FACT SHEET
MANUFACTURING

TURNING

Turning Operations using state-of-the-art machinery

CNC-controlled machines with powered tools
Turning, drilling and milling in a single set-up
Tight tolerances
Soft and hard machining
Vertical and horizontal turning

Swiss-Turning
max. turning diameter 900 mm
max. turning length 3,000 mm
max. unit weight 5,000 kg

Vertical Turning
max. tunring diamater 1,800 mm
max. turning height 1,200 mm
max. unit weight 8,000 kg

DRILLING AND MILLING

Drilling and milling on modern machining centres

State-of-the-art CAM technology
Manufacturing of precision parts ranging from 500 mm to 2,500 mm
Modern on-machine measurement systems enable the highest precision

Boring machine works
Axis travels:
X-Axis 3,500 mm
Y-Axis 2,500 mm
Z-Axis 2,100 mm
W-Axis 800 mm
max. unit weight 12,000 kg

Portal milling
Axis travels:
X-Axis 3,000 mm
Y-Axis 1,600 mm
Z-Axis 1,250 mm
Rotary table - Ø 500 mm
max. unit weight 6,000 kg

5-Axis milling

Axis travels:
X-Axis 1,600 mm
Y-Axis 1,250 mm
Z-Axis 1,100 mm
Table size 1250 x 1000 mm
max. unit weight 3,000 kg

Radial drilling

3 radial drilling machines:
max. height: 1,600 mm

GEAR CUTTING

Highly specialized machinery, covering the full range of special gears in closest tolerances

Modules ranging from 2 to 35 - with special tools up to module 52
highest precision and quality with the most modern hobbing technology

Gear shaping

max. workpiece - Ø 1,600 mm
max. toothing width 350 mm
max. module: m = 20

Gear hobbing

max. workpiece - Ø 1,600 mm
max. toothing width 1,000 mm
table size - Ø 1,250 mm
max. table load: 10,000 kg

GRINDING

certified to produce quality standards up to 4 (max. quality 1 is theoretically possible as well)
grinding patterns in range of 0,005 mm
modules ranging from 2 to 35
machining of sphericity, face and tooth flank grinding in one clamping
fully air-conditioned hall equipped with the necessary machining and measuring equipment

Tooth flank grinding

min. root diamater - Ø 10 mm
max. outer diameter - Ø 1,600 mm
smallest module: m = 2
largest module: m = 36
max. helix angle (re./li.) 45 °
max. toothing width 1,000 mm
max. table load 6,300 kg

Multifunctional grinding

max. exterior - Ø 1,250 mm /
min. internal cylinder - Ø 300 mm
largest module: m = 36
max. toothing width at ß = 0° 980 mm
max. table load 6,000 kg

Cylindrical grinding horizontal

external: Ø 500 mm x 4,000 mm
internal: Ø 20 mm x 250 mm deep /
Ø 60 mm x 500 mm deep

Vertical cylindrical grinding

Outer grinding diameter:
Ø 1,200 mm x 500 mm deep
Including contour grinding and turning

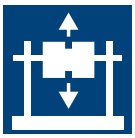
Flat grinding

1,000 mm x 500 mm

WIRE EDM

Axis travels:

X-Axis 800 mm / Y-Axis 600 mm
Z-Axis 500 mm
max. table load 3,000 kg



BALANCING

max. rotor diameter above the machine bed 1,600 mm
rotor weight with symmetrical loading 3,000 kg
length of the machine bed 3,000 mm

HEAT TREATMENT

Our heat treatment processes:
Case hardening with nitrogen-methanol-propane
Quenching and tempering
Stress relieving

Aprrovals
Certified according to DIN ISO 9001:2015

Technical facilities
1 shaft furnace
Diameter 1,900 mm
Depth 2,500 mm
Nominal temperature 980 °C
max. batch weight 8,000 kg
3 shaft furnaces SG 140/200
Diameter 1,400 mm / depth 2,000 mm
Nominal temperature 980 °C
max. batch weight 6,000 kg

Tempering furnace
Diameter 1,900 mm
Depth 2,500 mm
Nominal temperature 650 °C
max. batch weight 8,000 kg

Quenching bath (polymer bath)
Permanent temperature control
Powerful vertical and horizontal circulation of the quenching media for maximum process safety

Shot-blating facility
max. load 3,000 kg

Laboratory
Metallographic analysis
Hardness tests
Hardness profile
Technical advice

We also offer this spectrums as personalized service.

MEASURING

3D measuring in climate controlled environment
Grind burn testing facility according to ISO 14104

Measuring

CNC coordinates measuring machine Prismo 10

Length Y = 2,400 mm
Width X = 1,200 mm
Height Z = 1,000 mm

CNC-gear measuring machine Wenzel LH 1512
Gear
smallest module: 1
largest module: 32
min. diameter:
5 mm o. sensor changer
max. diameter:
1,500 mm o. sensor changer

internal toothing diameter > 12 mm helix angle < 90°

Axis travels
X = 1,500 mm
Y = 4,000 mm
Z = 1,200 mm

Grind burn test line

Grind burn testing facility (nital etching) according to ISO 14104
Pool size: 1,700 x 1,700 mm

Flaw detection

GEOMETRY

Manufacturing of complex geometries

GEARBOX-TEST BENCH

Size: 18,000 mm x 7,000 mm
Drive power: 120 kW max.
Rotational speed: 18,000 U/min

PW Hueber The Gear Company
PROVEN QUALITY
Made in Germany
efficient, robust, reliable
ISO 9001 & 14001 certified

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