3,0 – 12,0	---
111	8.1	≥ 5,0	FW

*Continuation of the range of approval on the subsequent page*

Welding coordinator: Michal Macherzynski, IWE / IWI-C  
Deputy of welding coordinator: Mariusz Mydlarz, IWT  
Additional coordinators: See reverse  
Certificate no.: TSP-15085-190.00  
Valid: From 15.07.2022 to 14.07.2025  
Next surveillance audit: until 28.06.2023  
Date of issue: 15.07.2022  
Auditor: Artur Labus



(PPDS)FCS-15085- Issue 5 valid from 01-09-2021

Mieczysław Obiedzinski  
CEO



**TÜV SÜD Polska Sp. z o.o.**  
ul. Podwale 17  
00 – 252 Warszawa

Production  
capabilities

- Employment in 2022:
  - **278 workers:** 66 white collars, **212** blue collars  
+ 158 temporary employees
  - **45 000** h per month
  - over **500** tonnes of steel structures per month\*

\* depending on steel structure



# Infrastructure

[www.zugil.com.pl](http://www.zugil.com.pl)



## Plant and equipment

**ZUGIL S.A.**, located in Wieluń, is a company with great potential and technical capabilities. Its overall area including its office buildings, amounts to over 16 hectares (164 659 m<sup>2</sup>).

Our production plants are equipped with not only technical production shops but also a paint shop and a spacious assembly yard. Our total production area equals to 41 900 m<sup>2</sup>.



## Hall 11

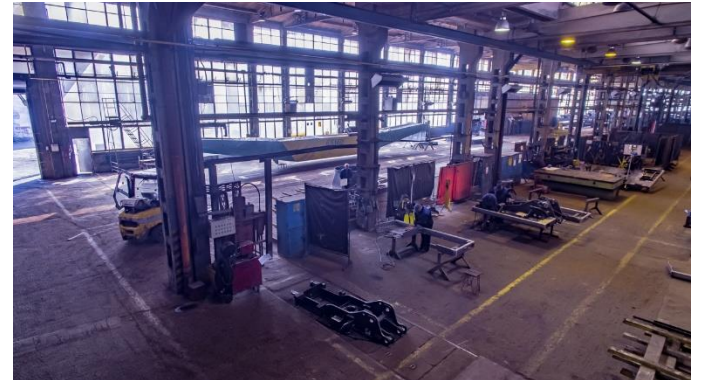
Area: 19 738 m<sup>2</sup>

Overhead travelling cranes: 1,5 T – 8 T

Lifting height: 4 450 mm - 8 000 mm

Gates: 4630 mm x 4400 mm (height x width)

Installations: electrical, heating, process heating ,  
compressed air, welding mix, oxygen, nitrogen,  
GZ50 (gas), water and sewerage system.



## Hall 11 A

Area: 3 872 m<sup>2</sup>

cranes: 10 T – 24 T

Max. lifting height: 8 000 mm

Gates: 4 900 mm x 4 500 mm (height x width)

Installations: electrical, heating, process heating,  
compressed air, mix, oxygen, GZ50 (gas), water  
and sewerage system.





## Hall 15

Area: 17 031 m<sup>2</sup>

Overhead travelling cranes : 0,5 T – 15 T

Max. lifting height – 5800 mm

Gates: 4 750 mm x 5 000 mm (height x width) Installations:  
electrical, heating, compressed air, mix, oxygen, water and  
sewerage.





Machine park

## Preparation of parts for assembly and welding

### Line for pre-shot blasting plates and profiles

Material width : 1 500 mm

Material height: 300 mm



## Preparation of parts for assembly and welding

Laser cutting machine:

**IMPULS 6020 4000W**

Working area (LxB):

- 6000 mm x 2000 mm

Maximum sheet thickness:

- 15 mm low-alloy steel

- 10 mm stainless steel

- 10 mm aluminum



## Preparation of parts for assembly and welding

Laser cutting machine:

**IMPULS 6220 6000W**

Working area (LxB):

- 6000 mm x 2000 mm

Maximum sheet thickness:

- 20 mm low-alloy steel
- 15 mm stainless steel
- 12 mm aluminum



## Preparation of parts for assembly and welding

### Hydraulic cutter PULMATIC

Sheet thickness: 0,5÷4 mm

Maximum sheet weight: 35 kg

Axes:

X - 2000 mm

Y - 1500 mm



## Preparation of parts for assembly and welding

**Gas cutting machine, producer ESAB, model  
Telerex TXB**

Working area(LxB):           12000 x 2800 mm

Maximum sheet thickness:  
- 80 mm low-alloy steel





## Preparation of parts for assembly and welding

**Gas cutting machine, producer KOIKE model  
Maxigraph 4000 D**

Working area (LxB):           12000 x 3000 mm

Maximum sheet thickness:

- 120 mm low-alloy steel



## Preparation of parts for assembly and welding

### Guillotine shears

Maximum sheet thickness: 10 mm  
Axis: X - 6000 mm





## Preparation of parts for assembly and welding

**Pipe profiling machine: Kistler SCM 630-3**

Pipe diameter:     $\varnothing$  25 mm -  $\varnothing$  630 mm

Cutting speed:    2 000 mm / min



## Preparation of parts for assembly and welding

**Hydraulic press: ZDAS, CND 400**

Nominal force: 400 T

Working area (LxBxH): 6000 x 3000 x 1400 mm

Cylinder stroke: 1400 mm



## Preparation of parts for assembly and welding

**Hydraulic press: SICMI PMM - 600 ME**

Nominal force: 600 tones  
Working area (LxBxH): 5900 x 2450 x 500 mm  
Cylinder stroke: 500 mm



## Preparation of parts for assembly and welding

Press brake working in tandem:

**PPEBH 1000/5000; PPEBH 640/4000**

The first press's force: 1 000 tones

Bending length: 5 000 mm

The second press's force: 640 tones

Bending length: 4 000 mm

Together length and force: 9 000 mm 1100 tones



## Preparation of parts for assembly and welding

Hydraulic brake press HACO: ERM 60300

Press force: 300 tones

Bending length: 6000 mm





## Preparation of parts for assembly and welding

Radial drilling machine

Drilling diameter:  $\varnothing$  up to 63 mm



## Preparation of parts for assembly and welding

**Plate bending machine HAEUSLER:**

**VRM-HY 3000 x 370**

Maximum plate thickness:

- Low-alloy steel: 8 mm – 30 mm

- Hardox: 8 mm – 22 mm

Working width: 3 000 mm

Diameter:  $\varnothing$  800 -  $\varnothing$  2500



## Preparation of parts for assembly and welding

### Universal lathes:

Diameter up to:  $\varnothing$  800 mm

Length up to: 2400 mm





Used technologies

At Zugil S.A. the following welding processes are used, classified according to PN-EN ISO 4063:

111 metal arc welding with covered electrode; manual metal arc welding

131 metal inert gas welding; MIG welding

135 metal active gas welding; MAG welding

136 tubular cored metal arc welding with active gas shield

138 gas metal arc welding using active gas and metal cored electrode; MAG welding with metal cored electrode

141 Tungsten inert gas welding; TIG welding

78 studs welding

972 arc braze welding

## Assembling and welding

Robotic welding station,  
producer CLOOS: ROMAT 350

Typical welding torch MIG/MAG  
Homing sensors: touch and arc sensors



## Assembling and welding

**Robotic welding station, producer VALK WELDING:  
Panasonic TA1800 G and TA1900 WG**

Typical welding torch MIG/MAG  
Homing sensors: touch sensor



## Machining

**Milling machine BUTLER with turning head: CS10VA**

Working area:

X - 5000 mm

Y - 1500 mm

Z - 900 mm



## Machining

Milling machine HURON with turning head: LU974/2  
CNC

Working area:

X - 9000 mm

Y - 1500 mm

Z - 800 mm



## Machining

**CNC Table type boring mill WHN 13 – 7 pcs**

Working area:

X: 3 500 mm

Y: 2 500 mm

Z: 1 250 mm

Load of rotary table axis B: 12 tones





## Machining

**CNC Floor type horizontal boring machine**

**WRF 130 CNC**

Working area:

X: 15 000 mm

Y: 3 000 mm

Z: 900 mm

Load of rotary table axis B: 25 tones





## Machining

### Plate-type boring machine WRD 13 Q

Working area:

X: 10 000 mm

Y: 3 000 mm

Z: 700 mm

Load of table axis B: 20 tones



## Machining

Machine tool WHQ 13 CNC

Working area:

X: 3 500 mm

Y: 2 000 mm

Z: 1 600 mm

Load of rotary table axis B: 12 tones



## Anti-corrosion work

**Pneumatic blasting chamber:**

Dimensions of chamber (LxBxH):  
14000 mm x 4500 mm x 3900 mm



## Anti-corrosion work

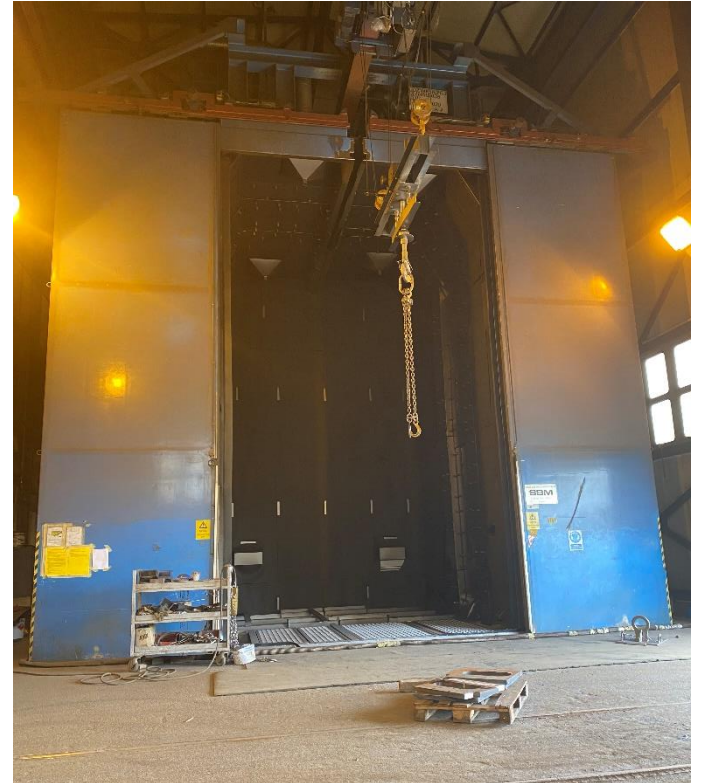
### Turbine shot blasting machine SBM

Cleaning work piece size:

width: 5 000 mm

length: 5 000 mm

height: 8 000 mm





## Anti-corrosion work

Chamber for washing of parts:

Dimensions (LxBxH): 8000 x 4500 x 3000 mm



## Anti-corrosion work

Chamber for washing of parts:

Dimensions (LxBxH): 5 000 x 4 000 x 3 500 mm





## Anti-corrosion work

**Chamber for pickling and passivation of parts in stainless steels (spraying process):**

Dimensions (LxHxB):

12000 mm x 4500 mm x 3000 mm



## Anti-corrosion work

### Paint shop- airless and air spraying

Dimensions (LxB) : 47 000 mm x 12 000 mm

Equipment: overhead travelling crane  
(lifting height: 8 000 mm)

4.



## Anti-corrosion work

Open painting booth - airless and air spraying

Dimensions (LxHxB):  
13000 mm x 3500 mm x 5000 mm



**Anti-corrosion work**

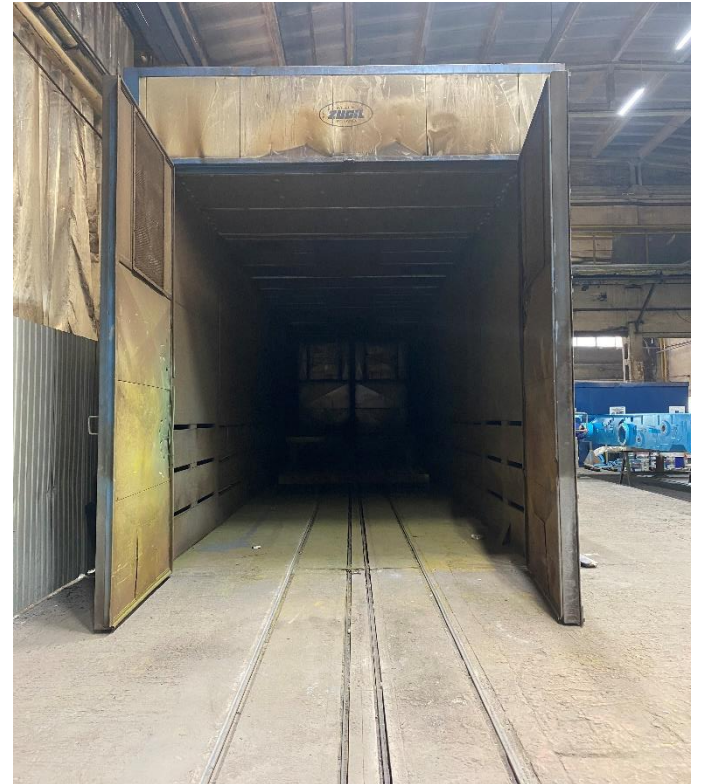
**Spraying paint shop - painting of small parts**



Anti-corrosion work

Chamber for drying

Dimensions (LxBxH): 14 000 mm x 4 500 mm x 3 **900 mm**





## Anti-corrosion work

### Chamber for drying

Dimensions (LxBxH):

11 500 mm x 4 500 mm x 3 900 mm







## Machine park for project B+R:

ZUGIL SA implements a project co-financed from European Funds called:

*"Development of an innovative technology for the production of large-size elements and structures, including lifting ones, limiting the deformation of welded structures with a pilot technological line at ZUGIL S.A."*

Within this project, we have purchased the following machines and measuring equipment that will be used to implement this project.

1 x plasma cutting machine MESSER MultiTherm

for steels at thickness up to 40 mm - working area 12000mm x 2500mm

1 x laser cutting machine Bystronic BySprint Fiber 6520

for steels at thickness up to 30 mm – working area 6500mm x 2000mm



## Machine park for project B+R:

- 1 x station for robotized welding CLOOS QIROX  
with welding technic QINEO
- 1 x wireless tracker (Omnitrac 2 )  
for dynamic measurements up to 160 m
- 1 x ultrasonic flaw detector
- 1 x line for the pre-treatment of steel materials
- 1 x precision leveler for plates – ARKU



ZUGIL S.A.

Ozimek branch



- Employment in 2022:  
**55 workers**  
**18 whitecollars, 37 bluecollars**  
**7 200 h** monthly
- up to **100 tonnes** of steel structures monthly\*

Overall area:  
**Ca 1,4 hectares**  
**8 900 m<sup>2</sup>** under roof

\* depending on steel structure

# Large size welded steel structures

We manufacture a wide range of welded steel structures according to the technical documentation provided by the customer. The scope of our production is limited to the following dimensions:

Width: 4 metres  
Height: 4 metres  
Length: 14 metres  
Weight: 50 tonnes



- We manufacture:
  - steel structures in accordance with PN-EN 1090-2,
  - elements and parts of rail vehicles in accordance with PN-EN 15085,
- Welders have certificates confirming passing the exam according to PN-EN ISO 9606-1.

Machine park

## Machining

**CNC Floor type horizontal boring machine**

**TOS VARNSDORF: WRD 150 Q**

Working area:

X: 12 000 mm

Y: 3 000 mm

Z: 1800 mm

Spindle stroke: W = 800 mm

Load of rotary table axis B: 30 tones



## Machining

**Boring machine SKODA: WD 200 NC**

Working area:

X: 11 400 mm

Y: 3 150 mm

Z: 1600 mm

Spindle stroke: W = 1600 mm

Load of rotary table axis B: 100 tones



## Machining

Boring machine SKODA: WD 160 NC

Working area:

X: 3 200 mm

Y: 2 400 mm

Spindle stroke: W = 1000 mm



## Machining

Gantry milling machine LINE: SL220TM60 NC

Working area:

X = 6 000 mm

Y = 1 800 mm

Z = 1 600 mm

Spindle travel: W = 600 mm

Maximum table load: 10 tones





## Machining

**NC Gantry milling machine RAFAMET: TYP6620**

Working area:

X = 6 000 mm

Y = 1 800 mm

Z = 1 600 mm

Spindle travel:      W = 350 mm

Maximum table pressure: 10 tones



## Machining

### **NC Vertical turning lathe RAFAMET: SKJ**

Maximum turning diameter: 3 200 mm

Max. height of worked unit: 1 650 mm

Lathing of cones within:  $30^{\circ}$  -  $73^{\circ}$

Lathing with templates (with the tolerance of 0,05 mm ): up to 1 250 mm

Manufacturing tolerances: 0,1 mm

Possibility of grinding cone-shaped elements.



## Machining

### CNC Lathe ADVANCED TTL: NUMTURN 500/1500

Controller	Siemens 808 D MM Plus
Length of work piece (max.)	1500 mm
Turning diameter over bed (max.)	500 mm
Turning diameter over support (max.)	300 mm
Length of turning (max.)	1200 mm
Lathe chuck diameter	250 mm
Positioning accuracy X-axis	$\pm 0,012$ mm
Positioning accuracy Z-axis	$\pm 0,016$ mm
Repeatability axis X	$\pm 0,01$ mm
Repeatability axis Z	$\pm 0,014$ mm



## Machining

### Centre lathe CNC

Maximum lathing diameter:	1 450 mm
Maximum length of workpiece:	6 000 mm
Maximum weight of workpiece:	30 kg



## **Furnace for heat relieve of weldment structures**

**Bogie Hearth Furnace Electrically Heated**

Chamber dimensions: (LxBxH):

2 700 x 1 600 x 1 400 mm.

For bigger weldment structures at length up to 20 000 mm  
there is possible to heat relieve at outsourcing



## Anti-corrosion work

### Blasting chamber

in the size of 14 000 x 4 000 x 4 000 mm.

Surface cleaning class in accordance to

DIN 55928 - Sa 2,5





**Anti-corrosion work**

**Painting chamber for airless and air spraying**

in the size of 12 000 x 8 000 x 3 900 mm





[www.zugil.com.pl](http://www.zugil.com.pl)