

Quotation

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PROJECT : Roeders HSC-machine - RXP801

pos.	item no.	description	quantity
10	M.P810NU90	HSC-Machine RXP801 with t-slot table	1
20	M.560TP900	Thermo package 500-801	1
30	MRFTEHB900	Hand held pendant	1
40	MRFZMMS900	Minimum lubrication	1
50	MRFZEWR900	Work piece cleaning	1
60	M.S1224VC900	Spindle MFW1224/42 HSK-E40	1
70	MRFSK900	Spindle compensation	1
80	MRFWZW801900	Tool changer 801 standard	1
90	MRFATA256900	Automation package 400-801	1
100	W600161090	UPC production chuck	1
110	W600175090	Seal set for clamping chuck UPC-P	1
120	MRFPZ080	Chuck-drive	1
140	MRFRU280	1-axis NC-turntable direct drive RTT1	1
150	W6001790	Power Chuck P, d=150	1
160	MSWR20AN00	Jobmanager RMSMain	1
170	MRFUSV3900	UPS 3-axes/RXD	1
180	MRFZA900	Lift up Z-axis	1
190	MSWP035010	Remote Control via Teamviewer	1
200	MRFZK1810	Remote monitoring with Network-Cam	1
210	MRFZK230	GSM modem for SMS message	1
220	MRZ3DAUT1900	3D-Touching probe automatic TI	1
230	MSWR2200	RMS6-PH/Wp	1
250	MRDS0650	Initiation I	1

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10 HSC-Machine RXP801 with t-slot table

High speed milling machine made of mineral casting with extremely high stiffness for highest precision and surface quality. The NC control has been developed especially for high dynamics in 3D milling operation. Patented friction-free counterbalance in the Z-axis for optimal precision.

Machining range:

800 mm x 635 mm x 400 mm

The maximum height between spindle nose and the machine table is of approx. 615 mm.

Table:

T-slots 14 mm, distance 80 mm

Dimensions: 796 mm x 596 mm

The table must not be distorted by uneven workpieces.

Weight of work piece:

800 kg maximum

Drives:

High dynamical linear motors in all axes with integrated cooling

Feed rates:

0 - 60.000 mm/min in all axes

Cabin:

Fully closed, two doors with safety glass, good view into working area, simple workpiece loading by crane possible; for the automated loading of the machine an automatic door is available on request.

Sealing:

All machine parts are protected against soiling; with an industry cleaner graphite, cast iron and plastic can be machined.

Numerical control:

ROEDERS high-speed numerical control RMS6, latest version. 17" TFT-monitor; network connection (1 Gbit/s) for the integration of the machine control into an Ethernet network by the customer

Editor RMSEdit:

Programming editor for creating and modifying NC programs including:
- Syntax Highlighting

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- Tool for comparing files
- Tool for easy file modification
- Special searching functions, e.g. for tool change

Laser for tool measuring:

For automatic tool length correction, diameter and contour measurement, tool break and wear control

Tool cleaning device:

Nozzle for cleaning of milling tools by pressed air before measurement

Removal of chips:

Two feed screws, chip bin located in the machine back

Compressed-air pistol:

Available at machine control, connected to machine air supply

Cooling:

Chiller for tempering of spindle, drives and cabinet. Heat removal to the ambient air.

Dimensions including terminal:

W 2.900 x L 2.800 x H 2.800 mm

Dimensions for transport:

W 2.200 x L 2.800 x H 2.800 mm

Total weight:

Approx. 9.500 kg

Coloring:

Frame, terminal, sliding door: RAL 3003
 Cabin, cabine: RAL 7035
 Chip bin: RAL 7024
 For special coloring: see separate position

Connections:

Electrical: 400V +/- 10V, 63A; connected power approx. 44 kW
 Adjusted for TN or TT network
 Pneumatic: minimum 6,5 bar, consumption approx. 600 l/min during continuous running

Necessary air quality, according to ISO 8573.1: Class 4

- Solid contaminants:
 max. particle size 15 µm, max. particle density 8 mg/m³
- Total oil content: max. oil concentration 5 mg/m³
- Maximum pressure dew point: +3° Celsius

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Surroundings:

Allowable ambient temperature 14°C – 35°C
Allowable relative humidity 20% - 80%

The precision of the machine directly depends on the temperature constancy of the ambient temperature. For high accuracy requirements a temperature constancy of +/- 1°C is necessary. Insolation of the machine and its direct surrounding has to be avoided.

20 Thermo package 500-801

Equipment of the HSC machine to increase the machining accuracy.

The additional equipment includes

- Cooling of the secondary parts of the linear motors
- Chiller for tempering of drives and milling spindle with a temperature hysteresis of maximum +/- 0,1 K
Sizes: 660 x 750 x 1.200 mm
- Optimized control in all axes

30 Hand held pendant

For setting mode, allows the safe operation of the machine axes at open doors; including handwheel

40 Minimum lubrication

Cooler and lubricator with 2 two-component jets, no waste disposal necessary; recommended for the milling of metallic materials which will not be milled with emulsion

50 Work piece cleaning

Pressure air jet in the Z-axis for cleaning of the work piece by air; recommended when dusty materials are milled

60 Spindle MFW1224/42 HSK-E40

High frequency milling spindle, vector controlled, FISCHER MFW1224/42, 100-42.000 1/min, 15 kW (S1), HSK-E40 tool interface, maximum tool diameter 16 mm, automatic tool change

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Additional price to the standard spindle

70 Spindle compensation

Contactless measuring of the displacement of milling spindle and tool during milling operation, compensation in the machine control.

At smaller machines up to RXP600(DSH) only available in connection with the thermo package.

80 Tool changer 801 standard

Tool magazine accessible during primary processing time of the machine with following capacity:

HSK-E40 - 45 places

HSK-E50 - 36 places

HSK-F63 - 30 places

90 Automation package 400-801

Delivery of the sliding door with a lift door instead of the standard glass filling. For the loading of the machine by handling systems RCS-x and RCE. Delivery of the door without handle.

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140 1-axis NC-turntable direct drive RTT1

- Precise and high dynamic direct drive with extreme good synchronism quality (Torquemotor)
- Fully integrated into the machine control
- Retrofittable at nearly all ROEDERS 3-axis HSC-machines
- High cutting parameter at the A-Axis
- A leadthrough for a clamping fixture is available on request

Zero backlash, totally sealed, direct position measurement system in the turning axis, for highest precision and accuracy.

Measurements:

Hight: 327 mm

Length: 274 mm (with a chuck the length increase accordingly)

Width: 365,5 mm

Table diameter: 160 mm

Weight: about 60 kg

Turning range: n x 360°

Height of center: 193,5 mm

Maximum weight of work piece (including chuck): 50kg

The work piece clamping must be free of vibrations. The table might not be distorted by uneven work pieces.

Including electrical plugs and socket for easy connection and disconnection to the machine.

Baseplate is included in the delivery.

150 Power Chuck P, d=150

For mounting at NC-turntable MRFRU280.

Erowa item no. ER-029391

160 Jobmanager RMSMain

Jobmanager for Roeders milling machines, standard version

For operation of Roeders HSC machines with or without handling for work pieces and tools. For the operation of several machines within one automated cell an additional PC and further software

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modules are necessary.

Price per Roeders machine, plus training

170 UPS 3-axes/RXD

In case of a power failure the control PCs will be shut down automatically after a default time of approx. 5-10 minutes. The milling operation will be interrupted immediately.

180 Lift up Z-axis

In case of a power failure the z-axis of the machine will be lifted up in order to avoid damages of the work piece.

Only available in connection with the UPS

190 Remote Control via Teamviewer

Remote control of the machine by Röders service via Internet communication (Teamviewer).

The connection to the internet has to be arranged by the customer.

During the warranty period of the machine the use of the telemaintenance is free of charge. After that period Röders may invoice the use of this service at cost-price or by the use of a special telephone service number.

200 Remote monitoring with Network-Cam

Supervision of the working area from Röders machines by the customer.

Runs directly on customers network. View live video from any location locally or over the internet (Browser-based operation).
 Resolution: 1.3 MP

210 GSM modem for SMS message

GSM-modem for reporting the machine status via SMS (Short message service) in GSM networks with 850, 900, 1800 or 1900 MHz.

Operation with RMS6 machine control or RMSMain/RPC:

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- universal list of recipients with possibility of test SMS
- current list of broadcasts (configurable from the list of recipients) with rerouting in case of missing acknowledgment by SMS
- Single or broadcast SMS at operators choice
- external status request if operated by RMSMain

The required SIM card is not included. At the location of installation a sufficient GSM signal is required.

220 3D-Touching probe automatic TI

Data transmission via IR-Interface, several measuring cycles available in the machine control

With thermostabilized HSK-cone to minimize heat transfer into the 3D probe after insertion into the warm milling spindle to reach higher measurement accuracies.

Takes one place in the tool changer; the 3D-Touching probe manual is removed

230 RMS6-PH/Wp

Software interface between Roeders control RMS6 and partner handling for exchange of work pieces. Electrical interface of the machine is included.

The interface of the handling is not included.

Price per machine, plus initiation and training

250 Initiation I

Travel charges of our technician on working days for car and train as well as accommodation costs are included in the a.m. price. Flight tickets will be charged after deduction of 500,- EUR, flight hours charged after the 5th hour of traveling at the below mentioned prices.

Röders will choose the most suitable means of travel.

260 Basic training I

The instruction and training takes place at the customer. It takes 1 day and contains the basical operation of the machine.