

## **LIST OF MACHINES**

### **CNC – floor type boring and vertical turning machine SHW Uniforce 6C**

*year of construction 2012*

traverse path (X Y (Z): 8,000 (12,000) x 3,100 x 1,600 mm

floor plate: 8,000 x 2,500 mm

- max. load capacity: 30 t/m<sup>2</sup>

turning/milling table

max. swing: 2,500 mm

faceplate diameter: 2,500 mm

max. turning length inside: 1,000 mm (from one side)

- max. load capacity: 30 t

accessories: universal milling head ,long milling spindle  
boring and facing head (NC)

rotary table (NC): 1,000 x 1,000 mm

- max. load capacity: 6 t

control: Sinumerik 840 D SL

### **CNC – floor type boring machine Pama Speedram 2000**

*year of construction 2016*

traverse path (X Y (Z+W)): 9,000 x 4,000 x 1,700 mm

floor plate: 5,000 x 3,000 mm

- max. load capacity: 60 t/m<sup>2</sup>

NC-Milling rotary table: 2,500 x 2,500 mm

- max. load capacity: 60 t

Accessories: universal milling head, boring and facing head (NC)

control: Sinumerik 840 D SL

### **Moving column milling machine Kekeisen UFF 4000**

*year of construction 2015*

traverse path (X Y Z): 4,000 x 1,800 x 1,400 mm

clamping area: 4,200 x 1,250 mm

with integrated rotary table: 1,250 x 1,250 mm, 12 to

control: Sinumerik 840 D SL

### **CNC machining centers Heller**

• *MCP-H 250; year of construction 1998*

traverse path (X Y Z): 800 x 800 x 710 mm

clamping area: 630 x 500 mm

control: Sinumerik 840 D

• *MCP-H 250 HS; year of construction 1996, Retrofit in 2013*

traverse path (X Y Z): 800 x 800 x 710 mm

clamping area: 630 x 500 mm

control: Sinumerik 840 D SL

### **Milling and turning center SKODA SR2 – 200 / 6m**

*year of construction 2008*

|                           |   |
|---------------------------|---|
| max. swing over bed:      | 2,500 mm                                |
| max. swing over slide:    | 2,500 mm                                |
| distance between centers: | 6,000 mm                                |
| max. machining weight:    | 30 t (between the peaks), optional 56 t |
| control:                  | Sinumerik 840 D                         |

### **Vertical turning machines Dörries – Scharmann**

• *VCE 2000; year of construction 1991, Retrofit in 2009 and 2017*

|                      |                                      |
|----------------------|--------------------------------------|
| max. swing:          | 2,000 mm                             |
| faceplate diameter:  | 1,600 mm                             |
| max. turning length: | 900 mm (overrunning height 1,050 mm) |
| control:             | Sinumerik 840 D                      |

• *Contumat; year of construction 2000*

|                      |                 |
|----------------------|-----------------|
| with driven tools    |                 |
| max. swing:          | 1,600 mm        |
| faceplate diameter:  | 1,400 mm        |
| max. turning length: | 890 mm          |
| control:             | Sinumerik 840 D |

### **Center lathe Heyligenstaedt Heynumat HN 25 UK 2000**

*year of construction 1998*

|                           |                 |
|---------------------------|-----------------|
| with driven tools         |                 |
| max. swing over bed:      | 890 mm          |
| max. swing over slide:    | 660 mm          |
| distance between centers: | 2,000 mm        |
| control:                  | Sinumerik 840 C |

### **CNC milling machine CME BF 03**

*year of construction 1993*

|                        |                          |
|------------------------|--------------------------|
| transfer path (X Y Z): | 2,000 x 1,000 x 1,000 mm |
| clamping area:         | 850 x 2,000 mm           |
| control:               | Heidenhain TNC 415       |

### **Surface and profile grinding machine ELB Perfekt BD 15/750**

*year of construction 2001*

|                  |          |
|------------------|----------|
| grinding length: | 1,500 mm |
| grinding width:  | 750 mm   |
| grinding height: | 400 mm   |

### **Conventional machining**

turning: up to d630 x 2,500  
cross drilling up to 1,600 mm delivery

### **Process engineering:**

CAM oriented 2-D, 2.5-D programming

### **Assembly**

We take over assembly of big or heavy equipment parts, components or complete machines as well as large technical devices. Our assembly are is optimally equipped for such tasks. Even complex erection work like mounting of antifriction bearings can be handled.

Heating of components: via unshielded flame or annealing furnace  
 Welding: E-, MAG, WIG Welding (test certificate acc. to EN 287-1)  
 Shrink fitting of components

### **Painting system**

- Paint-spray line with drying

Painting cabin big max. work piece dimensions 3,800 x 8,000 x 4,400 height, max. 50 tons

Painting cabin small max. work piece dimensions 1,950 x 3,500 x 2,000 height

### **Heat treatment**

In cooperation with our subsidiary *Köppern Entwicklungsgesellschaft (KEG)*

#### **Annealing furnace**

Max. temperature: 1,000 ° C  
 Specific characteristics: Precise temperature measurement via use of up to 16 charge thermo elements, temperature preciseness better than  $\pm 5$  K (DIN 17052)  
 Usable space: 2,000 x 2,000 x 1,800 mm  
 Weight of work piece up to 20 tons  
 Hardening: exposed to air  
 Applications : stress relief annealing, heat treatment, soft annealing, recrystallization annealing, hardening of steel castings, solution annealing

#### **Curing oven:**

Max. temperature: 1,250 ° C  
 Specific characteristics: Precise temperature control  
 Usable space: 1,600 mm diameter, 1,800 mm height  
 Weight of work piece up to 20 tons  
 Hardening: rapid cooling via water aerosol or air  
 Inert atmosphere: N<sub>2</sub> , N<sub>2</sub>/H<sub>2</sub>

### **Crane capacities**

- Manufacturing section: 2x20 tons, 1x32 tons (weight of work piece max. 40 tons)
- Assembly section: 1x 80 ton, 2x50 tons / 1x20 tons (weight of work piece max.100 tons)