MULLER MACHINES SA
top second hand and new precision machine tools

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SAM 019353 **WALDRICH COBURG Type 20-10 FP 280**

Group	Milling machine gantry type
Manufacturer	WALDRICH COBURG
Type	20-10 FP 280

Number of axis total	3
Table length	8000 mm
Table width	2800 mm
Number of T-channels	11
T-channel width	36H8 mm
Distance of the T-slots	250 mm
Travels:	
X axis	9000 mm
Y axis	2950 mm
Z axis	1250 mm
W axis	2200 mm
Distance table to spindle max.	2806 mm
Distance between columns	3200 mm
Table load max.	64000 kg
Taper in spindle	60 ISO
Spindle speeds:	
number (steps)	16
from	20 t/min
up to	600 t/min
Feeds:	
X axis from	5 mm/min
up to	3000 mm/min
Y axis from	5 mm/min
up to	3000 mm/min
Z axis from	5 mm/min
up to	2'000 mm/min
W axis from	5 mm/min
up to	750 mm/min
Creep speeds:	
X axis	5 - 3000 mm/min
Y axis	5 - 3000 mm/min
Z axis	5 - 2000 mm/min
W axis	5 - 50 mm/min
Voltage 50 Hz 3x	380 Volt
Spindle motor	100 kW
Spindle torque	13000 Nm
Weight total about	120'000 kg
Overall dimensions about:	
Length	21000 mm
Width	7800 mm

Technical data and photographs without warranty.
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Height	6622 mm

Various accessories:
90° attachment
90° narrow attachment
Vertical extension
Tilting attachment

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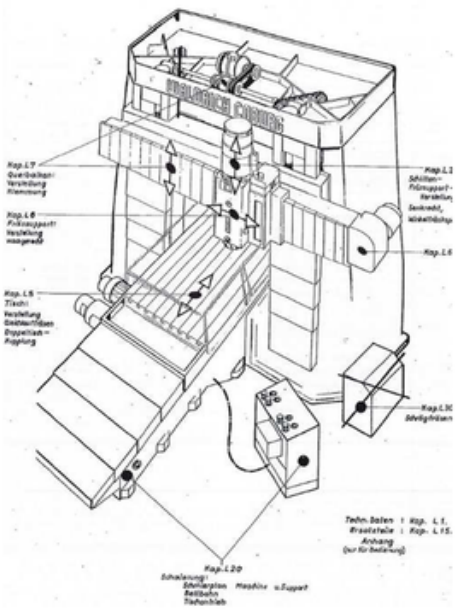
Movements sketch



OVERALL DIMENSIONS

• Length	mm	21.000
• Width	mm	7.800
• Height from floor	mm	6.622

SIZES

• Table height from floor	mm	500
• Table width	mm	2.800
• Table length	mm	8.000 (5.000 + 3.000)
• N° of "T" slots	n°	11
• Distance between centers of slots	mm	250
• Type of slots	mm	36H8

MACHINE CAPACITY

• Milling useful width	mm	3.100
• Distance between columns	mm	3.200
• Max distance spindle-nose/table	mm	2.806
• Max weight admitted on table	T	64

AXES STROKE

• Table stroke ("X" axis)	mm	9.000
• Rapid feeds	mm/min	5-3.000
• Slow feeds	mm/min	5.5-50
• Slide stroke on crossrail ("Y" axis)	mm	2.950
• Rapid feeds	mm/min	5-3.000
• Slow feeds	mm/min	5-50
• Slide vertical stroke ("Z" axis)	mm	1.250
• Rapid feeds	mm/min	5-2.000
• Slow feeds	mm/min	5
• Cross-rail stroke ("W" axis)	mm	2.200
• Rapid feeds	mm/min	5-750
• Slow feeds	mm/min	5-50

RETROFITTING WITH NUMERICAL CONTROL SIEMENS 840 D SL

It controls "X" axis (table movement), "Y" axis (Head movement along crossrail), "Z" axis (vertical movement of the Head), the cutting speed, the main motor power management, the automatic tools changer management (*if the machine will be equipped*).

The CNC also includes the static interface between the electrical equipment and CNC, as well as all the functions included in the basic version of the model chosen and anything else necessary for the perfect machine running.
The operator panel and all the controls are anchored to the ground in a central position with rotation of the control by means of an articulated arm (ray 1.5 mt approx.) Other solutions preferred by the Customer are possible.

- Digital control
- Memory: 2Gb
- NCU 730.3 PCU 50.5P
- Ethernet
- System memory unit: 40Gb
- Pentium M (Mobile) 2,4 GHz
- Human-machine interface HMI
- 19" LCD, with full-function keyboard (OP19C-TFT)
- Standard networking interface
- RS232 standard communication port
- Nr. 5 USB2.0 ports (nr. 4 internal, Nr. 1 external)
- 25X CD-ROM optic drive
- HT-2 handheld unit with screen (IP65)
- interface
- Windows 7
- Synchronous, non-synchronous or interpolation controlling, 3D interpolation.
- Calling up subprogram
- Tool compensation
- Tool life control
- Rigid tapping
- Trouble diagnosis and display
- Safety protection system: over temperature, overpressure, battery low charge, memory, limit switch and fan.
- 3D graphic simulation and display of the working process, monitoring the path, and inputting programmable interlock data.
- Standard cycle programs furnished with graphic display.
- I/O function and data modification
- Be able to realize automatic/manual control of the machine

OPTIONAL

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The offered machine is composed by:

"X" axis bed	The bed is high-quality cast-iron, oversized to grant great stiffness and to bear big loads. It is anchored to the foundation by means of tie rods and levelling screws to give a perfect initial alignment and then to make easy the possible operations of levelling checking during the machine working life.
MOVABLE TABLE "X" AXIS	The table is made of high quality cast iron, it has a useful length of 8 meters; it can work 8 useful meters or it can be shared into 2 parts, one 5 meters long, the other 3 meters long; the "V" guideways are coated with antifriction material, Turcite type.
"Y"AXIS SUPPORT COLUMNS	The columns are high quality cast iron, oversized in order to obtain high rigidity to bear the stresses deriving from the slide-holder carriage in transverse movement on the movable crossrail.
FIXED CROSSRAIL	The crossrail is high quality cast iron, fixed in the upper part to the columns, in order to make the structure extremely rigid to bear loads and stresses deriving from the movable crossrail in all its vertical stroke on columns.
MOVABLE CROSSRAIL "Y" AXIS	The crossrail is high quality cast iron suitably ribbed and structured to be able to bear flexion and torsional stresses, deriving from weight and work efforts, deriving from the slide-holder carriage.
	The adjustable gibs, which guarantee a perfect sliding vertical movement, are covered with antifriction material, Turcite type.
SLIDE-HOLDER CARRIAGE	The slide-holder carriage is high quality cast iron, appropriately structured to make it extremely rigid to bear the stresses to which the slide is subjected, to which extremity are applied the milling attachments.
"Z" AXIS SLIDE	It is the part of the machine subjected to the first impact related to the work effort. The slide is high quality cast iron, the dimensions are 600 mm. x 700 mm. It is strongly ribbed and structured in order to bear the most extreme working conditions with great rigidity. To ensure a perfect vertical movement in "Z", in the slide-holder are installed some antifriction material gibs, Turcite type.
HYDRAULIC PLANT	An hydraulic unit complete with electric pump and solenoid valves drives all the services necessary for the machine correct operation.
MEASUREMENT SYSTEM	At present "PHILIPS OPTICAL SCALES" are installed for "Z" and "X" axes.

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