



Decades of proven Reliability and
Quality - that's what we stand for
www.knuth.de



Machine Tools and Accessories From One Source

CATALOG 2012

CNC Machining • Sheet Metal Work • Grinding • Sawing • Turning • Milling • Drilling • Cutting • Eroding



In a 16,000 m² area at our [headquarters in Wasbek, Germany](#) we keep more than 100 machines ready for demos and quick delivery. The quality of our machines will convince you!

Make an appointment for a personal demo: +49 (0) 4321-6090.



Quality starts with proper acceptance testing

QUALITY BY KNUTH

- A careful selection of machines and long-term relationships with OEMs guarantee high quality standards.
- For every KNUTH Machine, our engineers perform vigorous acceptance testing at the manufacturer sites. This sets us apart from our competitors!
- Every KNUTH Machine is manufactured according to CE standards and accompanied by individual test certificates.
- Prior to delivery, every machine undergoes extensive function checks at our head quarters to ensure a trouble-free start-up at the customer site.

High reliability for high customer satisfaction

KNUTH SERVICE

- highly qualified technicians ensure reliable service from one central source
- reliable spare parts procurement - large parts warehouse for high availability of parts
- Our Service Hotline is available daily from 8:00 a.m. to 5:00 p.m.
- Programming training with the purchase of any CNC machine - on site, or at our facilities



Innovation to give you a competitive edge

KNUTH Center of Cutting Technology

LASER - PLASMA - HYDRO: We have the perfect process and the right machine for your cutting tasks.

Learn more at www.knuth.de/schneidzentrum.html

GPlus 450 Our Future-Oriented Control System

- intuitive operation • high dynamics and accuracy • 450 NC blocks per second
- For more information, please visit www.knuth-gplus.de

Take full advantage of our online portal www.knuth.de

In addition to our complete machine tool portfolio, you will find:

- the latest on current **sale events** and **new products**
- a complete array of recommended **accessories**
- **videos** and **product brochures** with complete information on all of our machines
- **don't wait - log in now to save money on your next order!**





TRADE SHOWS 2011

- 07.- 14.09. **MOS Celje** - Slovenia
 19. - 24.09. **EMO Hannover** - Germany
 03. - 07.10. **MSV Brno** - Czech Republic
 05. - 08.10. **TIB Bucharest** - Rumania
 19. - 21.10. **Eurotool Krakow** - Poland
 24. - 28.10. **In-House Exhibit Pardubice** - Czech Republic
 04. - 05.11. **Cutting Center In-House Exhibit Neumünster** - Germany
 10. - 12.11. **Eastern Branch In-House Exhibit Neuenhagen / Berlin** - Germany
 14.11. **KNUTH Chicago In-House Exhibit Chicago** - USA
 14. - 17.11. **Fabtech Chicago** - USA
 16. - 18.11. **Instrutec Tallinn** - Estonia
 17. - 19.11. **Southern Branch In-House Exhibit Denkendorf / Ingolstadt** - Germany
 22. - 25.11. **Prom Forum Kiev** - Ukraine
 24. - 26.11 **Tech Industry Riga** - Lithuania
 30.11.-03.12. **Manufacturing Jakarta** - Indonesia

TRADE SHOWS 2012

09. - 12.01. **Steel Fab Sharjah** - United Arab Emirates
 25. - 28.01. **Nortec Hamburg** - Germany
 19. - 22.02. **Machinex Jeddah** - Saudi Arabia
 13. - 16.03. **Techni Show Jaarbeurs Utrecht** - Netherlands
 28.02.-03.03. **Metav Düsseldorf** - Germany
 27. - 29.03. **Westec Los Angeles** - USA
 27. - 29.03. **STOM Kielce** - Poland
 29. - 31.03. **MECSPE Parma** - Italy
 April **Metallobrabotka Minsk** - Belarus
 02. - 04.05. **Fabtech Mexico City** - Mexico
 14. - 18.05. **Technical Fair Belgrade** - Serbia
 28.05.-01.06. **Metallobrabotka Moskau** - Russia
 29.05.-01.06. **Mach Tool Poznan** - Poland

For information on all trade shows, see www.knuth.de

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Prices do not include value-added taxes.

Free shipping (within Germany) of tools and accessories on the specially marked pages, if ordered through our website www.knuth.de.

The Special Offer Listing on our website is updated continuously with new samples, demo products, outgoing models, and slightly damaged machines. Don't miss these excellent deals - visit www.knuth.de regularly!

• WARNING •

Please be aware that some suppliers in Russia and several other markets make false presentations of their products, misleading customers to believe they are buying Knuth products with the high quality and reliable service they expect. If you have any doubts about the authenticity of a product, please contact us. We will be glad to help you identify, if you are getting an original product.

i.gerd@knuth.de



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- Laser Cutting Systems with extremely small foot-prints
- low machine weight and minimal setup site requirements
- minimal installation requirements



Specifications Laser-Jet		1512	2512
travel			
- X axis	mm	1500	2500
- Y axis	mm	1250	1250
- Z axis	mm	70	70
workpiece support height	mm	1000	1000
throat width	mm	1850	2850
throat height	mm	60	60
max. part weight	kg/dm ²	1	1
rapid feed	m/min	60	60
positioning accuracy	mm	± 0.05	± 0.05
repeatability	mm	± 0.05	± 0.05
machine width	mm	2770	3770
machine depth	mm	3020	3020
weight (SM 1500)	kg	2000	2100
System with SM 600 Part No.		140 815	140 811
Price €		147.000,-	149.000,-
System with SM 1000 Part No.		140 816	140 810
Price €		167.000,-	169.000,-
System with SM 1500 Part No.		140 817	140 812
Price €		182.000,-	184.000,-

- excellent cut quality ensured by high-quality beam and rigid machine structure
- compact machine layout for easy feed of material and removal of cut parts
- user-friendly, application-oriented operating software with integrated technology database (Cutting Chief inside)
- lowest operating cost and longest maintenance intervals (remote system diagnostics via Advanced Remote Control)
- minimum emissions due to exhaust vacuum above workpiece board

Standard Equipment: complete system with PC control, CO₂ laser, optics for beam path, high-pressure cutter head, capacitive height scanner, toggle for cutting gas/cutting pressure, support grid for metal cutting, automatically moving guard plate, coolant return cooler, operator manual, programming instructions

CO ₂ – laser type		SM 600	SM 1000	SM1500
wavelength	µm	10.6	10.6	10.6
beam quality	K >	0.8	0.8	0.8
beam power	W	600	1000	1500
pulse peak power	kW	2	3.5	5
pulse frequency	Hz	1000	1000	1000
laser gas		Premix LASAL 81		
connected load	kW	max. 7	max. 10	max. 13

Options

	Part No.	Price €
• Vacuum and filter system	140 840	9.600,-
• Upgrade for non-metal work	250 746	upon request
• Feed table for non-metal work	250 747	upon request
• Coolant return cooler upgrade	250 748	590,-
• Purge air regeneration	250 749	990,-
• Replacement lens socket	250 750	2.690,-
• Optics adjustment & cleaning set	250 751	340,-
• Hand-wheel positioning system	250 601	1.890,-
• CAD-CAM software (grid nesting)	250 752	1.990,-
• CAD-CAM software extension	250 753	1.990,-
• Calculation software	250 754	540,-



Vacuum and filter system (optional)



Hand-wheel positioning system (optional)



Laser Cutting Systems

Laser-Jet 1512 • 2512

Flexible, functional, and space-saving machine
with low investment cost and low operating cost

starting at

147.000,- €



Made in Germany

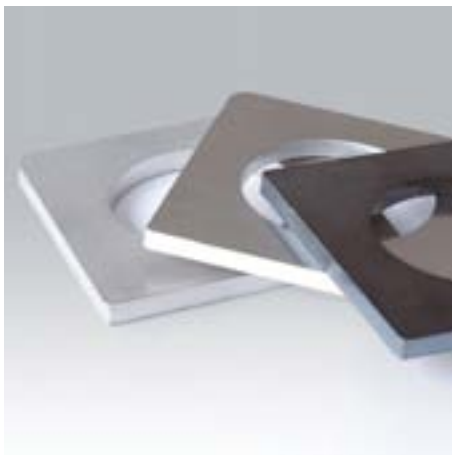


- filigree contour cuts with pulsed laser-jet
- separate thick plates with full CW laser power, and cut thin plates with power plus high cutting speed
- controlled focus retracing via capacitive height scanning ensures highest cut quality
- automatic cutting process guidance during plunge-cuts, cut corners plus small and large radii (Cutting Chief inside)

- integrated toggle between 2 cutting gases, each with 2 pressure levels
- flexible cutting of various metals
- labeling of cut parts with the same cutter head
- cutting of non-metallic materials is possible after retrofitting (optional)



Cut graphic elements



Cut parts of alu., stainless steel and structural steel

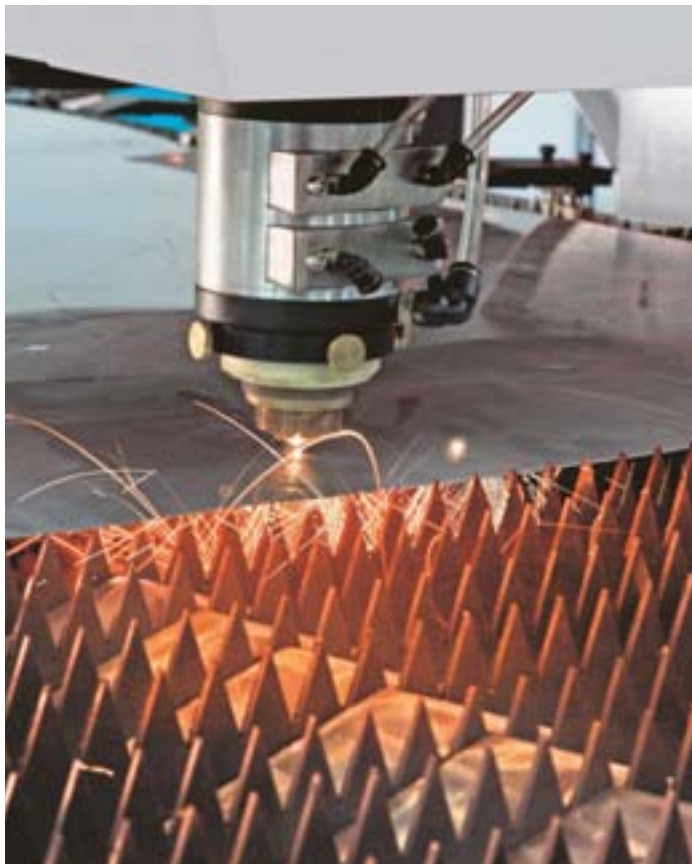


Cut parts of acrylic material up to 30 mm thick

For more information and options, visit www.knuth.de

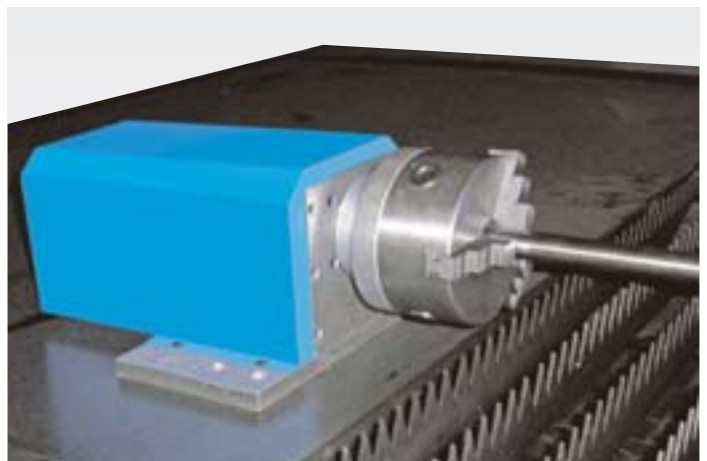


K.LASER 1530 / 600 is shown with control and coolant system



K.LASER Control

- easy import of common file formats, like *.DXF, CorelDraw, Mastercam and G-Code programs
- automatic optimization of travel paths
- Windows-based IPC CNC control
- networkable control for easy file transfers
- radius optimization
- process time and parts counter



tube cutter (optional)

Standard Equipment: laser source, control system, coolant system, safety glasses, operating tools, operator manual

Options	Part No.	Price €
• tube cutter, up to 110 mm	250 805	2.500,-

Specifications K.LASER 1530 / 600

travel		
- X axis	mm	3000
- Y axis	mm	1500
- Z axis	mm	120
cutting speeds	mm/min	0 - 6000
machining table height	mm	970
rapid feed	mm/min	15000
Accuracy		
positioning accuracy	mm	± 0.02
repeatability	mm	± 0.02
power supply	V / Hz / A	400 / 50/60 / 60

laser type		Nd: YAG
laser exciter		xenon lamp
mean laser power (max.)	W	600
pulse frequency	Hz	1 - 450
cutting gas		air / O ₂ / N ₂
power consumption (laser)	kW	< 20
Dimensions/Weight		
dimensions	mm	4200 x 5000
weight	kg	4200
Part No.		140 850
Price €		98.000,-



Laser Cutting System

K.LASER 1530/600

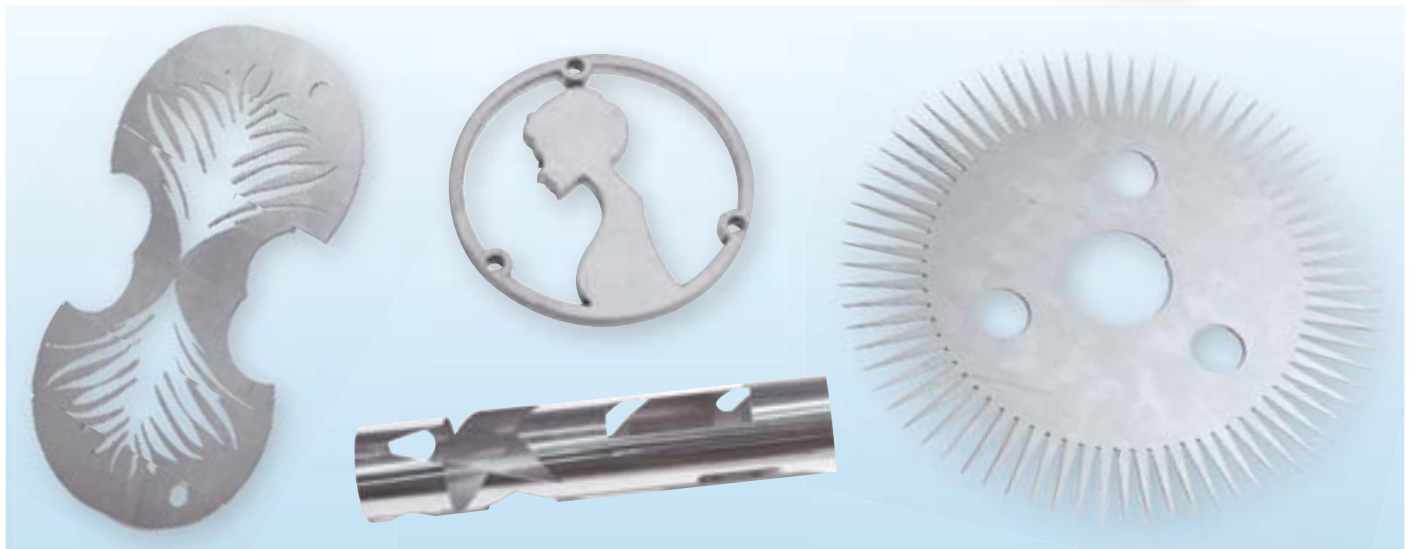
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Cutting • Eroding

Low-Cost Entry-Level Laser Cutting System

- compact machine design
- minimum capital investment - maximum competitiveness
- cutting and welding function
- servo drives on all axes
- roller system for easy material feed
- workpiece clamping on the work table for optimum material fixation

98.000,- €



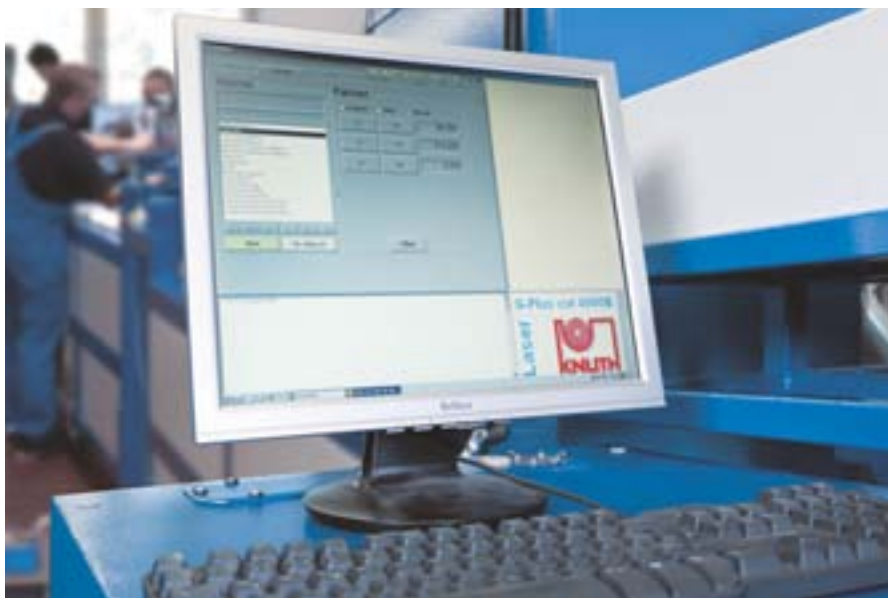
samples made of steel

For more information, visit www.knuth.de

- **innovate hardware with a modular design** (including self-diagnostics for every individual module)
- **rapid data refresh rate** (0.25 ms clock time = 4000 Hz for position control)
- **large data storage for extensive cutting jobs**
- **PLC and NC kernel are protected against Windows crashes (BSOD)**
- **3 USB port for data transfers and internet connection** (allows remote control of machine by the customer and remote diagnostics by the manufacturer for application consultation and system analysis - Advanced Remote Control)
- **user-friendly, easy-to-learn HMI** (separate windows for manual operation, data entry, cut simulation, automatic operation)
- **automatic parameter settings via technology database** (parameters can be adjusted during cutting operation to optimize the cut; cutting geometries can be directly imported from DXF, DIN/ISO files)
- **pre-selected routines to guide the cutting process along a contour (Cutting Chief Inside)**
- **easy resuming of cutting process after an interruption**

The optional CAD-CAM Software Packages include: –

- easy cutting program creation without any CNC knowledge, geometry imports from DXF, DWG, DIN/ISO files
- analyzer for testing and editing of geometry files
- 50 macros with configured standard geometries
- technology assignment for engraving label text and cutting contours
- automatic design of starting cuts, insertion of lands, bridges and chain cutting programming, starting cuts from the edge
- Grid Nesting
- extension for parquet, contour and manual nesting, for the creation of common cut lines and separation cuts to remove plate material excess, excess material management
- extension for calculation of cutting time and parts cost



Technological Equipment

- IPC: Intel Pentium M 1.8 GHz, 1024 MB RAM, 160 GB hard drive, 6 x USB 2.0
- Windows XP Professional 32-bit
- 3 x Ethernet 10/100
- Fieldbus EtherCAT

- I/O: Bus terminals according to Beckhoff New Automation Technology
- CNC: TwinCAT NC I + NC PTP + TwinCAT PLC as Multi-PLC
- CAD/CAM (optional): cncCUT in PC Version 2D (IBE Software) + GPlus/Laser – Post-Processor



I/O – bus terminals (Fieldbus EtherCAT)



cutting parameters directly from technology database



simulation of the cut on user HMI



Cut parts with starting tapers nested in grids (CAD-CAM option)



contour nesting on grid remainder (excess) and separation of excess plate material (optional)

Compact laser for labeling, marking and engraving with a wide range of applications

- standard workable area 100 x 100 mm, available with optional field lens for 70 x 70 mm or 175 x 175 mm
- scan speeds up to 7,000 mm/s
- wide spectrum of applications and materials
- flexible and versatile for use in batch and single-part machining
- user-friendly PC-based software
- laser cooling with controlled heat exchanger is especially well suited for engraving metallic materials

starting at

19.900,- €



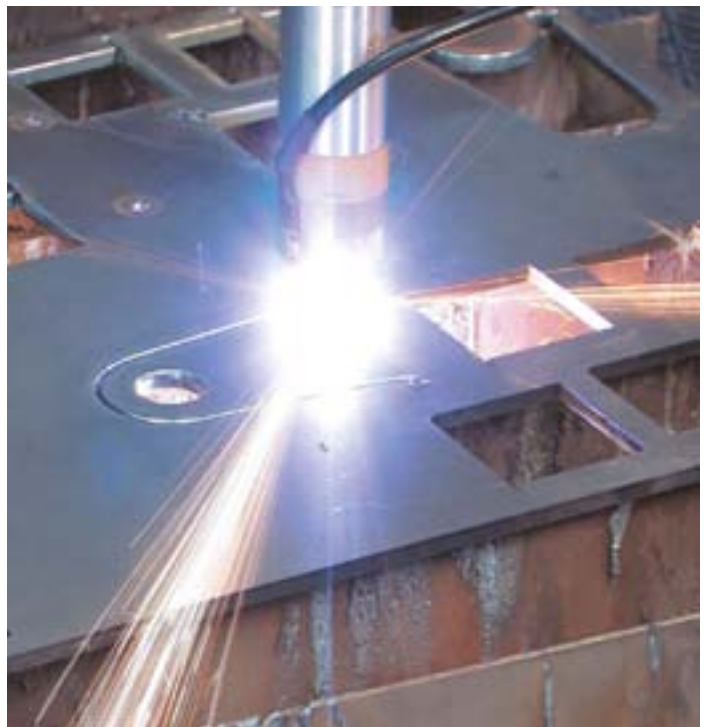
Options	Part No.	Price €		Part No.	Price €
• 5X Beam Expander for small engraving widths	250 196	190,-	• Field lens for 175 x 175 mm workable field	250 198	590,-
• Field lens for 70 x 70 mm workable field	250 197	490,-	• Turning fixture for cylindrical parts	250 199	990,-

Standard Equipment: diode-pumped, solid-state laser with 50 W mean beam power; scanner with 2 rotary mirrors and galvo drives; beam expansion; laser pointer; field lens for 100x100 mm machining; industrial PC and LCD monitor; input and control software; heat exchanger for laser cooling; programming and operating instructions

Specifications L-Scan		DQF 50		DQF 100			
machining surface	mm	100 x 100	100 x 100	line voltage / line frequency	V / Hz	230 / 50	230 / 50
setup area	mm	300 x 300	300 x 300	power consumption	kW	1,5 - 3,0	1,5 - 3,5
X / Y axis travel	mm	150 / 150	150 / 150	(without cooling)			
engraving depth	mm	≤ 0,2	≤ 0,5	dimensions	mm	600 x 1000	600 x 1000
max. scan speed	mm/s	7000	7000			x 1500	x 1500
min. beam width	mm	0,01	0,015	weight	kg	200	200
beam wave-length	mm	1,064	1,064	(without heat exchanger)			
mean laser power (max.)	W	50	100	Part No.		170 317	170 315
max. pulse frequency	kHz	50	50	Price €		19.900,-	26.900,-



Oxy-fuel cutter head (optional)



Plasma cut in 10 mm steel

Specifications for Plasma Source	HSD 130	HPR 130 XD	HPR 260 XD	HPR 400
max. cutting capacity (edge start) mm St 37	38	38	64	80
production capacity (plunge-cut) mm St 37	25	32	38	50
cut angle	class 4 acc. to ISO 9013	class 2 - 4 acc. to ISO 9013	class 2 - 4 acc. to ISO 9013	class 2 - 5 acc. to ISO 9013
plasma source power	kW 19.5	22	36	49
cutting current	A 45-130	30-130	30-260	30-400
gas supply - plasma gas	air/air, N ₂ /air, N ₂ /CO ₂ , H35/N ₂	H35/N ₂ , N ₂ /N ₂ , H35-N ₂ /N ₂ , F5/N ₂ , air/air, O ₂ /air, O ₂ /O ₂	H35/N ₂ , N ₂ /N ₂ , H35-N ₂ /N ₂ , F5/N ₂ , air/air, O ₂ /air, O ₂ /O ₂	O ₂ /air, O ₂ /O ₂ , Argon/air, H35/ N ₂ , N ₂ /N ₂ , H35-N ₂ /N ₂ , F5/N ₂
overall dimensions (L x W x H)	mm 1120 x 570 x 1070	1080 x 566 x 968	1150 x 820 x 1190	1180 x 880 x 1260
weight	kg 286	318	567	851

Options	Part No.	Price €		Part No.	Price €
• Filter exhaust system, 4000 m ³ /h	250 629	12.900,-	• Oxy-fuel Flame Head	250 625	7.800,-
• Filter exhaust system, 8000 m ³ /h	250 628	15.400,-	• Auto Nesting Software	250 624	4.880,-
• Automatic Hypertherm gas console	250 626	5.900,-	Other options upon request: multi-head operation, drilling/boring equipment, custom sizes, plasma sources		

Standard Equipment: Hypertherm CNC control, Hypertherm plasma source, Hypertherm arc height control, Hypertherm cutter head, segmented vacuum exhaust table

Specifications for Plasma-Jet DSH	1530	2040	2060	2080	20120
CNC Control	Hypertherm	Hypertherm	Hypertherm	Hypertherm	Hypertherm
Cutter System					
Working area	mm 1500 x 3000	2000 x 4000	2000 x 6000	2000 x 8000	2000 x 12000
rapid feed	mm/min 30000	30000	30000	30000	30000
table load capacity (max.)	kg/m ² 1000	1000	1000	1000	1000
Accuracy					
positioning accuracy	mm ± 0.02	± 0.02	± 0.02	± 0.02	± 0.02
repeatability	mm ± 0.02	± 0.02	± 0.02	± 0.02	± 0.02
Dimensions/Weight					
overall dimensions (LxWxH)	mm 2650x4200x2000	3150x5200x2000	3150x7200x2000	3150x9200x2000	3150x13500x2000
weight	kg 3600	4700	5950	7200	9700
HySpeed HSD 130 Part No.	140 500	140 501	140 502	140 503	140 504
Price €	62.900,-	67.800,-	73.800,-	78.900,-	93.800,-
HPR 130 XD Part No.	140 520	140 521	140 522	140 523	140 524
Price €	72.900,-	78.400,-	83.900,-	89.700,-	102.900,-
HPR 260 XD Part No.	140 540	140 541	140 542	140 543	140 544
Price €	78.900,-	83.900,-	89.800,-	94.900,-	108.900,-
HPR 400 XD Part No.	140 560	140 561	140 562	140 563	140 564
Price €	96.800,-	99.900,-	106.800,-	112.400,-	126.900,-

World-Class Plasma Cutter Systems based on the know-how and technology of the market leader Hypertherm

- Complete Hypertherm equipment: Plasma source, CNC control, software and vertical control are included to allow immediate use of all the possibilities modern plasma technology offers
- The Plasma Cutter Guide Machine features a rigid construction and is available in virtually any size
- high-quality linear guides on all axes ensure high precision and rapid axis travel
- dual-drive bridge
- dynamic AC servo drives on all axes
- low-wear and low-maintenance gears are designed for continuous operation
- a free-standing, extremely rigid vacuum exhaust table is segmented to allow pneumatic flap control and to provide optimum suction performance across the entire work area.
- quick-coupling for cutter head changes in seconds
- automatic vertical adjustment for Hypertherm unit
- automatic collision guard
- Windows-based Control System
- large selection of plasma sources
- available with optional oxy-fuel flame head
- additional options available upon request

starting at

62.900,- €



Shown with optional accessories



Specifications for Plasma-Jet DSH		3060	3080	30120	30150	30180
CNC Control		Hypertherm	Hypertherm	Hypertherm	Hypertherm	Hypertherm
Cutter System						
Working area	mm	3000 x 6000	3000 x 8000	3000 x 12000	3000 x 15000	3000 x 18000
rapid feed	mm/min	30000	30000	30000	30000	30000
table load capacity (max.)	kg/m ²	1000	1000	1000	1000	1000
Accuracy						
positioning accuracy	mm	± 0.02	± 0.02	± 0.02	± 0.02	± 0.02
repeatability	mm	± 0.02	± 0.02	± 0.02	± 0.02	± 0.02
Dimensions/Weight						
overall dimensions (LxWxH)	mm	4150x7200x2000	4150x9200x2000	4150x13500x2000	4150x16500x2000	4150x19500x2000
weight	kg	7400	9100	12500	15100	17700
HSD 130 Part No.		140 505	140 506	140 507	140 508	140 509
Price €		78.900,-	85.400,-	98.600,-	108.000,-	118.000,-
HPR 130 XD Part No.		140 525	140 526	140 527	140 528	140 529
Price €		89.400,-	95.600,-	108.000,-	118.000,-	128.000,-
HPR 260 XD Part No.		140 545	140 546	140 547	140 548	140 549
Price €		95.600,-	99.900,-	114.900,-	124.900,-	134.800,-
HPR 400 XD Part No.		140 565	140 566	140 567	140 568	140 569
Price €		112.600,-	118.600,-	129.700,-	139.800,-	149.800,-

HydroJet 3060 D is shown

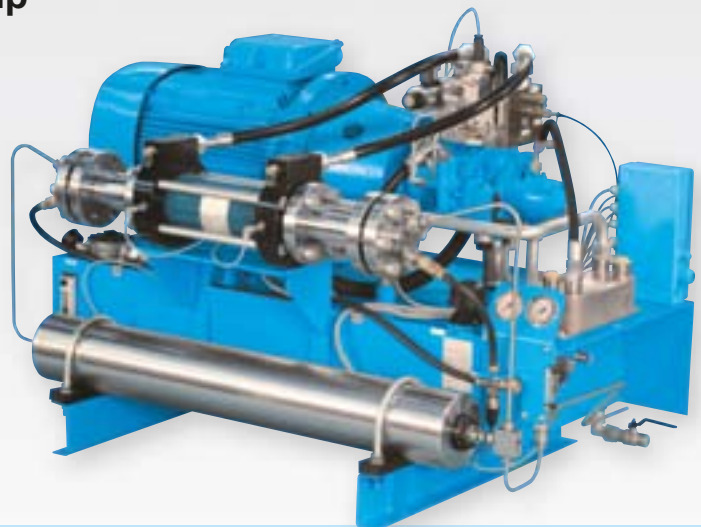


Standard Equipment: CNC control with GPlus 450 Cut and TFT monitor, electronic hand-wheel, control panel, GPlus 450 Cut cutting software, grid nesting, high-pressure pump ECOTRON 40.37, abrasive cutter head, abrasives container (1000 kg), abrasives conveyor, automatic Z axis with collision guard, operating and programming instructions

Options	Part No.	Price €			
• starter kit	166 213	1.890,-	• calculation module	588 534	550,-
• sound proofing pump enclosure	180 769	2.300,-	• software option for contour nesting	180 820	1.950,-
• oil / air cooler for ECOTRON 40.37	180 767	2.280,-	• light curtains on 2 sides	180 333	2.140,-
• laser pointer	180 828	1.190,-	• light curtains on 3 sides	180 332	2.680,-
• abrasive mud vacuum system	180 739	13.800,-	• light curtains on 4 sides	180 829	2.950,-
			• check valve	576 068	280,-

ECOTRON 40.37 High-Pressure Pump the Standard Pump for Hydro-Jet Cutters

- maximum power and reliability for pure-water and abrasive cutting operations
- superior operation safety and ease of maintenance
- hydraulic drive with axial-piston pump
- infinitely variable pressure control via CNC
- oil/water heat-exchanger for oil cooling system, or optional oil/air cooler
- pressure booster, complete with high-pressure tubing
- pulsation damper with 2.49 liter reservoir
- relief valve integrated in the high-pressure circuit



Specifications High-Pressure System ECOTRON 40.37

main motor rating	kW	37
flow rate (max.)	l/min	3.8
max. operating overpressure	bar	4000
continuous operating pressure (max.)	bar	3800
stroke speed	rpm	35
gear ratio		1:21,78
oil tank capacity	Liter	130
environmental temperature for oil/air cooler		10 - 35°
required air pressure	kg/sec	1.48

environmental temperature for oil/water cooler		10 - 45°
water infeed		0.5"
water pressure, with booster pump	bar	1 - 3
waste water connection		3/8"
high pressure connection, 3/8" & 9/16" HP pipe		M30x2
air supply	bar	5.5 - 7
compressed air connection for tube (OD)	mm	6
required power connection	A	125
width x depth x height	mm	1800 x 850 x 955
weight	kg	950

This Water-jet Cutter System allows cost-effective machining and delivers maximum cutting quality even for very large parts

**Rigid base frame plus BHDT pressure booster pump Ecotron 40.37.
The standard equipment includes a complete, integrated abrasives system.**

- abrasive Cutting of steel, aluminum, marble, compound materials and much more
- dual-drive bridge
- dual linear guideways in X and Z
- stainless steel tank and support grid
- high-quality pre-loaded ball screws (recirculating spindle nut) with automatic lubrication for lasting high cutting precision
- CNC controlled water pressure
- CNC controlled abrasives feed
- GPlus 450 Cut including grid nesting
- dual head operation upon request

The water-jet is a universal tool with many benefits:

- no thermal stress and only minimal mechanical stress
- no hardening or tension on the part
- no dust, smoke or toxic fumes
- small kerf width and very clean cut edges
- virtually burr-free cuts = no rework necessary
- direct plunge-cut at any position



starting at

119.000,- €



Actual machine may vary slightly

Specifications Hydro-Jet		3020 D	3040 D	3060 D	3080 D
Cutter System					
cutting capacity	mm	3000 x 2000	3000 x 4000	3000 x 6000	3000 x 8000
Z axis travel	mm	250	250	250	250
max. table load capacity	kg/m ²	1500	1500	1500	1500
fill capacity of sand container (max)	kg	1000	1000	1000	1000
sand feed	gram/min.	0 - 500	0 - 500	0 - 500	0 - 500
Feed					
maximum rapid feed	mm/min	25000	25000	30000	30000
work feed	mm/min	0 - 8000	0 - 8000	0 - 8000	0 - 8000
Accuracy					
positioning accuracy	mm	± 0.1	± 0.1	± 0.1	± 0.1
repeatability	mm	± 0.05	± 0.05	± 0.05	± 0.05
Dimensions/Weight					
overall dimensions (L x W x H)	mm	7100 x 4600 x 2250	5400 x 4600 x 2250	9000 x 6200 x 2400	11000 x 6200 x 2400
weight (without water)	kg	2000	2500	4500	7200
weight with water	kg	6600	9000	14500	20000
Part No.		166 220	166 221	166 222	166 223
Price €		119.000,-	138.000,-	189.000,-	219.000,-

Versatile water-jet cutting system for complex cutting tasks

- bilaterally driven and guided gantry
- DC servo motors with zero-backlash gears and precise linear guides on all three axes
- water tank and guide machine are set up as stand-alone units
- fine tuned drive system with helical gears on X and Y axis ensures high precision and reliability
- guideways and drive elements are reliably protected from spray water and contamination
- extra rigid stainless steel tank with high load bearing capacity
- additional catch grid catches small parts
- electronic height-control maintains a constant distance between the water-jet nozzle and the part
- CNC controlled water pressure
- CNC-controlled abrasive material supply (the abrasive sand is precisely metered and fed without pressure)
- very easy programming of PC control via graphic user interface

99.900,- €



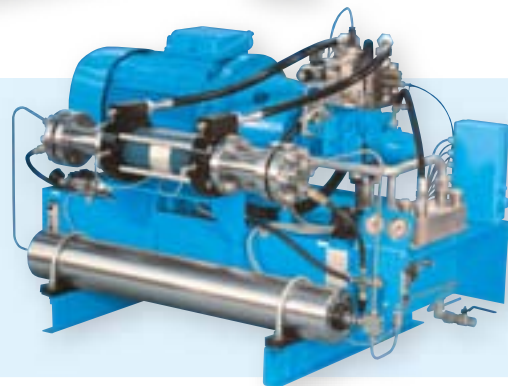
HYDRO-JET 2010

GPlus 450
www.knuth-gplus.de



Ecotron 40.37 High-Pressure Pump

- 37 kW motor rating
- 3.8 l/min flow rate (max.)
- 4000 bar max. operating relief pressure
- max. 3800 bar continuous operating pressure



Standard Equipment: CNC control GPlus 450 Cut with TFT monitor, electronic hand-wheel, control panel, GPlus 450 Cut cutting software, grid nesting, high-pressure pump ECOTRON 40.37, abrasive cutter head, abrasives container (1000 kg), abrasives conveyor, automatic Z axis with collision guard, settling tank, operating and programming instructions

Specifications		Hydro-Jet 2010
cutting capacity	mm	2000 x 1000
Z axis travel	mm	250
table load capacity	kg/m ²	600
abrasive / pure-water		yes
cutting tank is isolated from the guide machine		yes
drive type		gear rack
Feed		
max. feed	mm/min	16000
Accuracy		
positioning accuracy	mm	(across 500) ± 0.05
repeatability	mm	(across 500) ± 0.05
Dimensions/Weight		
dimensions	mm	3360 x 2250 x 4000
weight (total)	kg	3150
Part No.		180 711
Price €		99.900,-

Options	Part No.	Price €
starter kit	166 213	1.890,-
pump enclosure for BHDT 40.37	180 769	2.300,-
oil / air cooler for ECOTRON 40.37	250 755	1.490,-
laser pointer	180 828	1.190,-
abrasive mud vacuum system	180 739	From 13.800,-
light curtains on 2 sides	180 333	2.140,-

Enter the fascinating world of water-jet cutting technology!

Abrasive Cutting of steel, aluminum, marble, compound materials and much more

- high-precision cuts in virtually any material
- quick programming on an integrated PC control with graphical user interface; software package included
- perfectly tuned drive system
- high-pressure pump, 22 kW or 11 kW
- compact machine for easy transportation and setup; includes guide machine, water basin, settling basin, and control cabinet are mounted on a granite machine frame

starting at

49.900,- €



GPlus 450
www.knuth-gplus.de



Abrasive Containers for Eco 0515 SL

NEW with Booster Pump!



High power - low consumption - minimal maintenance cost!

Hydro-Jet Eco 0515 S:

- 2800 bar work pressure
- 3 l/min flow rate
- 22 kW motor rating

Hydro-Jet Eco 0515 SL:

- 3500 bar work pressure
- 1.2 l/min flow rate
- 11 kW motor rating

Options

- contour nesting
- Pump enclosure for Eco 0515 SL
- oil/air cooler for Eco 0515 SL

Part No.	Price €
180 820	1.950,-
180 769	2.300,-
250 213	690,-

- abrasives reservoir, 1 ton capacity, for Eco 0515 S
- starter set
- light curtains on 2 sides

250 598	5.800,-
166 210	1.190,-
180 333	2.140,-

Standard Equipment: GPlus 450 Cut CNC control with TFT monitor, grid nesting, electronic hand-wheel, control panel, high-pressure pump, abrasive cutter head, abrasives container, sand metering, 3-chamber settling tank, sound proof enclosure (Eco 0515 S), operating and programming instructions

Specifications Hydro-Jet		Eco 0515 S	Eco 0515 SL		
Cutter System				max. feed	mm/min 4000
cutting capacity	mm	1500 x 500		Accuracy	
Z axis travel	mm	80		positioning accuracy X / Y axis	mm ± 0,05 / 300
operating pressure	bar	2800	3500	repeatability X / Y axis	mm ± 0,05 / 300
abrasive / pure-water		yes	yes	Dimensions/Weight	
Abrasive Containers	kg	75	1000	overall dimensions (L x W x H)	mm 2600 x 4100 x 3000
drive type for X / Y axis		preloaded ball screws		weight (total)	kg 3800 3640
drive type for Z axis		man. adjustment / hand wheel		Part No.	166 205 166 207
				Price €	49.900,- 61.900,-



HydroJet Eco 2040 is shown

Standard Equipment: CNC control with GPlus 450-Cut, TFT monitor, electronic hand-wheel, control panel, GPlus 450 Cut cutting software grid nesting, high pressure pumps Ecocomp 2800 bar (Hydro-Jet Eco 1313 + 1525) or Ecotron 40.37 (Hydro-Jet Eco 1530 + 2040), abrasive cutter head, abrasives container (1000 kg), abrasives conveyor system, operating manual and programming instructions

Options	Part No.	Price €			
• Ecotron 40.37 High-Pressure Pump 37 kW / 3800 bar (Hydro-Jet Eco 1525)	250 599	upon request	• laser pointer	180 828	1.190,-
• Ecotron 35.11 High-Pressure Pump 11 kW / 3500 bar (Hydro-Jet Eco 1313 + 525)	250 744	upon request	• collision guard for Z axis	250 135	4.600,-
• oil / air cooler for ECOTRON 40.37 and 35.11	180 767	2.280,-	• software option for contour nesting	180 820	1.950,-
• pump enclosure for Ecotron 40.37 and 35.11	180 769	2.300,-	• starter kit	166 213	1.890,-
			• light curtains on 2 sides	180 333	2.140,-
			• light curtains on 3 sides	180 332	2.680,-
			• light curtains on 4 sides	180 829	2.950,-

High Pressure pumps ECOTRON 40.37 / ECOCOMP 30.22 standard pumps for Hydro-Jet Eco

- maximum power and reliability for pure-water and abrasive cutting operations
- superior operation safety and ease of maintenance
- hydraulic drive with axial-piston pump
- oil/water heat-exchanger for oil cooling system
- pressure booster, complete with high-pressure tubing
- pulsation damper with pressure accumulator
- relief valve integrated in the high-pressure circuit



Ecotron 40.37 is shown

Specifications for High-Pressure System		Ecotron 40.37	Ecocomp 30.22		
main motor rating	kW	37	22	environmental temperature for oil/water cooler	10 - 45° 10 - 50°
flow rate (max.)	l/min	3.8	3	water infeed	0.5" 0.5"
max. operating overpressure	bar	4000	3000	water pressure, with booster pump	bar 1 - 3 2 - 4
continuous operating pressure (max.)	bar	3800	2800	waste water connection	3/8" 1/4"
stroke speed	rpm	35	40	high-pressure connection, 3/8" & 9/16" HP pipes	M30x2 M80x2
gear ratio		1:21,78	1:24	air supply	bar 5.5 - 7 -
oil tank capacity	Liter	130	300	compressed air connection for tube (OD)	mm 6 -
environmental temperature for oil/air cooler		10 - 35°	10 - 60°	required power connection	A 125 42
required air pressure	kg/sec	1.48	-	width x depth x height	mm 1800x 1670x 850x955 920x1180
				weight	kg 950 800

Rigid Water-Jet Cutting System with small footprint and maximum operator comfort

- high-pressure system up to 3800 bar
- completely equipped for Abrasive & Pure-Water Cutting
- axes are driven via preloaded ball screws
- Flying Bridge design
- work area is open on three sides for comfortable loading
- mechanical feed on Z axis
- separately set up abrasives container with 1000 kg fill capacity

starting at

62.900,- €

HydroJet Eco 1525 is shown

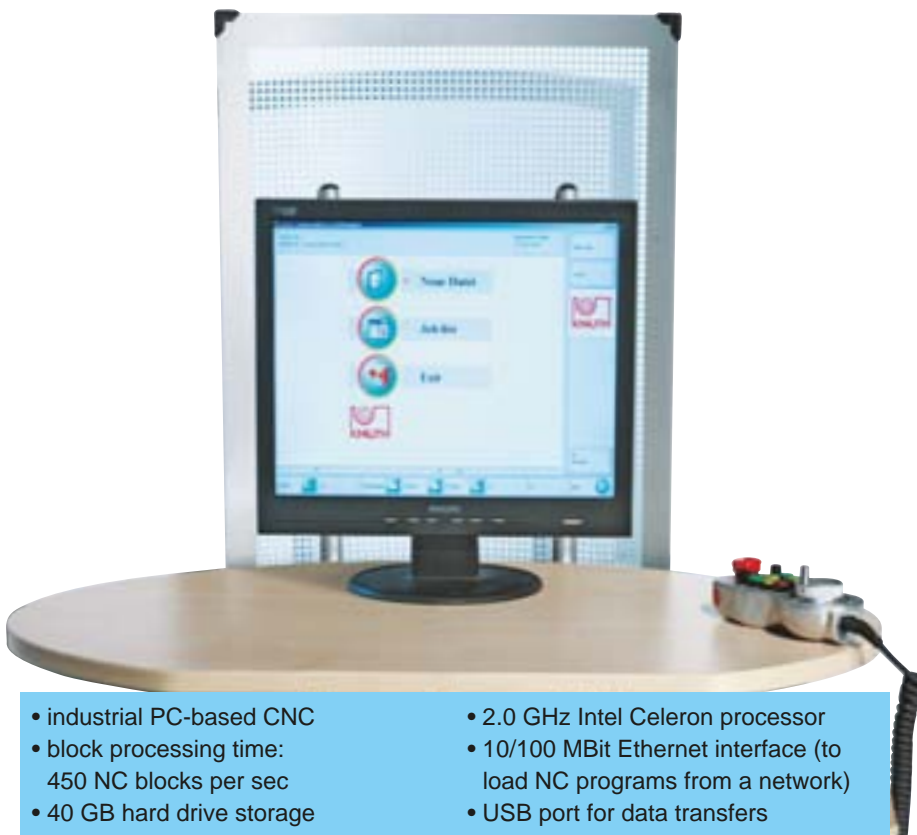


Specifications Hydro-Jet		Eco 1313	Eco 1525	Eco 1530	Eco 2040
cutting capacity	mm	1300 x 1300	2500 x 1500	3000 x 1500	4000 x 2000
Z axis travel	mm	155	155	155	155
operating pressure	bar	2800	2800	3800	3800
flow rate	l/min	3	3	3.8	3.8
max. table load capacity	kg/m ²	800	800	800	800
rapid feed	mm/min	20000	8000	8000	8000
positioning accuracy	mm	± 0.1	± 0.1	± 0.1	± 0.1
repeatability	mm	± 0.05	± 0.05	± 0.05	± 0.05
overall dimensions (L x W x H)	mm	2900 x 2800 x 2100	3700 x 3700 x 2000	3700 x 4200 x 2000	4200 x 5200 x 2000
weight (without water)	kg	2000	3000	3500	4500
weight with water	kg	4000	5000	7000	10500
fill capacity of sand container (max)	kg	1000	1000	1000	1000
max. sand feed	gram/min.	0 - 500	0 - 500	0 - 500	0 - 500
Part No.		166 219	166 200	166 217	166 216
Price €		62.900,-	79.900,-	99.900,-	106.900,-

Quick - powerful - user-oriented

- easy to learn without prior DIN-ISO programming knowledge - from newcomers to professional users
- short learning curve for experienced users - immediate productivity
- quick programming directly at the machine, or easy transfer of programs to minimize down-times
- GPlus Support for any programming questions and quick assistance for problems

- **Easy, user-oriented operation** allows quick creation of programs
- **Geometry imports** from DXF and DIN/ISO program files
- Faulty geometries can be repaired and edited with the **integrated DXF Analyzer**
- **50 standard macros** simplify the creation of a wide variety of geometries
- **Instant display** of all starting cut changes in the drawing with simulation option
- **Optimum material utilization** via grid nesting function with critical features like turning, mirroring, and manual sorting
- **Material database with plate management function** - for the management of all customer-specific data on machined materials, including cutting technology data, and dimensions
- **Optimum contour approach** made possible by a multitude of definable starting cut conditions differentiating between circular and non-circular inside and outside contours
- **Zoom feature** - enlarges the part view and all starting cuts
- **User-friendly HMI** allows modification of any cutting parameters during cutting, plus easy operation including all required service messages (GPlus 450 Cut)
- **Cutting and marking** of parts in one program



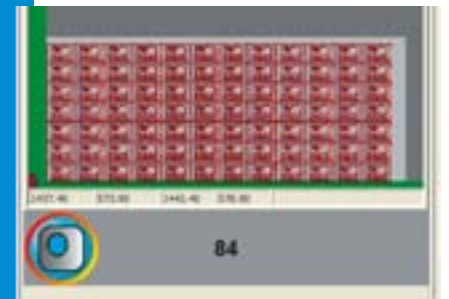
- industrial PC-based CNC
- block processing time: 450 NC blocks per sec
- 40 GB hard drive storage
- 2.0 GHz Intel Celeron processor
- 10/100 MBit Ethernet interface (to load NC programs from a network)
- USB port for data transfers



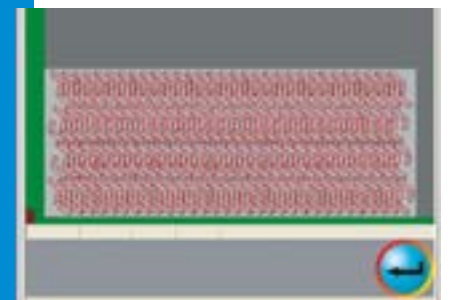
Plate and Parameter Database



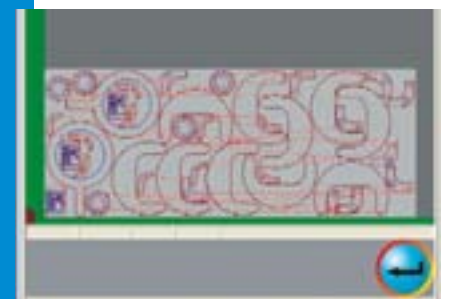
Technology and Machine Setup



Grid Nesting (rectangular nesting)



Parquet Nesting with Part Rotation (optional)



Contour Nesting (optional)

Universal use for a variety of milling and engraving applications on different materials like aluminum, brass, copper, PVC, wood, acrylics, hard fiber boards, etc.

- integrated CAM system for automatic control through a PC/Laptop
- rigid aluminum construction with stepper motor axis drives plus various equipment options allow universal machining of different materials
- state-of-the-art controller electronics and user-friendly software for quick and reliable processing of customized machining parameters



starting at

7.900,- €

TFGM 100 shown



Application Examples:

- Production of advertising material (milling, engraving, cutting)
- Embossing (coins, medals, coining punch)
- Engraving (door signs, goblets)
- Industrial engraving (serial number plates, warning signs)
- Electronics (front plates, control panel labeling, PCBs)
- Model construction (architecture, hobby)
- Precision mechanics
- Furniture industry



The Opticut Control Software allows selection of 4 stepper motor axes via the USB port directly from a laptop. An advanced graphic user interface provides quick access to many tasks, like milling, drilling, foil cutting, engraving, scanning, plotting and digitalizing. The machine area is represented by the CAD-like user interface of the Opticut Software. From this area, all elements can be displayed, like drawing data, workpiece, zero point, park position, or measuring position. Minimum hardware and software requirements for Opticut are listed below:

- Operating system: Windows 98/ME/2000/XP
- Microsoft .Net Framework V1.1 and
- Microsoft Internet Explorer 5.01
- Microsoft Managed DirectX 9 or higher
- for joystick
- Pentium 400MHz processor or higher
- (or equivalent equipment)
- CD-ROM drive
- RAM: 64 MB
- Hard drive: 40 MB free disk space
- Controller SMC4D

• Opticut CNC 4.4 Features:

- automatic homing
- zeroing
- park position
- spindle with automatic start/stop
- control for automatic cooling spray (optional)
- control for height scanning (optional)
- incremental machining for deep immersion depths
- autom. tool radius compensation, inward and outward
- selective machining sequence
- tool management
- cutting time determination
- import of HPGL,PLT, DIN 66025, .DXF, .EPS and .AI files

Specifications		TFGM 35	TFGM 45	TFGM 100	TFGM 1100
working area	mm	380x480x85	490x560x85	1000x650x85	1050x1050x90
table size	mm	500x700	900x600	1500x800	1200x1150
max. operating speed X,Y	mm/s	60	60	60	60
travel speed	mm/s	4200	4200	4200	4200
std. motor speed	min ⁻¹	11.000 - 25.000	11.000 - 25.000	11.000 - 25.000	11.000 - 25.000
voltage	V	220-230	220-230	220-230	220-230
motor rating	kW	1,05	1,05	1,05	1,05
weight	kg	30	42	88	168
Part No.		170 800	170 900	170 902	170 904
Price €		7.900,-	8.500,-	9.400,-	12.800,-

Standard Equipment:

standard milling motor spindle, collets 3 mm and 8 mm, universal cutter 1 mm, 2 mm, 3 mm, 4 holding clamps, Opticut CNC 4.4 CAM System - completely wired for connection to customer-provided PC (System Requirements: Windows 98/XP / Vista, USB port)

Perfect cuts and bores within minimum time in all non-ferrous heavy metals, plastic, wood, and with the appropriate equipment even in structural steel

- extensive selection of accessories for a wide application spectrum
- either T-slot setup table or vacuum table included at no extra cost



**TFGM 2516 with vacuum table shown
Option: spindle motor with tool changer**



CAM - System Opticut CNC 5.0



The Opticut Control Software allows selection of 4 stepper motor axes via the USB port directly from a laptop.

An advanced graphic user interface provides quick access to many tasks, like milling, drilling, foil cutting, engraving, scanning, plotting and digitalizing. The machine area is represented by the CAD-like user interface of the Opticut Software. From this area, all elements can be displayed, like drawing data, workpiece, zero point, park position, or measuring position.

Special option: oscillating, tangentially controlled cutter head is available in 3 designs for cutting foam, cardboard, corrugated paperboard, rubber, leather, carpeting, etc. with impressive speed and perfection:

ALVINIL-1000 oscillating electric knife with a speed of 3,500 cuts/minute and a stroke of 3.5 mm
Part No. 170 930 Price € **3.800,-**

ALVINIL-2000 oscillating electric knife with a speed of 4,500 cuts/minute and a stroke of 6 mm
Part No. 170 912 Price € **4.800,-**

ALVINIL-3000 oscillating pneumatic knife with a speed of 9,000 cuts/minute and a stroke of 9 mm
Part No. 170 931 Price € **5.750,-**



Additional options: headstock drives in various designs - upon request with automatic tool-changer, air cooling or recut cooling system, pneumatic clamping or manual clamping, and speeds from 50 to 100000 rpm. Delta / 3-D bundled end-to-end software solution for CNC routers, engravers, and sign making

The perfect solution for machining large boards!
With cutting speeds up to 150 mm/sec,
and table sizes from 1000 x 1000
to 4000 x 2000 mm

either T-slot setup table or
vacuum table included at no
extra cost

TFGM 1100 Pro shown
with vacuum table



starting at

14.600,- €

TFGM ECO 1575 with
automatic tool length
measurement



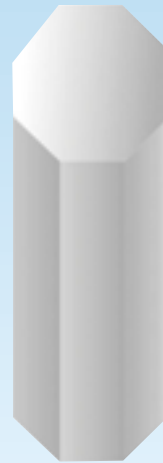
TFGM ECO 1575 shown
table size 1500 x 750 mm
available only with
vacuum table

(for Specifications, see www.knuth.de)

- Y axis with double linear guides
- X axis with drives on both sides (except TFGM ECO)
- extra-wide linear guides combined with an efficient gear drive allow rapid feed speeds up to 12000 mm/min (except TFGM ECO)
- Z axis includes a motor brake
- 3 vacuum pumps for optimum workpiece fixation
- Driven by our OPTICUT CNC controller

Standard Equipment: standard cutter motor spindle, exhaust-ready (without suction device), collets 3 and 8 mm, universal cutter 1, 2, 3 mm, four holding clamps, Opticut CNC 5.0 CAM System completely wired for connection to customer-provided PC (system requirements: Windows 98/XP/7/Vista, USB port)

Specifications		TFGM 1100 Pro	TFGM 2111	TFGM 2516	TFGM 31205	TFGM 41205
Working Area	mm	1050x1050x160	2050x1050x160	2550x1550x160	3050x2050x160	4050x2050x160
table size	mm	1000x1000	2000x1000	2500x1500	3000x2000	4000x2000
max. operating speed	mm/s	150	150	150	150	150
rapid feed	mm/min	12000	12000	12000	12000	12000
std. motor speed	min ⁻¹	11000-25000	11000-25000	11000-25000	11000-25000	11000-25000
motor rating	kW	1,05	1,05	1,05	1,05	1,05
vacuum table						
power consumption	kW	2,8	4,2	5,6	7,0	7,0
voltage	V	230	230	230	230	230
weight	kg	195	255	405	585	735
Part No. with vacuum table		170 907	170 922	170 924	170 926	170 928
Part No. with T-slot setup table		170 908	170 923	170 925	170 927	170 929
Price €		18.300,-	23.800,-	29.900,-	36.700,-	42.200,-



Stamps

Material	tool steel
Height	20 mm
Machining time	90 min.
Number of cuts	2 (1 rough, 1 fine)
Surface grade	1.2 μ Ra

Cones

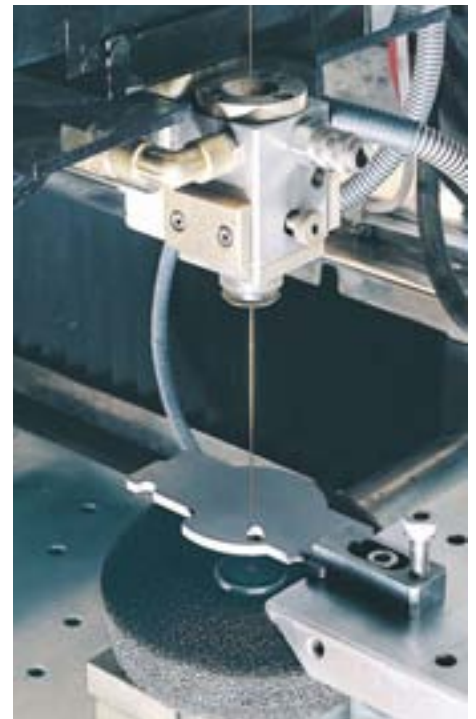
Material	tool steel
Height	80 mm
Angle	$\pm 5^\circ$
Machining time	170 min.
Number of cuts	1 rough

Octagon

Material	tool steel
Height	30 mm
Machining time	45 min.
Number of cuts	2 (1 rough, 1 fine)
Surface grade	1.2 μ Ra



- state-of-the art cutting technology ensures excellent surface quality
- consistent wire diameter allows high cutting accuracy; cutting wire runs through only once
- removal speed 70 mm²/min
- independent programming of X/Y and U/V axes
- LCD display
- automatic positioning
- functions include: copy, flip, mirror, scale, rotate
- processing of DXF files
- test run feature
- diagnostics, and much more
- can be programmed during program execution



data transfer via USB port

very precise, low-wear wire guide

Smart DEM Specifications

Machine		
max. workpiece size	mm	350 x 450 x 200
max. workpiece weight	kg	300
X/Y table travel	mm	250 x 350
U/V axis travel	mm	30 x 30
wire diameter	mm	0.25
max. wire tension	N	1600
max. cutting angle		+/- 5°/ 100
max. wire spool	kg	6
machine weight	kg	2000
wire guide		diamond wire guide
max. cutting capacity	mm ² /min	70
best surface roughness	μ Ra	1.2
positioning accuracy	mm	0,02
connected load	kW/V	3 / 400

Dielectric System

dielectric fluid		deionized water
reservoir capacity	l	100
filter		paper filter 10 μ
CNC control		
display		LCD display
software		ELAPT 3.2
controlled axes		X, Y, U, V
smallest input increment	mm	0.001
interpolation		linear, circular
contour rotation		+/- 90°
position indicator		all axes
interface		RS-232
media drive		3.5" floppy drive
Part No.		180 455
Price €		38.900,-



CNC Electric Discharge Machine

SMART DEM

Powerful wire spark erosion machine for production of high-precision dies and electrodes

- best surface grade
- high erosion capacity
- E-Pulse technology
- PC/ control
- easy, quick programming
- CAD/CAM software included

38.900,-



For available options for this machine, please visit our website and search for SMART DEM (Product Search)

Standard Equipment: CAD/CAM software, erosion wire 0.25 mm, diamond guides, paper filter, operating tools, RS-232 interface and cable, operator manual

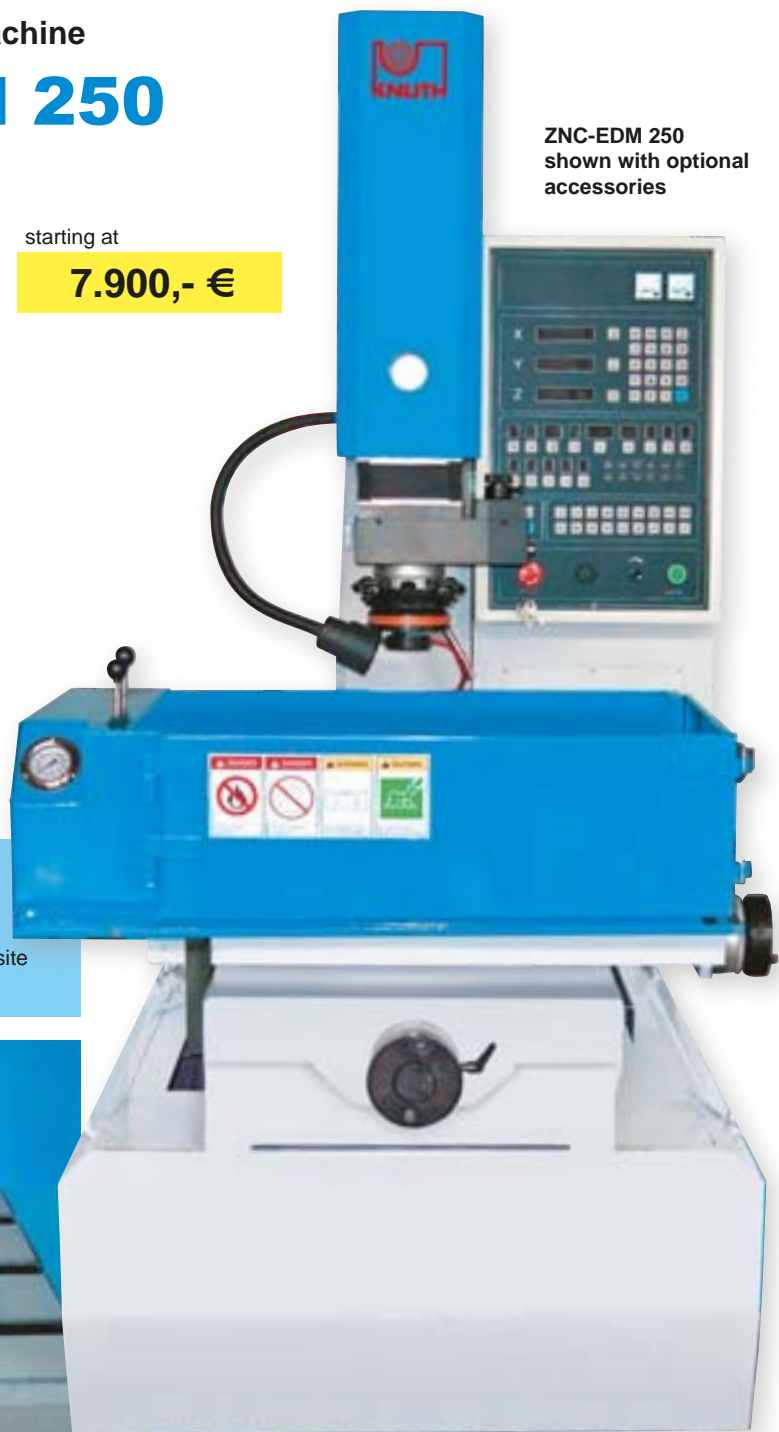
Low-Cost Entry-Level Electric Discharge Technology

- NC controlled feed on Z axis
- compact design for machining of small parts
- rigid machine base
- linear scales in all axes to ensure constant precision
- separate dielectric reservoir
- low-maintenance, high efficiency
- DC servo drive for fine-tuning of system stability
- user-friendly, easy to learn operation
- parameters are entered directly on the control panel and can easily be optimized
- parameters set for a particular machining process can be stored

starting at

7.900,- €

ZNC-EDM 250
shown with optional
accessories



Options

	Part No.	Price €
• Adjustable electrode holder	100 107	950,-
• Magnetic clamping plate	250 278	229,-

For additional options for this machine, visit our website and search for ZNC-EDM 250 (Product Search)



Specifications		ZNC-EDM 250	ZNC 435 L	ZNC 760 L
Machine				
travel	- X axis	mm 250	450	700
	- Y axis	mm 200	350	600
quill stroke		mm 200	250	300
table dimensions		mm 450 x 280	700 x 450	700 x 1200
electrode holder-to-table distance		mm 200 - 400	250 - 600	300 - 870
max. electrode weight		kg 30	75	200
max. part weight		kg 200	700	2000
overall dimensions (LxWxH)		mm 1390 x 1480 x 2100	1500 x 1600 x 2100	1855 x 1650 x 2550
weight		kg 1000	1800	3800
Generator				
connected load	kVA	5	7.5	9
mean laser power (max.)	A	40	80	100
max. removal rate	mm ³ /min	400	500	800
roughing depth	µm Ra	< 0.3	0.3	0.3
minimum electrode wear	%	≤ 0.2	0.2	0.2
weight	kg	-	200	200
Part No.		100 105	100 115	100 116
Price €		7.900,-	16.800,-	24.900,-

For maximum precision and cost-effectiveness

starting at

16.800,- €



ZNC 435 L is shown



- user-friendly CNC control assists the user in the selection of work parameters
- the machine frame design incorporates modern aspects plus many years of manufacturing experience
- X and Y axes are equipped with preloaded ball screws for low maintenance and high precision
- the main axis is positioned by a precision spindle, which has its own lubricant circuit - ensuring constant temperature

- conditions at the spindle, minimum friction and maximum precision
- the dielectric system is driven by a premium pump made by a renowned European manufacturer
- machine operation is user-oriented and easy to learn
- fine-incremented work parameters allow high powered material removal and finishing in one process
- diagnostics information is very helpful for troubleshooting

Standard Equipment of ZNC 435 L and 760 L: control unit, fire extinguishing system, work lamp, filter, scales for X / Y axis, chuck, operating tools, operator manual

Options for ZNC 435 L and 760 L:

- Planetary erosion head
- Magnetic clamping plate

Part No.	Price €
250 277	590,-
250 278	229,-

For additional options for these machines, visit our website and search for ZNC 435 L or 760 L (Product Search)



This special design with a fixed table, and head travel on all axes (X, Y and Z) give this machine a clear advantage:

- superior stability:

i.e., high workpiece weights and changing dielectric volumes have no effect on the machine's geometry

- excellent user comfort: the compact design simplifies tooling and set-up of the workpiece, providing the user with perfect visibility of the workpiece and the machining process

FEM 1300 CNC shown



- powerful AC servo-motors and a closed-loop linear scale measuring system ensure highest precision
- wide variety of applications - even 3D machining is possible with the integrated C-axis for planetary and track erosion
- high-performance control for simultaneous 4-axis machining, easy to program
- user-friendly operation - all functions are clearly arranged on the control
- an extensive integrated database provides quick access to optimized cutting parameters for various

- material combinations of electrodes and workpieces
- parameters may be adjusted during machining and can be stored for future use
- Multi-Tasking – minimize downtimes by entering programming during program runs
- easy transfer of data via RS-232 or USB port
- an electronic hand-wheel simplifies set-up and movement of machine

Options	Part No.	Price €		
• C axis	250 651	26.800,-	• pneumatic 3R electrode holder Ø 45 mm	250 653 6.900,-
• 4-station tool changer, pneumatic	250 652	6.900,-	• 64 A generator (FEM 1300)	250 654 2.390,-

Standard Equipment: CNC control with control unit, electronic hand-wheel, RS-232 interface, USB port, vacuum system, automatic central lubrication, machine feet, operating tools, operator manual

Specifications FEM		1300 CNC	2300 CNC		
Working area				electrode weight (max.)	kg 70 100
X axis travel	mm	500	700	electrode wear (min.)	0,03 % 0,03 %
Y axis travel	mm	300	400	mean generator capacity	A 128 64
Z axis travel	mm	300	350	Accuracy	
table dimensions	mm	600 x 400	800 x 500	roughness	µm < 0.1 Ra < 0.1 Ra
electrode holder-to-table distance	mm	300 - 600	300 - 600	Dimensions/Weight	
workpiece weight (max.)	kg	1000	2000	dimensions	mm 1750 x 1590 2070 x 2400 x 2210 x 2470
Generator				weight	kg 2300 4600
connected load	kVA	10	17	Part No.	100 120 100 121
removal rate (max.)	mm ³ /min	380	550	Price €	44.900,- 58.900,-



4-axis CNC Spark Erosion Countersinking Machines

FEM 1300 CNC • 2300 CNC

Maximum Precision and Process Control
- powerful and reliable

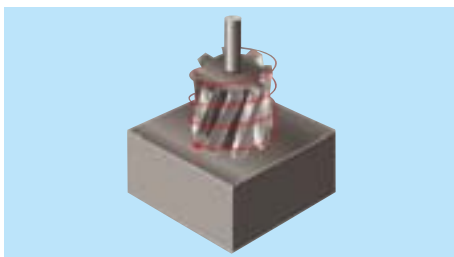
Highest removal efficiency with lowest electrode wear plus superior surface quality the result of years of experience and advancement of the **ADVANCED PLUS Generator.**

starting at

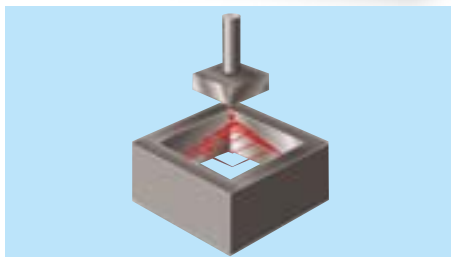
44.900,- €



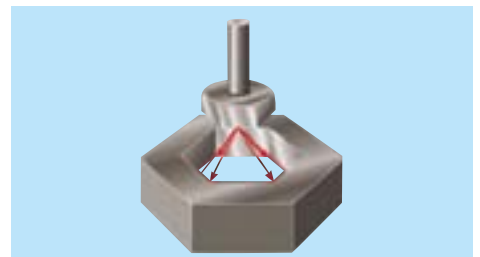
FEM 2300 CNC shown



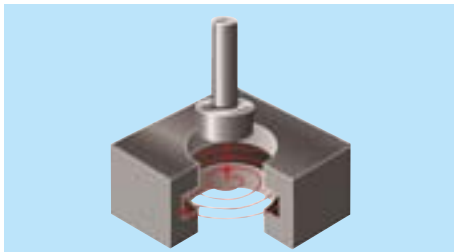
Helical process with C axis (option)



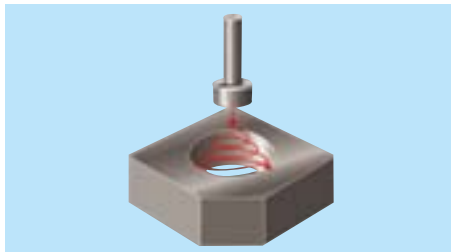
Rectangular orbital process



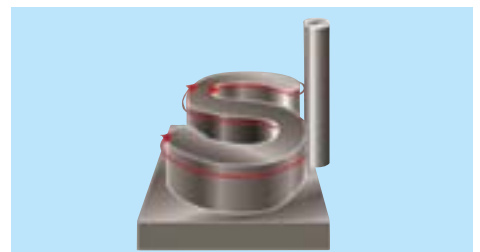
3-D machining



Circular orbital process



Free orbital process



Contouring process

For more information, visit www.knuth.de

Finished Parts in no time - intuitive control, extensive cycle database for quick and easy programming



- easy to learn without prior DIN-ISO programming knowledge - from newcomers to professional users
- short learning curve for experienced users - immediate productivity
- quick programming directly at the machine, or easy transfer of programs to minimize down-times
- GPlus Support for any programming questions and quick assistance in case of problems

Windows-based PC System

- TFT 17" touch screen monitor
- single CPU concept (advantage: ties up only 2% of the system capacity)
- 40 GB storage, 2.0 GHz Intel Celeron processor, 256 MB RAM
- block processing time: 450 NC blocks per sec
- 10/100 MBit Ethernet interface (to load NC programs from a network)
- worldwide remote diagnostics
- Profibus, CANopen, DeviceNet implementation is possible
- machine can be integrated in factory networks
- technology-specific cycles for turning, milling, drilling, grinding

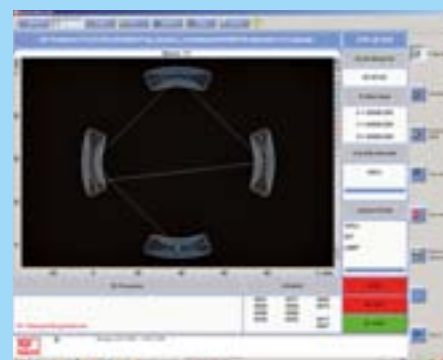
See everything at a glance - large 17" touch-screen monitor displays important information in an easy to read format for simplified operation



Everything at a glance on 17" display



Clear summary of cycle masks



Graphic simulation

Overview of M Cycles (Milling)

Milling Cycles

- circular pockets
- rectangular pocket
- arc pockets
- face milling
- thread cutting, inside/outside

Drilling Cycles

- Basic drilling
- Drilling with dwell time

- deep-hole drilling
- Tapping
- Reaming

Drill Patterns

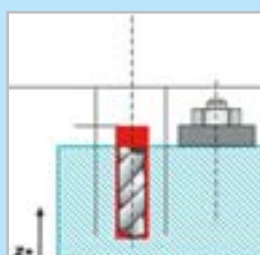
- Hole series
- Hole circle / segment
- Free drill positioning
- Rectangle / parallelogram
- Grid

Overview of G Cycles (Grinding) Overview of T Cycles (Turning)

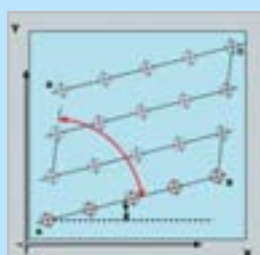
- cylindrical grinding, oscillating
- face grinding, oscillating
- multiple plunge-cut (groove) plane
- multiple plunge-cut (groove) linear
- plain shoulders
- linear shoulders

- Plain turning
- Facing
- Taper turning
- Radius turning
- Plunge-cut
- Recessing forms E and F
- Thread turning
- Multiple thread turning
- Contour turning

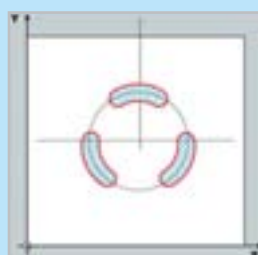
Samples of Parameter Help Graphics



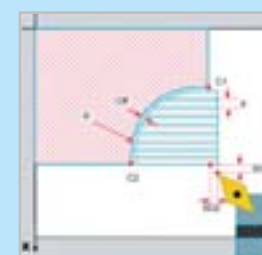
Final boring depth



Inside angle at corner point 1



Finish Measurement



Radius turning



Quick – Precise – Customized Our Future-Oriented Control System for Machine Tools

- intuitive operation
- quick to learn
- touch-screen technology
- high dynamics and accuracy
- USB port and Ethernet interface



GPlus Remote Service

With the GPlus CNC control you receive the standard capability of online remote diagnostics for your Knuth machine tool. This easy and quick exchange of machine data simplifies communications and increases machine efficiency.

Your competitive edge:

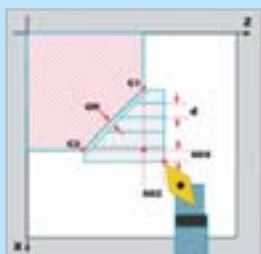
- reduction of down-times
- increased system availability
- proactive service
- reduced cost

GPlus Remote Service Software

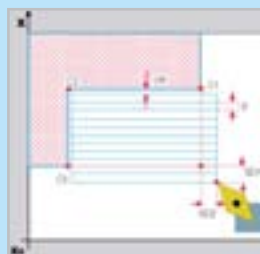
All GPlus CNC systems come with a standard Ethernet interface. This allows easy integration of your GPlus CNC system in your network. This enables you to work together with our service technicians on your GPlus system.

- Diagnostics: for process optimization and troubleshooting
- Monitoring: for process monitoring
- Updates: so you always have the newest features

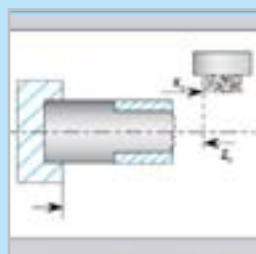
Over 95% of all service requests can be resolved remotely, without the necessity of an on-site visit. This helps you save time and money.



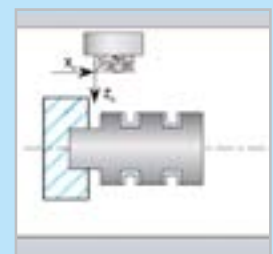
Taper turning (linear)



Plain turning



Shoulder plunge-cutting



Multiple plunge-cutting

- heavy-duty cast-iron machine frame plus wide guideways
- ensure optimum drilling and milling work results
- provides long travels on all axes and high table load capacity for machining of large parts
- Siemens servo drives, preloaded ball screws with large diameters, and high-quality linear guideways ensure maximum precision at high travel speeds
- BT 40 spindle mount with automatic tool clamping
- pneumatic rotary table ensures maximum angular accuracy and provides simple adjustment of angle settings
- complete Siemens control package, including a Siemens 802C Control and axis servo drives, fulfills all requirements of a state-of-the-art CNC machine



56.900,- €



Siemens 802 C
www.knuth.de

Standard Equipment: Siemens 802C control, pneumatic rotary table, electronic hand-wheel, halogen work lamp, central lubrication, 125 mm cutter head, drill chuck 3 - 16 mm B18, tool holder bits MT4 B18, reducing sleeves MT3, MT4, MT5, foundation bolts, operator manual and programming instructions



Specifications BO 90 CNC

travels		
X axis	mm	700
Y axis	mm	510
Z axis	mm	800
rapid feed (X, Y, Z)	mm/min	15000
work feed (X, Y, Z)	mm/min	1-5000
table rotation range (5° units)		360°
spindle nose-to-table dist.	mm	570
table size	mm	630x630
table load capacity	kg	1000
T-slots	mm	6x18 / H8
headstock mount		BT 40
spindle speed, infinitely variable	min ⁻¹	0-6000
drilling capacity	mm	30
finish bore	mm	200
cutting capacity	cm ³ /min	55
positioning accuracy	mm	± 0,008
repeatability	mm	± 0,005
angular accuracy		± 3"
motor rating	kW	11
machine weight	kg	4800
overall dimensions (LxWxH)	mm	3550x2350
		x2100
Part No.		180 025
Price €		56.900,-

For available options for this machine, visit our website and search for BO 90 CNC (Product Search)



Heavy-Duty CNC Milling / Drill Unit with Fanuc Oi-MD control for large and heavy parts

- 4-sided machining
- infinitely variable spindle speed with AC servo-motor, 15 kW power and high torque
- wide machine bed with 4 guideways
- rigid milling table with high load capacity for part weights up to 5 tons
- 3-axis CNC control
- rigid square guides ensure consistent work accuracy
- high-quality, high-precision preloaded ball-screws supported by special bearings ensure maximum positioning accuracy for all feed axes
- telescoping stainless steel covers protect the guides from chips and dirt
- rotary table with manual clamping can be locked at 4 positions:
0°, 90°, 180°, and 270°



Fanuc Oi-MD
www.knuth.de



For available options for this machine, visit our website and search for BO 130 CNC (Product Search)

Standard Equipment: Fanuc Oi-MD control with Manual Guide Oi, electronic hand-wheel, RS232 port, central lubrication, work lamp, operating manual and programming instructions

Specifications BO 130 CNC			max. torque			
control		Fanuc Oi-MD	- spindle	Nm	1330	
spindle diameter	mm	130	- feed motor (X, Z)	Nm	22	
drilling capacity	mm	50	- feed motor (Y, W)	Nm	30	
counter-boring capacity	mm	250	spindle feed	mm/min	0.5 - 1000	
spindle taper		BT 50	feed X, Y, W axis / rapid feed	mm/min	5 - 2000/10000	
table dimensions	mm	1000 x 1350	Z axis rapid feed	mm/min	5000	
max. table load capacity	kg	5000	positioning accuracy (X, Y)	mm	0.04	
spindle center-to-table surface distance	mm	0 - 1200		(Z, W)	mm	0.03
table travel			repeatability (X, Y)	mm	0.02	
- linear axis (X)	mm	1500		(Z, W)	mm	0.015
- transverse axis (W)	mm	550	work table rotation accuracy		± 6" (4x90°)	
axial travel of spindle (Z axis)	mm	1000	work table repeatability		± 3" (4x90°)	
headstock travel (Y axis)	mm	1200	motor rating	kW	13.1 / 15	
number of slots / slot width	quantity/mm	7/22	overall dimensions (LxWxH)	mm	5010x3700x3600	
slot distance	mm	250	weight	kg	15000	
spindle speed, infinitely var.	rpm	12 - 1000	Part No.		180 095	
			Price €		149.000,-	

Specifications BO 110 CNC				
control		Siemens 802D	spindle speed, infinitely var.	rpm 12 – 1100
spindle diameter	mm	110	facing slide speed (infinitely var.)	rpm 4 – 125
finish bore	mm	240	max. spindle torque	Nm 1100
drilling capacity	mm	50	max. faceplate torque	Nm 1100
spindle taper		BT 50	max. axial feed force	kN 13
table dimensions	mm	1320 x 1010	spindle feed	mm/min 0.5 – 1000
max. table load capacity	kg	5000	feed X / Y / Z axis	mm/min 5000
Distance			feed W axis	mm/min 2060
spindle center-to-table distance	mm	5 – 905	feed facing slide	mm/min 1370
table travel linear axis (X)	mm	1300	positioning accuracy	mm X 0.04; Y 0.05; Z 0.06
table travel transverse axis (W)	mm	550	repeatability X / Y / Z axis	mm 0.015
axial travel of spindle (Z axis)	mm	1200	work table rotation accuracy	+/-6" (4x90°)
headstock travel (Y axis)	mm	900	work table repeatability	+/-3" (4x90°)
facing slide travel	mm	160	motor rating	kW 11
max. work diameter			dimensions	mm 5347 x 3020 x 2890
facing slide	mm	630	weight	kg 12000
table rotation (B)		360°	Part No.	100 065
			Price €	96.800,-

Rotating setup table

- precise table center support provided by preloaded axial/radial cylindrical roller bearings



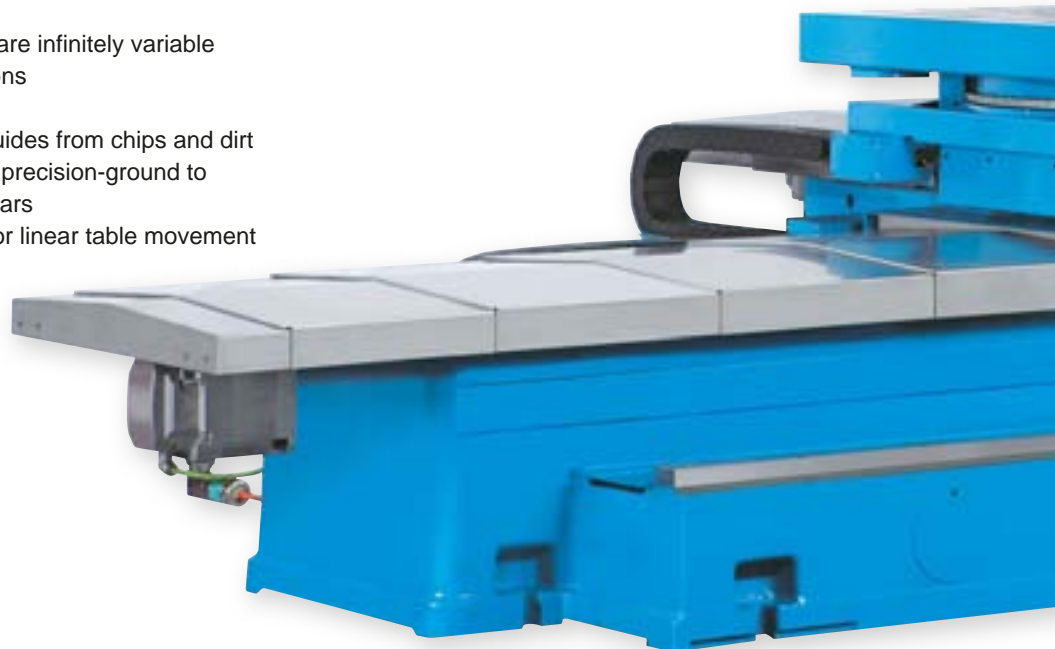
Standard Equipment: Siemens 802D control, preloaded ball screws, central lubrication, electronic hand-wheel, RS-232 port, PC transfer software, programming instruction, operator manual



Siemens 802 D
www.knuth.de

For available options for this machine, please visit our website and search for BO 110 CNC (Product Search)

- spindle speed and facing slide speed are infinitely variable
- rotary table for a part weight up to 5 tons
- 3-axis CNC control
- telescoping steel cover protects the guides from chips and dirt
- rigid square guides are hardened and precision-ground to ensure exact work results for many years
- wide machine bed with 4 guideways for linear table movement
- precise table center support on cylindrical roller bearings
- preloaded ball screws on all feed axes
- automatic central lubrication
- axially adjustable drill spindle with speeds up to 1100 rpm
- powerful main drive motor with 11 kW





CNC Drill Unit

BO 110 CNC

Heavy-Duty CNC Drill Unit with Siemens 802D control for large and heavy parts

96.800,- €



Specifications PBZ Heavy		2217	3217	3220	3225	4225
X axis travel	mm	2200	3200	3200	3200	4200
Y axis travel	mm	1700	1700	2000	2500	2500
Z axis travel	mm	800	800	800	800	1000
W axis travel	mm	-	-	-	-	-
table dimensions	mm	2000 x 1500	3000 x 1500	3000 x 1700	3000 x 2100	4000 x 2100
table load capacity (max.)	kg	6000	8000	10000	15000	16000
T-slots (distance x width)	mm	160 x 22	160 x 22	160 x 22	160 x 22	160 x 28
spindle nose-to-table dist.	mm	200 - 1000	200 - 1000	300 - 1100	300 - 1100	200 - 1200
Headstock						
speed range	rpm	50 - 6000	50 - 6000	50 - 6000	50 - 6000	50 - 6000
spindle mount		BT 50	BT 50	BT 50	BT 50	BT 50
Feed						
rapid feed X / Y axis	mm/min	10000	10000	10000	10000	10000
Z axis rapid feed	mm/min	8000	8000	8000	8000	8000
work feed	mm/min	6000	6000	6000	6000	6000
tool changer						
number of tool stations		32	32	32	32	32
tool size Ø x L (max.)	mm	200 x 300	200 x 300	200 x 300	200 x 300	200 x 300
tool weight (max.)	kg	20	20	20	20	20
Accuracy						
positioning accuracy X axis	mm	0.036	0.044	0.044	0.044	0.052
positioning accuracy Y axis	mm	0.028	0.028	0.036	0.036	0.036
positioning accuracy Z axis	mm	0.028	0.028	0.028	0.028	0.028
repeatability	mm	0.02	0.02	0.02	0.02	0.02
X / Y / Z axis						
Drive Capacities						
main drive motor rating (contin./30 min)	kW	15 / 18.5	15 / 18.5	15 / 18.5	22 / 26	22 / 26
Dimensions/Weight						
dimensions	mm	6000x3520x4500	7800x3520x5000	8200x4000x5000	8200x4520x4800	1000x4520x5000
weight	kg	25000	27300	30000	37000	44000
Part No.		170 050	170 051	170 052	170 053	170 054
Price €		199.900,-	222.800,-	236.900,-	269.900,-	299.900,-

Specifications PBZ Heavy		5225	6225	6232	6232 W
X axis travel	mm	5200	6200	6200	6200
Y axis travel	mm	2500	2500	3200	3200
Z axis travel	mm	1000	1000	1000	1000
W axis travel	mm	-	-	-	1200
table dimensions	mm	5000 x 1200	6000 x 2100	6000 x 2800	6000 x 2800
table load capacity (max.)	kg	20000	22000	32000	32000
T-slots (distance x width)	mm	160 x 28	160 x 28	200 x 28	200 x 28
spindle nose-to-table dist.	mm	200 - 1200	200 - 1200	200 - 1200	0 - 1200
Headstock					
speed range	rpm	50 - 6000	50 - 6000	50 - 6000	50 - 6000
spindle mount		BT 50	BT 50	BT 50	BT 50
Feed					
rapid feed X / Y axis	mm/min	10000	10000	10000	10000
Z axis rapid feed	mm/min	8000	8000	8000	8000
work feed	mm/min	6000	6000	6000	6000
tool changer					
number of tool stations		32	32	32	32
tool size Ø x L (max.)	mm	200 x 300	200 x 300	200 x 300	200 x 300
tool weight (max.)	kg	20	20	20	20
Accuracy					
positioning accuracy X axis	mm	0.068	0.068	0.068	0.068
positioning accuracy Y axis	mm	0.036	0.036	0.044	0.044
positioning accuracy Z axis	mm	0.028	0.028	0.028	0.028
repeatability	mm	0.02	0.02	0.02	0.02
X / Y / Z axis					
Drive Capacities					
main drive motor rating (contin./30 min)	kW	22 / 26	22 / 26	22 / 26	22 / 26
Dimensions/Weight					
dimensions	mm	12000x4520x5000	14000x4520x5000	15500x5560x5500	15500x6400x6800
weight	kg	48000	52000	70000	85000
Part No.		170 055	170 056	170 057	170 058
Price €		338.900,-	379.900,-	569.900,-	628.900,-

- travel up to 6200 mm
- table load capacity up to 32000 kg

Power - Performance - Precision

- bed, columns and travel tracks form a solid frame structure for high rigidity under hard machining conditions and high table loads
- triple linear guides support the table across its entire travel distance in the X axis and allow table loads up to 32,000 kg total weight (PBZ 6232)
- all axes feature preloaded ball screws, preloaded spindle nuts and powerful drive motors
- Quadruple linear guides of headstock on Z axis ensure maximum rigidity even with extra-long lay-outs
- the included hydraulic spindle gears allow a wide speed range and high torque
- including weight balancing system for easy movement and precise Z axis positioning
- the main spindle features an oil cooler to ensure constantly balanced temperatures
- quick tool changes via a tool-changer with dual-arm gripper
- Fanuc 0i MD control with Manual Guide for easy programming

- and maximum reliability
- chip conveyors on both sides of the table with a capacity of 55 kg/min ensure quick chip removal from workspace; including chain-type chip conveyor
- Productivity and flexibility can be increased even further by using any of the optional accessories: NC – Rotary Table, 90° Angle Cutter (more accessories upon request)
- automatic central lubrication is included
- The PBZ 6232 with W axis allows optimum positioning of the traverse during machining of different types of workpieces

starting at

199.900,- €



Fanuc 0i-TD
www.knuth.de



Options

- | | | | | | |
|-------------------------------------|------------------|------------------|--|---------|---------|
| • NC Rotary Table, 1000 mm diameter | Part No. 250 655 | Price € 34.900,- | • Side cutter head, manual swivel (360°) | 250 656 | 9.990,- |
|-------------------------------------|------------------|------------------|--|---------|---------|

Standard Equipment: Fanuc 0i-TD control, electronic hand-wheel, automatic central lubrication, coolant system, spindle oil cooler, RS-232 port, work lamp, guard covers, chip conveyor, alarm indicator lamp, foundation bolts, test certificate, operating tools, operator manual



rigid moving column design



tool changer with dual-arm gripper



heavy-duty machine base

- large T-slot rotary table can be positioned in increments of 1° (Quadrant 2500 Plus 0.001°) allowing cost-effective multi-sided machining of complex and large workpieces in one setup.
- the massive headstock with a torsion-free and bending-resistant main spindle moves on premium bearings in a heavily ribbed machine column with large linear guideways
- powerful servo drives and preloaded ball screws ensure optimum dynamics and precision
- the tool-changer with dual-arm gripper and 24 / 40 tool stations is mounted outside the work area, where it is well protected and easily accessible
- optional tool changers with 32 or 40 stations are available (Quadrant 800, 1000, 1200)
- the Fanuc control provides maximum reliability and functionality
- the easily accessible enclosure is included in the standard equipment and features a high-performance coolant system and a chip conveyor
- plus central lubrication for low maintenance

Specifications Quadrant			800	1000	1200	1500	2500	2500 Plus
Working area								
travel	- X axis	mm	800	1000	1200	1500	2500	2500
	- Y axis	mm	600	800	900	1200	1500	1800
	- Z axis	mm	600	900	900	1100	1500	1500
table								
minimum turning angle, indexing table			1°	1°	1°	1°	1°	0,01°
table dimensions		mm	500 x 600	630 x 630	800 x 800	1200 x 1200	1500 x 1500	2000 x 2000
max. load capacity		kg	500	2000	3000	5000	8000	10000
T-slots (qty x width x spacing)		mm	6 x 14 x 80	5 x 18 x 125	5 x 18 x 150	5 x 22 x 200	5 x 28 x 275	5 x 28 x 275
Headstock								
spindle speed, max.		rpm	6000	6000	6000	6000	6000	6000
spindle mount			BT 50	BT 50	BT 50	BT 50	BT 50	BT 50
spindle nose-to-table distance		mm	150 - 750	200 - 1100	260 - 1160	330 - 1430	630 - 2130	880 - 2380
spindle center-to-table distance		mm	50 - 650	0 - 800	0 - 900	0 - 1200	0 - 1500	0 - 1800
Feed								
rapid feed X / Y / Z axis		m/min	15 / 12 / 15	15 / 12 / 15	15 / 12 / 15	15 / 15 / 15	12 / 12 / 12	12 / 12 / 12
operating speed		mm/min	1 - 5000	1 - 5000	1 - 5000	1 - 5000	1 - 5000	1 - 5000
Accuracy								
positioning accuracy		mm	0.02	0.02	0.02	0.025	0.03	0.03
repeatability		mm	0.01	0.01	0.01	0.012	0.015	0.015
accuracy, indexing table		mm	6"	6"	6"	20"	15"	15"
repeatability, indexing table		mm	2"	2"	2"	2"	2"	2"
tool changer								
tool mount			BT 50	BT 50	BT 50	BT 50	BT 50	BT 50
tool stations		qty	24	24	24	40	40	40
tool dimensions (diameter x length)		mm	125 x 350	125 x 350	125 x 350	125 x 400	125 x 400	125 x 400
max. tool weight		kg	18	18	18	20	20	20
Drive Capacities								
motor power, main drive(continuous mode/30 min.)kW			11 / 15	15 / 18.5	18.5 / 22	18.5 / 22	18.5 / 22	18.5 / 22
total connected load		kVA	40	45	50	50	55	55
Dimensions/Weight								
dimensions		mm	3800 x 3800 x 2950	4300 x 4000 x 3050	4300 x 4000 x 3150	6000 x 6000 x 5300	7800 x 7300 x 5600	8500 x 7300 x 6500
weight		kg	9500	12500	15500	22000	26000	30000
Part No.			181 002	181 003	181 004	181 005	181 006	181 007
Price €			118.800,-	146.900,-	178.800,-	246.000,-	349.900,-	369.000,-

Horizontal Bed-type CNC Milling Center with rotary table
- maximum precision plus maximum machining power

starting at

118.800,- €



- heavy machine body and special T-bed design for utilizing the advantages of horizontal machining plus superior rigidity allowing workpiece weights up to 10,000 kg (Quadrant 2500 Plus)
- machine bed, table and column are made of premium cast-iron to provide optimum damping properties

- wide box-ways on the machine bed ensure superior stability and excellent geometrical accuracy
- the wide table console and the on Y traversable column rest securely on the guides across the entire travel distance; no tilting moment, reduced wear

Standard Equipment: Fanuc 0i-MD control, indexing table - 1° (Quadrant 2500 Plus - 0.001°), electronic hand-wheel, 24-station or 40-station dual arm tool changer, chip conveyor and chip cart, full enclosure, coolant system, automatic central lubrication, work space lighting, signal lamp to indicate lubricant loss, spray gun, air gun, operating tools, operating and programming instructions

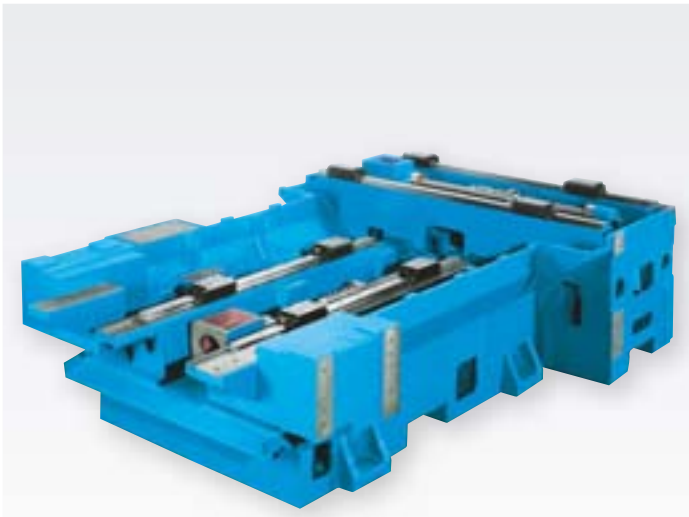
Options	Part No.	Price €			
• coolant flow through spindle	250 802	9.990,-	• automatic 40-station tool changer	250 801	12.990,-
			• Linear Scale	250 803	6.610,-
Optional Quadrant 800 • 1000 • 1200			Optional Quadrant 1200 • 1500 • 2500		
• automatic 32-station tool changer	250 800	9.920,-	• Linear Scale	250 804	13.220,-



Fully functional 4th axis for all-around machining on 4 sides



Extensive standard equipment - and a wide variety of options



Premium machine frame with linear guides on all 3 axes



40-station chain-driven tool changer

Options	Part No.	Price €		Part No.	Price €
• Fanuc 18i-MB control	250 661	24.900,-	• Renishaw TS27R stylus	250 674	3.390,-
• spindle (15,000 rpm) HSK 63A	250 664	12.600,-	• Renishaw OPM40-2 stylus for 3D measuring	250 675	9.990,-
• spindle motor 10,000 rpm (15 / 18.5 kW)	250 666	1.900,-	• optical scales, X / Y / Z axis	250 676	5.990,-
• motor & spindle set: 15,000 rpm BT40			• inside spindle cooler (20 bar) 10,000 rpm	250 679	7.880,-
with inside spindle cooling 20 bar	250 670	14.900,-	• chip flushing system	250 682	400,-
• 60-station tool changer	250 673	11.800,-	• oil/water separator	250 683	570,-

Standard Equipment: Fanuc 0i-MD control, 40-station chain-driven tool changer, 2-station pallet changer, indexing table 360°, automatic central lubrication, spindle cooler, foundation bolts, machine feet, coolant system, chain-type chip conveyor, chip conveyor with collection container, electronic hand-wheel, operating tools, operating and programming instructions

Specifications Scalar 500						
Working area						
X axis travel	mm	610	tool weight (max.)	kg	7	
Y axis travel	mm	510	tool length (max.)	mm	300	
Z axis travel	mm	680	tool diameter (max.)	mm	76	
table dimensions	mm	500 x 500	Accuracy			
table load capacity (max.)	kg	450	positioning accuracy X / Y / Z axis	mm	0.004	
spindle nose-to-table dist.	mm	140 - 750	repeatability X / Y / Z axis	mm	0.003	
Headstock				Drive Capacities		
spindle speed	min. ⁻¹	10000	main drive motor rating (cont. / 30 min.)	kW	11 / 15	
headstock torque (max.)	Nm	95	motor rating for X axis	kW	4	
spindle mount		ISO 40	motor rating Y axis	kW	4	
Feed				motor rating for Z axis	kW	4
rapid feed X / Y / Z axis	mm/min	32000	power supply	V	400	
feed speed	mm/min	1 - 8000	Dimensions/Weight			
X / Y / Z axis			dimensions	mm	4770 x 2300 x 2500	
Tool Changer				weight	kg	9630
number of tool stations		40	Part No.		170 072	
tool changing time, tool/tool	sec	3	Price €		178.900,-	

Dual pallet changer system, 40 tool stations, axis and travel speeds up to 32 m/min =
Increased efficiency - less downtime

178.900,- €



- premium machine frame made of Meehanite casting, which has been tempered to ensure an extremely rigid structure with excellent damping properties
- linear guides on all three axes ensure highest positioning accuracy, even during rapid axis movements
- large spindle nose-to-table distance (140 - 750 mm) allowing complex clamping means and workpieces
- tool changes via APC pallet changer - allows concurrent tooling during production for increased efficiency and to give you a competitive edge
- Tool changer: servomotor-driven, maximum positioning accuracy (0.004 mm) and 40 tool stations are standard (60 stations available as optional equipment)
- high travel speeds up to 32 m/min and spindle speeds up to 10,000 rpm (15,000 rpm optional)
- fully functional 4th axis for all-around machining on 4 sides
- positioning accuracy of 4th axis is 0.001 deg.
- Fanuc Oi-MD control is user-friendly, powerful and innovative
- extensive chip flushing system for optimum chip removal flow

For more information and options, visit www.knuth.de

- the solid cast-iron work table rests on the steel machine frame providing maximum machine rigidity
- moving column design combined with a gear drive allows dynamic rapid feed speeds up to 20 m/min, regardless of workpiece weights
- zero-backlash moving column feed across the entire travel distance is guaranteed by two gearboxes mounted against each other: this allows immediate power transmission onto the gears and ensures a high degree of efficiency and minimum energy loss
- the long milling table holds loads up to 3000 kg and allows simultaneous clamping of multiple parts, or long-bed machining
- equipped with a GPlus 450 control, the Matrix impresses experienced users with its flexibility, user-friendly operation as well as easy and quick programming of graphics supported milling and drilling cycles
- includes totally enclosed work space, 24-station tool turret, and 3-axis central lubrication system
- powerful spindle with speeds up to 12,000 rpm spindle cooler optional



Options	Part No.	Price €			
• 12000 rpm ¹ spindle and spindle cooler	250 684	5.590,-	• 32-station tool changer	250 685	3.570,-
			• coolant flow through spindle	250 689	10.800,-

Specifications for Matrix		4000	6000	8000
Working area				
X axis travel	mm	4000	6000	8000
Y / Z axis travel	mm	600	600	600
table dimensions	mm	600 x 4000	600 x 6000	600 x 8000
table load capacity	kg	2000	2500	3000
T-slots (qty x width x spacing)	mm	5 x 18 x 100	5 x 18 x 100	5 x 18 x 100
spindle nose-to-table distance	mm	110 - 710	110 - 710	110 - 710
Headstock				
speed range	rpm	60 - 8000	60 - 8000	60 - 8000
headstock torque (max.)	Nm	95.5	95.5	95.5
spindle mount		BT 40	BT 40	BT 40
Feed				
work feed X / Y / Z axis	mm/min	1 - 20000	1 - 20000	1 - 20000
Tool Carrier				
number of tool stations		24	24	24
tool size Ø x L (max.)	mm	127 x 300	127 x 300	127 x 300

Powerful, precise, and robust -
for efficient milling of very large and heavy parts

starting at

199.800,- €



Matrix 6000 shown

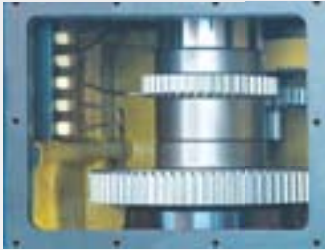
- table loads up to 3000 kg (Matrix 8000)
- long-bed machining and clamping of several workpieces

Standard Equipment: GPlus 450, 24-station tool turret, coolant system, totally enclosed work space, automatic central lubrication, spindle blow-out system, heat exchanger for control cabinet, electronic hand-wheel, mounting bolts, work lamp, operating tools, operating manual and programming instructions

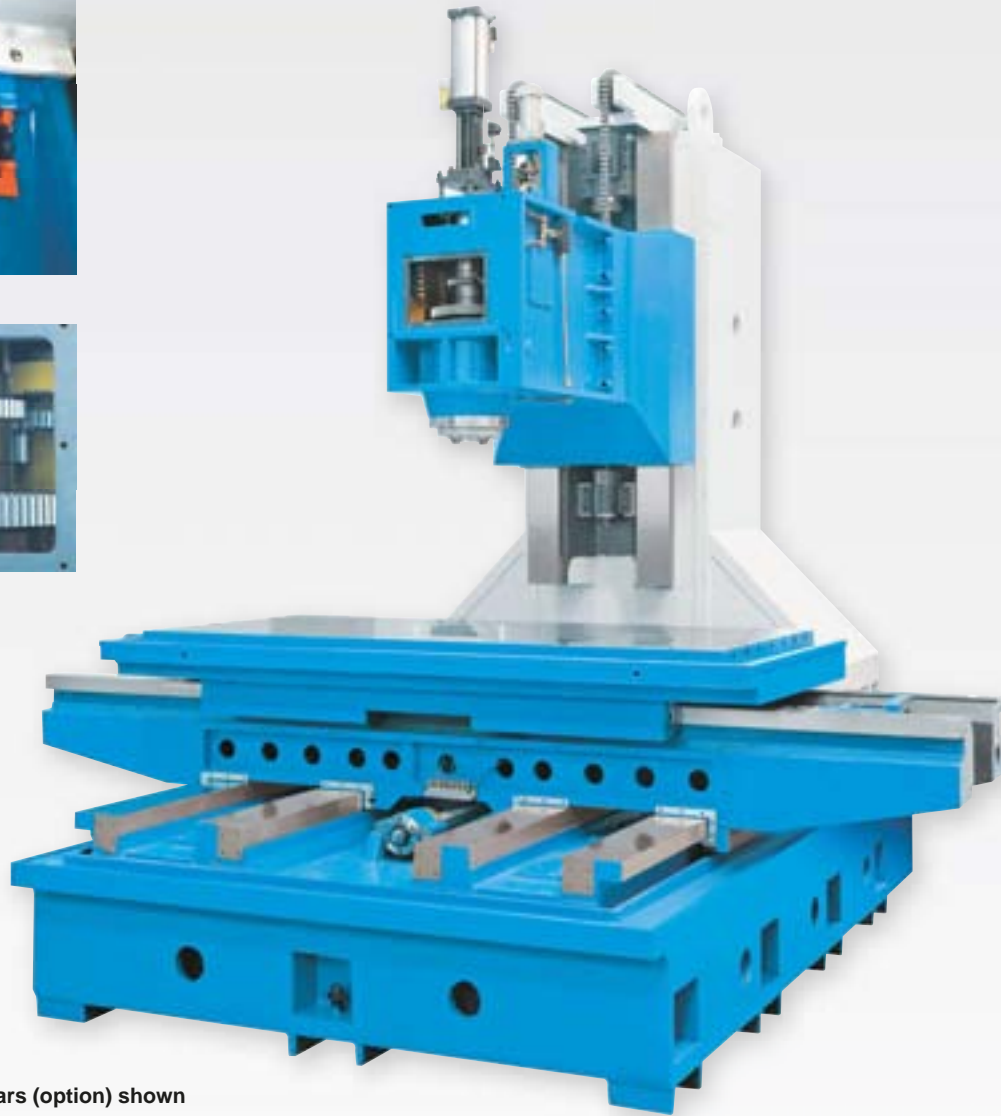
Specifications for Matrix		4000	6000	8000
tool weight (max.)	kg	7	7	7
tool changing time chip/chip	sec	1.2	1.2	1.2
tool changing time, tool/tool	sec	2.5	2.5	2.5
Accuracy				
positioning accuracy X / Y / Z axis	mm	± 0.005	± 0.005	± 0.005
repeatability X / Y / Z axis	mm	± 0.003	± 0.003	± 0.003
Drive Capacities				
main drive motor rating (cont/30 min)	kW	7.5 / 11	7.5 / 11	7.5 / 11
motor rating X axis	kW	5	5	5
motor rating Y axis	kW	3.5	3.5	3.5
motor rating Z axis	kW	3.5	3.5	3.5
Dimensions/Weight				
dimensions	mm	9000 x 4000 x 3000	11000 x 4000 x 3000	13000 x 4000 x 3000
weight	kg	20000	23000	25000
Part No.		181 061	181 062	181 063
Price €		199.800,-	209.900,-	219.900,-



Chip Flushing System



Gear step (standard)



X.mill 1890 with gears (option) shown

Standard Equipment:

- GPlus 450 control
- 24-station tool changer with dual-arm gripper
- totally enclosed work space
- spiral chip conveyor
- electronic hand-wheel
- servo drives on all axes
- spindle with gear step 6000 rpm
- BT 50 spindle oil cooler
- pneumatic tool clamping
- air-conditioned control cabinet
- chip flushing system
- thread cutting without compensating chuck
- coolant system
- air and coolant spray wand
- automatic central lubrication
- work space lighting
- signal lamp
- alignment elements
- operating tools
- operating manual and programming instructions

Options

• chain-type chip conveyor (X.mill 1680)	Part No.	Price €	• tool length measurement	250 046	2.390,-
• chain-type chip conveyor (X.mill 1890)	250 055	2.690,-	• coolant fed through spindle (70 bar)	250 047	7.150,-
	250 054	2.990,-	• 4th axis, see page 247		

Specifications		X.mill 1680	X.mill 1890
control		GPlus 450	GPlus 450
Working area			
X axis travel	mm	1600	1800
Y axis travel	mm	820	920
Z axis travel	mm	700	700
table dimensions	mm	1700 x 820	1900 x 900
table load capacity	kg	2200	3000
T-slots (qty x width x spacing)	mm	7 x 18 x 120	7 x 18 x 120
spindle nose-to-table distance	mm	180 - 880	180 - 880
throat (spindle center to frame)	mm	900	1025
Headstock			
max. spindle speed	rpm	6000	6000
spindle mount		BT50	BT50
Feed			
rapid feed X / Y / Z axis	mm/min	15000	15000
work feed X / Y / Z axis	mm/min	1 - 7000	1 - 7000



Vertical CNC Machining Centers

X.mill 1680 • 1890

Rigidity, maximum precision and cost-effective operation make this proven series even more powerful

starting at

98.500,- €



X.mill 1890 shown with optional accessories



- extra wide cast-iron frame with heavy ribbing minimizes vibrations, resonance and torsion to ensure maximum accuracy and optimum surfaces of the part
- extra-wide rectangular X axis guideways ensure superior rigidity during heavy chip removal operations and allow machining of large and heavy parts
- extraordinary table load capacity up to 3000 kg (X.mill 1890)
- all guideways are ground, hardened and protected by premium stainless steel covers
- large, preloaded ball screws are driven directly by the servo motors

Specifications		X.mill 1680	X.mill 1890
number of tool stations		24	24
tool size Ø x L (max.)	mm	Ø 110 x 300	Ø 110 x 300
for tooling		Ø 180 x 300	Ø 180 x 300
tool weight (max.)	kg	15	15
tool changing time, tool/tool	sek	2,5	2,5
Accuracy			
positioning accuracy	mm	± 0,004 / 300	± 0,004 / 300
repeatability	mm	± 0,003	± 0,003
Drive Capacities			
main drive (continuous/30 min)	kW	15 / 18,5	18,5 / 22
motor rating for X / Y / Z axis drive	kW	4,4 / 4,4 / 5,5	4,4 / 4,4 / 5,5
Dimensions/Weight			
overall dimensions (LxWxH)	mm	4300 x 3400 x 3100	4500 x 3400 x 3200
weight	kg	14000	16500
Part No.		170 085	170 086
Price €		98.500,-	113.900,-



4th and 5th axis (optional)

For more information and options, visit www.knuth.de



X.mill 1300 shown

Standard Equipment: GPlus 450 control, tool changer with dual-arm gripper, chip conveyor, electronic hand-wheel, servo drives for all axes, pneumatic tool clamping, air conditioning, totally enclosed work space, work lamp, RS-232 and USB ports, automatic central lubrication operating tools, operator manual

Options 4th axis, see page 247

Specifications		X.mill 1300	X.mill 1500
control		GPlus 450	GPlus 450
Working area			
X axis travel	mm	1300	1500
Y axis travel	mm	700	800
Z axis travel	mm	650	700
table dimensions	mm	1400 x 710	1700 x 800
table load capacity	kg	1000	1500
T-slots (qty x width x spacing)	mm	5 x 18 x 150	5 x 22 x 135
spindle nose-to-table dist.	mm	150 - 800	170 - 870
throat	mm	785	800
Headstock			
speed range	rpm	60 - 8000	60 - 8000
spindle mount		BT 50	BT 50
Feed			
rapid feed X / Y axis	mm/min	15000	15000
Z axis rapid feed	mm/min	10000	10000
work feed	mm/min	5 - 5000	5 - 5000
Tool Carrier			
tool stations		24	24
Accuracy			
positioning accuracy	mm	± 0.01	± 0.01
repeatability	mm	± 0.005	± 0.005
Drive Capacities			
main drive motor rating (cont/30 min)		11 / 15	15 / 18.5
Dimensions/Weight			
overall dimensions (LxWxH)	mm	3560 x 3481 x 3071	4270 x 3413 x 3067
weight	kg	11000	14000
Part No.		182 240	182 238
Price €		79.900,-	86.900,-

for machining of large, heavy parts with
extra-wide rectangular guides

starting at

79.900,- €



X.mill 1500 shown

- 24-station tool changer with fast dual-arm grippers; tool changing time of 1.7 sec
- machine bed and vertical guide system feature very wide hardened and ground rectangular guideways
- 4-track box ways in the machine bed for high table load capacity (X.mill 1300, X.mill 1500)
- large high-precision preloaded ball screws are driven directly

- by servo motors for maximum reliability and precision
- pneumatic tool clamping for easy and quick tool changes
- automatic central lubrication for low maintenance
- powerful headstock motors, 11 to 18,5 kW in continuous operation

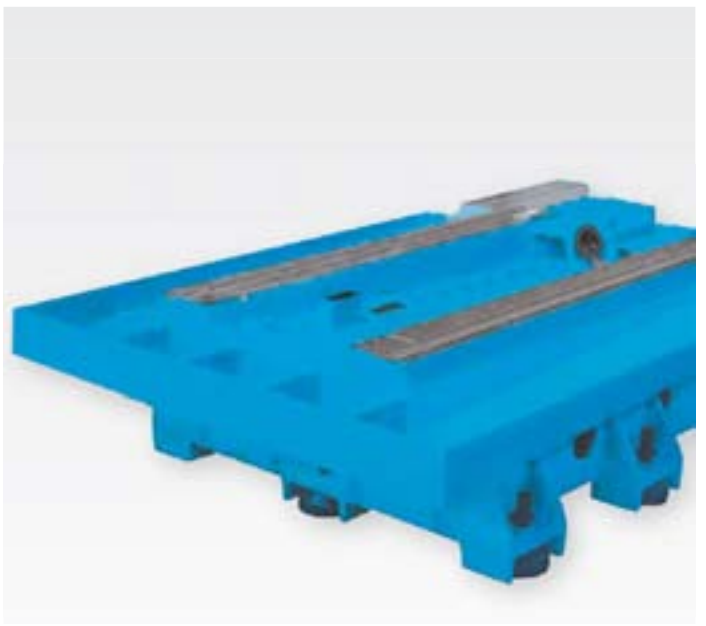


4-track box way
(X.mill 1300 / 1500)

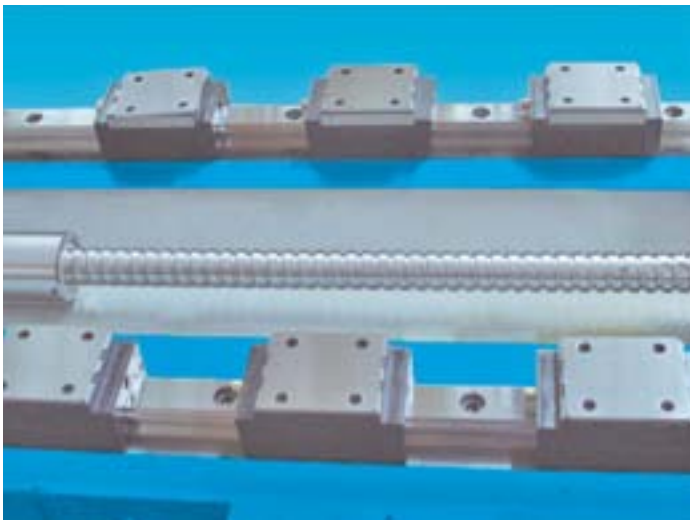
heavy-duty
torsion-resistant
cast-iron frame



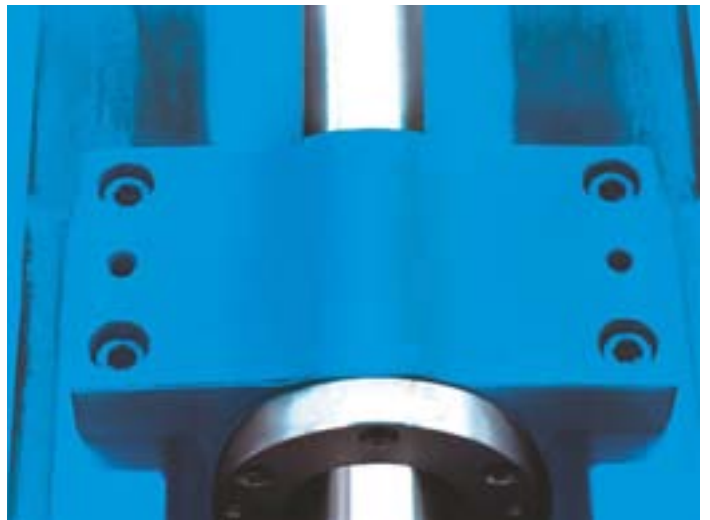
tool changer with dual-arm gripper



extra-wide machine bed



precise linear guide system



preloaded ball screws

Standard Equipment:

- GPlus 450 control
- 24-station tool changer with dual-arm gripper
- electronic hand-wheel

- spiral chip conveyor
- spindle oil cooler
- enclosed work space
- work lamp with program end indicator

- Ethernet and USB port
- air-conditioned control cabinet
- automatic central lubrication
- coolant system
- chip flushing system plus

- spray gun for flushing, 12 bar
- compressed air gun
- operating tools
- operating manual and programming instructions

Options

- milling spindle, 10,000 rpm
- milling spindle, 15000 rpm
- rapid feed X / Y axis, 48 m/min

Part No.	Price €
250 216	3.990,-
250 231	9.900,-
250 230	1.880,-

• autom. tool length measurement	250 217	1.290,-
• coolant fed through milling spindle (30 bar)	250 222	5.690,-
• chain-type chip conveyor	250 229	2.350,-
• 4th axis, see page 247		

Specifications X.mill 1100 L

Working area

X / Y / Z axis travel	mm	1100 / 600 / 700
table dimensions	mm	1200 x 600
table load capacity (max.)	kg	850
T-slots (qty x width x spacing)	mm	5 x 18 x 100
spindle nose-to-table distance	mm	100 - 800
throat	mm	655

Headstock

spindle speed (max.)	rpm	8000
spindle mount		BT 40

Feed

rapid feed X, Y axis / Z axis	mm/min	36000 / 30000
work feed	mm/min	1 - 12000

Tool Carrier

number of tool stations		24
-------------------------	--	----

tool size Ø x L (max.)	mm	78 x 300
tool weight (max.)	kg	8
tool changing time chip/chip	sec	8
tool changing time, tool/tool	sec	1.6

Accuracy

positioning accuracy	mm	0.003
repeatability	mm	0,002

Drive Capacities

main drive motor rating (cont/30 min)	kW	11 / 15
motor rating for X / Y / Z axis drive	kW	2.9 / 2.9 / 4.4

Dimensions/Weight

dimensions	mm	2900x2220x2700
weight	kg	6800
Part No.		170 082
Price €		62.800,-

62.800,- €

Precise and quick - for machining of complex and heavy parts

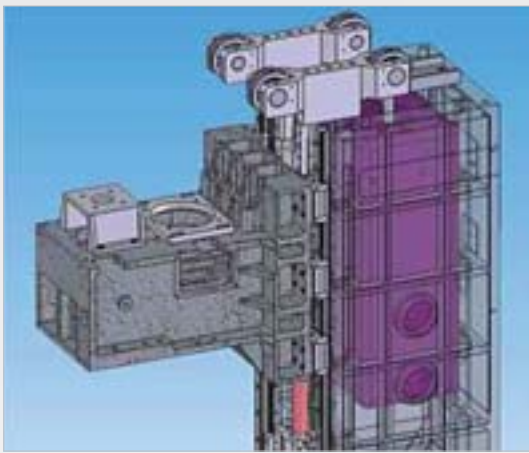


- machine frame with linear guides in an extra-wide configuration, rigid construction for efficient machining
- linear guide system for rapid feeds up to 48 m/min (option)
- high-precision preloaded ball screws on all 3 axes
- dual-arm 24-station tool changer for quick and precise tool changes

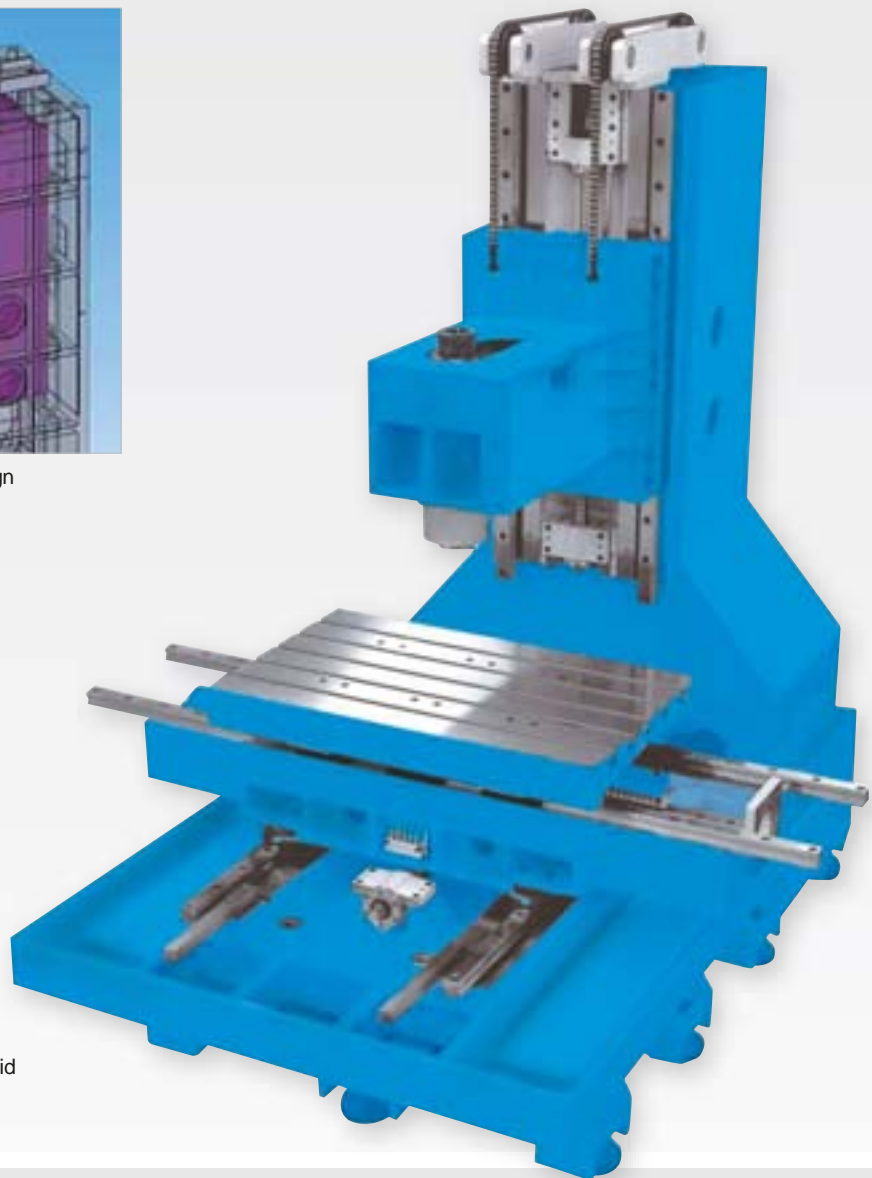
- chip conveyor and purge system for optional chip remover system
- very accessible work table for easy setup and tooling
- enclosed work space ensures safe and contamination-free work



For more information and options, visit www.knuth.de



massive machine head and rigid column design



extra-wide, very rigid machine frame

Standard Equipment: GPlus 450 control, 24-station tool changer with dual-arm gripper, electronic hand-wheel, spiral chip conveyor, spindle oil cooler, enclosed work space, work lamp with program end indicator, Ethernet and USB ports, spindle oil cooler, air-conditioned control cabinet, automatic central lubrication, coolant system, chip flushing system and spray gun for rinsing (12 bar), air gun, operating tools, operating and programming instructions

Options

- chain-type chip conveyor
- automatic tool length measurement

Part No.	Price €
250 631	2.290,-
250 632	1.290,-

- coolant fed through milling spindle (30 bar) 250 633 **5.690,-**
- milling spindle, 10,000 rpm incl. spindle oil cooler 250 638 **1.980,-**
- 4th axis, see page 247

Specifications X.mill 900 L

Working area

X axis travel	mm	850
Y axis travel	mm	550
Z axis travel	mm	550
table dimensions	mm	950 x 550
table load capacity	kg	500
T-slots (qty x width x distance))	mm	5 x 18 x 100
spindle nose-to-table distance	mm	100 - 650
throat	mm	632.5

Headstock

spindle speed	min. ⁻¹	8000
spindle mount		BT40

Feed

rapid feed X / Y axis	mm/min	24000
Z axis rapid feed	mm/min	20000
work feed X / Y axis	mm/min	5 - 10000
Z axis work feed	mm/min	5 - 12000

Tool Carrier

number of tool stations		24
-------------------------	--	----

tool size Ø x L (max.)	mm	78/120 x 300
tool weight (max.)	kg	8
tool-changing time chip/chip	sec	7
tool-changing time tool/tool	sec	2

Accuracy

positioning accuracy	mm	± 0.004
repeatability	mm	± 0.003

Drive Capacities

motor rating		
- main drive (contin./30 min)	kW	11 / 15
- X / Y / Z axis drive	kW	2.9

Dimensions/Weight

dimensions	mm	2600 x 2220 x 2700
weight	kg	5200
Part No.		182 249
Price €		54.900,-



CNC Machining Center
X.mill 900 L

starting at

54.900,- €

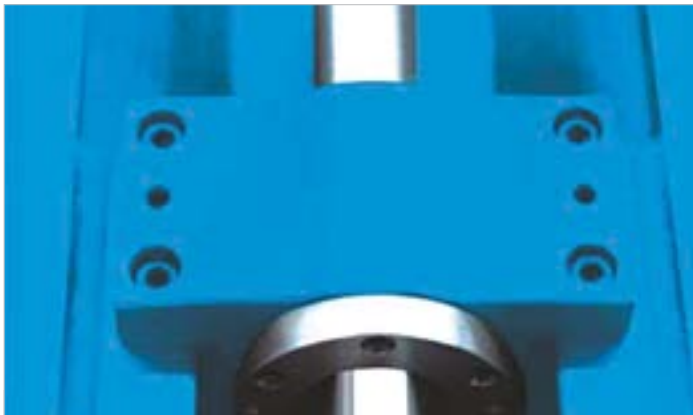
The Allrounder - rigid and powerful



GPlus 450
www.knuth-gplus.de

- extra rigid heavy-duty machine frame for high static loads and heavy-duty machining
- high-quality linear guides ensure rigidity and durability
- high-precision preloaded ball screws on all 3 axes
- very accessible work table for easy setup of clamping tools and workpieces

- powerful servo-drives ensure high feed dynamics
- effective coolant system ensures optimum use of tools and excellent chip removal
- 24-station tool changer with dual-arm tool gripper - short changing times and high capacity
- a multitude of options allow maximum customization to meet any requirements



preloaded precision ball screws



servo drives on all 3 axes

For more information and options, visit www.knuth.de

NEW with Siemens Sinumerik 828D



Siemens 828 D
www.knuth.de

X.mill 640 with Siemens control and 4th axis (option) shown

Standard Equipment: GPlus 450 control or Siemens 828 D, electronic hand-wheel, servo drives on all three axes, 16-station tool changer, pneumatic tool clamping, air conditioning, totally enclosed work space, work lamp, Ethernet and USB ports, inclined chip tray, automatic central lubrication, spindle oil cooler, operating tools, operator manual

Options for X.mill 640 (with Siemens 828 D) 4th axis, see page 247

Specifications X.mill 640		GPlus 450	Siemens 828 D			
Working area				gear ratio	-	90 : 1
X axis travel	mm	640	640	spindle mount	-	A-6
Y axis travel	mm	400	400	dimensions	mm	185 x 90 x 175
Z axis travel	mm	500	500	weight (with motor)	kg	70
table dimensions	mm	750 x 360	750 x 360	Tool Carrier		
table height	mm	850	850	number of tool stations	qty	16
table load capacity	kg	300	300	tool size Ø x length (max.)	mm	78 x 250
T-slots				tool weight (max.)	kg	8
(qty x width x spacing)	mm	3 x 18 x 100	3 x 18 x 100	tool changing time,		
spindle nose-to-table dist.	mm	50 - 550	50 - 550	tool/tool	sec	1.6
Headstock				Accuracy		
speed range	min. ⁻¹	60 - 8000	60 - 8000	positioning accuracy	mm	± 0.003
spindle throat	mm	430	430	repeatability	mm	± 0.002
spindle mount		MAS BT 40	MAS BT 40	Drive Capacities		
Feed				main drive motor rating	kW	7.5 / 11
rapid feed X / Y / Z axis	mm/min	30000	30000	(contin./30 min)		7 / 10
work feed	mm/min	5 - 5000	10 - 5000	Dimensions/Weight		
4th axis with tailstock, vertical and horizontal setup (option)				overall dimensions (L x W x H) mm		1930 x 2500
manual lathe chuck	mm	-	160			2240 x 1800
positioning accuracy	sec	-	± 40	weight	kg	3600
repeatability	sec	-	4	Part No.		181 285
braking torque	Nm	-	230	Price €		44.500,-
						49.900,-

The Power Package = compact, powerful, precise and very economical

4th and 5th axis (optional)



GPlus 450
www.knuth-gplus.de

X.mill 640 with GPlus control is shown

starting at

44.500,- €

- premium linear guides on all axes
- powerful axis servo drives
- solid cast-iron machine body serves as foundation for high precision at high travel speeds, and powerful chip removal
- totally enclosed work space with side doors ensures maximum safety and flexibility

Options for X.mill 640 (with GPlus 450) 4th axis, see page 247

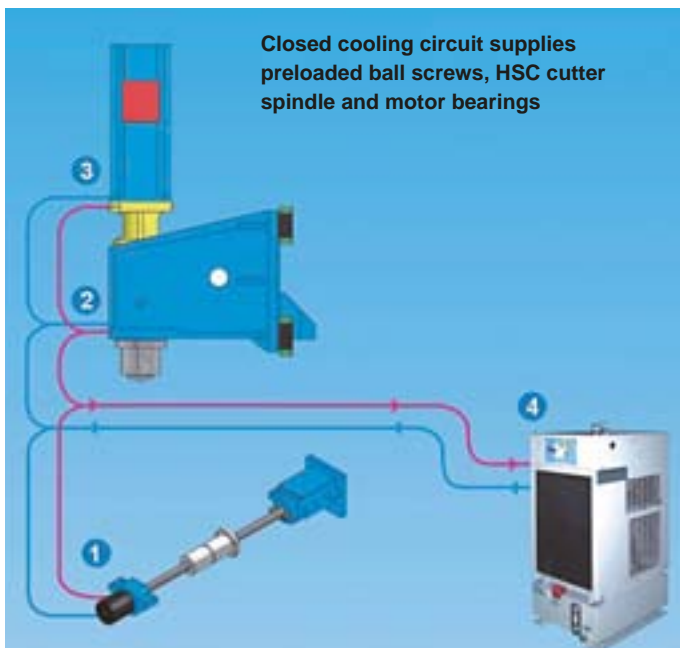


GPlus 450 control



Siemens Sinumerik 828D

For more information and options, visit www.knuth.de



KNUTH Machining Centers with mineral casting frame for high-precision production and maximum productivity

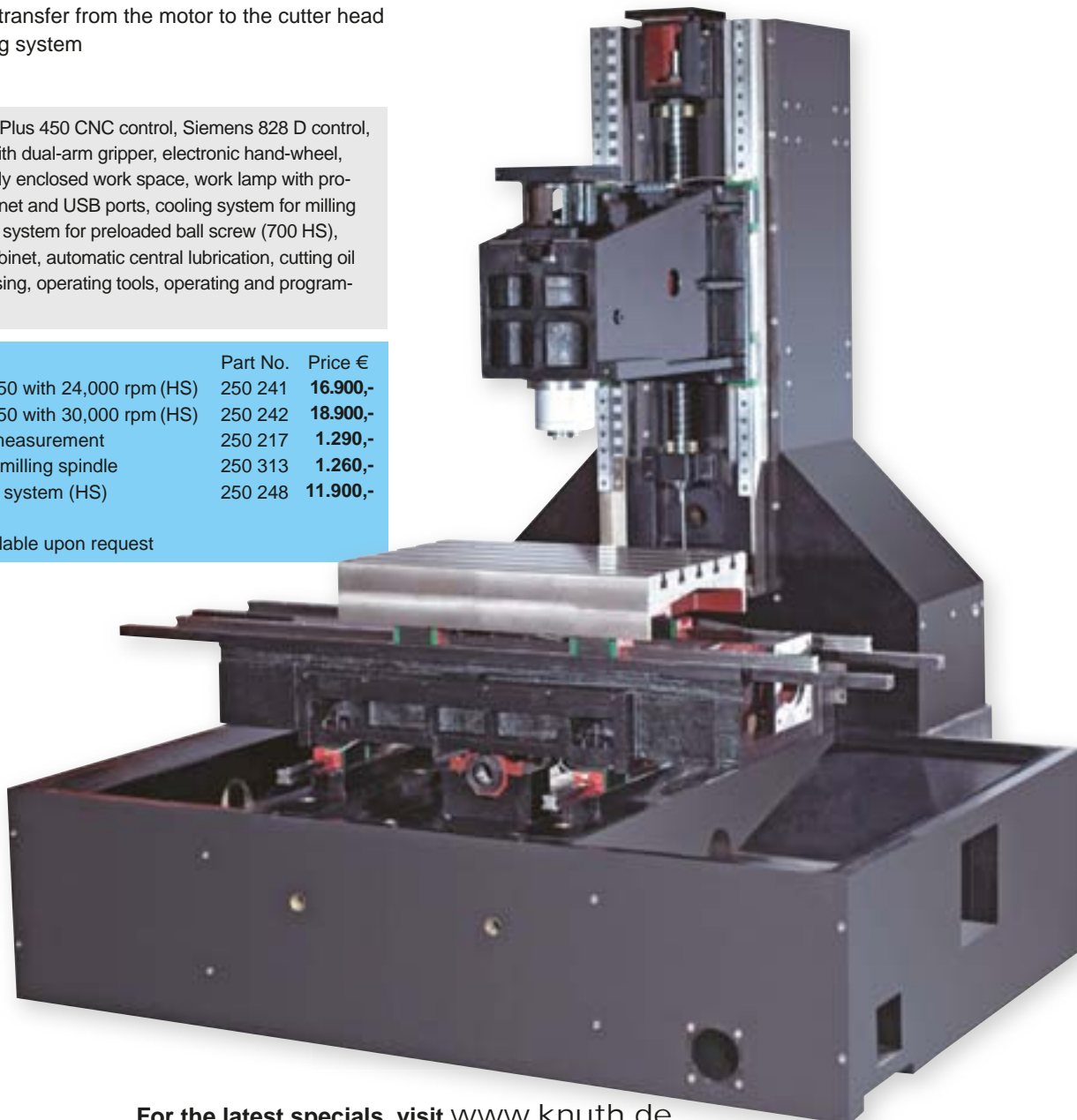
- excellent damping properties
- high rigidity
- excellent thermal stability
- high-speed advance and rapid feed for a significantly increased machine efficiency
- constant accuracy and stability ensured by premium preloaded ball screws with integrated cooling (X.mill 700 HS)
- milling spindle with closed cooling circuit for maximum precision and durability at high-speed machining operations (X.mill 700 HS)
- superior mechanical properties of the total component package ensure longer tool life
- easy accessibility of work table for easy setup and tooling

1. preloaded ball screws feature internal cooling to prevent excessive heat build-up during high-speed machine operation
2. The cutter spindle features closed-circuit cooling to ensure a constant optimum temperature range
3. The milling motor bearing is integrated into the cooling circuit to prevent any heat transfer from the motor to the cutter head
4. High-capacity cooling system

Standard Equipment: GPlus 450 CNC control, Siemens 828 D control, 24-station tool changer with dual-arm gripper, electronic hand-wheel, spiral chip conveyor, totally enclosed work space, work lamp with program end indicator, Ethernet and USB ports, cooling system for milling spindle (700 HS), cooling system for preloaded ball screw (700 HS), air-conditioned control cabinet, automatic central lubrication, cutting oil system, spray gun for rinsing, operating tools, operating and programming instructions

Options

	Part No.	Price €
• milling spindle HSK-E 50 with 24,000 rpm (HS)	250 241	16.900,-
• milling spindle HSK-E 50 with 30,000 rpm (HS)	250 242	18.900,-
• automatic tool length measurement	250 217	1.290,-
• coolant nozzle ring for milling spindle	250 313	1.260,-
• linear scale measuring system (HS)	250 248	11.900,-
• 4th axis; see page 247		
• Additional options available upon request		



World-Class High-Performance Machining Center
features Mineral Casting Frame

starting at

49.900,- €

- **NEW** with Siemens 828 D
- Main spindle speed up to 30,000 rpm (optional)
- Preloaded ball screws with inside cooling
- Rapid feed 60 m/min
- Axis acceleration 1g



Siemens 828 D
www.knuth.de

GPlus 450
www.knuth-gplus.de

Specifications		X.mill 700	X.mill 700 HS			78 (120) x 250	78 (120) x 250
Working area							
X axis travel	mm	700	700				
Y axis travel	mm	500	500				
Z axis travel	mm	500	500				
table dimensions	mm	750 x 450	750 x 450				
table load capacity	kg	300	300				
T-slots (number/width/spacing)	mm	5 x 16 x 80	5 x 16 x 80				
spindle nose-to-table distance	mm	70 - 570	70 - 570				
throat (spindle center to frame distance)	mm	530	530 (GPlus) 460 (Siemens)				
Headstock / drive type		belt drive	direct drive				
spindle speed	rpm	8000	15000				
spindle mount		BT 40	BT 40				
Feed							
rapid feed X / Y / Z axis	mm/min	30000	60000				
work feed							
X / Y / Z axis	mm/min	10000	12000				
Tool Carrier							
number of tool stations	qty	24	24				
				tool size Ø x L (max.)	mm	78 (120) x 250	78 (120) x 250
				tool weight (max.)	kg	8	8
				tool-changing time			
				- chip/chip	sec	3	3
				- tool/tool	sec	2.5	2.5
				Accuracy			
				positioning accuracy	mm	0.003 / 300	0.003 / 300
				repeatability	mm	0.002 / 300	0.002 / 300
				Drive Capacities			
				motor rating			7.5 / 11 (GPlus)
				- main drive (cont/30 min)	kW	7.5 / 11	9 / 13 (Siemens)
				- X / Y / Z axis drive	kW	1.8	2.9
				total connected load	kVA	20	22
				Dimensions/Weight			
				dimensions	mm	2500 x 2500 x 2700	2600 x 2500 x 2700
				weight	kg	6000	6000
				Part No. with GPlus 450 control		170 083	181 260
				Price € with GPlus 450 control		49.900,-	59.900,-
				Part No. with Siemens 828 D control		-	181 261
				Price € with Siemens 828 D control			78.000,-

19.900,- €

The perfect machine for your entry into the world of CNC machining!

**Compact Milling Machine with GPlus CNC control
for cost-effective single parts and batch productions**

- rigid cast-iron bed with hardened and counter-coated box ways
- preloaded ball screws on all axes, driven by powerful servo-motors
- infinitely variable speed (60 to 3000 rpm)
- telescoping guideway cover made of stainless steel on Y axis
- mechanical weight balance on Z axis
- electronic hand-wheel simplifies machine set-up
- high-quality spindle bearing ensures very quiet operation and long service life
- Complete enclosure with large sliding door and wide-opening side doors for easy access and optimum protection
- reliable central lubrication



GPlus 450
www.knuth-gplus.de

Standard Equipment:

GPlus 450 control, coolant system, collet chuck ISO 30 with collets (4, 5, 6, 8, 10, 12 mm diam.), central lubrication, electronic hand-wheel, work lamp, USB port, M16 draw bar, operating tools, programming instructions

Specifications EcoMill 350				
control		GPlus 450	speed range	min. ⁻¹ 60 - 3000
Working area			spindle mount	ISO 30
X axis travel	mm	385	Accuracy	
Y axis travel	mm	230	positioning accuracy	mm 0.025
Z axis travel	mm	385	repeatability	mm 0.012
table dimensions	mm	800 x 240	Drive Capacities	
table load capacity	kg	100	main motor rating	kW 2.2
T-slots (qty x width x spacing)	mm	3 x 14 x 74	motor rating X axis	kW 0.45
spindle nose-to-table dist.	mm	60 - 460	motor rating Y/Z axis	kW 0.85
throat	mm	300	coolant pump motor rating	kW 0.04
max. milling capacity, vertical	mm	12	Dimensions/Weight	
Feed			overall dimensions (LxWxH)	mm 1830 x 1600 x 1960
rapid feed X / Y / Z axis	mm/min	6000	weight	kg 1400
work feed X / Y / Z axis	mm/min	2.5 - 2000	Part No.	180 122
			Price €	19.900,-

Compact Machining Center with 10-station tool changer

- this high-performance vertical machining center was developed based on the proven design of the EcoMill machining center
- a reliable 10-station tool changer minimizes downtime, resulting in a significant increase in productivity
- higher motor rating for powerful machining and an even more effective use of tool technologies
- wide speed range, infinitely variable (60 - 6000 rpm)
- telescoping guideway cover made of stainless steel on Y and Z axis

26.900,- €



GPlus 450
www.knuth-gplus.de

Standard Equipment: GPlus 450 control, coolant system, totally enclosed work space, work lamp, USB port, central lubrication, electronic hand-wheel, 10-station tool changer, operating tools, operating instructions

Options for this machine are listed on our website under EcoCenter (product search)

Specifications EcoCenter 350				
control		GPlus 450	spindle mount	BT 30
Working area			Tool Carrier	
X axis travel	mm	400	number of tool stations	qty 10
Y axis travel	mm	240	tool size Ø x length (max.)	mm 92 x 120
Z axis travel	mm	380	tool weight (max.)	kg 4
table dimensions	mm	800 x 240	Accuracy	
table load capacity	kg	100	positioning accuracy	mm 0.025
T-slots (qty x width x spacing)	mm	3 x 14 x 75	repeatability	mm 0.012
spindle nose-to-table dist.	mm	60 - 460	Drive Capacities	
throat	mm	300	main motor rating	kW 3.7
max. milling capacity, vertical	mm	12	motor rating Y / Y / Z axis	kW 0.85
Feed			coolant pump motor rating	kW 0.04
rapid feed X / Y / Z axis	mm/min	6000	Dimensions/Weight	
work feed X / Y / Z axis	mm/min	2.5 - 2000	overall dimensions (LxWxH)	mm 1870 x 1650 x 2000
Headstock			weight	kg 1520
speed range	min. ⁻¹	60 - 6000	Part No.	180 123
			Price €	26.900,-

15.900,- €

Low-Cost Entry-Level CNC Milling Machine with advanced Windows-based GPlus control

- proven box-column design made of cast-iron and hardened guide-ways ensure high table load capacities up to 200 kg
- powerful main motor with electronic controls and low-noise 2-step gears ensure high torque and a wide speed range
- vertical cutter head with manual quill feed can be switched via hand-wheel to precision feed for maximum flexibility
- the cutter head swivels 45° to both sides, quill feed allows angular bores
- servo motors on all axes provide precise and constantly accurate positioning of the work table via preloaded ball screws
- Ideal for single parts production: by omitting the enclosure, the operator has plenty of clear space for handling the workpiece and clamping medium; therefore, the control will operate only in a single-set mode



Standard Equipment: GPlus 450 control, Ethernet and USB port, coolant system, automatic central lubrication, work lamp, base frame, operating tools, operator manual

For available **options** for this machine, visit our website and search Mark Super CNC (product search)

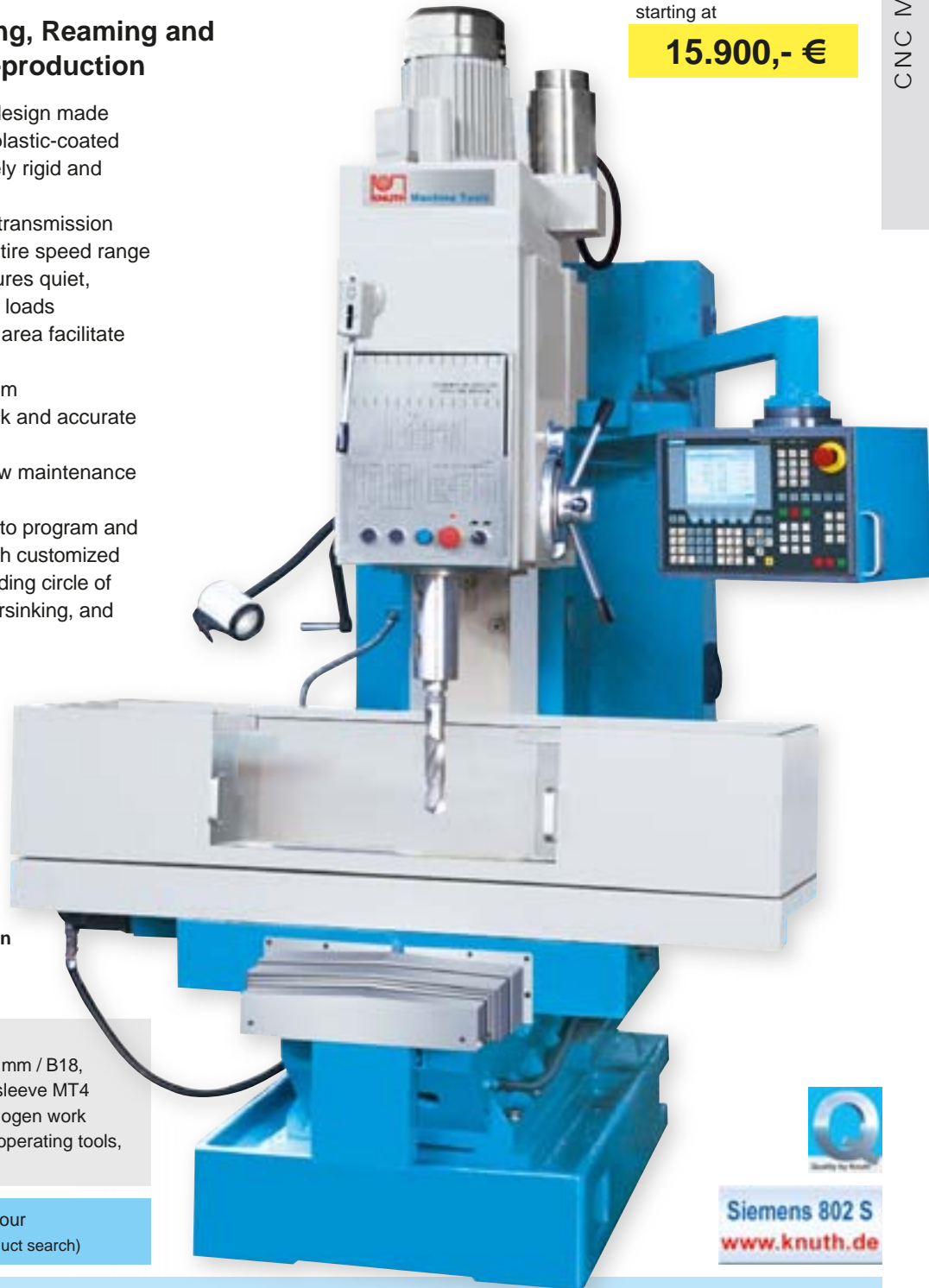
Specifications Mark Super CNC			
Working area			
X / Y / Z axis travel	mm	500 / 280 / 400	
table dimensions	mm	800 x 240	
T-slots (qty x width x spacing)	mm	3 x 14 x 80	
head stroke, vertical	mm	400	
spindle nose-to-table dist.	mm	50 - 450	
table load capacity (max.)	kg	200	
Vertical Cutter Head			
spindle motor rating	kW	1.5	
spindle speed, vertical	rpm	3000	
spindle mount		ISO 30	
quill stroke	mm	120	
throat	mm	290	
head swivel range			± 45°
Feed			
rapid feed X / Y / Z axis	mm/min	6000	
feed X / Y / Z axis	mm/min	1 - 4000	
Accuracy			
positioning accuracy / repeatability	mm	± 0.004 / ± 0.0025	
Drive Capacities			
main motor rating	kW	1.5	
motor rating Y / Y / Z axis	kW	1.5 / 1.5 / 2.3	
Dimensions/Weight			
dimensions	mm	1700 x 1900 x 2000	
weight	kg	700	
Part No.		180 260	
Price €			15.900,-

CNC Drill Press for Drilling, Reaming and Thread-Cutting in series-production

starting at

15.900,- €

- this heavy-duty box-type column design made of cast-iron with wide, hardened, plastic-coated rectangular guideways is extremely rigid and vibration-resistant
- powerful main motor with manual transmission ensures high torque across the entire speed range
- very solid, heavy-duty design ensures quiet, smooth operation, even at highest loads
- large work space and wide set-up area facilitate easy machining of enclosures
- powerful servo motors and premium preloaded ball screws ensure quick and accurate positioning of the work table
- automatic central lubrication for low maintenance and low wear
- the Siemens 802 S control is easy to program and allows the creation of programs with customized cycles and graphical support, including circle of holes, row of holes, drilling, countersinking, and deep-hole boring



KSB 50 CNC is shown

Standard Equipment:

Siemens Control 802 S, drill chuck 3-16 mm / B18, reducing sleeve MT5 - MT4, reducing sleeve MT4 - MT3, reducing sleeve MT3 - MT2, halogen work lamp, coolant system, fastening bolts, operating tools, operating instructions

Options for this machine are listed on our website under KSB 40 or 50 CNC (product search)



Specifications		KSB 40 CNC	KSB 50 CNC	Headstock			
drilling capacity in steel	mm	40	50	speed range	min. ⁻¹	315 - 1400	315 - 1400
Working area				torque (max.)	Nm	350	350
table setup area	mm	850 x 450	850 x 450	spindle taper		MT 4	MT 5
T-slots				Drive Capacities			
(qty x width x dist)	mm	3 x 14 x 100	3 x 14 x 100	headstock motor rating	kW	3	4
quill stroke	mm	250	250	coolant pump motor rating	W	90	90
vertical table travel	mm	600 x 300	600 x 300	Dimensions/Weight			
Z axis feed	m/min	1,5	1,5	flow-rate, coolant pump	l/min	25	25
feed force, axial (max.)	kN	16	16	dimensions	mm	1850 x 1720 x 2500	1850 x 1720 x 2500
Distance	mm	260 - 700	220 - 700	weight	kg	2000	2000
spindle nose-to-table dist. (max.)	mm	335	335	Part No.		101 670	101 671
throat	mm	335	335	Price €		15.900,-	16.800,-
vertical head travel	mm	200	200				

- heat-treated machine bed made of premium HT300 cast-iron
- large, induction-hardened and precision-ground rectangular guides with synthetic coating ensure optimum sliding and damping properties
- 4-step precision gears and infinitely variable 55 kW main motor - for high torque (up to 40000 Nm) across the entire speed range
- high-precision preloaded ball screws from renowned manufacturers on all axes
- includes the proven Siemens 802 D SL control
- all guideways are lubricated timely via a central lubrication system
- hydraulic clamping of cross traverse
- highly accessible 4-jaw face chuck allows easy clamping of complex workpiece
- the work area is easily accessible through a wide opening safety door
- stand-alone control cabinet to reduce vibrations affecting electronic components
- hip conveyor and chip cart round off this extensive standard equipment



face plate with 4-station tool changer



Siemens 802 D SL
www.knuth.de

Standard Equipment:

Siemens 802 D SL control, electronic hand wheel, 4-jaw face chuck, electrical 4-station tool changer, totally enclosed work space, coolant system, automatic central lubrication, separate control cabinet, heat exchanger for control cabinet, signal lamp, chip conveyor, chip tray, hydraulic unit, oil cooler, work space lighting, operating tools, operator manual

Options

	Part-No.	Price €
• Hydraulic 3-Jaw Chuck	250 249	9.990,-
• Electric 5-station Tool Changer	250 250	1.190,-
• Electric 6-station Tool Changer	250 251	1.190,-

For available options for this machine, visit our website and search for VDM 1250, 1600, 2000 (Product Search)



Specifications VDM		1250	1600	2000
control		Siemens 802 D SL	Siemens 802 D SL	Siemens 802 D SL
Working area				
turning diameter (max.)	mm	1250	1600	2000
max. machining height	mm	1000	1200	1250
X axis travel	mm	850	1020	1250
Z axis travel	mm	700	800	800
W axis travel, vertical	mm	650	850 / 1050	900
max. part weight	kg	3200	5000	8000
Headstock				
speed range	rpm	1 - 250	1 - 200	3,2 - 100
torque (max.)	Nm	25000	32000	40000
lathe chuck diameter	mm	1050	1400	1800
Feed				
rapid feed X / Z axis	mm/min	6000	6000	6000
W axis feed	mm/min	440	440	440

Efficiency and Precision -
with proven control technology



starting at

99.800,- €

Specifications VDM		1250	1600	2000
Tool Changer				
number of tool stations		4	4	4
tool-changing time (tool to tool)	s	30	30	30
tool weight (max.)	kg	25	25	25
Accuracy				
positioning accuracy	mm	0,03	0,03	0,03
repeatability	mm	0,015	0,015	0,015
Drive Capacities				
main drive motor rating (cont. / 30 min.)	kW	30 / 37	45 / 55	45 / 55
motor rating Y / Z axis	kW	2,2	2,2	2,2
Dimensions/Weight				
overall dimensions (LxWxH)	mm	4860 x 2877 x 3400	5260 x 3260 x 3698	6100 x 3300 x 4100
weight	kg	9000	13200	15000
Part No.		180 650	180 651	180 652
Price €		99.800,-	108.500,-	135.000,-

Cost-effective Vertical Lathe for large turning diameters

VDL 800

- massive headstock and heavy machine bed with wide boxways ensure maximum rigidity during heavy-duty machining
- flat profile of headstock allows easy tooling and unloading of machine
- optimized design for easy accessibility via crane and fork-lift
- all guideways are protected effectively with solid covers
- automatic feed on X and W axis, without thread-cutting
- face plate chuck with individually clampable jaws, with a maximum clamping diameter of 800 mm
- infinitely variable main spindle drive with powerful 7.5 kW motor and 2-step gears



17.800,- €

VDL 800 is shown

Standard Equipment of VDM / VDL: 3-axis position indicator (2-axis position indicator on VDL 800), vertical and horizontal tool holder, central automatic lubrication, work lamp, foundation bolts, operating tools, operator manual

For available **options** for this machine, visit our website and search for VDM or VDL (Product Search)

Specifications		VDM 800	VDM 1000	VDM 1250	VDM 1600	VDM 2300	VDM 2600	VDL 800
Working area								
max. in-gap diameter	mm	800	1000	1250	1600	2300	2600	800
turning Ø of upper tool holder set	mm	800	1000	1250	1600	2300	2600	-
turning Ø of side tool holder set	mm	720	900	1000	1400	2000	2300	-
max. machining height	mm	800	800	1000	1000	1350	1500	500
travel								
- X1 axis, upper support	mm	570	670	700	915	1150	1300	500
- Z1 axis, upper support	mm	600	650	650	800	800	1000	80
- W axis travel	mm	580	580	650	650	890	1100	500
- X2 axis travel, side support	mm	500	500	600	630	630	730	-
- Z2 axis travel, side support	mm	810	810	900	900	1150	1180	-
swivel range of upper tool holder		± 30°	± 30°	± 30°	± 30°	± 30°	± 30°	360°
max. part length	mm	800	800	1000	1000	1350	1500	600
max. part weight	kg	1200	2000	4000	5000	8000	10000	600
Headstock								
speed range	rpm	(16) 10-315	(16) 8-250	(16) 6.3-200	(16) 5-160	(16) 2.5-80	(16) 1.2-40	(2) 0-160
max. torque of headstock	Nm	10000	12500	17500	25000	32000	32000	-

Solid and proven technology, power and precision for the production of heavy workpieces

VDM

- optimum tooling and easy access for cranes and forklift trucks
top support includes a 5-station tool holder, side support with independent feed for perfect inside and outside turning
- the heavy column design and hardened guideways for cross traverse and side support give this machine the proper rigidity to support its power
- cross traverse clamping is hydraulic, and the set position will be fixated exactly
- the material and sturdy guide structure give the vertical boom excellent stability and accuracy for large throat widths
- the spindle runs in a high-precision double-row roller bearings and is adjustable
- reduction gear drive ensures high torque and speed ranges of 1.2 - 40 up to 10 - 315 rpm (depending on model)



incl. position indicator

starting at

54.600,- €

shown without 5-station tool changer

Specifications		VDM 800	VDM 1000	VDM 1250	VDM 1600	VDM 2300	VDM 2600	VDL 800
rotary table diameter	mm	720	900	1000	1400	2000	2300	700
Feed								
feed speed X / Z axis	mm/min	(12) 0.8-86	(12) 0.8-86	(12) 0.8-86	(12) 0.8-86	(12) 0.8-86	(12) 0.8-86	5-123 (only on X)
W axis feed	mm/min	440	440	440	440	440	440	5-123
rapid feed of upper / side support	mm/min	1800	1800	1800	1800	1800	1800	-
tool holder	mm	30 x 40	30 x 40	30 x 40	30 x 40	30 x 40	30 x 40	20 x 50
tool weight (max.)	kg	50	50	50	50	50	50	10
Drive Capacities								
main motor rating	kW	15	15	22	22	30	37	7.5
motor rating X axis	kW	1.3 / 1.8	1.3 / 1.8	1.3 / 1.8	1.3 / 1.8	1.3 / 1.8	1.3 / 1.8	0.75
motor rating Z axis	kW	1.3 / 1.8	1.3 / 1.8	1.3 / 1.8	1.3 / 1.8	1.3 / 1.8	1.3 / 1.8	0.75
Dimensions/Weight								
overall dimensions (LxWxH)	mm	2400x2100 x2760	2400x2200 x2760	2360x2270 x2800	2830x2670 x2810	3210x2850 x3300	3300x4000 x3500	1500x1500 x2000
weight	kg	6500	8000	9000	12500	18000	22000	1800
Part No.		300 380	300 381	300 382	300 383	300 384	300 385	300 379
Price €		54.600,-	57.900,-	59.900,-	59.900,-	89.900,-	105.600,-	17.800,-

Compact 720 shown



Standard Equipment: Fanuc 0i-TD control, hydraulic 3-jaw chuck 250 mm (Compact 580), hydraulic 3-jaw chuck 200 mm (Compact 600), hydraulic 3-jaw chuck 380 mm (Compact 720), hydraulic 10-station tool turret (Compact 580), hydraulic 12-station tool turret (Compact 600), hydraulic 8-station tool turret (Compact 720), hydraulic tailstock (Compact 580 and Compact 720), coolant system, chip conveyor, chip collection container, foundation bolts, machine feet, automatic central lubrication, work lamp, foot switch for chuck, grease gun, operating tools, operating manual and programming instructions, maintenance manual

Options for Compact 580 • 600

	Part No.	Price €			
• workpiece gripper	250 693	2.680,-	• workspace vacuum exhaust and wet-collector for oil	250 697	1.280,-
• automatically opening and closing door	250 694	2.880,-	• bar feed	250 698	8.800,-
• manual tool setter	250 695	2.280,-	• programmable tailstock	250 699	2.300,-
• oil and coolant separator	250 696	1.290,-	• driven tools & C-axis	250 700	34.900,-

Options for Compact 720

	Part No.	Price €			
• manual tool setter	250 705	2.990,-	• rotating quill	250 702	2.490,-
• steady rest (manual)	250 701	4.900,-	• coolant system	250 704	1.990,-

Specifications Compact

		580	600	720
control		Fanuc 0i-TD	Fanuc 0i-TD	Fanuc 0i-TD
Working area				
turning diameter over bed (max)	mm	580	600	850
turning diameter over support (max)	mm	360	400	500
part length (max.)	mm	655	470	1000
X axis travel	mm	235	215	350
Z axis travel	mm	700	500	1100
Headstock				
speed range	min. ⁻¹	50 - 3500	50 - 4900	40 - 2000
spindle inside taper		A2-8	A2-6	A2-11
lathe chuck diameter	mm	250	200	380
spindle bore	mm	86	62	131
Feed				
X axis rapid feed	mm/min	30000	36000	12000
Z axis rapid feed	mm/min	30000	36000	20000
Tool Carrier				
number of tool stations		10	12	8
tool shank dimensions	mm	25x25	25x25	32x32
boring bar holder diameter	mm	40	40	50
Accuracy				
positioning accuracy X / Y / Z axis	mm	± 0.004	± 0.004	± 0.005
repeatability X / Y / Z axis	mm	± 0.003	± 0.003	± 0.004
Drive Capacities				
main drive motor rating (continuous / 30 min.)	kW	15 / 18,5	11 / 15	22 / 26
motor rating Y / Z axis	kW	3	3	4
total connected load	kVA	26	26	30
Dimensions/Weight				
dimensions	mm	4250 x 1820 x 2250	3700 x 2270 x 2140	5930 x 2290 x 2550
weight	kg	5950	5120	12900
Part No.		180 450	180 451	180 452
Price €		73.900,-	64.900,-	129.900,-

Robust, powerful and universal -
with machining lengths up to 1000 mm

extensive standard equipment

starting at

64.900,- €



Fanuc Oi-TD

www.knuth.de

Compact 600 shown

- Construction and material of the machine frame ensure optimum damping of vibrations and lasting, consistent machining accuracy
- Turning diameters up to 850 mm and center width up to 1000 mm allow machining of large parts
- Inclined bed with an angle of 45° or 30° (Compact 600) ensure smooth flow of chips to the standard chip conveyor
- linear guides on X and Y for high rapid feed speeds and high positioning accuracy
- headstock and spindle head ensure maximum accuracy, even at high, continuous loads
- the advanced cooling system prevents thermal influences and ensures low-wear operation
- preloaded dual spindle nuts ensure zero backlash and excellent rigidity
- these features combined with a large leadscrew ensure minimum temperature influence and high dynamics
- Fanuc Oi-TD - proven control with absolute reliability
- extensive standard equipment, including hydraulic tool turret, hydraulic power chuck, and hydraulic tailstock (Compact 580, Compact 720)
- laser calibration for controlling the positioning accuracy ensures maximum precision

For more information and options, visit www.knuth.de



CNC Lathe

StarChip 450

starting at

37.900,- €
Powerful and dynamic - includes extensive standard equipment

Fanuc Oi-Mate
www.knuth.de


- inclined 45° machine bed, monoblock design, made of premium tension-free annealed cast-iron
- precision-ground preloaded ball screws with preloaded nuts and precision linear guides – low maintenance and high reliability
- hydraulic unit with coolant system to maintain constant oil temperature during continuous operation
- high-pressure cooling system through the bidirectional tool turret
- Fanuc Oi-Mate Control with Manual Guide Oi
- Duplomatic 8-station tool turret for quick and bidirectional tool changes

Standard Equipment: Fanuc Oi-Mate control with Manual Guide Oi, electronic handwheel, chip conveyor, hydraulic 8-station turret, hydraulic tailstock, hydraulic 3-jaw chuck Ø 210 mm, high-pressure coolant system, automatic central lubrication, work lamp, programming manuals, operator manual, operating tools

Option

- Handybar bar feed

 Part No. 123 960 Price € **7.900,-**

- Heavybar 30 bar feed

 Part No. 123 970 Price € **11.900,-**

Specifications StarChip 450

control	Fanuc Oi-Mate		max. spindle torque (cont./30 min.)	Nm	91 / 124
max. turning diameter			travels	mm	170
- over bed	mm	450	- X axis	mm	500
- over support	mm	200	- Z axis	mm	500
max. workpiece diam.	mm	280	rapid feed	m/min	20
max. workpiece length	mm	500	Ø of both preloaded ball screws	mm	32
machine bed incline	45°		number of tool stations	8	
spindel speed	min ⁻¹	45 - 4000	tool shank	mm	20 x 20
headstock motor type	Fanuc B12/7000i		boring bar holder	mm	32
spindle motor rating (cont./30 min.)	kW	11/15	tailstock quill/-Ø	mm	MK 5 / 80
spindle taper	A 2-5		tailstock quill travel	mm	100
spindle bore	mm	Ø 35	dimensions (LxWxH)	mm	3625 x 1700 x 1700
chuck bore	mm	Ø 50	weight	kg	5000
3-jaw hydraulic chuck	8" (210 mm)		Part no.	180 150	
			Price €	37.900,-	

Low-cost turned parts with maximum precision!

starting at

26.800,- €



GPlus 450
www.knuth-gplus.de

- ribbed, wide machine bed made of tempered cast-iron for maximum rigidity and constant accuracy
- wide linear guides and large preloaded ball screws allow low-friction and very accurate positioning of the tool slide
- linear tool changer for up to 6 tools allows quick tool changes
- infinitely variable speeds, wide speed range
- very exact and rigid headstock support on radial angular ball bearings and two rows of cylindrical roller bearings
- hydraulic collet chuck ensures minimal deformation during clamping, even with small part diameters; excellent concentricity

Standard Equipment: GPlus 450 control, 6-station linear tool changer, hydraulic collet chuck, collets, hydraulic unit, automatic central lubrication, chip tray, operating tools, operator manual

Options: • Collets from 2 to 35 mm Part No. 106 300 - 106 333 (intermediate sizes upon request) Prices starting at € 69,-
• For available options for this machine, visit our website and search for Turnstar 200 C (Product Search)

Specifications Turnstar 200 C

Working area

max. turning diam. over bed	mm	440
max. turning diam. over support	mm	180
workpiece length (max.)	mm	200
X / Z axis travel	mm	800 / 230

Headstock

speed range	rpm	70 - 4000
spindle mount		A2-5
spindle bore	mm	45
spindle bore inside chuck	mm	35

Feed

rapid feed X / Z axis	mm/min	8000 / 15000
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Tool Carrier

number of tool stations		6
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tool shank dimensions	mm	20 x 20
boring bar holder diameter	mm	20

Accuracy

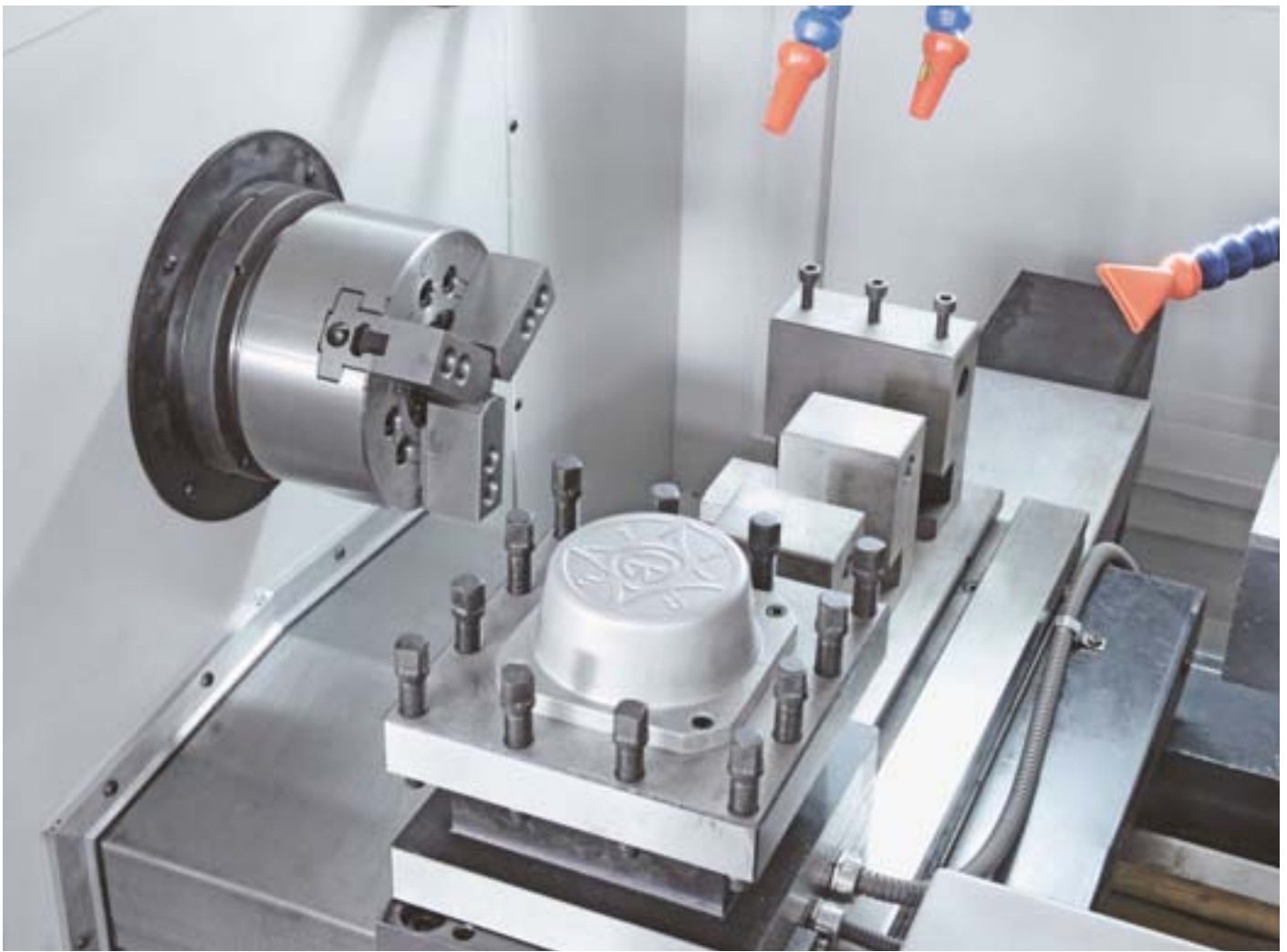
positioning accuracy X / Z axis	mm	0.015 / 0.016
repeatability X / Z axis	mm	0.010 / 0.012

Drive Capacities

main motor rating	kW	4
motor rating for X / Z axis drive	kW	1 / 1.5
total connected load	kVA	8.3

Dimensions/Weight

dimensions	mm	2100 x 1850 x 1690
weight	kg	1700
Part No.		180 620
Price €		26.800,-



Lots of space for special tools – the wide linear setup table allows many combination possibilities

- wear-resistant box ways and large preloaded ball screws allow low-friction and very accurate positioning of the tool slide on all axes
- powerful spindle motor with infinitely variable speed
- very exact and rigid headstock support on radial angular ball bearings and two rows of cylindrical roller bearings
- central lubrication fed to guides and preloaded ball screws
- easy access to the work space through large sliding door
- hydraulic workpiece clamping via hydraulic 3-jaw chuck with 160 mm diameter ensures easy and exact setup of the workpiece
- electric tool changer with 4 stations, 3 boring bar holders
- rapid feed up to 15 m/min for effective and cost-efficient machining operations
- The GPlus control features a 17" TFT color monitor with touch-screen display that shows all data for a user-friendly programming experience and easy operation

Standard Equipment:

- GPlus 450 control
- electric 4-station tool changer
- 3 boring bar holders
- hydraulic 3-jaw chuck Ø 160 mm
- hydraulic unit
- automatic central lubrication
- coolant system
- totally enclosed case
- chip tray
- operating tools
- operator manual

For available options for this machine, visit our website and search for Turnstar 300 C (Product Search)

Specifications Turnstar 300 C

Working area			lathe chuck diameter		
max. turning diam. over bed	mm	380		mm	160
max. turning diam. over support	mm	180	bore	mm	55
center width	mm	450	spindle bore inside chuck	mm	45
machining length (max.)			Feed		
X axis travel	mm	620	X axis rapid feed	mm/min	12000
Z axis travel	mm	500	Z axis rapid feed	mm/min	15000
Headstock			Tool Carrier		
speed range	rpm	70 - 4000	number of tool stations		7
spindle mount		A2-5	tool shank dimensions	mm	20 x 20
			boring bar holder diameter	mm	20

Low-cost turned parts with maximum precision!

- ribbed, wide machine bed made of tempered cast-iron for maximum rigidity and constant accuracy

25.900,- €



Specifications Turnstar 300 C

Tailstock

tailstock taper		MT 4
tailstock quill diameter	mm	60
tailstock quill stroke	mm	120

Accuracy

positioning accuracy X axis	mm	0.015
positioning accuracy Z axis	mm	0.025
repeatability X axis	mm	0.01
repeatability Z axis	mm	0.015

Drive Capacities

main motor rating	kW	4
motor rating for X axis	kW	1
motor rating for Z axis	kW	1.5
total connected load	kVA	8.3

Dimensions/Weight

dimensions	mm	2200 x 1470 x 2000
weight	kg	2200
Part No.		180 621
Price €		25.900,-



- compact CNC lathe with a 30° inclined bed constructed of heavy, torsionally rigid cast-iron to ensure optimum results at high machining rates
- wide linear guides and large preloaded ball screws allow low-friction and very accurate positioning of the tool slide on all axes
- linear tool changer with 6 stations (S model) and rapid feeds up to 18 m/min allow quick tool changes and efficient production
- very exact and rigid headstock support on radial angular ball bearings and two rows of cylindrical roller bearings
- easy access to the totally enclosed work space via a wide opening door
- all guideways and the centrally positioned preloaded ball screws are reliably protected by telescoping covers
- headstock with infinitely variable speed adjustment - change-over to C axis (RS model) for exact angle positioning and thread cutting function
- powered drilling/cutter heads with 2 tools are mounted in a radial position and are moved via the Y axis; 2 driven axial drill heads are mounted directly on the linear changer (RS model)
- all axes feature powerful servo motors
- The GPlus control features a 17" TFT color monitor with touch-screen display that shows all data for user-friendly programming experience and easy operation
- quick setup of drilling, milling and thread cutting tasks on turned parts directly at the GPlus control
- all guideways and preloaded ball screws are lubricated timely and adequately by the central lubrication system
- hydraulic 3-jaw chuck with 160 mm diameter ensures easy and exact setup of the workpiece

Very precise C axis angle positioning (RS model) and driven tools for drilling and milling of turned parts

Standard Equipment:

- GPlus 450 control
- 6-station linear tool changer (S model)
- 3-station linear tool changer (RS model)
- 2 driven axial drilling/cutter heads (RS model)
- 2 driven radial drilling/cutter heads (RS model)
- C and Y axes (RS model)
- hydraulic 3-jaw chuck Ø 160 mm
- hydraulic unit
- automatic central lubrication
- coolant system
- totally enclosed case
- chip tray
- operating tools
- operator manual

For available options for this machine, please visit our website and search for Turnstar 200 S / 200 RS (Product Search)

Specifications Turnstar		200 S	200 RS
Working area			
max. turning diam. over bed	mm	440	440
max. turning diam. over support	mm	180	180
workpiece length (max.)	mm	200	200
X axis travel	mm	800	800
Z axis travel	mm	250	250
Headstock			
speed range	rpm	70 - 4000	70 - 3000
spindle inside taper		1:50	1:50
lathe chuck diameter	mm	160	160
spindle bore	mm	55	55
spindle bore inside chuck	mm	45	45
Feed			
X axis rapid feed	mm/min	12000	12000
Z axis rapid feed	mm/min	18000	18000
Tool Carrier			
number of tool stations		6	3
tool shank dimensions	mm	20 x 20	20 x 20
boring bar mount diameter	mm	20	20
Driven Tools			
Quantity		-	4
spindle speed	rpm	-	1400
torque	Nm	-	7

Universal, quick, compact - also with C and Y axes and driven tools

starting at

29.900,- €



GPlus 450
www.knuth-gplus.de

Turnstar 200 S is shown

Specifications Turnstar		200 S	200 RS				
Accuracy				main motor rating	kW	4	4,5
positioning accuracy				motor rating for X axis	kW	1	1
- X axis	mm	0,013	0,013	motor rating Y axis	kW	-	0,75
- Y axis	mm	-	0,013	motor rating for Z axis	kW	1,5	1,5
- Z axis	mm	0,015	0,015	motor rating for driven tools	kW	-	0,75
- C axis	-	-	0,03°	total connected load	kVA	8,3	8,8
repeatability				Dimensions/Weight			
- X axis	mm	0,004	0,004	dimensions	mm	2160x1520	2160x1520
- Y axis	mm	-	0,004			x1940	x1940
- Z axis	mm	0,006	0,006	weight	kg	2100	2100
- C axis	-	-	0,01°	Part No.		180 623	180 622
Drive Capacities				Price €		29.900,-	39.900,-

For more information, visit www.knuth.de



Ecoturn 500/500 shown

- heavy inclined bed design and rigid headstock were FEM-analyzed and optimized in the design phase
- extra-wide, hardened rectangular guides with plastic-coated counter-guides ensure quiet operation and long-term precision - even for complex manufacturing tasks, like heavy roughing work or intermittent cuts
- a total of 5 high-precision spindle bearing groups ensure optimum turning results, even at high axial and radial loads
- exact positioning hydraulic 8-station tool turret
- excellent chip removal and standard chip conveyor support an efficient and cost-effective machining operation
- hydraulic tailstock and hydraulic hollow chuck can be controlled via foot switch (standard)
- efficient coolant system with coolant nozzles at every tool mount
- Fanuc Oi-Mate TD with Manual Guide Oi scores with high reliability and maximum availability
- high-quality preloaded ball screws with powerful servo-axle-drive ensure excellent positioning accuracy and repeatability at high axle dynamics

Standard Equipment: Fanuc Oi-Mate TD with Manual Guide Oi, chip conveyor, electronic hand-wheel, 8-station tool turret, hydraulic tailstock, hydraulic hollow chuck 300 mm, automatic central lubrication, coolant system, center MT 5, machine feet, foundation bolts, operating tools, operating and programming instructions

Options for Ecoturn 500

- steady rest, hydraulic

Part No.
250 707

Price €
4.390,-

- tool gauge
- automatic bar feed, 1.5 m

250 708
250 709

2.990,-
8.900,-

Specifications Ecoturn		500/500	500/1000	630/1000	630/1500
control		Fanuc Oi-Mate TD with Manual Guide Oi			
Working area					
center width	mm	500	1000	1000	1500
center height	mm	255	255	320	320
turning diameter over bed (max)	mm	505	505	630	630
turning diameter over support (max)	mm	340	340	450	450
X axis travel	mm	260	250	320	325
Z axis travel	mm	600	1100	1100	1600
Headstock					
speed range	min. ⁻¹	50 - 3000	50 - 3000	10 - 1000	10 - 1000
headstock torque (max.)	Nm	171	171	240	240
spindle mount		A2-6	A2-6	A2-8	A2-8
spindle bore without / with draw tube	mm	65 / 52	65 / 52	85 / 62	85 / 62
Feed					
X axis rapid feed	m/min	8	8	8	8
Z axis rapid feed	m/min	12	12	12	12
Tool Carrier					
number of tool stations		8	8	8	8
tool shank dimensions	mm	25 x 25	25 x 25	25 x 25	25 x 25
boring bar holder diameter	mm	40	40	50	50

Heavy-duty CNC Lathe for cost-effective machining of large parts and series production

starting at

52.200,- €

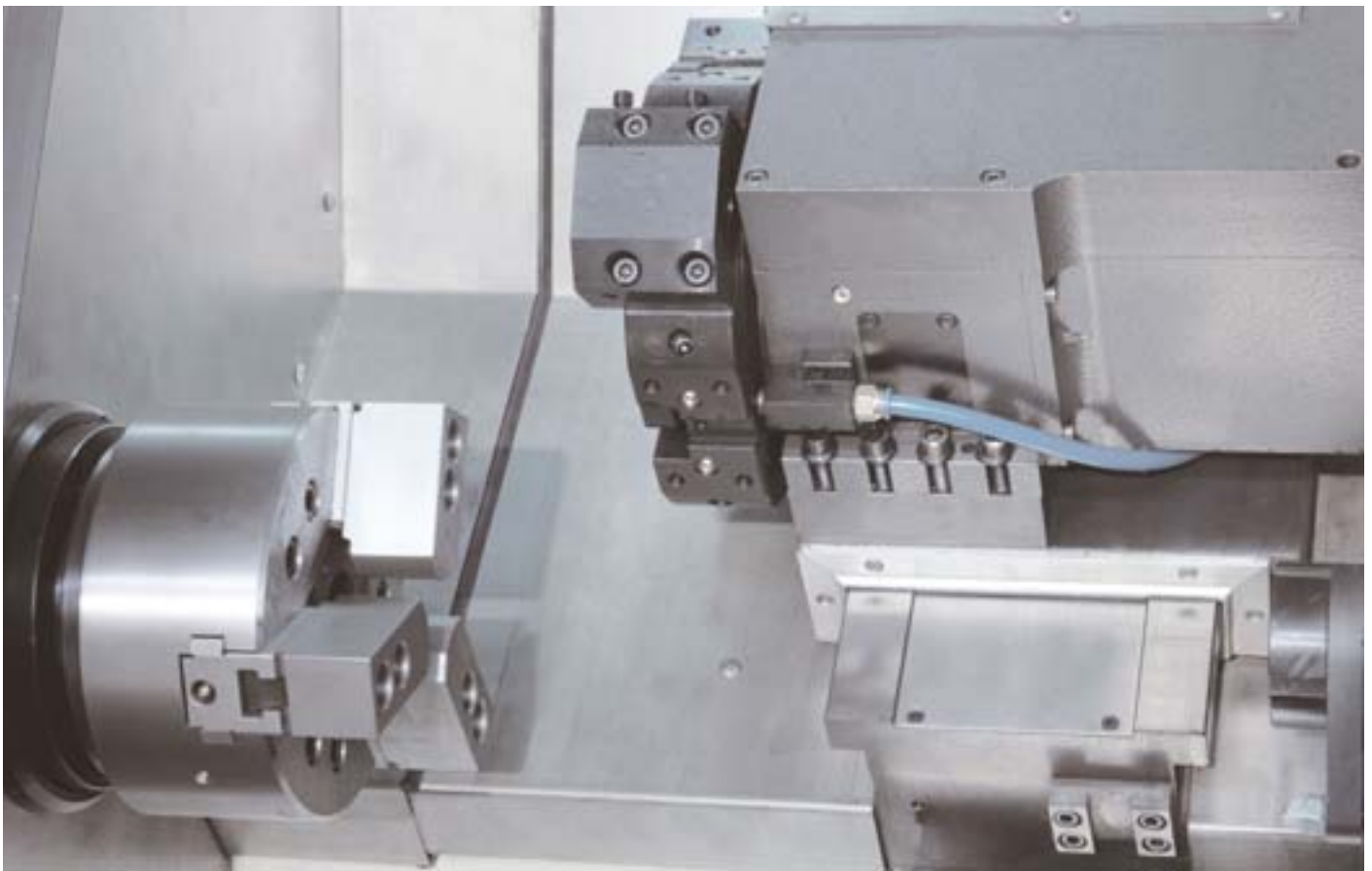


Fanuc Oi-Mate TD
www.knuth.de

Ecoturn 630/1000 shown

Options for Ecoturn 630	Part No.	Price €			
• steady rest, hydraulic	250 707	4.390,-	• steady rest, manual	250 710	730,-
			• tool gauge	250 711	4.220,-

Ecoturn		500/500	500/1000	630/1000	630/1500
tailstock					
tailstock taper		MT5	MT5	MT5	MT5
tailstock quill diameter	mm	100	100	130	130
tailstock quill stroke	mm	100	100	100	100
Accuracy					
positioning accuracy X axis	mm	0.016	0.016	0.016	0.016
positioning accuracy Z axis	mm	0.025	0.025	0.025	0.025
repeatability X axis	mm	0.007	0.007	0.007	0.007
repeatability Z axis	mm	0.01	0.01	0.01	0.01
Drive Capacities					
motor rating	kW	15 / 18.5	15 / 18.5	18.5 / 22	18.5 / 22
- main drive (contin./30 min)					
- X / Z axis	kW	1.2 / 1.8	1.2 / 1.8	1.8 / 2.5	1.8 / 2.5
Dimensions/Weight					
dimensions	mm	2997 x 1500 x 1750	3735 x 1500 x 1750	3450 x 1680 x 2090	3950 x 1680 x 2090
weight	kg	4000	4500	7000	9500
Part No.		100 230	100 231	100 232	100 233
Price €		52.200,-	54.600,-	79.900,-	82.900,-



Solid 6-station tool turret for tools with 20 mm shank diameter

- larger models also use the proven, rigid 45° inclined bed construction made of premium cast-iron to ensure maximum rigidity and easy chip removal
- rectangular guideways provide excellent rigidity and maximum precision
- 7.5 kW main spindle motor provides high torque across the entire speed range
- the workspace is enclosed on all sides with easy access through a large sliding door for set-up, tooling and unloading
- a high-performance chip conveyor is included in the standard equipment
- Fanuc Oi-Mate TD with Manual Guide Oi features advanced control technology and maximum reliability
- hydraulic 160 mm chuck and hydraulic tailstock are included in standard equipment
- an automatic lubrication system reduces the operator's workload and simplifies maintenance

Options	Part No.	Price €		
• 8-station tool turret, hydraulic	250 715	5.330,-	• hydraulic 160 mm 3-jaw chuck with chuck opening	250 716 1.580,-

Standard Equipment: Fanuc Oi-Mate TD control with Manual Guide Oi, 6-station tool turret, hydraulic 3-jaw chuck (160 mm), hydraulic tailstock, chip conveyor, coolant system, automatic central lubrication, operating tools, operator manual and programming instructions

Specifications		400	480
control		Fanuc Oi-Mate TD with Manual Guide Oi	
Working area			
center width	mm	300	300
center height	mm	340	430
turning diameter over bed	mm	400	480
turning diameter over support	mm	280	350
X axis travel	mm	180	230
Z axis travel	mm	420	430
Headstock			
speed range	rpm	250 - 3000	250 - 3000
spindle mount		A2-5	A2-6
spindle bore without draw tube	mm	52	52
spindle bore with draw tube	mm	32	32
Feed			
rapid feed X / Z axis	mm/min	6000	6000
work feed X / Y axis	mm/min	3000	3000
Tool Carrier			
tool carrier type		turret	turret

A successful concept in a new size - completely equipped with Fanuc Oi-Mate TD control, hydraulic tailstock and 6-station tool turret

starting at

36.530,- €



Fanuc Oi-Mate TD
www.knuth.de

Roturn 480 shown

Specifications Roturn		400	480
tool stations		6	6
tool shank dimensions	mm	20 x 20	20 x 20
boring bar holder diameter	mm	25	25
tailstock			
tailstock taper		MT 4	MT 4
tailstock quill diameter	mm	85	85
tailstock quill stroke	mm	80	80
Accuracy			
positioning accuracy X / Z axis	mm	0.016 / 0.02	0.016 / 0.02
repeatability X / Z axis	mm	0.007 / 0.008	0.007 / 0.008
Drive Capacities			
main motor rating	kW	7.5	7.5
coolant pump motor rating	kW	0.12	0.12
Dimensions/Weight			
dimensions	mm	2470 x 1370 x 1880	2490 x 1460 x 1925
weight	kg	3000	3200
Part No.		180 606	180 607
Price €		36.530,-	38.500,-

Compact Automatic Lathe with inclined bed for precise batch production of small turned parts



Fanuc Oi-Mate TD
www.knuth.de

- 3 kW main spindle motor with wide speed range up to 3000 rpm
- machine frame is constructed as a solid heavy 45° inclined bed to ensure maximum rigidity and easy chip removal
- rectangular guideways on Z are hardened and ground, ensuring high rigidity and accuracy even at highest loads
- V-block guides on X axis ensure high load capacity
- Automatic central lubrication reduces maintenance
- enclosed workspace protects and a large sliding door provides easy access
- Fanuc Oi-Mate plus Manual Guide Oi features advanced control technology and maximum reliability
- 6-station tool turret reduces downtimes
- hydraulic 3-jaw chuck (160 mm) and hydraulic tailstock are included in standard equipment

Options	Part No.	Price €
• rod cartridge with counter-weight	250 713	960,-
• Feedek rod cartridge	250 714	11.530,-

Standard Equipment: Fanuc Oi-Mate TD control with Manual Guide Oi, 6-station tool turret, hydraulic 3-jaw chuck (160 mm), hydraulic tailstock, automatic central lubrication, operator manual and programming instructions

Specifications Roturn 320		
control	Fanuc Oi-Mate TD	
Working area		
center width / center height	mm	300 / 160
turning diameter over bed / support (max)	mm	320 / 180
X / Z axis travel	mm	165 / 210
Headstock		
speed range	min. ⁻¹	250 - 3000
max. torque	Nm	21
spindle mount	A2-5	
lathe chuck diameter	mm	160
spindle bore	mm	50
Feed		
rapid feed X / Z axis	mm/min	6000
work feed X / Y axis	mm/min	3000
Tool Carrier		
tool stations	qty	6
tool shank dimensions	mm	16 x 16
tailstock		
tailstock taper	MT 3	
tailstock quill diameter	mm	60
Accuracy		
positioning accuracy X / Z axis	mm	0.016 / 0.02
repeatability X / Z axis	mm	0,007 / 0,008
Drive Capacities		
main motor rating	kW	3
coolant pump motor rating	kW	0.9
Dimensions/Weight		
dimensions	mm	1750x1170x1500
weight	kg	1500
Part No.	180 605	
Price €	27.900,-	

Heavy-duty Cycle Lathes with powerful Fagor 8055 control for demanding applications and turning of complex single parts and series production parts

starting at

53.900,- €



Fagor 8055
www.knuth.de

- heavy-duty lathes for powerful chip removal and high accuracy
- a variety of center widths and turning diameters give the user an optimum selection
- powerful motors and automatic 4-step gears ensure high chip removal power
- high torques even at low spindle speeds
- precise turning of complex contours - both inside and outside
- large guideways and a rigid machine bed provide for excellent machine stability
- the extraordinary solid design reduces vibrations to a minimum
- 4-station tool changer automatically performs the programmed tool changes, resulting in a significant productivity increase.

Standard Equipment for Proton XL: Fagor 8055 control, 3-jaw chuck (325 mm diam. for XL 630 series), 3-jaw chuck (500 mm diam. for XL 800 series), 4-station tool changer, tailstock, dead center MT5, autom. central lubrication, coolant system, work lamp, operating tools, operating manual and programming instructions

For available options for this machine, visit our website and search for Proton XL / XXL (Product Search)

For more information, visit www.knuth.de

Specifications Proton		XL 630.15	XL 630.30	XL 630.50	XL 800.15	XL 800.30	XL 800.50
control		Fagor 8055	Fagor 8055	Fagor 8055	Fagor 8055	Fagor 8055	Fagor 8055
max. turning diameter							
- over bed / - over support (max)	mm	630 / 340	630 / 340	630 / 340	800 / 520	800 / 520	800 / 520
center width	mm	1500	3000	5000	1500	3000	5000
bed width	mm	550	550	550	550	550	550
Z axis travel	mm	1350	2850	4850	1350	2850	4850
X axis travel	mm	400	400	400	400	490	400
X axis rapid feed	m/min	3	3	3	3	3	3
Z axis rapid feed	m/min	6	6	6	6	6	6
spindle bore	mm	100	100	100	100	100	100
spindle mount		C 11	C 11	C 11	C 11	C 11	C 11
spindle speed (4 steps)	rpm	12,5-1000	12,5-1000	12,5-1000	12,5-1000	10-800	12,5-1000
main motor rating	kW	11	11	11	11	11	11
headstock torque (max.)	Nm	1354	1354	1354	1354	1405	1354
coolant pump	W	90	90	90	90	90	90
tailstock quill stroke	mm	250	250	250	250	250	250
tailstock taper		MK5	MK5	MK5	MK5	MK5	MK5
tailstock quick diameter	mm	100	100	100	100	100	100
chuck diameter	mm	325	325	325	325	500	325
tool stations		4	4	4	4	4	4
tool shank	mm	32x32	32x32	32x32	32x32	32x32	32x32
positioning accuracy X axis	mm	0,03	0,03	0,03	0,03	0,03	0,03
positioning accuracy Z axis	mm	0,045	0,06	0,08	0,045	0,06	0,08
repeatability X axis	mm	0,012	0,012	0,012	0,012	0,012	0,012
repeatability Z axis	mm	0,02	0,025	0,025	0,02	0,025	0,025
overall dimensions (LxWxH)	mm	3677x1783 x1790	5177x1783 x1790	7577x1783 x1790	3677x2000 x1830	5177x2000 x1830	7577x2000 x1830
weight	kg	4000	5000	7100	4200	5200	7300
Part No.		100 300	100 301	100 302	100 303	100 304	100 305
Price €		53.900,-	58.900,-	79.800,-	60.300,-	62.400,-	80.400,-

Specifications Proton		XXL 1000.15	XXL 1000.30	XXL 1000.50
control		Fagor 8055	Fagor 8055	Fagor 8055
max. turning diameter				
over bed (max)	mm	1000	1000	1000
over support (max)	mm	630	630	630
center width	mm	1500	3000	5000
bed width	mm	755	755	755
Z axis travel	mm	1300	2800	4800
X axis travel	mm	570	570	570
X axis rapid feed	m/min	3	3	3
Z axis rapid feed	m/min	6	6	6
spindle bore	mm	130	130	130
spindle mount		A2-15	A2-15	A2-15
spindle speed (4 steps)	rpm	3,15-315	3,15-315	3,15-315
main motor rating	kW	22	22	22
headstock torque (max.)	Nm	6303	6303	6303
coolant pump	W	150	150	150
tailstock quill stroke	mm	300	300	300
tailstock taper		MK6	MK6	MK6
tailstock quick diameter	mm	160	160	160
chuck diameter	mm	1000	1000	1000
tool stations		4	4	4
tool shank	mm	40x40	40x40	40x40
positioning accuracy X axis	mm	0,03	0,03	0,03
positioning accuracy Z axis	mm	0,045	0,06	0,08
repeatability X axis	mm	0,012	0,012	0,012
repeatability Z axis	mm	0,02	0,025	0,025
overall dimensions (LxWxH)	mm	4800x2185x2194	6300x2185x2194	8300x2185x2194
weight	kg	9000	11000	13000
Part No.		100 309	100 310	100 311
Price €		131.800,-	132.900,-	133.900,-

Heavy-duty Cycle Lathe with massive machine bed and 22 kW main motor power

- turning diameter over bed up to 1250 mm
- center widths from 1500 to 5000 mm
- very high torque
- spindle bore 130 mm
- 755 mm wide bed

starting at

131.800,- €



Proton XXL 1250 shown



XXL 1250 - program-controlled, self-positioning 4-station tool holder



XXL 1250 - tailstock with 300 mm quill stroke

Standard Equipment for Proton XXL:

Fagor 8055 control, 4-jaw independent chuck 1000 mm diam., 4-station tool changer, electrically driven tailstock, dead center MT6, autom. central lubrication, coolant system, work lamp, operating tools, operating manual and programming instructions

For available options for this machine, visit our website and search for Proton XL / XXL (Product Search)

For more information, visit www.knuth.de



Proton XXL 1250 shown

Fagor 8055 CNC Control

- versatile and powerful plus extremely easy operation
- very easy to operate without previous programming knowledge, quick to learn
- easy set-up and storage of tool parameters
- for track programming, the user merely enters any known data for the contour into the smart profile editor
- complete graphics support
- various cycles, like facing and plain turning, includes linear and taper thread cutting; inside and outside
- interactive, graphic help window is available during cycle input

Specifications Proton		XXL 1250.15	XXL 1250.30	XXL 1250.50
control		Fagor 8055	Fagor 8055	Fagor 8055
max. turning diameter				
over bed (max)	mm	1250	1250	1250
over support (max)	mm	880	880	880
center width	mm	1500	3000	5000
bed width	mm	755	755	755
Z axis travel	mm	1300	2800	4800
X axis travel	mm	570	570	570
X axis rapid feed	m/min	3	3	3
Z axis rapid feed	m/min	6	6	6
spindle bore	mm	130	130	130
spindle mount		A2-15	A2-15	A2-15
spindle speed (4 steps)	rpm	3,15-315	3,15-315	3,15-315
main motor rating	kW	22	22	22
headstock torque (max.)	Nm	6303	6303	6303
coolant pump	W	150	150	150
tailstock quill stroke	mm	300	300	300
tailstock taper		MK6	MK6	MK6
tailstock quick diameter	mm	160	160	160
chuck diameter	mm	1000	1000	1000
tool stations		4	4	4
tool shank	mm	40x40	40x40	40x40
positioning accuracy X axis	mm	0,03	0,03	0,03
positioning accuracy Z axis	mm	0,045	0,06	0,08
repeatability X axis	mm	0,012	0,012	0,012
repeatability Z axis	mm	0,02	0,025	0,025
overall dimensions (LxWxH)	mm	4800x2185x2219	6300x2185x2219	8300x2185x2219
weight	kg	10000	12000	15000
Part No.		100 312	100 313	100 314
Price €		139.800,-	144.800,-	148.800,-

Interactive cycle programming with graphic support for cost-effective batch and single-part production

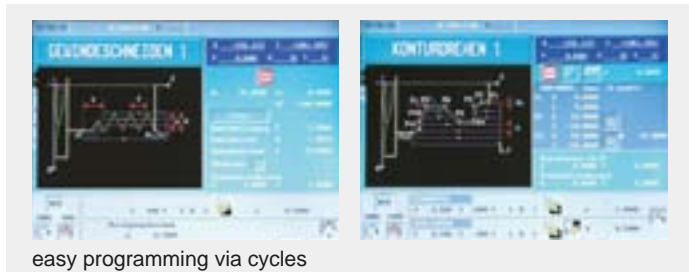
starting at

34.500,- €



- heavy-duty cycle-controlled lathe
- automatic 4-station tool changer for increased productivity
- automatic gear steps for high pulling force
- infinitely variable speed for optimum work results
- two electronic hand-wheels for manual operation

- program complex parts without any DIN programming knowledge
- implemented cycles for facing and plain turning radius, taper, thread, plunge-cut and complete contouring



Standard Equipment: Fagor 8055 control, 3-jaw chuck (250 mm diam.), autom. central lubrication, autom. 4-station tool changer, tailstock, LED work lamp, coolant system, 2 sliding doors with windows, steady rest (Ø 20-150 mm), follow rest (Ø 20 - 90 mm), operating and programming instructions

For available options for this machine, visit our website and search for Proton 560 (Product Search)

Specifications Proton		560/1500	560/2000		
control		Fagor 8055 TC		cross slide travel	mm 300
turning diam. over bed	mm	560		Tailstock	
turning diam. over cross slide	mm	300		- quill diameter	mm 85
center height	mm	265		- quill stroke	mm 150
center width	mm	1500	2000	- taper	MT 5
bed width	mm	400		repeatability X, Z	mm 0.012; 0.02
spindle speeds				positioning accuracy X, Z	mm 0.03; 0.045
- high, 2 levels	min ⁻¹	400 - 1000 800 - 2000		headstock motor	kW 7.5
- low, 2 levels	min ⁻¹	25 - 250 + 200 - 500		overall dimensions (LxWxH)	mm 3440x1340 x1750 3910x1340 x1750
spindle mount		C 8 (stud bolt)		weight	kg 3700 4700
spindle bore	mm	80		Part No.	180 164 180 176
tool shank	mm	25 x 25		Price €	34.500,- 38.200,-



Proton 660/1000 B shown

- rigid one-piece construction of the machine frame, and bed guides with wide V-blocks allow heavy machining and ensure an excellent finish of the workpiece
- headstocks of main spindle and gears were constructed to ensure optimum temperature balance and minimum heat influence
- enclosure panels were designed under consideration of ergonomic aspects to provide good visibility over the entire machining process
- the heavy-duty tailstock is easy to handle and features high clamping force
- the automatic 6-station tool turret is part of the standard package and ensures maximum flexibility and productivity
- ease of control and practical design are major aspects of this machine - two electronic hand-wheels simplify manual operation
- a workshop-oriented control for single cycles or programming of complex parts is mounted directly on the machine - work directly from the drawings without any DIN programming knowledge
- integrated cycles for facing and plain turning, radius, taper, threads, plunge-cuts, and complete contouring processes

Standard Equipment: Fagor 8055 control, 6-station tool turret, tailstock, 2 electronic hand-wheels, steady center MT5, automatic central lubrication, coolant system, work lamp, operating tools, programming instructions

Options	Part No.	Price €		Part No.	Price €
• steady rest Ø 180 - 250 mm	250 717	1.120,-	• hydraulic tailstock (Proton 660/1000 B)	250 719	990,-
• 3-jaw lathe chuck steel 315 mm	146 383	1.150,-	• hydraulic tailstock (Proton 660/1500 B)	250 721	1.100,-
• lathe chuck with 180 - 250 mm Ø capacity	250 718	2.290,-	• hydraulic pump	250 720	1.540,-

Specifications Proton		660/1000 B	660/1500 B
control		Fagor 8055i / A-TC	Fagor 8055i / A-TC
Working area			
center width	mm	1000	1500
bed width	mm	390	390
max. turning diameter			
- over bed	mm	660	660
- over support	mm	365	365
X axis travel	mm	290	290
Z axis travel	mm	760	1260
Feed			
X axis rapid feed	mm/min	4000	4000
Z axis rapid feed	mm/min	8000	8000
Headstock			
spindle bore	mm	82	82
spindle mount		D8	D8
speed range	min. ⁻¹	(3) 35 - 2500	(3) 35 - 2500
chuck diameter	mm	315	315
Tool Changer			
tool stations		6	6

Cycle Lathe with 6-station tool turret
for cost-effective single parts and batch productions

starting at

38.900,- €



Fagor 8055
www.knuth.de

Specifications Proton		660/1000 B	660/1500 B
tool shank dimensions	mm	25 x 25	25 x 25
tool diameter	mm	32	32
Accuracy			
positioning accuracy X axis	mm	0.03	0.03
positioning accuracy Z axis	mm	0.045	0.045
repeatability X axis	mm	0.012	0.012
repeatability Z axis	mm	0.02	0.02
tailstock			
tailstock quill stroke / diameter	mm	150 / 75	150 / 75
tailstock taper		MT5	MT5
Drive Capacities			
main motor rating	kW	15	15
motor rating X axis	kW	1.07	1.07
motor rating Z axis	kW	1.95	1.95
Dimensions/Weight			
overall dimensions (LxWxH)	mm	3200 x 2100 x 2200	3700 x 2100 x 2200
weight	kg	2800	3100
Part No.		180 170	180 171
Price €		38.900,-	39.900,-



- wide V-block guides, hardened and ground – superior rigidity of the lathe flat bed, even with large center widths
- headstock and main spindle feature absolute rigidity under high loads, constant temperature balance and superior accuracy
- easy tooling and set-up through practical design of enclosure panels
- the solid tailstock has a large quill with MT5 taper and is especially rigid and load-resistant
- an automatic 6-station tool turret increases productivity even in small batch productions
- manual operation via 2 electronic hand-wheels, for manual control and easy set-up and measuring of tools and workpieces
- automatic central lubrication for simplified maintenance
- this Proton series also includes a workshop-oriented Fagor control with intuitive programming and integrated cycles for facing and plain turning, radius, taper, threads, plunge-cuts, and complete contouring processes

Standard Equipment: Fagor 8055 control, 6-station tool turret, tailstock, 2 electronic hand-wheels, steady center MT5, automatic central lubrication, coolant system, work lamp, operating tools, programming instructions

Options	Part No.	Price €			
• steady rest Ø 180 - 250 mm	250 717	1.120,-	• hydraulic tailstock (Proton 500/1000 B)	250 719	990,-
• 3-jaw lathe chuck steel 250 mm	146 373	740,-	• hydraulic tailstock (Proton 500/1500 B)	250 721	1.100,-
• lathe chuck with 180 - 250 mm Ø capacity	250 718	2.290,-	• hydraulic tailstock (Proton 500/2000 B)	250 722	1.380,-
			• hydraulic pump	250 720	1.540,-

Specifications Proton		500/1000 B	500/1500 B	500/2000 B
control		Fagor 8055i / A-TC	Fagor 8055i / A-TC	Fagor 8055i / A-TC
Working area				
center width	mm	1000	1500	2000
bed width	mm	390	390	390
max. turning diameter				
- over bed	mm	500	500	500
- over support	mm	290	290	290
X axis travel	mm	240	240	240
Z axis travel	mm	780	1280	1780
Feed				
X axis rapid feed	mm/min	4000	4000	4000
Z axis rapid feed	mm/min	8000	8000	8000
Headstock				
spindle bore	mm	82	82	82
spindle mount		D8	D8	D8
speed range	rpm	(3) 35-2500	(3) 35-2500	(3) 35-2500
chuck diameter	mm	250	250	250
tool turret				
tool stations		6	6	6

Entry-level model of the proven Proton Series -
with center width from 1000 to 2000 mm

starting at

33.940,- €



Proton 500/1000 B shown



Specifications Proton		500/1000 B	500/1500 B	500/2000 B
tool shank dimensions	mm	25 x 25	25 x 25	25 x 25
tool diameter	mm	32	32	32
Accuracy				
positioning accuracy X axis	mm	0.03	0.03	0.03
positioning accuracy Z axis	mm	0.045	0.045	0.05
repeatability X axis	mm	0.012	0.012	0.012
repeatability Z axis	mm	0.02	0.02	0.025
tailstock				
tailstock quill stroke / diameter	mm	150 / 75	150 / 75	150 / 75
tailstock taper		MT5	MT5	MT5
Drive Capacities				
main motor rating	kW	11	11	11
motor rating X axis	kW	1.07	1.07	1.07
motor rating Z axis	kW	1.95	1.95	3.1
Dimensions/Weight				
overall dimensions (LxWxH)	mm	3200 x 2100 x 2200	3700 x 2100 x 2200	4200 x 2100 x 2200
weight	kg	2700	3000	3500
Part No.		180 173	180 174	180 175
Price €		33.940,-	34.890,-	36.790,-

User-oriented and fully equipped

starting at

25.030,- €



Shown with Siemens control

- manual movement of X and Z axes via 2 electronic hand-wheels
- user-oriented cycle interface for easy parts programming - turning cycles with many programming options to create a complete parts program
- induction-hardened, ground guideways
- servo-drive for a powerful main spindle drive
- hydraulic 200 mm chuck with adjustable holding force included in standard equipment



- smart central lubrication system for low-maintenance operation
- longitudinal and transverse movements via high-quality preloaded ball screws
- 6-station tool turret provides more automation and improved efficiency, saves time when machining complex parts

Options for this machine can be found on our website under Numturn 420 (product search)

Standard Equipment: Siemens 802 S MM Base Line or GPlus 450 control, 2 electronic hand wheels, hydraulic 3-jaw chuck (200 mm diam.), 6-station tool turret, automatic central lubrication, work lamp, operating tools, operating and programming instructions

Specifications Numturn 420

control		Siemens	GPlus 450
Working area			
center width	mm		750
turning Ø over bed / support (max)	mm		420 / 230
X / Z axis travel	mm		220 / 750
part length (max.)	mm		750
Headstock			
spindle speed	rpm		3000
spindle mount			A2-6
spindle bore	mm		52
hydr. jaw chuck diam.	mm		32
Feed			
rapid feed X / Z axis	mm/min		4000 / 8000
Tool Carrier			
number of tool stations	qty		6
tool shank dimensions	mm		25 x 25
boring bar holder	mm		30

tailstock

tailstock quill stroke	mm		100
tailstock taper			MT 4
tailstock quill diam.	mm		52
Accuracy			
positioning accuracy X axis	mm		0.012
positioning accuracy Z axis	mm		0.016
repeatability X axis	mm		0.05
repeatability Z axis	mm		0.01
Drive Capacities			
headstock motor rating	kW		7.5
motor rating Y / Z axis	kW		1.5
coolant pump motor rating	kW		0.125
Dimensions/Weight			
overall dimensions (LxWxH)	mm		2100 x 1200 x 1700
weight	kg		2000
Part No.			180 147 180 146
Price €			25.030,- 28.340,-

Easy to use and very flexible - the ideal entry-level machine for cost-effective batch productions



GPlus 450
www.knuth-gplus.de

- heavy-duty horizontal machine bed features v-block guides for high load capacity
- induction-hardened, ground guideways
- infinitely variable spindle speed
- preloaded ball screws and powerful servo-motors ensure dynamic longitudinal and transverse feeds
- hydraulic 150 mm chuck with adjustable holding force
- 6-station tool turret for high productivity
- user-oriented GPlus 450 control with excellent graphical support
- easy data exchange - the control can be connected to a network and has a USB port
- automatic operation by defining individual cycles
- easy set-up and operation via a standard electronic hand-wheel
- automatic central lubrication for guideways and support

Options for this machine can be found on our website under Numturn 320 (product search)

Standard Equipment: GPlus 450 control, electronic hand-wheel, hydraulic 3-jaw chuck Ø150 mm, 6-station tool turret, coolant system, totally enclosed work space, automatic central lubrication, foundation bolts, work lamp, Ethernet and USB port, operating tools, operator manual

Specifications Numturn 320

control		GPlus 450
Working area		
center width	mm	750
turning diam. over bed / support (max)	mm	330 / 160
X / Z axis travel	mm	270 / 720
part length (max.)	mm	750
Headstock		
speed range	min. ⁻¹	100 - 2500
spindle mount		A2-5
spindle bore	mm	40
hydr. jaw chuck diam.	mm	150
Feed		
rapid feed X / Z axis	mm/min	4000 / 7600
X / Z axis feed	mm/min	3000 / 4000
Tool Carrier		
tool-changer type		turret
number of tool stations	qty	6

tool shank dimensions	mm	14x14
tailstock		
tailstock taper		MT 3
tailstock quill diam.	mm	32
tailstock quill stroke	mm	100
Accuracy		
positioning accuracy X / Z axis	mm	0.02 / 0.025
repeatability X / Z axis	mm	0.012 / 0.016
Drive Capacities		
headstock motor rating	kW	2.2
motor rating Y / Z axis	kW	1.6
coolant pump motor rating	kW	0.125
Dimensions/Weight		
dimensions	mm	2150x1160x1660
weight	kg	1200
Part No.		180 145
Price €		17.600,-

tool towers are easy to traverse on separate guideways



Standard Equipment: Siemens 802 D SL control, 4-jaw independent chuck 3200 mm, chip guard to protect the operator, work space lamp, operating tools, operator manual

Options	Part No.	Price €
• rests		
600 - 1400 mm	250 302	46.260,-
1400 - 2500 mm	250 303	54.310,-



Specifications Vulkan 4K

Siemens control		802-D SL
Working area		
max. turning diam. over bed	mm	4000
max. turning diam. over cross slide	mm	3000
max. part weight	tons	120 (with rest)
max. part length	mm	8000
chuck diameter	mm	3200
max. torque at the lathe chuck	Nm	200000
max. cutting force at the tool	kN	120
spindle speed (infinitely variable)	min. ⁻¹	(2) 0.4 - 80
Z axis travel	mm	8500
X axis travel	mm	1500
rapid feed Z / X axis	mm/min	2000
Z / X axis feed	mm/min	1 - 2000
tool shank dimensions	mm	80 x 80

tailstock quill stroke	mm	200
tailstock rapid feed speed	mm/min	2000
Accuracy		
positioning accuracy Z axis	mm	0,035
positioning accuracy X axis	mm	0,08
repeatability Z axis	mm	0,02
repeatability X axis	mm	0,035
Drive Capacities		
main motor rating	kW	DC 160
total connected load	kVA	240
Dimensions/Weight		
overall dimensions (L x W x H)	m	16.5 x 6 x 5
weight	tons	260
Part No.		101 501
Price €		1.699.000,-

A new dimension of high-powered machining modular design - customized configuration to meet your requirements

- max. turning diameter over bed 4000 mm
- max. part weight 120 tons, including rest
- part length 8000 mm

- modular design
- 2 independent supports
- 160 kW headstock motor



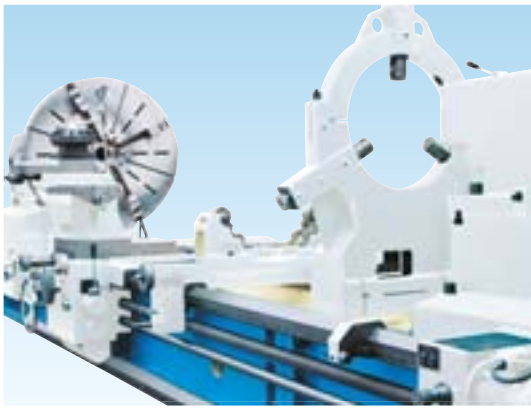
1.699.000,- €



Siemens 802 D SL
www.knuth.de

- KNUTH Vulkan Heavy-Duty Lathes feature a modular design for customer-specific configurations based on the exact specifications provided by the customer (see Specifications)
- from configuration to startup, the machine is designed in close cooperation with the machine manufacturer
- controls and drive components as well as mechanical and electrical components come from renowned suppliers and meet international standards
- the machine manufacturer will setup the machines at the customer's site and perform the startup
- the machine frame features a multi-track bed and a modular design

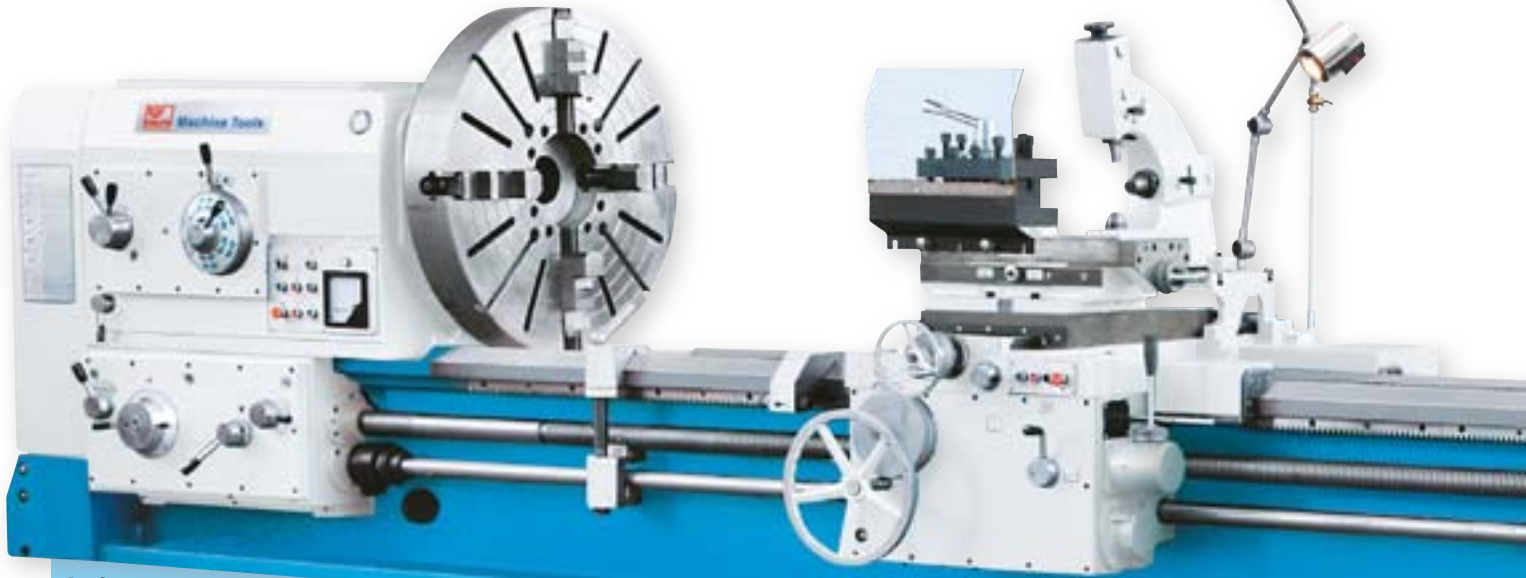
For more information and options, visit www.knuth.de



Furnished with completely assembled 3-axis position indicator

Standard Equipment for DL E Heavy:
 3-axis position indicator, 4-jaw independent chuck (DL E 500 und 630 Serie Ø = 1000 mm DL E 800 series Ø = 1400 mm, DL E 1000 series Ø = 1600 mm), coolant system, steady rest (DL E 500 series 50 - 470 mm, DL E 620 series 50 - 590 mm, DL E 800 and 1000 series 220 - 630 mm), follow rest 50 - 220 mm (except DL E 800 and 1000 series), halogen work lamp, centers, reducing sleeves, foundation bolts, central lubrication, operating tools, operator manual

rest diameters up to 1100 mm (option for DL E Heavy 1000)



Options

steady rest for series

- DL E Heavy 500, 220 - 630 mm Part No. 250 641 Price € **3.870,-**
- DL E Heavy 620, 220 - 630 mm Part No. 250 642 Price € **3.870,-**
- DL E Heavy 800, 260 - 900 mm Part No. 250 644 Price € **4.360,-**
- DL E Heavy 1000, 500 - 1100 mm Part No. 250 646 Price € **5.320,-**

follow rest for series

- DL E Heavy 800, 50 - 220 mm Part No. 250 643 Price € **730,-**
- DL E Heavy 1000, 50 - 220 mm Part No. 250 645 Price € **730,-**

Specifications DL E Heavy			500/1500	500/3000	500/5000	500/8000	620/1500	620/3000	620/5000	620/8000	
center width	mm		1500	3000	5000	8000	1500	3000	5000	8000	
turning diameter	- over bed (max)	mm		1000				1250			
	- over support (max)	mm		650				900			
travel	- X axis	mm		510				630			
	- Z axis	mm	1300	2800	4800	7800	1300	2800	4800	7800	
	- Z1 axis	mm		300				300			
	workpiece weight (max.)	kg		6000				6000			
bed width	mm		755				755				
top-slide swivel range			± 180°				± 180°				
spindle speed (forward/reverse)	min ⁻¹		3,15 - 315 (21) / 3,15 - 400 (12)				3,15 - 315 (21) / 3,15 - 400 (12)				
spindle bore	mm		130				130				
spindle mount			ISO A2-15				ISO A2-15				
Feed	- X axis	mm/U		0.64 - 12				0.64 - 12			
	- Z axis	mm/U		0.032 - 6				0.032 - 6			
	- Z1 axis	mm/U		0.016 - 3				0.016 - 3			
	rapid feed	mm/min		1870				1870			
thread cutting	- metric	mm		1 - 120 (45)				1 - 120 (45)			
	- diametric	DP		30 - 1/4 (42)				30 - 1/4 (42)			
	- module	mm		0,5 - 60 (46)				0,5 - 60 (46)			
	- Whitworth	GPZ		0,5 - 60 (48)				0,5 - 60 (48)			
tailstock quill taper diam.	mm		metrisch 80 / 160				metrisch 80 / 160				
tailstock quill stroke	mm		300				300				
tailstock cross adjustment	mm		± 2,5				± 2,5				
headstock motor rating / voltage	kW / V		22 / 400				22 / 400				
overall dimensions (LxWxH)	m		4,6 x 1,85 x 1,79	6,1 x 1,81 x 1,79	8,1 x 1,81 x 1,79	11,1 x 1,81 x 1,79	4,6 x 1,81 x 1,79	6,1 x 1,88 x 1,92	8,1 x 1,88 x 1,92	11,1 x 1,88 x 1,92	
weight	kg		9350	10850	12650	16100	9750	11550	13300	16800	
Part No. with position indicator			300 499	300 500	300 502	300 504	300 505	300 506	300 508	300 510	
Price €			43.800,-	48.400,-	63.800,-	92.600,-	52.900,-	54.900,-	67.400,-	99.000,-	

130 mm spindle bore, large turning diameter and center widths up to 8000 mm

- powerful 22-kW motor ensures very high chip removal capacity
- induction hardened and ground guideways
- large spindle bearings
- overload clutch is mounted inside apron
- a heavy, large cast-iron body and machine bed with strong ribbing reduce vibrations to a minimum
- Joystick control for X and Z axis feed is mounted directly to support
- hand lever for tailstock adjustment (only on machines with a center width above 3000 mm)
- separate rapid feed motor for X and Z axis
- sturdy multi-disk clutch for headstock drive

starting at **43.800,- €**



Specification DL E Heavy			800/3000	800/5000	800/8000	1000/2000	1000/3000	1000/5000	1000/8000
center width	mm		3000	5000	8000	2000	3000	5000	8000
turning diameter	- over bed (max)	mm		1600			2000		
	- over support (max)	mm		1280			1600		
travel	- X axis	mm		820			1020		
	- Z axis	mm	2800	4800	7800	1800	2800	4800	7800
	- Z1 axis	mm		200			200		
	workpiece weight (max.)	kg		6000			10000		
bed width	mm		970			1100			
top-slide swivel range			± 180°			± 180°			
spindle speed (forward/reverse)	min ⁻¹		2,5 - 250 (21) / 3,15 - 250 (12)			2 - 200 (21) / 2,5 - 200 (12)			
spindle bore	mm		130			130			
spindle mount			ISO A2-15			ISO A2-15			
Feed	- X axis	mm/U	0.064 - 12			0.064 - 12			
	- Z axis	mm/U	0.032 - 6			0.032 - 6			
	- Z1 axis	mm/U	0.016 - 3			0.016 - 3			
rapid feed	- X axis	mm/min	1870			1870			
	- Z axis	mm/min	3740			3740			
thread cutting	- metric	mm	1 - 120 (45)			1 - 120 (45)			
	- diametric	DP	30 - 1/4 (42)			30 - 1/4 (42)			
	- module	mm	0,5 - 60 (46)			0,5 - 60 (46)			
	- Whitworth	GPZ	0,5 - 60 (48)			0,5 - 60 (48)			
tailstock quill taper diam.	mm	metrisch 80 / 160			metrisch 80 / 160				
tailstock quill stroke	mm	300			300				
tailstock cross adjustment	mm	± 2,5			± 2,5				
headstock motor rating / voltage	kW / V	22 / 400			22 / 400				
overall dimensions (LxWxH)	m	6,04 x 2,06 x 2,23	8,04 x 2,06 x 2,23	11,04 x 2,06 x 2,23	5,2 x 2,2 x 2,4	6,1 x 2,2 x 2,4	8,1 x 2,2 x 2,4	12,92 x 2,38 x 2,51	
weight	kg	12900	16200	21020	13000	18500	23200	30080	
Part No. with position indicator		300 512	300 514	300 516	300 518	300 519	300 520	300 522	
Price with position indicator €		79.500,-	93.400,-	119.900,-	99.800,-	112.900,-	131.600,-	163.600,-	

Rigid and Accurate – for machining of part diameters up to 105 mm

- extra heavy ribbed machine bed
- induction hardened and ground guideways
- massive headstock with high-precision spindle running in tapered roller bearings
- Gears are hardened and ground
- large capacity spindle bore of 105 mm
- central, easy to operate control for feeds and thread leads
- wide spectrum of diametric, inch, module, and metric threads
- support and top slide are designed for high cutting forces
- joystick control for X and Z feeds mounted directly to support
- powerful 11 kW motor for powerful machining
- overload clutch is mounted inside apron
- includes completely assembled 3-axis position indicator



DL 465/3000B shown

Specifications DL		465/1500B	465/3000B	465/4000B	465/5000B	550/1500B	550/3000B	550/4000B	550/5000B
center width	mm	1500	3000	4000	5000	1500	3000	4000	5000
max. turning diameter									
- over bed	mm	950	950	950	950	1100	1100	1100	1100
- over support	mm	670	670	670	670	790	790	790	790
- over gap bridge	mm	1120	1120	1120	1120	1270	1270	1270	1270
gab bridge length	mm	390	390	390	390	390	390	390	390
bed width	mm	550	550	550	550	550	550	550	550
spindle speeds (quantity/range)	min ⁻¹	(18) 6-800	(18) 6-800	(18) 6-800	(18) 6-800	(18) 6-800	(18) 6-800	(18) 6-800	(18) 6-800
spindle bore	mm					105			
spindle taper						MK5			
longitudinal feeds	mm/rev					0,1 - 24			
transverse feeds	mm/rev					0,05 - 12,15			
rapid feed (longit/transv)	mm/min					4000			
max. cross slide travel	mm			500				575	
max. top slide travel	mm					200			

starting at

28.900,- €

incl. position indicator



rigid 4-station tool holder plus one follow rest (included)

Standard Equipment DL B: position indicator, 3-jaw chuck Ø 325 mm, 4-jaw independent chuck Ø 500 mm, face plate Ø 950 mm (DL465), face plate Ø 1100 mm (DL550), change gears, 4-station tool holder, coolant system, steady rest 75 - 320 mm, follow rest 30 - 80 mm, chuck guard, protective shield for support, halogen work lamp, steady center, operating tools, operator manual

Options	Part No.	Price €
• steady rest 280 - 480 mm	250 649	1.190,-
• coolant concentrate 5 L	103 184	75,-
• radius cutter head	103 350	998,-
• quick-adjusting spindle bore stop, size 10, 90-110 mm	103 026	858,-
• quick-change tool holder Set, WC	103 196	672,-

For additional options for this machine, visit our website and search for DL B (Product Search)

Specifications DL		465/1500B	465/3000B	465/4000B	465/5000B	550/1500B	550/3000B	550/4000B	550/5000B
swing range of top slide		+/- 90°							
tapping									
- metric	mm	(50) 1-240							
- Whitworth		(26) 14 -1							
- module	mm	(53) 0,5-120							
- diametric	DP	(24) 28-1							
tailstock quill taper diam.	mm	MK5 / Ø100							
tailstock quill stroke	mm	250							
tailstock transverse adjustment	mm	+/- 15							
motorating	kW	11							
motorvoltage	V	380							
dimensions (LxWxH)	mm	3510x1550	5010x1550	6010x1550	7010x1550	3510x1590	5010x1590	6010x1590	7010x1590
		x1670	x1670	x1670	x1670	x1760	x1760	x1760	x1760
weight	kg	4850	5900	6600	7700	5250	6300	7100	8100
Part No.		301 470	301 472	301 474	301 476	301 478	301 480	301 482	301 484
Price €		28.900,-	32.900,-	36.800,-	39.900,-	32.900,-	35.600,-	39.900,-	44.900,-

For more information, visit www.knuth.de

Precision Lathe with large center height and spindle bore of 105 mm, including taper turning and assembled 3-axis position indicator

- removable bridge (320 mm) for machining of large parts with diameters up to 900 mm
- high precision and quiet operation even at maximum loads
- heavy, large bed
- hardened guideways (>HB 400)
- 105 mm spindle capacity for machining of large parts
- manual central lubrication
- multi-disk clutch for soft starts when working with heavy parts
- automatic lubrication of headstock and main gears
- protected leadscrew
- overload protection for feed shaft and leadscrew
- rapid feed

Specifications Sinus	330/1500 D	330/2000 D	330/3000 D	400/1500 D	400/2000 D	400/3000 D
center width	mm	1500	2000	3000	1500	2000
max. turning Ø over bed	mm	660	660	660	800	800
max. turning Ø over support	mm	440	440	440	570	570
max. turning Ø w/o bridge	mm	900	900	900	1035	1035
bridge length	mm	320	320	320	250	250
bed width	mm	400	400	400	400	400
spindle speed (steps)	rpm	25 - 1600 (16)	25 - 1600 (16)	25 - 1600 (16)	25 - 1600 (16)	25 - 1600 (16)
spindle bore Ø	mm	105	105	105	105	105
spindle mount / taper		D1-8 / MT5	D1-8 / MT5	D1-8 / MT5	D1-8 / MT5	D1-8 / MT5
longitudinal feeds	mm/rev	(25) 0,044 - 1,48	(25) 0,044 - 1,48	(25) 0,044 - 1,48	(25) 0,044 - 1,48	(25) 0,044 - 1,48
transverse feeds	mm/rev	(25) 0,022 - 0,74	(25) 0,022 - 0,74	(25) 0,022 - 0,74	(25) 0,022 - 0,74	(25) 0,022 - 0,74
rapid feed (longit./transv)	m/min	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2
max. cross-slide travel	mm	368	368	368	420	420
max. top-slide travel	mm	230	230	230	230	230
top-slide swivel range	°	45°	45°	45°	90°	90°
tapping - metric	mm	(54) 0,45 - 120	(54) 0,45 - 120	(54) 0,45 - 120	(54) 0,45 - 120	(54) 0,45 - 120
- Whitworth	TPI	(54) 0,44 - 80	(54) 0,44 - 80	(54) 7/16 - 80	(54) 7/16 - 80	(54) 7/16 - 80
- module	mm	(46) 0,25 - 60	(46) 0,25 - 60	(46) 0,25 - 60	(46) 0,25 - 60	(46) 0,25 - 60
- diametric	DP	(42) 0,88 - 160	(42) 0,88 - 160	(42) 0,88 - 160	(42) 0,88 - 160	(42) 0,88 - 160
tailstock taper / Ø	mm	MT 5 / 90	MT 5 / 90	MT 5 / 90	MT 5 / 90	MT 5 / 90
tailstock quill stroke	mm	235	235	235	235	235
tailstock cross adjustment	mm	12,5	12,5	12,5	11	11
motor rating / voltage	kW/V	7,5 / 400	7,5 / 400	7,5 / 400	7,5 / 400	7,5 / 400
overall dimensions (LxWxH)	mm	3210 x 1230 x 1600	3707 x 1230 x 1595	4707 x 1230 x 1595	3240 x 1140 x 1910	4740 x 1140 x 1910
weight	kg	2700	2900	3300	3220	3505
Part No. incl. position indicator		300 010	300 011	300 012	300 015	300 014
Price with position indicator €		15.400,-	16.900,-	19.900,-	16.900,-	20.900,-

C



Quick change tool holder (option)



Taper turning feature (included)

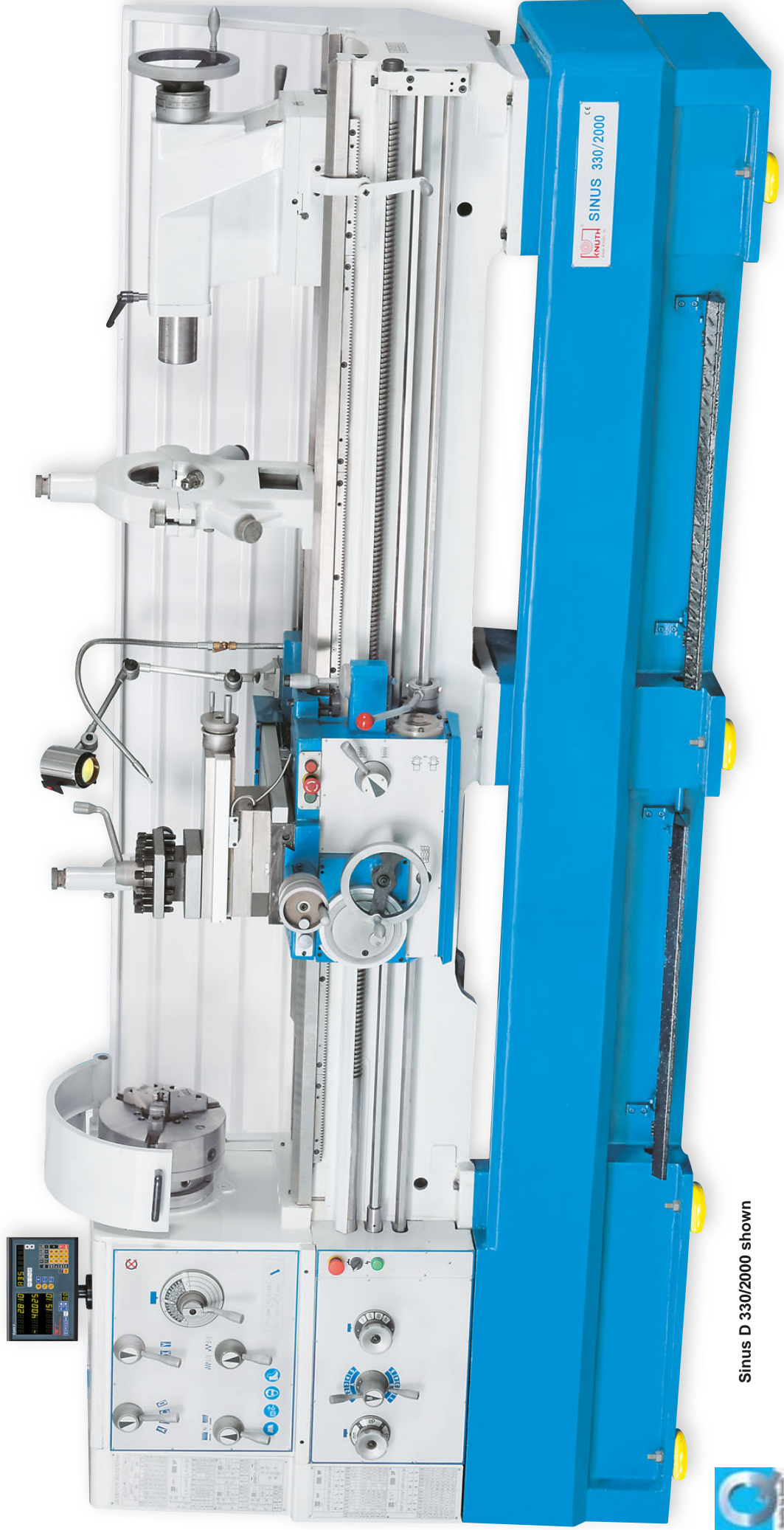
Total Price including 3-axis position indicator (assembled)

starting at

15.400,- €

Standard Equipment: 3-axis position indicator, 3-jaw chuck (315 mm diam.), 4-jaw chuck (400 mm diam.) face plate with 450 mm diam., dog plate, 4-station tool holder, up to 2000 mm center width, includes splatter guard (wall); from 3000 mm upwards with splatter guard (moves along with support), coolant system, steady rest and follow rest, taper turning feature, chuck guard, halogen work lamp, reducing sleeves, dead centers, operating tools, operator manual

For available options for this machine, visit our website and search for Sinus D (Product Search)



Sinus D 330/2000 shown

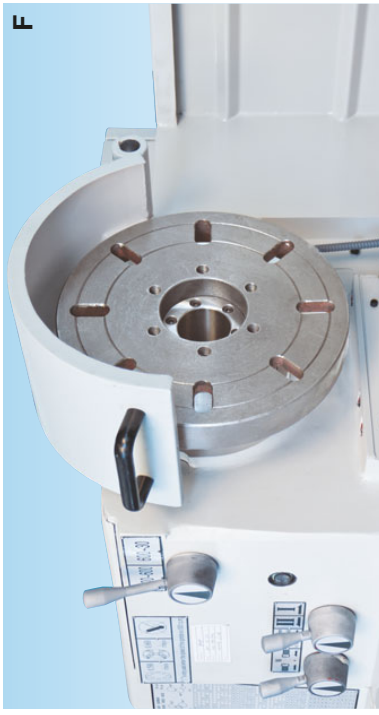


For more information, visit www.knuth.de

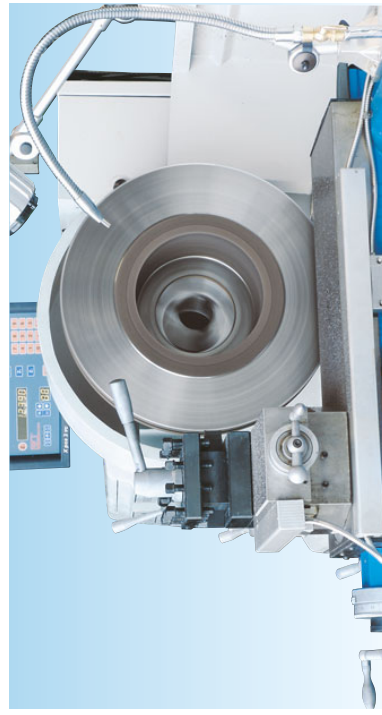
A proven classic in 2 designs: with manual transmission, or with infinitely variable speed adjustment and constant speed (vconst)

- Low Price and Lasting High Value
- well arranged control panel with ergonomically located selectors
- Camlock spindle mount D1-6 and D1-8
- wide bed, ground and hardened
- tailstock can be moved sideways for taper turning
- large number of thread leads
- removable bridge for machining of large diameters
- stop spindle with four adjustable linear stops
- a quick-action tool changer system is available as an option

Specifications Turnado	230/1000	230/1500	230/2000	280/1500	280/2000	280/3000
center width	mm 1010	1510	2000	1428	1928	2928
max. turning diam. over bed	mm 460				560	
- over support	mm 270				355	
- over bridge	mm 690				785	
bridge length	mm 155		165		170	
bed width	mm 290		300		350	
spindle speed (quantity/range)	rpm (12) 25 - 2000				(12) 25 - 1600	
incl. infin. variable speed adjustment	rpm L 30-600 / H 600-3000				L 25-200 / H 200-1600	
spindle bore	mm 58				80	
spindle mount / taper	Camlock D1-6 / MT6				Camlock D1-8 / MT7	
longitudinal feeds	mm/rev 0.031 - 1.7				0.059 - 1.646	
transverse feeds	mm/rev 0.014 - 0.784				0.020 - 0.573	
max. cross-slide travel	mm 290				316	
max. top-slide travel	mm 128				130	
top-slide swivel range	° ± 52°				± 52°	
Thread Cutting - metric	mm (41) 0.1 - 14				(47) 0.2 - 14	
- Whitworth	TPI (60) 2 - 112				(60) 2 - 112 TPI	
- module	mm (34) 0.1 - 7				(39) 0.1 - 7	
- diametric	DP (50) 4 - 112				(50) 4 - 112	
tailstock quill taper / Ø	mm MT 4 / 60				MT 5 / 75	
tailstock quill stroke	mm 123		120		180	
tailstock cross adjustment	mm ± 13				± 12	
motor rating / voltage	kW / V 5.5 / 400				7.5 / 400	
overall dimensions (LxWxH)	mm 2170x1060 x1370	2720x1040 x1370	3250x2090 x1900	2840x1150 x1460	3340x1150 x1460	4340x1150 x1460
weight	kg 1720	1970	1900	2370	2720	3430
Part No. with position indicator	320 555	320 558	320 557	320 559	320 560	320 561
Price with position indicator €	9.400,-	10.800,-	12.400,-	12.950,-	14.740,-	17.900,-
Part No. with position indicator a. infin. variable speed adjust.	320 570	320 571	320 575	320 572	320 573	320 574
Price with position indicator a. infin. variable speed adjust. €	11.600,-	12.750,-	13.900,-	14.600,-	16.450,-	19.900,-



faceplate is included



constant cutting speed for a flawless surface throughout

Turnado with infinitely variable speed adjustment:

- back gearing, first-class control technology and a powerful headstock motor allow a wide range of speeds and high torque for powerful machining
- very quiet operation at maximum spindle speed
- max. speed for the Turnado 230 series is 3000 rpm, infinitely variable
- the extensive features of the X.Pos Position Indicator are complemented by a speed display and vconst (constant speed) function: During face turning, the spindle speed automatically adapts to the changing workpiece diameter – the constant cutting speed at the cutting edge of the turning tool ensures superior turning results with a quality comparable to CNC lathes

Options

Options	Part No.	Price €	Part No.	Price €
• 4-jaw lathe chuck 250 mm for Turnado 230	116 624	610,-	Part No. 103 322	38,-
• 4-jaw lathe chuck 250 mm for Turnado 230 with infinitely variable speed adjustment	146 473	980,-	• oscillation element LT 55 (per piece) for Turnado 280	205,-
• 4-jaw lathe chuck 315 mm for Turnado 280	146 483	1.490,-	• clamped turning tool set 25 mm	108 670
• quick-change tool holder set WB for Turnado 230	103 195	389,-	• indexable insert set, 25 mm, 30 pieces	108 675
• quick-change tool holder set WC for Turnado 280	103 196	672,-	• Power Worker chip lift-off device	123 040
• plus assembly	103 315	190,-	• knurling tool kit, angled	108 521
• live centers MT 5	106 760	88,-	• knurl holder	108 520
• oscillation element LT 33 (per piece) for Turnado 230	103 321	26,-	• coolant concentrate 5 L	103 184

For additional **options** for this machine, visit our website and search for Turnado (Product Search)

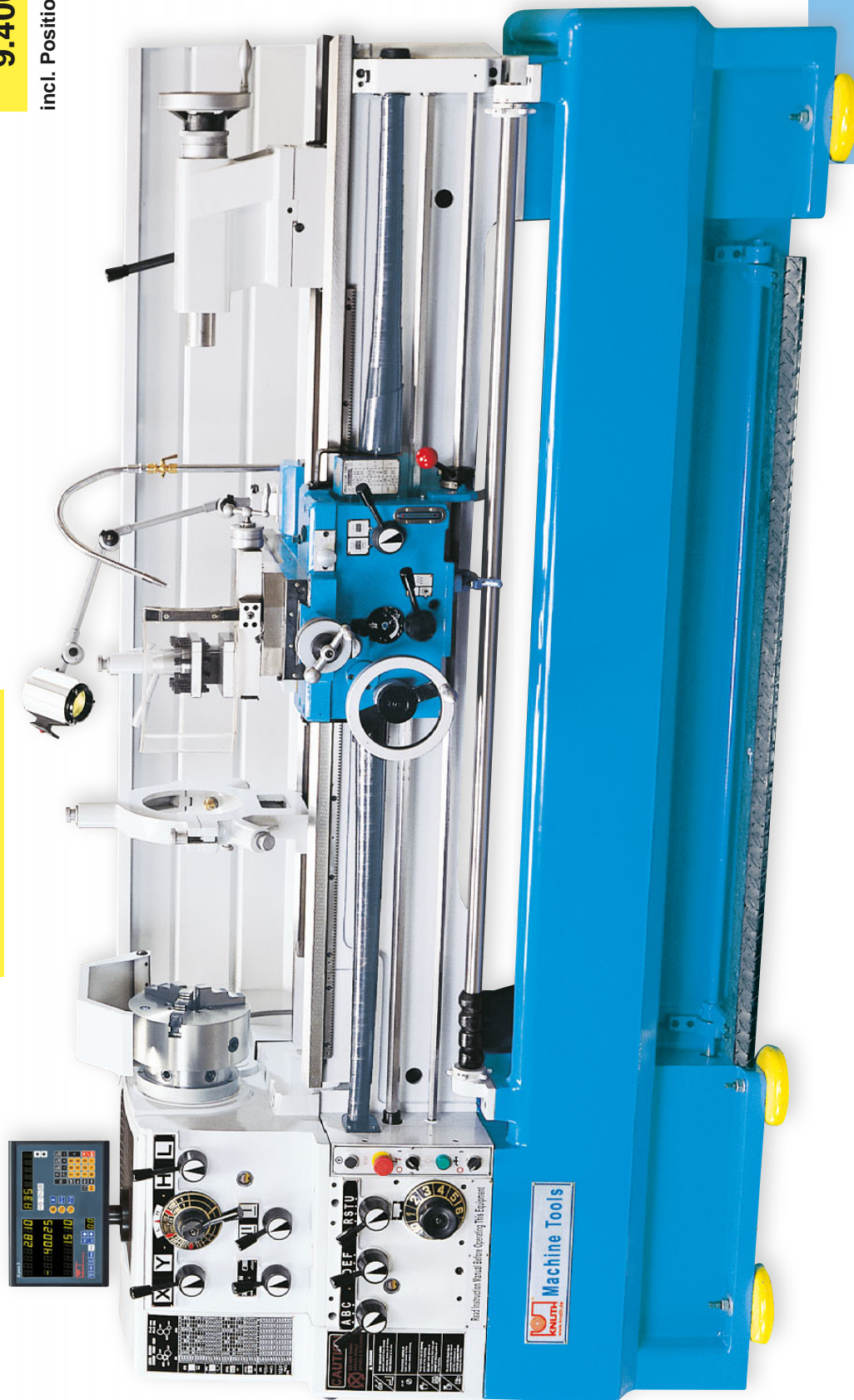
Standard Equipment: 3-axis position indicator, 3-jaw chuck Ø 250 mm (Turnado 230), 3-jaw chuck Ø 315 mm (Turnado 280), 4-jaw face plate chuck Ø 300 mm (Turnado 230), 4-jaw face plate chuck Ø 400 mm (Turnado 280), face plate Ø 350 mm (Turnado 230), face plate Ø 450 mm (Turnado 280), 4-station tool holder, coolant system, steady and follow rests, stop spindle, splatter guard, chuck guard, foot brake pedal, halogen work lamp, reducing sleeve, steady center, thread gauge, operating tools, operator manual

including stop spindle

starting at

9.400,- €

incl. Position Indicator





Ø=100mm S=580rpm

The cutting speed selected by the operator...



Ø=80mm S=717rpm

... will be held constant by automatically controlling the spindle speed ...



Ø=20mm S=2900rpm

... up to a maximum speed of 3000 rpm.

- the extensive features of the X.Pos Position Indicator (catalog page 250) are complemented here with a digital speed indicator and an easy to program auxiliary function Constant speed - During face turning, the spindle speed automatically adapts to the changing workpiece diameter – the constant cutting speed at the cutting edge of the turning tool ensures superior turning results with a quality comparable to CNC lathes
- a quick-action tool changer system is available as an option

Standard Equipment:

3-axis position indicator, 4-jaw chuck (250 mm diam.), face plate with 350 mm diam., change gears, 4-station tool holder, coolant system, steady and follow rests, turret stop, micrometer stop, chip tray, splatter guard, support shield, chuck guard, foot brake pedal, halogen work lamp, thread gauge, operating tools, operator manual

Option	Part No.	Price €
• 3-jaw chuck, Ø 200 mm		
Camlock 1-6, 4000 rpm	146 372	560,-
• 4-jaw chuck, Ø 200 mm		
Camlock 1-6, 4000 rpm	146 472	795,-
• quick-change tool holder set WB	103 195	389,-
plus assembly	103 315	190,-
• live center MT 4	106 755	59,-
• oscillation element LT 33 (per piece)	103 321	26,-
• clamped Turning Tool Set 16/20/24 mm, 9-pc	108 780	193,-
• clamped turning tool set 25 mm	108 670	205,-
• indexable Insert Set 16/20/24 mm, 30-pc	108 782	55,-
• indexable insert set, 25 mm, 30 pieces	108 675	90,-
• coolant concentrate 5 l	103 184	75,-
• Power Worker chip lift-off device	123 040	99,-
• turret MT 4	105 050	590,-
• knurl holder	108 520	25,-
• knurling tool kit, angled	108 521	9,-
• quick-adjusting spindle bore stop, size 6	103 020	257,-
• accessory-Set MT 4 8-pc.	104 594	149,-

For available options for this machine, visit our website and search for V-Turn (Product Search)

Specifications V-Turn		410/1000	410/1500
center width	mm	1000	1500
max. turning diam.			
- over bed	mm	410	410
- over support	mm	255	255
- over bridge	mm	580	580
bridge length	mm	250	190
bed width	mm	250	250
spindle speeds	rpm	L 30 - 550	L 30 - 550
(range)		H 550 - 3000	H 550 - 3000
spindle bore	mm	52	52
spindle mount / taper	Camlock	D1-6 / MT 6	D1-6 / MT 6
longitudinal feeds	mm/rev	0,05 - 1,7	0,05 - 1,7
transverse feeds	mm/rev	0,025 - 0,85	0,025 - 0,85
max. cross-slide travel	mm	210	210
max. top-slide travel	mm	140	140
top-slide swivel range		± 45°	± 45°
tapping			
- metric	mm	(39) 0,2 - 14	(39) 0,2 - 14
- whitworth		(45) 2 - 72	(45) 2 - 72
- module	mm	(18) 0,3 - 3,5	(18) 0,3 - 3,5
- diametric	DP	(21) 8 - 44	(21) 8 - 44
tailstock quill taper diam. / Ø	mm	MT 4 / 50	MT 4 / 50
tailstock quill stroke	mm	120	120
tailstock cross adjustment	mm	± 13	± 13
motor rating / voltage	kW/V	5,5 / 400	5,5 / 400
dimensions (LxWxH)	mm	1940 x 850	2440 x 850
		x 1280	x 1320
weight	kg	1550	1800
Part No. inc. position indicator		300 820	300 821
Price incl. position indicator €		9.200,-	9.900,-

Convincing Price and Performance!
With infinitely variable speed adjustment
and constant cutting speed

including 3-axis position indicator
with intergrated spindle speed
indicator, completely assembled

starting at

9.200,- €



Shown with optional accessories

- a heavy ribbed machine bed and a massive one-piece cast-iron frame provide the solid basis for this machine
- wide, hardened and ground guideways ensure superior turning results and long life
- large spindle bearings and high-precision headstock ensure excellent concentricity
- headstock gears and shafts are hardened and ground for quiet operation und constant speed
- 5.5 kW headstock motor ensures powerful machining
- spindle speeds are infinitely variable from 30 to 550 and 50 to 3000 rpm
- micrometer and turret stop are included
- integrated central lubrication at the support for low maintenance



Quick change tool holder (optionally)

For more information, visit www.knuth.de

Large spindle capacity of 52 mm and powerful 5.5 kW motor

starting at

8.600,- €

incl. Position Indicator



- heavy-duty bed with large dimensions, hardened and precision-ground, removable bridge
- adjustable overload clutch inside the support
- large headstock in a solid bearing with Camlock D1/6
- all gears and shafts are hardened and ground and run in an oil-bath

- manual central lubrication
- foot brakes for instant stop and shut-down of the headstock

Standard Equipment:

3-axis position indicator, 3-jaw chuck Ø 250 mm, 4-jaw face plate chuck Ø 320 mm, face plate Ø 520 mm, change gears, 4-station tool holder, coolant system, steady and follow rests, splatter guard, chuck guard, foot brake pedal, work lamp, reducing sleeve, 2 steady centers, operating tools, operator manual

Option	Part No.	Price €
4-jaw lathe chuck 250 mm	116 624	610,-
quick-change tool holder set WB	103 195	389,-
live center MT 4	106 755	59,-
oscillation element LT 33	103 321	26,-
clamped turning tool set 25 mm	108 670	205,-
coolant concentrate 5 l	103 184	75,-

Specifications DM 1000 A

center width	mm	1000	top-slide swivel range	± 45°	
max. turning diam.			tapping		
- over bed	mm	400	- metric	mm	(25) 0,5 - 20
- over support	mm	240	- whitworth		(35) 80 - 1 3/4
- over bridge	mm	580	- module	mm	(25) 0,25-10
bridge length	mm	200	- diametric	DP	(30) 160-3 1/2
bed width	mm	290	tailstock quill taper diam.	mm	MT4 / 60
spindle speeds (number/range)	rpm	(12) 30 - 1600	tailstock quill stroke	mm	130
spindle bore	mm	52	tailstock cross adjustment	mm	± 10
spindle mount / taper		Camlock D1-6 /MT6	motor rating / voltage	kW / V	5,5 / 400
longitudinal feeds	mm/r	0,039 - 1,1	dimensions (LxWxH)	mm	2180 x 970 x 1280
transverse feeds	mm/r	0,055 - 0,1	weight	kg	1450
max. cross-slide travel	mm	225	Part No. incl. position indicator		320 612
max. top-slide travel	mm	140	Price incl. position indicator €		8.600,-



Basic

The most successful The Basic Series -
Long record of proven performance in craft
and industry applications



- Ideal for single part and batch production, or for training
- Universal range of applications
- Reliability, Lasting value
- User-friendly operation
- Excellent price/performance ratio
- Extensive accessory package included
- Short delivery time
- Reliable replacement parts availability
- High customer satisfaction
- After-Sales Service
- Quality by Knuth



- Powerful drive
- Camlock quick-action clamp
- Hardened guideways
- Lathe beds with heavy ribbing
- Rigid, heavy-duty cast-iron design
- Basic 180 V with v-const and 3000 min⁻¹
- Guideways are induction-hardened and ground
- Gears are hardened and precision-ground
- Oil-bath lubrication
- Headstock runs in precision-bearings
- Large spindle bore
- Very quiet operation
- Total Price including digital 3-axis assembled
- Safety equipment according to CE



Basic 180 Super



Basic 180 V



Basic 170 Super



Basic Plus

Precise tool shop lathe machine at a low price

5.900,- €

incl. position indicator



5C Collet Chuck (optional)

- cast-iron bed, heavily ribbed
- all tracks are induction-hardened and precision ground
- headstock with D1-4" mount, bore diam. 38 mm, run in 2 adjustable tapered roller bearings
- all gears are made of Cr-Ni steel, hardened, precision ground, with oil bath lubrication
- powerful main drive (2.4 kW), including base frame
- slides are adjustable via tapered gibs
- tailstock can be moved ± 10 mm for taper turning
- closed cooling circuit

Standard Equipment: position indicator, 3-jaw chuck \varnothing 160 mm, 4-jaw face plate chuck \varnothing 200 mm, face plate \varnothing 320 mm, 4-station tool holder, coolant system, steady and follow rests, chip tray, splatter guard, chuck guard, foot brake pedal, base, micrometer longitudinal stop, change gears, reducing sleeves, steady center, thread gauge, operating tools, operator manual

For available options for this machine, please visit our website and search for Basic 180 Super (Product Search)

Specifications Basic 180 Super

center width	mm	1000	max. top-slide travel	mm	92
max. turning diam.			top-slide swivel range		$\pm 50^\circ$
- over bed	mm	356	tapping		
- over support	mm	220	- metric	mm	(37) 0,4 - 7
- over bridge	mm	506	- whitworth		(28) 4 - 56
bridge length	mm	206	tailstock quill taper diam.	mm	MT 3 / 45
bed width	mm	206	tailstock quill stroke	mm	120
spindle speeds (number/range)	rpm	(16) 45 - 1800	tailstock cross adjustment	mm	± 10
spindle bore	mm	38	motor rating / voltage	kW / V	1,5/2,4 / 400
spindle mount / taper		Camlock D1-4 / MT 5	dimensions (LxWxH)	mm	1945 x 785 x 1204
longitudinal feeds	mm/r	0,043 - 0,653	weight	kg	880
transverse feeds	mm/r	0,015 - 0,220	Part No. incl. position indicator		300 805
max. cross-slide travel	mm	178	Price incl. position indicator €		5.900,-

- Speed up to 3000 min⁻¹
- Consistent cutting speed

Cost-effective precision lathe provides consistent cutting speed: Vconst!

starting at

7.400,- €

incl. position indicator



Consistent cutting speed Vconst.

- Speed adapts to the part radius - consistent track speed ensures uniform quality finish at any diameter.
- position indicator with speed display
- infinitely variable spindle speed on 2 gear levels



Standard Equipment: 3-axis position indicator, 4-jaw faceplate chuck Ø 200 mm, faceplate Ø 320 mm, change gears, 4-station tool holder, coolant system, steady rest and follow rest, chip collection tray, splatter guard, chuck guard, foot brakes, base, halogen work lamp, axial micrometer stop, reducing sleeve, dead center, thread gauge, operating tools, operator manual

Shown with optional accessories:

- 3-jaw chuck Ø 160 mm Camlock 1-4" 4500 min⁻¹
- 4-jaw chuck Ø 160 mm Camlock 1-4" 4500 min⁻¹

Part No. 146 378
Part No. 116 600

Price € 480,-
Price € 546,-

Specifications Basic 180 V

center width	mm	1000	max. cross slide travel	mm	178 max.
max. turning diam.			compound travel	mm	92
- across bed	mm	356	swivel range - compound		± 50°
- across support	mm	220	tapping		
- across bridge	mm	506	- metric	mm	(37) 0,4 - 7
bridge length	mm	206	- Whitworth		(28) 4 - 56
bed width	mm	206	tailstock quill taper/ -Ø	mm	MT 3 / 45
spindle speed (inf. variable) (range)	min ⁻¹	L 45 - 1800 H 155 - 3000	tailstock quill stroke	mm	120
spindle bore	mm	38	tailstock transverse adjustment	mm	± 10
spindle mount/taper		Camlock D1-4 / MT 5	motor rating/voltage	kW / V	4 / 400
longitudinal feeds	mm/rev	0.043 - 0.653	dimensions (LxWxH)	mm	1945 x 785 x 1204
transverse feeds	mm/rev	0.015 - 0.220	weight	kg	880
			Part No. incl. position indicator		300 807
			Price incl. position indicator €		7.400,-

'Low-Cost-Version' leadscrew and feed shaft lathe



3.990,- €
incl. position indicator



turret (option)

- cast-iron bed, heavily ribbed
- induction-hardened and precision ground tracks
- headstock with camlock D1-4" mount, bore diam. 38 mm, run in 2 adjustable precision tapered roller bearings
- tracks adjustable via tapered gibs
- tailstock can be moved ± 10 mm for taper milling

Standard Equipment: position indicator, 3-jaw chuck $\varnothing 160$ mm, 4-jaw face plate chuck $\varnothing 200$ mm, face plate $\varnothing 250$ mm, 4-station tool holder, steady and follow rests, chip tray, splatter guard, chuck guard, base, change gears, reducing sleeves, steady centers, thread gauge, operating tools, operator manual

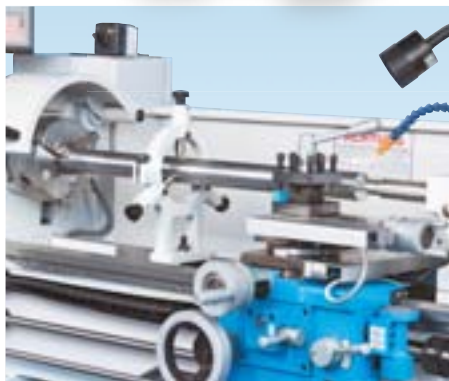
For available options for this machine, please visit our website and search for Basic Plus (Product Search)

Specifications Basic Plus					
center width	mm	810	max. top-slide travel	mm	95
max. turning diam.			top-slide swivel range		$\pm 60^\circ$
- over bed	mm	300	tapping		
- over support	mm	178	- metric	mm	(26) 0,4 - 7
- over bridge	mm	430	- whitworth		(34) 4 - 56
bed width	mm	180	tailstock quill taper diam.	mm	MK 3 / 32
spindle speeds	rpm	(9) 60 - 1500	tailstock quill stroke	mm	100
(number/range)			tailstock cross adjustment	mm	± 10
spindle bore	mm	38	motor rating / voltage	kW / V	1,1 / 400
spindle mount / taper		Camlock D1-4 / MK 4	dimensions (LxWxH)	mm	1600 x 750 x 1270
longitudinal feeds	mm/r	0,052 - 1,392	weight	kg	520
transverse feeds	mm/r	0,014 - 0,38	Part No. incl. position indicator		300 809
max. cross-slide travel	mm	175	Price incl. position indicator €		3.990,-

Solid Precision Bench Lathe with large center width

4.600,- €

incl. position indicator



steady rest (standard)

- hardened and ground headstock gears
- gapped bedway
- max. speed 2000 min⁻¹
- adjustable headstock bearing
- oil-bath lubricated main drive and feed gear
- shift gear system to change feed direction
- cast-iron bed, double v-guide,

- hardened and ground
- interlocking feature prevents simultaneous advance of leadscrew and feed shaft
- double-walled apron box with oil-bath lubrication

Standard Equipment: position indicator, 3-jaw chuck Ø 160 mm, 4-jaw face plate chuck Ø 200 mm, face plate Ø 320 mm, 4-station tool holder, steady and follow rests, splatter guard, chuck guard, foot brake pedal, base, halogen work lamp, steady center, operating tools, operator manual

For available options for this machine, please visit our website and search for Basic 170 Super (Product Search)

Specifications Basic 170 Super					
center width	mm	1000	max. cross-slide travel	mm	160
max. turning diameter			max. top-slide travel	mm	68
- over bed	mm	330	top-slide swivel range		± 60°
- over support	mm	198	tapping		
- over bridge	mm	470	- metric	mm	(32) 0,4 - 7
bridge length	mm	166	- whitworth		(32) 4 - 56
bed width	mm	187	tailstock quill taper diam.	mm	MT 3 / 33
spindle speeds (number/range)	rpm	(8) 70 - 2000	tailstock quill stroke	mm	100
spindle bore	mm	38	tailstock cross adjustment	mm	± 10
spindle mount / taper		Camlock D1-4 / MT 5	motor rating / voltage	kW / V	1,5 / 400
longitudinal feeds	mm/r	0,022 - 1,551	dimensions (LxWxH)	mm	1830 x 680 x 1320
transverse feeds	mm/r	0,026 - 2,713	weight	kg	520
			Part No. incl. position indicator		300 815
			Price incl. position indicator €		4.600,-

High productivity, easy handling – the ideal option for series production

starting at

8.900,- €



HRD 60PF shown

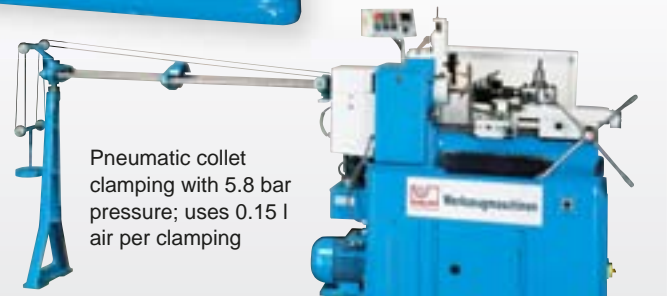


Drilling with the HRD

- the HRD PF series provides an electric speed control for comfortable and quick rpm adjustments via a 12-position rotary switch
- a powerful drive motor (5.5 kW) provides plenty of power at all speed levels
- fine speed adjustments from 120 to 2000 rpm
- automatic tool turret change-over and single-lever operation against adjustable end stops allow short machining times and maximum repeatability
- minimized downtimes when using the bar feeding feature and cut-off unit

Standard Equipment:

coolant system, bar feeder, collet chuck



Pneumatic collet clamping with 5.8 bar pressure; uses 0.15 l air per clamping

Specifications	HRD 42PF	HRD 60PF			
max. part					
- round	mm 42	60	- turret slide	mm	150 150
- hexagonal	mm 36	51	- cut-off slide	mm	35 35
- square	mm 30	41	main rating 400V	kW	5,5 5,5
collet mount	Ø 30, 42	42, 60	spindle speed	min ⁻¹	(2) 120-2000 (2) 120-2000
travel			coolant pump	kW	0,1 0,1
- axial slide	mm 90	90	weight with bar feeder	kg	880 910
- cross slide	mm 100	100	dimensions (LxWxH)	mm	1600x800x1600 1600x800x1600
			Part No.		100 823 100 826
			Price €		8.900,- D 9.800,- C

2.180,- €

incl. 2-axis position indicator

Turning - Milling - Drilling - the ideal machine for the demanding requirements of model builders, training facilities, and precision mechanics



Turning



Drilling / Milling



Digital length measuring system on Z and X axes



- very practical machine with leadscrew for turning / milling / drilling of parts
- infinitely variable speed in 2 ranges - for turning with quiet belt drive, for milling with 2-step gears
- easy tooling change-over from turning to drilling / milling
- rigid machine bed with hardened and ground guideways, taper gibs for zero-backlash adjustments
- precision bearings ensure high spindle concentricity
- tailstock adjustable for taper turning
- milling unit with swivel head

- cross slide with T-slots for parts clamping

Standard Equipment: position indicator, 3-jaw chuck Ø 125 mm, digital speed indicator, 4-station tool holder, chip tray, splatter guard wall, chuck guard, base, operating tools, operator manual

Specifications Universa 550 V

Turning			Milling		
center width	mm	550	tailstock quill stroke	mm	70
max. turning diameter			tailstock cross adjustment	mm	6
- over bed	mm	250	motor rating/ voltage	kW / V	0.75 / 230
- ober support	mm	150	Milling		
bed width	mm	135	max. drilling capacity	mm	16
spindle speeds (inf. variable)	min ⁻¹	Lo 50 - 1250	max. end milling cap.	mm	16
2 steps via belt drive		Hi 100 - 2500	spindle mount		MT 2
spindle bore	mm	26	spindle-to-table distance	mm	150
spindle mount / taper		MT 4	throat	mm	175
longitudinal feeds	mm/rev	0.07 - 0.20	head swivel		± 90°
max. cross slide travel	mm	70	speed (infin. variable)	min ⁻¹	Lo 50 - 1125
max. top slide travel	mm	115	2 gear steps		Hi 100 - 2250
Tapping			motor rating / voltage	kW / V	0.5 / 230
- metric	mm	0.4 - 3.5	dimensions (LxWxH)	mm	1200 x 530 x 1550
- inch	TPI	8 - 56	weight	kg	125
tailstock quill taper / -Ø	mm	MT 2 / Ø35	Part No. incl. position indicator		101 490
			Price incl. position indicator €		2.180,-

Small CNC Milling Machine for training, model construction and small batch productions

- standard electronic hand-wheel
- rigid cast-iron frame with wide dovetail guides
- preloaded ball screws on all axes
- manual central lubrication
- infinitely variable spindle speed



GPlus 450
www.knuth-gplus.de

Standard Cycles Milling: deep-hole drilling, tapping with compensating chuck, hole series - circle, hole series - line, drilling, countersinking, milling of pockets, grooves, and round pockets

Standard Equipment: GPlus 450 control, drill chuck Ø 1-13 mm, central lubrication, base, operating tools, operator manual, programming instructions

Options	Part No.	Price €
4th axis	250 764	1.880,-
Vise PB 80	104 835	39,-
Vise PB 100	104 840	49,-
Vise MS 100	104 950	120,-
Collet chuck MT3	104 300	57,-
Collets 2 - 20 mm	104 325-	at 26,-
	104 415	26,-
End Milling Set	108 440	113,-



Drilling up to 25 mm

Specifications PicoMill CNC

drilling capacity in steel	mm	25	table travel	mm	254 x 105
slot milling up to	mm	20	repeatability	mm	0,01
max cutter diameter	mm	80	positioning accuracy	mm	0,01
max spindle-to-table distance	mm	250	spindle motor rating	kW	1
spindle stroke	mm	80	dimensions (LxWxH)	mm	830 x 800 x 1700
throat	mm	232	weight	kg	391
spindle mount		MT 3	Part No.		180 511
spindle speeds	rpm	150 - 2000	Price €		15.990,-
table set-up area	mm	450 x 160			

Small CNC Lathe for training, model construction and small batch productions

- automatic 4-station tool changer
- infinitely variable spindle speed
- small footprint
- manual central lubrication
- preloaded ballscrews
- electronic hand-wheel

14.990,- €



GPlus 450
www.knuth-gplus.de



automatic tool changer is included

Standard Cycles Turning: plunge-cut, recess, chip removal, tapping, drilling, spotfacing, deep-hole drilling, tapping with compensating chuck, reaming

Standard Equipment: GPlus 450 control, 3-jaw chuck Ø 125 mm, autom. 4-station tool changer, central lubrication, base, operating tools, operator manual, programming instructions

Options

Turning tool set 12 mm

Part No. 108 680

Price € **38,-**

Specifications PicoTurn CNC

center width	mm	550
max. turning Ø over bed	mm	250
bed width	mm	135
spindle speeds (inf. variable) (range)	min ⁻¹	150 - 1750
spindle mount		MT 3
longitudinal feeds	mm/min	500
transverse feeds	mm/min	250
rapid feed (long./transv)	mm/min	2000/1000

max. cross slide travel	mm	75
tailstock quill taper/ -Ø	mm	MT 2 / 30
tailstock quill stroke	mm	50
tailstock transv. adjustm.	mm	± 4
motor rating / voltage	kW / V	1 / 230
connected load	kVA	1,6
dimensions (LxBxH)	mm	1200 x 530 x 1300
weight	kg	400
Part No.		180 501
Price €		14.990,-

Heavy-duty Lathe with GPlus 450 Control
for cost-effective series productions

18.800,- €



- rigid, horizontal machine bed made of heat-treated cast-iron
- wear-resistant linear guides on both axes - low resistance, high capacity and precision
- preloaded ball screws and powerful servo drives ensure superior dynamics and positioning accuracy
- powerful main spindle motor with infinitely variable speed
- precise, rigid main spindle bearing ensures excellent concentricity even under high loads

- linear tool changer for up to 6 tools allows quick tool changes and increased productivity
- rapid feed up to 18 m/min for effective and cost-efficient machining operations
- easy access to the work space through large sliding door
- easy maintenance due to central lubrication system

Standard Equipment: GPlus 450 control, electronic hand-wheel, chuck, linear tool changer, automatic central lubrication, work lamp, total enclosure, operating tools, operator manual and programming instructions

Specifications Conturn 300

Working area

turning diameter over bed	mm	350
turning diameter over support	mm	160
max. part length	mm	330
chuck opening diameter	mm	48
X axis travel	mm	280
Z axis travel	mm	340
X axis rapid feed	mm/min	12000

Z axis rapid feed	mm/min	18000
speed range	rpm	300 - 3400
main motor rating	kW	5.5

Dimensions/Weight

dimensions	mm	2100 x 1450 x 1600
weight	kg	1200
Part No.		180 520
Price €		18.800,-

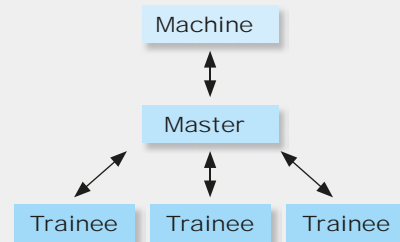
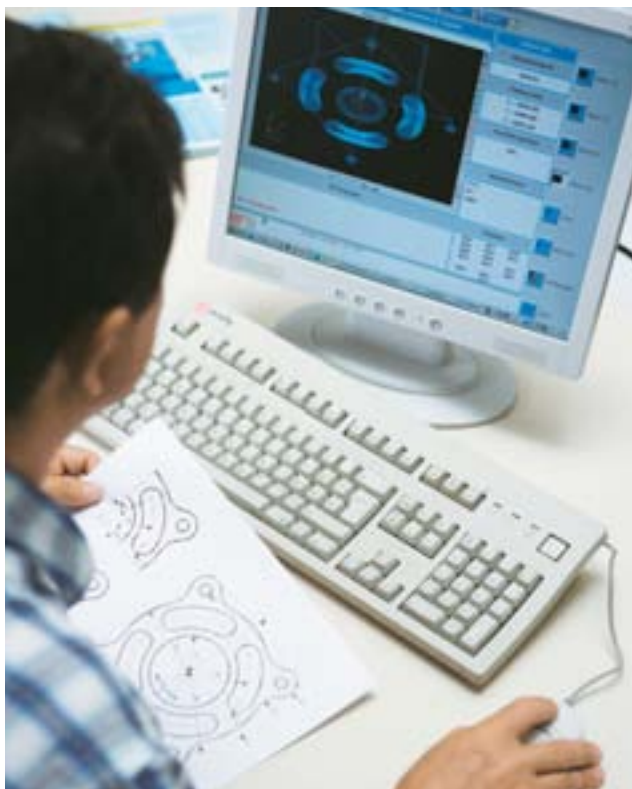


Software and work preparation plus CNC training without having to use an actual CNC machine.

Utilize the advantages of a GPlus 450-Dry

- every individual in the class is included at all times
- every trainee's work can be monitored
- trainers have the full attention of the whole class at all times

GPlus 450-Dry workstation and machine with GPlus 450 control provide a completely integrated training package! Take advantage of this excellent programming and training system to increase your productivity and reduce your production cost!



Prerequisites for GPlus 450-Dry Software (Single Workstation):

- Industrial computer with Intel processor
- Win2000 or WinXP Operating System
- At least a 17" monitor with a resolution of 1280 x 1024, ideally the monitor should be vertically adjustable

Prerequisites for multiple workstations: **Class Management Software** (e.g. Vision6). The basic requirement is a standard PC, on which the GPlus 450-Dry Software can be installed to easily adapt the PC for various requirements (turning or milling). The user interface of the PC matches the machine's user interface.

Application Example: The required number of PCs can be prepared in a class room by installing the respective software packages and dongles (copyright protection feature in form of a connector). This way the trainer can teach while each individual trainee can individually program at their workstations to store, simulate and learn NC programming in a hands-on fashion. A USB port and RJ-45 Ethernet interface are included for easy data transfers to the machine.

GPlus 450-Dry Software (per workstation):

- **GPlus 450-Dry Software for 3- and 4-Axis Milling (incl. dongle)**
Part No. 577 190 Price € 1.690,-
- **GPlus 450-Dry Software for Turning (incl. dongle)**
Art.-Nr. 577 191 Preis € 1.590,-
- **Class Room License for 15 + 1 workstations:**
e.g. **GPlus 450-Dry Software for 3- and 4-Axis Milling (incl. dongle)**
Part No. 577 193 Price € 12.900,-



UWF 10 is shown

- preloaded ball screw with zero backlash for easy and precise feeds
- simultaneous axis movement
- Turcite-B coated guides
- dovetail guide on X axis
- square guides on Y and Z axes (only Z axis on UWF 10)
- hardened and ground gears, nitrated
- swivelling control panel, fully equipped with all operating controls
- automatic lubrication
- spindle brakes
- equipment according to CE

Specifications		UWF 10	UWF 12 B	UWF 15 B
set-up area (L x W)	mm	1235 x 460	1635 x 500	2000 x 500
number of T-slots		5	5	5
T-slot width	mm	18	18	18
T-slot distance	mm	80	80	80
table travel, longitudinal X	mm	900	1300	1500
table vertical travel Z	mm	450	450	500
transverse travel (milling beam) Y	mm	650	650	650
head swivel range		360°	360°	360°
spindle mount		ISO 40	ISO 50	ISO 50
spindle speeds	min. ⁻¹	(27) 30 - 2050	(27) 30 - 2050	(27) 30 - 2050
feed, longitudinal (infinitely variable)	mm/min	10 - 1000	10 - 1000	10 - 1000
feed, transverse (infinitely variable)	mm/min	10 - 1000	10 - 1000	10 - 1000
feed, vertical (infinitely variable)	mm/min	6 - 640	5 - 500	5 - 500
rapid feed, longitudinal	mm/min	2540	2200	2200
rapid feed, transverse	mm/min	2540	2200	2200
rapid feed, vertical	mm/min	1700	1100	1100
spindle nose-to-table dist.	mm	50 - 500	80 - 530	80 - 530
throat	mm	63 - 713	60 - 760	60 - 760
main drive capacity	kW	5.5	7.5	7.5
axis drive for each axis		DC Servo	DC Servo	DC Servo
max. table load capacity	kg	800	1800	1800
overall dimensions (LxWxH)	mm	1940 x 2220 x 2115	2140 x 2621 x 1940	2140 x 2986 x 1940
weight	kg	3000	3500	5500
Part No. with position indicator		301 240	301 271	301 272
Price €		29.900,-	49.900,-	54.900,-

- servo drive X, Y, Z
- extra large work area
- extra-large work table and large travel ranges on all axes
- sturdy and torsionally rigid construction
- universal swivel head – cutter can be moved to any spatial angle
- infinitely variable feed speeds and rapid feed with servo motor and motion control on all 3 axes

Total Price including 3-axis position indicator (assembled)

starting at

29.900,- €



UWF 12B is shown including position indicator

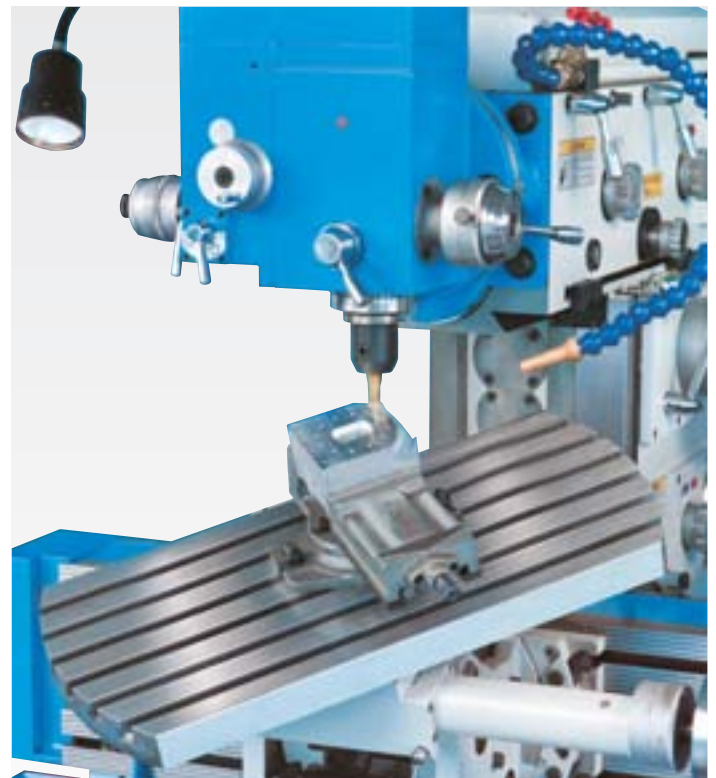
Standard Equipment:
operating tools, automatic central lubrication, coolant system, operating instructions

3-axis position indicator, universal swivel head,

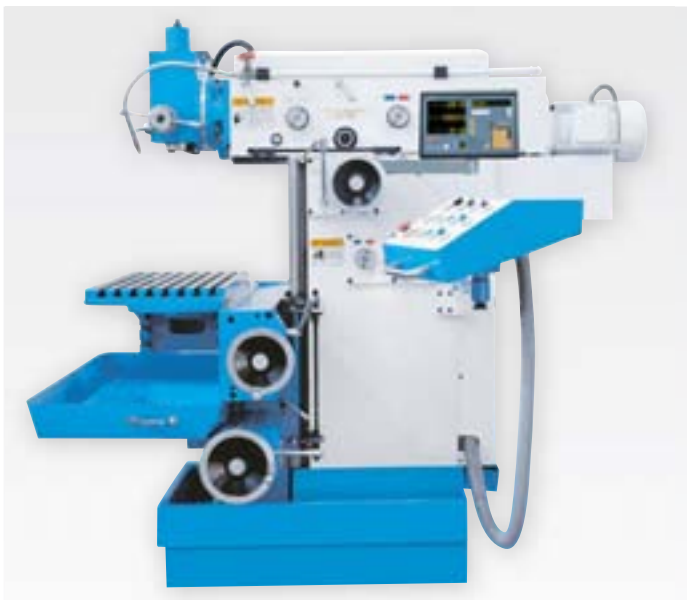
Options	Part No.	Price €			
• oscillation element LT 55 (per unit)	103 322	38,-	• divider ST 155	110 965	1.417,-
• hydraulic vise HS 150	125 028	680,-	• Power Worker chip lift-off device	123 040	99,-
			• clamping tools, assorted De Luxe 18/M16 105 305		89,-



Cutter head $\pm 90^\circ$ with automatic quill feed and 60 mm quill stroke



Universal swivel table (optional)



View: operator side with position indicator

- ribbed machine stand ensures maximum dynamic rigidity and constant precision
- vertical setup table with 5 setup slots allows individual positioning of the sturdy, large work table
- micro-tuning (18 steps) of spindle gears to maintain a constant optimum spindle speed
- fine adjustments of work feeds and rapid feed on all axes ensure maximum versatility and productivity
- the quill can be advanced manually or automatically (3 steps)
- very wide hardened guideways ensure constant accuracy
- ergonomically arranged controls and a swivelling control panel plus standard digital position indicator for maximum operator comfort
- including automatic lubrication system

Specifications WF 4.2

Working Area

travel	- X axis	mm	500
	- Y axis	mm	350
	- Z axis	mm	400

table setup area	mm	800 x 400
table load capacity (max.)	kg	300
T-slots (qty x width x spacing)	mm	8 x 14 x 45

Feed

rapid feed	- X axis	mm/min	1200
	- Y axis	mm/min	1200
	- Z axis	mm/min	1200

Feed Speed	- X axis	mm/min	10 - 500 (18)
	- Y axis	mm/min	10 - 500 (18)
	- Z axis	mm/min	10 - 500 (18)

quill feeds	mm/U	0,03 / 0,06 / 0,12
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Vertical Cutter Head

spindle speed	min ⁻¹	40 - 2000 (18)
spindle mount		ISO 40

quill stroke	mm	60
throat	mm	170 - 520
spindle nose-to-table distance	mm	5 - 405
head swivel range		$\pm 90^\circ$

Horizontal Cutter Head

spindle speed	min ⁻¹	40 - 2000 (18)
spindle mount		ISO 40
spindle axis-to-table distance	mm	35 - 435

Drive Capacities

main motor rating	kW	3
motor rating for feed	kW	1,5
coolant pump motor rating	kW	0,075

Dimensions/Weight

overall dimensions (LxWxH)	mm	1820 x 1640 x 1710
weight	kg	2300
Part No.		370 313
Price €		22.900,-

Total Price including 3-axis position indicator (assembled)

Heavy-duty Universal Tool Milling Machine, for tool and die construction, form and mold construction as well as for training use

- high machining quality and maximum reliability
- separate feed gears with fine gradation and rapid feeds in all axes
- large work table (800 x 400 mm) and travels up to 500 x 350 x 400 mm for maximum versatility
- Extensive accessory package included

starting at

22.900,- €



Standard Equipment: 3-axis position indicator, milling arbors (16, 22, 27 mm), short tool shaft (22, 27 mm), reducing sleeves (MT1, MT2, MT3, MT4), cutter head clamping assembly, collet chuck set (includes 4, 5, 6, 8, 10, 12, 14, 16 mm), drill chuck (0-6 mm diam.), Ø 1-13mm, chip tray, draw bar, anchor bolts, coolant system, outer arbor support for horizontal milling, work lamp, operating tools, operator manual

Options

	Part No.	Price €		
• universal swivel table 630 x 300 mm			• hydraulic vise HS 125	125 024
X / Y axis swivel range: ± 30°,			• divider ST 130	110 960
Z axis swivel range: 360°	170 313	1.980,-	• clamping tools, assorted De Luxe 16 / M14	105 300
• oscillation element LT 33 (per unit)	103 321	26,-	• combination snap-on punch, Ø27 / SK 40	103 905
			• milling chuck Weldon ISO 40 / Ø20 mm	106 806
				590,-
				1.098,-
				89,-
				72,-
				33,-

high speed range (rapid feed up to 6000 mm/min) and good controllability via a low-maintenance servo-motor.



Options	Part No.	Price €			
Universal Knee	250 760	2.200,-	Rotary table	250 762	660,-
Universal Reaming Head	250 761	1.890,-	Divider	250 763	1.680,-

Standard Equipment: GPlus 450 control, short tool shank (22, 27 mm), 160 mm vise, reducing sleeves MT1 / MT2 / MT3 / MT4, cutter head clamping assembly, milling chuck with collets (4, 5, 6, 8, 10, 12, 14, 16 mm), chip tray, electronic hand-wheel, draw bar, anchoring bolts, coolant system, outer arbor support for horizontal milling, work lamp, operating tools, operator manual

Specifications WF 4.2 CNC

control	GPlus 450		quill stroke	mm	80
Working area			spindle nose-to-table distance	mm	25 - 425
X axis travel	mm	500	head swivel range		± 90°
Y axis travel	mm	350	Horizontal Cutter Head		
Z axis travel	mm	400	spindle speed	rpm	4000
table dimensions	mm	400 x 800	spindle mount		ISO 40
table load capacity	kg	300	spindle axis-to-table distance	mm	90 - 490
T-slots (qty x width x spacing)	mm	14 x 7 x 50	Accuracy		
spindle nose-to-table distance	mm	25 - 425	positioning accuracy	mm	± 0.022
throat	mm	182 - 532	repeatability	mm	± 0.012
Headstock			Drive Capacities		
speed range	rpm	40 - 4000	main motor rating	kW	7.5
spindle mount		ISO40	motor rating X / Y axis	kW	1.3
Feed			motor rating Z axis	kW	1.4
rapid feed X / Y / Z axis	mm/min	6000	Dimensions/Weight		
work feed	mm/min	2 - 3000	dimensions	mm	2900 x 2150 x 2330
Vertical Cutter Head			weight	kg	2000
spindle speed	rpm	4000	Part No.		101 425
spindle mount		ISO 40	Price €		39.800,-

This proven technology is now available with CNC control!
 Versatile Use in Workshop Applications

starting at

39.800,- €



GPlus 450
www.knuth-gplus.de

- rigid, heavily ribbed construction ensures excellent damping characteristics
- all-around enclosure of work table provides optimum protection from chips and coolant liquids
- chip removal channel is positioned directly below the work table for easy removal of material waste
- easy operation - optimized for time-saving processes
- hydraulic tool clamping is standard equipment
- quill feed at the vertical cutter head allows manual drilling
- hardened, plastic-coated guideways ensure long tool life, low friction and minimal wear
- infinitely variable spindle speeds (40 - 4000 rpm) – flexible use for a wide variety of materials
- intuitive GPlus 450 control for maximum efficiency and cost-effectiveness

For more information and options, visit www.knuth.de

easy to read 3-axis position indicator
→ included in price!

18 speeds
from 40 to 2000 mm

powerful main drive
motor with 3 kW

Vertical cutter head with 80 mm quill stroke,
swivels $\pm 90^\circ$

Large removable work table with
6 T-slots ensures safe positioning
of workpieces

Top slide with max.
travel of 400 mm

1,1 kW feed motor

Rapid feed 1200 mm/min

WF 4.1 shown

**Milling Machines for Tool Construction
with Digital Position Indicator**

extensive standard equipment

- automatic feeds on all 3 axes
- outer arbor support for horizontal milling
- heavily ribbed cast-iron machine stand ensures maximum static and dynamic rigidity
- streamlined arrangement of operating controls on the right side
- vertical head quill for drilling, with hand lever feed
- quill stroke 80 mm
- central lubrication
- hardened guideways
- chip collector pan



WF 4.1 shown
incl. position indicator



- to use the WF 2.1 for horizontal milling, just rotate the vertical milling head 90°
- outer arbor for horizontal milling is included in standard equipment
- wide variety of applications

starting at

15.900,- €

Standard Equipment: position indicator, 4 milling arbors (long - 16, 22, 27, 32 mm), reducing sleeves (MT 1, 2, 3), collet chuck with collets (2, 3, 4, 5, 6, 8, 10, 12 mm), draw bar, coolant system, chip collector tray, oscillation elements (WF 3.1 and WF 4.1), outer arbor support for horizontal milling, work lamp, foundation bolts, operating instructions, operating tools

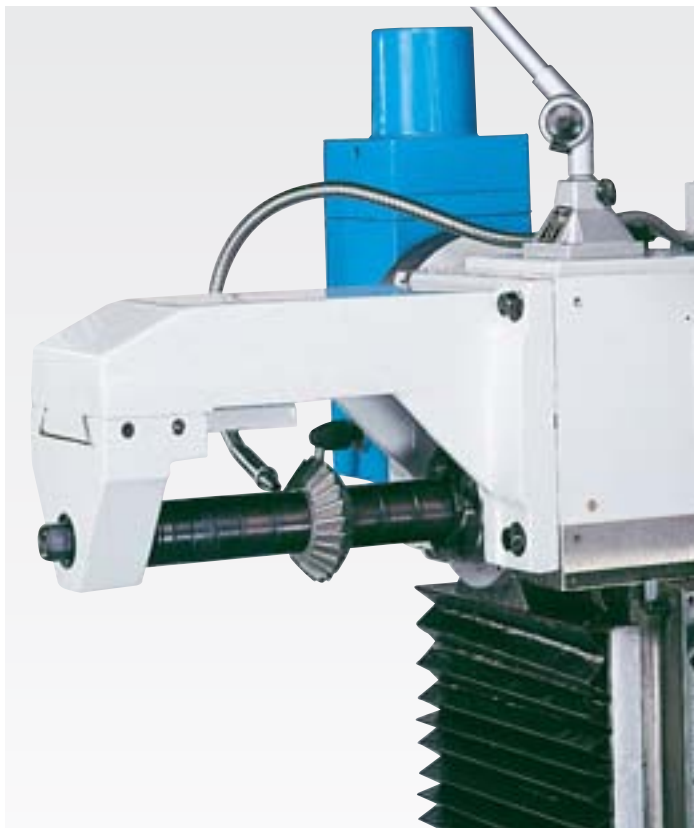
Optional Equipment:
universal swivel table
for WF4.1 WF3.1 WF2.1

setup area	mm	320 x 620
swivel around X and Y axis		± 30°
swivel around Z axis		360°
Part No.		129 347
Price €		1.590,-

WF 2.1 shown



Specifications		WF 2.1	WF 3.1	WF 4.1
work space dimensions	mm	750 x 320	750 x 320	800 x 400
vertical table dimensions	mm	830 x 225	830 x 225	1060 x 250
T-slots, work table	mm	(5) 14 x 63	(5) 14 x 63	(6) 14 x 63
T-slots, vertical table	mm	(2) 14 x 126	(3) 14 x 63	(3) 14 x 63
table load capacity	kg	300	300	300
travels				
- longitudinal (X)	mm	405	405	500
- transverse (Y)	mm	200	305	400
- vertical (Z)	mm	390	400	400
spindle axis-to-table surface distance				
- horizontal spindle	mm	35 - 425	85 - 485	50 - 450
- vertical spindle	mm	75 - 445	50 - 450	50 - 450
max. throat	mm	680	425	540
speed range	min ⁻¹	(12) 40 - 1600	(18) 40 - 2000	(18) 40 - 2000
spindle mount		ISO 40	ISO 40	ISO 40
feeds	mm/min	8 - 310	10 - 380	10 - 380
X, Y, Z axis				
rapid feed	mm/min	1200	1200	1200
quill stroke	mm	80	80	80
main motor rating	kW	2.2	2.2	3
feed motor rating	kW	0.75	0.75	1.1
dimensions (LxWxH)	mm	1390 x 1430 x 1820	1215 x 1200 x 1800	1390 x 1430 x 1820
weight	kg	1100	1300	1400
Part No. w. position indicator		302 331	302 332	302 333
Price w. position indicator €		15.900,-	17.900,-	19.900,-



Horizontal milling with outer arbor support



Universal swivel table (optional)

The WF 4.1 Milling Machine features a vertical cutter head with a $\pm 90^\circ$ swivel range. The set degrees are easily read on the integrated degree scale. The large quill features a stroke of 80 mm and is clamped mechanically via lever. For horizontal milling applications, merely remove the vertical cutter head via the swivel arm, shift the upper beam, and mount an outer arbor support.

Conversion and setup costs are very low. All 3 axis of this machine are equipped with automatic feeds and rapid feeds. The X and Y axes are engaged and disengaged via one single directional lever. For the cross feed (Y), a separate lever has been provided at the upper beam. In addition, all axes can be manually moved using the integrated scaled hand-wheels.



infinitely variable vertical cutter head with a swivel range of $\pm 90^\circ$

For more information and options, visit www.knuth.de



- This universal cutter head features a 360° swivel and is easy to control for versatile and complex machining of a wide variety of workpieces. 2 swivel levels allow setting of virtually any angle!

- robust and proven design – very rigid, heavy machine bed made of premium cast-iron to ensure maximum precision and low vibration
- increased operator comfort with large step guard along the entire work table length – easy accessibility to the universal cutter head for easy tooling and unloading of machine when working with large workpieces
- robust, specially hardened guideways ensure maximum precision and durability; an automatic central lubrication system minimizes maintenance work
- the worktable features are optimized to fulfill the needs of a wide spectrum of applications: large table setup area of 2500 x 575 mm and high table load capacity of 3000 kg
- easy and quick change-over from vertical to horizontal alignment of cutter spindle
- infinitely variable automatic linear and cross feed
- reliable hydraulic clamping on all axes
- powerful 11 kW motor for high-capacity machining

Options	Part No.	Price €			
• divider F11160A	250 233	1.990,-	• Power Worker chip lift-off device	123 040	99,-
• rotary table TS 400	250 234	1.490,-	• machine vise HS 200	125 029	990,-
• vise 200 mm	250 235	490,-	• machine vise NZM 200	104 922	380,-
• step blocks, assorted	105 340	39,-	• machine vise HNCS 200	104 936	2.490,-
• divider ST 155	110 965	1.417,-	• dial feed for HNCS 200	104 937	990,-
• option for ST 155	110 971	264,-	• milling chuck WELDON ISO 50 Ø 6 mm	106 811	51,-
• rotary table RT 320	125 845	759,-	• milling chuck WELDON ISO 50 Ø 8 mm	106 812	51,-
• tailstock for RT 320	125 825	276,-	• milling chuck WELDON ISO 50 Ø 10 mm	106 813	51,-
• rotary table RTS 320	125 815	1.829,-	• milling chuck WELDON ISO 50 Ø 12 mm	106 814	51,-
• end-face roughing cutters 10-pc	108 445	262,-	• milling chuck WELDON ISO 50 Ø 16 mm	106 815	51,-
• reducing sleeve ST50 / ST30	103 760	78,-	• milling chuck WELDON ISO 50 Ø 20 mm	106 816	51,-
• reducing sleeve ST50 / ST40	103 770	89,-	• milling chuck WELDON ISO 50 Ø 25 mm	106 817	69,-
			• milling chuck WELDON ISO 50 Ø 32 mm	106 818	75,-

Standard Equipment:

3-axis position indicator, collet chuck ISO 50 with collets (4, 6, 8, 12, 16, 18, 22, 26 mm diam.), reducing sleeve (ISO 50/MT4), coolant system, foundation bolts 11xM24x500, operating tools, operator manual

Specifications KB 2500

Working area

X axis travel	mm	1500
Y axis travel	mm	600
Z axis travel	mm	900
table dimensions	mm	2500 x 575
table load capacity (max.)	kg	3000
T-slots (qty x width x distance))	mm	3 x 22 x 152

Feed

X axis rapid feed	mm/min	3000
Y axis rapid feed	mm/min	3000
Z axis rapid feed	mm/min	1800
feed speed X axis	mm/min	20 - 2200
feed speed Y axis	mm/min	20 - 2200
feed speed Z axis	mm/min	12 - 1320

cutter head

speed range	rpm	50 - 1624
spindle mount		ISO 50
spindle nose-to-table distance	mm	50 - 950
head swivel range		360°
Drive Capacities		
main motor rating	kW	11
feed motor rating	kW	2.9
coolant pump motor rating	kW	0.09
Dimensions/Weight		
dimensions	mm	4300 x 3200 x 3300
weight	kg	12000
Part No.		301 425
Price €		59.900,-



Bed-Type Milling Machine KB 2500

with hydraulic axis clamping
and universal swivel head

The Universal Heavy-Weight
with high table load capacity and powerful main spindle drive



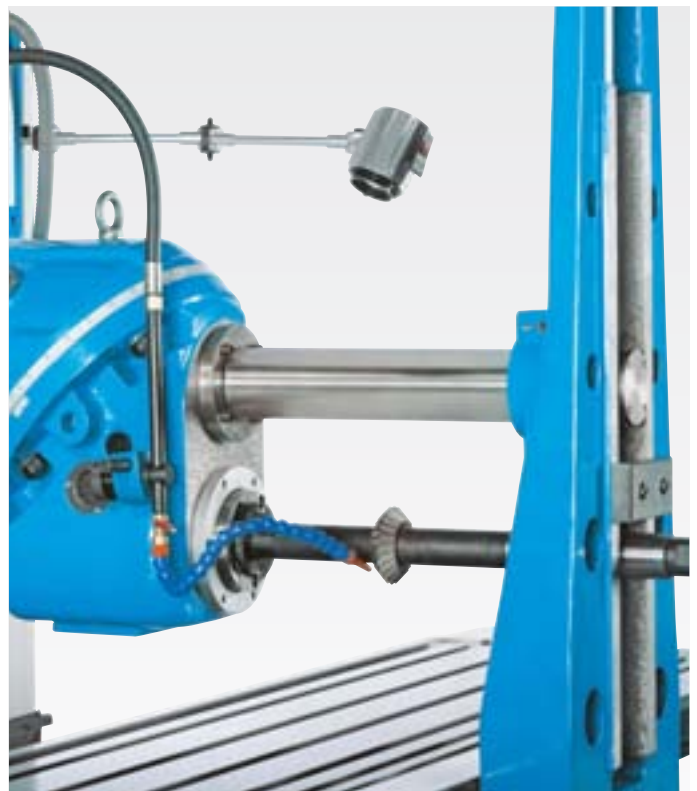
59.900,- €

incl. Position Indicator





This universal cutter head features maximum rigidity and quiet operation. The angle can be set manually on an infinitely adjustable scale from 90° to 45°. This allows an exact adjustment of the headstock in user-defined spatial angles and easy movement to a horizontal position.



The KB 2100 includes a horizontal cutter arbor holder with excellent rigidity, allowing the user to fully utilize the advantages of a bed-type milling machine design for machining with long cutter arbors.

Standard Equipment:

- universal swivel head
- coolant system
- drawbar
- 1 set ISO 50 milling chucks (8-pc. 4, 6, 8, 12, 18, 22, 26 mm)
- ISO 50 milling arbor Ø 40 mm
- horizontal arbor holder
- horizontal milling arbor Ø 32 mm
- work space lighting
- operating tools
- foundation bolts M12 x 500 mm
- operator manual

Optional Equipment Optionen

	Part-No.	Price €		Part-No.	Price €
• Milling Chuck WELDON ISO 50 / Ø 6 mm	106 811	51,-	• Coolant Concentrate 5 Ltr.	103 184	75,-
• Milling Chuck WELDON ISO 50 / Ø 8 mm	106 812	51,-	• Pivoted Mounts LK 55	103 322	38,-
• Milling Chuck WELDON ISO 50 / Ø 10 mm	106 813	51,-	• Power Worker Metal Cutter	123 040	99,-
• Milling Chuck WELDON ISO 50 / Ø 12 mm	106 814	51,-	• Reduction Sleeve SK50 / SK30	103 760	78,-
• Milling Chuck WELDON ISO 50 / Ø 16 mm	106 815	51,-	• Reduction Sleeve SK50 / SK40	103 770	89,-
• Milling Chuck WELDON ISO 50 / Ø 20 mm	106 816	51,-	• Rotary Table RT 250	125 840	564,-
• Milling Chuck WELDON ISO 50 / Ø 25 mm	106 817	69,-	• Tailstock / RT 200/250	125 820	207,-
• Milling Chuck WELDON ISO 50 / Ø 32 mm	106 818	75,-	• Step of Step Blocks	105 340	39,-
• Machine Vise HNCS 160V	104 934	1.880,-	• Universal Indexing Head 200 mm	101 288	1.490,-
• Machine Vise HS 150	125 028	680,-	• Universal Indexing Head 250 mm	101 287	1.620,-
• Machine Vise MS 160	104 960	188,-	• Universal Indexing Head 320 mm	101 286	1.890,-
• Machine Vise NZM 160	104 920	290,-	• Roughing End Mill Cutter 63 mm	108 402	113,-
• Machine Vise PAL 180	106 022	1.980,-			

Specifications KB 2100

working area

travel X-axis	mm	1500
travel Y-axis	mm	700
travel Z-axis	mm	0-700
table set up area	mm	2100 x 500
table load capacity (max.)	kg	2000
T-slots (number x spacing)		4 pieces x 20 mm

feed

rapid feed X- / Y-axis	mm/min	3500
rapid feed Z-axis	mm/min	1750
feed speed X- / Y-Achse	mm/min	20 - 1800

vertical milling head

speed range	rpm	(12) 40 - 1600
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spindle mount		ISO 50
throat	mm	610
vertical spindle-to-table distance	mm	0 - 700
milling head swivel range		360°

drive capacity

motor rating main drive	kW	7,5
motor rating feed	kW	2
motor rating coolant pump	kW	0,55

measures and weights

overall dimensions	mm	3300 x 2380 x 2750
weight	kg	7300
Part No.		301 285
Price €		47.500,-

Large machine bed, wide column, plus high intrinsic weight - Power package for machining of large parts and heavy-duty chip removal capacity

47.500,- €



incl. Position Indicator

- an extremely rigid, large-sized box-column design, made of premium cast-iron, provides a solid base for optimum work results
- extra wide box ways ensure maximum stability and precision at high loads
- all guideways are hardened and ground for lasting precision
- extra long table travel distance (1500 mm) and large table set-up area (2100 x 500 mm) allow machining of large single parts

- or interactive machining of several parts - to give you a leading edge over your competition
- wide spindle speed range from 40 to 1600 rpm
- infinitely variable linear and cross feed
- control panel on a long extending arm that can be ideally positioned by the operator

For more information and options, visit www.knuth.de

18.600,- €

incl. Position Indicator

High-Capacity Bed-Type Milling Machine for large parts and heavy machining

Only the cutter head (with the part) – not the machine table – moves on the Z axis. This results in improved stability, less vibration, and ultimately in **increased precision and extremely high table load capacity!**

- infinitely variable speed adjustment provided through frequency drive
- rigid, rectangular flat guideways ensure consistent accuracy
- Mehanite cast-iron frame
- hardened and ground guideways on all axes
- cutter head swivels $\pm 30^\circ$
- standard 3-axis position indicator



face milling with cutter head

Standard Equipment KB 1400:

position indicator, collet chuck with collets $\varnothing 4, 5, 6, 8, 10, 12, 14, 16$ mm, reducing sleeves MT4, MT3 and MT2, cutter arbor $\varnothing 40$, coolant system, work lamp, central lubrication, operating tools, operator manual

For available options for this machine, visit our website and search for KB 1400 (Product Search)



Specifications KB 1400

spindle mount vertical		ISO 50	T-slots (# x width x spacing)	mm	3 x 18 x 100
spindle nose-to-table dist.	mm	150 - 650	max. speed of height adjustment	mm/min	1670
throat	mm	510	quill travel	mm	105
speeds	min ⁻¹	30-1800 (infinitely var.)	main motor	kW	7,5
table size	mm	1400 x 400	feed motor	kW	0,75
head swivel range		$\pm 30^\circ$	Z axis motor	kW	0,75
travel	- X axis	mm 800	coolant pump	W	40
	- Y axis	mm 400	coolant pump flow rate	l/min	12
	- Z axis	mm 500	overall dimensions (LxWxH)	mm	2290 x 1770 x 2120
feed speed	- X / Y axis	mm/min 18 - 627 (9 steps)	weight	kg	3660
	- Z axis	mm/min 18 - 627	Part No. with position indicator		301 320
rapid feed		mm/min 1670	Price with position indicator €		18.600,-



Vertical Milling Machine

VFM 4

Total price including 3-axis position indicator (assembled)

F
Milling

Rugged Knee-and-Column Milling Machine - ideal for single-part production, rework, and repairs

- massive machine frame with very rigid knee slide
- X and Y axis with automatic feed and rapid feed
- Z axis with motorized rapid feed
- work table and guides are hardened and ground
- extremely rigid cutter head, swivels +/-35°
- manual quill feed for boring and micro-feed



starting at

12.900,- €

Standard Equipment:

3-axis position indicator, milling chuck ISO50 with collets (4, 5, 8, 10, 12, 14, 16 mm), reducing sleeve ISO50/MT4, draw bar, central lubrication, work lamp, operating tools, operator manual

Options

	Part No.	Price €		Part No.	Price €
• machine vise NZM 160	104 920	290,-	• milling chuck WELDON ISO 50 / Ø 6 mm	106 813	51,-
• oscillation element LT 55 (per piece)	103 322	38,-	• milling chuck WELDON ISO 50 / Ø 32 mm	106 818	75,-
• coolant concentrate 5 l	103 184	75,-	• clamping tools, assorted, De Luxe 16/M16	105 300	89,-
• Power Worker chip lift-off device	123 040	99,-	• reducing sleeve ST50 / ST40	103 770	89,-

Specifications VFM 4

Working area

X axis travel	mm	1000
Y axis travel	mm	300
Z axis travel	mm	400
table setup area	mm	1320 x 320
T-slots (qty x width x spacing)	mm	5 x 14 x 63
throat	mm	360
head swivel range		± 35°
workpiece weight (max.)	kg	300

Feed

rapid feed X / Y axis	mm/min	1200
Z axis rapid feed	mm/min	600
X / Y axis feed speed	mm/min	(8) 20 - 360

Vertical Cutter Head

speed range	rpm	58 - 1710
spindle mount		ISO 50
quill stroke	mm	70
vertical spindle-to-table distance	mm	45 - 445

Drive Capacities

main motor rating	kW	4
feed motor rating	kW	0.55
coolant pump motor rating	kW	0.09

Dimensions/Weight

overall dimensions (LxWxH)	mm	2220 x 1820 x 1880
weight	kg	2300
Part No. with position indicator		301 281
Price with position indicator		12.900,-

Superior price/performance ratio, for single part production and training purposes



13.900,- €

Standard Equipment:

3-axis position indicator, outer arbor support for horizontal milling, milling chuck set ISO 50 (4, 5, 6, 8, 10, 12, 14, 16 mm), shell-end mill arbor ISO 50/32 mm, adapter sleeve ST 50/MT4, vertical and horizontal drawbar, coolant system, central lubrication, halogen work lamp, operating tools, test certificate, operator manual

For available options for this machine, visit our website and search for UWF 4 (Product Search)

- including 3-axis position indicator
- vertical and horizontal spindles feature their own powerful drives
- all gears and shafts are hardened and ground
- large, wide, supported table rotates $\pm 35^\circ$
- wide rigid, hardened rectangular guideways ensure maximum stability
- the vertical cutter head swivels on 2 levels allowing virtually any angle setting
- automatic feeds and rapid feeds on all axes

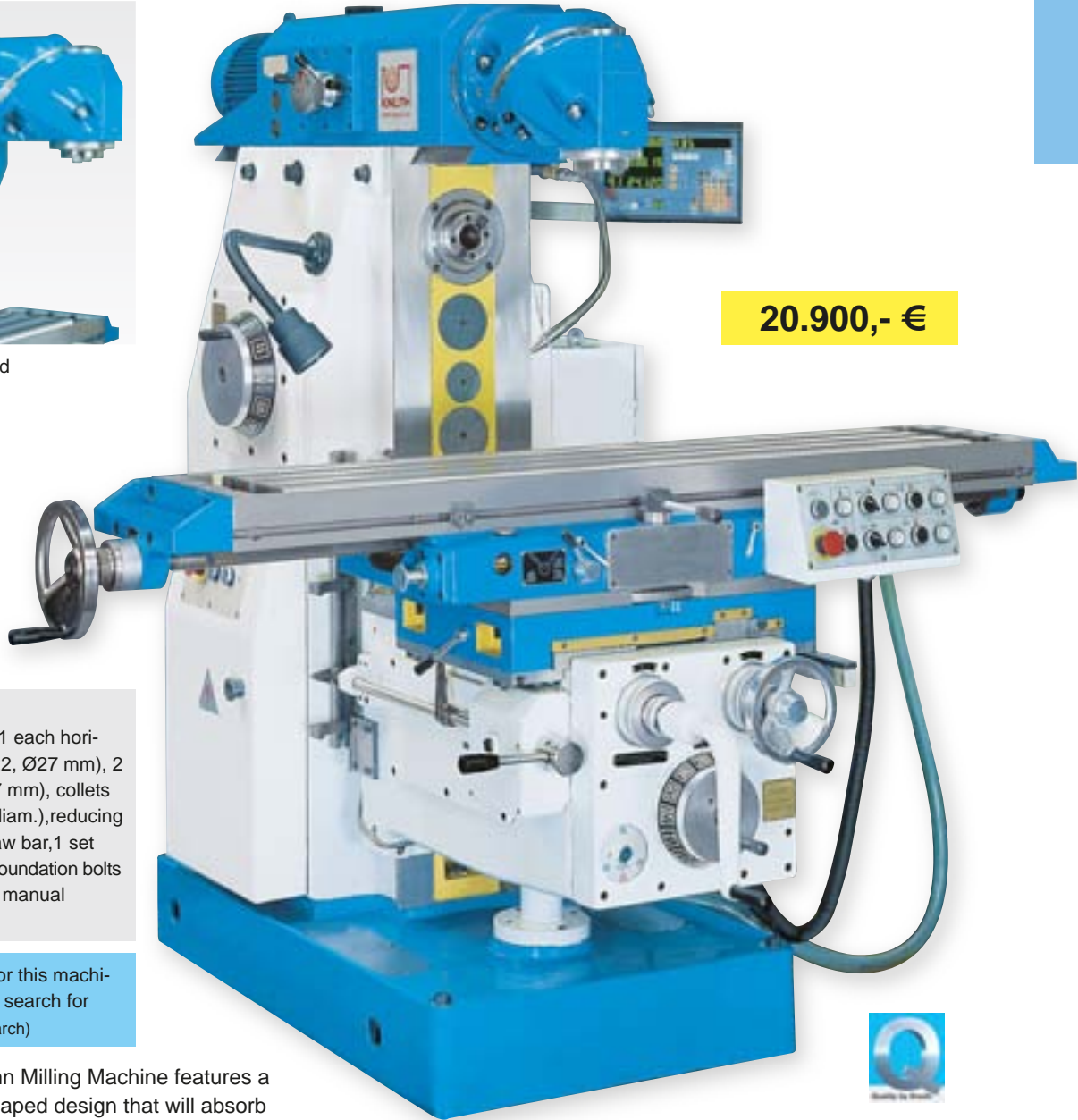
Specifications UWF 4					
Working area			throat	mm	230 - 730
X axis travel	mm	1000	spindle nose-to-table distance	mm	170 - 570
Y axis travel	mm	280 / 290	head swivel range		360°
Z axis travel	mm	400	Horizontal Cutter Head		
table dimensions	mm	1320 x 360	spindle speed	rpm	(12) 58 - 1800
table load capacity (max.)	kg	250	spindle mount		ISO 50
T-slots (qty x width x spacing)	mm	3 x 14 x 95	spindle axis-to-table distance	mm	0 - 400
Feed			Drive Capacities		
rapid feed X / Y / Z axis	mm/min	1290 / 1205 / 513	motor rating horizontal / vertical spindle	kW	4
feed speed, X axis	mm/min	22 - 420	feed motor rating	kW	1.1
feed speed, Y axis	mm/min	22 - 393	coolant pump motor rating	kW	0.09
feed speed, Z axis	mm/min	10 - 168	Dimensions/Weight		
Vertical Cutter Head			overall dimensions (LxWxH)	mm	1980x2020x1900
spindle speed	rpm	(12) 60 - 1750	weight	kg	2200
spindle mount		ISO 50	Part No.		362 700
			Price €		13.900,-

extensive standard equipment

Versatile and powerful



Horizontal milling with rigid outer arbor support



20.900,- €

Standard Equipment:

3-axis position indicator, 1 each horizontal milling arbors (Ø22, Ø27 mm), 2 milling arbors (Ø22, Ø27 mm), collets (5, 6, 8, 10, 12, 14 mm diam.), reducing sleeves (MT2, MT3), draw bar, 1 set wrenches, collet puller, foundation bolts M20 x 500 mm, operator manual

For available options for this machine, visit our website and search for UFM 3 Plus (Product Search)

- The Knee-and-Column Milling Machine features a heavily ribbed box-shaped design that will absorb any static and dynamic forces and provides superior rigidity
- all controls and indicators are practically arranged
- automatic feeds and rapid feeds on all 3 axes
- universal cutter head swivels at two levels for vertical/

- horizontal/angular milling
- work table rotates 45°
- simultaneous machining of one part with the horizontal and vertical spindle is possible

Specifications UFM 3 Plus				T-slot spacing		mm	70
table dimensions	mm	1500 x 300	table rotation				± 45°
table load capacity (max.)	kg	250	horizontal spindle-to-table distance	mm	20 - 420		
travel	- longitudinal	mm	780	spindle mount	ISO 40		
	- transverse	mm	235	spindle speed	- horizontal	min ⁻¹	(12) 35 - 1600
	- vertical	mm	400		- vertical	min ⁻¹	(8) 67 - 1600
feed	- top slide	mm	470	drive motor rating	- horizontal spindle	kW	4
	- longit., transv.	mm/min	17 - 720		- vertical spindle	kW	2.2
rapid feed	- vertical	mm/min	4 - 240	feed motor	kW		0.75
	- longit., transv.	mm/min	2100	dimensions (LxWxH)	mm	1695 x 1535 x 1728	
number of feeds	- vertical	mm/min	700	weight	kg	2850	
			14	Part no. incl. position indicator	362 692		
T-slots	mm	(3) 18	Price incl. position indicator €	20.900,-			

Total Price including 3-axis position indicator (assembled)



Universal Milling Machine

UWF 3

Sturdy Universal Milling Machine with swivelling cutter head for universal machining applications



13.200,- €

- sturdy, zero-backlash rectangular guideways
- universal cutter head with 2 levels can be adjusted to virtually any spheric angle (HURON System)
 - rapid feeds on all axes allow quick positioning
- control panel swivels for comfortable operation
- separate drives with gearbox for powerful material removal
- large machine table with one 1000 mm X travel

Standard Equipment:

3-axis position indicator, central lubrication, coolant system, work lamp, collet chuck, collets (4, 5, 6, 8, 10, 12, 14, 16 mm), horizontal milling arbor Ø 27 mm and Ø 40 mm, short milling arbor 32mm, operating tools, operator manual

For available **options** for this machine, visit our website and search for UWF 3 (Product Search)

Specifications UWF 3

Working Area

travel	- X axis	mm	1000
	- Y axis	mm	290
	- Z axis	mm	450

table setup area	mm	1320 x 320
table load capacity (max.)	kg	260
T-slots (qty x width x spacing)	mm	5 x 14 x 63

Feed

rapid feed	- X / Y axis	mm/min	1200
	- Z axis	mm/min	400
Feed Speed	- X axis	mm/min	20 - 360 (8)
	- Y axis	mm/min	30 - 360 (8)

Vertical Cutter Head

spindle speed	min ⁻¹	45 - 1660 (11)
spindle mount		ISO 40
throat	mm	200 - 760
spindle nose-to-table distance	mm	200 - 650

head swivel range	360°
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Horizontal Cutter Head

spindle speed	min ⁻¹	40 - 1300 (12)
spindle mount		ISO40
horizontal spindle-to-table distance	mm	20 - 470
spindle axis-to-table distance	mm	200 - 650

Drive Capacities

motor rating for horizontal spindle	kW	3
motor rating for vertical spindle	kW	3
motor rating for feed	kW	0,55
motor rating for Z axis feed	kW	0,75
coolant pump motor rating	kW	0,09

Dimensions/Weight

dimensions	mm	2020 x 1710 x 1994
weight	kg	2000
Part No.		370 297
Price €		13.200,-

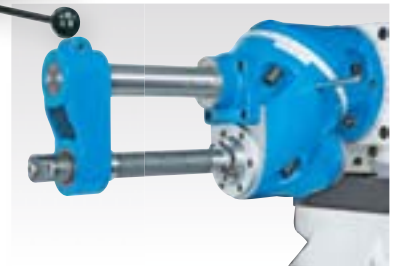
with Universal Swivel Head

Solid engineering, rigid construction, and exacting performance

- extra large work table with $\pm 45^\circ$ swivel range
- excellent priceperformance ratio
- universal cutter head adjusts to any spatial angle

8.720,- €

incl. position indicator



horizontal cutter (standard equipment)



cutter head swivels $\pm 360^\circ$

For available options for this machine, visit our website and search for UWF 1 (Product Search)

Standard Equipment: position indicator, outer arbor support for horizontal milling, cutter chuck with 4, 5, 6, 8, 10, 12, 14, 16 mm collets, machine long cutter arbor $\varnothing 32$ mm, coolant system, halogen work lamp, operator manual

Specifications UWF 1

Work Area

X axis travel	mm	600
Y axis travel	mm	270
Z axis travel	mm	400
table setup area	mm	1120 x 260
table load capacity	kg	250
T-slots (number/width/distance)	mm	5 - 14 - 50

Feeds

feed speed, X axis	mm/min	(8) 24 - 720
rapid feed, X axis	mm/min	720

Vertical Cutter Head

spindle speeds	rpm	45 - 1660
spindle mount		ISO 40

throat	mm	60 - 500
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vertical spindle-to-table surface distance	mm	0 - 440
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head swivel range		360°
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Horizontal Cutter Head

spindle speeds	rpm	45 - 1600
spindle mount		ISO 40

Drives

main motor rating	kW	2,2
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Dimensions and Weights

dimensions (LxWxH)	mm	1660x1500x1730
weight	kg	1300

Part No. incl. position indicator		362 691
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Price incl. position indicator €		8.720,-
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all the benefits of the MF 1 V plus:

- more rigid and more powerful with 3.75 kW motor
- ISO 40 spindle
- 3 automatic drill feeds
- manual coarse feed for quill, toggles to micro-feed
- quill with micrometer depth stop
- reverse switch for forward and reverse operation
- spindle brakes
- wide square guides in y and z axis
- infinitely variable speeds
- head swivels $\pm 90^\circ$ to the right and to the left
- TV 1000 table feed in x and y, infinitely variable with rapid feed
- coolant system
- chip tray
- central lubrication
- optional preloaded ball screw for X and Y axis

infinitely variable spindle speeds up to 3600 rpm



starting at

8.990,- €

incl. position indicator



table feed for X axis (standard equipment)

Options	Part No.	Price €
• oscillation element LT 55 (per unit)	103 322	38,-
• hydraulic vise HS 125	125 024	590,-
• divider ST 130	110 960	1.098,-
• milling chuck ISO40	106 044	160,-
• clamping tools, assorted De Luxe 16 / M14	105 300	89,-

Standard Equipment: 3-axis position indicator, chip tray, coolant system, manually operated central lubrication, horizontal guideway cover, operating tools, operator manual

Specifications MF 5 V					
table size	mm	1370 x 250	weight	kg	1590
travel X, Y, Z axis	mm	800 x 390 x 380			2540 x 2156
quill	mm	127	dimensions (LxWxH)	mm	x 2235
spindle taper		ISO 40	Part No. with position indicator		301 223
quill feeds (3 steps)	mm/r	0.04 / 0.08 / 0.15	Price with position indicator €		8.990,-
speed range			Part No. with position indicator plus preloaded ball screw		301 224
infinitely variable	min ⁻¹	70 - 3600	Price with position indicator plus preloaded ball screw €		9.990,-
spindle motor	V / kW	400 / 3,75			
max. table load cap.	kg	350			



most widely used milling machine type world-wide!

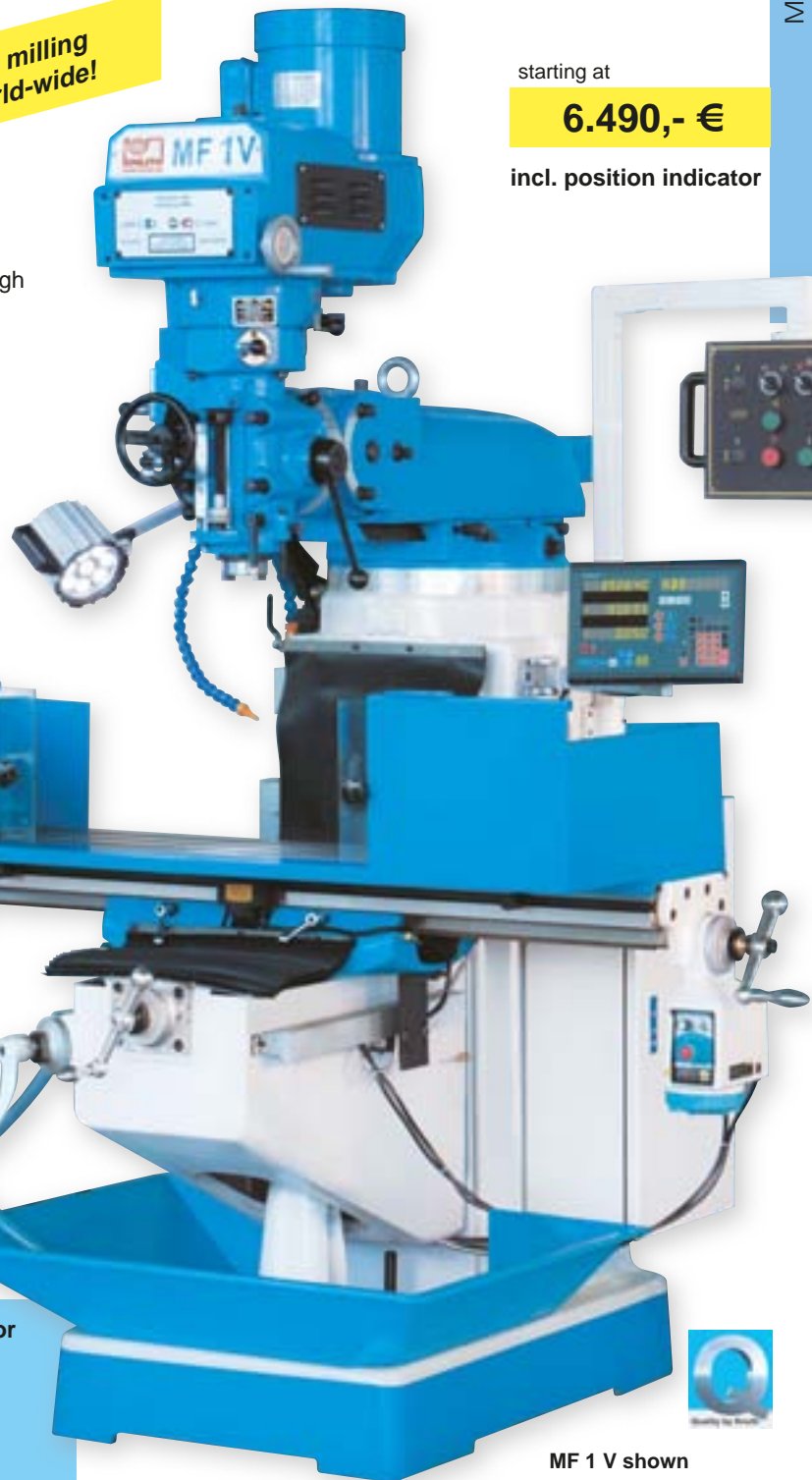
MF 1

- speed change through v-belt change-over

starting at

6.490,- €

incl. position indicator



Multi-Purpose Milling Machine for workshops, single part production, design, training

- universal use
- head swivels through 3 axes
swivel $r + l \pm 90^\circ$
tilt forward + reverse $\pm 45^\circ$
rotation on the column $\pm 45^\circ$
- 3 automat. drill feeds
- manual coarse feed for quill, with change-over for manual fine feed
- quill with autom. micrometer depth stop
- spindle mount ISO 30
- reversing switch for forward reverse rotation
- central lubrication for spindle, nut and guides
- man. spindle brakes
- test certificate

MF 1 V with preloaded ball screw + position indicator

- infinitely variable handwheel adjustment
 - extremely large table with traverses
 - coolant system
 - with table advance TV 1000 in X direction
 - dove-tail guides, adjustable
- available with recirculating ball screws in X and Y for maximum precision and minimum force

Part no. 301 206

Price € **8.800,-**

MF 1 V shown

Standard Equipment: 3-axis position indicator, coolant system, manually operated central lubrication, vertical guideway cover, operating tools, operator manual

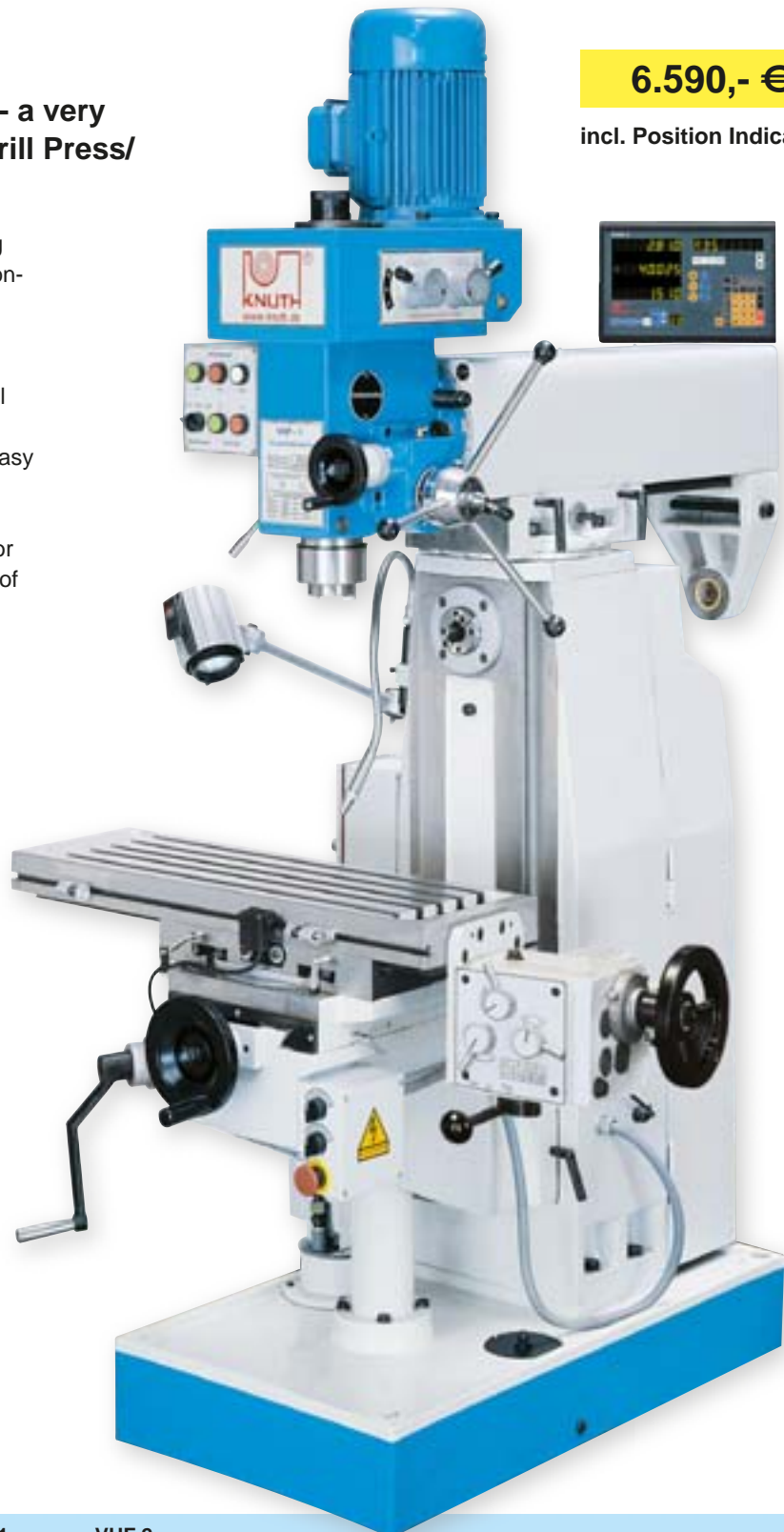
Specifications	MF 1	MF 1 V	T-slot / T-slot spacing	mm	3x16 / 63,5	3x16 / 63,5	
table dimensions	mm	1060 x 230	1245 x 230	speeds	min ⁻¹	(16) 80 - 4500	70 - 3600, stepless
traverses X-axis / Y-axis	mm	670 / 290	760 / 290	throat	mm	171 - 476	171 - 476
console travel (Z-axis)	mm	370	370	main motor rating	kW	2,2	2,25
quill travel (Z-axis)	mm	127	127	dimensions (L x W x H)	mm	2000 x 1600 x 2088	2045 x 1630 x 2070
spindle mount		ISO 30	SK / ISO 3	weight	kg	1100	950
quill advances	mm/U	(3) 0,04; 0,08; 0,15	(3) 0,04; 0,08; 0,13	Part no. incl. position indicator		301 228	301 214
table length advance (TV 1000)	mm/min	-	19 - 890	Price incl. position indicator €		6.490,-	7.800,-

Flexible Entry-Level Machine - a very compact horizontal/vertical Drill Press/ Milling Machine Combination

- compact, easy to handle universal milling machine with rigid frame made of vibration-dampening cast-iron
- vertical cutter head with robust gears for smooth shifting
- quill moves via capstan handle or manual precision feed
- horizontal spindle speed adjustable via easy accessible belt drive
- table swivels horizontally
- table feed in X direction with gear drive for positive power transmission without loss of torque
- adjustable stops on all axes
- wide, adjustable dovetail guides with clamping fixtures on all axes

6.590,- €

incl. Position Indicator



Vertical head with horizontal swivel to both sides, top beam with horizontal swivel

Specifications		VHF 1	VHF 2				
max. drilling capacity in steel	mm	30	30	table setup area	mm	1000 x 240	1120 x 280
max. cutting diameter in steel	mm	25	25	X travel	mm	585	600
tapping up to		M 16	M16	Y travel	mm	200	270
counter-boring up to	mm	100	100	Z travel	mm	335	300
spindle taper		ISO 40	ISO 40	quill stroke	mm	120	120
spindle speeds (vertical)		8	8	motor (vertical)	kW	1.5	1.5
speed range	min. ⁻¹	115 - 1750	115 - 1750	motor (horizontal)	kW	2.2	2.2
spindle speeds (horizontal)		9	12	overall dimensions (LxWxH)	mm	1290 x 1220	1710 x 1480
speed range	min. ⁻¹	60 - 1350	40 - 1300			x 2100	x 2100
throat (spindle center to frame)	mm	200 - 700	160 - 610	weight	kg	850	1400
spindle nose-to-table dist.	mm	65 - 385	90 - 400	Part No. with position indicator		362 640	362 650
spindle nose-to-table distance	mm	0 - 300	0 - 300	Price with position indicator €		6.590,-	7.350,-

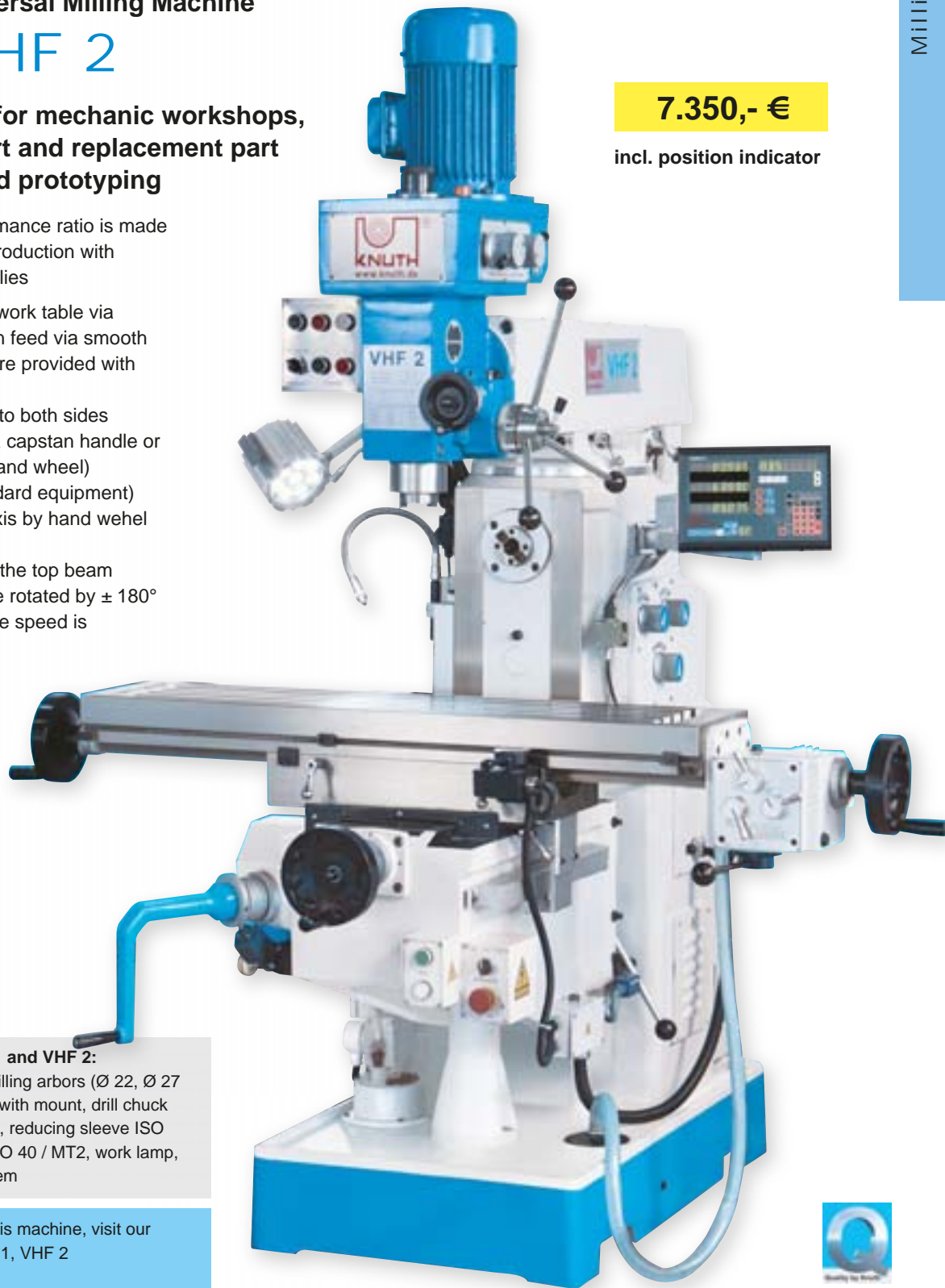
VHF - ideal series for mechanic workshops, training, single part and replacement part manufacturing, and prototyping

This excellent price/performance ratio is made possible by high-volume production with standardized VHF assemblies

- height adjustment of the work table via automatic feed - precision feed via smooth hand crank – all 3 axes are provided with clamping fixtures
- the vertical head swivels to both sides ($\pm 90^\circ$), the quill is fed via capstan handle or manual precision feed (hand wheel)
- the integrated feed (standard equipment) allows moving of the X axis by hand wheel or via feed
- for horizontal machining, the top beam including the head can be rotated by $\pm 180^\circ$ on the column, the spindle speed is changed via gears

7.350,- €

incl. position indicator



Standard Equipment VHF 1 and VHF 2:

3-axis position indicator, 2 milling arbors ($\varnothing 22$, $\varnothing 27$ mm), collet set - 4 to 16 mm with mount, drill chuck 16 mm, milling chuck ISO 40, reducing sleeve ISO 40 / MT3, reducing sleeve ISO 40 / MT2, work lamp, operating tools, coolant system

For available options for this machine, visit our website and search for VHF 1, VHF 2 (Product Search)



wide, adjustable guides



feed gears with rapid feed



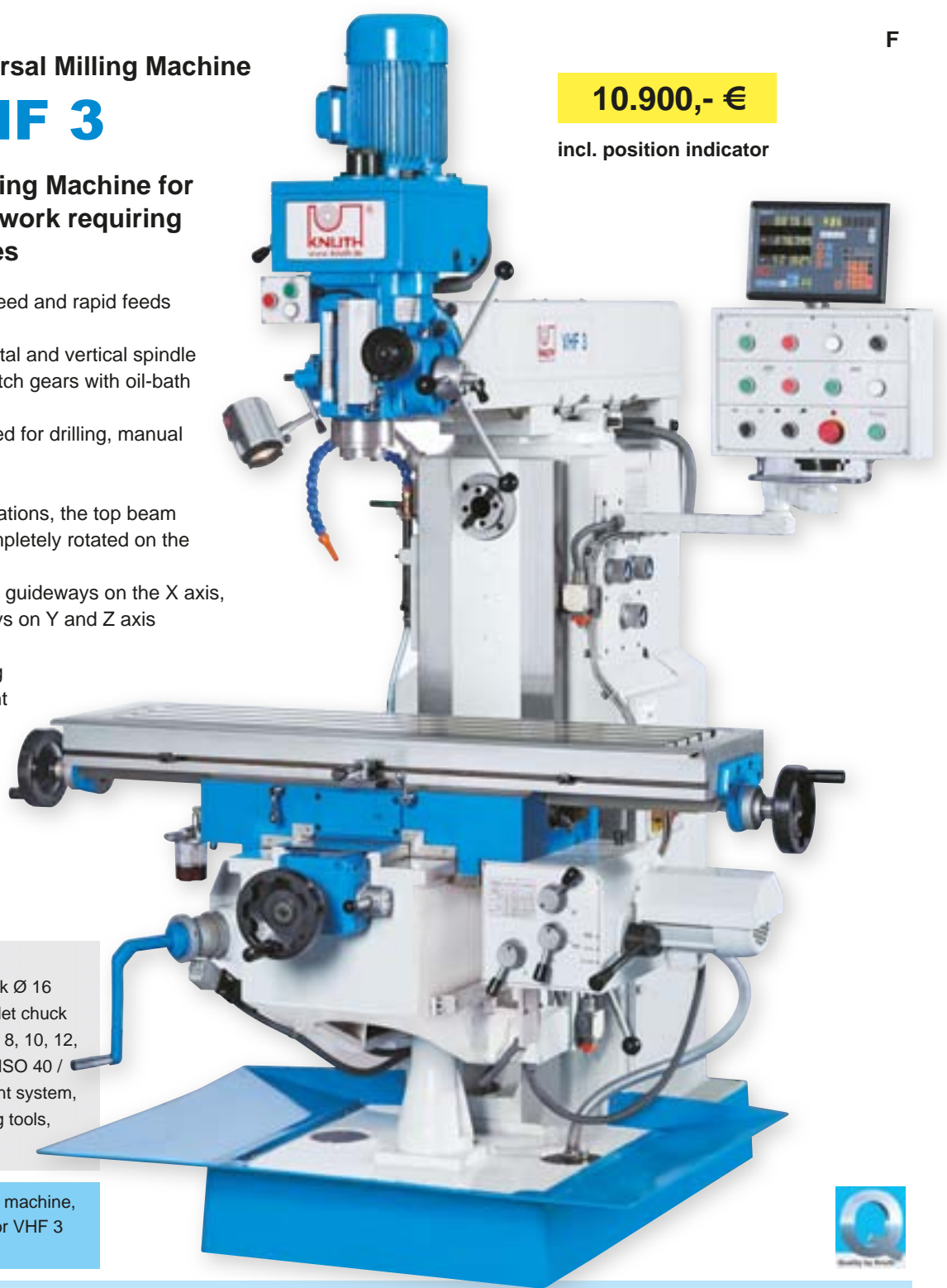
upper beam swivels

10.900,- €

incl. position indicator

Solid Universal Milling Machine for drilling and milling work requiring long travel distances

- all 3 axes with automatic feed and rapid feeds
- vertical head swivels $\pm 45^\circ$
- spindle speeds for horizontal and vertical spindle controlled by separate switch gears with oil-bath lubrication
- capstan-controlled quill feed for drilling, manual micro-feed for milling
- 3 automatic quill feeds
- for horizontal spindle operations, the top beam including head can be completely rotated on the stand
- adjustable ground dovetail guideways on the X axis, and wide square guideways on Y and Z axis
- clamping on all 3 axes
- adjustable stops for drilling depth and table adjustment



Standard Equipment:

position indicator, drilling chuck \varnothing 16 mm, milling chuck ISO 40, collet chuck ISO 40 incl. collets (\varnothing 4, 5, 6, 8, 10, 12, 14, 16 mm), reducing sleeve ISO 40 / MT3 and ISO 40 / MT2, coolant system, chip tray, work lamp, operating tools, operator manual

For available options for this machine, visit our website and search for VHF 3 (Product Search)

Specifications VHF 3

work table

table set-up area	mm	1320 x 320
T-slots (quantity / width / distance)	mm	5 / 14 / 50
table load capacity	kg	300

feeds

travel	- X axis	mm	750
	- Y axis	mm	280
	- Z axis	mm	430
feed speeds X axis (from - to / number)	mm/min	20 - 360 / 8	
feed speeds Y axis	mm/min	20 - 360 / 8	
rapid feed	- X axis	mm/min	1024
	- Y axis	mm/min	1024
	- Z axis	mm/min	670

vertical cutter head

spindle mount		ISO 40
spindle speeds (from - to / number)	min ⁻¹	90 - 2000 / 8
quill stroke	mm	120

quill feeds (3)	mm/rev	0.08; 0.15; 0.25
throat	mm	200 - 540
vertical spindle-to-table distance	mm	140 - 540
head swivel range		$\pm 45^\circ$

horizontal cutter head

spindle mount		ISO 40
spindle speeds (from - to / number)	min ⁻¹	38 - 1310 / 12
spindle axis (horizontal)		
to table distance	mm	50 - 450

drive rating

drive motors (vertical / horizontal)	kW	2,2 / 2,2
feed motor	kW	0.55
coolant pump	kW	0.09

physical measurements

dimensions (LxWxH)	mm	1710x1720x2330
machine weight	kg	1800
Part No. incl. position indicator		301 410
Price incl. position indicator €		10.900,-

for drilling, milling, tapping, reaming, and universal use in mechanical engineering, training and construction

- machine head runs in sturdy dovetail guide
- motorized machine head positioning
- automatic quill feed (3 steps)
- manual quill feed for drilling and fine feed for milling
- multi-step gear for maximum drilling and milling capacity
- large compound sliding table on rigid guideways
- automatic table feed, X and Y axis

Total Price
including 3-axis position indicator (assembled)

11.400,- €



Standard Equipment: 3-axis position indicator, solid cast-iron base, coolant system, central lubrication, vertical guideway cover, operating tools, work lamp, operating instructions, collet chuck set, drill chuck, tool mounts

Options	Part No.	Price €
• accessory set, ISO 40, 5 pieces	104 596	253,-
• hydraulic vise HS 125	125 024	590,-
• divider ST 130	110 960	1.098,-
• milling chuck ISO40	106 044	160,-
• clamping tools, assorted deluxe 16 / M14	105 300	89,-

Additional Options for this machine are listed on our website under KBF 50 (product search)

Specifications KBF 50					
max. drilling capacity	mm	Ø 50 ST 37	T-slots (3)	mm	14 x 95
spindle taper		ISO 40	travels	mm	X = 600, Y = 360
quill stroke	mm	180	table power feed (8)	mm/min.	24 - 720
travel spindle nose to table	mm	120 - 620	spindle drive motor	V / kW	400 / 1,5/2,4
spindle speed	min ⁻¹	(16) 94 - 2256	dimensions (L x W x H)	mm	1730 x 1730 x 2300
feeds (3)	mm/r	0.1, 0.15, 0.3	weight	kg	1400
table working surface	mm	1220 x 360	Part No. incl. position indicator		362 410
			Price incl. position indicator €		11.400,-

Super Compact Universal Milling Machine with automatic feed

- horizontal milling feature is included in standard equipment - easy change-over from vertical to horizontal machining
- vertical cutter head swivels 45° to both sides
- rigid cast-iron frame with dovetail guides on all axes ensure maximum rigidity and accuracy
- automatic table feed for X axis
- infinitely variable spindle speeds up to 2000 rpm



± cutter head swivels 45°

Standard Equipment: drill chuck (Ø 13 mm), outer arbor support for horizontal milling, milling arbor for horizontal milling, automatic table feed on X axis, machine base, operating tools, operator manual

Options for this machine are listed on our website under Unimill (product search)

Specifications Unimill

Working area

X axis travel	mm	300
Y axis travel	mm	92
Z axis travel	mm	105
table dimensions	mm	460 x 120
drilling capacity	mm	13
T-slots (qty x width x spacing)	mm	3 x 12 x 34.5
cutter head		
speed range	rpm	200 - 2000
spindle mount		MT 3

head swivel range	°	45°R 45°L
spindle nose-to-table distance	mm	165
Drive Capacities		
main motor rating	kW	0.5
power supply	V	220 - 230
Dimensions/Weight		
dimensions without base frame	mm	600 x 740 x 600
weight	kg	114
Part No.		101 292
Price €		1.980,-

Rigid Drill Press/Milling Machine Combo for workshops and model construction features infinitely variable drive and feed

- compact, rigid machine frame made of premium cast-iron
- adjustable dovetail guides on all axes
- cutter head swivels 45° to the left and 90° to the right all the way to the horizontal spindle position
- strong clamps for quill and guides ensure maximum rigidity during work processes
- automatic table feed for X axis (standard equipment)
- powerful spindle motor with infinitely variable speed and digital speed indicator
- integrated tapping feature
- easy change of rotation via forward/reverse switch on the control panel
- quill feed via hand-lever (cross-lever), change-over to precision feed via hand-wheel
- digital depth indicator for quill travel with 0.01 mm scale divisions
- base frame included in standard equipment



2.490,- €



swivels 90° to the right and 45 to the left

Standard Equipment: drill chuck (Ø 16 mm), automatic table feed on X axis, indicator for depth and rpm, machine base, operating tools, operator manual

Options for this machine are listed on our website under Optimill 25 (product search)

Specifications Optimill 25

Working area		
X axis travel	mm	490
Y axis travel	mm	145
Z axis travel	mm	300
table dimensions	mm	700 x 160
drilling capacity	mm	25
T-slots (qty x width x spacing)	mm	3 x 12 x 43
cutter head		
speed range	rpm	100 - 1750
spindle mount		MT 3

quill stroke	mm	70
head swivel range	°	90°R 45°L
spindle nose-to-table distance	mm	380
Drive Capacities		
main motor rating	kW	1
power supply	V	220 - 230
Dimensions/Weight		
dimensions without base frame	mm	760 x 720 x 930
weight	kg	200
Part No.		101 290
Price €		2.490,-



digital indicator for swivel angle



control panel with tapping feature and potentiometer

- extremely solid cast-iron machine frame with wide dovetail guides
- cutter head swivels 45° to both sides, including digital indicator, which is more accurate and user-friendly than conventional scales
- precision-ground guideways are adjustable via taper gibs on all axes
- the brushless spindle motor is infinitely variable and delivers high torque in the low and medium speed range

- digital speed (rpm) indicator on the control panel
- motorized height (Z) adjustment of the cutter head ensures maximum operator comfort and simplifies work
- quill feed via hand-lever (cross-lever), change-over to precision feed via hand-wheel
- quill stroke with digital indicator that shows up to 0.01 mm
- automatic feed on X axis is included in the standard equipment, ensuring uniform traverse and rapid positioning
- automatic thread cutter

Standard Equipment: drill chuck (Ø 16 mm), automatic table feed on X axis, indicator for swivel angle, depth and rpm, work lamp, machine base, operating tools, operator manual

Options for this machine are listed on our website under Optimill 30 (product search)

Specifications Optimill 30

Working area

X axis travel	mm	410
Y axis travel	mm	245
Z axis travel	mm	335
table dimensions	mm	820 x 240
drilling capacity	mm	30
T-slots (qty x width x spacing)	mm	4 x 14 x 55
cutter head		
speed range	rpm	100 - 1600
spindle mount		MT 4

quill stroke	mm	85
head swivel range	°	45°R 45°L
spindle nose-to-table distance	mm	400
Drive Capacities		
main motor rating	kW	1.5
power supply	V	220 - 230
Dimensions/Weight		
dimensions	mm	1100 x 840 x 1100
weight	kg	340
Part No.		101 291
Price €		4.680,-



Mini Drill Press/Milling Machine Combo

Optimill 30

The large model of the Optimill series features superior performance, operator comfort and innovative details

- large spindle mount MT 4
- automatic X axis feed
- digital angle indicator
- infinitely variable speed control



4.680,- €

Examples of Applications:



inside diameter boring and facing



milling with milling arbor



slot cutting with divider



angle boring



tapping

Standard Equipment:

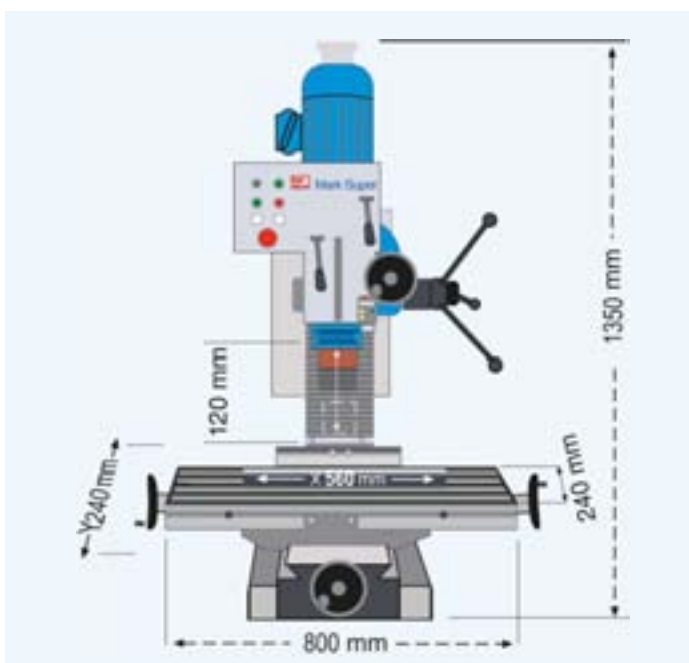
- 3-axis position indicator
- base
- drill chuck 13 mm
- tool holder bits
- operating tools

Option

- the infinitely variable table feed TV 1000 M (page 220) includes adjustable limit stops, which activate the shut-off upon contact. The point of origin can be approached via the rapid traverse.

Part No. 121 477 Price € 690,- **H**

For available options for this machine, visit our website and search for Mark Super (Product Search)



Specifications MARK SUPER **F**

Operating Range

head elevation	mm	320
spindle column	mm	260
work table	mm	800 x 240
x-way	mm	560
y-way	mm	200
speeds	min ⁻¹	(12) 75 - 3200
spindle nose-to-table distance (max.)	mm	530

Head + Column

spindle mount		MT 4
quill elevation	mm	120
quill diameter	mm	75
head swivel		± 45°
column-Ø / width	mm	190
drilling capacity	mm	32
end milling	mm	28
motor	kW/V	1,1 / 400
dimension (LxWxH)	mm	990 x 900 x 2100
weight	kg	380
Part No. with position indicator		301 495
Price with position indicator €		2.980,-

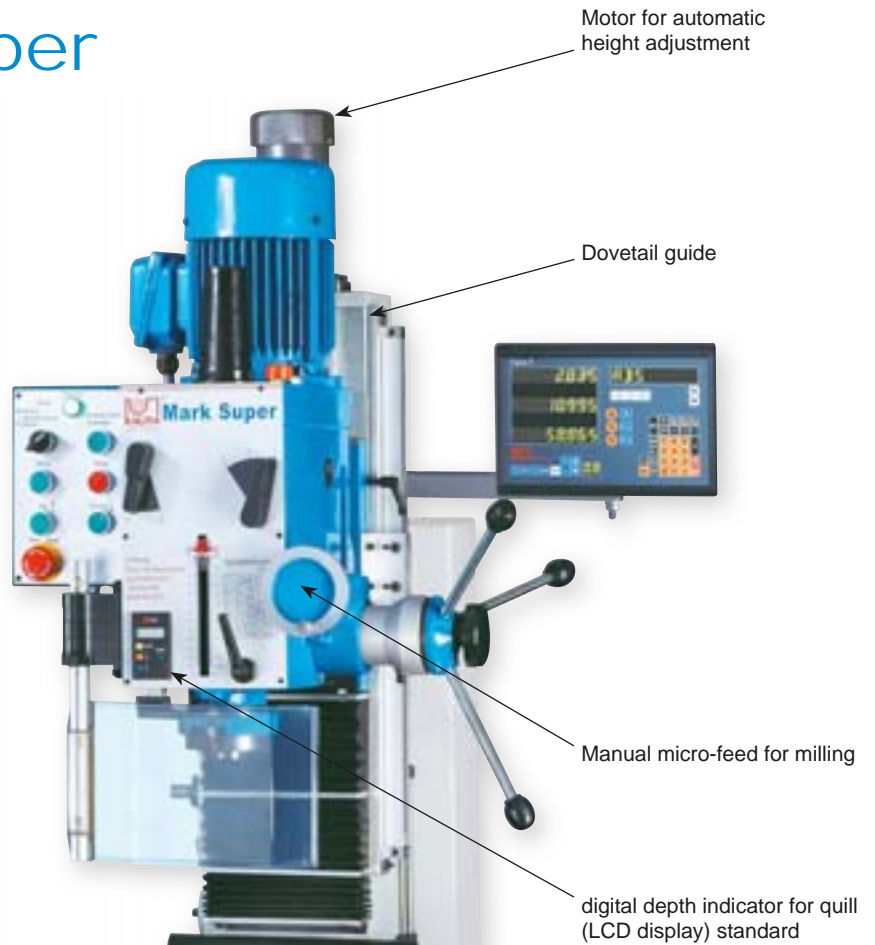
Cutter head with variable angle, plus large travel ranges ensure maximum versatility



Head swivels $\pm 45^\circ$

2.980,- €

incl. Position Indicator



Base including storage shelf

The machine head height is adjusted by dovetail guide and an levating motor with spindle to provide precise travel. This results in a significantly improved stability during milling operations compared to column-guided systems.

The integrated tapping feature automatically changes directions upon reaching the preset depth.

- rigid, and safety-oriented structure of all operation groups, manufactured with maximum precision
- the enclosed design of all operation and drive train elements prevents contamination, and ensures troublefree operation.



Rigid Radial Drill Press with an unbeatable price/performance ratio

- for drilling, reaming and tapping
- machine frame made of high-quality fine-grain cast-iron with heavy ribbing to ensure maximum reduction of vibrations
- precision-ground gears for quiet operation

5.900,- €



- practical layout of electrical and mechanical controls at the headstock for easy operation
- motorized arm height adjustment
- the spindle is made of high-quality hardened steel for consistent accuracy
- mechanical clamping for head, column, and arm

Standard Equipment:

coolant system, cube table, halogen work lamp

For available options for this machine, please visit our website and search for R 32 Basic (Product Search)

Specifications R 32 Basic

drilling capacity (steel / cast-iron)	mm	32
column diameter	mm	200
throat (spindel-to-column surface) max.	mm	820
throat (spindel-to-column surface) min.	mm	320
spindle nose-to-table dist. max.	mm	860
spindle nose-to-table dist. min.	mm	320
cube table dimensions (LxWxH)	mm	400 x 400 x 350
machine table dimensions (LxWxH)	mm	1370 x 700 x 160

spindle mount		MT 4
quill stroke	mm	240
speeds (quantity/range)	rpm	(6) 75-1220
feeds (quantity/range)	mm/rev	(3) 0,1-0,25
motor rating	kW	1.5
weight (approximate)	kg	1425
overall dimensions (LxWxH)	mm	1407 x 720 x 1885
Part No.		101 522
Price €		5.900,-



Horizontal Drill / Milling Unit

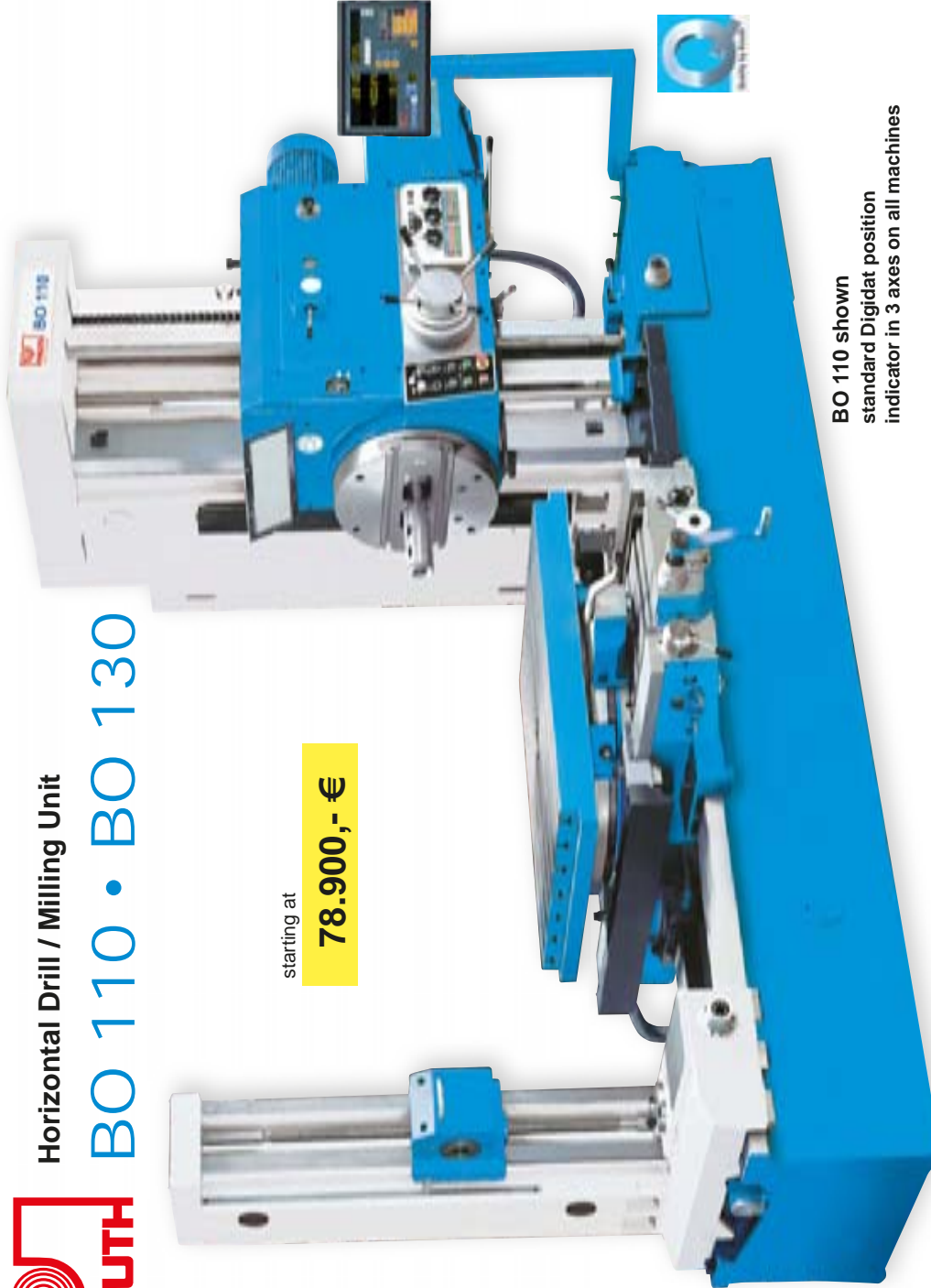
BO 110 • BO 130

Table load capacity up to 10 tons and a Working Area up to 2,000 x 2,000 mm speak for themselves!

- rigid, hardened and precision ground square guides ensure many years of accurate operation
- mechanical functions that may not be run simultaneously are provided with interlocks
- headstock and feed gears are equipped with an overload clutch
- lever-operated shift gears for positioning of the wheels in the desired position
- the manual control panel is set up user-friendly and clearly, the panel includes controls for spindle rotation, tool clamping, scale lighting, etc.
- table rotates 360°
- telescoping steel covers protect the guides from chips and contamination
- with variable frequency drive, plus 3-axis servo motor
- tailstock included (BO 110), optional (BO 130)

Standard Equipment: 3-axis position indicator, alignment wedges, central lubrication, work lamp, foundation bolts, operating tools, operator manual

For available options for this machine, visit our website and search for BO 110 / BO 130 (Product Search)



starting at

78.900,- €

BO 110 shown
standard Digidat position indicator in 3 axes on all machines

Specifications	BO 110	BO 130
spindle diameter	mm 110	130
spindle taper	ISO 50	ISO 50
spindle feed	mm 600	900
facing slide feed	mm 180	250
facing slide rotation, 18 steps	rpm 4 - 200	2.5 - 125
max. table load capacity	kg 2500	10000
max. spindle axial thrust	N 12250	31360
spindle center-to-table distance	mm 0 - 900	0 - 1800
drilling capacity	mm 50	60
spindle speeds	rpm 22	24
speed range	rpm 8 - 1000	4 - 800
facing slide speed (rpm)	18	18

speed range	rpm 4 - 200	2.5 - 125
Feed for quill, headstock, and table/spindle rotation	mm/rev 18 (0.04 - 6)	
range I @ 8 - 400 rpm	mm/rev 18 (0.01 - 1.53)	
range II @ 500 - 1000 rpm	mm/rev 18 (0.01 - 1.53)	
Feed of facing slide, headstock, and table, facing slide rotation	mm/rev 0.08 - 12	0.08 - 12
range I - 18 steps	Nm 1225	3136
max. spindle torque	Nm 1960	4900
max. lathe chuck torque	mm 1100/900	2000/2000
travel travel - longit./transv.	mm 900	1800
vertical head travel	mm 1100x960	1600x1800
table setup area	m/min 2.5	2.,5
rapid feed, headstock		

rotary table rotational speed	rpm 1	1.2
main motor rating	kW 7.5	15
rapid feed motor	kW 3	5.5
hydraulic pump	kW 0.75	1.5
spindle stroke motor	kW 4	5.5
read-out accuracy, optic	mm 0.01	0.005
counter-bore accuracy	µm H7 Ra-1.6	H7 Ra-1.6
overall dimensions (LxWxH)	mm 4880x2454	7030x4660
	x2749	x3800
weight	kg 11500	29300
Part No. with position indicator	301 499	399 022
Price with position indicator €	78.900,-	164.900,-



hydraulic feed and rotational speed gears

Standard Equipment R 40 • R 60 • R 70 • R 80 • R 100:
coolant system, cube table, halogen work lamp

Optional Equipment for R 40•R 60•R 70•R 80•R 100	Part No.	Price €
• reducing sleeve MT 5/2	103 835	20,-
• reducing sleeve MT 5/3	103 840	20,-
• reducing sleeve MT 5/4	103 845	20,-
• accessory set, MT 4 (8 pieces)	104 594	149,-

R 40

- 40 mm boring capacity, large throat and compact dimensions
- spindle speeds and feed velocity are hydraulically controlled for easy and safe operation
- the drill spindle is driven via multi-disk reversing clutch for smooth change-overs between forward and reverse
- independent manual clamping of drill head and boom
- the boom can be moved vertically, while column and head remain clamped and fixed in their positions
- the drill head can be moved radially and positioned with high precision via a centrally located hand-wheel

- the operator can pre-select via a switch, if the boom should be released for swiveling, whereby both axes will be simultaneously fixed in the requested position above the drill head clamping lever

R 60

- Optimum size/performance ratio and a new drive technology make this a bestseller -
- infinitely variable spindle speed and easy to read digital display
- the quill of the R60 features a guided counter-weight for optimum balance
- mechanically shifted feed gears
- independent hydraulic clamping:
boom can be moved vertically without losing the spindle-to-bore alignment
- drill head and column can be clamped/released together or separately with the push of a button
- a central lubrication system ensures reliable lubrication of the column



R 40 is shown

KNUTH Radial Drill Presses - perfect in every detail,
powerful, rigid and easy to handle

14.900,- €



R 60 is shown

- Base, column, boom and gear head are made of premium high-quality cast
- major design features include a large column and a highly torsion-resistant boom
- boom height adjustment via a powerful motorized drive and vertical spindle
- the boom lifting gears run in an oil-bath for maximum reliability and minimum wear
- advanced column swivel design with optimized clamping features maximum rigidity and minimum clamping offset
- swivel axis and travel axis feature extremely smooth operation to make the operator's everyday production work easier
- the gears feature hardened and precision-ground chrome-nickel steel gears for smooth and low-noise operation
- all gear parts are lubricated reliably via oil pump
- the main spindle runs on precision bearings and features an automatic spindle brake

For more information, please visit www.knuth.de



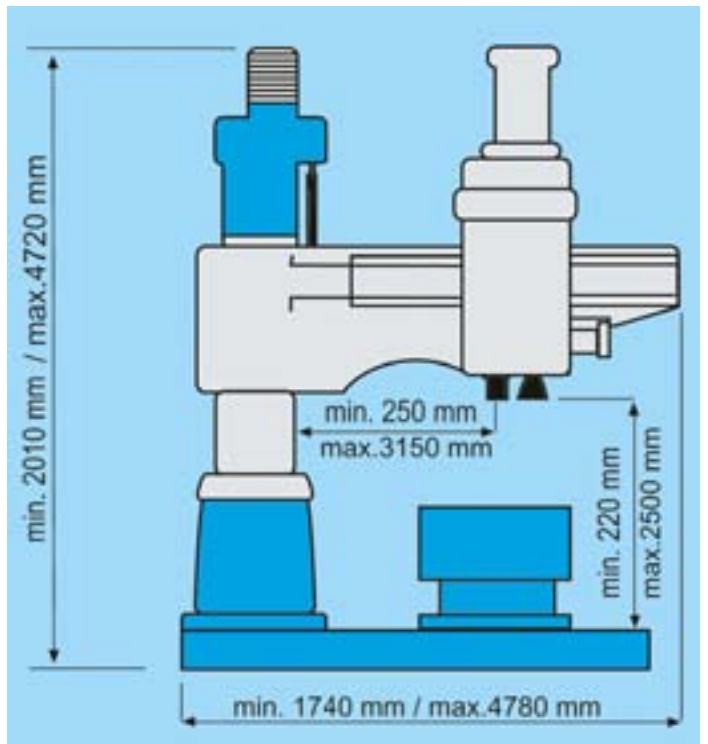
Depth stop with Nonius



powerful machining with automatic feed

R 70 • R 80 • R 100

- a large throat and high boring capacities are supported by a very rigid structural design, without compromising the ease of handling and smoothness of operation
- spindle speeds and feed velocity are hydraulically controlled for easy and safe operation
- the drill spindle is driven via multi-disk reversing clutch to avoid excessive load peaks and for easy operation
- independent hydraulic clamping of head, column and boom
- drill head and column can be clamped/released together or separately; confirmation of operation via push button
- the boom is automatically supplied with lubricant via a central lubrication system



Specifications		R 40	R 60	R 70	R 80	R 100
drilling capacity in steel	mm	40	62	70	80	100
tapping capacity (steel / casting)		M 30 / M 36	M 46 / M 52	M 50 / M 56	M 56 / M 64	M 70 / M 80
throat (spindle-to-column surface) max.	mm	1000	1600	2000	2500	3150
throat (spindle-to-column surface) min.	mm	250	350	450	500	570
drill head travel (horizontal)	mm	750	1250	1600	2000	2580
max. spindle nose-to-table distance	mm	520	1250	1600	2000	2500
min. spindle nose-to-table distance	mm	220	350	400	550	750
arm stroke (vertical)	mm	550	620	600	1000	1000
cube table dimensions (L x W x H)	mm	450x600x450	500x750x500	800x630x500	1000x800x560	1000x800x560
machine table dimensions (L x W x H)	mm	939x598x150	1700x980x200	2000x1000x200	3530x1400x300	2750x1220x300
spindle mount		MT 4	MT 5	MT 5	MT 6	MT 6
boring depth, max.	mm	250	315	400	450	500
speeds (quantity/range)	rpm	8 71 - 1800	infin. variable 38-2000	16 20 - 1600	16 16 - 1250	22 8 - 1000
feeds (quantity/range)	mm/rev	(4) 0,13 - 0,54	(8) 0,06 - 1,0	(16) 0,04 - 3,2	(16) 0,04 - 3,2	(16) 0,06 - 3,2
motor rating	kW	2.2	4	5.5	7.5	15
lift motor	kW	0.75	1.5	1.5	3	3
machine dimensions (L x W x H)	mm	1740x750 x2010	2490x1000 x2780	3080x1250 x3300	3730x1400 x4025	4780x1630 x4720
weight (approximate)	kg	1400	3800	7000	11000	20000
Part No.		101 550	101 649	101 654	101 652	101 653
Price €		9.900,-	14.900,-	27.900,-	38.900,-	79.900,-



Radial Drill Presses

R 40 • R 60 • R 70 • R 80 • R 100

Proven performance, quality and cost-effectiveness



starting at

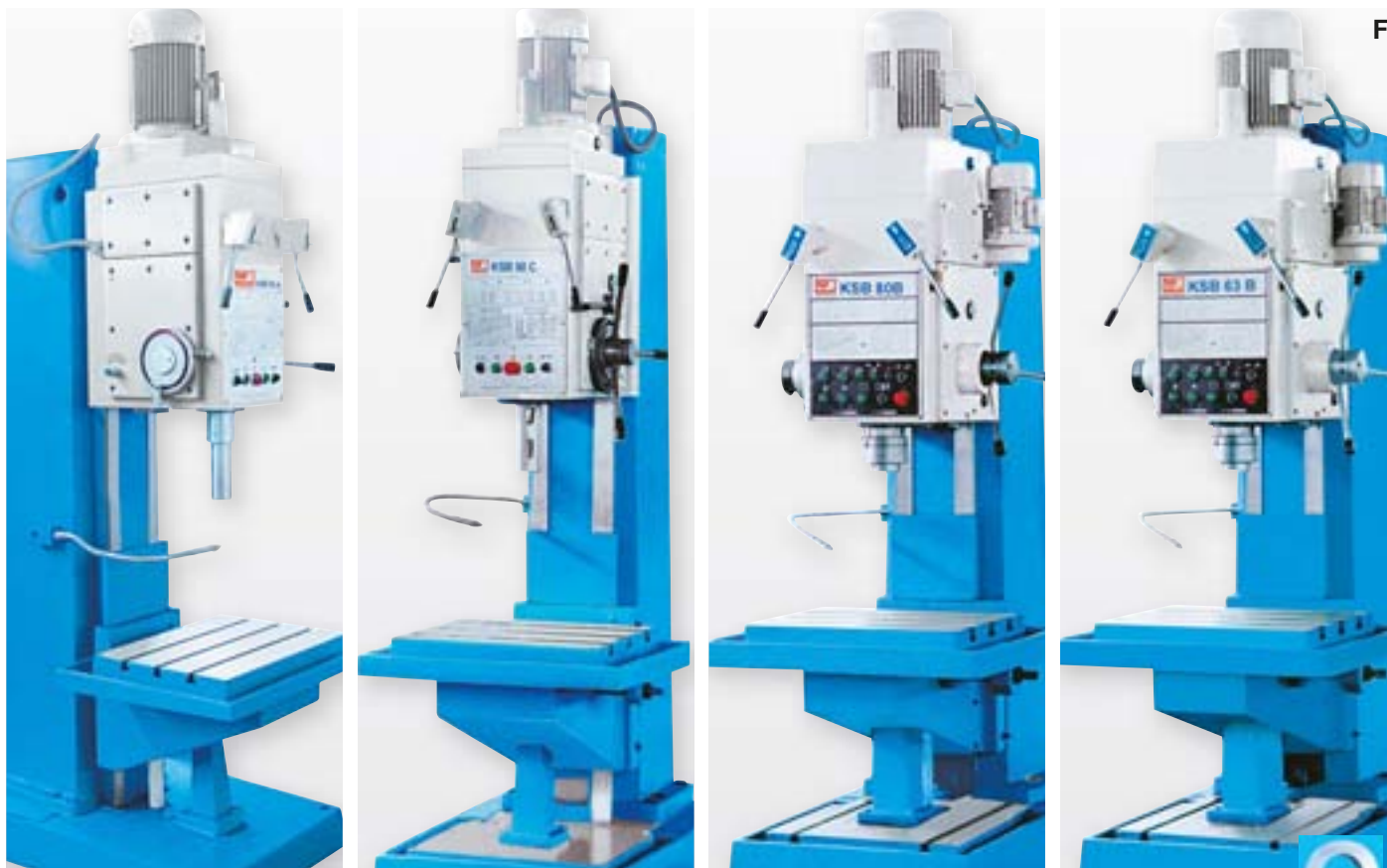
9.900,- €



R 100 is shown

- quill teeth are precision-ground for a smooth feed and minimum wear
- the drill head moves on hardened and ground guideways
- all models feature adjustable overload clutches in the feeds
- adjustable boring depth stop with large, easy to read scale and Nonius
- all operator controls are placed within reach for convenient and practical handling and quick learning
- powerful coolant system with coolant reservoir integrated into the machine foot

For more information, visit www.knuth.de



Box-Column Drill Press

KSB

starting at

5.400,- €

Superior Rigidity for Demanding Drilling, Reaming and Thread-Cutting Tasks

- box-column design provides high load capacity, and is torsion-proof and rigid
- table and drill head can be moved individually for an optimum machining height
- 9-step feed and speed gears, with oil-bath lubrication
- high torque across the entire speed range
- thread-cutting unit automatically reverses upon reaching the preset depth

Standard Equipment: coolant system, tapping unit, halogen work lamp, operating tools, operator manual

Options

- | | | | |
|------------------------------------|------------------|---------|--------------|
| • universal facing and boring head | Part No. 103 402 | Price € | 990,- |
| • coolant concentrate 5 L | Part No. 103 184 | Price € | 75,- |
| • accessory set, MT 4 (8 pieces) | Part No. 104 594 | Price € | 149,- |
| • reducing sleeve MT 5/4 | Part No. 103 845 | Price € | 20,- |

Specifications		KSB 25 A	KSB 32 A	KSB 40 B	KSB 50 C	KSB 63 B	KSB 80 B	KSB 100
drilling capacity in steel	mm	25	32	40	50	63	80	100
feed force	N	9000	9000	16000	16000	30000	30000	45000
torque	Nm	160	160	350	350	800	800	1150
spindle drive	kW	2,2	2,2	3	4	5,5	5,5	7,5
spindle taper		MK 3	MK 4	MK 4	MK 5	MK 5	MK 6	MK 6
throat	mm	280	280	335	335	375	375	480
vertical head travel	mm	200	200	200	195	260	260	300
quill stroke	mm	200	200	250	250	250	250	310
speed range / #	min ⁻¹	50-2000/9	50-2000/9	31,5-1400/12	45-850/9	40-570/9	40-570/9	26-320/6
spindle feeds / #	mm/U	0,056-1,80/9	0,056-1,80/9	0,056-1,80/9	0,056-1,80/9	0,1-0,78/6	0,1-0,78/6	0,1-0,71/6
max. spindle nose-to-table dist.	mm	725	690	750	725	860	810	850
vertical table travel	mm	300	300	315	315	300	300	300
T-slot width / #	mm	14 / 3	14 / 3	18 / 3	18 / 3	22 / 3	22 / 3	22 / 3
table setup area	mm	400 x 550	400 x 550	480 x 560	480 x 560	650 x 550	650 x 550	760 x 650
coolant pump	W	90	90	90	90	90	90	75
flow rate	l/min	25	25	25	25	25	25	25
overall dimensions (LxWxH)	mm	962x847 x2340	962x847 x2340	1040x905 x2530	1040x905 x2535	965x1452 x2787	965x1452 x2787	1465x970 x3170
weight	kg	950	950	1250	1250	2500	2500	3500
Part No.		101 691	101 692	101 693	101 694	101 695	101 696	101 697
Price €		5.400,-	5.900,-	6.800,-	7.200,-	12.800,-	14.900,-	21.900,-

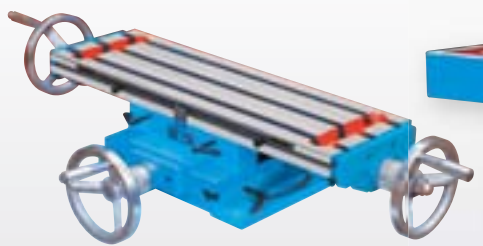
infinitely variable spindle speed with digital display and digital drilling depth indicator for maximum operator comfort

Linear guides for flexible handling and maximum rigidity

- large travel ranges and many different machining stations provide maximum setup and machining possibilities
- powerful machine for drilling, tapping, countersinking and boring
- extremely sturdy construction ensures high accuracy and reliability
- quick and precise tool positioning: hydraulic clamping is released by the push of a button, head easily swivels forward, backward and horizontally
- motorized up and down movement of drill head
- height can be adjusted without changing the drilling position
- provides great flexibility when machining large parts
- drill head swivels ± 90 degrees
- autom. feed with depth stop trigger
- thick-walled column and large dimensions of all components ensure maximum accuracy
- digital drilling depth indicator

starting at

16.900,- €



Optional Compound Sliding Table



Optional Milling Chuck with Collets

Optional Equipment:	dimensions	mm	238x320
Compound Sliding Table	weight	kg	238
with Milling Chuck Set	Milling Chuck with Collets		
Compound Sliding Table	collet diameter	mm	6, 8, 10, 12, 14, 16
table size	mm		640x205
cross travel	mm		370
linear travel	mm		150
	Part No.		162 364
	Price €		880,-

Standard Equipment: digital speed indicator, additional setup areas at the side and rear, cube table, swivelling horizontal table, digital boring depth indicator, halogen work lamp, coolant system, tapping option, drill chuck with tool-holder bits, reducing sleeves, operating tools, operator manual

Specifications KSR 40 Advance				Standard Equipment:		
max. drilling capacity	mm	\varnothing 40	spindle feeds (quantity)	mm/rev		0.08 - 0.5 (6)
max. tapping capacity		M30	column diameter	mm		\varnothing 220
distance (spindle-to-column)	mm	560	table setup area (LxW)	mm		1200 x 505
max. dist. (spindle nose-to-table)	mm	760	T-slots, qty x width (table)	mm		3 / 18
upper beam travel	mm	590	main motor	kW/V		2.2 / 400
column stroke	mm	400	height adjustment motor	kW/V		1.5 / 400
quill stroke	mm	200	coolant pump motor	kW/V		0.37 / 400
head swivel range		$\pm 90^\circ$	dimensions (LxWxH)	mm		1720x1200x2250
spindle mount		MT 4	weight	kg		2740
spindle speeds, inf. variable	min ⁻¹	50 - 315, 315 - 2000	Part no.			162 363
			Price €			16.900,-

starting at

4.390,- €

Production Drill Press with infinitely variable speed and thread-cutting function

Ideal for single part and batch productions, for drilling, countersinking, reaming, and thread-cutting

- very rigid construction with thick-walled column and large throat
- infinitely variable speed adjustment with back gearing and digital speed display
- 4 automatic drill feeds with electromagnetic clutch control and automatic shut-off when reaching the limit stop
- motorized table height adjustments
- large drilling table with circumferential coolant groove, height adjustment, and $\pm 45^\circ$ swivel range
- thread cutter is incl. with standard equipment



digital drilling depth indicator

Standard Equipment: thread-cutting unit, protective shield, halogen work lamp, coolant system, operating tools, operator manual

For available options for this machine, please visit our website and search for SSB 40 / 50 F Super (Product Search)

SSB 40 F Super is shown



SSB 50 F Super is shown

Specifications SSB	40 F Super	50 F Super				
drilling capacity (diam.) mm	40	50	throat	mm	340	360
tapping capacity	M 24	M 30	table travel	mm	570	530
table setup area	mm 520 x 440	580 x 460			450 (motorized)	410 (motorized)
quill stroke	mm 190	200	table swivel range		$\pm 45^\circ$	$\pm 45^\circ$
spindle mount	MT 4	MT 4	column diameter	mm	140	180
speed	rpm 60 - 2600	50 - 2200	motor rating	kW / V	2 / 400	2.2 / 400
feed / # settings	mm/rev 0.1; 0.2; 0.3; 0.4 (4)	0.1; 0.2; 0.3; 0.4 (4)	overall dim. (LxWxH)	mm	1000x650x2220	1150x680x2360
spindle nose-to-table dist.	mm 665	590	weight	kg	500	650
spindle nose-to-foot dist.	mm 1195	1175	Part No.		162 337	101 668
			Price €		4.390,-	5.600,-

**Powerful Universal Drill Presses
for versatile use in the workshop**

- heavy cast-iron construction with thick-walled column
- thread-cutting feature is standard
- automatic drill feeds are activated and deactivated via electromagnetic clutch
- including coolant system and work lamp
- table rotates and swivels $\pm 45^\circ$
- 2-step motor (SSB 32 Xn)
- head swivels $\pm 45^\circ$, adjustable height (SSB 32 Xn)
- digital speed (rpm) display (SSB 32 Xn)



coolant system is included

Standard Equipment:

thread cutter, protective shield, halogen work lamp, coolant system, operating tools, operator manual,

For available **options** for this machine, visit our website and search for SSB 32 Xn or SSB 40 Xn (Product Search)



SSB 32 Xn shown

3.880,- €



SSB 40 Xn shown

3.390,- €

Specifications	SSB 32 Xn	SSB 40 Xn					
drilling capacity (diam.)	mm	32	4	throat	mm	320	360
tapping capacity	mm	M 20	M 24	table travel	mm	415	570
table setup area	mm	500 x 420	570 x 480	head travel	mm	285	-
quill stroke	mm	160	190	head swivel range		$\pm 45^\circ$	-
spindle mount		MT 4	MT 4	table swivel range		$\pm 45^\circ$	$\pm 45^\circ$
speed range / #	rpm	125 - 3030 / 12	72 - 2150 / 9	column diameter	mm	120	140
feed / # settings	mm/rev	0.1; 0.2; 0.3 / 3	0.12; 0.24; 0.42 / 3	motor rating	kW / V	1.2 / 400	2 / 400
spindle nose-to-table dist.	mm	630	665	overall dim.(LxWxH)	mm	835x500x1960	965x580x2275
spindle nose-to-foot dist.	mm	1185	1195	weight	kg	540	550
				Part No.		162 332	162 338
				Price €		3.390,-	3.880,-

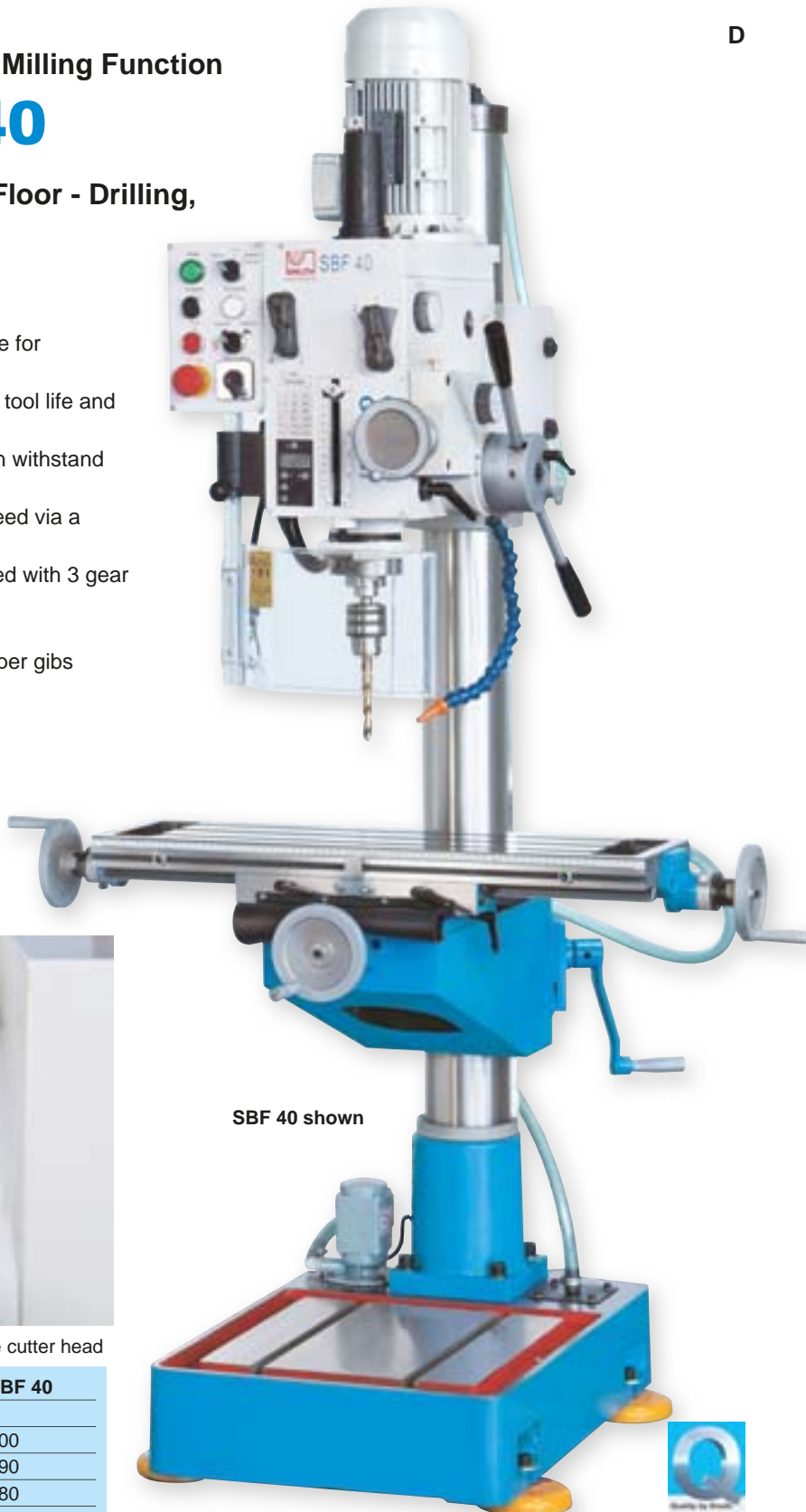
Universal Skill Package for the Shop Floor - Drilling, Thread cutting, and Milling

Drilling and Milling - a true added value for a low price

- both machines feature a large compound sliding table for coordinate drilling and milling work
- quiet operation with oil-bath lubricated gears for long tool life and durability
- the milling machine's high-quality spindle bearing can withstand higher loads for the long term
- manual drill feed can be switched to high-precision feed via a hand-wheel
- the SBF 40 also features a controllable automatic feed with 3 gear steps
- adjustable height of gear head and table
- table guides are adjustable with high precision via taper gibs
- gear head swivels to both sides
- cutter mounts are secured by an M16 drawbar
- thread cutter and digital depth indicator are included
- the SBF 40 features an integrated coolant system

starting at

1.990,- €



SBF 40 shown



cutter head swivels to both sides



graduated scale on the cutter head

Specifications			SBF 32	SBF 40
Working area				
travel	- X axis	mm	370	500
	- Y axis	mm	190	190
	- Z1 / Z2 axis	mm	260	580
table setup area		mm	710 x 210	730 x 210
table load capacity (max.)		kg	100	100
T-slots (number/width/spacing)		mm	3 x 14 x 50	3 x 14x 70
T-slot foot (number/width/spacing)		mm	2 x 14 x 200	2 x 25 x 125
spindle speeds (12)		min. ⁻¹	75 - 3200	75 - 3200
spindle mount			MT 4	MT 4
quill stroke		mm	120	120
throat		mm	270	278
column diameter		mm	115	115
spindle nose-to-table distance		mm	610	600
spindle nose-to-foot distance		mm	1180	1180
drilling capacity in steel / ST37		mm	32	40
head swivel range		°	± 45°	± 45°
thread cutting in steel / St 37			M16	M16

Standard Equipment: Thread cutter, digital depth indicator, draw bar, drill chuck, tool-holder bits, coolant system, operating instructions

Drive Capacities			
main motor rating	kW	1.1	1.1 / 1.5
coolant system	kW	0.04	0.04
Dimensions/Weight			
overall dimensions (L x W x H)	mm	880 x 750 x 1700	830 x 760 x 1850
weight	kg	340	380
Part No.		101 570	101 571
Price €		1.990,-	2.290,-

Versatile Use in Workshop Applications

- rigid cast-iron construction
- height-adjustable machine head
- 6 or 12 speed levels
- rectangular table with T-slots and circumferential coolant groove

2.990,- €

TSB 35

- automatic quill feed
- rpm indicator
- coolant system
- head swivels $\pm 45^\circ$



1.590,- €

TSB 25 shown



TSB 35 shown

Standard Equipment: base, protective shield, halogen lamp, coolant system (TSB 35), drill chuck, operating tools, operator manual

For available options for this machine, visit our website and search for TSB (Product Search)

Specifications		TSB 25	TSB 35		MK 3	MK 4
drilling capacity in steel	mm	25	35	spindle mount		
tapping capacity in steel		M 16	M 22	Drive Capacities		
Working area				main motor rating	kW	0,75
setup area, foot	mm	310 x 320	370 x 360	Feed		
quill stroke	mm	110	155	quill feeds	mm/U	- (3) 0,1; 0,2; 0,3
vertical head travel	mm	470	515	Dimensions/Weight		
spindle nose-to-foot dist.	mm	650	645	dimensions	mm	700 x 410 x 1560
throat	mm	240	320			810 x 500 x 1670
column diameter	mm	95	120	weight	kg	220
spindle speed	min ⁻¹	(6) 125-2825	(12) 125-3030	Part No.		162 340
				Price €		1.590,-
						2.990,-



795,- €
KST 16V shown



1.120,- €
KSS 32 shown



Industrial Drill Presses
KST • KSS

Rigid table (KST) and column drill presses (KSS) with large work tables

Specifications		KST 16	KST 16V	KST 25	KSS 25V	KSS 32
drilling capacity	mm	16	16	25	25	32
column diameter	mm	85	85	85	102	102
quill stroke	mm	100	100	93	130	130
throat	mm	180	180	180	230	230
max. distance						
spindle to table	mm	425	425	425	680	750
spindle to foot	mm	610	610	610	965	975
mount		MT 2	MT 2	MT 2	MT 3	MT 3
spindle speed range	min ⁻¹	(6) 290-2000	(6) 290-2000	(9) 160-1820	(6) 230-2160	(9) 160-1880
automatic feed		-	(4) 0.10; 0.14; 0.17; 0.25	-	(3) 0.10; 0.16; 0.25	-
table setup area	mm	280 x 310	280 x 310	280 x 310	330 x 380	330 x 380
foot setup area	mm	245 x 245	245 x 245	245 x 245	330 x 320	300 x 325
motor, 400 V	kW	0.75	0.75	1.1	1.5	1.5
weight	kg	108	108	108	190	190
height	mm	1050	1050	1050	1580	1760
Part No.		162 510	162 500	162 506	162 502	162 508
Price €		690,-	795,-	725,-	1.490,-	1.120,-

- automatic feed (model KST 16V + KSS 25V)
- coolant system (model KSS 25V + KSS 32)
- quiet belt drive
- high precision spindle bearing
- handwheel and gear rack for table movement
- adjustable depth stop
- large quill stroke
- thick-walled column

498,- €



KB 20 shown

690,- €



KB 25 shown

880,- €



KB 32 shown



Bench drill presses

KB 20 • 25 • 32

Specifications		KB 20	KB 25	KB 32
drilling capacity	mm	20	25	32
Working area				
table setup area	mm	290 x 290	345 x 345	475 x 425
spindle nose-to-table dist.	mm	140 - 550	140 - 850	210 - 730
spindle nose-to-foot distance	mm	640	1360	1200
throat	mm	178	216	254
column diameter	mm	80	80	92
Headstock				
speed range	min. ⁻¹	(12) 120 - 2580	(12) 120 - 2580	(12) 150 - 2700
spindle mount		MT 2	MT 2	MT 3
quill stroke	mm	80	80	120
Drive Capacities				
main motor rating / 380 V	kW	0.55	0.75	1,1
Dimensions/Weight				
dimensions	mm	840x570x290	1440x650x320	1475x650x350
weight	kg	85	110	145
Part No.		162 520	162 521	162 522
Price €		498,-	690,-	880,-

with a universal drill table:

- swivels 45°
- rotates 360° around column

Versatile Use in Workshop Applications, for training and small-parts productions

- adjustable depth stop
- quiet belt drive operation
- forward/reverse can be set by a single switch
- headstock runs in precision-bearings
- 12 speeds allow selection of optimum speeds at the workpiece

Standard Equipment: drill chuck guard, 16 mm drill chuck, operator manual

Options for this machine can be found on our website under KB 20, KB 25 or KB 32 (product search)



1.290,- €

III. KGB 25



1.880,- €

III. KGB 30



Gear-Drive Drill Press

KGB

Specifications		KGB 25	KGB 30
max. drill cap. in steel	mm	25	25
thread		M 16	M 16
quill stroke	mm	140	140
spindle taper		MT 3	MT 3
speed range	min ⁻¹	(8) 100 - 2900	(8) 100 - 2900
spindle-to-column dist.	mm	225	225
head swivel		-	± 45°
spindle-to-table distance	mm	110 - 405	30 - 600
spindle-to-base distance	mm	-	107
travel	mm	-	460
max. head travel	mm	300	240
table setup area	mm	290 x 300	335 x 385
motor rating 400 V	kW	0,55 / 0,75	0,55 / 0,75
dimensions (L x W x H)	mm	390 x 552 x 1240	470 x 640 x 1670
weight	kg	200	270
Part no.		101 690	101 685
Price €		1.290,-	1.880,-

Heavy-duty Gear Drill Press at a Low Price

- 8 speed steps with positive torque transmission – no belt slippage
- easy speed adjustment via two levers
- heavy construction with thick-walled column
- hand wheel for vertical feed of head
- depth scale with adjustable depth stop
- vertical table feed (only KGB 30)
- work table swivels +/-50° (only KGB 30)

For available options for this machine, visit our website and search for KGB (Product Search)

1.890,- €

K2 shown



2.490,- €

K3 shown



2.990,- €

K4 shown



Bench / Column Drill Presses

K2 • K3 • K4

Specifications		K2	K3	K4
max. drill capacity	mm	20	25	30
max. tapping capacity	mm	12	14	20
spindle mount		MK 2	MK 3	MK 3
speeds	min ⁻¹	100 - 1500	100 - 1800	L 100 - 600 H 200 - 1700
quill stroke	mm	80	100	120
throat	mm	250	280	310
max. spindle nose-to-table dist.	mm	380	460	600
max. spindle nose-to-foot dist.	mm	750	930	1160
table setup area	mm	320 x 360	400 x 350	440 x 390
3 T-slots	mm	12	14	14
column diameter	mm	90	110	120
motor rating 230 V / 50 Hz	kW	1	1,5	1,5
dimensions (LxWxH)	mm	680x386x1220	740x450x1820	844x558x1850
weight	kg	220	321	563
Part No.		162 511	162 512	162 514
Price €		1.890,-	2.490,-	2.990,-

Comfortable and quiet operation with high accuracy - ideal for precision mechanics, laboratories or workshops

- infinitely variable speed
- digital speed and drill depth indicator
- table height adjustment per handwheel and gear rack
- 360° rotating work table
- thread cutting function
- forward and reverse operation

Standard Equipment: drill chuck, toolholder bits, operating tools, operator manual

For available options for this machine, visit our website and search for K2 / K3 / K4 (Product Search)

starting at

2.890,- €



Metal band saws

VB

F

Vertical Metal Band Saws with Proven Solid Construction, including Band Saw Blade Welder



VB 610 shown

- torsionally rigid steel construction
- table tilts $\pm 15^\circ$ in all directions
- **New! Electrical speed control** from 20 - 85 m/min and 120 - 500 m/min, with band speed indicator (VB 410 and higher)
- increased cutting precision
- functional and practical design
- high-precision blade guides with carbide-tipped back-roller
- blow-out feature results in improved cut control
- with replaceable plastic bandage
- hand wheel for quick blade tension adjustments
- blade welder with stress relief, saw-shears, grinding stone, chip box



optimum blade tension via hand-wheel

Standard Equipment: complete saw blade welder, lighting, 1 saw blade

Bandsaw Blades for model	Dimensions	Teeth/Inch	Price €
VB 300	2490 x 5 x 0,65 mm / 2490 x 10 x 0,65 mm	10 / 14 / 22	14,-
VB 360	2900 x 5 x 0,65 mm / 2490 x 10 x 0,65 mm	10 / 14 / 22	15,-
VB 410	3365 x 5 x 0,65 mm / 3365 x 10 x 0,65 mm	10 / 14 / 22	17,-
VB 510	3840 x 5 x 0,65 mm / 3840 x 10 x 0,65 mm	10 / 14 / 22	18,-
VB 610	3950 x 5 x 0,65 mm / 3950 x 10 x 0,65 mm	10 / 14 / (22 only for 5 mm width)	18,-

Specifications	VB 300	VB 360	VB 410	VB 510	VB 610
cutting capacity					
height x throat	mm 175 x 310	230 x 355	300 x 410	310 x 520	300 x 600
speeds	m/min 20 - 90	20 - 90	20 - 85 + 120 - 500	20 - 85 + 120 - 500	20 - 85 + 120 - 500
blade width	mm 3 - 16	3 - 16	3 - 16	3 - 16	3 - 16
table	mm 500 x 400	500 x 400	600 x 500	600 x 500	600x500/280x500
table adjustment	15°	15°	15°	15°	15°
motor rating / voltage	kW/V 0,4 / 400	0,75 / 400	1,5 / 400	1,5 / 400	1,5 / 400
table height	mm 890	960	1000	1000	1015
overall dim. (LxWxH)	mm 355 x 630 x 1560	360 x 690 x 1735	440 x 815 x 1900	700 x 1100 x 2000	700 x 1295 x 2000
weight	kg 225	250	440	500	700
Part No.	102 500	102 550	102 690	102 692	102 694
Price €	2.890,-	3.290,-	4.580,-	4.850,-	5.400,-

- cutting angle settings 90° / 60° / 45°
- with touch-screen monitor
- automatic workpiece feed

Automatic Band Saw with programmable cutting angle



12.900,- €

- torsion-proof dual-column construction
- hydraulic saw frame feed via chrome-plated column guide
- slightly inclined saw frame improves cutting performance and increases the service-life
- dual hydraulic workpiece clamping
- hydraulic saw blade tensioning
- infinitely variable cutting speed

- High-torque gears ensure maximum machining power
- hydraulic saw blade tensioning
- precise and stable saw band guides ensure high angular accuracy
- automatic band breakage control
- LED indicator for belt speed

Bi-Metallic Band Saw Blades dimensions 4430 x 34 x 1.10 mm teeth/inch 3/4, 4/6, 5/8 Price € **75,-**

Standard Equipment: Siemens PLC, automatic cleaning brush, feed roller table (2 m long), 1 saw blade, touch-screen monitor, automatic central lubrication, automatic parts counter, chip conveyor, coolant system, operating tools and operator manual

Specifications ABS 300 NC

Cutting Capacity		
cutting capacity 90° (rectangular)	mm	300x360
cutting capacity 90° (circular)	mm	300
cutting capacity 90° (square)	mm	300x300
cutting capacity 60° (rectangular)	mm	175x300
cutting capacity 60° (circular)	mm	175
cutting capacity 60° (square)	mm	175
cutting capacity 45° (rectangular)	mm	255x300
cutting capacity 45° (circular)	mm	255
cutting capacity 45° (square)	mm	255
cut length (max.)	mm	400

cutting speed	m/min	20-90
Drive Capacities		
main motor rating	kW	3
motor rating - hydraulic pump	kW	0.75
coolant pump motor rating	kW	0.45
Dimensions/Weight		
belt dimensions	mm	4430 x 34 x 1.1
overall dimensions (L x W x H)	mm	2200 x 2000 x 1700
weight	kg	1900
Part No.		152 880
Price €		12.900,-

Please indicate the size and type of teeth when ordering saw blades!

Low-cost cutting solution with high productivity for automatic cutting to length of solid materials, tubes, profile sections, etc. made of steel, cast-iron, non-ferrous and light metals

starting at

5.990,- €



A bundle vise is provided for cutting entire material packs to length

- **saw frame** and machine bed are made of premium cast-iron for torsion-free performance even under maximum loads
- new helical gears ensure above-average service life and low maintenance

- infinitely variable saw frame feed
- large sized hydraulic cylinder for constant quiet operation
- automatic **adjustment of cutting height**

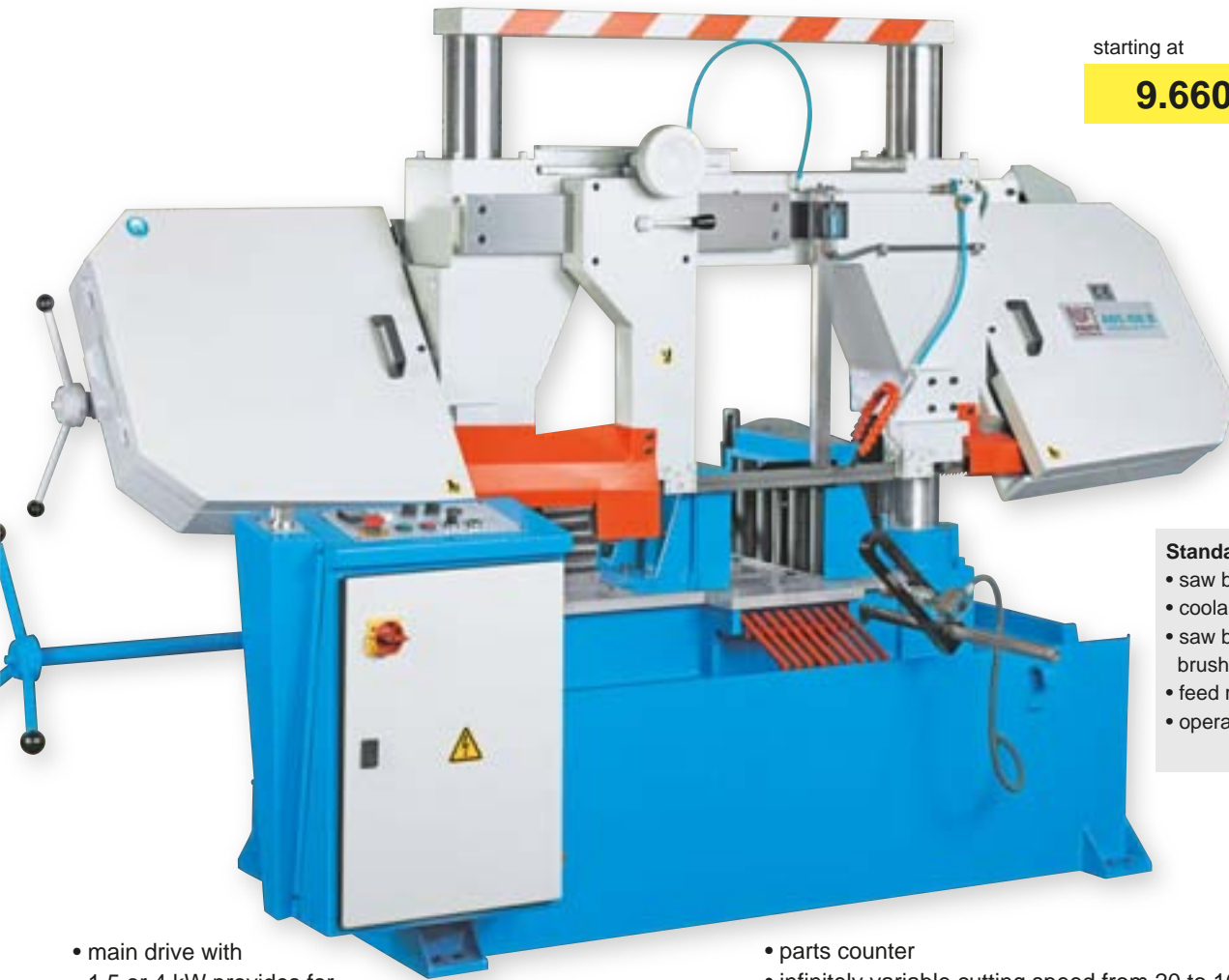
Bi-Metallic Band Saw Blades			
for model	Dimensions	Teeth/Inch	Price €
ABS 280 B	3400 x 27 x 0,90	3/4, 6/10	54,-
ABS 320 B	3660 x 27 x 0,90	3/4, 4/6, 5/8	49,-

Standard Equipment:
 autom. band breakage control, bundle vise, coolant system, saw blade, operating tools, chip wiper, feed roller table 120 cm, operator manual

Specifications		ABS 280 B	ABS 320 B
Cutting Capacity			
cutting capacity (circular)	mm	Ø 280	Ø 320
cutting capacity (square)	mm	270	300
cutting capacity (rectangular)	mm	250 x 280	320 x 200
stop length	mm	500	500
cutting speed, infinitely variable	m/min	20 - 100	20 - 100
Working area			
feed roller table length	mm	1200	1200
number of feed rollers		4	6

Drive Capacities			
main motor rating	kW/V	1,5 / 400	1,5 / 400
motor rating hydraulic pump	kW	0.37	0.37
feed motor rating	kW	0.25	0.25
motor rating Coolant pump	kW	0.12	0.12
Dimensions/Weight			
overall dimensions (LxWxH)	mm	1800 x 850 x 1200	1850 x 850 x 1250
weight	kg	600	660
Part No.		152 750	152 755
Price €		5.990,-	6.990,-

Fully automatic high-performance bandsaw with twin column guide system



starting at

9.660,- €

Standard Equipment:

- saw blade, bundle vise
- coolant system
- saw blade cleaner brush
- feed roller table
- operator manual

- main drive with 1.5 or 4 kW provides for sufficient power reserves
- rigid dual-column guide for parallel cuts
- torsion-resistant weldment
- helical gears, designed for continuous operation with above average life time and low maintenance

- parts counter
- infinitely variable cutting speed from 20 to 100 mm/min for optimum cutting results
- band breakage control
- carbide saw-band guides
- coolant system with 3 nozzles
- feed roller table and linear stop are standard equipment

Bi-Metallic Band Saw Blades

for model	Dimensions	Teeth/Inch	starting at €
ABS 320 C	4130 x 27 x 0,90	3/4, 4/6, 5/8	59,-
ABS 350 B	5000 x 34 x 1,10	3/4, 4/6, 5/8	86,-
ABS 450 B	6000 x 41 x 1,30	3/4, 4/6, 5/8	129,-
ABS 550 B	6800 x 41 x 1,30	3/4, 4/6, 5/8	148,-

Specifications		ABS 320 C	ABS 350 B	ABS 450 B	ABS 550 B
cutting capacity					
- circular /square	mm	Ø 320 / 320	Ø 350 / 350	Ø 450 / 450	Ø 550 / 550
- rectangular	mm	350x320	370x350	470x450	570x550
cutting speed (infinitely var.)	m/min	20-100	20 -100	20 - 100	20 - 100
drive motor rating	kW/V	1,5 / 400	2,2 / 400	3 / 400	4 / 400
hydraulic motor	kW	0,55	0,75	1,1	1,1
feed motor	kW	0,25	0,25	0,25	0,55
stop length	mm	500	500	500	500
roller track length	mm	1000	1000	1000	1000
dimensions	mm	2100x900x1500	2700x1100x1650	3100x1200x1880	3350x1200x2100
weight	kg	940	1400	1800	2100
Part no.		152 756	152 760	152 765	152 770
Price €		9.660,-	12.550,-	15.190,-	17.400,-



Please indicate the size and type of teeth when ordering saw blades!

Highly reliable Horizontal Band Saws with easy, comfortable miter adjustment



HB 320 BS shown

- infinitely variable hydraulic saw advance ensures optimum cutting results and minimized tool wear
- automatic shut-off upon completion of saw process
- band break sensor activates automatic shut-off upon band break
- helical gears, designed for continuous operation with above average life time infinitely variable cutting speed from 20 to 100 m/min
- coolant system

Highlight HB 320 BS

- saw frame swivels allowing universal angle setting - no need to swivel the workpiece!
- including feed roller stand, 1.2 m long



HB 280 B shown



Standard Equipment: part clamping fixture, coolant system, longitudinal stop, 1.2 m long feed roller table (only HB 320 BS), operator manual

Bi-Metallic Band Saw Blades

for model	HB 280 B	HB 320 BS
Dimension	3400 x 27 x 0,90	4160 x 34 x 1,10
Teeth/Inch	3/4, 6/10	3/4, 6/10
Price €	54,-	61,-

Specifications	HB 280 B	HB 320 BS
cutting capacity 90° - circular mm	Ø 280	Ø 320
- square mm	280 x 280	320 x 320
- rectangular	350 x 200	610 x 320
cutting capacity 45° - circular mm	Ø 240	Ø 320
- square mm	210	320
- rectangular	260 x 320	355 x 320
cutting capacity 30° - circular mm	-	260
- square mm	-	225
- rectangular	-	280 x 200

cutting speed	infinitely var.	m/min	20 - 100	20 - 100
motor rating / voltage	kW/V	1,5 / 400	2,2 / 400	
coolant pump	kW	0.12	0.12	
dimensions (LxWxH)	mm	1800 x 850 x 1000	2100 x 1200 x 1340	
weight	kg	530	1000	
Part No.		152 797	152 798	
Price €		5.300,-	8.900,-	

starting at

18.300,- €

**Proven quality and performance -
advanced modern and flexible design**

- infinitely variable belt speed
- hydraulic workpiece clamping
- angle adjustment on both sides
- wide swivel range



exact angle adjustment with digital display

Standard Equipment: micro-spray cooling mist, hydraulic vise, digital angle indicator, coolant system, saw band cleaning brush, operator manual

Bi-Metallic Band Saw Blades

	HB 360 DG	HB 440 DG
for model	HB 360 DG	HB 440 DG
dimensions	5000 x 34 x 1.1 mm	5200 x 41 x 1.3 mm
teeth/inch	3/4, 4/6, 5/8	3/4, 4/6, 5/8
Price €	58,-	98,-

Options	Part No.	Price €		Part No.	Price €
• Feed roller conveyor, 3 m	250 739	1.460,-	• hydraulic saw blade tensioning	250 741	690,-
• Motorized feed roller conveyor, 3 m	250 740	3.400,-	• bundle vise	250 742	1.780,-

Specifications	HB 360 DG	HB 440 DG		
Cutting Capacity			cutting speed	m/min 20 - 100 20 - 100
0°	<input type="checkbox"/> / <input type="checkbox"/> mm	640 x 360 / 360 640 x 440 / 440	motor rating main drive	kW 4 4
30° right	<input type="checkbox"/> / <input type="checkbox"/> mm	510 x 360 / 360 510 x 440 / 440	Dimensions/Weight	
45° right	<input type="checkbox"/> / <input type="checkbox"/> mm	400 x 360 / 360 400 x 440 / 400	dimensions	mm 3100x1350x1910 3100x1200x2125
60° right	<input type="checkbox"/> / <input type="checkbox"/> mm	250 x 360 / 250 250 x 440 / 250	weight	kg 1630 1740
30° left	<input type="checkbox"/> / <input type="checkbox"/> mm	510 x 440 / 440 510 x 440 / 440	Part No.	152 862 152 860
45° left	<input type="checkbox"/> / <input type="checkbox"/> mm	390 x 440 / 390 390 x 440 / 390	Price €	18.300,- 19.400,-

Please indicate the size and type of teeth when ordering saw blades!



cutting capacity from 350 to 1100 mm diameter



miter cuts up to 45°

- heavy-duty dual-column saw frame made of premium cast-iron
- infinitely variable cutting speed from 20 to 100 mm/min provides high cutting efficiency in a wide spectrum of materials
- 7.5 kW drive motor ensures powerful chip removal
- hydraulic workpiece clamping on HB 800 and HB 1100
- helical gears, designed for continuous operation with above average lifetime
- hydraulic valve at the control panel for infinitely variable saw frame feed

- automatic saw frame stroke shut-off minimizes downtime during machining of constant material diameters
- miter cuts up to 45°
- automatic saw blade shut-down and saw frame lifts off automatically upon completion of the cut
- premium saw blade and rigid feed roller table are included in standard equipment

Specifications		HB 350	HB 450	HB 550	HB 800	HB 1100
cutting capacity 90°						
- circular	mm	Ø 350	Ø 450	Ø 550	Ø 800	Ø 1100
- square	mm	350	450	550	800	1100
- rectangular	mm	520 x 350	650 x 450	750 x 550	850 x 800	1100 x 1300
cutting capacity 45°						
- circular	mm	Ø 270	Ø 350	Ø 400	Ø 480	Ø 850
- square	mm	270	350	400	480	850
- rectangular	mm	270 x 350	350 x 450	400 x 550	480 x 800	850 x 1100
cutting speed	m/min	20 - 100	20 - 100	20 - 100	20 - 100	20 - 100
		infin. variable	infin. variable	infin. variable	infin. variable	infin. variable
motor rating	kW/V	2,2 / 400	3 / 400	4 / 400	4 / 400	7,5 / 400
dimensions (LxWxH)	mm	2700 x 1100 x 1650	3050 x 1200 x 1880	3350 x 1200 x 2080	3850 x 1200 x 2600	5300 x 1200 x 3400
weight	kg	1300	1700	2000	2400	6800
Part No.		152 800	152 805	152 810	152 815	152 801
Price €		11.200,-	12.960,-	14.990,-	18.690,-	43.500,-



Semi-Automatic Band Saws

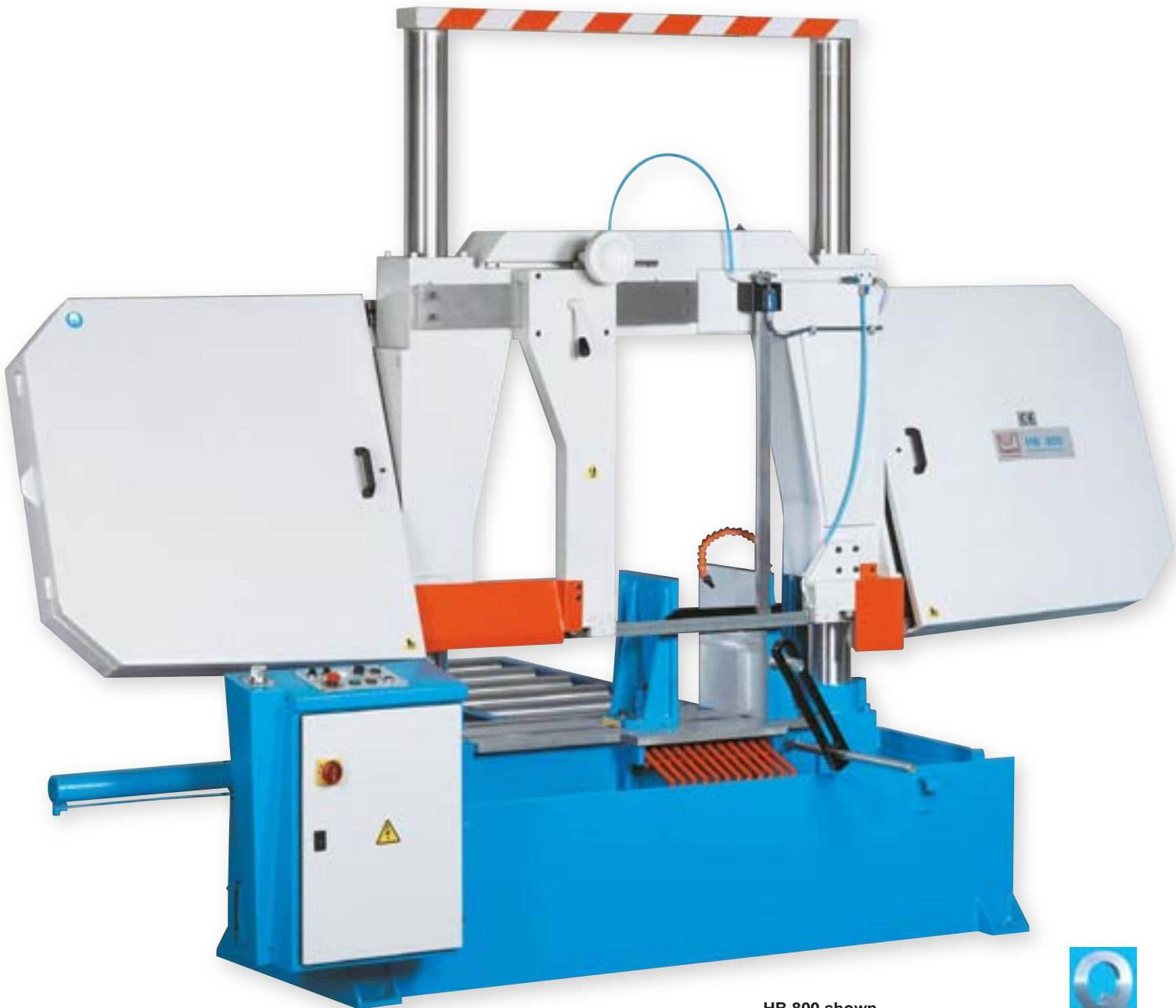
HB 350 - 1100

**Saw with highest precision where others meet their limits!
High-Performance Band Saw for very large workpieces**

for precise sawing of sections and solid materials
like steel, aluminum and other materials

starting at

11.200,- €



HB 800 shown



Standard Equipment: manual workpiece clamping (HB 350, HB 450, HB 550), hydraulic workpiece clamping (HB 800, HB 1100), coolant system, feed roller table 1,2 m (except for HB 1100), infinitely variable cutting speed, operator manual

Bi-Metallic Band Saw Blades

for model	dimensions	teeth/inch	starting at €				
HB 350	5000 x 34 x 1.10	3/4, 4/6, 5/8	86,-	HB 550	6800 x 41 x 1.30	3/4, 4/6, 5/8	148,-
HB 450	6000 x 41 x 1.30	3/4, 4/6, 5/8	129,-	HB 800	8200 x 41 x 1.30	3/4, 4/6, 5/8	179,-
				HB 1100	12000 x 67 x 1.60	3/4, 4/6	390,-

Please indicate the size and type of teeth when ordering saw blades!

SBS 210

- circular 170 mm
- square 170 mm
- rectangular 210 x 140 mm



1.290,- €

SBS 210 shown

Bi-Metallic Band Saw Blades

	SBS 210	SBS 260
for model	SBS 210	SBS 260
dimensions	2110 x 20 x 0.90	2460 x 27 x 0.90
teeth/inch	4/6	3/4, 4/6
Price €	23,-	23,-



coolant system is included



infinitely variable feed speeds



pressure gauge for saw blade tensioning

Standard Equipment SBS 210 / SBS 260: quick-action vise, coolant system, pressure gauge for saw blade tensioning, 1 saw blade, control panel, display for saw blade tension, base, operating instructions

Specifications SBS		210	260		
cutting capacity 90°				cutting speeds	m/min 40 / 80 16 / 72
- circular / square	mm	170 / 170	220 / 160	Drive Capacities	
- rectangular	mm	210 x 140	260 x 110	main drive motor rating	
cutting capacity 45°				(cont/30 min) / 400 V kW 0.9 / 0.55 1.1 / 0.59	
- circular	mm	120	90	Dimensions/Weight	
- square	mm	110	80	dimensions	
cutting capacity 60°				mm 1260 x 540 1450 x 570	
- circular	mm	70	90	x 900 x 1040	
- square	mm	60	80	weight	
				kg 160 220	
				Part No.	
				152 789 152 791	
				Price €	
				1.290,- 1.690,-	

Flexible, proven and easy to handle - the SBS series
for miter cuts up to 60°

1.690,- €



SBS 260

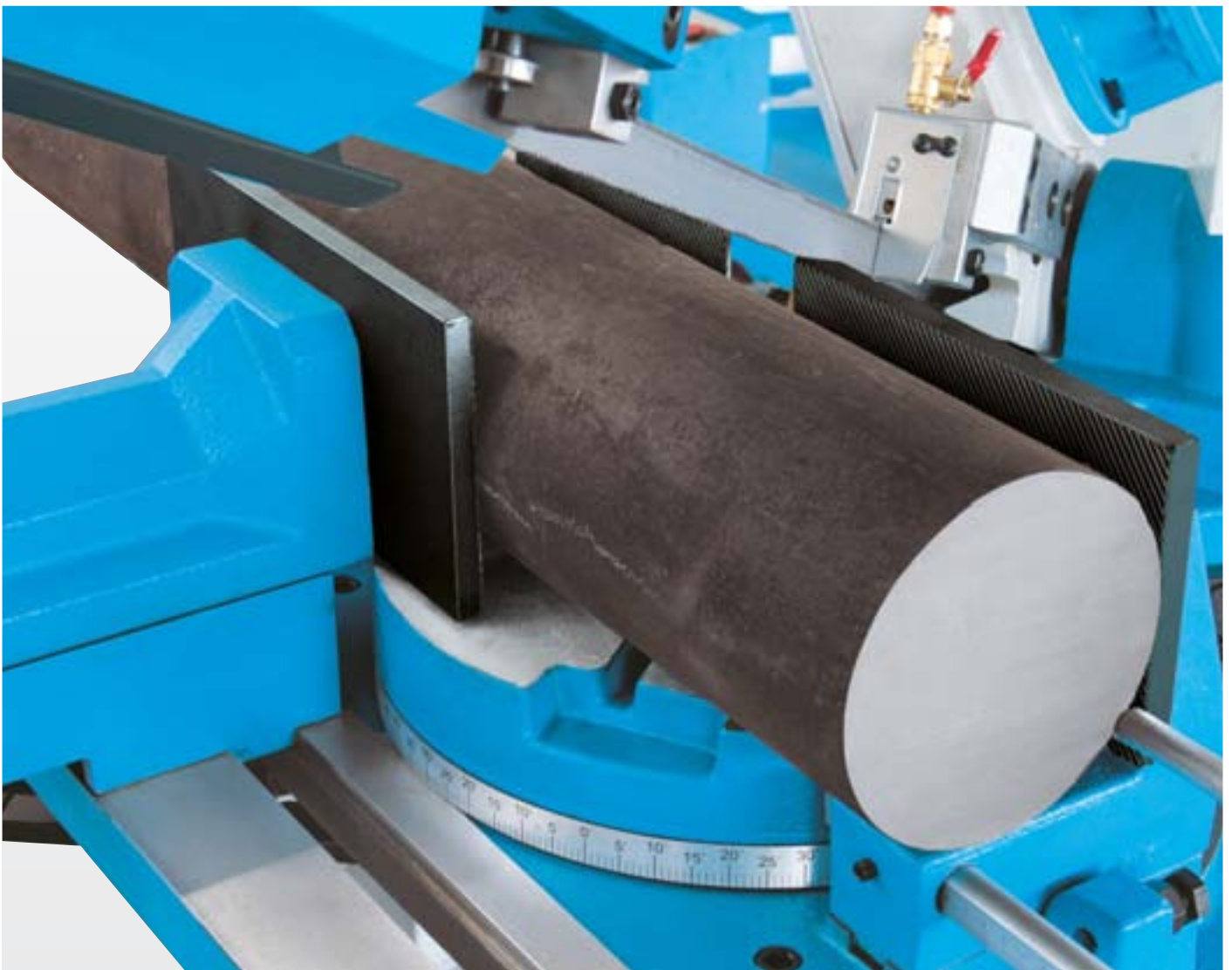
- circular 220 mm
- square 160 mm
- rectangular 260 x 110 mm



Everything within reach – the Control Panel

SBS 260 shown

- cast-iron saw frame, one-piece construction
- space-saving work process for miter cuts - the operator moves the saw frame, not the material
- hydraulic cylinder for infinitely variable saw frame feed
- cutting speeds for optimum machining results and low saw blade wear
- 2 cutting speeds for optimum machining results and low saw blade wear
- pressure gauge indicates saw blade tension
- vise with quick-action clamping and linear stop
- rigid saw blade guides, adjustable, with dual ball-bearings
- coolant system and solid base are included



machining of solid materials

- one-piece cast-iron construction of the saw frame ensures quiet operation and low vibration
- space-saving work process for miter cuts - the operator moves the saw frame, not the material
- hydraulic cylinder for infinitely variable saw frame feed
- select between 2 cutting speeds for optimum machining results and low saw blade wear
- features a pressure gauge for exact saw blade tensioning – longer tool life, lower costs and more precise cuts
- included in standard equipment: rigid vise with quick-action clamping and linear stop
- robust dual ball-bearings in the saw blade guide ensure smooth and trouble-free saw blade operation
- feed shuts off automatically at the end of the cut through the material
- coolant system and solid base are included

Bi-Metallic Band Saw Blades

Part No.	dimensions	teeth/inch	Price €
119 145	2725 x 27 x 0.90	3/4	25,-
119 146	2725 x 27 x 0.90	4/6	25,-

Standard Equipment: quick-action vise, coolant system, pressure gauge for saw blade tensioning, 1 saw blade, control panel, display for saw blade tension, base, operating instructions

Specifications SBS 310

cutting capacity 90°

- circular / square	mm	240 / 240
- rectangular	mm	310 x 210

cutting capacity 45° left

- circular / square	mm	150 / 130
- rectangular	mm	170 x 90

cutting capacity 45° right

- circular / square	mm	200 / 180
- rectangular	mm	200 x 140

cutting capacity 60° right

- circular / square	mm	120 / 95
- rectangular	mm	120 x 95
cutting speeds	m/min	72 / 36

Drive Capacities

main drive motor rating (cont/30 min) / 400 V	kW	1.5 / 0.75
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Dimensions/Weight

dimensions	mm	1600 x 720 x 1050
weight	kg	330
Part No.		152 792
Price €		2.190,-



Horizontal Dual Miter Band Saw

SBS 310

Workshop band saw offers high flexibility and frame swivels to both sides for dual miter cuts: left side 45° / right side 60°

2.190,- €



pressure gauge for saw blade tensioning

For more information, visit www.knuth.de

Band Saws - an economic alternative to frame and circular saws

B 125 S

- saw frame swivels from -45° to +60° - it is not necessary to move the part
- quick-action vise and depth stop are included
- three speed levels allow machining of a wide variety of materials
- feed table for vertical sawing is included in standard equipment

B 200 S

- saw frame swivels - allowing angular cuts from 90° to -45°
- coolant system is included

starting at

540,- €



B 125 S shown



B 200 S shown

- thin saw blade for reduced material removal
- long life - the saw blade is used over its entire length
- exact cuts - rigid construction prevents belt track deviations
- quiet, low-vibration operation

- support pressure is infinitely variable from 0 to maximum pressure via hydraulic cylinder

Bi-Metallic Band Saw Blades					F
for model	dimensions	teeth/inch	Part No.	Price €	
B 125 S	1640 x 13 x 0.65	6/10	119 151	16,-	
B 200 S	2360 x 20 x 0.90	4/6	119 150	22,-	

Standard Equipment:
coolant system (B 200 S), quick-action vise, mobile base, saw blade, table for vertical cutting (B 125 S), operating manual

Specifications		B 125 S	B 200 S	Drive Capacities	
cutting capacity 90°					
- circular / square	mm	125 / 100	205 / 205	kW / V	0.55 / 230
- rectangular	mm	125 x 100	205 x 215	belt speed	m/min
					22 / 33 / 45 / 65
cutting capacity 60°					24 / 41 / 61 / 82
- circular / square	mm	50 / 50	-	Dimensions/Weight	
- rectangular	mm	50 x 56	-	dimensions	mm
cutting capacity 45° left					1000 x 550
- circular / square	mm	95 / 76	135 / 115		1230 x 650
- rectangular	mm	95 x 76	205 x 115		x 1100
				weight	kg
					100
				Part No.	
					102 748
				Price €	
					540,-
					1.290,-

Semi-Automatic Circular Saw with pneumatic part clamping

- quick-action vise with pneumatic clamping reduces setup time
- automatic sawing process with infinitely variable feed speed
- two saw blade speeds for optimum cutting results in different materials
- miter cuts up to $\pm 45^\circ$
- gears running in oilbath

Standard Equipment: quick-action clamping vise, linear stop, foot switch, machine base, coolant system

Saw-Blades			(dim.. 350 x 3,0 x 40 mm)		
Part No.	circular pitch	Price €	Part No.	circular pitch	Price €
102 430	4	190,-	102 432	8	190,-
102 431	6	190,-	102 433	10	190,-

Specifications KHK 350

cutting capacity	90° rectangular	mm	135 x 110
	90° circular /square	mm	120 / 120
	45° rectangular	mm	110 x 90
	45° circular /square	mm	110 / 110
speed (rotations)		min ⁻¹	38, 19
vise opening		mm	145
air supply		bar	6
air consumption		l/min	120
main motor rating		kW	1,5 / 400 V
dimensions		mm	1100 x 640 x 1680
weight		kg	310
Part No.			102 139
Price €			2.490,-



starting at

1.390,- €

KKS 315 shown

Rigid, Reliable and Maximum Angle Precision

- oil-bath lubricated gear
- integrated coolant tank
- head swivels 45° to the left and to the right

Standard Equipment: quick-clamp vise, base and coolant system

Saw-Blades				
for Modell	Part No.	dimensions	circular pitch	Price €
KKS 250	109 803, 109 802	250 x 2,0 x 32 mm	4, 6	123,-
KKS 315	109 741, 109 742	315 x 2,5 x 32 mm	4, 6	194,-

KKS 250	circular	square	rectangular	KKS 315	circular	square	rectangular
90°	80	65	80x55	90°	100	82	110x70
45° L/R	65/58	55/45	60x55/55x45	45° L/R	100	82	85x70

Specifications		KKS 250	KKS 315
max. sawblade diam.	mm	250	315
motor 400 V 2-speed.	kW	0,73 / 2,2	1,47 / 2,2
speed (rotations)	min ⁻¹	45, 90	44, 88
width of vise	mm	100	120
weight	kg	131	175
Part no.		102 130	102 136
Price €		1.390,-	1.690,-





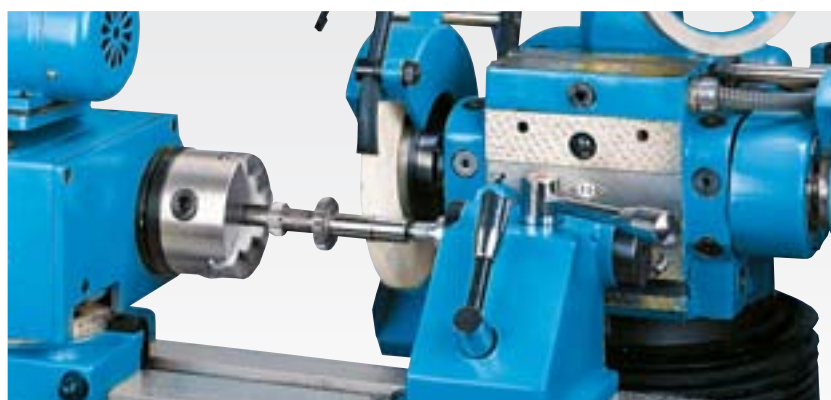
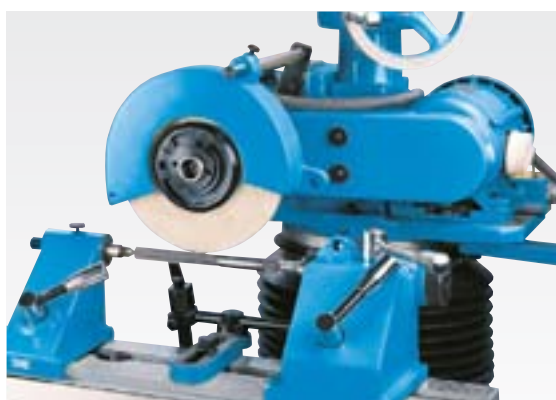
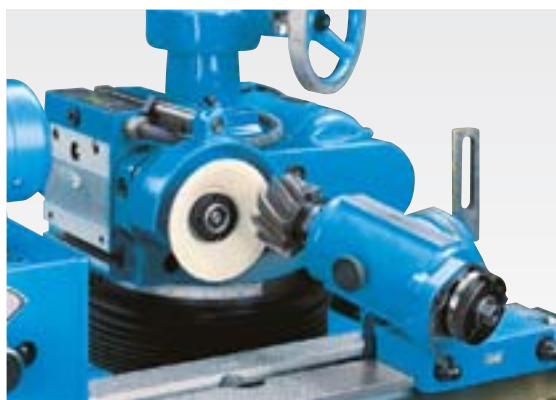
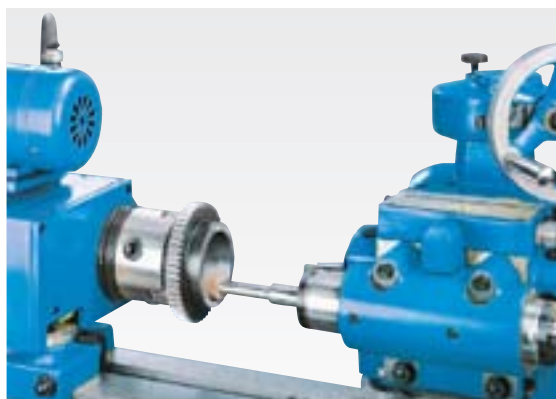
Universal Grinding Machine

Multi-Grind

Specifications Multi-Grind

max. workpiece diameter	mm	200
max. workpiece length	mm	500
max. external grinding dimensions	mm	Ø 5 - 50 x 400
max. internal grinding dimensions	mm	Ø 10 - 50 x 75
tool grinding dimensions	mm	200 x 500
surface grinding dimensions	mm	200 x 50
max. workpiece weight	kg	ca. 10
taper of headstock		MT 2
speeds of headstock	min ⁻¹	110, 200, 300
swivel		± 90°
chuck diameter	mm	100
traverse (manual)		
grinding headstock		
- vertical	mm	200
- transverse	mm	200
scale division for height adjustment	mm	0,01
height adjustment per handwheel rotation	mm	1
scale division for transverse feed fine/coarse	mm	0,005 / 0,02
transverse adj. per handwheel rotation fine/coarse	mm	1 / 4
(horizontal) swivel range of grinding headstock		± 90°
grinding spindle speed	min ⁻¹	2500
max. grinding wheel dimensions	mm	Ø 200 x 20 x 75
internal grinding spindle speed	min ⁻¹	13500
die grinder	mm	Ø 25 x 20 x 6
	mm	10 x 10 x 3
max. longitudinal table traverse	mm	480
longitud. feed speed (hydraulic)	mm	ca. 0,01 - 6
manual, w/ hydraulic support	m/min	bis ca. 7
table swivel range		+ 45° - 30°
tailstock taper		MT 2
quill travel	mm	14
total drive output	kW	2,525
grinding wheel motor output	kW	1,1
dimensions (L x W x H)	mm	1520 x 1130 x 1170
weight	kg	1300
part no.		102 781
Price €		15.800,-

Standard Equipment: coolant system, dust suction system, tool mount / indexing head MT 4, internal grinding unit, including 2 die grinders, 4 grinding wheels, three-jaw chuck (100 mm diam.), left tailstock, right tailstock MT 2, center point, half center point, balancing stand, spindle extension, vise for surface grinding (3-D angle adjustment), spring stop, 5 drivers, dresser, various splash guards, wheel guard (2x), automatic central lubrication, operation manual, test certificate





Universal Grinding Machine Multi-Grind

Ideal for tool and die construction, mechanical production, design processes, laboratories and training

When we designed the KNUTH Multi-Grind, our goal was to combine all functions of cylindrical, surface, and tool grinding into one machine.

15.800,- €

The functionality of the Multi-Grind ranges from external and internal cylindrical grinding to taper grinding. The Multi-Grind also allows easy tool grinding (sharpening of cutters, reamers and turning tools) and is suitable for light surface grinding jobs



Three-Point Bearing

The custom three-point bearing of the grinding spindle ensures minimum temperature effects and consistent grinding quality.

Feed Drives

Hydraulic table feed (longitudinal) with automatic change of direction. An additional manually operated longitudinal feed with hydraulic support allows feed speeds up to 7 m/min.

Grinding Headstock

Special grinding headstock design allows simultaneous setup of 2 different grinding wheels. The grinding headstock travels transverse, is height adjustable, and swivels around the vertical axis.

Speeds

The headstock operates at 3 different speeds (110, 200, 300 min⁻¹) which are set through an easy to operate gear shift lever.

Additional Features ...

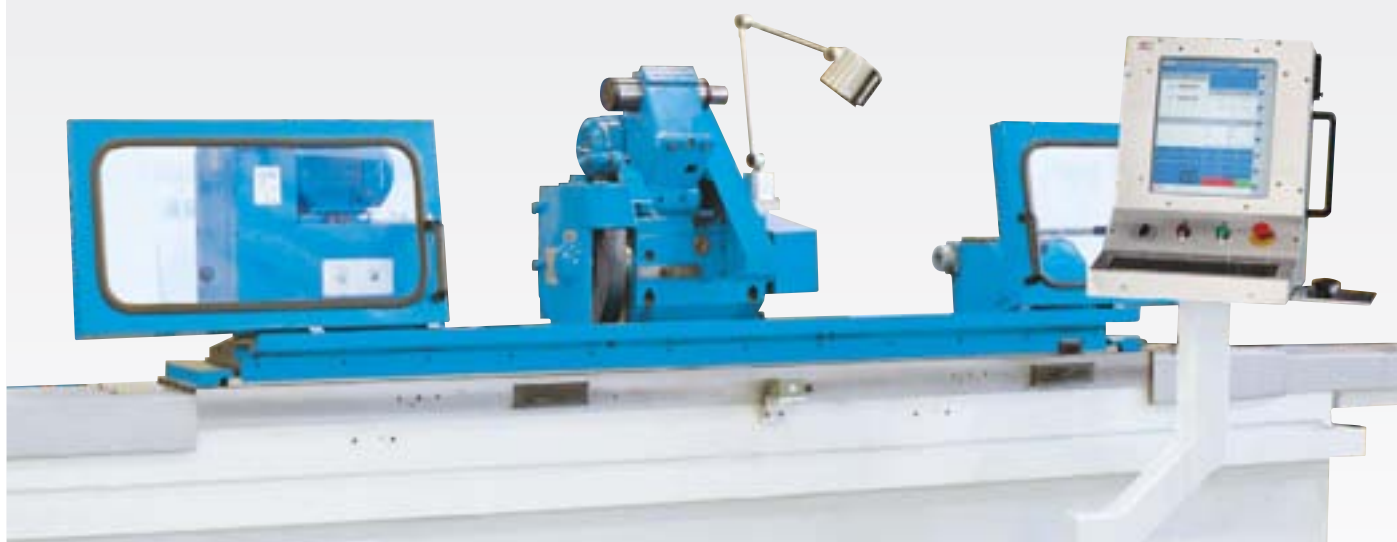
- Central lubrication system
- Sturdy construction – the KNUTH Multi-Grind body is made of solid cast-iron and weight 1300 kg; minimizes vibration effects
- Electrical components are mounted easily accessible in a control cabinet and conform to VDE regulations

- an extensive assortment of accessories, incl. coolant system (delivery up to 22 l/min.), and vacuum system are standard equipment



Control GPlus 450

optimized for maximum operator comfort when operating cylindrical grinding machines -
customized for the strict requirements of demanding grinding operations



Optional Equipment Measuring System Part No. 250 600 **Price € 5.900,-**

Standard Equipment for RSM 1000 CNC and RSM 1500 CNC: GPlus 450 control, inside grinder, grinding wheel dresser, 3-jaw chuck Ø 200 mm, steady rest, follow rest, grinding wheel balancing station, balancing arbor 80 mm, center MT 4, rough grinding wheel, fine grinding wheel, inside grinding arbor, foundation bolts, coolant system with magnetic separator, operating tools, programming and operating instructions

Specifications RSM		500 CNC	1000 CNC	1500 CNC
Working area				
center height	mm	100	180	180
center width	mm	520	1000	1500
grinding length (max.)	mm	500	1000	1500
workpiece weight (max.)	kg	35	150	150
workpiece diameter (max.)	mm	150	320	320
X axis travel	mm	115	200	200
Z axis travel	mm	-	1200	1700
inside grinding diameter	mm	10 - 40	30 - 100	30 - 100
inside grinding depth	mm	50	125	125
table feed, infinitely variable	m/min	0 - 4,5	0.1 - 5	0.1 - 5
table swivel (right / left)		7° / 7°	7° / 3°	6° / 3°
top slide strokes (max.)	mm	65	200	200
Headstock				
work spindle speed, infinitely variable	min ⁻¹	50 - 600	25 - 220	25 - 220
headstock swivel range r/l		10° / 90°	90°	90° / 90°
work spindle taper		MT 4	MT 4	MT 4
work spindle, taper		MT 4	MT 4	MT 4
Grinding Headstock				
grinding spindle speed	rpm	2000	1670	1670
inside grinding spindle speed	rpm	17000	10000	10000
grinding headstock swivel range (r+l)		180°	30°	30°
Tailstock				
tailstock taper		MT 2	MT 4	MT 4
Drive Capacities				
work spindle motor rating	kW	0.37	1.5	1.5
outside grinding motor rating	kW	2.2	5.5	5.5
inside grinding motor rating	kW	0.36	1.1	1.1
motor rating X axis feed	kW	0.85	1.8	1.8
motor rating Z axis feed	kW	1.3	2.9	2.9
total connected load	kVA	6	15	15
Dimensions/Weight				
grinding wheel dimensions	mm	300 x 40 x 127	400 x 50 x 203	400 x 50 x 203
dimensions	mm	1210 x 1246 x 1140	3220 x 2000 x 2050	4220 x 2000 x 2050
weight	kg	2200	5300	6100
Part No.		100 014	100 140	100 141
Price €		42.800,-	54.900,-	58.900,-

High-Precision Cylindrical Grinding Machine for Inside and Outside Machining

- superior machining quality and high flexibility for series and small batch productions
- these proven, solid machine frames with wide V-guides and boxways ensure low vibrations for optimum work results
- axes are driven by a servo drive and run on precision preloaded ball screws
- high-precision hydrodynamic bearings of the grinding spindle ensure optimum grinding results
- graphic support for grinding cycles makes this machine especially easy to use
- inside grinder is included in the standard package

starting at

42.800,- €

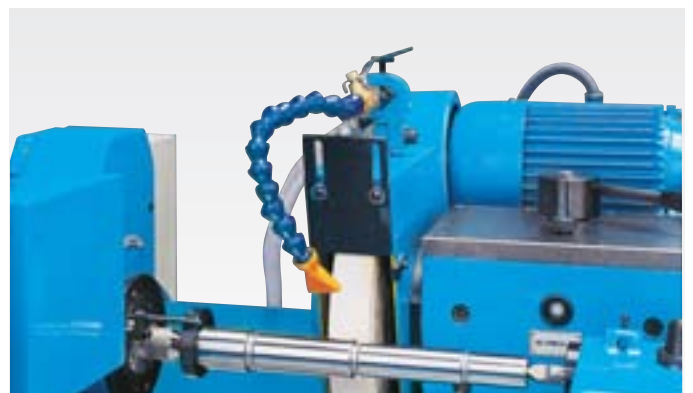


Standard Equipment for RSM 500 CNC: GPlus 450 control, inside grinder, 3-jaw chuck (80 mm), balancing station, truing feature, centers, dressing feature, grinding wheel flange, coolant system, automatic central lubrication, operator manual and programming instructions

GPlus 450
www.knuth-gplus.de



measuring system (optionally)



easy programming of grinding cycles

For more information and options, visit www.knuth.de

17.900,- €

incl. Position Indicator

Maximum reliability for outside and inside cylindrical grinding of cylindrical and conical parts

- precise spindle head alignment and rigid support for optimum work results in a wide variety of grinding and sanding applications
- table and headstock plus grinding headstock swivel for maximum versatility

- infinitely variable hydraulic linear feed
- manual and hydraulic linear movement and positioning of the grinding spindle head
- change from outside to inside grinding after 180° rotation of the grinding headstock
- footswitch operated hydraulic movement of tailstock quill
- extensive standard equipment!
- accuracy tested according to DIN for cylindrical grinders



swiveling headstock with cylindrical grinder



Accuracy:

outside: between centers 0.003 mm	inside: in the chuck 0.005 mm
inside the chuck 0.005 mm	roughing depth $ra \leq 0.64 \mu\text{m}$
roughing depth $ra \leq 0.32 \mu\text{m}$	

Standard Equipment: 2-axis position indicator, inside grinder, 3-jaw chuck (80 mm), balancing station, truing feature, centers, dressing feature, grinding wheel flange, coolant system, operating tools

Specifications RSM 500

center height	mm	100
center width	mm	520
grinding length / grinding diameter	mm	500 / 125
max. part weight	kg	10
inside grinding diameter	mm	10 - 40
inside grinding depth	mm	50
table feed, infinitely variable	m/min	0.05 - 4.5
table swivel (right / left)		$\pm 9^\circ$
Headstock		
Speed	rpm	(6) 300 - 1040
table swivels (right / left)		$\pm 45^\circ$
spindle taper		MT 4

Grinding Headstock

feed via hand-wheel rotation - X axis	mm	0.5
feed per scale division - X axis	mm	0.0025
grinding spindle speed	rpm	1800
inside grinding spindle speed	rpm	17000
Swivel range		$\pm 180^\circ$
grinding wheel dimensions	mm	300 x 40 x 27
tailstock taper		MT 2
overall drive capacity	kW	3.475
overall dimensions (LxWxH)	mm	2240 x 1160 x 1600
weight	kg	1800
Part No.		301 430
Price €		17.900,-

for external and internal cylindrical grinding
in single part and series productions

18.900,- €

incl. Position Indicator

- grinding spindle with bearings on both sides, 3-segment plain bronze bearings



grinding diameters up to 200 mm

- linear and transverse movement on combined V-guides and boxways
- grinding headstock can be rotated 180° to change from inside to outside grinding
- infinitely variable hydraulic linear feed
- hydraulic or manual pull-back and positioning of grinding wheel
- machine table swivels for easy taper grinding
- hydraulic tailstock with foot switch

accuracy (between centers):			
concentricity deviation (outside)	mm	0.003	
cylindrical deviation	mm	0.005	
roughing depth	µm	Ra<0.04	

Standard Equipment: 2-axis position indicator, 3-jaw chuck (160 mm diam.), coolant system, grinding wheel dresser, balancing station, centers, inside grinder, tool driver, operating tools, operator manual

Specifications RSM 750			
center height	mm	125	
center width	mm	750	
grinding length / grinding diameter	mm	750 / 200	
max. part weight	kg	50	
inside grinding diameter	mm	13 - 80	
inside grinding depth	mm	125	
table feed, infinitely variable	m/min	0.1 - 4	
table swivel (right / left)		-3° / +7°	
Headstock			
Speed	rpm	(6) 60 - 460	
table swivels (right / left)		± 180°	
spindle taper		1:5	
Grinding Headstock			
feed via hand-wheel rotation X axis	mm	1	
feed per scale division X axis	mm	0.00125	
grinding spindle speed	rpm	1820	
inside grinding spindle speed	rpm	21000	
swivel range		± 180°	
grinding wheel dimensions	mm	400 x 40 x 203	
tailstock taper		MT 3	
overall drive capacity	kW	4.6	
overall dimensions (LxWxH)	mm	2700 x 1420 x 1600	
weight	kg	2900	
Part No.		170 150	
Price €		18.900,-	



Standard Equipment:

2-axis position indicator, inside grinding unit, open rest, closed rest, 3-jaw chuck, coolant system, grinding wheel dresser, balancing bench, balancing mandrel, surface plate, grinding wheel flange, grinding wheel, center point, front and rear splatter guard, dog plate, operating tools, operating manual, test certificate

Accuracy: (over entire length)

concentricity 0.003 mm
 cylindr. deviation 0.006 mm (over 1000), 0.008 mm (over 1500)
 roughing depth $ra \leq 0.32 \mu\text{m}$

For available options for this machine, please visit our website and search for RSM 1000 / 1500 (Product Search)

Specifications	RSM 1000	RSM 1500				
center height	mm	180	180	wheel speeds	m/s	35 35
max. grinding diameter	mm	320	320	speeds	rpm	1670 1670
with steady rest	mm	60	60	max. wheel head travel	mm	246 246
min. grinding diameter	mm	8	8	rapid feed / return	mm	50 50
max. grinding length	mm	1000	1500	feed per handwheel rotation	mm	0.5; 2 0.5; 2
inside grinding diameter	mm	with rest 35-100		feed per scale division	mm	0.0025; 0.01 0.0025; 0.01
	mm	without rest 30-100		max. swivel range		$\pm 30^\circ$ $\pm 30^\circ$
max. inside grinding depth	mm	125	125	inside grinding feature, grinding wheel dim.		
headstock taper		MT 4	MT 4	- max.	mm	50x25x13 50x25x13
tailstock taper		MT 4	MT 4	- min.	mm	17x20x6 17x20x6
max. workpiece weight betw. centers	kg	150	150	speeds	min ⁻¹	10000 10000
tailstock spindle travel	mm	30	30	total drive power	kW	9 9
min. grinding disk feed	mm	0.0025	0.0025	grinding disk motor rating	kW	5,5 5,5
max. headstock swivel		+90°	+90°	hydraulic motor	kW	0,75 0,75
headstock speed (infinitely var.)	min ⁻¹	25 - 220	30 - 240	headstock	kW	1,5 1,5
chuck diameter	mm	200	200	coolant pump	kW	0.12 0.12
max. table length travel	mm	1000	1500	dimensions (LxWxH)	mm	3605x1810x1515 4605x1810x1515
max. table swivel range		+3° / -7°	+3° / -6°	weight	kg	3700 4300
table feed	m/min	0.1 - 4	0.1 - 4	Part No. incl. position indicator		102 445 102 446
gr. wheel dim.: OD x W x ID	mm	400x50x203	400x50x203	Price incl. position indicator €		27.800,- 29.900,-



Conventional Cylindrical Grinding Machine

RSM 1000 • RSM 1500

High-Precision Cylindrical
Grinding Machines
for Inside and
Outside Turning

starting at

27.800,- €

incl. position indicator



- Grinding spindle supported on both sides in an adjustable 3-segment bushing
- the headstock's hydrodynamic bearing creates an oil film between bearings and spindle, resulting in minimized vibrations and maximized precision for superior surface quality, long spindle life and increased rigidity
- precise spindle head alignment and rigid support for optimum work results in a wide variety of applications and conditions
- Precise alignment of spindle head and rigid guideways ensure optimum work results in a variety of applications.

- Large-sized table swivels in two directions.
- Table movement by handwheel or automatically by hydraulic length feed.
- Infinitely variable feed.
- A dwell time can be set at the end of the table travel.
- Accuracy tested in accordance with ISO for cylindricalgrinding machines

- The sturdy spindle head swivels 30° to the left and the right
- Pawl-feed in combination with a zero-stop allows repeated feed without checking the feed scale.
- Including inside grinding feature and automatic infeed
- Hydraulic or manual rapid feed with return

For more information, visit www.knuth.de

High-Performance Surface Grinders with programmable Siemens PLC Control

- servo drives on X and Y axis for maximum precision
- Y and X axis can be positioned via an electronic hand wheel (VR models)

starting at

38.900,- €

incl. Position Indicator



HFS E VR shown

Standard Equipment for HFS E VR / VC: 2-axis position indicator, grinding wheel, hydraulic oil cooler, magnetic clamping plate, grinding wheel flange, balancing shaft, balancing station, splatter guard, adjustable machine feet, electronic hand-wheel (VR models only), diamond dresser, automatic central lubrication, automatic degausser, operating tools, operating instructions

Specifications HFS E			50100 VC	60120 VC	80160 VR	80220 VR
Working area						
travel	- X axis	mm	1200	1400	1900	2500
	- Y axis	mm	540	660	900	900
sanding area (max.)		mm	1000x500	1200x610	1600x810	2200x810
workpiece weight (max.)		kg	700	970	1630	2240
spindle axis-to-table distance (max.)		mm	600	600	820	820
table dimensions		mm	1000x500	1260x610	1600x810	2200x810
T-slots (spacing x qty x width)		mm	160x3x18	200x3x18	250x3x22	250x3x22
scale ring division	- Y axis	mm	0,02	0,02	0.005 (electronic hand-wheel)	
	- Z axis	mm	0,002	0,002	0.005 (electronic hand-wheel)	
feed per hand wheel rotation						
- Y axis		mm	5	5	0,5 / 5	0,5 / 5
- Z axis		mm	0,5	0,5	0,5 / 5	0,5 / 5
Feed						
Feed Speed	- X axis	m/min	5-25	5-25	5-25	5-25
	- Y axis	mm/min	1250	1250	50-2000	50-2000
autom. feed	- Y axis	mm	0,5-20	0,5-20	1-30	1-30
	- Z axis	mm	0,005 / 0,01 / 0,015 / 0,02 / 0,03 / 0,04		0,005-0,05	0,005-0,05
Z axis rapid feed		mm/min	230	230	50-2000	50-2000
Drive Capacities						
headstock motor		kW	7,5	7,5	18,5	18,5
motor rating - hydraulic pump		kW	4	5,5	5,5	5,5
total connected load		kVA	12	14	28,5	28,5
electromagnetic clamping plate		mm	1000x500	1000x600	(2x) 800x800	(2x) 1000x800
Dimensions/Weight						
grinding wheel dimensions		mm	355x(20-50)x127	355x(20-50)x127	500x75x305	500x75x305
overall dimensions (L x W x H)		mm	4700x2200x2570	4740x2400x2570	4700x3500x2720	6000x3500x2720
weight		kg	5500	6500	10000	11500
Part No. with position indicator			124 400	124 402	124 412	124 413
Price with position indicator			38.900,-	45.900,-	69.900,-	79.900,-



Surface Grinder

HFS

starting at

14.900,- €

incl. position indicator

High precision and easy operation ensure efficient and cost-effective machining of all your parts



HFS 4080 VC shown with optional accessories

- designed for continuous operation at maximum speed, very quiet operation, maximum accuracy and minimal heat accumulation ensure optimum machining results
- grinding spindle runs in maintenance-free preloaded precision angular ball bearings
- automatic transverse and longitudinal feed
- rapid feed for setup to desired work height (HFS VC)
- adjustable roughing, finishing, and spark-out strokes hydraulic longitudinal table movement on Y axis (HFS VC)

- double table V-guide in transverse table, V-guide and flat guides in longitudinal table
- table guideways are hardened, ground, and PTFE (polytetrafluorethylene) counterlaminated - ensuring maximum wear resistance
- high table load capacity for heavy parts
- external hydraulic unit ensures high temperature stability
- automatic central lubrication

Specifications		HFS 2550 C	HFS 3063 C	HFS 4080 C
work table dimensions	mm	250 x 500	300 x 630	400 x 800
max. part weight	kg	180	270	500
max. travel - longitudinal	mm	560	765	910
- transverse	mm	275	340	450
spindle center-to-table distance	mm	450	565	580
hydr. table movement	m/min		7 - 23	
autom. cross feed	mm		0.1 - 8	
rapid cross feed	mm/min		990	
scale ring division Y axis	mm		0.02	
rapid vertical feed	mm/min		460	
scale ring division Z axis	mm		0.005	
grinding wheel dimensions	mm	200 x 20 x 31,75	350 x 40 x 127	350 x 40 x 127
grinding spindle motor	kW	2,2	5,5	5,5
dimensions (LxWxH)	mm	2650 x 2150 x 1675	2800 x 2200 x 1890	3600 x 2400 x 1890
weight	kg	1800	2700	3800
Part No. incl. position indicator		124 284	124 292	124 300
Price incl. position indicator €		14.900,-	17.900,-	22.900,-
with autom. vertical feed		HFS 2550 VC	HFS 3063 VC	HFS 4080 VC
autom. vertical feed	mm	0,005 - 0,05	0,005 - 0,05	0,005 - 0,05
servo motor	kW	0,5	0,5	0,5
control		Siemens SPS (PLC)	Siemens SPS (PLC)	Siemens SPS (PLC)
Part No. incl. position indicator		124 288	124 296	124 304
Price incl. position indicator €		15.900,-	19.800,-	24.800,-

Standard Equipment:
2-axis position indicator, grinding wheel, wheel flange, balancing shaft, balancing stand, halogen table lamp, adjustment screws, degaussing system, operating tools, operator manual

Optional Equipment:

- electromag. clamping plate 250 x 500 mm
Part No. 122 286 **€1.100,-**
300 x 600 mm
Part No. 122 294 **€1.400,-**
400 x 800 mm
Part No. 122 302 **€1.990,-**
- coolant system and exhaust system
Part No. 122 309 **€1.640,-**
- magnetic coolant cleaning system
Part No. 122 310 **€1.980,-**

"V" model pre-programmed vertical feed with servo drive

- spindle resists high loads; mounted in pre-loaded angular deep-groove ball bearings ensures low-vibration operation, high accuracy, increased lifetime, and low maintenance
- completely leakproof, and balanced spindle motor with high load capacity
- solid, vibration-absorbing construction
- V- and flat guides in x and y direction for consistently high accuracy
- longitudinal table movement over linear ball guide; linear ball track
- longitudinal table travel via cogged belt for smooth movement
- adjustable handwheel scales for vertical and transverse adjustments allows setting of point of origin at any position
- central lubrication
- grinding parallelism 0.005 mm / 300 mm



Standard Equipment:

exhaust vacuum, work lamp, grinding wheel 200 x 13 x 32 mm, magnetic clamping plate 125 x 300 mm, diamond dresser, balancing shaft, balancing station, operating tools, machine vice 75 mm, grinding wheel dresser holder

For available options for this machine, visit our website and search for FSM 480 (Product Search)

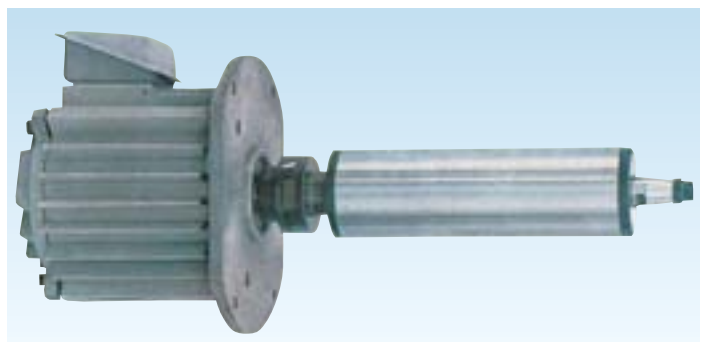
Specifications FSM 480

longitudinal table travel	mm	480
transverse travel	mm	230
spindle-table distance	mm	470
roughness		RA> = 0,63
table work area	mm	210 x 450
wheel dimensions	mm	200 x 13 x 32
feed / handwheel rotation / scale gradation		
- transverse/longit.dir.	mm	5 / 0,02
- vertical direction	mm	1 / 0,005
motor output	kW	1,85
weight	kg	730
Part no.		122 801
Price €		7.990,-

7.990,- €



linear ball track



flanged spindle

Adjustable clearance angle for perfect grinding results

- 6-jaw precision check for maximum accuracy
- guaranteed optimum cutting symmetry
- simple operation
- adjustable clearance angle
- grinds all drills, step drills, sheet metal drills, wood drills, and cutters made of HSS and carbide
- for high-quality machining of face mills and chamfering tools
- available with optional diamond wheel

starting at

2.980,- €



6-jaw precision chuck ensures optimum cutting symmetry

Standard Equipment:
base, self-centering 6-B chuck, halogen work lamp, operating tools, grinding wheels, mounts MT2 and MT3

Optional Equipment:
• diamond disk set 150 x 32 x 32 and 125 x 32 x 32 mm
Part No. 122 967 **Price € 580,-**
For available options for this machine, visit our website and search for BFT (Product Search)

Specifications BFT		
angle adjustment		40 - 100°
grinding capacity	mm	Ø1,5 - 32 MK2 / MK3
grinding wheel speed	min ⁻¹	4200
motor rating	V / kW	400 / 0.18
dimensions (LxWxH)	mm	750-830-1070
weight	kg	180
Part No.		122 968
Price €		2.980,-





Universal Tool Grinder

SM

Universal Tool
Grinder for grinding
profile forms

1.490,- €

shown with
standard equipment



H

Specifications SM			weight machine	kg	56
max. collet diameter	mm	18	weight base	kg	17
max. grinding diameter	mm	25	dimensions	mm	450x400x350
taper grinding		0° ~ 180°	tool holder travel	mm	140
rear angle		0° ~ 45°	tool holder handwheel rotation		18
speed	rpm	5200	spindle handwheel rotation		8
cup wheel	mm	100 x 50 x 20	Part No.		102 880
motor	W / V	180 / 400	Price €		1.490,-



Standard Equipment: base, dresser, grinding wheel mount, grinding wheel, operating tools, operator manual, spare parts list, test certificate, collets 3, 4, 6, 8, 10 mm

Optional Equipment for SM			collet 2,5 mm	102 864	49,-	collet 10 mm	102 869	49,-
Name	Part No.	Price €	collet 3 mm	102 865	49,-	collet 12 mm	102 870	49,-
diamond wheel	102 861	180,-	collet 4 mm	102 866	49,-	collet 16 mm	102 871	49,-
wheel flange	102 874	90,-	collet 6 mm	102 867	49,-	collet 18 mm	102 872	49,-
cup wheel	102 875	88,-	collet 8 mm	102 868	49,-	diamond dresser shank	102 877	72,-



Support Grinding Device

SUS 210 • SUS 190

for external and
internal cylindrical

H

Specifications		SUS 190	SUS 210
speed range	rpm	3850	3320
dimensions	mm	460 x 320 x 390	570 x 330 x 390
grinding wheel dimensions	mm	175 x 32 x 20	200 x 32 x 20
motor rating	W	375	750
weight	kg	22	30
Part no.		112 795	112 796
Price €		989,-	1.099,-

- grinding unit is clamped to the tool holder attachment bolt (SUS 210 40 mm Ø and SUS 190 35 mm Ø)

grinding wheel			
for SUS 190	standard corundum	# 112 793	Price € 64,-
	silicon carbide	# 112 794	Price € 88,-
for SUS 210	standard corundum	# 112 797	Price € 81,-
	silicon carbide	# 112 798	Price € 108,-



starting at

989,- €

SUS 210
shown

2.690,- €



Specifications KSW 200

max. grinding diameter	mm	125
max. grinding length	mm	320
longitudinal table movement	mm	300
transverse table movement	mm	150
spindle-to-table distance	mm	115
pivoting grinding head		± 40°
motor	W / min ⁻¹	180 / 2800
dimensions (LxBxH)	mm	1300 x 780 x 950
weight	kg	280
Part no.		101 417
Price €		2.690,-



Universal Tool Grinding Machine

KSW 200

Standard Equipment: right and left tailstock, spring stop, variable table stops, standard center 60°, half center 60°, 1 cupwheel and 1 diamond top wheel (125x35x32mm), 1 grinding wheel and 1 poppet (125x15x32mm) 3-jaw turning chuck, twist drill grinding feature, turning tool holder, cutter mandrels 16 mm, 27 mm, 32 mm, base frame, operating tools, operator manual



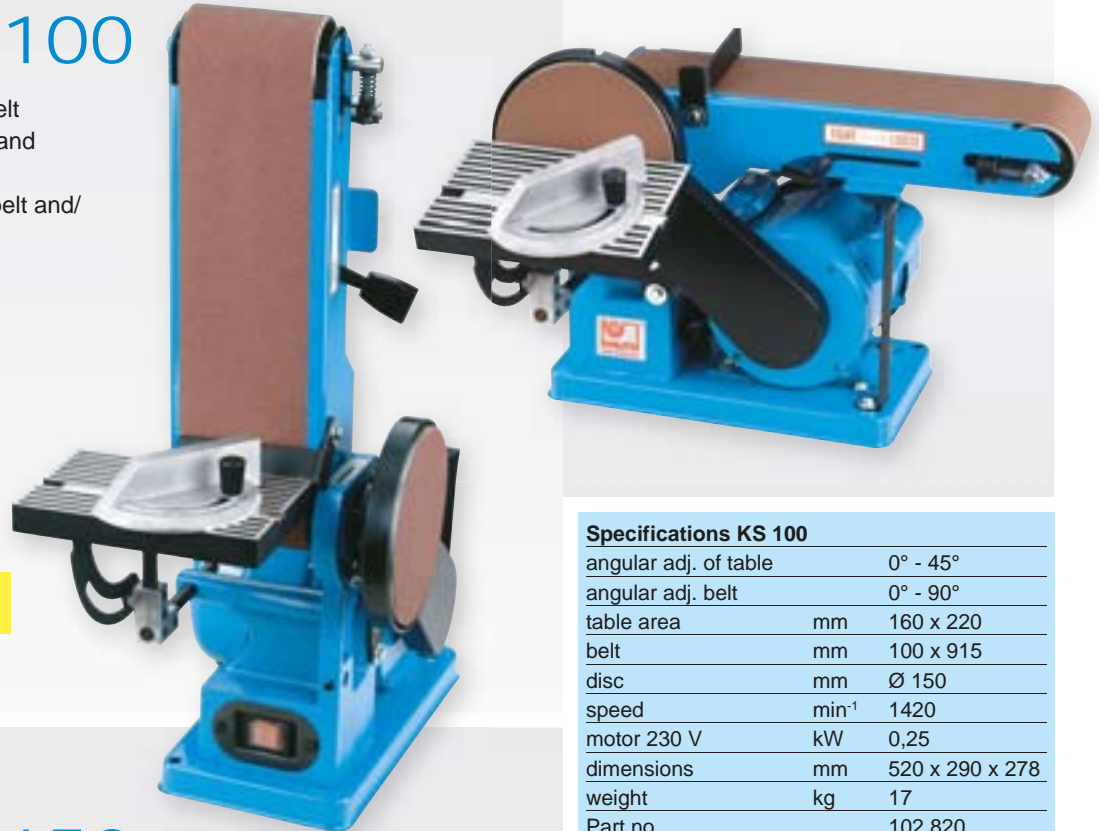
Belt / Disk Sander Combination

KS 100

- fine-adjustment of abrasive belt
- Belt sanding feature, vertical and horizontal use
- support table convertible for belt and/or disk sanding operation
- low-vibration operation
- including miter stop 0° - 60°
- adjustable tool table angle

198,- €

III. KS 100



Specifications KS 100

angular adj. of table	0° - 45°
angular adj. belt	0° - 90°
table area	mm 160 x 220
belt	mm 100 x 915
disc	mm Ø 150
speed	min ⁻¹ 1420
motor 230 V	kW 0,25
dimensions	mm 520 x 290 x 278
weight	kg 17
Part no.	102 820
Price €	198,-



KS 150

490,- €

III. KS 150
Base is included



KS 100

	Discs	Price €	Belt	Price €
Grit	Part no.	10 each.	Part no.	
K 40	102 734	24,-	102 735	10,-
K 80	102 821	19,-	102 827	7,-
K 100	102 822	19,-	102 828	7,-
K 120	102 823	19,-	102 829	7,-
K 180	102 824	19,-	102 830	7,-
K 240	-	-	102 831	7,-
K 400	102 826	19,-	102 832	7,-

Specifications KS 150

angular adj. table	0° - 45°
table area	mm 310 x 190
belt	mm 150 x 1220
angular adj. belt	0° - 90°
speed (belt)	m/sek. 11
disc diameter	mm Ø 230
speed (disc)	min ⁻¹ 1500
motor 400 V	kW 0,6
height	mm 1000
weight	kg 59
Part no.	102 800
Price €	490,-

KS 150

	Discs	Price €	Belt	Price €
Grit	Part no.	10 each	Part no.	
K 40	102 721	41,-	102 725	17,-
K 60	-	-	102 726	17,-
K 80	102 801	38,-	102 807	12,-
K 100	102 802	38,-	102 808	12,-
K 120	102 803	40,-	102 809	12,-
K 180	102 804	38,-	102 810	12,-
K 240	102 805	38,-	102 811	12,-
K 400	102 806	38,-	102 812	12,-



Turning Tool Grinder

DS

680,- €



- cup wheels set up on both sides (150mm)
- 0.74kW motor, 230V
- 2850 min⁻¹
- 18 mm Ø shaft
- weight 55 kg
- angular slide stops, 45°, on both sides
- both tables swivel 45°, read-out on scale
- catch trays and coolant reservoir for both sides, exchangeable
Part No. 102 785 Price € 680,-

Carbide cup wheel	Part No. 120 785	Price €	169,-
HSS cup wheel	Part No. 120 780	Price €	112,-



Belt / Disk Sander Combination

BTM 250

Universal Sander for Workshop Applications

- support table for disk and belt sanding
- easy belt change with quick-lock mechanism
- belt sander can be used horizontally and vertically
- dust suction connector at disk and belt sander unit
- balanced sander disk for vibration-free operation

954,- €



rigid steel base included

Specifications BTM 250			
Belt Sander		table dimensions	mm 190 x 330
belt size	mm 150 x 1220	table angle	
belt		adjustment	45°
speed	m/sec 8,4	400 V motor	kW 0.75
table		overall dim.	mm 585 x 660
dimensions	mm 152 x 267	(LxWxH)	x 1550
Disk Sander		weight	kg 78
disk diameter	mm 250	Part No.	112 700
disk speed	rpm 1600	Price €	954,-

Grit	Disks Part No.	Price 10-pack	Belt Part No.	Price Each €
K 40	112 705	60,- H	102 725	17,- J
K 60	112 706	54,- H	102 726	17,- J
K 80	112 707	44,- H	102 807	12,- J
K 100	112 708	44,- H	102 808	12,- J
K 120	112 709	44,- H	102 809	12,- J
K 180	112 710	44,- H	102 810	12,- J
K 240	112 711	44,- H	102 811	12,- J
K 400	112 712	44,- H	102 812	12,- J

Hydraulic Press for Bending, Blanking and Dies

- strong hydraulic cylinder and two circular guides ensure uniform and precise feeding during press operation
- also suitable as try-out press
- ram plate and large work table with T-slots for tool clamping
- firmly bolted work table
- adjustable end stop



Operation Example

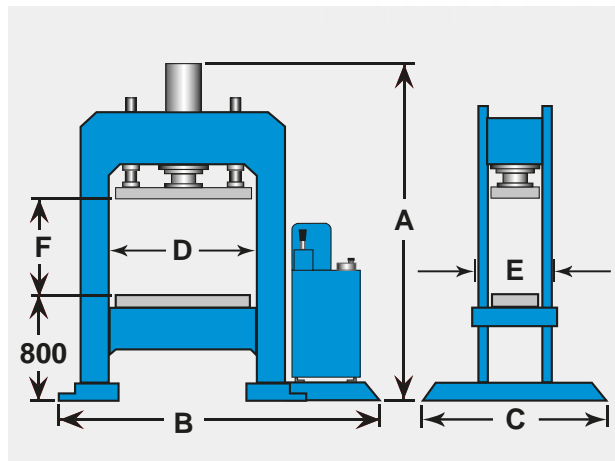


starting at

15.900,- €



KP 70 shown



Model	A	B	C	D	E	F
KP 70	2250	1700	700	900	500	500
KP 100	2300	1900	850	1050	600	500
KP 150	2600	2300	1000	1250	700	500
KP 200	2700	2300	1500	1250	700	500

Specifications		KP 70	KP 100	KP 150	KP 200
capacity	t	70	100	150	200
cylinder stroke	mm	500	500	500	500
rapid feed	mm/s	18	22	20	20
stroke speed	mm/s	2	2	2	2
motor rating	kW	1,5	4	3,2	7,5
weight	kg	1100	1600	3000	4300
Part No.		131 560	131 565	131 570	131 575
Price €		15.900,-	19.900,-	28.800,-	44.900,-

**Ideal for craft shops, schools,
and training facilities**

- rigid weldment design
- reliable, highly accurate hydraulic system, european mfg
- pump lever for manual pressing buildup
- piston and return-spring reset
- rigid base table with selectable heights, height adjusted by handwheel
- ram height also adjustable via screw
- with guided cylinders

**For any repair and installation work,
e. g. :**

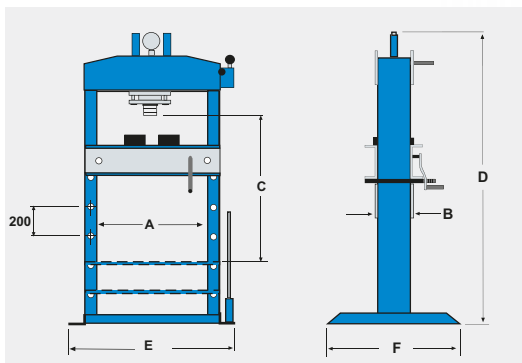
- removal and installation of press-fit bearings, bolts and bushings
- straightening beams, shafts, axles, and sections
- pressing and climping
- load tests and weld sample testing
- tool setup- material testing

starting at

2.100,- €



KWP 50M shown



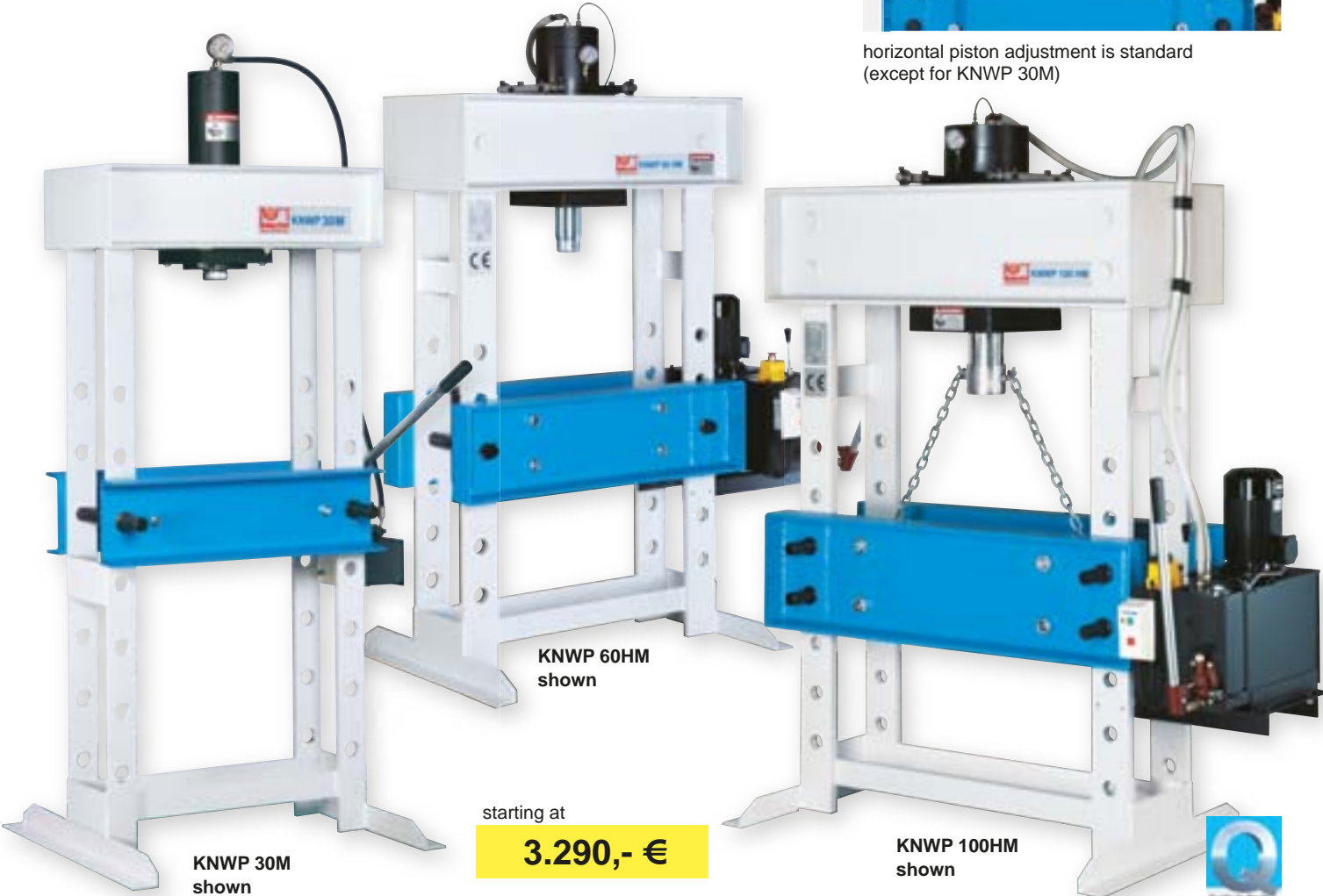
Standard Equipment: screw, pressure gauge, hand-wheel adjustable work table, 2 base plates, operator manual

Specifications		KWP 50 M	KWP 80 M
capacity	t	50	80
manual pump		1	1
max. pressure	bar	500	500
piston stroke	mm	120	120
screw stroke	mm	100	100
circular guides		2	2
A	mm	770	850
B	mm	165	205
C	mm	1020	1020
D	mm	1910	2050
E	mm	1000	1140
F	mm	750	800
weight	kg	230	330
Part No.		131 736	131 739
Price €		2.100,-	3.100,-

Hydraulic Workshop Presses with double-acting cylinder (except KNWP 30M), easy to use



horizontal piston adjustment is standard (except for KNWP 30M)



KNWP 30M shown

KNWP 60HM shown

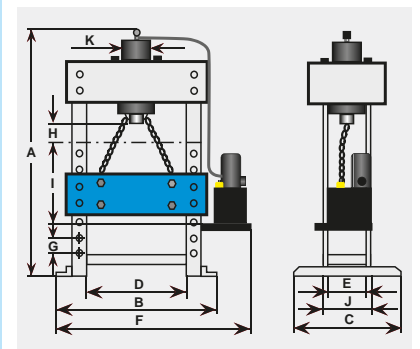
KNWP 100HM shown

starting at

3.290,- €

Specifications		KNWP30M	KNWP60HM	KNWP100HM	KNWP160HM
capacity	t	30	60	100	160
motor rating	kW	-	1,5	2,2	3
stroke rate	mm/min	-	132	162	138
(2 steps)			552	552	534
return speed	mm/min	-	762	738	720
max. pressure	bar	310	235	266	283
piston stroke	mm	220	400	400	400
Hydraulics					
flow rate	l/min	-	3.3 / 13.5	5.8 / 19.6	7.3 / 28.4
oil tank capacity	1	2	20	20	20
dimensions					
A	mm	1983	2040	2110	2212
B	mm	840	1150	1320	1600
C	mm	750	900	900	1100
D	mm	560	750	920	1100
E	mm	200	250	300	350
F	mm	919	1490	1660	1905
G	mm	150	150	150	150
H	mm	174	191	174	203
I	mm	900	750	750	750
J	mm	230	505	564	614
K	mm	130	210	254	324
weight	kg	230	685	955	1575
Part No.		131 740	131 760	131 762	131 764
Price €		3.290,-	5.900,-	7.900,-	9.999,-

- 30 to 160 tons force
- ideal for repair and assembly work
- truing of axles, supports, shafts, and much more
- removal and pressfitting bearings and bushings
- all HM models with motorized hydraulic drive**
- automatic piston return
- 2-step hydraulic unit
- supply voltage 3x400V / 50 Hz
- horizontal piston adjustment



Die Press and Try-Out Press

- strong hydraulic cylinder and two circular guides ensure uniform and precise feeding during press operation
- ideal for die pressing, blanking, bending, and much more
- semi-automatic with lever and micro-switch
- stroke length with quick adaption to next tool
- ram plate and work table with T-slots for tool clamping
- firmly bolted work table
- advance and reverse jog operation for easy machine set-up
- stroke limit adjustable by micro-switch
- optimum table height
- 2-stage hydraulic pump



starting at

18.800,- €

Standard Equipment: ram plate and work table with T-slots, adjustable ram stroke, pressure gauge, hand lever operation, operator manual



Specifications		HPK 40	HPK 70	HPK 100	HPK 150
press force	t	40	70	100	150
cylinder stroke	mm	500	500	500	500
stroke speed	mm/s	4	2	2	3
rapid feed	mm/s	29	20	22	20
work table	mm	700 x 500	700 x 500	800 x 600	800 x 600
ram plate	mm	700 x 350	700 x 350	700 x 350	800 x 400
length x width	mm	1000 x 1500	1000 x 1500	1200 x 1900	1500 x 2200
height	mm	2500	2500	2600	3000
weight	kg	2050	2200	3400	5500
Part No.		131 568	131 574	131 566	131 576
Price €		18.800,-	22.900,-	23.900,-	34.800,-

KEX 60 SP

Powerful, safe, and rigid

with pneumatic clutch and light barrier protection for open tools

F



- torsion-resistant weldment
- high-quality bearings ensure quiet, smooth operation
- 4 guideways for precise stamp control
- two-hand operation and foot pedal ensure maximum safety and operator comfort
- mechanical overload protection protects the machine from damages caused by overload conditions
- clutch and brake combination ensures low-maintenance operation
- the PLC detects and controls the crankshaft position
- fully automated lubrication is controlled via SBS independent from the stroke
- the AC converter allows adjustment of various work speeds

Standard Equipment KEX 60 SP:
mechanical overload protection, foot switch, two-hand control panel, automatic central lubrication, work space enclosure, light barrier, pneumatic clutch, PLC Control, AC converter, infinitely variable stroke adjustment, operating tools, operator manual

KEX 60 SP is shown

Specifications		KEX 10	KEX 15	KEX 20	KEX 30	KEX 60 SP
force	tons	10	15	20	30	60
intermediate plate-to-ram dist.	mm	130	172	196	215	285
base plate-to-ram dist.	mm	180	226	261	290	360
stroke	mm	40	40	50	60	100
throat	mm	150	200	200	200	250
ram mount	mm	Ø 25	Ø 30	Ø 35	Ø 40	Ø 45
stroke speed	min ⁻¹	200	200	160	140	65
stroke adjustment	mm	10-40	10-40	10-50	10-60	10-100
setup area	mm	270x380	320x490	360x550	400x600	500x700
table bore	mm	Ø 100	Ø 130	Ø 140	Ø 150	Ø 180
flywheel	mm	Ø 540	Ø 585	Ø 680	Ø 710	Ø 685
motor rating	kW	0,75	1,5	2,2	3	5,5
dimensions	mm	760x770x1662	964x724x1726	1042x794x1856	790x1025x1965	1164x1320x2358
weight	kg	530	740	1150	1600	3500
Part No.		130 070	130 071	131 390	131 392	131 395
Price €		8.900,-	12.900,-	14.900,-	17.900,-	39.800,-
with pneumatic clutch, 2-hand operation, light barrier			KEX 15 P	KEX 20 P	KEX 30 P	
Part No.		-	130 072	131 391	131 393	-
Price €			17.900,-	20.600,-	24.800,-	



Eccentric Shaft Press

KEX 10 • 15 • 20 • 30 • 60 SP

Compact, powerful Single-Column Eccentric Presses with forces in the range of 10 to 60 tons

- heavy-duty steel weldment
- high stroke speed equals low-cost operation
- ram guideway made of brass/steel
- foot switch
- quiet operation
- central lubrication

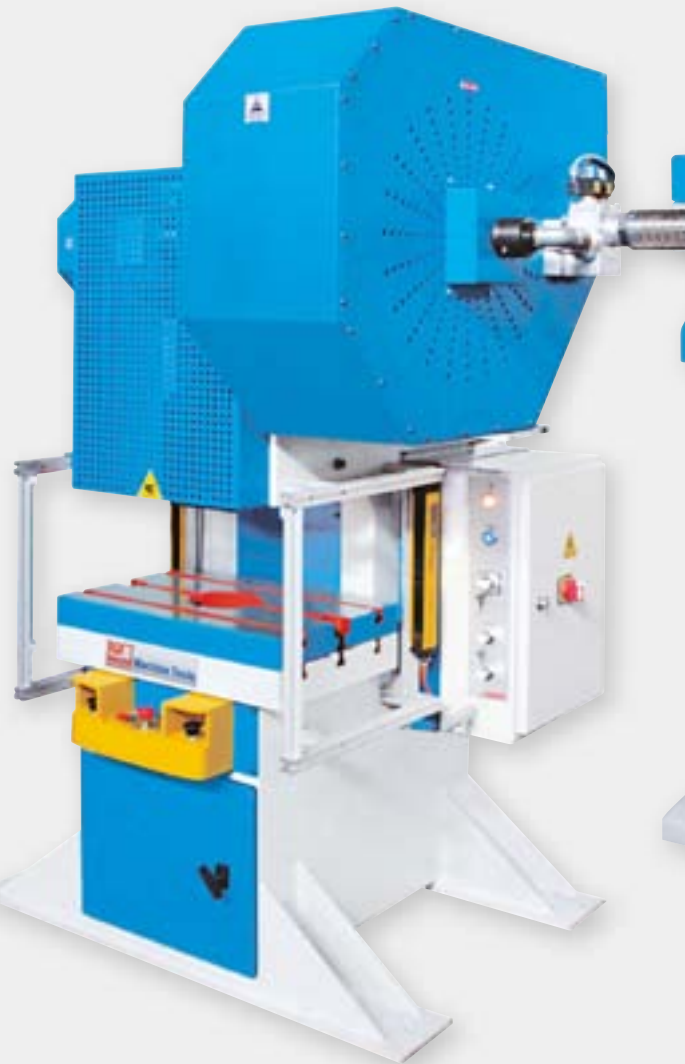
with standard clutch for closed tools (except KEX 60 SP)

starting at

8.900,- €

KEX 15 P, 20 P, 30 P:

Same description as above, however, these models include a pneumatic clutch and 2-hand control and light barrier



KEX 30 P is shown with pneumatic clutch, 2-hand control, and light barrier



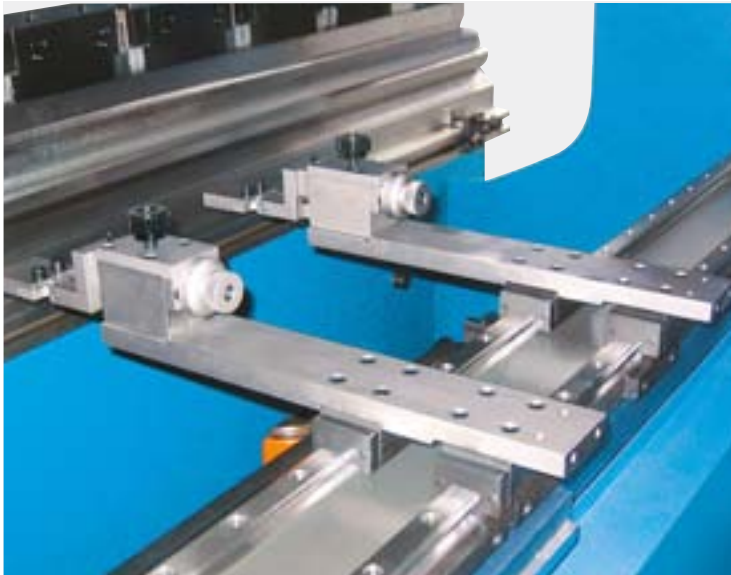
KEX 15 is shown



Standard Equipment for KEX 10 • 15 • 20 • 30: mechanical overload protection, foot switch, central lubrication, workspace enclosure, operating tools, operator manual

Cybelec DNC 880 S

- Intuitive programming with clear, easy to read color-coded field functions
- Complete programming of parts on one programming page
- Comfortable operation via ergonomically tilted keyboard and 10" TFT color monitor
- Offline 2-D software to prepare production programs at the PC, and to verify the feasibility of program editing at the machine
- Quick and easy modification of existing machining programs increases productivity
- 2D graphics for display and multiple simulations: optimum folding sequences - tools, plus the plate position inside the tools - collision warnings are displayed according to the user-defined criteria
- Supports over 20 languages



rear stops on two high-precision linear guides

- Folding depth adjustment via CNC-controlled directional control valve is monitored by linear scales
- Bending force is calculated via CNC control and can be integrated into the programs
- Automatic lower crowning with hydraulic drive
- Low-maintenance rear stop with preloaded ball screws and servo drives, plus automatic depth and height adjustment
- Fissler Safety Technology ensures maximum operator safety and optimum operation
- Manual male die crowning within tool clamping is standard
- Premium components made by renown manufacturers ensure maximum machine reliability

Specifications AHK F CNC		1540	2580	32160	32200	41160	41250	61250	62320
Working area									
force	tons	40	80	160	200	160	250	250	320
brake length	mm	1500	2500	3200	3200	4100	4100	6100	6200
rear stop	mm	600	600	600	600	600	600	600	600
distance between columns	mm	1200	2050	2700	2700	3600	3600	5600	5600
throat	mm	280	320	350	400	350	400	400	400
max. stroke	mm	380	450	480	520	480	520	520	520
bending speed	mm/sec	11	11	9.5	9	9.5	7.5	7.5	7.5
rapid feed	mm/sec	80	80	100	100	100	100	100	100
return speed	mm/sec	110	80	95	100	95	95	95	105
motor rating	kW	4	7.5	15	18.5	15	18.5	18.5	22
Dimensions/Weight									
hydraulic tank volume	Liter	145	240	440	700	600	930	1000	1000
overall dimensions (LxWxH)	mm	1700x1600	2700x1700	3300x1800	3300x2900	4300x1800	4300x2000	6300x2000	6400x2100
		x2200	x2500	x2700	x2900	x2800	x2980	x3350	x3800
weight	kg	2900	4700	10600	12500	12600	17000	24000	27600
Part No.		182 970	182 971	182 972	182 980	182 973	182 981	182 982	182 983
Price €		44.500,-	54.900,-	59.900,-	74.900,-	65.800,-	85.600,-	104.900,-	114.900,-

Heavy-duty Press Brake with state-of-the-art Cybelec 880 S CNC Control

- 4 controlled axes with color graphic display
- controlled hydraulic lower crowning

starting at

44.500,- €



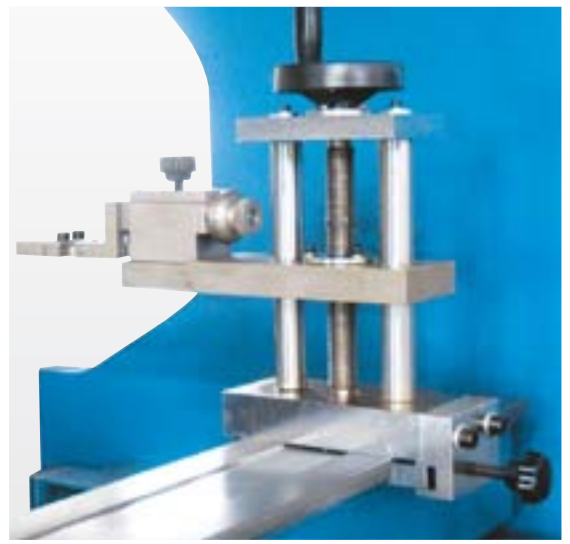
Standard Equipment: 4 controlled axes (Y1, Y2, X, R), automatic lower table crowning, Fissler safety system, lower die, upper die, support arms, operating tools, operating instructions

Options

- System male dies with 90°, 88°, 60° and 30° angles, plus clamping and radius tools upon request – many types of tools can be shipped within 24 hours



quick-change system for male die



height-adjustable finger stops



hydraulic cylinder for lower table crowning and manual micro-adjustment of rear stop (from 100 ton force upwards)



E. Position Indicator

- The press brakes of this series are manufactured in standardized bulk series to ensure solid quality and significant cost savings
- The frame is made of solid steel weldment for overhead mounting
- Manual upper and hydraulic lower crowning ensure high manufacturing quality.
- Large torsion shaft guarantees synchronism between both hydraulic cylinders.

- Motorized rear stop with manual micro-adjustments
- Motors (from ABB) and hydraulic components from renowned manufacturers guarantee high machining quality and high reliability.
- Fulfills highest safety standards with Fissler Safety System, safety interlock, and protective covers
- Hardened hydraulic cylinders for long service life

Specifications AHK A		1540	2250	25100	32125	32160	32200	32250	32320	41250	61250	61320
Working area												
force	tons	40	50	100	125	160	200	250	320	250	250	320
brake length	mm	1500	2200	2500	3200	3200	3200	3200	3200	4100	6100	6100
rear stop	mm	220	220	600	600	600	600	600	600	600	600	600
distance between columns	mm	1200	1700	2000	2700	2700	2700	2700	2700	3300	5400	5400
throat	mm	345	355	350	350	350	400	400	400	400	400	400
max. stroke	mm	120	120	160	160	160	200	200	250	200	200	250
bending speed	mm/sec	9,5	9,5	9	9	9	7.5	7.5	9	7.5	7.5	9
rapid feed	mm/sec	60	60	80	80	80	80	80	80	80	80	80
return speed	mm/sec	60	60	70	90	85	90	90	65	90	90	65
Drive Capacities												
motor rating	kW	4	4	7.5	11	11	15	18.5	22	18.5	18.5	22
Dimensions/Weight												
hydraulic tank volume	Liter	120	170	250	480	480	480	480	700	580	750	1000
dimensions	Length	mm	1600	2300	2600	3300	3300	3410	3420	3400	4200	6200
	width	mm	1280	1290	1620	1680	1720	1780	1830	2150	1830	1900
	height	mm	2080	2080	2500	2540	2540	2740	2810	3245	2810	3150
weight	kg	3000	3000	6700	8600	9600	12500	14500	17100	17600	24400	32000
Part No.		171 298	171 299	171 300	171 301	171 302	171 303	171 304	171 306	171 305	171 307	171 308
Price €		21.800,-	22.900,-	28.900,-	29.300,-	35.900,-	39.900,-	44.900,-	59.900,-	54.900,-	76.900,-	99.800,-

Constant angular accuracy! Heavy press with hydraulic lower table crowning from 100 ton force upwards

- hydraulic lower crowning for significantly increased productivity
- digital indicators for rear and depth stops

starting at

21.800,- €



Safety system by Fissler: maximum operator safety without the need of restrictive light-barrier systems



Standard Equipment:

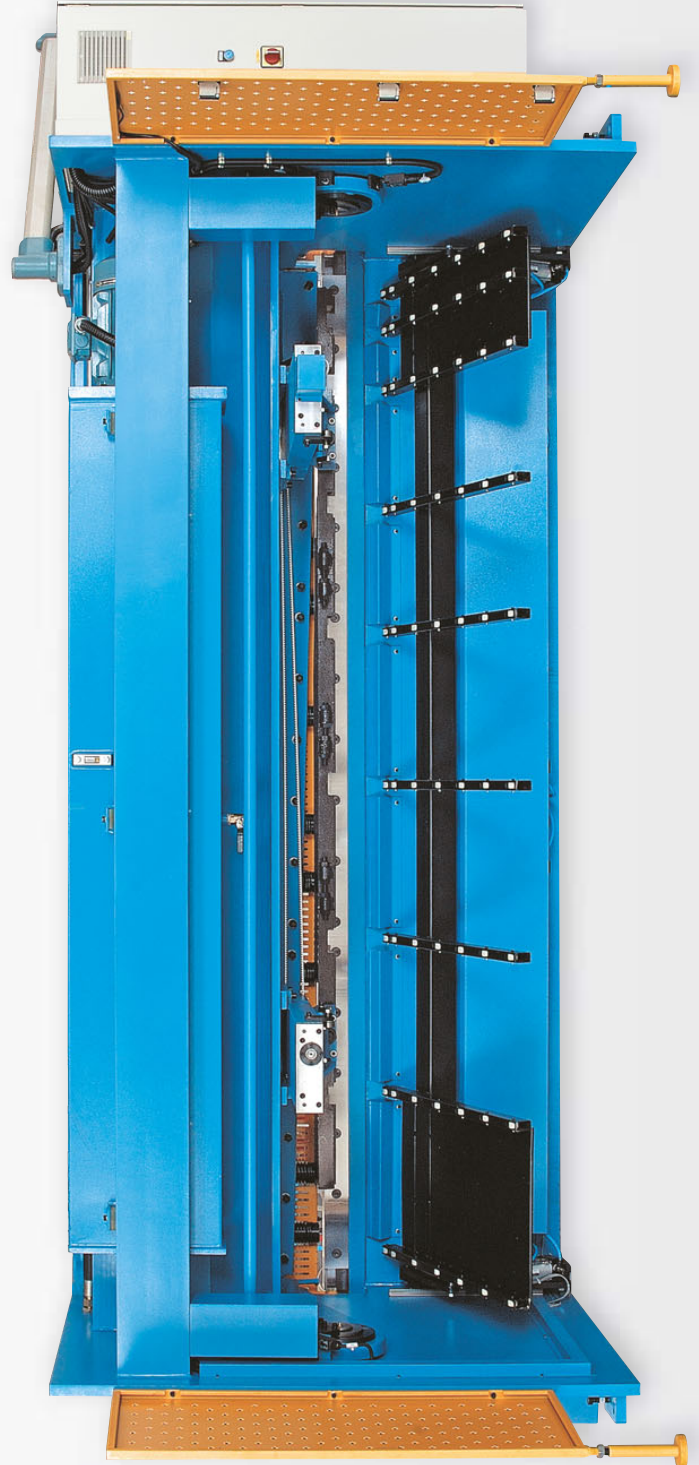
electronic position indicator, rear stop, support arms, standard stamp and die, foot switch, safety system (make Fissler), operating instructions

Options

- System male dies with 90°, 88°, 60° and 30° angles, plus clamping and radius tools upon request – many types of tools can be shipped within 24 hours

Specifications	KHT 2504 F	KHT 3206 F	KHT 3210 F	KHT 3212 F	KHT 3216 F	KHT 3220 F	KHT 4006 F	KHT 4010 F	KHT 4016 F	KHT 6012 F	KHT 6016 F
Working area											
plate thickness St 42 (max.)	4	6	10	12	16	20	6	10	16	12	16
cutting length (max.)	2500	3200	3200	3200	3200	3200	4000	4000	4000	6000	6000
rear stop	560	560	760	760	760	960	560	760	800	800	1000
cut angle	1,5°	1,5°	1,5°	1,5°	2,5°	2,5°	1,5°	1,5°	2,5°	1,5°	2,5°
strokes per minute	25	18	15	9	7	5	15	9	5	5	4
hold-down	11	13	15	15	18	19	18	19	22	29	26
work table height	800	800	810	810	810	850	800	810	800	800	1000
support arms / quantity	1060 / 3	1060 / 3	1260 / 3	1260 / 3	1260 / 3	1260 / 3	1060 / 4	1260 / 4	1160 / 4	1160 / 5	1160 / 5
Drive Capacities											
motor rating - hydraulic pump	7,5	7,5	15	18,5	22	45	7,5	15	22	18,5	22
Dimensions/Weight											
hydraulic tank volume	240	290	420	400	400	430	380	410	450	450	450
dimensions	3100x1470	3840x1610	4080x1980	3945x2270	4100x2300	4140x2450	4630x1850	4670x2025	4850x2300	6900x2600	6820x2720
	x1560	x1620	x1955	x2055	x2265	x2305	x1700	x1920	x2320	x2640	x2750
weight	4800	6600	10300	12500	15500	22000	8900	12500	19500	33000	46000
Part No.	133 500*	133 502*	133 504	133 506	133 508	133 510	133 512*	133 514	133 516	133 522	133 524
Price €	19.800,-	24.600,-	30.900,-	34.200,-	45.500,-	59.900,-	27.800,-	36.400,-	46.900,-	85.900,-	98.600,-

* **Plate hold-up** (Models 2504 F, 3206 F, and 4006 F) ensures exact positioning of the plate at the rear stop when using thin materials



E-20+ control is shown

Standard Equipment:

- E-20+ control
- powered rear stop
- motorized kerf adjustment
- standard upper and lower knife
- 3 support arms with measuring scale
- lateral stop
- foot switch
- shadow graph display of cut line
- operator manual



Hydraulic Swing-Beam Plate Shears

KH T F

Rigid, reliable and user-friendly

**E-20+ control for fast and safe operation
with high accuracy**

- Machine frame and cutter bar are designed with extremely solid, carefully machined weldment structures to withstand highest loads
- The proven swing beam design allows small knife angles for maximum cut quality and minimum distortion at the workpiece
- A rigid rear stop with premium preloaded ball screws and low-maintenance linear guides ensure long-term dimensional stability of the workpiece
- Shadow graph indicates the cut line
- Hydraulically operated hold-down provides uniform and reliable fixation of the workpiece
- Infinitely adjustable cut length saves valuable time when producing small parts
- Premium hydraulic and electric components ensure safe operation and high availability

starting at

19.800,- €



For more information, visit www.knuth.de

- heavy steel weldment construction for maximum stability
- quiet drive with brake motor; all components run on maintenance-free bearings
- parallel knife guides ensure high cutting precision
- high-strength knives made of steel alloy, hardened and ground
- side stop and 2 front support arms
- selection switch for single and continuous stroke
- hold-down system with slip-resistant rubber coating and engagement safety guard

KMT 1350, 2050, 2550, 3050

- cost-effective design with precision-machined machine table
- manual rear stop 450 mm

KMT 2004, 2504

- extra heavy-duty design with high-power motor
- support table with roller balls for easy handling of parts
- motorized rear stop 750 mm, with digital display
- adjustable blade gap



KMT 2504 shown

starting at

9.880,- €



Standard Equipment: knife set, rear stop, CE-conforming safety features, foot switch, right-hand longitudinal stop, and 2 support arms

Specifications	KMT 1350	KMT 2004	KMT 2050	KMT 2504	KMT 2550	KMT 3050
max. plate thickness ST 42	3	4	3	4	2,5	2
max. cutting length	mm	2050	2050	2550	2550	3050
cutting angle	1° 30'	1° 30'	2° 12'	1° 30'	1° 30'	1° 30'
number of strokes / min. (auto mode)	35	42	35	42	35	35
work table height	mm	850	850	850	850	850
main motor rating	kW	3	7.5	3	7.5	3
rear stop	mm	450	750	450	750	450
dimension (LxWxH)	mm	1700x1350 x1200	2550x2260 x1330	2400x1350 x1200	3030x2000 x1330	2900x1350 x1200
weight	kg	950	2300	1150	3200	1350
Part No.	130 234	132 238	130 235	132 239	130 236	130 237
Price €	9.880,-	18.950,-	11.430,-	19.800,-	13.880,-	16.900,-

For the latest specials, visit www.knuth.de

For roll-bending of elliptical and conical forms, prebending and bending in one operating step

- massive machine frame, based on an advanced design and many years of experience
- hydraulic safety chuck for easy removal of the part
- roller feed and adjustment of parallelism and taper at the control panel
- all rollers are hardened and equipped with precision bearings
- hydraulically driven top and bottom rollers
- hydraulic components from Parker and Bosch
- electric components from Siemens and Telemecanique
- minimum bending diameter = 5 times the diameter of the top roller (RBM 30/70)
- 3 times the diameter of the top roller (except RBM 30/70)

starting at

36.900,- €



Standard Equipment:

hardened rollers, conical bending feature, digital display, control panel, operator manual

Optional Equipment:

with CNC or NC Teach-In control, infinitely variable turning speed - regulated via control panel, lateral and central support for large-Ø plate-rings, material feed table

Specifications RBM	20/04	20/16	25/06	25/13	25/20	25/35	30/10	30/16	30/40	30/70	40/06	40/13
work length	mm	2100	2100	2600	2600	2600	3100	3100	3100	3100	4100	4100
max. thickness	mm	6	20	8	16	45	13	20	50	85	8	16
max. plate thickness for prebending	mm	4	16	6	13	35	10	16	40	70	6	13
upper roller Ø	mm	160	300	210	300	460	300	360	540	700	300	390
bottom roller Ø	mm	140	270	190	270	420	270	330	500	650	270	360
side roller Ø	mm	120	210	170	210	360	210	250	440	550	210	300
motor rating	kW	2,2	15	7,5	11	30	11	15	55	110	7,5	15
length	mm	4142	4532	4642	5032	5969	5532	5542	6669	6600	6532	7241
width	mm	1140	1730	1390	1730	2300	1730	1900	3000	3450	1730	2100
height	mm	1037	1489	1300	1489	2585	1489	1677	2925	3900	1489	1983
weight	kg	2320	7000	4600	8110	30000	8800	13200	52000	80000	9930	20800
Part No.		131 900	131 903	131 906	131 909	131 912	131 915	131 921	131 927	131 930	131 933	131 936
Price €		36.900,-	65.000,-	40.900,-	61.400,-	93.000,-	73.200,-	98.000,-	289.000,-	554.900,-	88.400,-	139.900,-
Part No. CNC Control		131 901	131904	131 907	131 910	131 913	131 916	131 922	131 928	131 931	131 934	131 937
Price €		64.900,-	82.700,-	69.000,-	79.900,-	218.900,-	89.900,-	129.000,-	316.200,-	578.900,-	105.400,-	155.600,-
Part No. NC Teach-In		131 902	131 905	131 908	131 911	131 914	131 917	131 923	131 929	131 935	131 938	
Price €		54.900,-	66.800,-	58.800,-	74.900,-	104.600,-	82.400,-	119.000,-	307.200,-	569.000,-	94.600,-	147.600,-

For conical bending, reduce all bend values by 50 %.
The use of hardened bending rolls is recommended!



3-Roll Bending Machine

KRM

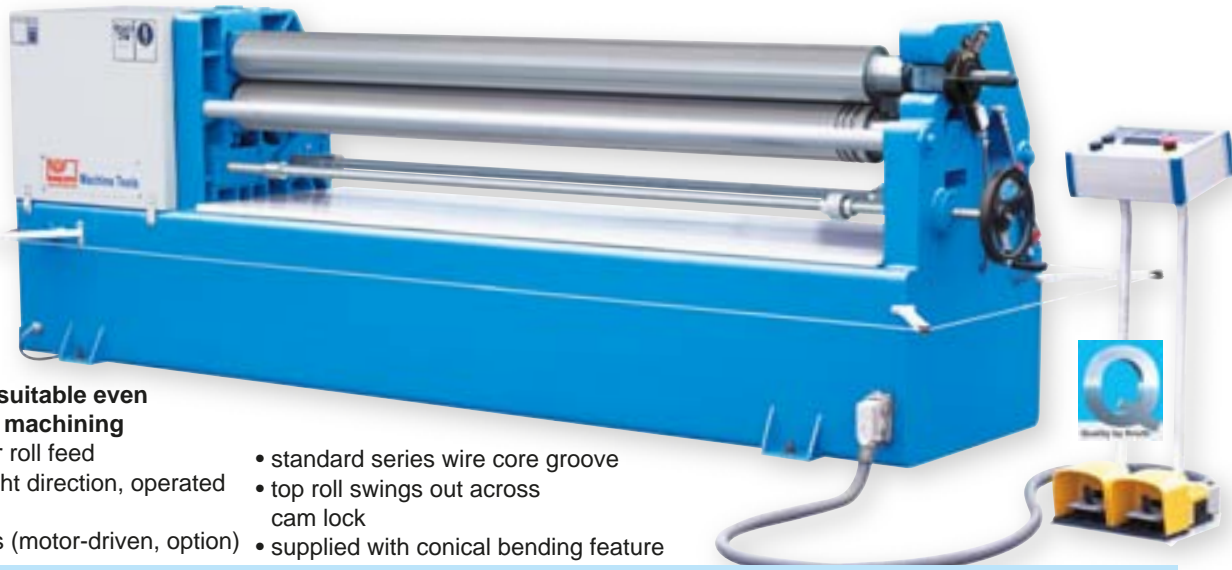
Modern design, user-friendly machine with asymmetrical mounted rolls

starting at

6.150,- €

KRM 10/4.0 shown including optional equipment (motorized rear roll adjustment)

- hardened rollers, suitable even for stainless steel machining
- hand-wheel for rear roll feed
- motor driven left/right direction, operated with foot switch
- quick adjusting rolls (motor-driven, option)
- standard series wire core groove
- top roll swings out across cam lock
- supplied with conical bending feature



For conical bending, reduce all bend values by 50 %. The use of hardened bending rolls is recommended!

Specifications	KRM 10/4,0	KRM 10/5,0	KRM 12/3,5	KRM 12/4,0	KRM 12/5,0	KRM 15/3,0	KRM 15/4,0	KRM 20/3,0	KRM 20/4,0
roll length	mm 1050	1050	1270	1270	1270	1550	1550	2050	2050
prebend	mm 4,0	5,0	3,5	4,0	5,0	3,0	4,0	3,0	4,0
sheet thickness	mm 5,0	5,5	4	4,5	5,5	3,5	4,5	4,0	4,5
roll diam.	mm 110	130	110	120	140	110	130	130	140
min. bending Ø	mm 150	190	150	175	210	150	190	190	210
motor rating	kW 2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2
length	mm 1820	1820	2020	2020	2020	2320	2320	2820	2800
width	mm 850	900	850	850	900	850	900	900	900
height	mm 1150	1200	1150	1150	1200	1150	1200	1200	1200
weight	kg 1080	1220	1150	1250	1365	1220	1360	1480	1530
Part no.	131 960	131 961	131 962	131 963	131 964	131 965	131 966	131 967	131 968
Price €	6.150,-	6.550,-	6.400,-	6.550,-	7.250,-	7.090,-	7.680,-	8.390,-	8.690,-



3-Roll Bending Machine

KRM-S

starting at

18.000,- €

Asymmetrical 3-Roll Bending Machine with one-side Prebend

- hardened rollers, suitable even for stainless steel machining
- taper bending fixture
- motorized rear roller adjustment
- Machine constructed of steel
- High quality steel rollers
- rollers are centrally powered by planetary gears and brake motor
- Top roller swings out
- Self-braking main motor
- Separate control panel
- Meets CE requirements



KRM-S 15/7 shown including optional equipment (motorized bottom roller adjustment, extended rollers and profile rollers)

Specifications	KRM-S 15/7	KRM-S 20/5	KRM-S 20/6	KRM-S 25/4	KRM-S 25/5	KRM-S 30/3	KRM-S 30/4
roll length	mm 1600	2100	2100	2600	2600	3100	3100
prebend	mm 7	5	6	4	5	3	4
sheet thickness	mm 8	6	7	5	6	4	5
roll diam.	mm 170	170	190	170	190	170	190
min. bending Ø	mm 255	255	285	255	285	255	285
motor rating	kW 4	4	4	4	4	4	4
dimensions (LxHxW)	mm 3150x820 x1130	3650x820 x1130	3900x920 x1200	4150x820 x1130	4400x920 x1200	4650x820 x1130	4650x920 x1200
weight	kg 1900	2300	3600	2750	4200	3200	4600
Part no.	130 760	130 761	130 762	130 763	130 764	130 765	130 766
Price €	18.900,-	18.000,-	19.900,-	19.400,-	20.900,-	19.200,-	22.400,-

Optional Equipment: motor-driven bottom roller adjustment, extended roller ends for profile roller mounting, profile roller set, digital display



KRM-A

3-Roller Roll Bender



starting at

3.990,- €

KRM-A 20/1.5 shown

Specifications		KRM-A 10/3,0	KRM-A 12/2,5	KRM-A 15/2,2	KRM-A 20/1,5
roller length	mm	1050	1250	1550	2050
pre-bend	mm	3,0	2,5	2,2	1,5
max. plate thickness	mm	3,3	3,0	2,5	2,0
roller Ø	mm	90	90	90	95
min. bending Ø	mm	130	130	130	135
roller speed	m/min	6	6	6	6
motor rating	kW	1,1	1,1	1,1	1,1
length	mm	2100	2350	2600	3030
width	mm	800	800	800	800
height	mm	1130	1130	1130	1130
weight	kg	500	570	570	635
Part No.		131 881	131 882	131 883	131 884
Price €		3.990,-	4.190,-	4.490,-	5.190,-

- asymmetrical 3-roller roll bender
- **hardened rollers, suitable even for stainless steel machining**
- adjustable bottom and rear roller
- standard wire core groove
- top roller swings out with eccentric closure
- foot switch
- manual feed of rear roller
- brake motor
- includes taper bending feature



KR

Roll Benders

- **hardened rollers, suitable even for stainless steel machining**
- top roller swings out
- easy adjustment of rear and bottom roller via handwheel
- bottom and rear roller with wire core groove
- back gear
- includes taper bending feature



starting at

1.550,- €

KR 10/3.0 shown

Specifications		KR 10/1,0	KR 10/1,5	KR 10/3,0	KR 12/1,5	KR 15/2,0	KR 20/1,5
rolling length	mm	1050	1050	1050	1250	1550	2050
plate thickness	mm	1,0	1,5	3,0	1,5	2,2	1,8
roller Ø	mm	56	70	90	75	90	95
dimensions (LxWxH)	mm	1300x700x1100	1300x700x1100	2100x800x1130	2000x800x1120	2600x800x1100	3030x800x1130
weight	kg	240	320	500	510	570	635
Part.-No.		131 885	131 886	131 887	131 888	131 889	131 890
Price €		1.550,-	2.300,-	3.200,-	2.800,-	3.600,-	4.400,-

Cost-Effective Ring and Profile Benders for universal trade applications



KPB 50 shown

















starting at

2.500,- €

- millimeter scale for roller adjustment
- ground drive shafts with double support provided by cone bearings at both ends
- one-piece gliding central block mounted on hardened crosshead
- mechanical feed, 2 driving rollers, horizontal and vertical applications



Example Profiles	KPB 30 Dimens.	min. BendingØ	Rollers	KPB 50 Dimens.	min. BendingØ	Rollers
	50x10	800	A	60x10/50x12	800	A
	80x15	700	A	120x15	750	A
	30x30	700	A	35x35/20x20	1200/400	A
	Ø 30	700	B	Ø 35	800	B
	40x5	400	A	50x5	850	A
	40x5	500	A	50x5	1200	A
	50x6	800	A	50	650	A
	50	850	A	50	900	A
	UNP50	400	B	UNP60	550	B
	UNP50	500	B	UNP60	700	B
	1 1/2"	900	B	33,7x2,65	320	B
	Ø 60x2	1200	B	Ø 70x2	1200	B
	40x40x3		B	60x60x3		B
	50x30x3		B	50x40x3		B

Specifications		KPB 30	KPB 50
shaft diam.	mm	30/35	50
roller diam.	mm	132/137	155
roller speed	min ⁻¹	2.1	4.3
motor rating	kW	0.75	1.5
weight	kg	185	400
length	mm	670	730
width	mm	530	830
height including base	mm	1350	1350
Part No.		130 158	131 151
Price €		2.500,-	3.900,-

Standard Equipment: standard rolls, foot switch, control panel, operating tools, operator manual

A Standard Rollers
B Special Rollers

Powerful Production Machine for complex bending tasks

KPB 45

- including a modular roller system for optimum adaptation to desired profile
- manually adjustable leveling rolls
- hardened and ground shafts
- allows horizontal and vertical machining
- hydraulic components made by leading manufacturers
- hydraulic movement of upper roll
- separate control panel

KPB 61, 81, 101, 121

- optimum adaptation to a large variety of profiles using the modular roller system
- high-precision bending with 3 motor-driven rollers on models KPB 61 and KPB 81, and 3 hydraulic-driven rollers on models KPB 101 and KPB 121
- hardened and ground shafts
- adjustable overload protection
- hydraulic feed of bottom rollers with digital display
- KPB 121 includes hydraulically adjustable straightening rollers; optional for KPB 61, 81 and 101
- allows horizontal and vertical machining
- hydraulic components made by leading manufacturers

starting at

6.999,- €



KPB 45 shown

KPB 101 shown including optional accessories hydraulically controlled straightening rollers



Standard Equipment KPB 45: control panel, standard rollers, operating tools, operator manual

Standard Equipment KPB 61, 81, 101, 121: digital display, hydraulically controlled straightening rollers (KPB 121), mechanically controlled straightening rollers (except KPB 121), control panel, standard rollers, operating tools, operator manual

Specifications		KPB 45	KPB 61	KPB 81	KPB 101	KPB 121
shaft diameter	mm	50 / 40	60	80	100	120
bending speed	m/min	3,3	6,4	4,2	5,4	4
roller diameter	mm	152 / 162	177	245	315	390
driven rollers	quant.	3	3	3	3	3
drive motor	kW / V	1,5 / 400	4 / 400	5,5 / 400	11 / 400	15 / 400
dimensions (LxWxH)	mm	780x950x1650	1260x940x1390	1375x1040x1540	1435x1220x1680	1985x1450x2040
weight	kg	500	1080	1600	3500	4720
Part No.		131 150	131 194	131 200	131 206	131 212
Price €		6.999,-	11.800,-	18.900,-	26.900,-	53.650,-
Part No. with NC Teach-In		-	131 196	131 202	131 208	131 214
Price €			21.500,-	29.600,-	38.100,-	65.290,-
Part No. with CNC Control		-	131 198	131 204	131 210	131 216
Price €			29.700,-	34.900,-	44.900,-	76.900,-

- HPS 45 D is a 1-cylinder version
- Models HPS 55/110 D, HPS 80/150 D and HPS 110/180 D provide 2 hydraulic cylinders for simultaneous work at 2 stations



HPS 45 D shown

B



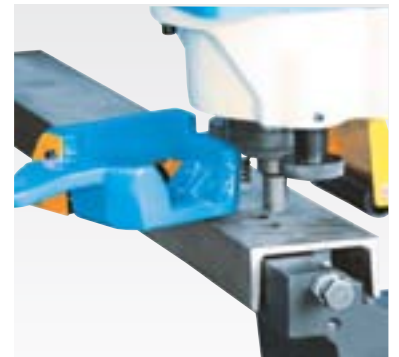
structural steel station



steel plate station



angle steel station



hole punch station



notching station

Specifications - HPS		45 D	55/110 D	80/150 D	110/180 D
Punch press					
press force	t	45	55	80	110
max. capacity	mm	Ø 27 x 13	Ø 40 x 10	Ø 40 x 14	Ø 40 x 20
diameter x thickness	mm	Ø 18 x 18	Ø 20 x 20	Ø 24 x 24	Ø 28 x 28
throat	mm	160	250	300	610
stroke	mm	21	60	70	80
strokes/min (20 mm)		20	37	38	28
table size	mm	450 x 160	550 x 250	550 x 300	550 x 610
working height	mm	1010	1080	1195	1260
Steel cutters					
cutting capacity, flat					
- max. thickness	mm	200 x 13	200 x 20	300 x 20	400 x 20
- max. width	mm	300 x 10	300 x 15	450 x 15	600 x 15
knife length	mm	305	305	475	605
cutting capacity, round	mm	30	40	45	50
cutting capacity, square	mm	30	40	45	50
working height	mm	1010	890	1032	1085
Profile cutter					
cutting capacity 90°	mm	80 x 80 x 8	120 x 120 x 10	130 x 130 x 13	152 x 152 x 13
cutting capacity 45°	mm	-	70 x 70 x 7	70 x 70 x 7	70 x 70 x 7
working height	mm	1020	1100	1250	1305
Notcher					
material thickness	mm	7	10	12	7
depth V90xWidthxThickn	mm	40 x 40 x 7	42 x 42 x 10	52 x 52 x 12	52 x 52 x 13
motor rating	kW	3	5,5	11	11
dimensions (LxWxH)	mm	1460 x 1400	1480 x 1800	2025 x 1780	2560 x 1790
		x 1620	x 1730	x 2700	x 2250
weight	kg	810	1300	2700	3750
Part No.		130 170	130 172	130 174	130 176
Price €		7.590,-	10.990,-	14.900,-	24.900,-

Universal Machining Operations at 5 Work Stations

starting at

7.590,- €

- Punching
- Cutting
- Notching



HPS 80/150 D shown



Flat Steel Cutters

- lower knife provides 4 cutting edges
- table with angular and linear stops

Angular Profile Steel Cutters

- rear stop adjustable up to 1000 mm
- manual operation on model HPS 45 D, automatic cut activation on all other models

Rod Steel Station

- hold-down for round and square steel
- rear stop at 1,000 mm

Notching Station

- table with scales and stop

Hole Punch Station

- for punching sheet metals, flat steel and U-section steel

- heavy-duty table ensures high-quality punching results

- models HPS 110/180 D provide an extra-wide throat

- infinitely variable stroke adjustment

- including adapter for „Peddinghaus“ stamps and dies (only HPSD)

- hydraulic overload valves



Manual Shears

KHS E 1000

1.990,- €

- large dimensions
steelplates sheets can
be pushed through

Specifications KHS E 1000

max. sheet thickn.	mm	1,5
work length	mm	1040
table	mm	640x1000
stop	mm	0-600
height	mm	1500
width	mm	1000
length	mm	1300
weight	kg	460
Part no.		132 036
Price €		1.990,-



Folding Machine

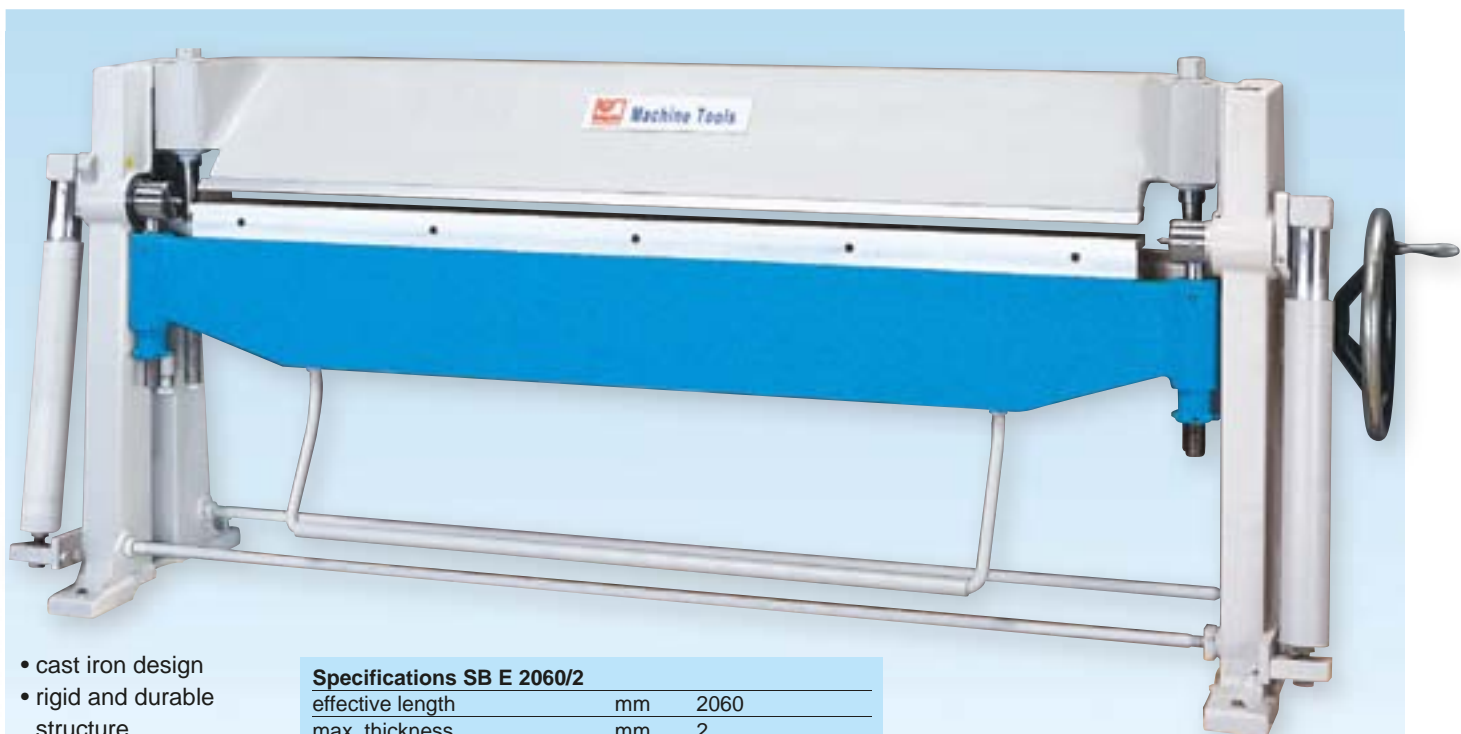
SB E 2060/2

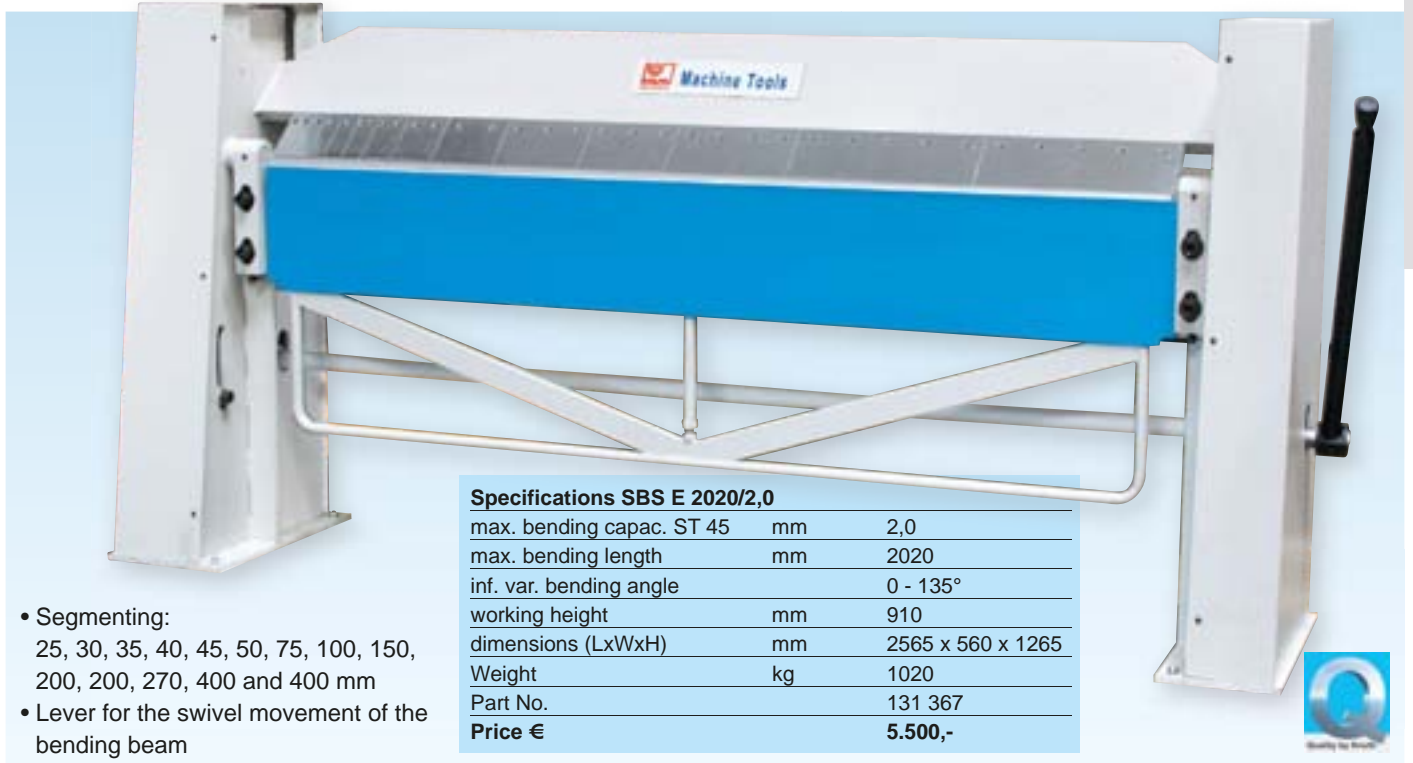
- cast iron design
- rigid and durable
structure
- versatile applications

Specifications SB E 2060/2

effective length	mm	2060
max. thickness	mm	2
max. bending radius		135°
top beam travel	mm	210
adj. lower bending beam	mm	100
dimensions (LxWxH)	mm	2900 x 650 x 1740
weight	kg	1750
Part no.		131 336
Price €		6.200,-

6.200,- €





Specifications SBS E 2020/2,0

max. bending capac. ST 45	mm	2,0
max. bending length	mm	2020
inf. var. bending angle		0 - 135°
working height	mm	910
dimensions (LxWxH)	mm	2565 x 560 x 1265
Weight	kg	1020
Part No.		131 367
Price €		5.500,-

- Segmenting:
25, 30, 35, 40, 45, 50, 75, 100, 150, 200, 200, 270, 400 and 400 mm
- Lever for the swivel movement of the bending beam



- for formed component bending
- compression spring for top beam counterbalance
- cam lock and rebound spring for bending beam counterbalance
- bow handle for bending beam rotation
- adjustable bending angle stop with scale up to 135°
- segmented top beam tools
- segment sizes
 - **SBS 1020/2.5:** 25, 30, 35, 40, 45, 50, 75, 100, 150, 200, 270 mm
 - **SBS 1270/2.0:** 25, 30, 35, 40, 45, 50, 75, 100, 150, 200, 250, 270 mm

starting at

1.590,- €

Specifications		SBS 1020/2.5	SBS 1270/2.0
max. folding cap.St 42	mm	2.5	2.0
max. folding length	mm	1020	1270
max. folding angle		135°	135°
dimensions (LxWxH)	mm	1348x850x1175	1598x900x1175
weight	kg	285	330
Part No.		131 364	131 363
Price €		1.590,-	1.990,-



- massive, robust weldment construction with high rigidity
- motor driven male die and bending bar
- infinitely variable adjustment of bending angle
- operation via foot switch

Standard Equipment: foot switch, manual bending angle adjustment, operator manual

Specifications	KMS 2020	KMS 2520	KMS 3020
folding length	mm 2020	2520	3020
bending capacity, structural steel	mm 1,5	1	1
bending angle	0 - 135°	0 - 135°	0 - 135°
top beam stroke	mm 100	100	100
motor rating	kW 0,75	0,75	0,75
top beam motor	kW 0,37	0,37	0,37
dimensions	mm 2830 x 760 x 1410	3330 x 760 x 1410	3830 x 760 x 1450
weight	kg 1050	1310	1630
Part No.	131 345	131 346	131 347
Price €	9.800,-	11.900,-	14.900,-



Angle Iron Bender KW 100

for exact cold and hot bending of flat, round, and square steel

- sturdy design for screw-mounting on workbench
- infinitely variable bending stop adjustment
- with eccentric quick-clamp for streamlined operation
- bending angle read-out up to 120°
- bending angle stop for high repeatability
- ideal for repair shops and metal working shops

Standard Equipment: angle stop, bending plates, bending lever, material stop

Specifications Model KW 100

weight	kg	38
dimensions (LxWxH)	mm	380 x 250 x 260
Part No.		129 122
Price €		260,-



260,- €

			Cold	Hot
■	Flat steel	mm	100 x 5	100 x 15
	or	mm	60 x 8	100 x 12
●	Round steel	mm	18	30
■	Square steel	mm	16 x 16	30 x 30
■	Flat copper		100 x 12	-

Universal Bender

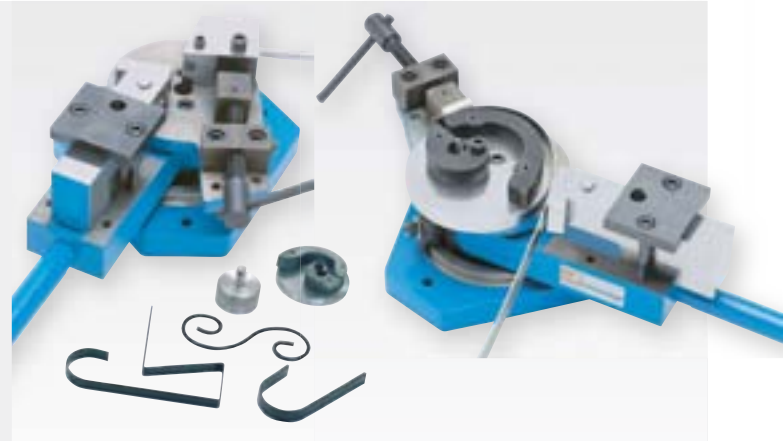
for angle, round, loop, and coil bending

- to produce grids, doors, gates, balcony railings, patio furniture as well as rod iron lamps.
- with hardened bending segments
- suitable for steel, brass, copper, and aluminum
- round bar up to 15 mm
- square bar up to 13 mm, flat bar up to 30 x 8 mm

Part No. 130 127

Price € 390,-

390,- €



Hydraulic Presses

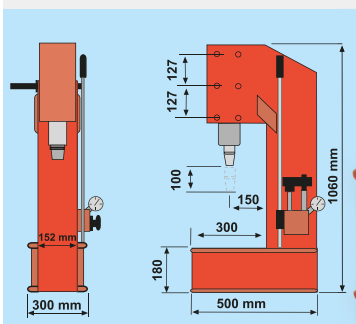
HP 15

- 15 t
- piston bore 80 mm
- pressure 300 kg/cm²
- ram to table distance 500 mm
- table 300 x 300 mm
- height 1060 mm
- weight 145 kg

Part no. 130 042

Price € 1.490,-

1.490,- €



Arbor Press

5 T

- for press-fitting and pulling bearings
- aligning, bending and broaching
- base

Part no. 123 952 Price € 399,-

1 T - force 5 kN, workpiece size max. 147 mm
Part no. 109 536 Price € 63,-

2 T - force 10 kN, workpiece size max. 215 mm
Part no. 109 537 Price € 109,-

3 T - force 15 kN, workpiece size max. 317 mm
Part no. 109 538 Price € 196,-

5 T - force 20 kN, workpiece size max. 400 mm
Part no. 109 540 Price € 745,-

starting at

63,- €





3 IN 1

One machine for Cutting, Folding, and Roll Bending



- Ideal combination machine for sheet metal machining up to a length of 1000 mm and a thickness of 0.8 mm
 - cutting stop
 - roll bending starting with a diameter of 40 mm, adjustable, 1000 mm opening
 - folding with a max. angle of 180°
 - press segments 25 - 750 mm
 - adjustable rear stop
- Part No. 110 047
Price € 690,-

Hydraulic Tube Bender 1/2" - 2"

H

- 10 to pressure
 - 6 bending segments
 - 3-leg stand
- Part no. 129 112
Price € 260,-

260,- €



starting at

260,- €

Price does not include base



3 IN 1 - 1000 shown

Specifications		3 IN 1 - 305	3 IN 1 - 760	3 IN 1 - 1000
max. plate length	mm	305	760	1000
max. plate thickness	mm	0,8	0,8	0,8
roller diameter	mm	39	39	42
dim. (LxWxH)	mm	650x540x540	970x450x680	1420x560x750
weight	kg	45	120	260
Part No.		110 050	110 060	110 047
Price €		260,-	490,-	690,-



Tube Notcher RA 1 • RA 2

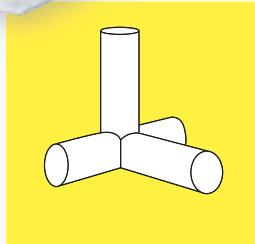
Allows easy joining and welding of tubes at a 90° angle

- for tubes with up to 5 mm wall thickness, steel or non-ferrous metal
- several tube diameters combined in 1 device
- horizontal and vertical operation
- suitable for double-connection

RA 1 - diameter 27 - 43 mm
Part No. 130 126 **Price € 170,-**

RA 2 - diameter 49.5 - 61.5 mm
Part No. 130 129 **Price € 250,-**

starting at
170,- €



Electr. Tube Notcher RAX

Suitable for continuous operation, with 1.5 kW Electric Motor

1.890,- €



- high productivity
- low cost
- simple and quick operation
- several diameters instantly available
- operation with 230 Volt
- for tube diameters: 1/4", 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2", 2"

- weight 62 kg
- motor rating 1.5 kW
- max. material thickness 3 mm
- Part No. 130 125
Price € 1.890,-





Notching Machine

AKM

- max. 4 t pressure capacity
- punches 152 x 152 mm
- 90° angle 152 x 152 mm
- plate thickness 1.6 mm
- ram stroke 20 mm
- dimensions 640 x 540 x 570 mm
- weight 95 kg

Part no. 130 602

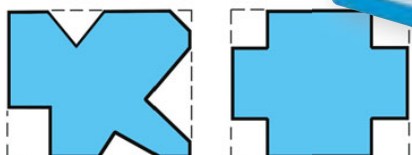
Price € 390,-

390,- €

replacement knife

Part no.130 612

Price € 160,-

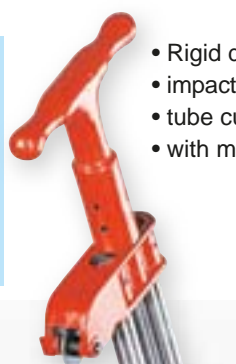


Pipe-Thread Cutter

RGM

Specifications		RGM 2	RGM 3	RGM 4
voltage	V	230	230	230
capacity	mm	12,7 - 50,8	12,7 - 76,2	12,7 - 101,6
speed	min ⁻¹	22	19 / 27	8.5 / 22
weight	kg	62	129	150
dim.	mm	635x400x440	800x500x450	1000x500x500
Part No.		130 410	130 420	130 430
Price €		890,-	1.490,-	1.790,-

- Rigid design, small footprint
- impact chuck at front, clamping chuck at rear
- tube cutter, inside tube deburrer
- with mobile base



starting at

890,- €

III. RGM 4



Hydraulic Machine Lift

288,- €



330,- €



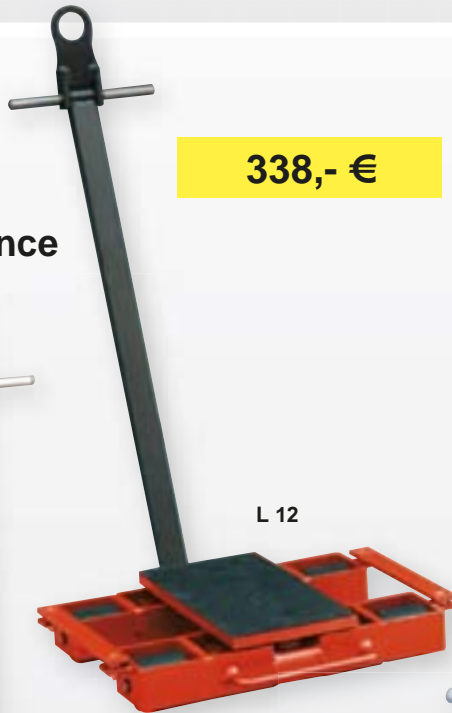
- makes your machinery mobile
- ensures safety
- optimal solution for lifting and transportation problems
- eliminates accidents and property damage

Hydraulic Machine Lift	H 3	H 8
load capacity	t 3	8
lifting range	mm 15 - 240	25 - 295
intrinsic weight	kg 21,5	28
Part No.	140 305	140 310
Price €	288,-	330,-



Load Guidance

338,- €



L 12

288,- €



L 6

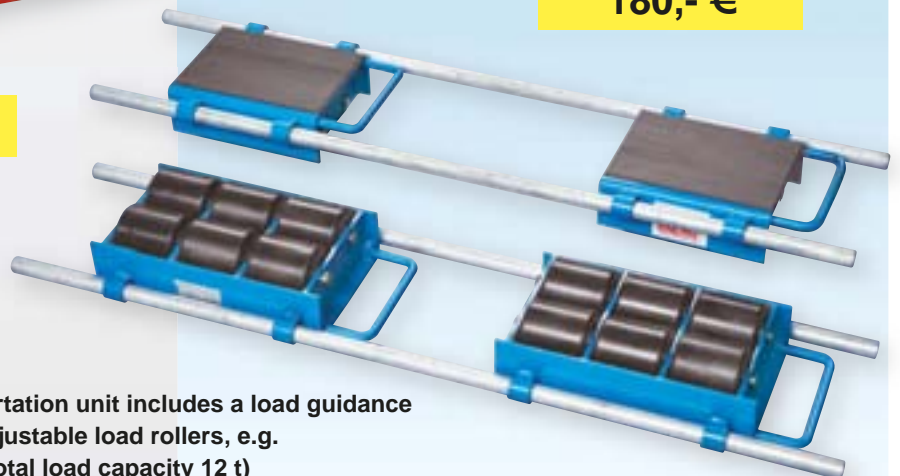
Load Guidance	L 6	L 12
load capacity	t 6	12
number of rollers	pcs. 8	8
roller material	plastic	steel
dimensions	mm 630 x 400 x 115	630 x 400 x 115
intrinsic weight	kg 50	66
Part No.	140 206	140 212
Price €	288,-	338,-

Adjustable Load Rollers	R 6	R 12
load capacity	t 6	12
number of rollers	pcs. 8	12
roller material	plastic	plastic
dimensions	mm 300 x 250 x 115	360 x 220 x 115
intrinsic weight	kg 30	38
Part No.	140 106	140 112
Price €	180,-	299,-

Load Rollers adjustable

starting at

180,- €



Each transportation unit includes a load guidance model and adjustable load rollers, e.g. L 6 and R 6 (total load capacity 12 t)

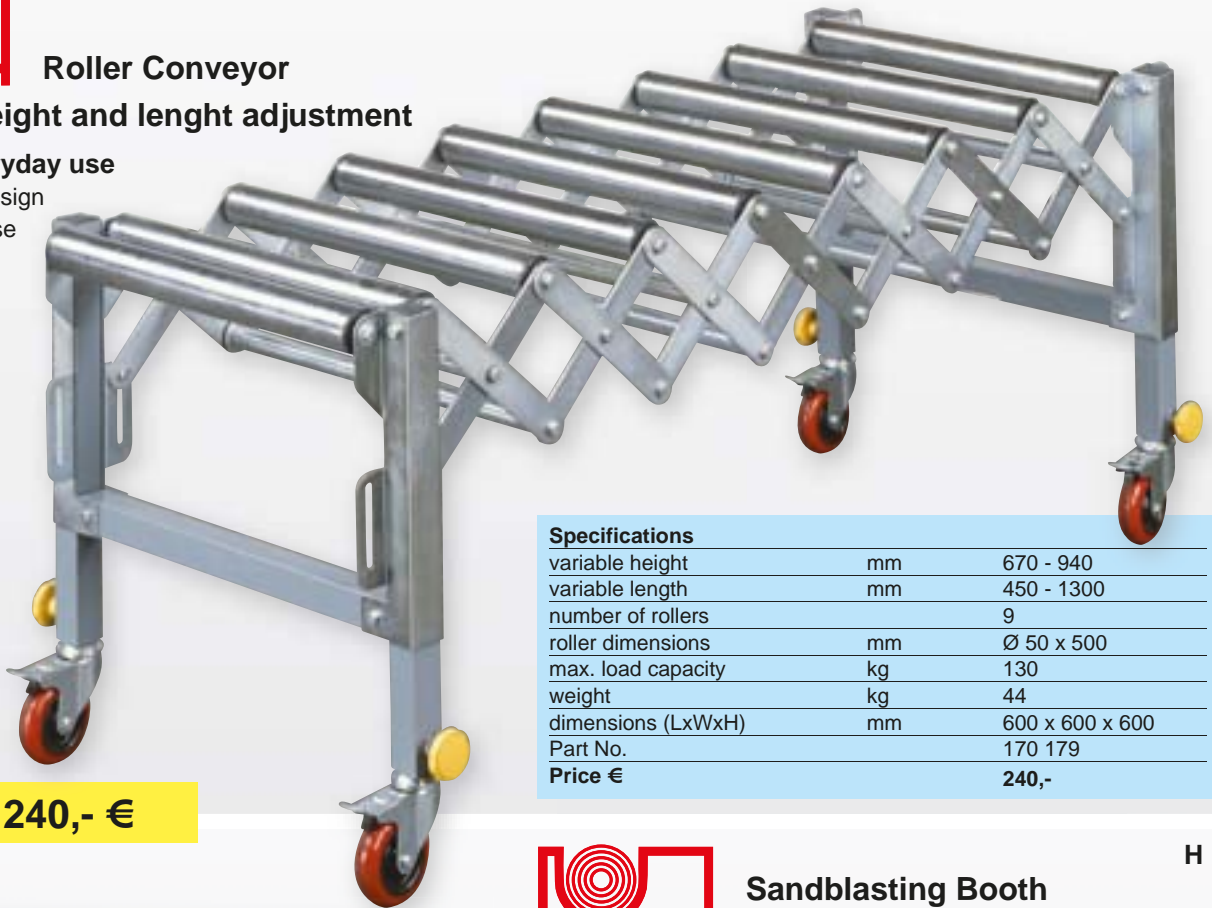


Roller Conveyor

Variable height and length adjustment

Ideal for everyday use

- very sturdy design and flexible use



240,- €

Specifications

variable height	mm	670 - 940
variable length	mm	450 - 1300
number of rollers		9
roller dimensions	mm	Ø 50 x 500
max. load capacity	kg	130
weight	kg	44
dimensions (LxWxH)	mm	600 x 600 x 600
Part No.		170 179
Price €		240,-

F



Sandblasting Booth

SK 2

Sandblasting booth for rust removal, cleaning, degreasing, descaling, roughening, polishing, matting, deburring, hardening, etc.

- sandblasting gun with replaceable ceramic nozzles
- dust-tight booth, rigid steel plate construction
- transparent glass viewing window
- two side doors, dust-tight closure
- dust exhaust connector

Please note that sandblasting requires larger compressors than other compressed air jobs. Small compressors cannot produce the required power, which will lead to inadequate blasting results.

Standard Equipment: air hose, work gloves, interior lighting, protective film, 4 ceramic nozzles, operator manual

Specifications SK 2

work space	mm	890 x 660 x 400
grain sizes	mesh	60 - 100
air consumption	l/min	590
required air pressure	bar	4 - 8
hopper capacity	l	37
weight	kg	55
arm hole openings	mm	180
air connector		1/4"
Part No.		109 481
Price €		990,-

H



990,- €

	Part No.	Price €
spare gloves SK2	109 486	48,-
spare ceramic nozzle set (4 / 5 / 6 / 7 mm)	119 494	29,-
spare ceramic nozzle 4 mm	119 487	9,-
spare ceramic nozzle 5 mm	119 488	9,-
spare ceramic nozzle 6 mm	119 489	9,-
spare ceramic nozzle 7 mm	119 490	9,-



Portable Edge Beveller

KF 200

F

1.380,- €



- for chamfering, deburring, and 45° bevelling of steel, aluminum and many other materials
- easy operation
- tungsten alloy blades for ultimate tensile strength, hardness and long service life

Replacement Tool Bits

Set, Part no. 101 352

Price € 99,-

motor rating	kW	0.37
speed	1/min	3500
guide bar length	mm	200
bevel height	mm	0-5
adjustable angle		15°-45°
weight	kg	11
dimensions	mm	360x200x260
Part No.		101 350
Price €		1.380,-

Tools and Accessories



Edge Beveller

KF 500

H

760,- €



- for bevelling, deburring and 45° chamfering
- max. bevel width 3 mm
- excellent surface quality
- quicker and more uniform results
- very long service life due to reversible tool tips (usable on 4 sides)

Part No. 101 355

Price € 760,-

Replacement Tool Bits

Set, Part no. 101 354

Price € 66,-

Angle	Voltage	Power	max. Speed	Tbl Length	Weight
15 - 45°	230 V	0.75 kW	3400 min ⁻¹	500 mm	50 kg
	1 Phase				

For more information, visit www.knuth.de



Milling Table Feed

TV 1000 M

TV 1000

H

690,- €



490,- €



TV 1000 M

horizontal mount

(Mark Super)

TV 1000 M Part no. 121 477

Price € 690,-

TV 1000

vertical mount

(see ill., a. MF1 V)

TV 1000 Part no. 121 470

Price € 490,-

Assembly TV 1000 / TV 1000 M,

Part no. 101 476

Price € 290,-

The **milling table feed model TV 1000** is an infinitely variable feed control with a range from 19 to 800 mm/min. 2 adjustable table stops provide an automatic shut-off.

The rapid traverse (1000 mm/min) allows quick positioning of the table. Torque is 12 Nm.

The TV 1000 table feed unit can be retrofit on most milling machines. After mounting of the TV 1000, the table still can be moved manually.

Pivoted Mounts

starting at

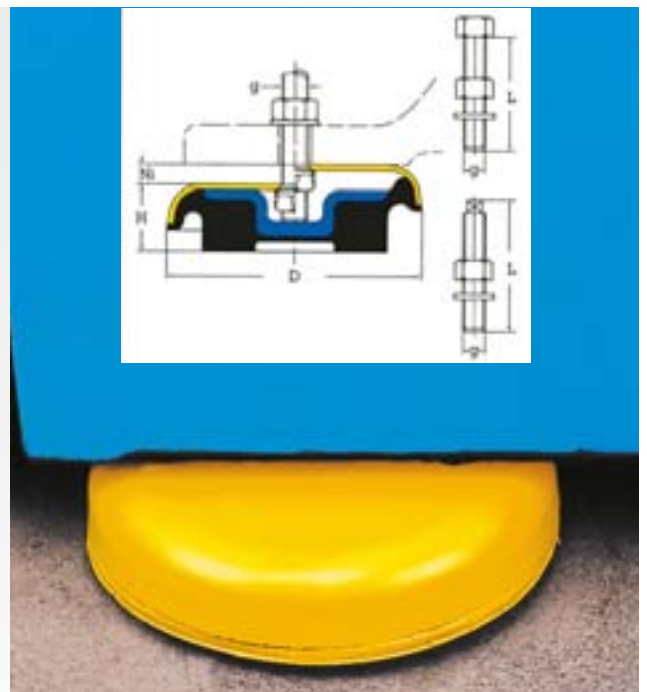
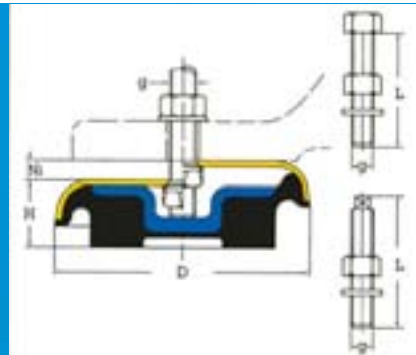
26,- €

- damper elements absorb shock and vibration
- vibration-free machine operation
- set screws allow for easy machine alignment

Specifications load capacity

per element (kg)	LK 33	LK 55	LK 66
lathes	330	800	1600
milling machines	500	1300	2000
surface grinding machines	330	800	1600
misc. machines	1200	3000	4000
max. structural load	2000	4000	6000
Part no.	103 321	103 322	103 323
Price €	26,-	38,-	56,-

	NI	D	H	L	g
LK-33	12	120	32	100	M 12
LK-55	12	160	35	120	M 16
LK-66	12	185	39	160	M 20



Excellent illumination with low energy consumption and long service life

- a true advancement in lighting technology – perfect for any production situation, where good lighting is needed
- the high-power LED module generates light with a color temperature corresponding to natural light; it is vibration and shock resistant and provides a mean service life of 50,000 hours – ideal for harsh operating conditions
- LED lights provide virtually the same light intensity as conventional halogen lights, but they save energy and cost
- the lamp enclosures are very rugged and protected against ingress of water, oil and dust (IP 65)
- low heat generation increases safety and helps avoid temperature-related problems



starting at

128,- €

LED flex

LED 100

LED 280

LED 400

Specifications		LED flex	LED 100	LED 280	LED 400
arm length	mm	500	-	320 + 280	320 + 400
light source		HI POWER LED 3 W / 3 bulbs	HI POWER LED 1 W / 8 bulbs	HI POWER LED 1 W / 8 bulbs	HI POWER LED 1 W / 8 bulbs
service life	hours	50000	50000	50000	50000
light angle		30°	70°	70°	70°
color temperature	K	6000-7000	6000-7000	6000-7000	6000-7000
light intensity	mm	>1100 LUX (700)	>1100 LUX (700)	>1100 LUX (700)	>1100 LUX (700)
surface temperature		<50°	<50°	<50°	<50°
voltage	V	AC/DC24	AC/DC24	AC/DC24	AC/DC24
current	mA	700	700	700	700
power	W	9	8	8	8
IP		IP 65	IP 65	IP 65	IP 65
cable length	m	1.2	1.2	1.2	1.2
Part No.		110 030	110 031	110 032	110 033
Price €		128,-	148,-	168,-	199,-



29,- €

Diamond Files Set, 10 pieces

- shank diam.3 mm, length 140 mm
- for cutting of hardened steel, hard metal, ceramics, glass and rock
- wrapped in plastic bags
- grit, medium D 126

Part no. 129 440
Price € 29,-



H

99,- €



Hand reamer set

- adjustment range 12 - 38,75 mm
 - suitable for mm/inch
 - 11 adjustable hand reamers are included in the set
- Part no. 107 610 Price € 99,-

Keyway Broach

- quick, precise reaming of keyways in bores (gears, v-belpulleys, etc.), HSS, solid ground, Push Broaching Set for JS9 transition fit
- starting at

99,- €



Bushings for					
Keyway	Bore Ø	Part No. Price €	Keyway	Bore Ø	Part No. Price €
2x2x130	6 8 10 -		10x8x330	32 34 35 36	
3x3x130	6 8 10 -	108 310 99,-	12x8x330	38 40 42 44	
4x4x150	12 14 15 16		14x9x330	45 46 48 50 108 320	660,-
5x5x150	12 14 15 16		16x10x330	52 54 55 61	
6x6x300	18 19 20 22		18x11x330	58 60 62 65 108 325	740,-
8x7x300	25 26 28 30 108 315	460,-			

5 Ltr. Coolant Concentrate

- improved chip flow, longer tool service life, and better cut profile
- for sawing, drilling, milling, turning of steel, castiron, stainless steel, non-ferrous and light metals
- dilute with water 1:20

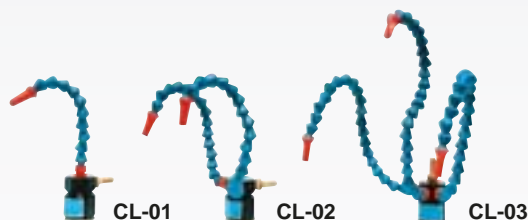
Part No. 103 184 Price € 75,-

Coolant System

- retrofitable, supplied disassembled
 - motor 400 V, 90 Watt
 - 4.5 l volume coolant reservoir
 - with flexible grommet and with shut-off valve
 - with 1.5 m coolant hose
- Part No. 102 985 Price € 290,-

Coolant Hose

- variable coolant hose consisting of individual plastic elements - for all machine tools
- replaces all conventional systems
- resistant to most solvents and chemicals
- suitable not only for coolant supply but also for blowing out workpieces and machine tables



Model	Part No	Price €	CL-01	102 992	33,-
CL-00	102 990	8,-	CL-02	102 993	36,-
CL-0	102 991	9,-	CL-03	102 994	39,-



290,- €

J

F

H





Live Center, assortment

- with 7 replaceable centers
- body made of hardened and ground tool steel
- precision needle bearing ensures high concentricity, long life, and high load capacity
- mushroom diameters 32, 2 x 13, 9, 7 and 5.5 mm

Morse Taper	Part no.	Price €
MT 2	106 780	120,-
MT 3	106 785	130,-
MT 4	106 790	160,-



starting at

120,- €

Live Centers

- precision needle bearing
- hardened and ground point 60°

starting at

39,- €

Morse Taper	Point Ø	O.D.	Length	Part no.	Price €
MT 2	22	38	125	106 745	39,-
MT 3	26	47	158	106 750	49,-
MT 4	30	57	190	106 755	59,-
MT 5	45	70	240	106 760	88,-



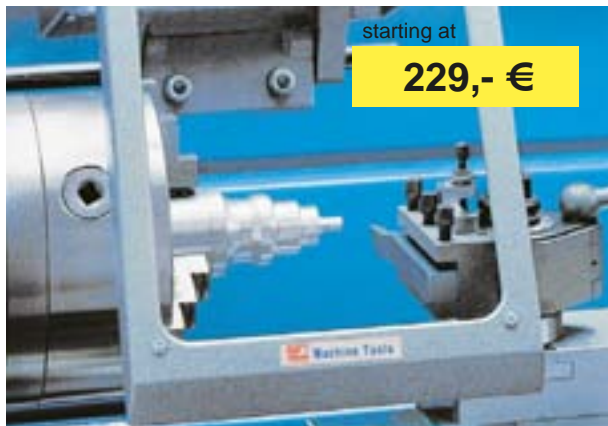
Tapping Chuck

- for insertion in the tailstock of lathes
- MT 3 - shank
- tool mount bushing slides onto tapered shank.
- length compensation by simply sliding the bushing on the mounting shank.
- complete with wooden case for drill and 5, 6, 7, 10 mm shanks, dies with 16, 20, 25, 30 mm diameters

99,- €

Part no. 108 130

Price € 99,-



starting at

229,- €

Lathe Guards

- can be mounted optionally at the headstock or with clamping fixtures at the slide
- aluminum injection-molded frame with acrylic view glass

	Front Frame	Rear Frame	Max. Chuck		
mounting at	HxW mm	HxW mm	Ø mm	Part No.	Price €
headstock	180x170	180x170	150	103 005	229,-
headstock	240x210	260x210	300	103 006	264,-
headstock	350x260	360x260	460	103 007	298,-
slide	240x210	260x210	300	103 008	308,-
slide	350x260	360x260	460	103 009	362,-

99,- €



Power Worker Metal Cutter

- universal, quick and mobile use even at limited access locations
- safe and clean working environment
- reduces risk of injuries caused by sharp metal edges
- recyclable due to separable material
- long service life due to permanent magnet
- adjustable rod length
- compact dimensions: 390 mm long, Ø 25 mm
- low weight: 600 g

Part No. 123 040 Price € 99,-



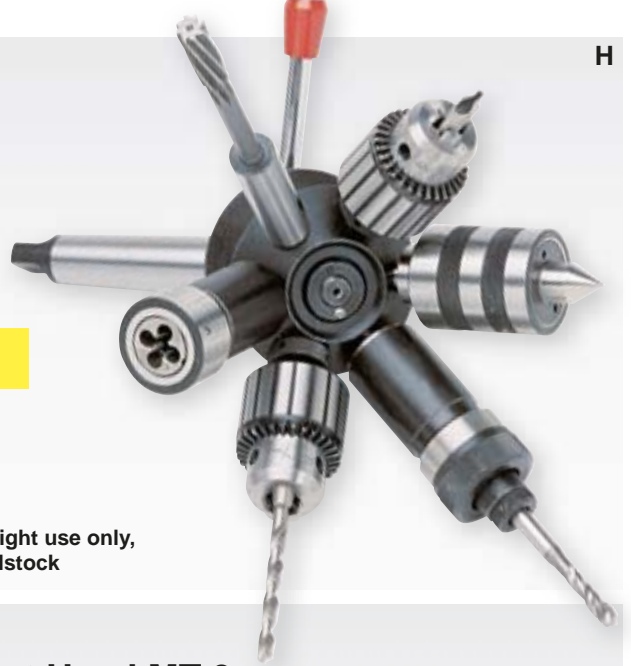
Turret Head MT 4

- shaft MT 4
 - drilling 1 - 13 mm
 - thread cutting and tapping M3 - M12
 - reaming 4 - 12 mm
 - centering 1 - 4 mm
 - tool mounts: 2 drill chucks 1.5 - 13 mm, 1 center point, 1 taper mount MT 1, 1 each thread cutting unit for tap a. die holder
 - weight 7.5 kg
- Part no. 105 050

590,- €

Price € 590,-

for upright use only,
e.g. tailstock



H

Turret Head MT 3

- shaft MT 3
 - drilling 1 - 13 mm
 - 4 tool holder mounts:
2 drill chucks
1 center point
1 thread cutting unit
 - weight: 4 kg
- Part No. 105 049

Save time and money
with a turret that fits MT 4
+ MT 3

Price € 198,-

198,- €

for upright use only,
e.g. tailstock



Radius Cutting Head

Clamps into the turning tool just like a tool-holder.

- For inside and outside machining of convex and concave forms.
- For turning of 90°, 180° radius. Radius from 0 to 25 mm.
- Machining depth up to 7 mm in ST50.

Part no. 103 350

Price € 998,-

998,- €



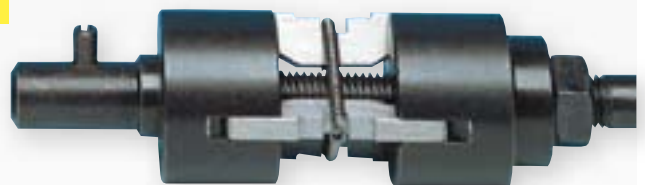
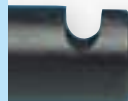
Quick-Set Spindle Bore Stop

- for lathes
- quick and easy adjustment to any hollow-spindle point
- easy adjustment - just tightening with a safety wrench

starting at

164,- €

Size	Range	Wrench length	Part no.	Price €
1	19-23	540	103 010	164,-
2	22-26	540	103 012	167,-
3	25-31	540	103 014	183,-
4	30-38	640	103 016	206,-
5	38-48	640	103 018	219,-
6	46-58	740	103 020	257,-
7	56-66	740	103 022	282,-
8	64-81	940	103 024	295,-
9	79-91	940	103 025	318,-
10	90-110	940	103 026	858,-
11	110-130	940	103 027	968,-



III.
Part no. 108 770

- 5 turning tools
- for steel working
- 5 forms (left, right, centered)

III.
Part no. 108 680

III. Part no. 108 670

Clamped Turning Tool Set: Part no. 108 670 **Price € 205,-**

P25 indexable insert for forged, rolled and tempered steel. All tools with indexable inserts, 1 indexable insert set (s.above), tools, specifications, shank height 25 mm

Indexable insert set: 30 pc. Part no. 108 675 **Price € 90,-**

Clamped turning tool set: Part no. 108 778 **Price € 216,-**

shank height 20 mm, shanks 20 mm, 9 tools

Indexable insert set: 30 pc. Part no. 108 779 **Price € 67,-**

Clamped turning tool set: Part no. 108 780 **Price € 193,-**

5 tools cutting height 16 mm, shanks 20mm

3 tools cutting height 20 mm, shanks 20mm

1 tool cutting height 24 mm, shanks 20mm

Indexable insert set: 30 pc. Part no. 108 782 **Price € 55,-**



Clamped Turning Tool Set

Shank	Part no.	Price €	5 replacem.	Price €
10 mm	108 770	39,-	108 774	33,-
12 mm	108 771	49,-	108 775	38,-
16 mm	108 772	55,-	108 775	38,-
20 mm	108 773	55,-	108 775	38,-

Turning Tool Set

- with soldered-on carbinde plates for steel, 8 pieces
- shank 12 mm, Part no. 108 680 **Price € 38,-**
- shank 16 mm, Part no. 108 690 **Price € 46,-**
- shank 20 mm, Part no. 108 700 **Price € 54,-**

Knurl Holder

- shank H20, B14, total 140 mm
 - incl. 2 knurl sets, angled 1 mmr
- Part no. 108 520 **Price € 25,-**



knurl set, angles, Part no. 108 521 **Price € 9,-**

Clamped Turning Tool Set

Includes 8 different clamped turning tools, listed in the sequence shown (Part no. 108 670):

1. necking turning tool, clamping system C, workpiece Ø 60 mm

size	cutting point height	V	f	a
25x25x140 mm	-	100 m/min.	0,2-0,4 mm	4 mm

2. tapping turning tool 60°, clamping system C

size	cutting point height	V	f	a
25x20x120 mm	25 mm	-	-	-

3. stepped, right-hand turning tool, plate form S, clamping system M, cutting length 16 mm, incl. chip chute

size	cutting point height	V	f	a
25x20x125 mm	-	80 m/min.	0,6-0,7 mm	6 mm

4. curved, right-hand turning tool, plate form S, clamping system M, cutting length 16 mm, incl. chip chute

size	cutting point height	V	f	a
25x20x125 mm	-	80 m/min.	0,4-0,5 mm	4 mm

5. stepped, right-hand inside turning tool, clamping system C

size	cutting point height	V	f	a
18x18x180 mm	14 mm	60 m/min.	0,2 mm	4 mm

6. curved, right-hand turning tool, plate form S, clamping system C, cutting length 16 mm, incl. chip chute

size	cutting point height	V	f	a
18x18x180 mm	14 mm	60 m/min.	0,2 mm	4 mm

7. stepped, right-hand turning tool, plate form S, clamping system M, cutting length 20 mm, incl. chip chute

size	cutting point height	V	f	a
20x20x125 mm	-	100 m/min.	0,4-0,5 mm	4 mm

8. female thread turning tool, clamping system C

size	cutting point height	V	f	a
18x18x180 mm	25 mm	-	-	-

H



Cutting Tools



End Milling Set HSS

TiN coated, 20 pieces

- 2 - 5 times longer service life
- double cutting power
- improved part surface

113,- €

DIN 327 D, short length

designed with 2 cutting edges. Face teeth for centric cuts. For cutting keyways/grooves (P 9 fitting) and center cut-out. Vertical or side cutting possible, with cyl. shaft and side drive dog acc. to DIN 1835 B ,3, 4, 5, 6, 8, 10, 12, 14, 18, 20 mm

DIN 844 B, short length

designed with 4 cutting edges with 30° right-hand spiral for excellent chip removal. Facing teeth for centric cuts. For normal to hard materials, with cyl. shaft and side drive dogs DIN 1835 B, 3, 4, 5, 6, 8, 10, 12, 14, 18, 20 mm

Part No. 108 440

Price € 113,-

End Milling Set DIN 844 B

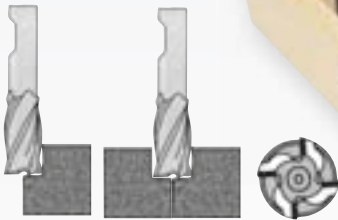
- TiN coated
- HSS, short length
- right-hand spiral 30°
- multiple cutting edges, face teeth for centric cuts
- side drive dogs

• 15 pcs. 3-25 mm, with cyl. shaft

Part No. 108 450

Price € 114,-

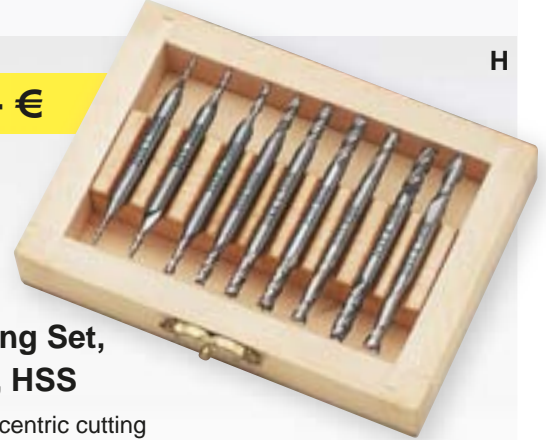
114,- €



mm Ø	Shaft-Ø	6	6	14	12	20	20
3	4	8	8	15	12	22	20
4	4	10	10	16	16	24	20
5	5	12	12	18	16	25	20

End Milling Set, 9 pieces, HSS

45,- €



• two-sided, centric cutting

- Ø 1,5 - 4,5 mm, 0,5 mm increments
- Part no. 108 455 Price € 45,-

Indexable Insert End Mills Set 25 mm

- shaft 19 mm, Weldon shaft with torque surface
 - with carbide tips, tip class P20
- Part No. 107 800 Price € 67,-

- 10 replacement tips, R (circular) Part No. 107 802 € 56,-
- 10 replacement tips, S90°(square) Part No. 107 803 € 56,-
- 10 replacement tips, T60°(triangular) Part No. 107 804 € 56,-

67,- €



Roughing Shank Cutter

Set = 10 pc

- DIN 844 B, DIN 1835 B, Weldon shaft
- HSS, ionized, and therefore HRC 68
- right-hand cut
- for materials up to 1000 N/mm² strength
- diameters: 6, 8, 10, 12, 14, 16, 18, 20, 22, 25 mm

Part No. 108 445

Price € 262,-



Roughing End Mill Cutter

- with cross groove
- right-hand cut with right-hand spiral
- HSS-E, hardness HRC 68
- roughing cut teeth

starting at

45,- €

Ø mm	Width mm	Bore mm	Part No.	Price €
40	32	16	108 400	45,-
50	36	22	108 401	78,-
63	40	27	108 402	113,-
80	45	27	108 403	182,-

Tapping Attachment

- integrated quick-return acts promptly upon feed direction change
- slip coupling torque adjustable to 4 levels
- including MT 2 and MT 3 shank or MT 3 and MT 4 shank
- for thread cutter

- M 2 - M 7 (MT 2 + MT 3)	Part no. 106 033	Price € 280,-
- M 5 - M 12 (MT 3 + MT 4)	Part no. 106 035	Price € 320,-
- M 8 - M 20 (MT 3 + MT 4)	Part no. 106 037	Price € 360,-

starting at

280,- €

Circular Cutters

- cuts steel up to 10 mm thick and/or 20 mm for two-sided work surfaces
- infinitely variable diameter adjustment 30 - 300 mm

MT 2, Part no. 129 290

MT 3, Part no. 129 291

Price € 99,-



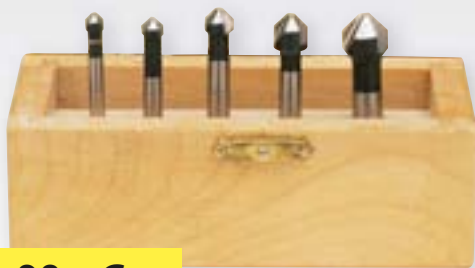
99,- €

Replacem. twist drill

Part no. 129 295 **Price € 18,-**

Replacem. knife 5 per pack.

Part no. 129 297 **Price € 21,-**



30,- €

Counter Sink, 90 °

- 5, 6, 8, 10, 12 mm
 - HSS, 3 cutters
- Part no. 108 665 **Price € 30,-**

HSS Form Countersink 1 set, round

- with parallel shank
- within stand
- the set consists of 8 countersinks

Set 2 - 12 mm

(2, 3, 4, 5, 6, 8, 10 + 12 mm)

Part no. 107 615 **Price €129,-**

Set 6 - 20 mm

(6, 8, 10, 12, 14, 16, 18 + 20 mm)

Part no. 107 617 **Price €262,-**



starting at

129,- €



Drill Bit Set, 8 pieces

- HSS, ground, 16, 20, 22, 25, 28, 30, 35 mm
- max. boring depth 3 mm, boring diameter 6 mm
- shaft Ø 7,5 or 9,5 mm

Part no. 107 620 **Price € 64,-**

Combo Flat Counter Sink in Wood Stand

Multiple cutter countersink with front face bore. Exchangeable pilot pins allow the use of one countersink for several pilot bores of different sizes.

MT2 shank

Flat countersink: Ø14.5-24.5 mm

Sizes: Ø14,5 / 16,5 / 18,5 / 20,5 / 22,5 / 24,5 mm

Pilot pin: Ø7-15 mm

Sizes: Ø7 / 7,5 / 8 / 8,5 / 9 / 9,5 / 10 / 10,5 / 11 / 11,5 / 12 / 13 / 14 / 15 mm

Part No. 108 655

Price € 99,-



99,- €

Carbide Milling Bits

- 6 mm shank
 - includes 12 pieces
- Part no. 108 430 **Price € 179,-**



179,- €



Lathe Chucks



starting at

220,- €

3-jaw chuck / cast-iron

Ø mm	Camlock mount	Speed rpm	Bore mm	Weight kg	Part No.	Price €
125	D1-4	3200	32	5	116 519	220,-
160	D1-4	3000	42	9	116 520	228,-
160	D1-5	3000	42	9	116 521	228,-
200	D1-4	2500	55	19	116 527	320,-
200	D1-6	2500	55	19	116 528	320,-
250	D1-6	2000	76	32	116 522	398,-
315	D1-8	1500	103	51	116 523	598,-
315	D1-11	1500	103	51	116 524	598,-
500	D1-8	700	136	150	116 525	2.190,-
500	D1-11	700	190	150	116 526	2.190,-

3-jaw chuck / steel

Ø mm	Camlock mount	Speed rpm	Bore mm	Weight kg	Part No.	Price €
160	D1-4	4500	42	9	146 378	480,-
200	D1-4	4000	55	19	116 501	560,-
200	D1-6	4000	55	19	146 372	560,-
250	D1-6	3500	76	32	146 377	740,-
250	D1-8	3500	76	32	146 373	740,-
315	D1-6	2800	103	51	146 374	760,-
315	D1-8	2800	103	51	146 383	1.150,-
315	D1-11	2800	103	51	116 505	1.150,-
400	D1-8	2000	136	150	116 506	1.290,-
400	D1-11	2000	190	150	116 507	1.290,-

Soft Jaw Pads for 3-jaw chuck (cast-iron / steel)

Ø mm	Length mm	Width mm	Height mm	Part No.	Price €
160	78	25	41,5	116 550	39,-
200	90	27	13,5	116 551	49,-
250	103	32,5	51,5	116 552	66,-
315	120	37	55,0	116 553	97,-
400	140	42	64,5	116 554	139,-
500	140	42	74,5	116 555	318,-

4-Jaw Independent Chuck



starting at

320,- €

4-Jaw Independent Chuck

Ø mm	Camlock mount	Weight, kg	Part No.	Price €
200	D1-4	10,0	116 670	320,-
200	D1-5	10,0	116 671	320,-
250	D1-6	27,5	116 672	418,-
315	D1-6	39,5	116 673	640,-
315	D1-8	39,5	116 674	640,-
400	D1-8	60,0	116 675	920,-
500	D1-11	95,5	116 676	1.460,-

4-jaw chuck / cast-iron

Ø mm	Camlock mount	Speed rpm	Bore mm	Weight kg	Part No.	Price €
125	D1-4	3200	32	5	116 619	298,-
160	D1-4	3000	42	9	116 620	346,-
160	D1-5	3000	42	9	116 621	346,-
200	D1-4	2500	55	19	116 622	428,-
200	D1-6	2500	55	19	116 623	428,-
250	D1-6	2000	76	32	116 624	610,-
315	D1-8	1500	103	51	116 625	798,-
315	D1-11	1500	103	51	116 626	798,-
500	D1-8	700	136	150	116 627	2.990,-
500	D1-11	700	190	150	116 628	2.990,-

4-jaw chuck / steel

Ø mm	Camlock mount	Speed rpm	Bore mm	Weight kg	Part No.	Price €
160	D1-4	4500	35,5	9	116 600	546,-
200	D1-4	4000	55	19	116 601	740,-
200	D1-6	4000	55	19	146 472	795,-
250	D1-6	3500	76	32	146 477	980,-
250	D1-8	3500	76	32	146 473	980,-
315	D1-6	2800	103	51	116 604	1.540,-
315	D1-8	2800	103	51	146 483	1.490,-
315	D1-11	2800	103	51	116 605	1.540,-
400	D1-8	2000	136	101	116 606	2.340,-
400	D1-11	2000	136	101	116 607	2.340,-

Soft Jaw Pads for 4-jaw chuck (cast-iron / steel)

Ø mm	Length mm	Width mm	Height mm	Part No.	Price €
160	78	25	41,5	116 650	52,-
200	90	27	13,5	116 651	65,-
250	103	32,5	51,5	116 652	89,-
315	120	37	55,0	116 653	126,-
400	140	42	64,5	116 654	179,-
500	145	60	82,0	116 655	410,-

Soft jaws for 4-jaw independent chuck

Ø mm	Length mm	Width mm	Height mm	Part No.	Price €
200	92,50	40	43,5	116 690	96,-
250	109,00	47	51,5	116 691	129,-
315	124,90	52	55,0	116 692	179,-
400	145,00	52	64,5	116 693	199,-
500	145,00	60	82,0	116 694	430,-



Quick-Change Tool Holder

5-piece Sets

Set WA:

1 ea head A
3 ea WAD 20x90
1 ea WAH 20x90
Part No. 103 193
Price € 258,-

Set WB:

1 ea headf B
3 ea WBD 26x120
1 ea WBH 36x120
Part No. 103 195
Price € 389,-

Set WD1:

1 ea head D1
3 ea WD1D 63x180
1 ea WD1H 63x180
Part No. 103 197
Preis € 1.999,-

Set WE:

1 ea head E
3 ea WED 20x100
1 ea WEH 30x100
Part No. 103 194
Price € 299,-

Set WC:

1 ea head C
3 ea WCD 32x150
1 ea. WCH 35x150
Part No. 103 196
Price € 672,-

Set WD2:

1 ea head D2
3 ea WD2D 63x220
1 ea. WD2H 70x220
Part No. 103 198
Price € 2.999,-



starting at

258,- €

- fits all standard german quick-change tool holder
- tool holder head and tool holder feature profile-ground gearing
- tool holders are clamped against the central body's gears by means of 2 chuck halves and an eccentric bolt
- repeat accuracy 0,01 mm
- tool holders can be adjusted to 40 different angles on the central body
- angle scale provided on head
- holder height adjustment with a thumb screw

fits onto machine (Part No. 103 315)

Price € 190,-

Selection of tool holder head according to the respective table

size	W	A	E	B	C	D1	D2
Tool changer size	D	16 20	20 25	25 32	32 40 45	40 50 63	50 63
Machine:							
- Drive power, max.	kW	2.2	4.4	6.6	13.2	20	28
- Turning diameter	mm	150-300	200-400	300-500	400-700	500-1000	600-1100
Slide width, max.	z mm	100	120	150	180	200	250
Cutting edge height							
- min.	x mm	h + y	h + y	h + y	h + y	h + y	h + y
- max.	mm	x + hv	x + hv	x + hv	x + hv	x + hv	x + hv
Height adjustability	hv mm	11	17 15	20 11	40 35 30	35 30 20	20 30
Tool support	y mm	9	10 11	12.5 14	15 16 17	20 20 25	20 25
Height of tool							
max.	h mm	16 20	20 25	25 32	32 40 45	40 50 63	50 63
Overall width, max.	v mm	100	125	150	192 202 202	230 234 242	275 282
Overall height	s mm	54	68	75	105	122	135
Throat, max.	u mm	48	60	71	92 102 102	112 116 124	140 147
Bore, max.	t mm	31	31	51	70	40	80



WA 103 189 € 148,-	WAD a 16 75 103 271 € 42,- WAD 16 90 103 272 € 42,- WAD 20 75 103 273 € 44,- WAD 20 90 103 274 € 44,-	WAH d 20 85 103 275 € 48,-	WAJ d 30 80 103 276 € 66,-	WAA-AO 103 277 € 83,-
WE 103 190 € 199,-	WED 20 100 103 281 € 68,- WED 25 100 103 282 € 68,-	WEH 30 100 103 283 € 70,-	WEJ 30 100 103 284 € 80,- WEJ 40 100 103 285 € 83,-	WEA-A2a 103 286 € 92,-
WB 103 191 € 248,-	WBD 25 120 103 291 € 70,- WBD 25 140 103 292 € 71,- WBD 32 120 103 293 € 71,- WBD 32 140 103 294 € 83,-	WBH 30 130 103 295 € 79,- WBH 18 120 103 298 € 77,-	WBJ 40 120 103 296 € 84,-	WBA-A2a 103 297 € 110,-
WC 103 192 € 398,-	WCD 32 150 103 301 € 110,- WCD 32 170 103 302 € 124,- WCD 40 150 103 303 € 118,- WCD 40 170 103 304 € 118,- WCD 45 170 103 305 € 144,-	WCH 35 150 103 306 € 124,- WCH 50 160 103 307 € 145,-	WCJ 40 160 103 308 € 168,- WCJ 50 160 103 309 € 190,-	WCA-A3a 103 310 € 202,-



Reduction sleeves ISO / ISO

- hardened and ground



starting at

58,- €

Part No.	ISO / ISO	Price €	103 760	50 / 30	78,-
103 750	40 / 30	58,-	103 770	50 / 40	89,-

Adapter ISO / MT

- for tools with Morse taper shank and ISO mount
- hardened and ground



starting at

39,- €

Part No.	ISO / MT	Price €	103 740	40 / 4	64,-
103 700	30 / 2	39,-	103 742	BT 40 / 2	98,-
103 710	30 / 3	39,-	103 744	BT 40 / 3	98,-
103 720	40 / 2	45,-	103 746	BT 40 / 4	98,-
103 730	40 / 3	45,-			

Shell end milling arbors

- for cutters with cross or longitudinal slot
- including parallel key, driver ring, cutter tightening screw, special wrench



starting at

49,- €

Part No.	ISO	Arbor Ø	Draw-in thread	Price €
103 850	MK 3	16	M12	49,-
103 855	MK 3	22	M12	49,-
103 860	MK 4	16	M16	69,-
103 861	MK 4	22	M16	59,-
103 865	30	16	M12	62,-
103 870	30	22	M12	62,-
103 875	30	27	M12	64,-
103 880	30	32	M12	64,-
103 895	40	16	M16	66,-
103 900	40	22	M16	68,-
103 905	40	27	M16	72,-
103 910	40	32	M16	72,-
103 915	40	40	M16	89,-
103 920	BT 40	13	M16	89,-
103 930	BT 40	16	M16	89,-
103 922	BT 40	22	M16	89,-
103 924	BT 40	27	M16	89,-
103 926	BT 40	32	M16	89,-
103 928	BT 40	40	M16	89,-

Milling Chuck for Cutter with Weldon-Shaft

- for tools with cylindrical shank and setup area in accordance with DIN 1835 B
- forged, case-hardened, precision ground



starting at

33,- €

ISO 40			ISO 50			BT 40			BT 30		
Ø	Part no.	Price €	Ø	Part no.	Price €	Ø	Part no.	Price €	Ø	Part no.	Price €
6 mm	106 801	33,-	6 mm	106 811	51,-	6 mm	106 821	51,-	6 mm	106 831	49,-
8 mm	106 802	33,-	8 mm	106 812	51,-	8 mm	106 822	51,-	8 mm	106 832	49,-
10 mm	106 803	33,-	10 mm	106 813	51,-	10 mm	106 823	53,-	10 mm	106 833	49,-
12 mm	106 804	33,-	12 mm	106 814	51,-	12 mm	106 824	56,-	12 mm	106 834	49,-
16 mm	106 805	33,-	16 mm	106 815	51,-	16 mm	106 825	56,-	14 mm	106 835	49,-
20 mm	106 806	33,-	20 mm	106 816	51,-	20 mm	106 826	60,-	16 mm	106 836	49,-
25 mm	106 807	36,-	25 mm	106 817	69,-	25 mm	106 827	71,-	18 mm	106 837	56,-
32 mm	106 808	42,-	32 mm	106 818	75,-	32 mm	106 828	75,-	20 mm	106 838	56,-



Collet Chuck MAS-BT



Model	D	D1	L1	Part No.	Price € ^H
BT30-ER25	42	31,75	70	104 200	41,-
BT30-ER32	50	31,75	70	104 201	45,-
BT40-ER32	50	44,45	100	104 202	55,-
BT40-ER40	63	44,45	100	104 203	58,-
BT50-ER32	50	69,85	100	104 204	79,-
BT50-ER40	63	69,85	100	104 205	84,-

ER Collet Set, DIN 6499 Form B



	Part No.	Price € ^F
ER 25, 16-pieces 1 - 16 mm	106 050	126,-
ER 32, 6-pieces 6, 8, 10, 12, 16, 20 mm	106 052	82,-
ER 40, 15-pieces 3, 4, 5, 6, 8, 10, 12, 14, 15, 16, 18, 20, 22, 24, 26 mm	106 054	230,-

For other chucks for MT 3 / MT 4, visit www.knuth.de

ER Collet Chucks

ER 32	F			
Mount	MT 3	MT 4	ISO 30	ISO 40
Part No.	106 057	106 058	106 055	106 056
Price €	81,-	89,-	76,-	82,-
ER 40				
Part No.	106 063	106 064	106 061	106 062
Price €	79,-	93,-	81,-	96,-

Collet Chucks for End Mills



Tool Taper	Chuck Range	Part No.	Price € ^H
MT 3	2 - 20	104 300	57,-
MT 4	2 - 20	104 305	62,-
ST 30	2 - 20	104 310	62,-
ST 40	2 - 20	104 320	66,-

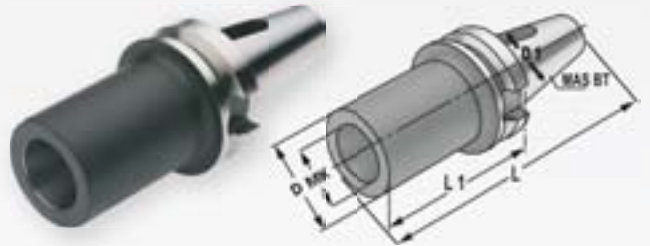
Collets from 2 to 20 mm Ø starting at € 26,-
2 mm Ø Part No. 104 325, 3 mm Ø Part No. 104 330 ...

Combo Shell-end Milling Arbor MAS-BT



Model	d	L1	Part No.	Price € ^H
BT30x13	13	55	103 950	38,-
BT30x16	16	55	103 951	41,-
BT30x22	22	55	103 952	41,-
BT40x40	40	100	103 953	62,-
BT50x40	40	100	103 954	74,-
BT50x50	50	125	103 955	82,-

Adapter Sleeves MAS-BT



Model	D	D1	L	L1	Part No.	Price € ^H
BT30xMK1	25	31,75	93,40	45	103 780	36,-
BT30xMK2	32	31,75	108,40	60	103 781	33,-
BT30xMK3	40	31,75	128,40	80	103 782	34,-
BT40xMK2	32	44,45	125,40	60	103 783	37,-
BT40xMK3	40	44,45	140,40	75	103 784	40,-
BT40xMK4	40	44,45	160,4	95	103 785	45,-

Drill Chuck Mount MAS-BT



Model	D	D1	L	L1	L2	Part No.	Price € ^H
BT30xB16	15,733	31,75	117,40	45	24	104 790	32,-
BT30xB18	17,75	31,75	125,40	45	32	104 791	32,-
BT40xB16	15,733	44,45	134,40	45	24	104 792	34,-
BT40xB18	17,75	44,45	142,40	45	32	104 793	34,-

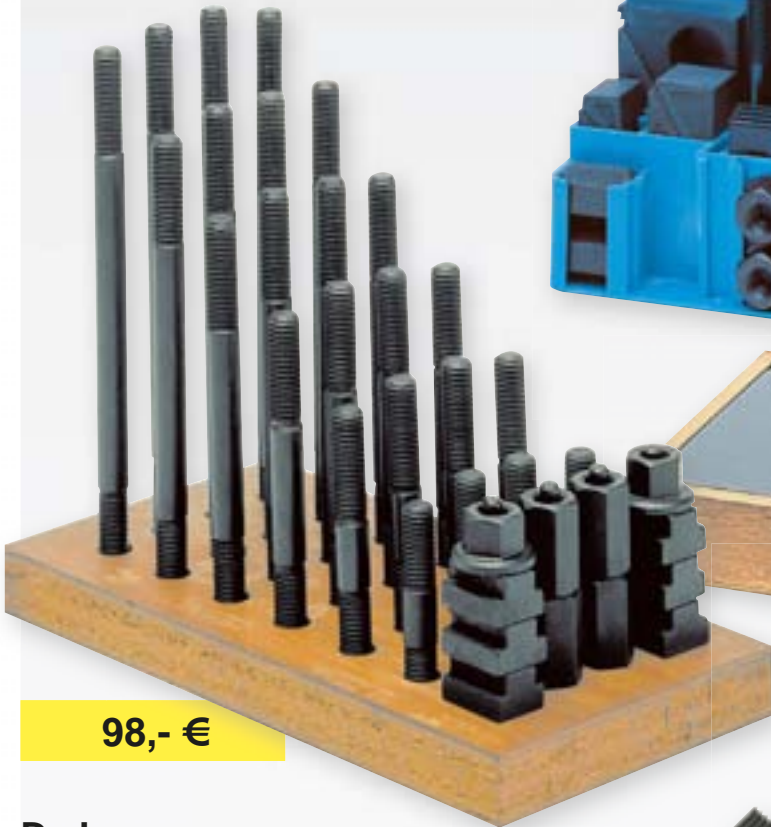
Drill Chucks see page 233

Draw Bolts MAS-BT

Model	Part No.	Price €	Part No.	Price € ^H
	A	A	B	B
BT 30 (A) (B)	103 600	5,-	103 604	5,-
BT 40 (A) (B)	103 601	6,-	103 605	6,-
BT 50 (A) (B)	103 603	7,-	103 607	7,-

starting at

98,- €



98,- €

De Luxe Clamping Tool Set

- in a convenient, sturdy steel magazine, 52 parts
- 24 stud bolts, 4 each in the lengths 75, 100, 125, 150, 175, 200 mm
- 4 extension nuts, 6 stepped clamps (3 pair), 6 T-slot nuts, 6 hexagon nuts flanged, step blocks (3 pairs)

Stud Bolt Set, and T-Slot Nuts

- 38 parts
- 24 stud bolts, 4 ea in the lengths 75, 100, 125, 150, 175, 200 mm
- 6 T-slot nuts
- 4 extension nuts
- hexagon nuts flanged



39,- €

Set of Step Blocks

- 20 each (10 pairs) in wooden box
 - black-finished steel
- Part no. 105 340
Price € 39,-

Icon	Thread	Part no.	Price €
	M 10	105 290	98,-
	M 12	105 295	108,-
	M 14	105 300	112,-
	M 16	105 305	112,-

Icon	Thread	Part no.	Price €
	M 12	105 355	98,-
	M 14	105 360	98,-

starting at

59,- €



2-PC. swivel hold-down clamp sets

- high quality steel, black-finished
- available in pairs only

Length	Bore for stud bolts	Part no.	Price €
100	M 12	105 790	59,-
100	M 14	105 795	69,-
125	M 16	105 800	118,-



Accessories for Drill Presses

- includes quick-action drill chuck and bits
- packed in a wooden case

starting at

109,- €



Contents / Set:	MT 2 (6-piece)	MT 3 (7-piece)	MT 4 (8-piece)	ISO 30 (4-piece)	ISO 40 (5-piece)
Reducing Sleeve	MT 2 / MT 1	MT 3 / MT 2	MT 4 / MT 3	ISO 30 / MT 2	ISO 40 / MT 2
Reducing Sleeve	-	MT 3 / MT 1	MT 4 / MT 2	ISO 30 / MT 3	ISO 40 / MT 3
Reducing Sleeve	-	-	MT 4 / MT 1	-	ISO 40 / MT 4
Extension Sleeve	MT 2 / MT 3	MT 3 / MT 4	MT 4 / MT 5	-	-
Tool-Holder Bits	MT 2 / B 16	MT 3 / B 18	MT 4 / B 18	ISO 30 / B 18	ISO 40 / B 18
Tool-Holder Bits	MT 2 / B 18	MT 3 / B 16	MT 4 / B 16	-	-
Quick-action Chuck	3 - 16 mm / B 18	3 - 16 mm / B 18	3 - 16 mm / B 18	3 - 16 mm / B 18	3 - 16 mm / B 18
Quick-action Chuck	1 - 13 mm / 16	1 - 13 mm / B 16	1 - 13 mm / B 16	-	-
Part No.	104 592	104 593	104 594	104 595	104 596
Price €	109,-	129,-	149,-	151,-	253,-

Reducing sleeves MT/MT Tool-Holder Bits for drill chuck Drill Chuck Mount

MT	Part No.	Price €
2 / 1	103 805	7,-
3 / 1	103 810	7,-
3 / 2	103 815	6,-
4 / 1	103 820	12,-
4 / 2	103 825	12,-
4 / 3	103 830	12,-
5 / 2	103 835	20,-
5 / 3	103 840	20,-
5 / 4	103 845	20,-

MT 2	Part No.	Price €
B 16	104 725	8,-
B 18	104 730	8,-
MT 3		
B 16	104 739	9,-
B 18	104 740	9,-
MT 4		
B 16	104 745	11,-
B 18	104 750	16,-

Taper	Bits	Part No.	Price €
ISO 30	B 16	104 775	45,-
ISO 30	B 18	104 776	45,-
ISO 40	B 16	104 780	45,-
ISO 40	B 18	104 781	45,-
BT 40	B 16	104 785	54,-
BT 40	B 18	104 786	54,-

Taper Drifts

MT	Part No.	Price €
2 / 3	104 690	11,-
4 / 5	104 695	22,-

Extension Sleeves

MT	Part No.	Price €
2 / 3	104 660	22,-
3 / 4	104 665	30,-
4 / 5	104 670	41,-

Quick-Action Drill Chuck

Chuck Range	Mount	Part No.	Price €
1 - 13 mm	B 16	104 765	30,-
3 - 16 mm	B 18	104 770	37,-

Edge tracer set

- 1 bilateral 10x10x4 / 2 unilateral 10x10
- 3 bilateral 10x10x4 / 4 unilateral 10x4
- 5 bilateral 12x12x4

Part No. 108 057

Price € 39,-



Electronic Edge Tracer

- for setting up drill presses and milling machines, machining centers, etc.
- LED indicator lights up as soon as the workpiece is being touched
- outside and inside centering
- when moving across the reference edge, the measuring ball is pushed aside
- 20 mm shank



Price € 69,-

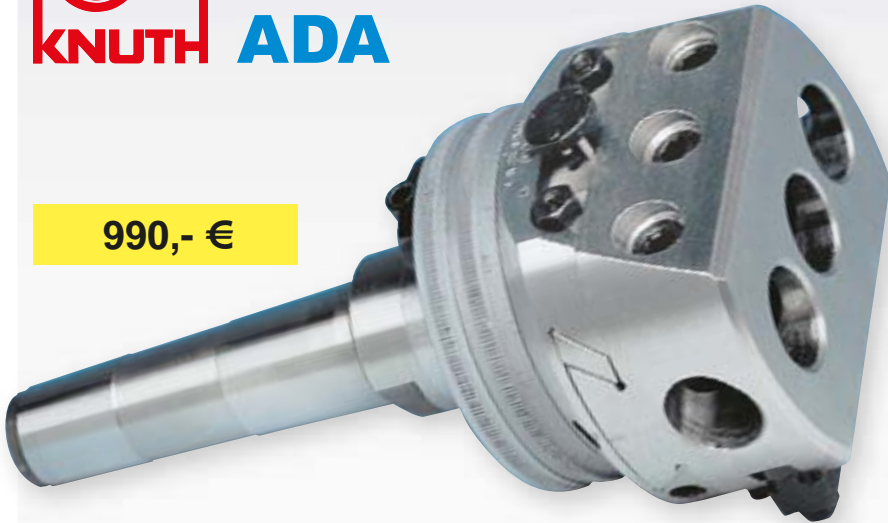
Assembly Stand

- for setting up milling and drilling tools
- Horizontal and Vertical Mounts
- for easier set-up and shorter tooling times



Specifications

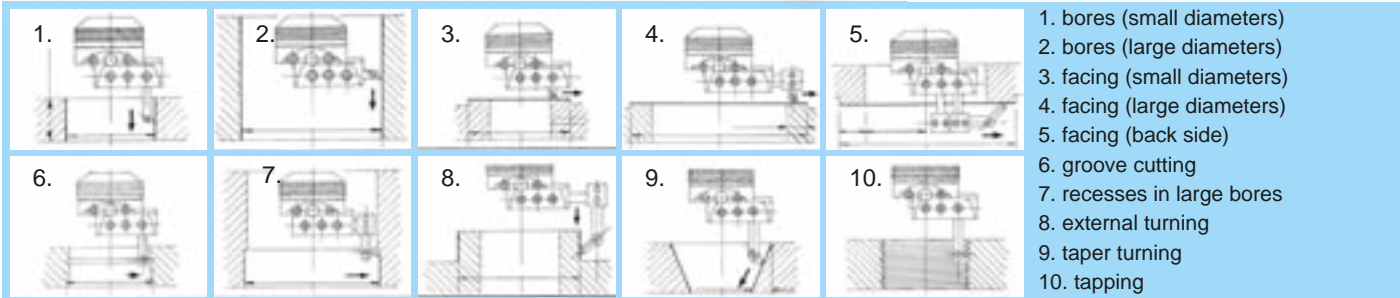
flutes	10 mm
mounts	taper ST 40, BT 40, DIN 2080
dim. (LxWxH)	210 x 105 x 130 mm
Part No.	108 930
Price €	155,-



990,- €

- with self-actuated slide advance and automatic stop activation
- can be used on drill presses, lathes, milling machines, etc.
- autom. advance ensures consistent feed of tools
- adjustable guides
- adjustable stops
- made of carbon-chromium-molybdenum steel
- all parts are hardened and precision-ground
- guaranteed maximum accuracy
- incl. reducing sleeves 4, 8, 12 mm

Standard Equipment:
boring bar holder



Specifications ADA		MT3	MT4	SK30	SK40
external turning diameter	mm	150	350	350	350
max. cross slide adjustment	mm	± 15	± 25	± 25	± 25
micro-feed per angle degree		0.005	0.005	0.005	0.005
rapid feed	mm/rev	2	3	3	3
autom. feed/rev		0.02, 0.04, 0.06, 0.08, 0.10, 0.12	0.03, 0.06, 0.09, 0.18	0.03, 0.06, 0.09, 0.18	0.03, 0.06, 0.09, 0.12
boring bar diameter	mm	18	22	22	22
Part No.		103 401	103 402	103 403	103 404
Price €		990,-	990,-	990,-	990,-



Lathe Bore Head with Boring Bar Set



Boring Head shown with 12-piece boring bar set and optional accessories (mounting shaft)

Mounting Shafts				
shaft with draw bolt	MT 3	MT 4	ISO 30	ISO 40
Part No.	108 639	108 641	108 635	108 637
Price €	35,-	35,-	44,-	44,-

- for easy inside diameter turning on drill presses, lathes, and milling machines
- micrometer screw for precise inside turning diameter adjustment
- high-quality steel, hardened and precision-ground
- feed: 0.01 mm/graduation line
- 2 vertical tool mounts, 1 horizontal tool mount

starting at

180,- €

Boring Head with 9-piece boring bar set	
head diameter	mm 50
tool mount	mm 12
possible bore diameters	mm 10 - 125
Part No.	108 631
Price €	180,-

Boring Head with 12-piece boring bar set	
head diameter	mm 75
tool mount	mm 18
possible bore diameters	mm 12 - 225
Part No.	108 633
Price €	198,-

5C Collet Chuck

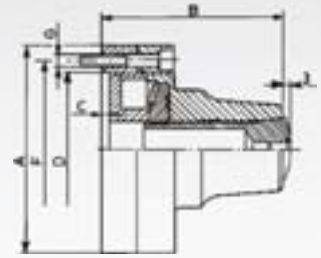
- the key-verified chuck ensures uniform and torsion-free clamping of workpieces
- quick setup and easy handling
- the 5C Collet System is available in mm-increments from 1 to 25 mm

Part No. 181 321

Price € 449,-

B

5C Collet Chuck for Lathes



Ø	125 mm	D	95 mm
A	126 mm	F	108 mm
B	107,5 mm	G	3 x M8 x 45
C	4 mm	weight	5 kg

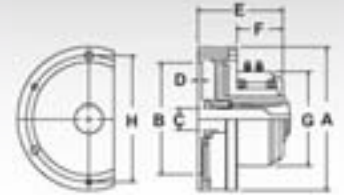
Pneumatic 5C Collet Chuck

- pneumatic 5C collet chuck for rapid tool changes
- including 26 mm through-hole
- fits all 5C collets
- spindle bore 26 mm
- speed (max.) 5000 rpm

Part No. 181 322

Price € 2.890,-

B



A	168 mm	F	55 mm
B	130 mm	G	110 mm
C	26 mm	H	147
D	5 mm	weight	10 kg
E	100 mm		

Stop Screws for 5C collets

- threads are hardened across their entire length
- adjustable for workpiece depths up to 75 mm (from the collet surface)

Part No. 106 220

Price € 28,-



H

5C collets

- hardened and precision ground premium steel
- female and male threads



Clamping-Part No.	Price	8	106 130	28,-	17	106 175	28,-	
Ø	€	9	106 135	28,-	18	106 180	28,-	
1	106 103	41,-	10	106 140	28,-	19	106 185	28,-
2	106 104	28,-	11	106 145	28,-	20	106 190	28,-
3	106 105	28,-	12	106 150	28,-	21	106 195	28,-
4	106 110	28,-	13	106 155	28,-	22	106 200	28,-
5	106 115	28,-	14	106 160	28,-	23	106 205	28,-
6	106 120	28,-	15	106 165	28,-	24	106 210	28,-
7	106 125	28,-	16	106 170	28,-	25	106 215	28,-

Power collet holders (vertical and horizontal)

- with setup angle for vertical and horizontal use

Part No. 106 090

Price € 90,-



H

Corrugated Parallel Pads

- save time when clamping parts for grinding, cutting, drilling, etc.
- no chips stay back on the support face, which ensures maximum parallelism of the clamped workpiece
- several flat or single thin workpieces can be easily clamped
- spring steel, hardened and tempered, 110 mm long, ± 0,005 mm parallelism, precision-ground
- 8 pairs per set - 2 mm increments

9 - 23 mm

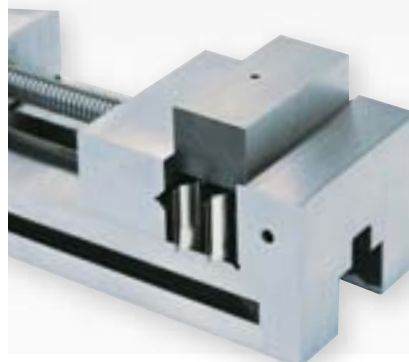
Part No. 128 960

Price € 49,-

25 - 39 mm

Part No. 128 961

Price € 59,-





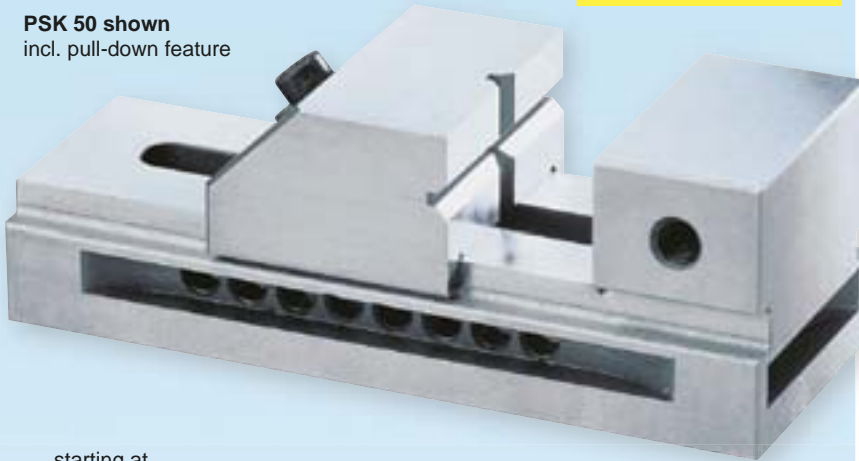
Vises

H Precision Grinding and Control Vise

starting at

60,- €

PSK 50 shown
incl. pull-down feature



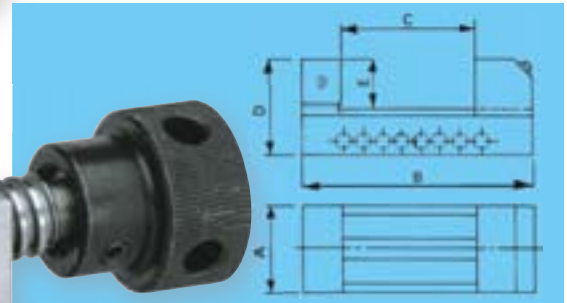
- high precision, robust structure, hardened and ground v-grooves, high holding capacity
- can be used on 4 different sides
- face parallelism 0.005 to 100 mm
- solid steel structure, hardness 58-62 HRC
- weight PSK 50 = 2,5 kg, PSK 75 = 4,5 kg, PSK 100 = 11 kg, PSK 125 = 15 kg

Model	A	B	C	D	E	Part no.	Price €
PSK 50	50	140	65	50	25	128 820	60,-
PSK 75	73	180	100	70	35	128 821	90,-
PSK 100	100	245	125	90	45	128 824	160,-
PSK 125	125	285	160	100	50	128 825	190,-

starting at

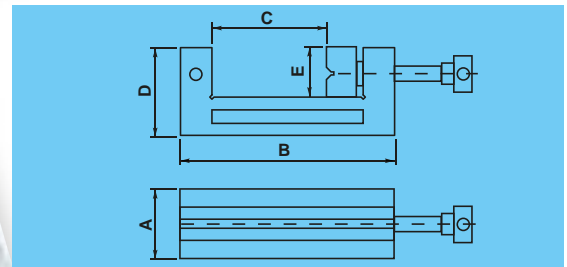
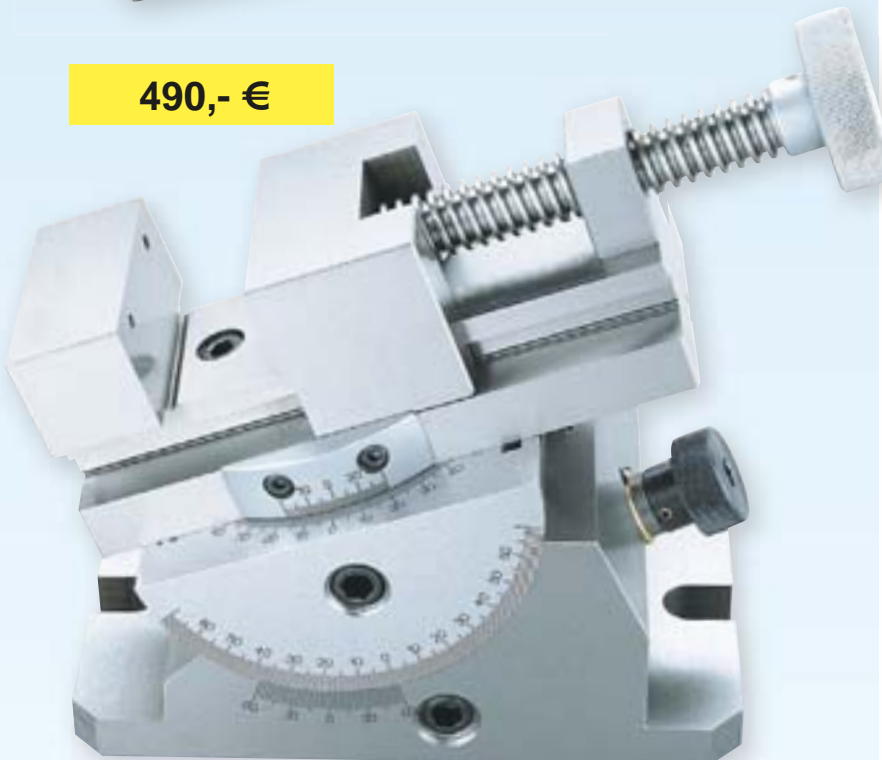
99,- €

PSG 50 shown



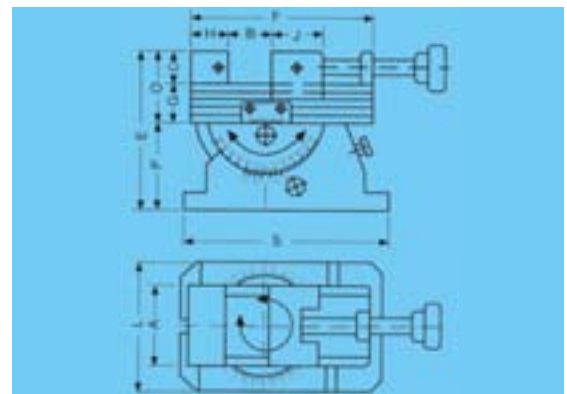
Model	A	B	C	D	E	Part no.	Price €
PSG 50	50	155	65	50	25	128 826	99,-
PSG 75	73	210	100	70	35	128 827	120,-
PSG 100	100	260	125	90	45	128 828	239,-
PSG 125	125	300	160	100	50	128 829	330,-

490,- €



PSS

- swivels on 2 levels, 360° horizontal, ± 45° vertical
- scale for precise minute readout
- screw for upward and downward swing
- for grinding, boring, milling, eroding



A	B	C	E	F	G	H	J	L	O	P	S	N.W.	Part no.	Price €
PSS 70	70	80	30	137	160	32	33	45	110	62	75	180	128 815	490,-

starting at

1.580,- €



- high-grade machine vise for hydraulic clamping of parts
- hardened and ground surfaces ensure high-precision clamping, even when working with in-series connected vises
- 4 work surfaces
- pull-down system for maximum secure clamping
- spindle safety guard protects from chips
- face parallelism 0.02 mm

HNCS	100V	130V	160V	200V
jaw width	mm 100	130	160	200
clear opening	mm 0-125	0-180	0-240	0-280
jaw height	mm 48	55	58	63
overall height	mm 133	150	163	173
holding force	kN 36	46	56	71
weight	kg 25	38	57	78
Part No.	104 930	104 932	104 934	104 936
Price €	1.580,-	1.580,-	1.880,-	2.490,-



Optional Equipment:

Dial for HNCS	100V	130V	160V	200V
dial diam.	mm 248	296	312	378
dial height	mm 27	30	34	44
Part No.	104 931	104 933	104 935	104 937
Price €	540,-	590,-	880,-	990,-

**pull-down system:
absolutely secure work-
piece hold even during
heavy workpiece cutting**

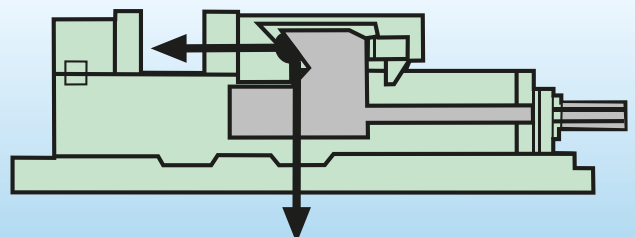
starting at

169,- €



- made of high-quality cast-iron
- hardened and precision-ground steel jaws
- dial turns 360° and has 1° scale division
- parallelism ± 0.0025 mm
- precise, hardened jaw guides

Specifications		NZM100	NZM125	NZM160	NZM200
jaw width	mm	100	125	160	200
jaw height	mm	32	40	45	50
opening capacity	mm	100	125	190	190
height	mm	118	136	157	179
dial diameter	mm	160	187	230	268
weight	kg	16	24	49	56
Part No.		104 916	104 918	104 920	104 922
Price €		169,-	189,-	290,-	380,-





Precision Machine Vise

PMS

swivels on 2 axes

starting at

180,- €

III. PMS 50

- high precision vise for accurate and exact precisionmechanics work (also suitable for watch making, jewelry industries)
- swivels from horizontal (180°) to vertical (90°)
- turns 360° on a dial
- jaws are made of hardened and precision-ground tool steel

Specifications		PMS 50	PMS 75	PMS 100
Jaw height	mm	23	34	40
Width	mm	50	75	100
Throat	mm	50	75	100
Weight	kg	3,8	9,6	17,3
Part no.		125 010	125 011	125 012
Price €		180,-	228,-	258,-



Hydraulic Machine Vise

HS

starting at

560,- €

III. HS 100

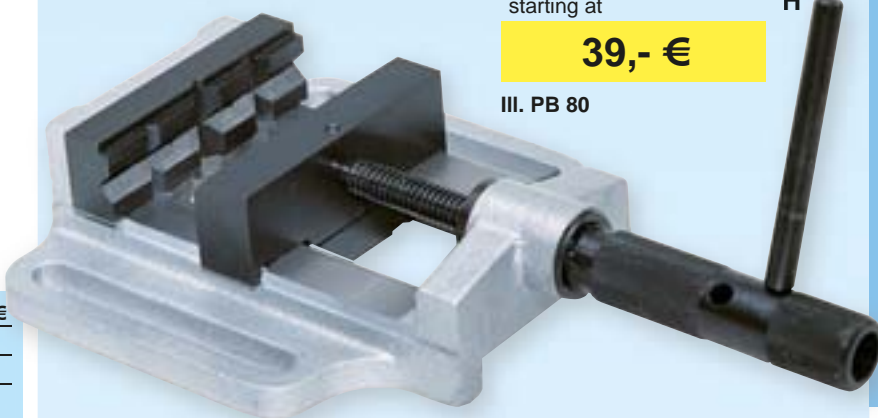
Specifications		HS 100	HS 125	HS 150	HS 200
jaw width	mm	110	135	150	200
clear opening	mm	170	220	300	300
jaw height	mm	36	48	51	65
holding force	KN	25	40	45	80
swivel-base / weight	kg	10	12	22	32
dimens. (LxWxH)	mm	525x160 x94	670x185 x118	800x240 x133	800x280 x158
weight	kg	26	42,5	75	125
Part no.		105 096	125 024	125 028	125 029
Price €		560,-	590,-	680,-	990,-

- hardened and precision-ground jaws and body
- high precision and wear-resistant material ensure long service-life
- clamping pressure is up to ten times as high as with conventional machine vises
- swivel-base mounted vise body, 360° swivel
- consistent clamping pressure, unaffected by vibration and shock
- hydraulic power amplifier

Precision Drill Press Vise

- 1 horizontal v-groove and 3 vertical v-grooves
- precision-ground base and guides
- parallelism of jaws: 0,02 mm guide to base: 0,02 mm

Model	Jaw width	Opening	Jaw depth	Part No.	Price €
PB 80	80 mm	80 mm	25 mm	104 835	39,-
PB 100	100 mm	96 mm	31 mm	104 840	49,-
PB 120	120 mm	105 mm	31 mm	104 845	69,-



starting at

39,- €

III. PB 80

H

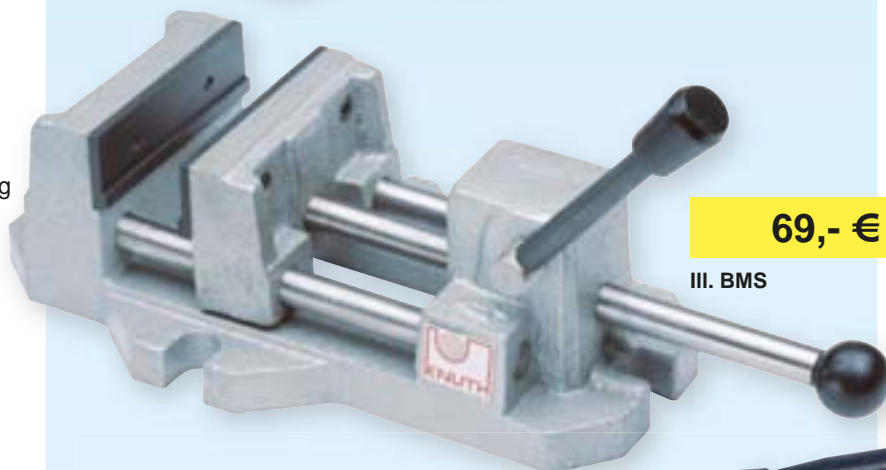
Quick-Action Vise

BMS

- shiftable chuck jaw
- clamping lever operation for clamping and locking
- ground and hardened guides and clamping mechanism, high-quality cast iron (FC 25)
- steel clamping jaws
- jaw width 100 mm
- clamp. width 108 mm

Part no. 104 925

Price € 69,-



69,- €

III. BMS

Machine Vise

MS

- high quality cast iron
- hardened and ground replaceable steel jaws
- covered spindle
- forged bronze spindle nut
- including hand crank, swivel-base, and scale

Specifications		MS 100	MS 125	MS 160	MS 200
jaw width	mm	100	125	160	200
jaw height	mm	40	45	50	60
opening cap.	mm	80	100	125	160
height	mm	100	125	190	250
weight	kg	12	20	32	60
Part No.		104 950	104 955	104 960	104 965
Price €		120,-	140,-	188,-	238,-

starting at

120,- €

III. MS 100



Universal Machine Vise

UMS

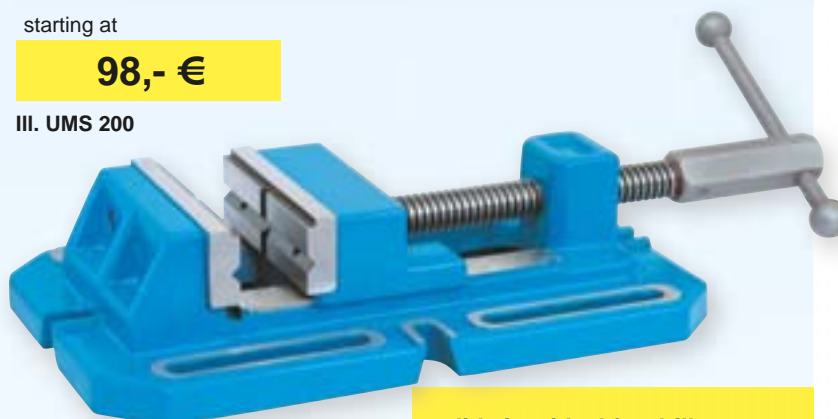
- deep hole bores for flexible clamping
- low height for cost-effective use of machine

Specifications		UMS 100	UMS 140	UMS 200
jaw width	mm	100	140	200
opening	mm	110	150	210
jaw depth	mm	40	50	60
assembly width	mm	170	189	250
height	mm	72	89	114
Length	mm	460	610	788
deep hole dim.	mm	88 x 12	105 x 14	163 x 14
weight	kg	13	18	20
Part No.		125 030	125 031	125 032
Price €		98,-	128,-	188,-

starting at

98,- €

III. UMS 200



solid vise, ideal for drill presses



Angle vise

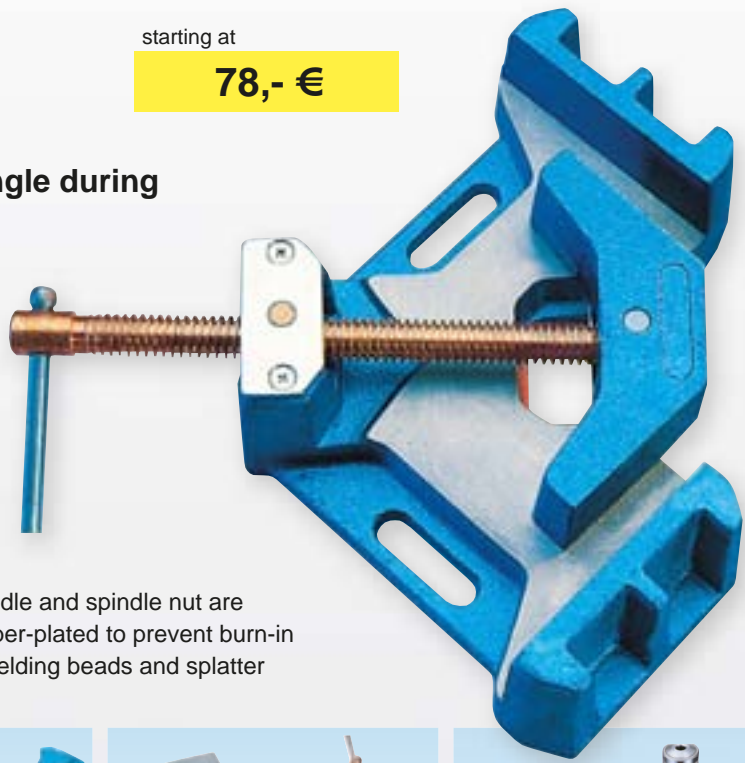
starting at

78,- €

H

For clamping of parts at the precise angle during welding or assembly

- heavy-duty cast-iron design
- ideal for welded joints at a right angle
- the joint will always be in a perfect 90° angle, regardless if it is a corner joint, miter joint, or T-connection, even in different workpiece widths



- Spindle and spindle nut are copper-plated to prevent burn-in of welding beads and splatter

Specifications for angle vise

max. clamping width mm	105	125
max. opening mm	60	100
jaw height mm	35	60
weight kg	5.1	9
Part No.	107 005	107 010
Price €	78,-	113,-



Compound Sliding Table

starting at

528,- €



Part No. 106 017 is shown

**Rigid and precise
Compound sliding table
for coordinate drilling
on radial, column, and
bench drill presses**

- cast-iron structure
- T-slots, coolant groove
- dovetail guides, adjustable



Part No. 106 009 is shown

Specifications

table setup area mm	470x180	670x180	750x210	855x295
table height mm	160	160	208	160
X / Y axis travel mm	280x195	480x195	500x210	620x240
T-slot width mm	12	12	14	12x22

hand-wheel scale divisions	0.05	0.05	0.05	0.05
dimensions mm	748x483	950x483	1065x625	1267x621
weight kg	50	65	98	130
Part No.	106 007	106 008	106 009	106 017
Price €	528,-	688,-	888,-	1.690,-



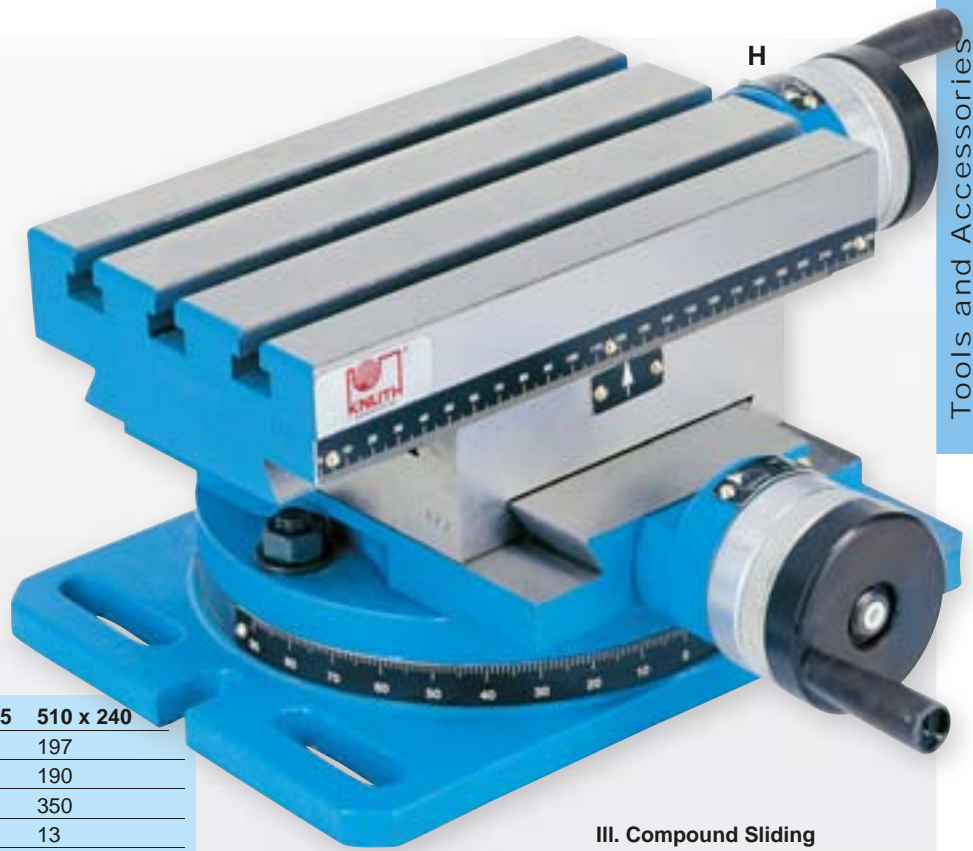
Compound Sliding Tables

For small cutting operations on the bench or floor drill press

starting at

370,- €

table size		230 x 145	320 x 145	510 x 240
height	mm	154	154	197
cross travel	mm	120	120	190
longitud. travel	mm	160	260	350
T-slots	mm	10	10	13
max. table load capacity	kg	85	100	140
swivel range		360°	360°	360°
handwheel incr.	mm	0,025	0,025	0,05
weight	kg	25	30	86
Part no.		106 001	106 003	106 006
Price €		370,-	520,-	880,-



III. Compound Sliding Tables 145 x 230

- cast iron dovetail guides



Swivel Table ST

For precise machining of corner bores, angular cutting, angular grinding, etc.

starting at

216,- €



- 1 scale gradation direct read-out at the table
- cast-iron frame, ground table surface and guideways

Specifications		ST 250	ST 300	ST 380
number of T-slots		3	3	3
T-slot spacing	mm	55	60	90
T-slot width	mm	12	12	16
swivel angle		± 50°	± 50°	± 50°
weight	kg	20	37	45
dimensions (LxWxH)	mm	254x178x127	300x240x165	381x254x165
Part no.		129 335	129 340	129 345
Price €		216,-	308,-	343,-



Dial Gauge

- accuracy acc. to DIN 878
- matte-finish chrome-plated metal encl.
- clamping shaft 8mm h6
- outer race with 2 adjustable tolerance markers
- gradation 0.01 mm
- measuring range 10 mm

Part No. 129 020

Price € 17,-



Precision Dial

- accuracy and design acc. to industry standard
- measuring range 0 - 1.27 mm
- clamping shaft 8 mm
- smallest increment 0.002 mm

Part No. 129 022

Price € 62,-

starting at

17,- €



Precision Dial Gauge

- accuracy acc. to DIN 2270
- automatically reversing tracer arm
- rotating outer race for zeroing
- stainless steel precision bearing for friction-free adjustment of tracing point
- gradation 0.01 mm
- measuring range 0.8 mm (0-40-0)

Part No. 129 065

Price € 36,-

3-Point Inside Micrometer, Sets

- Accuracy acc. to DIN 863
- read-out: 0.005 mm
- scale drum and scale sleeve
- with satin chrome-plated finish
- drum diam. 19 mm to 11 mm drum diam. 23 mm over 11 mm
- screw pitch 0.5 mm
- measuring face: carbide
- with ratchet, screwdriver, wrench, adjustment and extension
- includes wooden case



H

Precision Inside Micrometer Set 50 - 600 mm

- screw 50 - 63 mm with 6 extension elements (13, 25, 50, 100, 150, 200 mm)
- control gauge 50 mm
- reading accuracy 0.01 mm
- steel, satin chrome-plated finish
- incl. wooden box

Part No. 129 048

Price € 136,-

136,- €



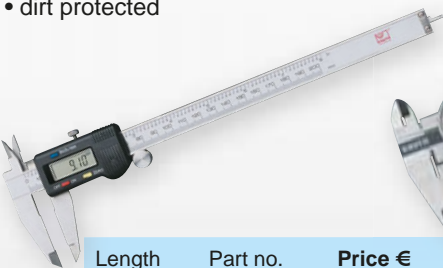
Range	Part No.	Price €
11-14, 14-17, 17-20		
Adj. Ring 11 and 17 mm	129 061	409,-
20-25, 25-30, 30-35, 35-40,		
Adj. Ring: 25 and 35 mm	129 062	710,-
40-50, 50-60, 60-70, 70-80, 80-90, 90-100		
Adj. Ring: 50, 70 and 90 mm	129 063	1.642,-

starting at

409,- €

Digital Caliper Rules

- automatical switch off after 5 min.
- 5-digit LCD display
- stainless steel
- toggle switch inch / mm
- accuracy ± 0.02 mm
- readout 0.01 mm
- dirt protected



Length	Part no.	Price €
150 mm	129 025	22,-
200 mm	129 026	32,-
300 mm	129 027	60,-
500* mm	129 029	118,-

(* 500 mm available with bottom spout only)

Dial Caliper

- including clamping screw
- measuring range 150 mm or 300 mm
- 0.02 mm increments
- satin chrome plated



- for inside, outside, and height measurements
- including case
- 150 mm, Part no. 129 030
- Price € 24,-
- 300 mm, Part no. 129 131
- Price € 58,-

Workshop Caliper INOX

- lapped measuring surface
- micro-infeed screw
- including wooden case



starting at

42,- €

- jaw length 300 mm = 55 mm, 500 mm = 100 mm and 1000 mm = 140 mm
- caliper jaw 20 mm (300 mm = 15 mm)

Length	Part no.	Price €
300* mm	129 031	42,-
500* mm	129 032	90,-
1000* mm	129 033	254,-

(* available with bottom spout only)

External Micrometer Set 6-pcs. 150 - 300 mm

- measuring range 25 mm each
- accuracy in acc. with DIN 863
- readout 0.01 mm
- satin chrome-plated scales
- micrometer screw diam. 8 mm
- C-frame with hand protection
- thimble diam. 17 mm
- including ratchet
- spindle pitch 0.5 mm
- with adjustment gauge
- including wooden case
- measuring range 150-175, 175-200, 200-225, 225-250, 250-275, 275-300 mm

Part no. 129 012

Price € 230,-



230,- €

External Micrometer Set 6 pcs. 0 - 150 mm

- accuracy acc. to DIN 863
- readout 0.01 mm
- satin chrome-plated scales
- micrometer screw diam. 6.35 mm
- tungsten carbide tipped measuring surfaces
- C-frame with hand protection
- thimble diam. 17 mm
- including ratchet
- spindle pitch 0.5 mm
- measuring range 25 mm
- a. up with adjustm. gauge
- including wooden box
- measuring range 0-25, 25-50, 50-75, 75-100, 100-125, 125-150 mm

Part no. 129 010

Price € 141,-



141,- €



Digital Micrometer Calipers

- large LCD display 30 x 10 mm
- accuracy according to DIN 863
- smallest input increment 0.001 mm
- carbide measuring surface
- automatic display of max. and min. values
- zeroing at any point
- unit selection (metric/inch)
- interface for printer connection

starting at

114,- €

Meas. Range	Part No.	Price €
0 - 25 mm	108 360	114,-
25 - 50 mm	108 361	115,-
50 - 75 mm	108 362	125,-
75 - 100 mm	108 363	136,-
0 - 100 mm	108 365	482,-

(4 pieces per set)

Parallel Gauge-Block Sets, 83 pc.

- accuracy acc. to DIN ISO 3650
- material: a carefully selected, high quality, special steel alloy, aged, hardened, and hand lapped. Accuracy of parallel end measurements conforms to DIN 861
- for the control of check gauges, and for the adjustment of length measuring devices, as well as exact testing in standards laboratory
- 1 each 1.005, 49 each 1.01 -1.49
- 23 each 0.5 - 9.50, 10 each 10 - 100 (83 total)

Part no. 129 000 Price € 416,-

416,- €



Measuring Tool Set M5

in sturdy wooden box consisting of:

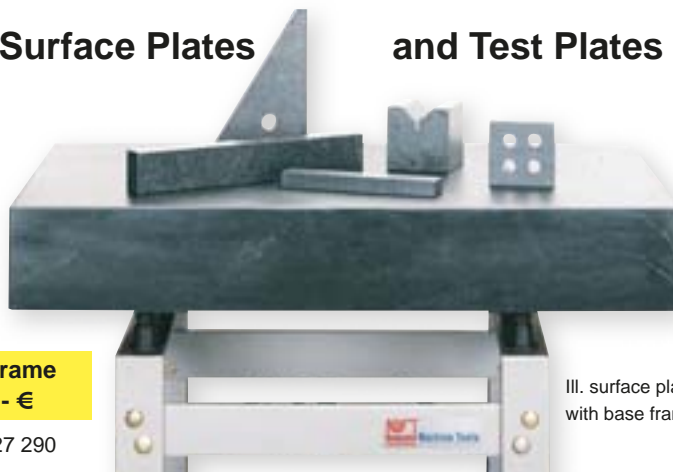
- depth gauge 200 mm, rust-proof, with clamping bolt, satin chrome-plating 100 mm, readout 0.05 mm
- vernier caliper 150 mm, with instant adjustment, satin chromeplated, Nonius 0.05 mm
- ext. micrometer 0 - 25 mm, satin chrome-plated, readout 0.01 mm tungsten carbide tipped
- bevelled steel square 100 mm, bevelled steel edge 100 mm

Part no. 108 344

Price € 92,-

92,- €




base frame
404,- €

Part. No. 127 290

 III. surface plate
 with base frame

- compressive strength 250-260 N/mm²
- DIN 876/0
- Mohs hardness 6-7
- corrosion-free
- thermal and dynamic stability
- no electric or thermal conductivity
- blueish-black granite, ground and lobed with fine, light colored inclusions

90°-angle	Part.no	Price €	Part no.V-blocks, pairs	Part no.	Price €	parallel indicators, pairs	Part no.	Price €
20x160x100	127 220	126,-	L100xW100xH100mm, 90°	127 240	428,-	160x25x16, 3 μ	127 250	137,-
25x250x160	127 225	148,-	L100xW160xH160mm, 90°	127 245	470,-	400x63x40, 8 μ	127 255	290,-
40x400x250	127 230	330,-						

rulers/edges	Part no.	Price €
400x60x25, 2,6 μ	127 260	174,-
1000x160x50, 5 μ	127 265	554,-

Cast-iron surface plate - grade 0

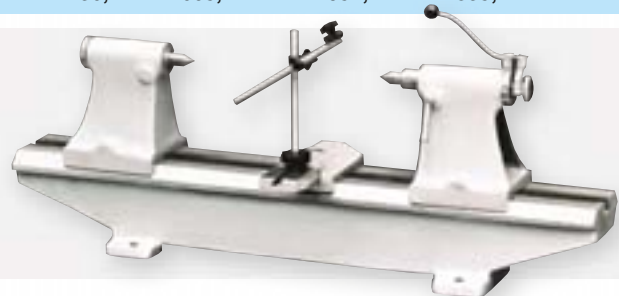
- rigid ribbed cast-iron
- scraped surface
- unfinished surfaces are painted
- accuracy acc. to DIN 876

surface plate	Part no.	Price €
400 x 250 x 70, 6 μ	127 270	81,-
630 x 400 x 100, 7 μ	127 275	179,-
1000 x 630 x 150, 9 μ	127 280	570,-
base frame for 630+ 1000 mm	127 290	404,-

Dimens. (mm)	500x400	800x600	1000x600	1000x1000	1000x1500	1000x2000
Part. no.	127 302	127 304	127 306	127 308	127 310	127 312
Price €	210,-	436,-	665,-	1.051,-	1.835,-	2.772,-

Concentricity Tester

- center distance 0-600 mm
 - center height 170 mm
 - weight 79 kg
- Part no. 127 350
Price € 990,-

990,- €


H

Magnetic micrometer Holders

3-in-1 Clamping

- Just turn the clamping knob for a quick and secure fixation of all 3 motion points
- foot dimensions 63 x 50 x 55 mm
 - holding power 60 kg
- Part No. 108 796
Price € 34,-


 shown with
 optional equipment

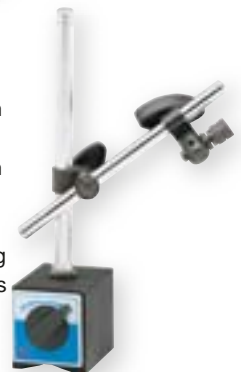
Hydraulic high-precision magnetic measuring tripod

- central clamping with 1 rotating knob
 - high clamping force via hydraulics
 - foot dim. 90x50x55mm
 - holding power 50 kg
- Part No. 108 810
Price € 55,-



Individual clamping

- measuring column 12 mm Ø x 181 mm
 - transverse arm 10 mm Ø x 150 mm
 - foot dimensions 63 x 50 x 55 mm
 - holding power 60 kg
 - plus fine adjustments
- Part No. 108 800
Price € 13,-



F

Magnetic V-BLOCK

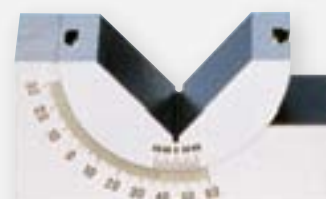
Face is ground exactly square to the v-block surface. For round, rectangular, and square workpieces. Use for grinding, drilling, and as a control station. V-block angle 90°



H	B	B1	L	Part no.	Price €
70	60	47	70	108 880	34,-
95	70	50	102	108 885	50,-

PRECISION ANGLE - V-BLOCKS

- hardened (HRC 52-55°)
 - precision ground
 - accuracy 10
 - Nonius readout
 - swivels 0° - 60°
 - dimensions (LxWxH): 100 x 30 x 50 mm
- Part no. 128 930
Price € 90,-



F



Hardness Tester HP 100

Heavy-Duty Hardness Tester for workshop operations

- measuring range Rockwell HRA > 70, HRB 30 - 100, HRC 20 - 67
- max. part height 170 mm
- throat 135 mm
- dim. 466x238x630 mm
- weight 65 kg

Part No. 128 918
Price € 1.690,-

1.690,- €

Standard Equipment:

- 3 weights (60, 100, 150 kg), 2 level test benches, 1 V-guide test bench, 1 penetrator with diamond tip, 1 penetrator with steel ball, Rockwell standard block, operating instructions

Options: hardness tester diamond

Part No. 128 915
Price € 330,-



Dividers

ST 130 • 155

- gear ratio 1:90, disengageable, chuck can be rotated manually by 360°
- hand-wheel with scale ring, Nonius graduation 10"
- 6 masks for direct division of 2, 3, 4, 6, 8, 12, 24
- hardened and ground teeth with 3-jaw chuck, 160 or 200 mm
- For additional specifications, see www.knuth.de

ST 130 Part No. 110 960 Price € 1.098,-
ST 155 Part No. 110 965 Price € 1.417,-



starting at

1.098,- €



Optional accessory set for ST 130 & ST 155:

- dividing plate A 26, 28, 30, 32, 34, 37, 38, 39, 41, 43, 44, 46, 47, 49, 51, 53, 57, 59
- dividing plate B 61, 63, 67, 69, 71, 73, 77, 79, 81, 83, 87, 89, 91, 93, 97, 99

tailstock

ST 130 Part No. 110 970 Price € 264,-
ST 155 Part No. 110 971 Price € 264,-

Electronic Hardness Tester THL 201

hardness testing in seconds for steel, cast-iron, stainless steel, aluminum, brass, and copper

- Versatile and user-friendly
- hardness tester for testing hardness acc. to Brinell, Rockwell and Vickers
- wide measuring range and large measurement storage (holds 255 measurements)
- 128 x 64 mm LCD
- accuracy +/- 0.8%
- sturdy cast aluminum housing for easy handling
- rechargeable battery powered via USB port

Part No. 128 910
Price € 1.590,-

1.590,- €

Standard Equipment: test block, USB cable, operating instructions



Divider

T 110

- swivels from horizontal to vertical 90° (scale)
- with 3-jaw lathe chuck 110 mm
- center height of 70 mm, with knurled nut for clamping the chuck (360° scale)
- disengageable for direct turning of the chuck by hand
- lathe chuck capacity Ø 25 mm
- weight: 9 kg
- For additional spec., see www.knuth.de

Part No. 110 940
Price € 280,-



280,- €



Direct Indexing Head

S 200

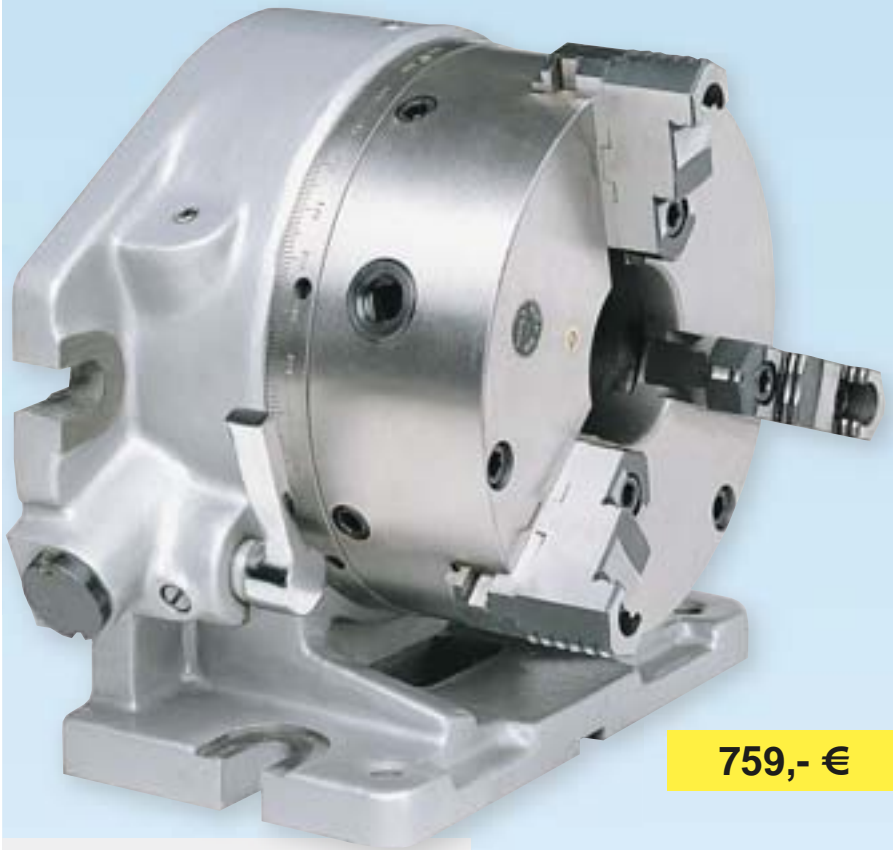
The S200 Direct Indexing Head can be used in a horizontal or vertical setup. The indexing unit is enclosed in the resistant cast-iron body of the divider, where it is protected from contamination to ensure precise and consistent divisions of 2, 3, 4, 6, 8, 12, and 24. An easy-to-read circumferentially mounted Nonius scale provides exact divisions up to 360°. A sturdy **clamping lever** is provided for the torsion-proof fixture of the chuck at any set position.

Accuracy

spindle concentricity, radial	mm	0.01
axial concentricity, clamping plate	mm	0.015
plane parallelism from clamping plate to base plate	mm	0.02
squareness of setup area	mm	0.015/200
indexing accuracy (for 24)		25"

Specifications S 200

center height	mm	150
3-jaw chuck	mm	210
divisions		2, 3, 4, 6, 8, 12, 24
Part No.		110 966
Price €		759,-



759,- €

Standard Equipment S 200:

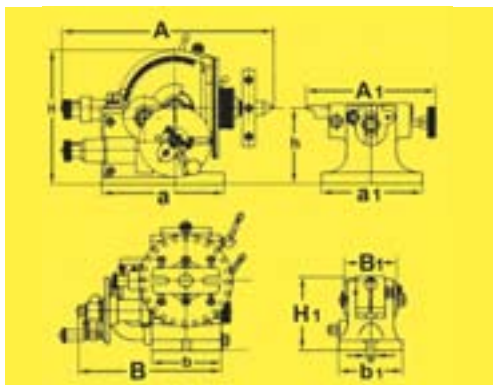
6 indexing masks, chuck, operating tools

Universal Indexing Head

HT

- for direct and indirect divisions
 - spindle runs in precision tapered roller bearings
 - phosphorous/bronze worm gear with hardened and ground CrNi steel worm
 - disengage gears for direct divisions
 - gear ratio 40:1
 - swivels from 10° below horizontal to vertical (-10° to 90°)
 - every division for 2 to 50 parts, and many divisions up to 380 parts
- Part No. 110 953 **Price € 484,-**

Standard Equipment: tailstock, 2 dividing plates, center, drive chuck, and chuck flange



484,- €

HT 0 Indexing Head

A	B	H	h	a	b	g	spindle bore
189	140	173	100	160	91	13	18

Tailstock

A1	B1	H1	h	a1	b1	g
176	80	107.4	100	130	92	13

CNC Divider for universal use on CNC milling and engraving machines

- X.div Dividers have been customized for optimum use on KNUTH CNC Milling and Engraving Machines
- X.div Dividers for Fanuc, Siemens and GPlus controls - Complete package including motor and axis module for KNUTH Machines
- X.div Dividers without drive unit provide an optimum basis for equipping or retrofitting a wide variety of machines



starting at

7.070,- €



suitable for vertical and horizontal use

manual tailstock included in standard equipment

Specifications X.div

face plate diameter	mm	125	170	210	255	320	400
face plate height (vertical)	mm	150	150	150	167	220	250
spin axis (horizontal)	mm	110	135	160	160	210	255
through-hole diameter	mm	25 H7	35 H7	45 H7	40 H7	40 H7	40 H7
T-slot width	mm	12 H7	12 H7	12 H7	12 H7	14 H7	14 H7
T-slots	mm	14 H7	18 H7	14 H7	18 H7	18 H7	18 H7
speed (max.)	rpm	33.3	33.3	33.3	11.1	11.1	11.1
reduction		0	0	0	0	0	0
step angle		0.001°	0.001°	0.001°	0.001°	0.001°	0.001°
angular accuracy		40"	20"	20"	15"	15"	15"
repeatability		± 2"	± 2"	± 2"	± 4"	± 4"	± 4"
max. load capacity (vertical)	kg	100	150	150	250	350	500
max. load capacity (horizontal)	kg	50	75	75	100	150	200
max. turning diameter	mm	125	170	210	255	320	400
weight with motor	kg	25	38	43	88	162	262

without servo drive

Part No.	125 765	125 770	125 775	125 780	125 785	125 790
Price €	7.070,-	8.560,-	9.970,-	11.090,-	13.280,-	16.240,-

for Fanuc Control

Part No.	125 766	125 771	125 776	125 781	125 786	125 791
Price €	11.090,-	13.070,-	14.600,-	17.250,-	20.750,-	23.990,-

for Siemens Control

Part No.	125 767	125 772	125 777	125 782	125 787	125 792
Price €	13.860,-	15.490,-	17.040,-	19.690,-	22.670,-	25.900,-

for GPlus Control

Part No.	125 768	125 773	125 778	125 783	125 788	125 793
Price €	11.400,-	13.150,-	14.500,-	17.150,-	20.330,-	23.560,-

manual chuck

max. part diameter	mm	127	152	177	203	254	305
Part No.	125 769	125 774	125 779	125 784	125 789	125 794	
Price €	620,-	790,-	970,-	1.060,-	1.680,-	2.540,-	



Rotary Table

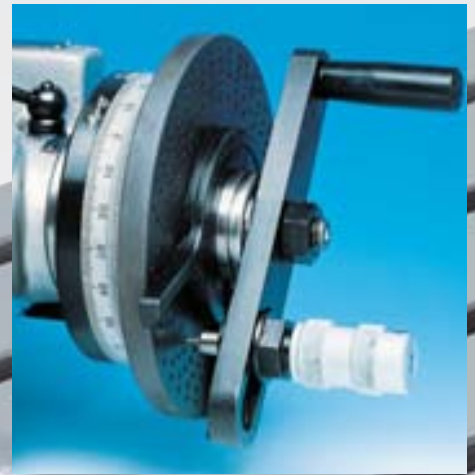
RT

147,- €

starting at

280,- €

H



- Index Feature
RT 160 - 320
- for direct and indirect division
- from 2 to 66: all divisions from 68 to 132: those divisible by 2, 3 and 5 can be performed

Part no. 125 805 **Price € 147,-**

RT 100

Part no. 125 802 **Price € 113,-**

Tailstock for RT 100

Part no. 125 801 **Price € 113,-**

Tailstock for RT 200 and RT 250

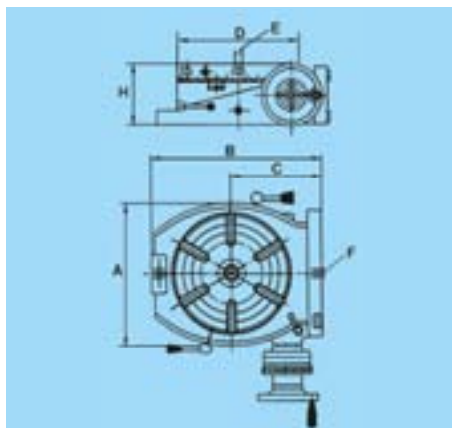
Part no. 125 820 **Price € 207,-**

Tailstock for RT 320

Part no. 125 825 **Price € 276,-**

- design features as described under RTS
- type RT 100 with 3 radial setup T-slots
- type RT 160 and RT 200 with 4 radial setup T-slots (14 mm)

- type RT 250 and RT 320 with 6 radial setup T-slots
- very low profile
- guide slot in the vertical base plane
- except for RT 160, all RTs can be used vertically



Accuracy (max. deviation)

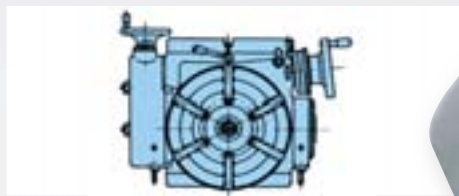
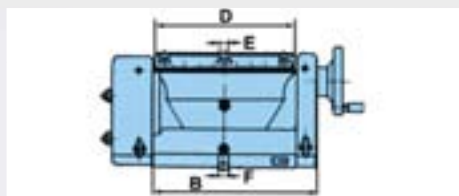
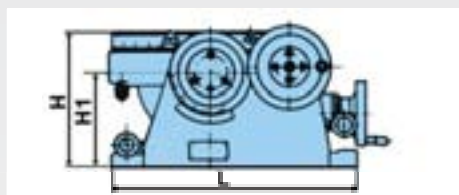
face concentricity of work table	
setup surface	300 : 0,015
work table concentricity	0,015
parallelism of setup table	
to base plane	300 : 0,02
taper bore concentricity	0,01
parallelism of bore axis to	
vertical setup surface	0,03
parallelism of bore axis to groove	
in the vertical setup surface	0,02
parallelism between vertical setup	
surface and connecting axis taper	
center-tailstock center	0,02
parallelism between groove in the	
vertical setup surface and the	
connecting axis between centers	0,02
division accuracy	45"

Type	D	H	A	B	C	E	F	MT	d	Ratio	Weight	Setup	Part no.	Price €
RT 100	110	75	118	145	85	10	10	2	25	1:90	7,25	hor. + vert.	125 800	280,-
RT 160	160	85	196	242	125	10	12	2	25	1:90	16,5 kg	horizontal	125 830	391,-
RT 200	200	100	236	285	150	12	14	3	30	1:90	30,5 kg	hor. + vert.	125 835	483,-
RT 250	250	110	286	328	170	12	14	3	30	1:90	44 kg	hor. + vert.	125 840	564,-
RT 320	320	120	360	410	210	14	18	4	40	1:90	75 kg	hor. + vert.	125 845	759,-



Swivelable Rotary Table

RTS



starting at

1.587,- €

Accuracy	RTS 250	RTS 320
face concentricity of work table setup surface	< = 0,020	
concentricity of setup table	< = 0,020	
parallelism of setup to base surface	< = 0,020	
concentricity of setup table taper bore	< = 0,010	
parallelism of table setup to cross groove	< = 0,020 <=0,020mm	
division accuracy	45"	

- completely enclosed design, prevents contamination from dirt and chips
- setup table rotates on a large, ring-shaped, oil-bath lubricated, guideway
- the very effective clamp pulls the setup table down straight, without any change of position or radial pressure, and presses it against the guideway
- for quick manual turning, the worm can be disengaged from the worm gear by pushing down the hand-lever
- the zero-backlash of worm and worm gear is adjustable
- setup table with 360° scale
- the high precision worm gear is almost as large as the rotary table

- hardened, ground, and oil-bath lubricated worm
- worm gear ratio 90:1
- handwheel scale gradation 10"
- handwheel can be replaced with indexing plate

INDEX Feature

- for direct and indirect division
 - from 2 to 66, all divisions from 68 to 132 dividable by 2, 3 a. 5 can be performed
- Part no. 125 805
Price € 147,-

Type	D	H	H1	B	L	F	E	d	MT	Ratio	Weight	Part no.	Price €
RTS 250	250	205	140	260	310	14	12	30	Nr.3	1:90	78 kg	125 810	1.587,-
RTS 320	320	255	175	332	380	18	14	40	Nr.4	1:90	133 kg	125 815	1.829,-

... and suddenly your old machine tool is exact again!



Miniature Precision Scales
(incl. metal enclosure)

Meas. length*	Part No.	Price €
100 mm	111 501	280,-
150 mm	111 502	290,-
200 mm	111 503	300,-
250 mm	111 504	310,-
300 mm	111 505	320,-
350 mm	111 506	330,-
400 mm	111 507	330,-
450 mm	111 508	340,-
500 mm	111 509	350,-
550 mm	111 510	370,-
600 mm	111 511	390,-
650 mm	111 512	400,-
700 mm	111 513	410,-
750 mm	111 514	420,-
800 mm	111 515	430,-
850 mm	111 516	440,-
900 mm	111 517	450,-
950 mm	111 518	460,-
1000 mm	111 519	480,-
1100 mm	111 521	510,-
1200 mm	111 523	560,-
1300 mm	111 525	600,-
1400 mm	111 527	650,-
1500 mm	111 529	700,-
1600 mm	111 531	760,-
1700 mm	111 533	840,-
1800 mm	111 535	900,-
1900 mm	111 537	1.000,-
2000 mm	111 539	1.100,-
3000 mm	111 559	1.900,-

* minimum length = max. mechan. traverse
higher gauge length upon request

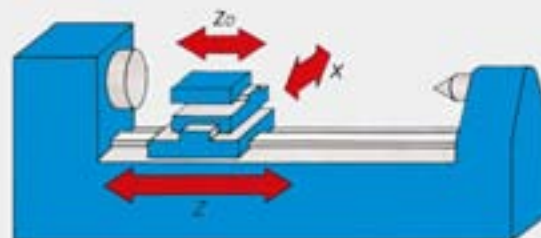
3-Axis Position Indicator X.pos 3

As new addition or for retrofitting machine tools like milling machines and lathes, including measuring machines

- more accuracy
- lower error rate
- increased manufacturing safety
- significant time savings
- increased productivity
- easy to read display
- operator-specific features
- convenient keyboard layout
- resolution: 0.01 / 0.005 mm
- default coordinates
- axis position is maintained when display is turned off
- hole circle pattern calculation
- pocket calculator feature
- storage for 10 tools
- radius / diameter toggle
- mm/inch conversion
- easy expansion and maintenance-free operation
- display for top (Z0) and bedway slide (Z1) both separate and in differential / cumulative mode for lathes

Part No. 123 459

Price € 490,-



fully compatible with older X.pos scales - upgrade now!



- X.pos Plus - You will gain productivity, quality and comfort**
- default coordinates
 - calculation of hole circle pattern
 - radius and tool length correction
 - vibration filter feature
 - mm/inch conversion
 - 8 display languages
 - pocket calculator function

490,- €

For new installations or for retrofitting existing milling machines, drill presses, grinders or even measuring machines

- high-resolution display with excellent legibility
- state-of-the art electronics and a very robust, completely sealed enclosure ensure maximum safety and optimum production conditions
- a major focus during the development and selection of electronic components was the achievement of maximum resistance against external interferences and maintaining low temperature levels
- background colors of the display can be changed as required or desired
- the keyboard membrane is highly resistant and yet very comfortable to touch
- when using for lathes, the values for top slide (Z0) and

- bed slide (Z1) can be displayed either individually or as differentiation/summation circuit for lathes
- the display also provides a key to toggle between radius and diameter
- the axis position is maintained when the display is turned off
- graphical support with residual path display and sketch drawing
- linear and non-linear length correction is possible
- easy mounting, easy electric connection, and maintenance-free operation

Part No. 123 455

Price € 490,-



CNC Production Center for Beam Construction

The complete chain of production.
The maximum in steel machining.

READY FOR A DEMO
at our headquarters
in Wasbek, Germany



SIMULTANEOUS
3-SIDED MACHINING
DRILLING
MARKING
SAWING
COMPLETE MACHINING

Fast & streamlined The maximum in drilling

- Simultaneous 3-axis machining
- 4-station tool changer for each spindle
- Horizontal and vertical hydraulic clamping



1200 x 800 mm

The maximum in sawing

- Miter cuts +60° / -45°
- Integrated chip conveyor
- Hydraulic workpiece clamping



Extendable up to 20 meters

The maximum in positioning

- Feed and discharge unit w. material positioning
- Independently guided positioning unit with hydraulic gripper



Reliable & accurate The maximum in marking

- Embossing head moves, material remains fixed
- Individually replaceable embossing stamps
- Powerful hydraulic system

