

Machine list AAE

December 2011



1. Machining (CNC and conventional)

1 Okuma	Multus B300W incl. Quick Load Bar feed LNS 80 incl. 60 tool positions, equipped with sub spindle	Ø 450 x 900
1 Okuma	LU 25M CNC (driven tools)	Ø 400 x 1100
1 Okuma	LB 300 M CNC (bar feed LNS 65)	Ø 310 x 500
1 Okuma	LS 30 N CNC (driven tools)	Ø 310 x 520
1 Okuma	LB15 M CNC (driven tools)	Ø 310 x 500
1 Hardinge	HLV-H	Ø 180 x 375
1 Caseneuve	HB 575	Ø 500 x 575
1 Hembrug	Ergonomic	Ø 150 x 350

2. Milling (CNC and conventional)

1 Okuma	MU-500VA-L (New) CNC 5 axis Simultaneous Vertical milling center With 238 tool positions, supplied through an Erowa Dynamic-robot. 3 different pallet types.	1250 x 660 x 540
2 Okuma	MU-500VA 5 axis Vertical milling center Each with 240 tool positions, coupled through single Erowa ERS-robot. 3 different pallet types.	1250 x 660 x 540
1 Okuma	MB-4000H (Expected, operational May, 2012) Horizontal machining center with fully automatic tool-changer (218 pieces) and 10-pallet loading unit.	560 x 560 x 625
1 Okuma	Horizontal machining center MA-400HA with fully automatic tool-changer (100 pieces) and 6-pallet loading unit.	560 x 610 x 625
1 Okuma	5-axis milling center MU-400VA With Erowa easy robot and 6-pallet loading unit.	762 x 460 x 460
1 Okuma	MC-4 VAE CNC machining center	775 x 420 x 450
1 Okuma	MC-40 VAHS CNC machining center Equipped with 4 th axis	775 x 420 x 450
1 Hermle	C1200V machining center	1200 x 900 x 500
1 Deckel	DMC 65V machining center	650 x 500 x 500
1 Deckel	DMC 65V machining center Equipped with 4 th axis	650 x 500 x 500
1 Deckel	FP4NC D2	560 x 450 x 450
2 Deckel	FP1	300 x 150 x 300
1 Abene	VHF 340 TI	700 x 275 x 495
1 Abene	VHF 300	700 x 275 x 495
1 Aciera	F3	300 x 150 x 150
1 Aciera	F3V	350 x 150 x 150

All our quotations, all orders placed with us and all contracts concluded with us are subject to the Standard Conditions of Contracting, Delivery and Payment of the FINE-CVM, filed at the Registry of the District Court in the Hague, according to the latest version.



3. CAD/ CAM

- Hypermill (universal)
- Admac (Okuma) Simulation software
- NC Simulation software
- PEPS (sheet metal)

4. Co-ordinate-drilling/milling (CNC and conventional)

1 Fehlmann Picomax 54 TNC 310	500 x 250 x 480
1 Fehlmann Picomax 51 TNC	450 x 260 x 450

5. Grinding (round/surface)

1 Studer	S40-2	Ø 350 x 650
1 Jung	F40	300 x 150
1 Jung	F50	400 x 175

6. Honing

1 Sunnen	MBB-1660	Ø 1,52 x Ø 60
----------	----------	---------------

7. Engraving

1 Deckel	G1L	200 x 500
----------	-----	-----------

8. Measurement

1 Werth Scope Check 3D-zoom, high precision (ISO 10360 & VDI/VDE2617) (accuracy traceable according to ISO 10360 or VDI / VDE 2617)	400 x 400 x 300
1 3D Measuring Zeiss Contura fixed XT scan measurement head	700 x 700 x 600
1 3D Measuring Mitutoyo Euro-C-A7106 (in Cleanroom)	1005 x 705 x 605
1 3D Measuring Stiefelmayer	2000 x 1600 x 1800
1 Tesa Microhite perpendicularity and height gauge	0 – 650x
1 Mitutoyo Linear Height gauge	0 – 600x
1 Measuring microscope with projection	
3 Heidenhain MT 100m Height gauge	0 – 100x
1 Trimos Vertical 3 Height gauge	0 – 600x
1 Trimos Altia	0 – 350x
1 Olympus BX-FM-F, light microscope	1000x
1 Olympus SZX-12, stereo microscope	144x
1 Keyence VHX-600, digital microscope (in Cleanroom)	200x



9. Sheet metal

1 Amada	Quattro CNC laser cutting max. cutting depth 6 mm. steel; 3 mm. Stainless; 2 mm Aluminum. Stainless steel < 1,5 mm thickness Stainless steel 2 - 4 mm thickness Steel < thickness 6 mm accuracy Al. < thickness 2 mm accuracy	1260 x 1260 x 100 accuracy ± 0.05 mm accuracy ± 0.1 mm ± 0.1 mm ± 0.1 mm
1 Safan	VS205 VAF guillotine shearing	2500mm
1 Safan	UCK 1600 angle bender	1600mm
1 Amada	CNC HFE 80 – 25 angle bender (7 shafts - 80 ton)	2500mm
1 Raskin	R-52 M piercing machine	
1	Belt sander	
1	Corner cutting machine	
Welding equipment	MIG, TIG, Autogenously	
Spot welding	Electrode welding	
Various rolling machines and straightening equipment		

10. Sawing

Eisele	Sawing machine
Behringer	Band-saw machine
Bewo	Sawing machine
Kaltenbach	Circular blade-saw

11. Miscellaneous

Pillar drill machines
 Radial drill machines
 Bench drilling machines
 CNC thread-cutting machine M2-M6
 Sanding/Polishing machine Saphir 320
 Drill bit grinding machine

12. Micro Laser Cutting / Drilling / Welding

1 DMG Sauer Lasertec 80	With 2 separate Laser sources and 5 th axis with Erowa zero-point work holder Accuracy (0.01 < 0.5mm) Accuracy (0.5 < 2.0mm)	800 x 500 x 700 ± 0.005 mm ± 0.01 mm
-------------------------	---	--