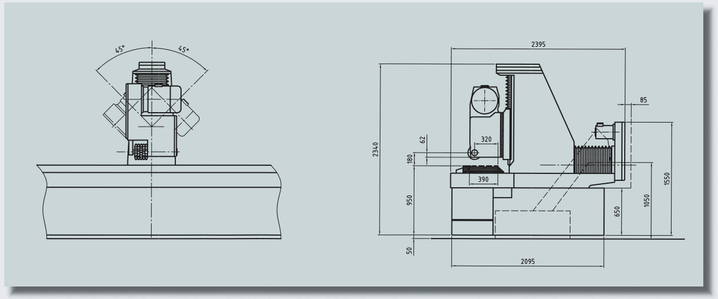
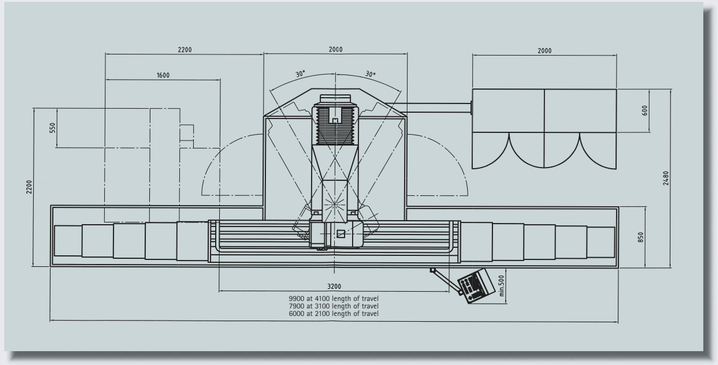
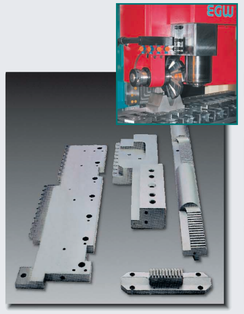
Highest productivity on a few square meters of floor space.



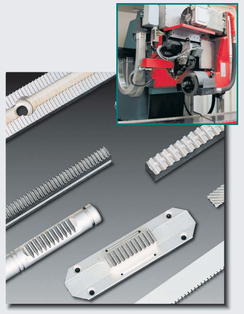


High duty milling and grinding...

...with **standard milling head** for rack cutting, milling of broaches, saw blades and for milling operations with rectilinear spacing.



...with **additional vertical milling head** for complete machining of workpieces, milling with face milling cutters, for drilling, tapping and roughing-out bores.



...with **grinding head** for high-precision grinding of gear teeth, blanking tools and special profiles, pre-milled or ground from the solid material.

Futuristic in milling and grinding technology

Innovation stimulates EGW engineers to design modern machines which take the lead:
dynamical in action, comfortable in operation, universal in application - built with high-tech components.

For the economical production of

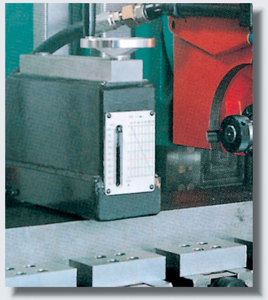
- racks
- broaches
- saw blades

as well as for

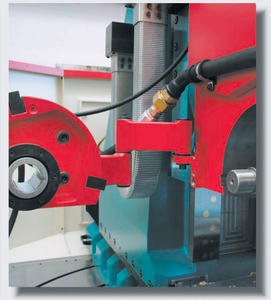
- complete machining of workpieces
- profile grinding operations

EGW®

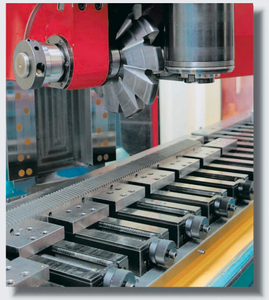
Modern techniques for high-precision products



Hydraulic press-down fixture for workpieces from 10 to 100 mm high.



Changing of the milling cutter is quick and easy by a swivelling end support.



Integrated hydraulic chucking fixture linked with the machine controls (e.g. reciprocal milling), adjustable from 1 to 225 mm, with special jaws up to 360 mm. Chucking fixtures for special requirements are made on request.

High-Tech from Ehingen - in use worldwide.

The domicile of Ehinger Gießerei und Werkzeugmaschinenfabrik GmbH is at Ehingen, a community in the Alb-Donau-Kreis, an administrative district in the beautiful Danube Valley in Baden-Wuerttemberg (Southern Germany).

We have 75 employees in our company working in three fields of business: Subcontract Work, Machine Tool Building, Cast Iron Foundry.

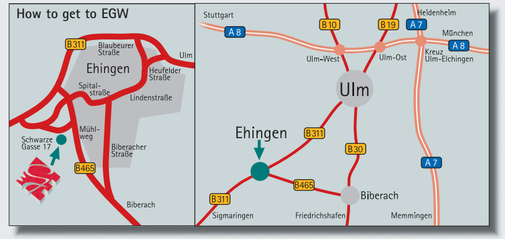
The machines and the equipment which we have in our factory - modern and comprehensive - enable us to meet requirements quickly, with flexibility and reliability.

Our subcontracting department is well equipped with all usual machining facilities.

Particularly in manufacturing and in machining of racks we are reputated to be absolute specialists.

Experience gained in this particular field in many years is bearing fruit in the design and engineering of our own products.

For more than 50 years we have supplied rack milling machines and rack grinding machines to customers all over the world who are satisfied and who appreciate our products and recognize technological leadership.



Visit us!
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EGW®

Milling and grinding on an outstanding level of technical performance.

We at EGW® furnish the proof for you.

Our machines

are incorporating years of experience and knowledge of growing market demands combined with latest technologies on all levels of design and engineering.

- The strongly-ribbed cast iron base of the machine provides the required stiffness
- The slideways are hardened and ground and the counterparts are coated and adjustable
- The drive units of the axes are amply dimensioned and powerful
- The direct path measuring systems guarantee utmost positioning accuracy.

In addition to this, state-of-the-art control technology, path control, comfortable interactive programming, self-diagnosis, and ease of operation; e.g. feed unit swivelling (C axis) supported by air cushion with digital display of the angular position.

The swivelling machine operating panel is designed to make it easy for the operator to handle it. Our menu technique allows quick and easy programming.

Milling machine UZFM 500-CNC

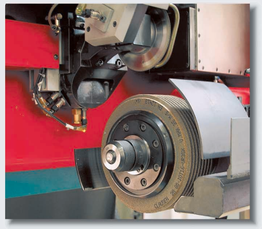
A wear resisting gear mechanism specially developped for the milling head ensures high driving power (high torque at the milling spindle) also in the low speed range. The spindle bearings are designed to take heavy loads, thus allowing powerful feeds.

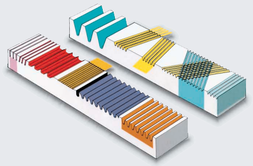
The UZFM 500-CNC is setting new standards in flexible manufacturing:

- **powerful feed rates**
- **top performance**
- **perfect surface finish**
- **long tool life**
- **high availability**

Grinding machine UTSM 500-CNC

Equipped with a profile dresser with 3 path-controlled CNC axes, freely programmable, using a rotating diamond wheel for dressing.





Options available for the milling machine UZFM 500-CNC

- Vertical milling head SK 40 taper with tool chucking fixture (released hydraulically) 1 to 2.200 r.p.m., motor output 13 kW S6 (removable)
- Cooling unit for the coolant facility
- Total machine enclosure
- Oil mist and emulsion mist separator
- Hydraulic clamping fixture, adjustable from 1 to 225 mm (360 mm)
- NC controlled quick-action work fixture
- Magnetic work holding plates
- Hydraulic press-down fixture for workpieces from 10 to 100 mm
- Attachment for reciprocal milling
- Teleservice for remote maintenance
- Vibration meter

Options available for the grinding machine UTSM 500-CNC:

- Magnetic work holding plates
- NC controlled quick-action work fixture
- Hydraulic clamping fixture, adjustable from 1 to 225 mm
- Cooling unit for the coolant facility
- CO_2 fire extinguishing unit
- Self-cleaning fine filtering unit
- Software package for creep-feed grinding
- Software package for broaching tools and saw blades
- Teleservice for remote maintenance

The machine is capable of producing gear teeth from module 0.1 to module 18 as well as blanking tools and all technically feasible special profiles. The profiles may even be ground from the solid material (using pendulum grinding cycles or the creep-feed grinding method). The grinding wheel can be adapted to the required form, radius or a corrected profile and pitch of the workpiece. Our new software allows to dress the grinding wheel while the workpiece is being ground.

Technical data

		Milling Machine UZFM 500-CNC			Grinding Machine UTSM 500-CNC		
Length of travel							
X axis - indexing axis	[mm]	2.100	3.100	4.100	2.100	3.100	4.100
Y axis - feed axis	[mm]	500	500	500	500	500	500
Z axis - vertical axis	[mm]	410	410	410	410	410	410
U-W-B axes	[mm]	-	-	-	U = 105, W = 105, B1 = ±20°		
Machine table (X axis)							
Maximum load	[kg]	3500	4500	5500	3500	4500	5500
Outside dimensions	[mm]	550 x 2450	550 x 3450	550 x 4450	550 x 2450	550 x 3450	550 x 4450
Clamping surface	[mm]	390 x 2200	390 x 3200	390 x 4200	390 x 2200	390 x 3200	390 x 4200
T-slots		4	4	4	4	4	4
Width of T-slots	[mm]	18H7	18H7	18H7	18H7	18H7	18H7
Spacing of T-slots	[mm]	90	90	90	90	90	90
Speed	[mm/min.]	0 - 21.000	0 - 21.000	0 - 21.000	0 - 21.000	0 - 21.000	0 - 21.000
Pitch of the screw	[mm]	20	20	20	20	20	20
Feed unit, horizontal (Y axis)							
Feed speed	[mm/min.]	0 - 11.000	0 - 11.000	0 - 11.000	0 - 11.000	0 - 11.000	0 - 11.000
Pitch of the screw	[mm]	10	10	10	10	10	10
Swivel range (C1 axis)		±30° Swivel range for helical gears			±30° Swivel range for helical gears		
Feed unit, vertical (Z axis)							
Feed speed	[mm/min.]	0 - 5000	0 - 5000	0 - 5000	0 - 5000	0 - 5000	0 - 5000
Pitch of the screw	[mm]	10	10	10	10	10	10
Spindle centre above table surface	[mm]	160 - 560	160 - 560	160 - 560	160 - 560	160 - 560	160 - 560
Swivel range of B2 axis		±45° Swivel axis for blanking tools			±45° Swivel axis for blanking tools		
Miling head / Grinding head							
Spindle nose / taper		SK 45 DIN 69871			50,8 mm (2")		
Motor output	[kW]	25 (S6)	25 (S6)	25 (S6)	30 (S6)	30 (S6)	30 (S6)
Spindle speed	[r.p.m.]	1 - 300	1 - 300	1 - 300	1 - 5000	1 - 5000	1 - 5000
Milling capacity in steel (C45)	Module	30	30	30	-	-	-
Width of milling cutter	[mm]	200	200	200	-	-	-
Milling cutter diameter min.	[mm]	125 + 2 x cutting depth			-	-	-
Milling cutter diameter max.	[mm]	288	288	288	-	-	-
Volume of metal removal in C45	[cm³/min.]	250	250	250	-	-	-
Cutting speed	[m/sec.]	-	-	-	5 bis 65 (constant programmable)		
Grinding wheel		-	-	-	ceramic bond, resin bond, CBN		
Width of grinding wheel	[mm]	-	-	-	15 - 90	15 - 90	15 - 90
Diameter of grinding wheel min.	[mm]	-	-	-	170	170	170
Diameter of grinding wheel max.	[mm]	-	-	-	300	300	300
Grinding wheel bore	[mm]	-	-	-	127	127	127
Range of application	Module	-	-	-	0,1 - 18 blanking tools and special profiles		
Coolant unit	approx. [ltr.]	500/1000 with integrated chip disposal			1.500 self-cleaning fine filtering unit		
CNC control unit		Siemens SINUMERIK 840 D			Siemens SINUMERIK 840 D		
Operating panel		Siemens			Siemens		
Handwheel							
Interfaces		TCP/IP network interface,analogous telephone connection, disk drive					
Drives of axes		synchronous motor (Siemens 1FT6)					
Spindle drives		asynchronous motor (Siemens 1PH7)					
Accuracy		direct path measuring systems (glass rule) for all axes; shaft encoder for C1 axis					
Positioning accuracy	[mm]	± 0,002	± 0,002	± 0,002	± 0,002	± 0,002	± 0,002
Total connected load	[kVA]	80	80	80	100	100	100
Machine enclosure		partial enclosure 1,8 m high total enclosure (option)			total enclosure with integrated oil mist separator/CO_2 extinguisher		
Weight	approx. [kg]	13.000	15.000	18.000	13.000	15.000	18.000

Other lengths upon request.