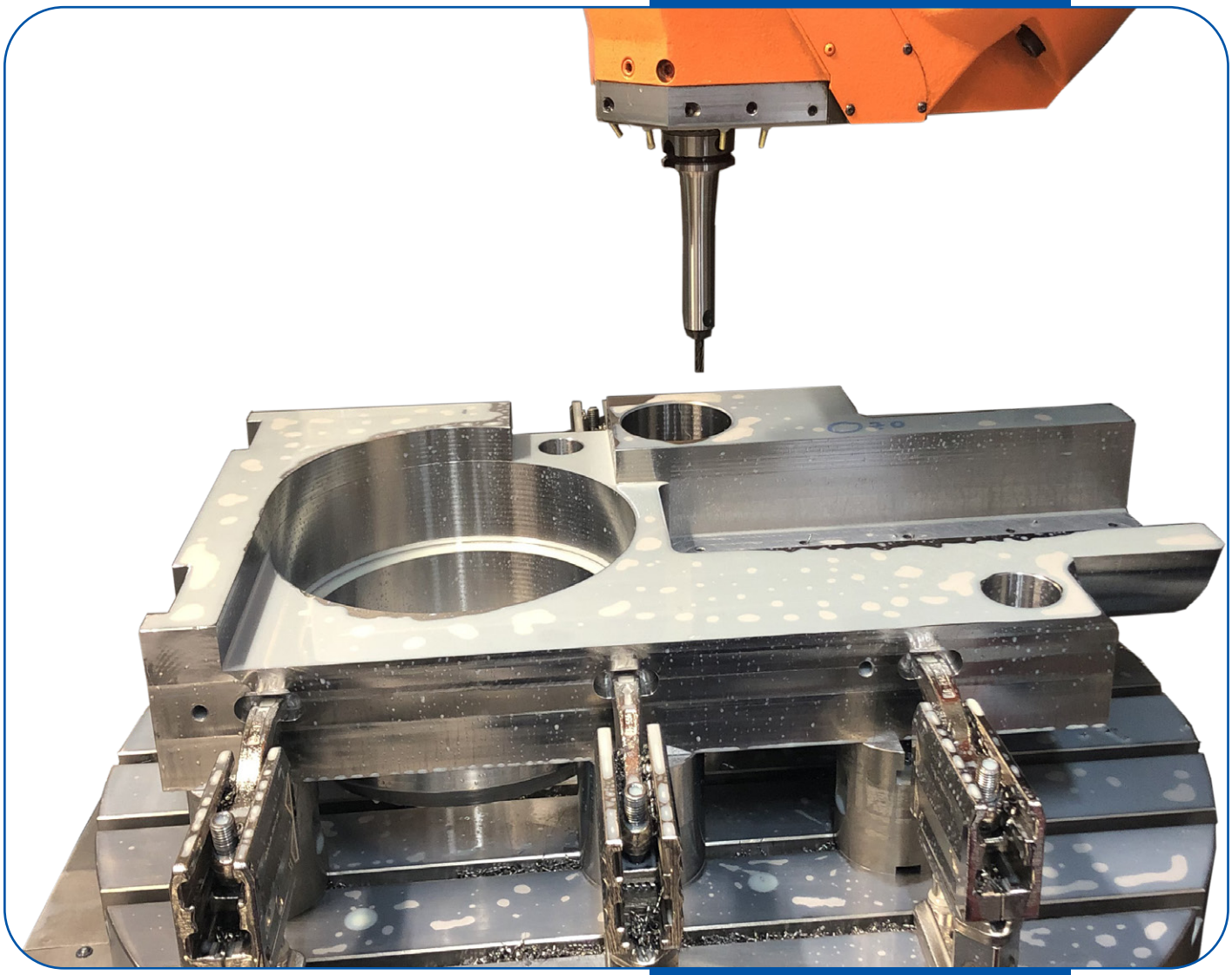
Manufacturing Possibilities



Machine Overview

FLOHR

INDUSTRIETECHNIK GMBH
INGENIEURBÜRO UND MASCHINENBAU

MACHINE OVERVIEW | MANUFACTURING POSSIBILITIES

Drawing, Design and calculation tool

2D	ME 10 / AutoCAD	Management of production drawings, component design and development
3D	SolidWorks	CAD-supported engineering service, development and simulation of drives
CAM	SolidCAM	CAD-supported engineering service, development and simulation of drives
Gear software	Div. Programmes	Calculation of gearing parts, cams and cam discs

1. Turning

Type	Brand	max. Ø	max. Length	Process
NEF 400	DMG	220 mm	500 mm	CNC Turning
DUS560	Vdf Böhringer	250 mm	1000 mm	CNC Turning
CTX beta 1250	Gildemeister	250 mm	1250 mm	CNC Turning
CTX 410	DMG	320 mm	600 mm	CNC Turning
MT 550	Mastrum	460 mm	1000 mm	CNC Turning
CTX 510	DMG	465 mm	1000 mm	CNC Turning
L 3000 LY	HYUNDAI-WIA	500 mm	1200 mm	CNC Turning, additional spindle 22 KW
SL6500M	SMEC	740 mm	1000 mm	CNC Drehen
SL3500BXY	SMEC	500 mm	1.600 mm	CNC Drehen
VDM 1000-11	Hessap	1150 mm	600 mm	CNC Turning
VDM 1200- 11	Hessapp	1400 mm	600 mm	CNC Turning
DA 180	Weiler	380 mm	1000 mm	Conventional turning
ET BM 420	Est Ticino	1600 mm	1500 mm	Conventional turning
14 DKE 115	Schiess Froriep	1150 mm	800 mm	Carousel turning machine
KSM 1400	Schiess	1560 mm	600 mm	Carousel turning machine
SD 160	Dörries	1600 mm	600 mm	Carousel turning machine
DÖRRIES	Dörries	2000 mm	2000 mm	Carousel turning machine
KZ 250	Schiess	2500 mm	1200 mm	Carousel turning machine

2. Milling

Type	Brand	X-Axis	Y-Axis	Z-Axis	Process
RX 10	Reiden	1000 mm	1100 mm	810 mm	5-Axis CNC Milling centre
DMU 80	DECKEL MAHO	880 mm	630 mm	630 mm	CNC Milling
DMC 85V	DECKEL MAHO	850 mm	630 mm	500 mm	CNC Hard milling
DMU 125P	DECKEL MAHO	1250 mm	880 mm	800 mm	CNC Milling
DMC 635	DECKEL MAHO	635 mm	510 mm	460 mm	CNC Milling
U 740	Hermle	915 mm	500 mm	500 mm	CNC Milling
U 1000	Hermle	1000 mm	630 mm	550 mm	CNC Milling
VTC 200 B	MAZAK	1120 mm	510 mm	510 mm	Machining centre
NEXUS	Yamazaki Mazak	1000 mm	500 mm	500 mm	CNC- Machining centre
NT 4300/1000	Mori Seiki	750 mm	210 mm	1120 mm	5-Axis CNC turning-milling centre
Vector 1300	Knuth	1300 mm	720 mm	700 mm	CNC-Machining centre
VPZ 04 160/160	SSB	1600 mm	1600 mm	800 mm	CNC drilling, turning, milling machine

MACHINE OVERVIEW | MANUFACTURING POSSIBILITIES

3. Cam Manufacturing

Type	Brand	max. Ø	max. Length	Process
KFV 600	Präwema	400 mm	400 mm	Cylinder, Axial, Radial / 4-Axis milling machine
KFG 500	Präwema	500 mm	400 mm	Globoid / 5-Axis milling machine and grinding
KFV 600/1	Präwema	620 mm	500 mm	Axial, Radial

4. Grinding

Type	Brand	max. Ø	max. Length	Process
Ri 5-3 CNC 4355	Kehren	800 mm	600 mm	3 Spindle CNC Grinding machine
Ri 6-4 CNC 4355	Kehren	1000 mm	700 mm	4 Spindle CNC Grinding machine
S 40	Studer	340 mm	650 mm	CNC External cylindrical grinding machine
S 33-1000	Studer	350 mm	1000 mm	CNC External cylindrical grinding machine

Type	Brand	max. Ø	max. Modul	Process
NZA	Reishauer	330 mm	6	Tooth flank grinding machine
RZ 150, 300, 400	Reishauer	400 mm	6	Tooth flank grinding machine
CNC-M.	SMS	300 mm	6	Tooth flank grinding machine
RZ 820, 1000	Reishauer	1000 mm	10	Tooth flank grinding machine
VAS 432	Kapp	300 mm	12	Tooth flank grinding machine
VUS 55 (P)	Kapp	500 mm	16	Tooth flank grinding machine
GA 2500	Cincinati	250 x 800 mm	1,2 - 10	Worm grinding machine
HELIX 700	Höfler	700 mm	10	CNC tooth flank grinding machine

5. Lapping

Type	Brand	max. Ø	max. Modul	Process
M 341	Klingelnberg	500 mm	7	Spiral toothing
LKR 630	Klingelnberg	700 mm	13	Spiral toothing

6. Grooving

Type	Brand	max. Wide	max. Stroke length	Process
KZ 90/500	Frömag	50 mm	230 mm	Broaching
S 300	Ravensburg	50 mm	300 mm	Bumping
Rapida 63	Frömag	63 mm	600 mm	Draw keyways
TH 5	Fleck	80 mm	400 mm	Broaching

MACHINE OVERVIEW | MANUFACTURING POSSIBILITIES

7. Gear Toothing (Milling / Grinding)

Type	Brand	max. Ø	max. Modul	Process
PE 150	Pfauter	150 mm	3	Roll milling machine
LS 252	Liebherr	300 mm	6	Roll milling machine
SN 5	Lorenz	300 mm	6	Roll milling machine
PE 300	Pfauter	300 mm	8	Roll milling machine
P 900	Pfauter	900 mm	10	Roll milling machine
153, 180 ,173	Koepfer	140 mm	10	Roll milling machine
L 902	Liebherr	900 mm	12	Roll milling machine
315 CNC	MODUL ZWFZ	420 mm	12	Roll milling machine
P 1250	Pfauter	1250 mm	16	Roll milling machine

8. Spur Gear Internal Gearing

Type	Brand	max. Ø	max. Length	max. Modul	Process
P 600 / 800	Pfauter	600 mm	200 mm	12	Gear-cutting machine
LS 630	Liebherr	800 mm	210 mm	12	Gear-cutting machine
L 1000 / 1500	Liebherr	1500 mm	380 mm	20	Gear-cutting machine

9. Racks (Milling / Grinding)

Type	Brand	max. Ø	max. Modul	Process
TSM	EGW	1670 mm	8	Gear racks milling
L 79	Kesel	2150 mm	16	Gear racks milling

10. Multi Wedge Profiles (Milling / Grinding DIN 5480 and 5481)

Type	Brand	max. Ø	max. Length	Process
P 160	Pfauter	150 mm	500 mm	Spline shaft milling machine
ZFWVG 250/3	WMW	3000 mm	300 mm	Spline shaft milling machine

11. Bevel Gear Teeth (Cyclo-Palloid)

Type	Brand	max. Ø	max. Modul	Process
FK 41	Klingelnberg	100 mm	2	Cyclo-palloid spiral toothing
AFK 151, 201	Klingelnberg	550 mm	7	Cyclo-palloid spiral toothing
KNC 25, 40	Klingelnberg	500 mm	8	Cyclo-palloid spiral toothing
AMK 250/400/635/852	Klingelnberg	800 mm	13	Cyclo-palloid spiral toothing

12. Worm Wheel Toothing

Type	Brand	max. Ø	max. Modul	Process
P600, 900, 1200	Pfauter	520 mm	12	Worm wheel machining

MACHINE OVERVIEW | MANUFACTURING POSSIBILITIES

13. Balancing

Type	Brand	max. Ø	max. Weight	Process
H 3 U	Schenck	800 mm	300 kg	Dynamic balancing bench
130 HBA-BAE 0714	Schenck	800 mm	500 kg	Vertical balancing machine
H 5 U	Schenck	2500 mm	5500 kg	Dynamic balancing bench

14. Eroding (Wire and Die Sinking)

Type	Brand	Size	Process
FX 104	Mitsubishi	350 x 250 x 220 mm	Wire erosion
C7 G35	Mitsubishi	350 x 250 x 300 mm	Wire erosion
AC 3	Agie	500 x 350 x 250 mm	Wire erosion
FA 20	Mitsubishi	500 x 350 x 300 mm	Wire erosion
FA 20 VS	Mitsubishi	500 x 350 x 300 mm	Wire erosion

15. Laser Cutting

Type	Brand	Size	Process
TC L5005	Trumpf	3000 x 1500 x 25 mm	Laser

16. Measuring Machines / Test Room

Type	Brand	X-Axis	Y-Axis	Z-Axis	Process
3D-CNC	Faro Gemini	1300 mm	1200 mm	1000 mm	Coordinate machine
3D-CNC	Zeiss	550 mm	500 mm	450 mm	Coordinate machine
EMZ 1000	Klingelnberg Höfler	1000 mm	Length 450 mm		Measuring machine
ROMER Absolute Arm	Hexagon		Measuring range 1200 mm		High-tolerance 3-D measuring system
XM-500	Keyence	1200 mm	1000 mm	1000 mm	3D Production measuring-system

Type	Brand	max. Ø	max. Module	Process
ZP 250	Höfler	298 mm	6	Gear inspection
PSKE 900	Klingelnberg	Axle angle: 0° bis -180° Axle offset: +/- 0,5 mm		Single flank rolling test

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