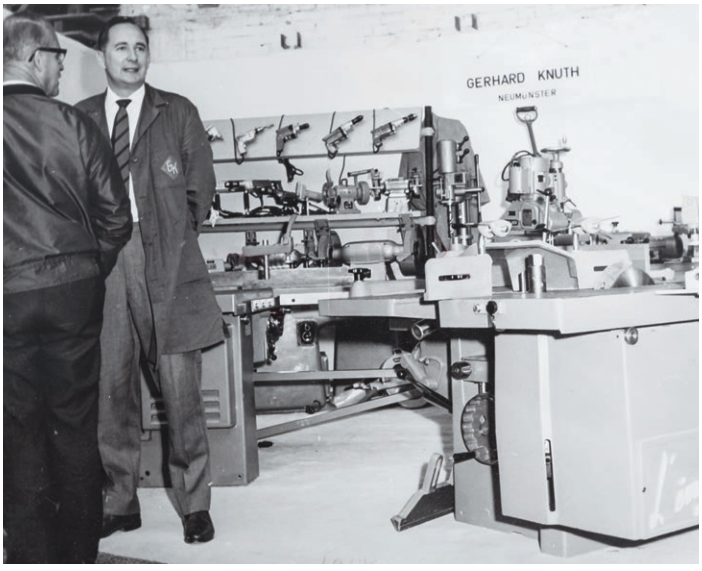
KNUTH MACHINE TOOLS

100 YEARS

YOUR PARTNER FOR
METALWORKING

MACHINES FOR TRAINING

www.knuth.com



From hardware dealer to leading supplier of CNC and conventional machining technologies - customers worldwide now rely on KNUTH machines.

Visit our company headquarters in Wasbek! Here you will find machines from all areas of metalworking. Our warehouse contains over 1000 machines, many of which are ready for demonstration.

Let us advise you! The KNUTH consulting team consists of experienced sales consultants and engineers from the metalworking industry who will help you find the perfect machine and solution for your company.

Our highly qualified service team ensures that we can respond quickly to our customers' needs. And KNUTH technicians ensure the implementation of strict quality assurance, from the manufacturer to the delivery of the machines.

100 years of competence in metalworking

Read our story on www.knuth.com

Our one-stop service by our qualified staff: fast and professional. A network of suppliers for spare and wear parts and our main warehouse at our headquarters in Wasbek also guarantee high availability.

All information on our service packages can be found on our website www.knuth.com

- Installation - Commissioning - Instruction
- Inspection and maintenance
- User and maintenance training
- Repair and spare parts

Kristian and Philip Knuth - the 4th generation at KNUTH

Dear customers,

for over 50 years now, high-quality training has been a cornerstone of our HR strategy. Many key positions in the company are filled by employees who started their careers in our company.

Our trainees are supervised by experienced specialists and receive comprehensive knowledge and skills in all areas of their chosen profession in a modern, internationally active company. KNUTH traditionally has a high takeover rate. We are convinced that by training young people, we are also securing the future of the company and making a contribution to securing skilled workers in the region.

Based on this experience, machine tools for training companies have always been a focal point of our machine program. Promoting young talent is an essential tool for securing the supply of skilled workers in almost every company. Germany is a global role model with its dual training system, which uniquely combines the teaching of theoretical principles with practical experience.

Our machines have already proven themselves in many training workshops. We offer complete solutions, conventional and CNC-controlled. KNUTH Werkzeugmaschinen supports your company in getting young people interested in technology and offering them good training.

Philip Knuth und Kristian Knuth
Karsten Knuth

www.knuth.com

FOR THE **BEST DECISIONS**

RELIABLE SOURCE OF INFORMATION

As our products become more powerful and complex, decision makers need reliable, clear data and sources of information. Our new website is our response to meet this growing demand for information.

- Overview of the complete KNUTH Machine Tool Program
- Complete Information at a Glance
- Up-to-Date News
- Additional Decision-Making Aids (Downloads, Videos)
- Clearly Structured Navigation

Online Shop for Tools and Accessories

www.knuth.com

What should the ideal training machine for the skilled workers of tomorrow look like?

The demand for well-trained specialists is immense. At the same time, industry requirements have changed and traditional job profiles need to be adapted to modern production processes. This also applies to training and the machines used for it.

With our training machines for both conventional and CNC operations, we support the development of future-oriented training professions. For example, the TDE training center in Espenhain uses KNUTH machines to train cutting machine operators. They are mainly recruited by automotive suppliers.

„The KNUTH machines are handy, clearly laid out, easy to operate and equipped to meet the requirements of training. This is an ideal combination for training machines," says Daniel Müller, metal technology trainer at TDE.

10 reasons for using KNUTH machines in training

- KNUTH machines are robust and reliable
- They enable intuitive learning without unnecessary hurdles
- They convey the basics and experience and enable the conventional implementation of the training task
- They are fully equipped to meet the training requirements
- They are easy to handle, clearly laid out and have operating elements that are clear in terms of function and operability
- They can be used for all standard set-up tasks
- They are up to date with the latest safety technology
- They are easy to maintain and easy to understand
- KNUTH CNC machines are equipped with a control system suitable for training purposes, which is widely used in the industry
- KNUTH machines come from a supplier with ISO certificates, good operating instructions and services as well as fast spare parts supply

A total of 200 trainees are currently learning 20 professions at TDE, 17 of which are in the industrial/technical field.

For conventional metalworking, TDE offers training on the following KNUTH Machine Tools:

RSM 500 A - A hydraulic cylindrical grinding machine with scales for internal and external machining

HFS 2550 F Advance - A surface grinding machine with controlled Z-axis for precise work

Basic 180 Super - Robust, compact universal lathe with a wide bed and complete equipment

UWF 3.2 - A universal milling machine with a vertical milling head that can be tilted in 2 planes and feed in all axes

HB 250 A - A compact horizontal bandsawing machine with high cutting capacity, quick clamping and mitre cutting function

In 2023, TDE also decided to use the X.mill 400 from KNUTH as the first CNC machine in the training workshop. Optional service for the maintenance and servicing of the machine to extend its service life played an important role here, as it did with the conventional machines. Here too, KNUTH scored points with its maintenance offer.

Advantages of KNUTH CNC machines in training

- Robust design with a focus on safety and practicality
- Sufficient working space for common workpieces and clamping devices
- Wide range of tools and accessories for a variety of machining tasks
- Automation functions such as automatic tool changing systems for practical, efficient work

Optimal CNC control for training

- Operating and programming philosophy that mirrors applications in operation and is widely used in the industry
- Software solutions from the control system manufacturer support training and education
- Simple operation and intuitive user interface for quick learning of CNC programming

Assembly and Installation

KNUTH-StartUp

We make sure that your production process runs smoothly

We set up your new machine, make all adjustments and perform a test run on site.

Individualized customer care at your site, which includes instructing the operator in the use of all standard functions of the new machine, is the quickest and safest way to implement new technology into your production.

Your advantages at a glance

- Professional assembly and installation
- Set up and final acceptance test
- Geometric adjustments on site
- Function test and operator instruction

Our StartUp packages are customized to meet the technology requirements of the respective machine and can be tailored for any system size. We offer this service for all KNUTH machines.

Set up and initial start up of a cutting system

- After transporting the machine to its final location and after all required energy/utility connections have been provided by the customer
- Support provided to our technicians by the buyer's personnel and devices (forklist/ crane)
- Instruction/training of operators in the use of the cutting system by our technicians on site for about 1 to 2 days

StartUp cutting system
Part No. 270300

Set up and initial start up of a CNC-controlled or conventional machine tool

- Removal of transportation locks
- Assembly of machine components
- Alignment of machine tool
- Fill up operating fluids
- Check operation of all machine components
- Turn on machine
- Test run
- Training on how to use the machine functions
- Training on how to maintain the machine

StartUp conventional machine tool
Part No. 270100

StartUp for CNC Machine Tool
Part No. 270200

Operator training for CNC machine tool

- Set-up and operating your CNC machine
- Programming your machine using a sample workpiece

CNC machine tool training
Part No. 270202

Machine Insurance

KNUTH-Protect

Financial security in case of unforseeable events

Production machines are exposed to a wide variety of risks every day. Despite advanced technology, careful handling and proper maintenance, expensive damages are possible in the long term - just the time and the extent are unknown factors. With the KNUTH-Protect Machine Insurance, the damage risk can be reduced to a predictable dimension.

In general, this warranty covers machine damages that are caused by human error, technical defects and force majeure / natural hazards. The machine is warranted for 24 months or 3.600 operating hours from the date of delivery.

KNUTH Protect Machine Insurance

up to € 75.000
Part No. 270500

up to € 150.000
Part No. 270501

up to € 250.000
Part No. 270502

Maintenance

KNUTH-Maintenance

Regular maintenance will pay for itself

A deciding factor and important goal for the success of production businesses is the reliability of their machine fleet. Regular maintenance is an important building block to achieve this goal.

In addition to completing all required routine maintenance tasks, like oil changes or readjustments, the KNUTH service technician will also provide you with a report on the current condition and state of your machine. Our expertise can help you take the correct measures in time, so your machine will continue to be a reliable component of your production facility or workshop.

In our 380 sqm large spare parts warehouse, we keep up to 35.000 original replacement parts in stock to guarantee high availability.

Customized maintenance package for cutting systems

- Testing of machine function
- Testing of peripherals
- Testing of safety features
- Monitoring and adjustment of all machine components
- All work according to maintenance plan
- Report/log of performed work

Maintenance package for cutting system*
Part No. 270303

For CNC and conventional machine tools we offer:

- Testing of machine function
- Testing of safety features
- Checking machine geometry
- Monitoring and adjustment of all machine components
- All work according to maintenance plan
- Report/log on performed work

Maintenance packages for CNC machine tool*
Part No. 270203

Maintenance package conv. machine tool*
Part No. 270103

* Prerequisites: Operational and accessible machine. Package price plus travel expenses, materials not included

Conventional turning machines

Universal turning machine

Basic 170 Super Pro

Top model of the mechanics' lathes, perfect for workshop and training with complete equipment and modern ergonomics.

Turning-Ø over bed **360 mm**
Center width **1.000 mm**

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Universal turning machine

V-Turn PRO

With infinitely variable spindle speed and constant cutting speed as well as rapid traverse and modern, ergonomic design

Turning-Ø over bed **380 mm**
Center width **1.000 mm**

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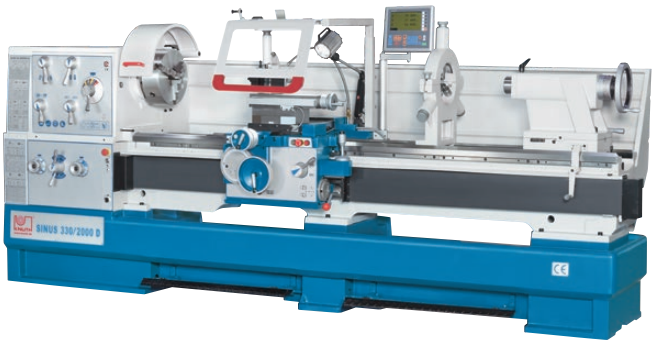
Universal turning machine

Sinus D Series

The heavy-duty lathe among the training machines. This series offers optional solutions for machining long workpieces or large flanges

Turning-Ø over bed **660 - 800 mm**
Workpiece length **1.500 - 3.000 mm**



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Universal turning machine

Turnado Series

Proven classic with extensive standard equipment and powerful motor

Turning-Ø over bed **660 - 800 mm**
Workpiece length **1.000 - 1.928 mm**

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Universal turning machine

Turnado PRO Series

Top model of the Turnado series with infinitely variable spindle speed and constant cutting speed, as well as rapid traverse and modern ergonomic design

Turning-Ø over bed **460 - 560 mm**
Center width **1.000 - 1.500 mm**

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Mechanics Lathe

Basic 180 V

With extra wide bed, infinitely variable spindle speed and constant cutting speed

Turning-Ø over bed **356 mm**
Center width **1.000 mm**

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Mechanics Lathe

Basic 180 Super

Heavy mechanic's lathe with extensive accessories, extra wide bed and high cutting performance

Turning-Ø over bed **356 mm**
Center width **1.000 mm**

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Mechanics Lathe

Basic 170 Super

Solid precision bench lathe with large center width

Turning-Ø over bed **330 mm**
Center width **1.000 mm**

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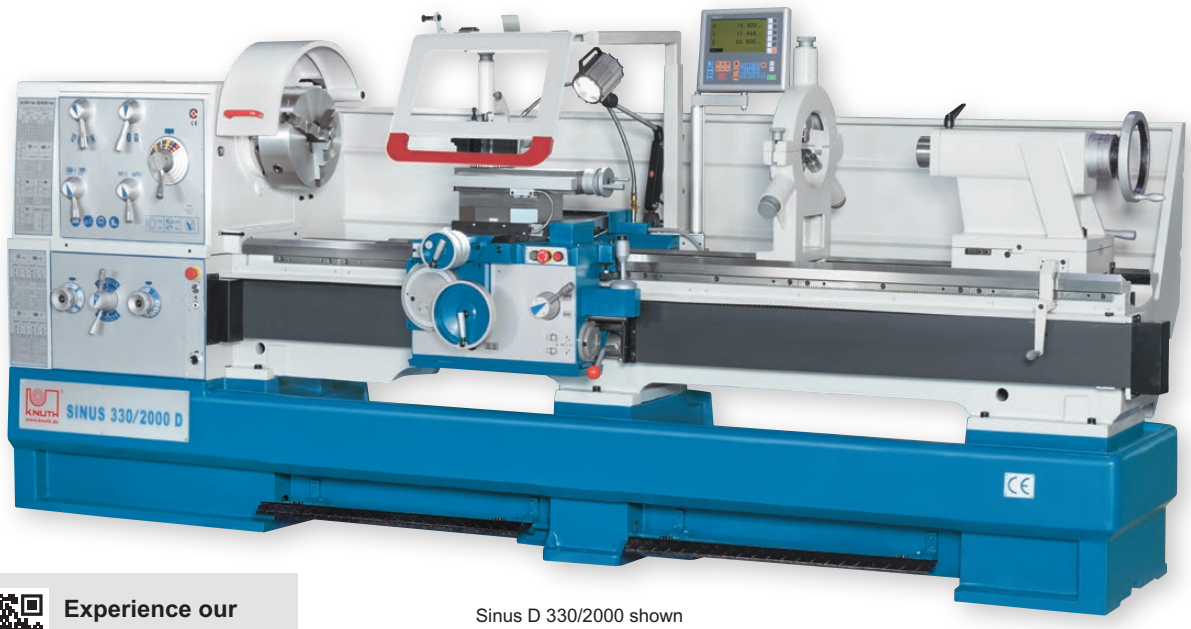
Precision Lathe

Sinus D

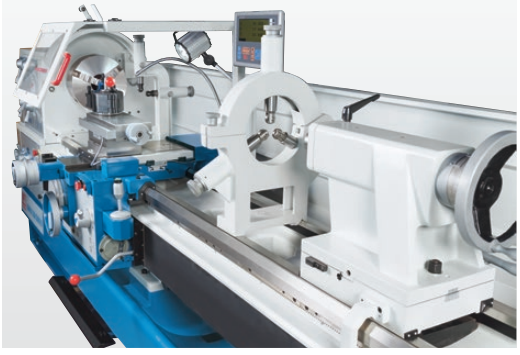
High stability with multi-plate clutch, rapid traverse and tapered turning device



Sinus D 330/2000 shown

Experience our machines in action!

- One-piece heavy-duty cast bed for increased rigidity
- Sturdy headstock design with large spindle bearings
- Rapid feed on 2 axes for fast positioning
- Taper turning attachment for additional applications
- Removable bridge (250 mm) for machining of large parts with diameters up to 1035 mm
- 105 mm spindle capacity for machining of large parts



Rests ensure maximum precision when machining long workpieces

Specifications Sinus D		330/1500	330/2000	330/3000	400/1500	400/2000	400/3000
Workpiece length (max.)	mm	1.500	2.000	3.000	1.500	2.000	3.000
Turning-Ø over support	mm	440	440	440	570	570	570
Travel X-axis	mm	368	368	368	420	420	420
Travel Z1-axis	mm	230	230	230	230	230	230
Spindle speed	1/min	(16) 25 - 1.600	(16) 25 - 1.600	(16) 25 - 1.600	(16) 25 - 1.600	(16) 25 - 1.600	(16) 25 - 1.600
Spindle mount		D1-8	D1-8	D1-8	D1-8	D1-8	D1-8
Motor rating main drive	kW	7,5	7,5	7,5	7,5	7,5	7,5
Weight	kg	2.800	2.900	3.300	3.220	3.500	3.870
Part No.		300010	300011	300012	300015	300013	300014

Standard Equipment

Rapid feed on Z and X axes, 3-axis position indicator X.Pos 3.2, 3-jaw chuck, 4-jaw face plate chuck Ø 400 mm, Face plate Ø 500 mm, Dog plate, quick tool changer head WD, Quick change tool holder WD1D 40180, Fixed splash guard (wall), Coolant system, Steady and follow rests, Taper turning unit, Chuck guard, LED Work light, Reducing sleeve, Dead center, Toolbox with operating tools, Operator instructions

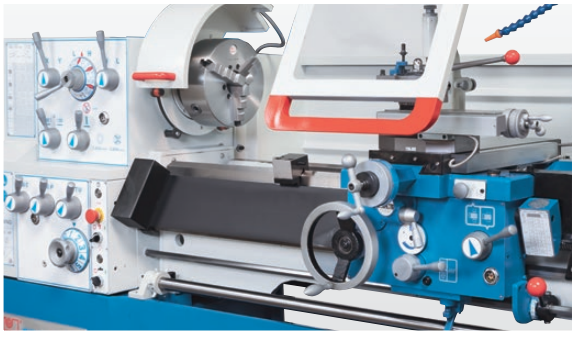
Lead Screw and Feed Shaft Lathe

Turnado 230 • 280

Proven classic with extensive standard equipment and powerful motor

Turnado 230/1500 is shown with 3-axis positionindicator

See this Machine in action on YouTube



- Classic design with sturdy construction
- One-piece heavy casted bed for increased rigidity
- 3-axis position indicator with various turning functions
- Adjustable feed stoppers for longitudinal feed
- Extensive standard equipment package
- **For more machines of this series, visit our website**

Specifications Turnado		230/1000	230/1500	230/2000	280/1500	280/2000
Workpiece length (max.)	mm	1.000	1.500	2.000	1.428	1.928
Turning-Ør over bed	mm	460	460	460	560	560
Turning-Ø over support	mm	224	224	224	355	355
Spindle speeds	1/min	(12) 25 - 2.000	(12) 25 - 2.000	(12) 25 - 2.000	(12) 25 - 1.600	(12) 25 - 1.600
Spindle bore	mm	58	58	58	80	80
Spindle mount		Camlock D1-6	Camlock D1-6	Camlock D1-6	Camlock D1-8	Camlock D1-8
Motor rating main drive	kW	5,5	5,5	5,5	5,5	5,5
Overall dimensions (l x w x h)	m	2,2x1,08x1,34	2,75x1,08x1,34	3,25x1,08x1,34	2,84x1,15x1,34	3,34x1,15x1,46
Weight	kg	1.720	1.970	2.100	2.370	2.720
Part No.		320555	320558	320557	320559	320560

Standard Equipment

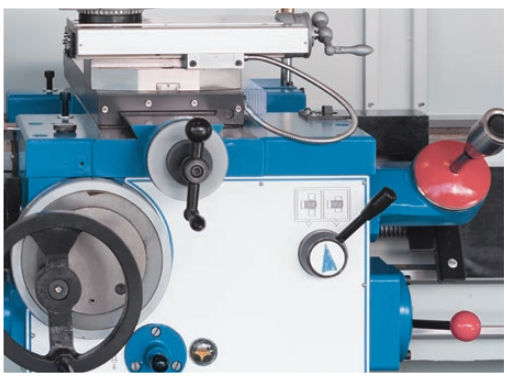
3-axis position indicator X.Pos 3.2, Quick tool changer head, Quick change tool holder, Adjustable feed stoppers, 3-jaw chuck, 4-jaw face chuck, Face plate, Follow and steady rests, Coolant system, Micrometer longitudinal stop, Thread gauge, Reducing sleeve, Dead center, Protective shield for the toolpost, Chuck guard, Foot brake pedal, Fixed splash guard (wall), Work light, Toolbox with operating tools, Operator instructions

Universal Lathe

Turnado PRO

Top model of the Turnado series with infinitely variable spindle speed

See this machine in action on YouTube



Support moves in linear and cross direction via motorized rapid feed for reduced down-time

- Infinitely variable speed range
- Apron with rapid feed motor
- Extensive standard equipment
- Constant cutting speed Classic design with sturdy construction
- Motorized rapid feeds for fast positioning
- High motor power with inverter and spindle speed display
- 3-axis position indicator with various turning functions

Specifications Turnado Pro		230/1000	230/1500	280/1500
Center width	mm	1.000	1.500	1.500
Center height	mm	230	230	280
Turning-Ør over bed	mm	460	460	560
Turning diameter over gap bridge	mm	690	690	785
Turning-Ø over support	mm	224	224	355
Speed range, low	1/min	30 - 600	30 - 600	25 - 200
Speed range, high	1/min	600 - 3.000	600 - 3.000	200 - 1.600
Spindle mount		Camlock D1-6	Camlock D1-6	Camlock D1-8
Motor rating main drive	kW	7,5	7,5	7,5
Weight	kg	1.720	1.970	2.370
Part No.		320562	320563	320564

Standard Equipment

3-axis position indicator, X.pos 3.2 VC, Quick tool changer head, Quick change tool holder, Rapid traverse for X- and Z-axis, 3-jaw chuck, 4-jaw face chuck, Face plate, Follow and steady rests, Coolant system, Micrometer longitudinal stop, Thread gauge, Reducing sleeve, Dead center, Traveling cover for the toolpost, Chuck guard, Foot brake pedal, Fixed splash guard (wall), Work light, Toolbox with operating tools, Operator instructions

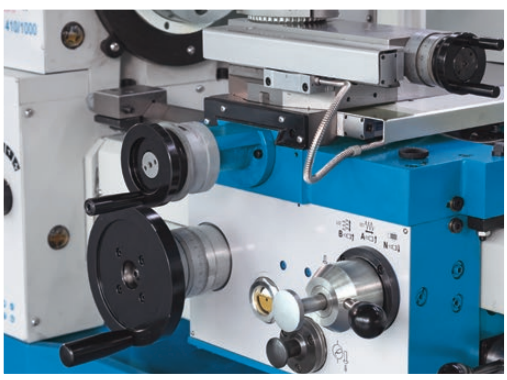
Universal Lathe

V-Turn 410 PRO

Our bestseller for workshop applications, production and training purposes

See this machine in action on YouTube

- **Ergonomic machine housing**
- **Improved apron with automated feed**
- **Constant cutting speed**
- **High spindle speed and motor power**
- **Roller bearing from world-leading manufacturer NSK**



Central lubrication is integrated into the support for easy maintenance and handling

- The redesigned machine enclosure and added safety features make this machine even more ergonomic, complementing functionality and design
- Constant cutting 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 quality comparable to CNC lathes
- A powerful 5.5 kW main spindle motor ensures rapid acceleration and powerful chip removal across the entire speed range
- The extensive features of the X.Pos Position Indicator are complemented here with a digital speed indicator and an easy to program auxiliary function

Specifications V-Turn 410 PRO

Center width	mm	1.000
Center height	mm	205
Speed range, high	1/min	550 - 3.000
Speed range, low	1/min	30 - 550
Spindle bore	mm	52
Spindle mount		Camlock D1-6
Motor rating main drive	kW	5,5
Overall dimensions (l x w x h)	m	1,94x1x1,5
Weight	kg	1.210
Part No.		300822

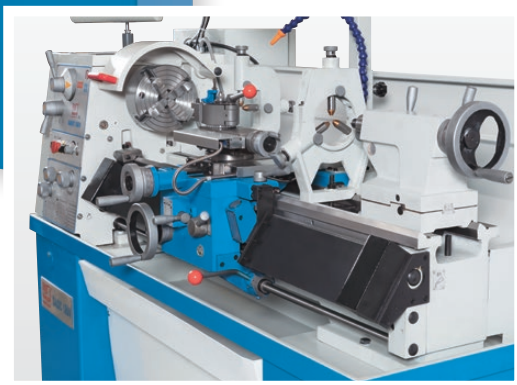
Standard Equipment

Fixed stainless steel safety cover for tension and lead screw, 3-axis position indicator, X.pos 3.2 VC, 4-jaw face plate chuck Ø 250 mm, Face plate, Quick change tool holder head WB, Quick change tool holder, Coolant system, Steady rest, Chip tray, Fixed splash guard (wall), Traveling cover for the toolpost, Follow rest, Turret stop, Micrometer stop, Foot brake pedal, Chuck guard, Work light, Toolbox with operating tools, Dead center, Reducing Sleeve, Operator instructions

Mechanics Lathe

Basic 180 V

With extra wide bed, infinitely variable spindle speed and constant cutting speed



Extensive Standard Equipment: Position indicator, rests, quick-action tool holders, and much more

- **Largest bed width in this machine class**
- **Constant cutting speed**
- **High spindle speed and motor power**
- **Extensive standard equipment for a wide range of applications**

- **Basic 180 V with infinitely variable speed**
- All box ways are induction-hardened and precision-ground
- Headstock with D1-4' mount, bore diam. 38 mm, run in 2 adjustable tapered roller bearings
- Tailstock can be moved ± 10 mm for taper turning
- Position indicator with speed display
- Constant cutting speed:
  speed adapts to the part radius - constant speed ensures uniform quality finish at any diameter.

Specifications		Basic 180 V
Center width	mm	1.000
Turning diameter over bed	mm	356
Turning-Ø over support	mm	220
Spindle speed	1/min	30 - 3.000
Spindle mount		Camlock D1-4
Motor rating main drive	kW	4
Weight	kg	880
Part No.		300807

Standard Equipment

3-axis position indicator, X.pos 3.2 VC, 4-jaw face plate chuck Ø 200 mm, Face plate Ø 320 mm, Quick change tool holder head WE, Quick change tool holder WED 20100, Coolant system, Steady and follow rests, Chip tray, Fixed splash guard (wall), Chuck guard, Foot brake pedal, Work light, Micrometer stop, Reducing sleeve, Dead center, Protective shield for the toolpost, Thread gauge, Toolbox with operating tools, Operator instructions

Mechanics Lathe

Basic 180 Super

Heavy mechanic's lathe with extensive accessories

See this machine in action on YouTube

Select the optimum spindle speed for the Basic 180 Super via its 16-step main drive

- **Heavy-duty wide machine bed**
- **Rugged construction for minimal vibration**
- **Powerful motor for demanding operations**
- **Extensive standard equipment for a wide range of applications**

- Cast-iron bed, heavily ribbed
- All box ways 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
- Tailstock can be moved ± 10 mm for taper turning
- Powerful main drive (2.4 kW), including base frame
- Guides are adjustable via tapered gibs
- Including 3-axis position indicator, fully assembled

Specifications Basic 180 Super

Center width	mm	1.000
Turning diameter over bed	mm	356
Turning-Ø over support	mm	220
Spindle speed	1/min	(16) 45 - 1.800
Spindle mount		Camlock D1-4
Motor rating main drive	kW	2,4
Weight	kg	880
Part No.		300805

Standard Equipment

3-axis position indicator X.Pos 3.2, Quick change tool holder head WE, Quick change tool holder WED 20100, 3-jaw chuck Ø 160 mm, 4-jaw face plate chuck Ø 200 mm, Face plate Ø 320 mm, Steady and follow rests, Coolant system, Micrometer stop, Thread gauge, Reducing sleeve, Dead center, Protective shield for the toolpost, Chuck guard, Foot brake pedal, Fixed splash guard (wall), Work light, Chip tray, Operator instructions, Toolbox with operating tools

Universal Lathe

Basic 170 Super Pro

Top model of the mechanic's lathes with complete equipment and modern ergonomics

The operator elements are very clearly organized

- **Modern ergonomic design**
- **Large spindle bore**
- **Machine base with storage space**
- **Extensive standard equipment**
- **Coolant system**

- The fully equipped Basic PRO with its modern ergonomic design meets all requirements for universal applications in the areas of repairs, training and production
- Readjustable spindle bearings ensure high precision and low wear for a long service life
- Safety interlock to prevent simultaneous operation of lead screw and feed shaft feed
- Stainless steel covers on lead screw and feed shaft ensure safety without the usual restrictions, while also preventing contamination and early wear
- The X.Pos position indicator provides easy to program auxiliary functions

Specifications Basic 170 Super Pro

Center width	mm	1.000
Turning diameter over bed	mm	360
Turning-Ø over support	mm	223
Spindle speed	1/min	(8) 70 - 2.000
Spindle mount		Camlock D1-5
Motor rating main drive	kW	1,5
Weight	kg	650
Part No.		300814

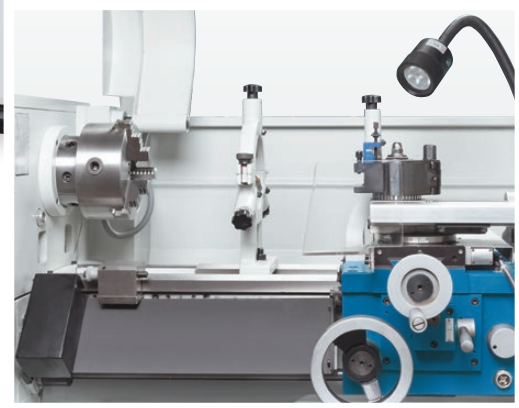
Standard Equipment

3-axis position indicator X.Pos 3.2, Quick change tool holder head WE, Quick change tool holder WED 20100, 3-jaw-chuck 178 mm, 4-jaw face plate chuck Ø 200 mm, Face plate Ø 280 mm, Steady and follow rests, Coolant system, Micrometer stop, Reducing sleeve, Dead center, Traveling cover for the toolpost, Fixed stainless steel safety cover for tension and lead screw, Chuck guard, Foot brake pedal, Fixed splash guard (wall), Work light, Chip tray, Toolbox with operating tools, Operator instructions

Mechanics Lathe

Basic 170 Super

Solid precision bench lathe with large center width



Micrometer bed stop ensures repeatability

- **Compact design for small footprint**
- **Extensive standard equipment for a wide range of applications**
- **3-axis position indicator with turning functions**

- Hardened and ground headstock gears
- Adjustable headstock bearing
- Cast-iron bed, double v-guide, hardened and ground
- Oil-bath lubricated main drive and feed gear
- Double-walled apron box with oil-bath lubrication

Specifications Basic 170 Super

Center width	mm	1.000
Turning-Ø over support	mm	198
Spindle speed	1/min	(8) 70 - 2.000
Spindle mount		Camlock D1-4
Motor rating main drive	kW	1,5
Weight	kg	520
Part No.		300815

Standard Equipment

3-axis position indicator X.Pos 3.2, Quick change tool holder head WE, Quick change tool holder WED 20100, 3-jaw chuck Ø 160 mm, 4-jaw face plate chuck Ø 200 mm, Face plate Ø 280 mm, Steady and follow rests, Micrometer stop, Thread gauge, Reducing sleeve, Dead center, Protective shield for the toolpost, Chuck guard, Foot brake pedal, Fixed splash guard (wall), Work light, Chip tray, Toolbox with operating tools, Operator instructions

CNC Machining

CNC Inclined Bed Lathe

Roturn M Series

Compact CNC lathe with driven tools and tailstock

Travel X-axis	**150 mm**
Travel Y-axis	**350 - 380 mm**

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Hands-on learning on KNUTH machines with Siemens controls

For state certified and practical vocational training

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CNC Lathe

LabTurn 2028

Compact mobile inclined-bed lathe with Siemens CNC control and tool turret for training and model construction

Turning-Ø over bed	**200 mm**
Workpiece length	**280 mm**

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CNC Milling Machine

LabCenter 260

Compact mobile CNC milling machine with Siemens control and tool changer for training and model construction

Travel X-axis	**160 mm**
Travel Y-axis	**152 mm**

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CNC Inclined Bed Lathe

Roturn M

Compact Automatic Lathe with inclined bed and driven tools

- **Powerful main spindle motor**
- **High-resolution C-axis**
- **12-station tool turret with driven tools**
- **Chip conveyor included**
- **Siemens 828 control**

- A hydraulic 3-B chuck with passage is included in the scope of delivery as standard
- Hinged belt conveyor and high-performance coolant system included in standard equipment
- Tailstock with hydraulically operated quill
- Powerful main drive and a wide speed range for milling, drilling and thread cutting

Specifications		Roturn 400 M	Roturn 402 M
Workpiece length (max.)	mm	340	340
Turning diameter over bed	mm	400	400
Travel X-axis	mm	150	150
Travel Z-axis	mm	350	380
Speed range	1/min	50 - 3.000	50 - 2.000
Spindle bore	mm	62	86
Main motor rating	kW	15 / 11	15 / 11
Overall dimensions (length x width x height)	m	3,75x1,9x1,92	3,75x1,9x1,92
Weight	kg	3.740	3.760
Part No.		180626	180624

Standard Equipment

12-station tool changer, 1 piece driven tool holder radial, 1 piece driven tool holder axial, bar feeder interface, Siemens 828 D control, hydr. 3-jaw- lathe chuck 200 mm with borehole, Hydr. tailstock, Automatic central lubrication, Chain-type chip conveyor, Heat Exchanger for electric control cabinet, Closed work space, LED work lamp, Coolant system, Air gun, Coolant system flush gun, Operating tools, Operator manual

KNUTH MACHINE TOOLS

SIEMENS

Hands-on learning on KNUTH machines with Siemens controls

for state certified and practical vocational training

Depending on requirements and training objective, KNUTH CNC machine tools can be used to implement the dual training concept that teaches theoretical content and deepens this knowledge with hands-on practical experience. This principle has been successfully used in continuous vocational training and employee training programs.

The programming instructions with the simulation software of the Siemens 808 control are ideal for CNC beginners, students and apprentices who have completed their training on conventional lathes and milling machines and have a basic knowledge of CNC machining. KNUTH machine tools have a proven track record of decades of successful use at schools and universities worldwide.

KNUTH offers an extensive portfolio for the basic turning and milling training package. The servo-conventional machines, Servoturn and Servomill, represent the new generation of conventional machining.

The Siemens SINUMERIK CNC Controls provide the perfect control solution for each of these machine designs. Compact and user-friendly, the 808D and 828D are ideally suited for basic turning and milling applications as well as standardized machine designs with high CNC performance.

Theoretical and practical training - Be convinced

Take the first step and make yourself familiar with our new training concept. Don't hesitate to ask about a live meeting to learn about the machines, documentation and software.

A visit to our German headquarters in Wasbek provides you an ideal opportunity to gain insight and a complete picture of all aspects of the KNUTH Werkzeugmaschinen training initiative.

While you are there, don't miss the chance to visit the largest machine tool display in Northern Germany.
Make your appointment today - we are looking forward to your visit.

Your KNUTH sales representative

CNC Training Center

Smartlab

For basic CNC knowledge and skills in the safe use

SMARTLAB Package

- **CNC Inclined-Bed Lathe** with automatic 4-station tool holder and tailstock
- **Vertical Machining Center** with automatic 4-station tool changer
- Siemens SINUMERIK 808D
- Detailed programming instructions

THE MACHINES - Ideal for vocational training and continuous employee training

- The mobile CNC machines provide the full range of functionality
- Include automatic tool changers for a productive real-world training environment

THE CONTROL - SINUMERIK 808D

The ideal entry-level CNC System

- Easy, intuitive user guidance, ideal for basic turning and milling applications
- High performance and precision

LabTurn 2028 - CNC Inclined-Bed Lathe

- **Turning diameter over bed 200 mm**
- **Z-axis travel 155 mm**
- **4-station tool turret**

- Machine frame features a solid cast-iron inclined-bed con struction ensuring excellent rigidity and chip removal
- High-precision linear guides guarantee high rigidity and accuracy
- Central lubrication
- 4-station tool turret with 4 tools for inside and outside machining
- 3-jaw chuck (100 mm) and rigid tailstock are included

LabCenter 260 - CNC Milling Machine

- **Travels (X / Y / Z) – 251 x 152 x 168 mm**
- **Main spindle drive motor 1 kW**
- **4-station tool changer**

- Carefully machined frame with premium cast-iron construction
- Dovetail guides and preloaded ball screws with servo drives on all axes
- Max. spindle speeds up to 5000 rpm
- Electronic hand-wheel for efficient, professional set-up operations

Siemens Sinumerik 808D

- **Self-explanatory, powerful control with a small footprint**
- **MDynamics for perfect milling operation**
- **Sinumerik 808D – included with standard equipment**

Compact and robust with panel-based CNC design requiring minimal interfaces, and a resistant IP65 control panel make the SINUMERIK 808D the perfect control for dirty and harsh workshop environments. Additional features of the SINUMERIK 808D are low-profile chicklet key caps for effortless operation and the familiar SINUMERIK soft-key touch and feel.

The SINUMERIK 808D is optimized for turning and milling functions and its technology-specific features make it the perfect control for lathes and machining centers. The range of applications extends from basic standardized milling machines or simple machining centers to cycle lathes and full CNC lathes. Its MDynamics motion control ensures first class turning and milling results.

CNC Lathe

LabTurn 2028 CNC

CNC turning with maximum precision and minimum space requirement

- **Siemens 808 Advance is the ideal introductory machine**
- **Tool turret for inside and outside machining**
- **Linear guides and preloaded ball screws on all axes**
- **Enclosed machine housing**
- **Mobile machine base with ample storage space**

See this Machine in action on YouTube

Inclined bed design optimizes work space and chip removal

- The LabTurn is an ideal lathe for CNC training and small batch production of high precision workpieces
- Rigid cast-iron inclined bed design ensures good stability and efficient chip removal
- Precision linear guides ensure high stability and accuracy
- Central lubrication for reduced maintenance
- Enclosed workspace protects and a large sliding door provides easy access
- Hydraulic 100 mm 3-jaw chuck and rigid tailstock are included in standard equipment
- 8-station tool turret with 4 tools per station for inside and outside turning

Specifications LabTurn 2028

Workpiece length (max.)	mm	280
Turning diameter over bed	mm	200
Turning-Ø over support	mm	90
Speed range	1/min	100 - 3.000
Spindle mount		MK 3
Number of tool stations	positions	8
Motor rating main drive	kW	1
Overall dimensions (l x w x h)	m	1,4x0,9x1,85
Weight	kg	360
Part No.		181625

Standard Equipment

Siemens 808D Advance control, Electronic hand-wheel, 8-station turret, Mobile base, Tailstock, 3-jaw chuck Ø 100 mm, Central lubrication, Work lamp, Operating tools, Operating manual and programming instructions

CNC Milling Machine

LabCenter 260 CNC

Compact mobile CNC milling machine with Siemens control

- **SIEMENS 808 Advance is the ideal introductory machine**
- **Preloaded ball screws on all axes**
- **Spindle speeds up to 5000 rpm**
- **4-station tool changer**
- **Mobile machine base with storage space**

See this machine in action on YouTube

- Compact, mobile and professional for laboratories and training
- Electronic hand-wheel for efficient and professional set-up
- Mobile base with storage room for tools and materials
- Precisely machined frame made of high-quality cast iron
- Dovetail guides and preloaded ball screws with servo drives on all axes
- Spindle mount ISO 20
- 4-station tool changer ensures flexibility and optimum productivity

Specifications LabCenter 260 CNC

Table dimensions	mm	400x145
Throat	mm	200
Travel X-axis	mm	160
Travel Y-axis	mm	152
Travel Z-axis	mm	180
Spindle speed	1/min	80 - 5.000
Spindle mount		ISO 20
Number of tool stations	positions	4
Motor rating main drive	kW	1
Overall dimensions (l x w x h)	m	1,4x0,9x1,8
Weight	kg	450
Part No.		181615

Standard Equipment

Siemens 808D Advance control, Electronic hand-wheel, 4-station tool changer, Mobile base, Central lubrication, Work lamp, Operating tools, Operating manual and programming instructions

Conventional milling machines

Tool milling machine

FPK Series

Our new generation of machine tools with automated feed and infinitely variable spindle drive

Tabel dimensions **400 x 800 mm**
450 x 850 mm
Travel X-axis **500 - 600 mm**

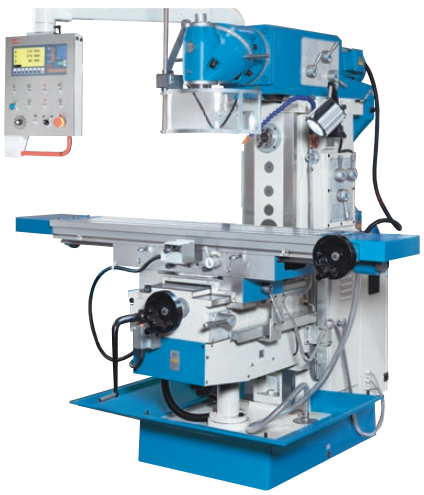
Page 24

Universal Milling Machine

UWF 3.2

With universal type milling head, automatic feed on all axis, swiveling table and horizontal spindle

Table set up area **1.370 - 320 mm**
Travel X-axis **1.000 mm**



Page 25

Universal Milling Machine

VHF 3.2

With swiveling vertical milling head, automatic servo feed in all axes, horizontal spindle and swivel table

Table set up area **1.370 - 320 mm**
Travel X-axis **1.000 mm**

Page 26

Universal Milling Machine

VHF 2.2

Universal milling machine with swiveling cutter head, automated feed in X and Y axes, horizontal spindle and extensive standard equipment

Table set up area **1.270 - 280 mm**
Travel X-axis **700 mm**

Page 27

Universal Milling Machine

VHF 1.1

Console milling machine with swiveling milling head, automatic feed in the X-axis, horizontal spindle and swivel table

Table set up area **1.000 - 240 mm**
Travel X-axis **535 mm**

Page 28

Drill Press / Milling Machine

Mark Super S • SV Series

Multi-side milling/drilling machine with automated feed in the X axis, automated quill feed and tapping unit

Tabel dimensions **800 x 240 mm**
Travel X-axis
manual / autom. **560 / 480 mm**

Page 29

Column Drill Press with Milling Function

SBF 40

Universal milling/drilling machine with automated drilling feed, compound sliding table with driven X axis and swiveling gear head

Table set up area **730 x 210 mm**
Travel X-axis **500 mm**

Page 30

Tool Milling Machine

FPK 4.3 • FPK 6.3

The modern generation of high-quality tool milling machines

- Ball screws and servo motors on all axes
- The vertical cutter head swivels and the quill can be moved manually
- Infinitely variable spindle speed
- Electronic handwheels
- Extensive standard equipment

The FPK 4.3 is constructed in the same stable way as the larger model

See this machine in action on YouTube

Specifications		FPK 4.3	FPK 6.3
Table dimensions	mm	400x800	450x850
Travel X-axis	mm	500	600
Travel Y-axis	mm	400	450
Travel Z-axis	mm	400	450
Rapid feed X / Y / Z axis	mm/min	1.200	1.200
Speed range	1/min	(2) 40 - 2.000	(2) 40 - 2.000
Spindle mount		ISO 40	ISO 40
Motor rating main drive	kW	3,2	5,5
Weight	kg	1.550	1.750
Rapid feed X-axis	mm/min	1.200	1.200
Part No.		302340	302341

Standard Equipment

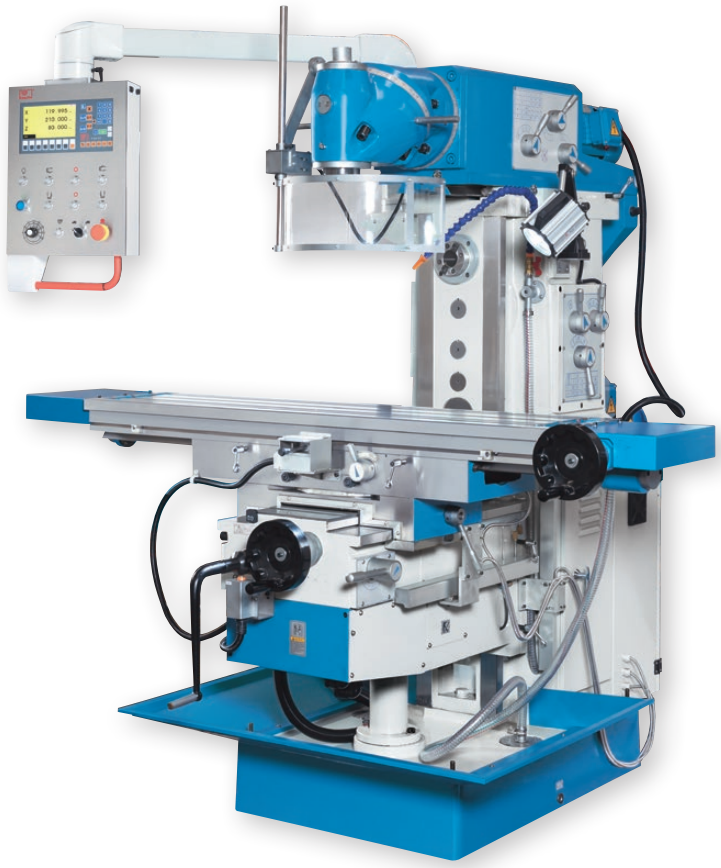
Electronic hand-wheels, 3-axis position indicator X.Pos 3.2, Central lubrication, Reducing sleeves MT1, MT2, MT3, collet chuck with collets, horizontal milling arbor 16mm, horizontal milling arbor 22mm, Horizontal milling arbor 27 mm, horizontal milling arbor 32mm, Counterholder for horizontal milling, Chip tray, Coolant system, Work lamp, pull rod (M16) for horizontal / vertical spindle, levelling pads and bolts, Operating tools, Operator manual

Universal Milling Machine

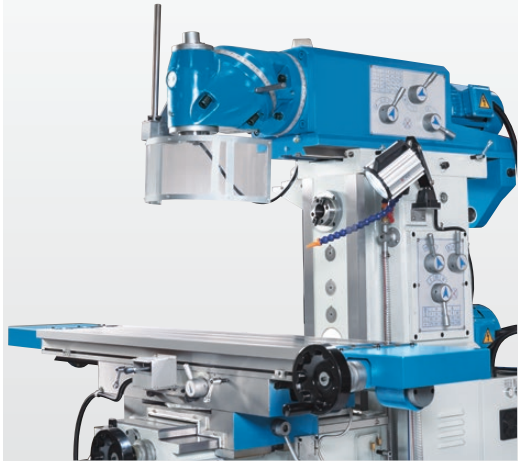
UWF 3.2

Versatile and powerful in both vertical and horizontal machining operations

- Extremely rigid machine bed made of high-strength HT-200 cast-iron with heavy ribbing
- Large rectangular guideways ensure precision and quiet operation within permissible high loads
- Precision-ground guideways with hardened surfaces for long-term accuracy and wear-resistance
- The milling table features a large setup area and can be rotated in linear direction
- Universal cutter head swivels on 2 planes - quick change-over from horizontal to vertical machining
- Powerful servo-motor for infinite variation of feeds in all 3 axes
- Control panel swivels for comfortable operation



See this machine in action on YouTube



Vertical and horizontal spindle each have their separate drive

Specifications		UWF 3.2
Table set up area	mm	1.370x320
Travel X-axis	mm	1.000
Travel Y-axis	mm	360
Travel Z-axis	mm	400
Spindle speed (vertical)	1/min	(11) 45 - 1.660
Spindle mount		DIN 2080 / ISO 40
Rapid feed X-/ Y-axis	mm/min	1.335
Rapid feed Z-axis	mm/min	1.000
Spindle speed (horizontal)	1/min	(12) 35 - 1.500
Spindle mount		ISO 40
Motor rating horizontal spindle	kW	3
Motor rating vertical spindle	kW	3
Weight	kg	1.950
Part No.		362695

Standard Equipment

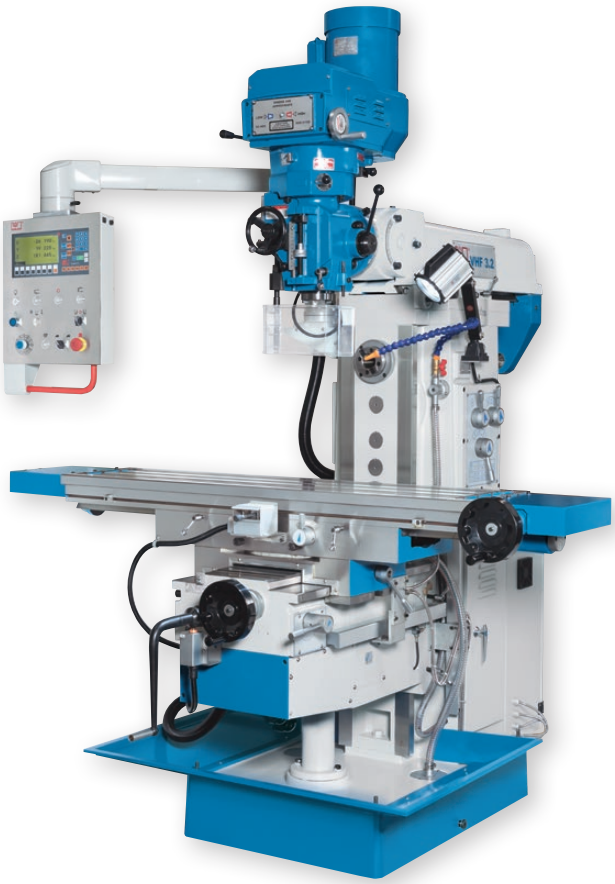
3-axis position indicator X.Pos 3.2, Collet chuck with collets (4,5,6,8,10,12,14,16 mm diam.), horizontal arbor Ø 27 mm, Outer arbor support for horizontal milling, Chip tray, Coolant system, Central lubrication, M16 draw bar, LED work lamp, Operating tools, Operator instructions

Universal Milling Machine

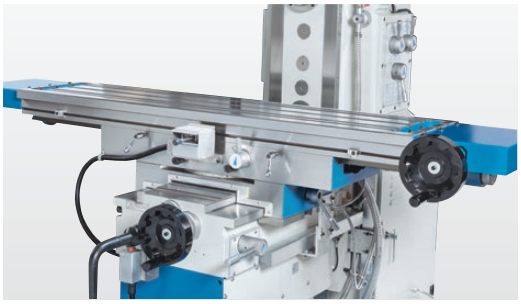
VHF 3.2

Universal milling machine with wide spectrum of applications

- Vertical spindle is infinitely variable up to 3750 rpm
- Cutter head can be rotated and tilted
- Servo-motor drive in all axes
- Horizontal spindle with outer arbor support for long milling arbors
- Milling table swivels in linear direction Extremely rigid machine bed made of high-strength HT-200 cast-iron with heavy ribbing
- The milling table features a large setup area and can be rotated in linear direction
- Spindle speed of vertical cutter head is infinitely variable over a wide speed range; an auxiliary gearbox ensures powerful torque
- Powerful servo motor for feeds in all 3 axes



See this machine in action on YouTube



The milling table features a large setup area and can be rotated in linear direction

Specifications		VHF 3.2
Table set up area	mm	1.370x320
Travel X-axis	mm	1.000
Travel Y-axis	mm	360
Travel Z-axis	mm	400
Spindle mount (vertical)		ISO 40
Spindle speed (infinitely variable) (L)	1/min	70 - 450
Spindle speed (infinitely variable) (H)	1/min	450 - 3.600
Rapid feed X-/ Y-axis	mm/min	1.335
Rapid feed Z-axis	mm/min	1.000
Spindle speed (horizontal)	1/min	(12) 35 - 1.500
Spindle mount (horizontal)		ISO 40
Main drive motor rating (vertical)	kW	3,7
Main drive motor rating (horizontal)	kW	3
Weight	kg	1.950
Part No.		301411

Standard Equipment

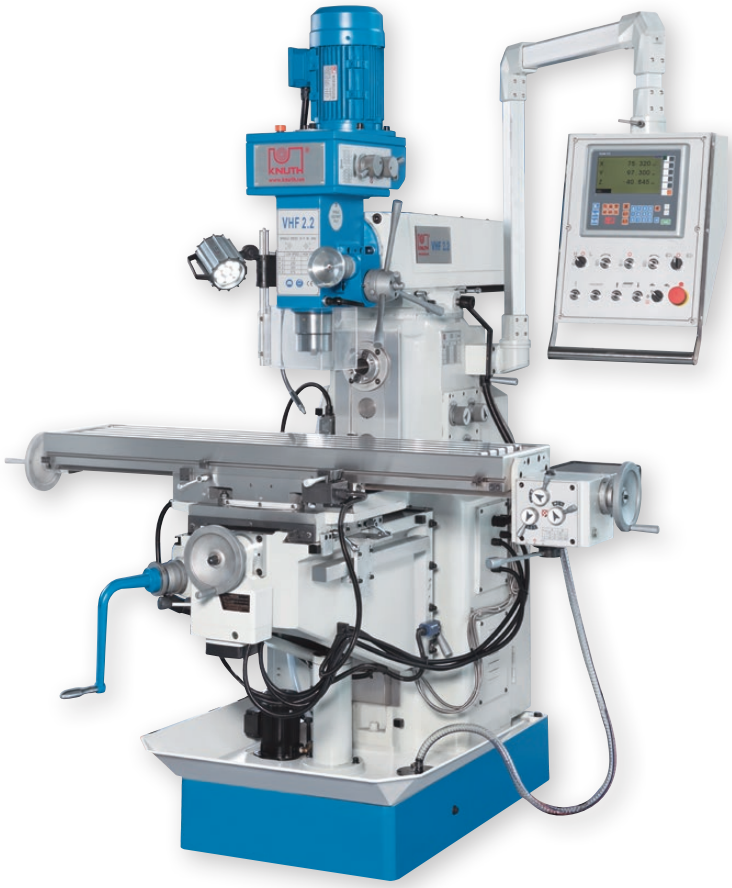
Chip tray, Coolant system, Central lubrication, 3-axis position indicator X.Pos 3.2, Operator instructions, M16 draw bar, Operating tools, Cutter arbor Ø 27 mm

Universal Milling Machine

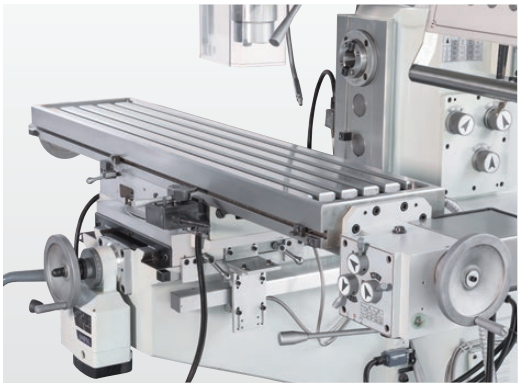
VHF 2.2

With swiveling cutter head, automated feed and horizontal spindle

- The milling table features a large setup area
- Vertical and horizontal spindles each have a separate drive with gearbox for maximum machining power
- The vertical head swivels to both sides (± 45°), quill feed through capstan or with fine feed hand wheel
- Feed system with manual gearbox on X-axis and infinitely variable feed unit on the Y-axis
- Height adjustment of the work table via automatic feed - precision feed via smooth hand crank



• Tilting vertical milling head
• Automatic feed in X and Y axes
• Horizontal spindle with counter holder
• Extensive package of standard accessories



Automatic feed on X and Z axes

Specifications		VHF 2.2
Table set up area	mm	1.270x280
Table load capacity (max.)	kg	150
Travel X-axis	mm	700
Travel Y-axis	mm	210
Travel Z-axis	mm	310
Spindle speed (vertical)	1/min	(8) 115 - 1.750
Spindle mount		ISO 40
Spindle speed (horizontal)	1/min	(12) 40 - 1.300
Motor rating horizontal spindle	kW	2,2
Motor rating vertical spindle	kW	0,85 - 1,5
Weight	kg	1.400
Part No.		362651

Standard Equipment

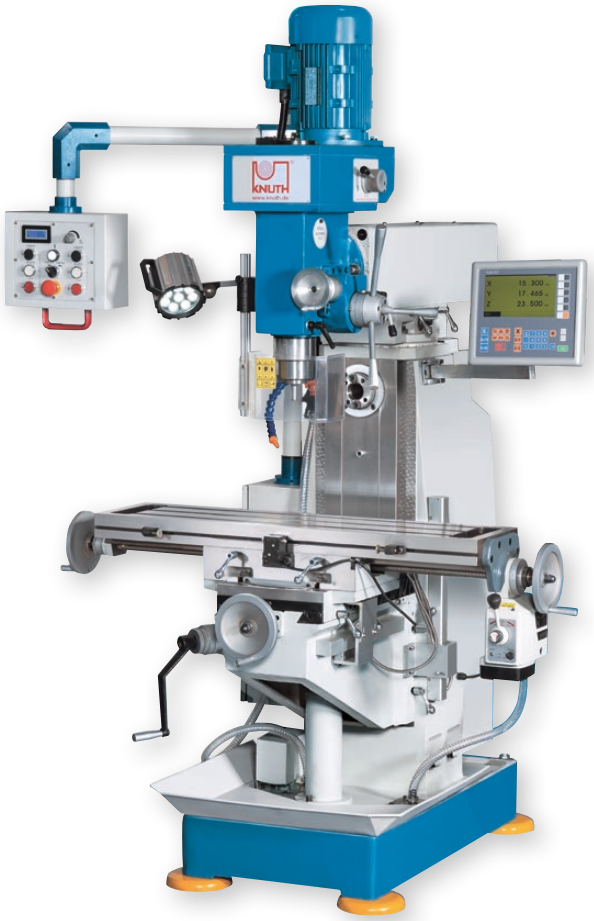
3-axis position indicator X.Pos 3.2, Coolant system, Work lamp, Operating tools, Operator instructions, M16 draw bar, Outer arbor support for horizontal milling, Chip tray, Cutter arbor Ø 27 mm

Universal Milling Machine

VHF 1.1

Console milling machine with swiveling milling head and automatic feed

- Compact, easy to handle universal milling machine with rigid frame made of vibration-dampening cast iron
- Easy to shift back-gearing via 2-step gears integrated into the vertical cutter head, plus variable frequency for high torque at the main spindle
- Entire cutter head swivels ± 45°, quill movement via capstan handle, or quill micro-feed via hand-wheel
- Horizontal spindle features a quiet, low-maintenance v-belt drive



• Universal cutter head with manual quill feed
• Horizontal milling spindle with its own drive
• Infinitely variable spindle speed
• Feed on X-axis
• Extensive standard equipment

Solid top beam with outer arbor allows rigid mounting of long milling arbors

Specifications		VHF 1.1
Table set up area	mm	1.000x240
Travel X-axis	mm	535
Travel Y-axis	mm	160
Travel Z-axis	mm	300
Spindle speed (vertical)	1/min	100 - 2.000
Spindle mount		ISO 40
Spindle speed (horizontal)	1/min	(9) 60 - 1.350
Motor rating horizontal spindle	kW	2,2
Motor rating vertical spindle	kW	1,5
Weight	kg	1.000
Part No.		362665

Standard Equipment

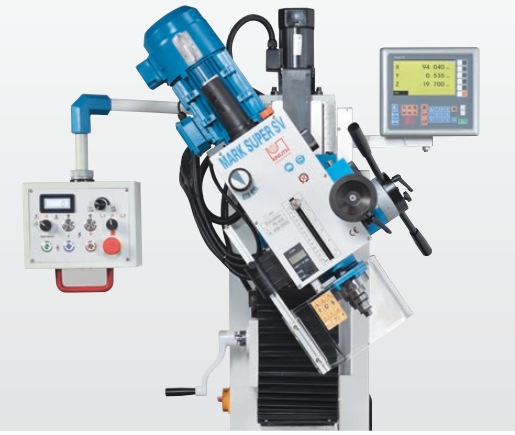
3-axis position indicator X.Pos 3.2, 2 long cutter arbors (Ø22,Ø27 mm), Drill chuck 16 mm, Reducing sleeve ISO 40 / MT3 and ISO 40 / MT2, Coolant system, Work lamp, Operating tools

Drill Press / Milling Machine

Mark Super S • SV

Increased comfort for this compact, versatile powerhouse

- Extensive standard equipment
- Automatic quill feed
- Large travel with TV 1000 table feed
- Multi-function position indicator
- Motorized cutter head movement and hand-wheel for exact positioning of head
- Digital depth indicator for quill travel
- Tapping unit with adjustable rotation reversal for thread cutting
- Hardened gear racks and shafts for quiet operation and long life
- **More power and variable speed control for a wider range of applications**



Head swivels ± 45°

See this machine in action on YouTube

Specifications		Mark Super S	Mark Super SV
Table dimensions	mm	800x240	800x240
Drilling capacity in steel	mm	32	25
Travel X-axis manual / autom.	mm	560 / 480	560 / 480
Travel Y-axis	mm	190	190
Spindle mount		MT 4	MK 4
Speed	1/min	(12) 75-3200	(2) 75-438 / 438-2500
Main motor rating	kW	1,5 / 1,1	1,5
Weight	kg	380	380
Part No.		301498	301490

Standard Equipment

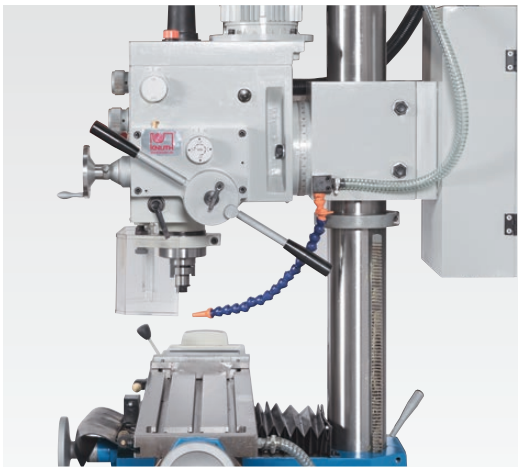
3-axis position indicator X.Pos 3.2, Automatic quill feed, Base, Table feed TV 1000, Drill chuck 13 mm, Tool-holder bits, Operator manual

Column Drill Press with Milling Function

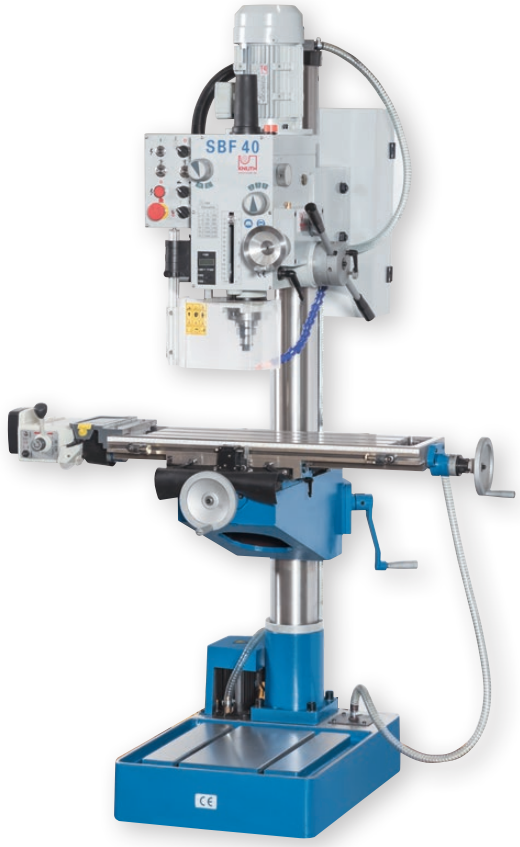
SBF 40

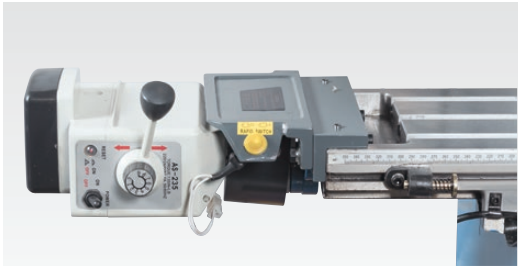
Universal machine for milling and drilling

- Large compound sliding table with automatic infinitely variable feed on X-axis for coordinate drilling and light milling work
- Manual drill feed can be switched to high-precision feed via a hand-wheel
- Controllable automatic feed with 3 gear steps
- Adjustable height of gear head and table



Automatic quill feed with 3-step gears





Infinitely variable milling table feed

Specifications		SBF 40
Table set up area	mm	730x210
Quill stroke	mm	120
Spindle nose-to-table surface distance	mm	600
Spindle nose-to-foot distance	mm	1.180
Drilling capacity in steel / ST37	mm	40
Speed range	1/min	(12) 75 - 3.200
Spindle mount	MT	4
Main motor rating	kW	1,5 / 1,1
Overall dimensions (length x width x height)	m	0,83x0,76x1,85
Weight	kg	390
Part No.		101573

Standard Equipment

Thread cutting function, Table feed TV 1000, Draw bar, Drill chuck, Tool-holder bits, Coolant system, Operator manual

Drilling machines

Radial Drill Press

R 32 Basic

Compact radial drilling machine with a large throat, manual axis clamping and automatic quill feed

Drilling capacity **32 mm**
Throat **320 - 820 mm**

Page 32

Column Drill Press

SSB Xn Series

Our best selling, gear driven drill press for your workshop

Table set up area **500 - 420 mm**
540 - 440 mm
Drilling capacity **32 - 40 mm**

Page 33

Bench drill press

TSB Series

Featuring gear drive, swivel drilling head and digital display for spindle speed

Drilling capacity **25 - 35 mm**
Spindle mount **MT 3 - MT 4**

Page 34

Column Drill Press

KB 32 SFV Pro

Top model of the KB drilling machines with infinitely variable speed adjustment, automatic feed and touchscreen control panel

Drilling capacity **32 mm**
Spindle mount **MT 3**

Page 35

Bench-Mounted Column Drill Presses

KB 20 SV

Tabledesign with infinitely variable speed adjustment and touchscreen for parameters setup

Drilling capacity **20 mm**
Spindle mount **MT 2**

Page 36

Radial Drill Press

R 32 Basic

Rigid radial drill press with an unbeatable price/performance ratio

- 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
- Practical layout of electrical and mechanical controls at the headstock for easy operation
- Motorized arm height adjustment

Rigid column base with central main switch

Swiveling boom for large throat widths

See this machine in action on YouTube

Specifications		R 32 Basic
Drilling capacity	mm	32
Spindle nose-to-table surface distance	mm	320 - 860
Machine table dimensions	mm	1.370x700x160
Quill stroke	mm	240
Spindle mount		MK 4
Speed range	1/min	(6) 75 - 1.220
Motor rating main drive	kW	1,5
Overall dimensions (length x width x height)	m	1,41x0,72x1,89
Weight	kg	1.180
Part No.		101522

Standard Equipment

Coolant system, Cube table, Halogen lights

Column Drill Press

SSB 32 Xn • SSB 40 Xn

Universal drill press for workshop applications

- Heavy cast-iron construction with thick-walled column
- Tapping feature
- Automatic drill feeds controlled by an electromagnetic clutch
- Includes coolant system and work lamp
- Table rotates and swivels ±45°

• Tilting table for drilling at an angle
• Automatic drilling feed
• Work table with 2-axes of rotation for flexibility in operation
• Well-considered safety protection
• Integrated coolant system

SSB 40 Xn

See this machine in action on YouTube

Specifications

		SSB 32 Xn	SSB 40 Xn
Drilling capacity	mm	32	40
Table set up area	mm	500x420	540x440
Quill stroke	mm	160	190
Spindle nose-to-table surface distance	mm	630	610
Table load capacity	kg	100	150
Spindle mount		MK 4	MK 4
Speed range	1/min	(12) 125 - 3.030	(12) 75 - 2.020
Quill feeds	mm/R	0,1; 0,2; 0,3	0,12; 0,24; 0,4
Motor rating main drive	kW	1,2	1,5
Overall dimensions (length x width x height)	m	0,84x0,5x1,96	0,95x0,61x2,23
Weight	kg	540	550
Part No.		162332	162339

Standard Equipment

Thread cutting function, Automatic drilling feed, Accessory set for drilling, Coolant system, Protective shield, LED work lamp, Operator instructions

Bench Drill Press

TSB 25 • TSB 35

Bench drill with gearbox for feed and spindle speed

- Rigid cast-iron construction
- Rectangular table with T-slots and circumferential coolant groove
- Automatic quill feed
- Head swivels ± 45° (TSB 35)

See this machine in action on YouTube

Universal machine base with storage room Part No. 123952

TSB 35 is shown with digital rpm display

Specifications		TSB 25	TSB 35
Drilling capacity	mm	25	35
Tapping capacity, steel		M 16	M 22
Foot set up area (length x width)	mm	310x320	370x360
Spindle nose-to-foot distance	mm	650	645
Spindle speed	1/min	(6) 125 - 2.825	(12) 125 - 3.030
Spindle mount	MT	3	4
Quill stroke	mm	110	155
Motor rating main drive	kW	0,75	1,2
Overall dimensions (length x width x height)	m	0,7x0,41x1,56	0,81x0,5x1,67
Weight	kg	220	340
Part No.		162340	162345

Standard Equipment

Base, Protective shield, Thread cutting function, LED work lamp, Coolant system, Drill chuck, Operating tools, Operator instructions

Column Drill Press

KB 32 SFV Pro

High-quality compact column drill press with advanced feed system

- **Electronically Controlled Quill Feed**
- Thread cutting unit
- Integrated coolant system
- Modern design, high-quality cast-iron, and excellent workmanship combined with superior rigidity, function and appearance
- Large base plate with ground setup area and parallel T-slots
- The color touchscreen conveniently displays all functions and features a rugged, resistant touch panel
- The spindle speed can be controlled infinitely variable at the display and is easy to read
- The automatic quill feed can also be infinitely adjusted and read at the display
- The depth stop for automatic feed is set mechanically via a robust clamping mechanism

See this machine in action on YouTube

Heavy, precision-ground work table features diagonal T-slots

Specifications KB 32 SFV Pro

Drilling capacity	mm	32
Tapping capacity, steel		M24
Table set up area	mm	330x330
Quill stroke	mm	150
Spindle nose-to-foot distance	mm	1.235
Spindle nose-to-table surface distance	mm	800
Speed range, high	1/min	400 - 2.250
Speed range, low	1/min	140 - 400
Spindle mount		MT 3
Quill feed	mm/min	24 - 243
Motor rating main drive	kW	1,5
Overall dimensions (length x width x height)	m	0,9x0,6x1,9
Weight	kg	310
Part No.		170464

Standard Equipment

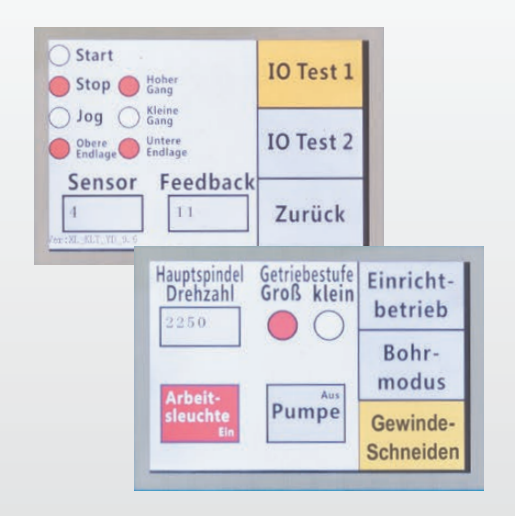
Touchscreen control panel, Automatic quill feed, LED work lamp, Coolant system, Drill chuck, Tool-holder bits, Drill press vise, Thread cutting function, Operating tools, Operator manual

Bench-Mounted Column Drill Press

KB 20 SV

High-Performance Bench-Type Column Drill Press for industrial applications

- Infinitely variable speed adjustment via potentiometer
- Touchscreen with comfortable selection of functions, like drilling, thread-cutting, and setup operations
- The control unit allows querying of all limit switches and shows all functionalities, like coolant system, rpm and work lamp



Touchscreen with comfortable selection of functions, like drilling, thread-cutting, and setup operations

Universal machine base with storage room for the KB 20 SV (Part No. 123952)

Specifications		KB 20 SV
Drilling capacity	mm	20
Tapping capacity (max.)		M 16
Table set up area	mm	255x255
Speed range	1/min	205 - 2.045
Motor rating main drive	kW	1,1
Overall dimensions (length x width x height)	m	1x0,56x1,4
Weight	kg	179
Part No.		170462

Standard Equipment

LED work lamp, Coolant system, Drill chuck, Tool-holder bits, Drill press vise, Thread cutting function, Operating tools, Operator manual

Sawing machines

Horizontal Band Saw

SBS Series

Double miter band saw with great cutting performance in the best processing quality and with an outstanding price-performance ratio

Cutting capacity 0° (round) **225 - 355 mm**
Cutting capacity 0° (flat) **150 × 245 mm - 300 × 530 mm**

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Horizontal Workshop Band Saw

HB 250 A

Affordable workshop band saw with quick action clamping and miter cutting

Cutting capacity 0° (round) **225 mm**
Cutting capacity 0° (flat) **245 x 190 mm**

Page 39

Circular Cold Saw

KKS T Series

Robust manual cold circular saw for workshop use with precise mitre adjustment and space-saving base frame

Cutting capacity 0° (round) **70 - 120 mm**
Cutting capacity 0° (flat) **90 × 45 mm mm - 140 x 100 mm**

Page 40

Vertical Band Saw

VB A Series

The solution for contour sawing with a particularly stable saw frame, table that can be swivelled on both sides, min. quantity cooling and strip welding unit

Cutting speed **190 - 329 m/min**
Cutting capacity height x throat **185 × 310 mm - 310 × 500 mm**

Page 41

Horizontal Band Saw

SBS 235 • 255 • 355

High cutting capacity, compact design and quick-action angle adjustment

SBS 235 / 255

- 2 saw blade speeds, selectable at the drive motor
- Mechanical quick-action clamping allows for quick release and fixation of workpieces via hand-lever; ideal for small batches
- The SBS 255 features a round setup table, which pivots in synchrony with the saw frame

SBS 355

- Hydraulic quick-action clamping fixture with proven performance in series production ensures constant tension to the last cut
- Infinitely variable saw blade speed for optimum machining of a wide range of materials and profiles
- Easy handling - at the end of the cut, the integrated hydraulics lift the saw frame to the home position

SBS 355 is shown

See this machine in action on YouTube

Specifications		SBS 235	SBS 255	SBS 355
Cutting capacity 0° (round)	mm	225	255	355
Cutting capacity 0° (flat)	mm	150x245	315x230	300x530
Cutting capacity 45° (flat) L	mm	145x190	160x160	270x270
Cutting capacity 45° (flat) R	mm	120x120	195x230	290x360
Cutting capacity 60° R (flat)	mm	90x115	115x160	170x240
Cutting speed	m/min	45 / 90	35 / 70	20 - 80 (infinitely var.)
Motor rating main drive	kW	1,1	1,5	2,2
Weight	kg	295	375	805
Cutting capacity 0° (square)	mm	180	230	300
Saw blade dimensions	mm	2.645x27x0,9	2.750x27x0,9	3.770x27x0,9
Overall dimensions (length x width x height)	m	1,46x0,73x1,06	1,72x0,73x1,13	2,18x0,97x1,13
Part No.		152778	152786	152788

Standard Equipment

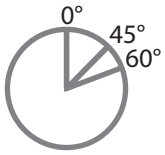
1 saw blade, coolant system, base, pressure gauge for saw blade tensi-onig, hydraulic cylinder for saw frame, inverter for infinitely variable saw blade speed (SBS 355), hydraulic workpiece clamping (SBS 355), operator instructions

Horizontal Workshop Band Saw

HB 250 A

Practical workshop saw for miter cuts

The compact horizontal band saw with one-piece saw frame made of gray cast iron is suitable for miter cuts and is a handy solution for every workshop.



- **Cast-iron saw frame, one-piece construction**
- **Two speeds for cutting optimization**
- **Vise with quick-action clamping feature**

- For miter cuts, the operator moves the saw frame - not the material
- Hydraulic cylinder provides for infinitely variable support pressure and saw frame feed

Specifications		HB 250 A
Cutting capacity 0° (round)	mm	225
Cutting capacity 0° (flat)	mm	245x190
Cutting capacity 45° (flat)	mm	210x155
Cutting capacity 45° (round)	mm	155
Cutting capacity 60° - round	mm	90
Belt speed	m/min	40 / 90
Main motor rating	kW	1,1
Overall dimensions (length x width x height)	m	1,36x0,58x0,9
Weight	kg	185
Part No.		152796

Standard Equipment

1 saw blade, coolant system, base, quick-action vise, hydraulic cylinder for saw frame, operator manual

Circular Cold Saw

KKS T 275 • 350

Proven classic model for workshops- rugged and lasting

- Easy operation, rugged design, and precise angular cuts make this circular cold saw a “must-have” basic for any workshop
- The model KKS 275 T provide a rigid vise with quick-action clamping feature and are ideal for small batch productions
- KKS 350 T feature a self-centering dual vise that hold the workpiece firmly on both sides of the saw blade
- The miter can be adjusted up to +/- 45 degrees by rotating the gear head
- All models have high-torque motors, and the KKS 350 T also have reversible poles and 2 speeds
- An integrated coolant system is part of the standard equipment on all models

Dual vise (KKS 350 T)

KSS 315 T is shown

Specifications		KKS 275 T	KKS 350 T
Cutting capacity 0° (round)	mm	70	120
Cutting capacity 0° (square)	mm	65	110
Cutting capacity 0° (flat)	mm	90x45	140x100
Cutting capacity 45° (round) L	mm	65	105
Cutting capacity 45° (square) L	mm	60	100
Cutting capacity 45° (round) R	mm	65	105
Cutting capacity 45° (flat) L	mm	70x45	100x100
Cutting capacity 45° (square) R	mm	60	100
Cutting capacity 45° (flat) R	mm	70x45	100x100
Main motor rating	kW	1,1	0,75 / 1,3
Weight	kg	148	236
Part No.		102118	102121

Standard Equipment

self centering double vice (KKS 350 T), quick-action vice (KKS 275 T), base, coolant system, 1 saw blade, linear stop

Vertical Band Saw

VB A

Integrated band saw blade welder for inside and outside contours

- The machine frame features a torsionally rigid steel construction for a robust and sturdy design
- Functional and practical design, plus easy handling are common features of this entire series
- The support table swivels to the right and left for angled cuts
- The saw blade speed is controlled electronically and shown on a large digital display

The particularly stable guidance of the deflection wheel guarantees its permanent precise alignment and thus increases the cutting performance and service life of the band saw blades

VB 300A

Specifications		VB 300 A	VB 500 A
Table dimensions	mm	500x400x890	700x660x980
Blade length	mm	2.855 - 2.925	3.980 - 4.050
Table with angle adjustment (l/r)	deg	15/45	15/30
Cutting capacity height x throat	mm	185x310	310x500
Cutting speed	m/min	190	329
Motor rating main drive	kW	0,55	1,5
Overall dimensions (length x width x height)	m	0,91x0,82x1,6	1,25x1,04x1,98
Weight	kg	275	410
Part No.		102640	102642

Standard Equipment

Saw blade welder assembly, blade cutting unit, Work lamp, Saw-band, Coolant system, adjustable material stop for table, Operator instructions

Grinding machines

Surface Grinder

HFS F Advance Series

Surface grinders with automated control of Z axis and Siemens HMI

Travel X-axis	**560 - 1.130 mm**
Table dimensions	**508 × 254 mm - 1.020 × 406 mm**

Page 44

Cylindrical Grinding Machines

RSM 500 A

Inside and outside machining with manual feed on transverse axis

Grinding diameter **8 - 200 mm**
Grinding length **500 mm**

Page 46

Surface Grinder

HFS F Advance

Precision and ease-of-use for maximum production efficiency

If set to Auto mode, the user-defined roughing and finishing parameters, number of spark-out strokes, and return to zero are automatically processed

- Magnetic clamping plate with built-in demagnetizing function
- Vertical axis with ballscrew and servo motor for high precision
- Easy auto-mode programming with Siemens PLC and touchscreen
- Extensive standard equipment package

Specifications HFS Advance		2550 F	3063 F	4080 F	40100 F
Table dimensions	mm	508x254	635x305	813x406	1.020x406
Workpiece weight (max.)	kg	180	270	500	600
Spindle nose-to-table surface distance	mm	450	580	580	580
Speed	1/min	2.850	1.450	1.450	1.450
Travel X-axis	mm	560	765	910	1.130
Travel Y-axis	mm	275	340	450	450
Motor rating main drive	kW	2,2	4	4	4
Grinding wheel dimensions	mm	200x20x31,75	350x40x127	350x40x127	350x40x127
Overall dimensions (l x w x h)	m	2,3x1,6x1,68	2,9x2,2x1,9	3,6x2,4x1,9	4,4x2,4x1,9
Weight	kg	1.800	2.800	3.400	3.700
Part No.		124931	124932	124933	124930

Standard Equipment

2-axis position indicator X.Pos 3.2, Electronic hand-wheel, Grinding wheel flange, Automatic central lubrication, Workspace enclosure, Coolant and suction device, Grinding wheel dresser, Balancing station, Balancing shaft, LED work lamp, Magnetic clamping plate, Adjustment screws, Operating tools, demagnetization unit, Siemens PLC-control with Touchscreen, Operator manual, Grinding wheel

Cylindrical Grinding Machines

RSM 500 A

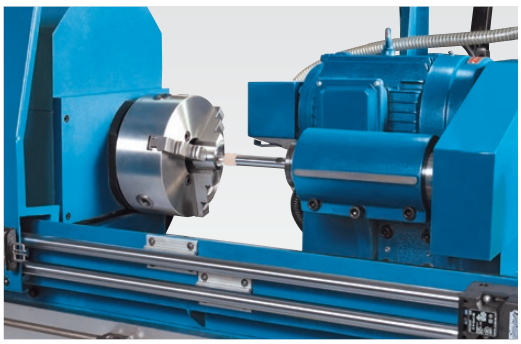
For outside and inside grinding of cylindrical and conical parts

See this machine in action on YouTube

- **Internal and external grinding**
- **Hydrostatic bearings for high surface quality**
- **Swiveling headstock**
- **Integrated rapid feed on Z-axis with manual return**

- Hydraulic linear feed features very precise, infinitely variable micro-feed
- High-precision guideways of linear and transverse movement consisting of combined V-guides and box ways
- Machine table swivels for taper grinding

Specifications		RSM 500 A
Center height	mm	135
Workpiece length (max.)	mm	640
Grinding length	mm	500
Grinding diameter	mm	8 - 200
Workpiece weight between centers (max.)	kg	50
Tailstock taper	MT	4
Grinding wheel dimensions	mm	400x50x203
Grindstone dimensions, inside grinding (max.)	mm	50x40x16
Grindstone dimensions, inside grinding (min.)	mm	45x35x10
Weight	kg	2.500
Part No.		302430



Grinding headstock can be rotated 180° to change from inside to outside grinding

Standard Equipment

2-axis position indicator X.Pos 3.2, Internal grinding equipment, 3-jaw chuck Ø 200 mm, Chuck flange, Balancing station, Balancing mandrel, Dress equipment, Center point, Grinding wheel flange, Coolant system, Open rest, Closed rest, Drivers, Work lamp, Operating tools, Operator instructions

Presses / Shears

NC Press Brake

AHK M NC Series

Compact NC bending solution with X and R axis and extensive standard equipment as an excellent alternative to CNC machines

Pressure force	**30 - 60 t**
Brake length	**1.250 - 2.100 mm**

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Hydraulic Shear

KHT M NC Series

Rigid swing beam construction with plate hold-up feature and NC control for the back gauge

Working length	**2.000 - 4.000 mm**
Plate thickness (max.) - 450 N/mm²	**6 - 12 mm**

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Motorized Swing-Beam Shears

KMT B Series

Simple, robust motorised guillotine shears with manual backgauge

Working length	**1.250 - 2.050 mm**
Plate thickness (max.) - 450 N/mm²	**0,8 - 4 mm**

Page 49

Workshop Press

KNWP H Series

Hydraulic, with horizontal piston travel and a set of prismatic blocks

Stroke	**400 mm**
Pressure force	**60 - 200 t**

Page 50

Hydraulic Workshop Press

KNWP M Series

Manual, ideal for craft shops, schools and training facilities

Pressure force	**15 - 50 t**
Total piston stroke	**160 mm**

Page 51

NC Press Brake

AHK M NC

Compact bending solution with motorized R-axis

See this machine in action on YouTube

- The machine frame is made of a high-precision, stress-relieved steel weldment and features a rigid bending bar and hydraulic cylinders on both sides
- The hydraulic unit with reservoir is placed in the top part of the machine frame to save space and add to the rigidity of the construction
- Each support arm can be adjusted in height and is extremely sturdy
- Promecam tool mounts to accommodate an extensive selection of bending tools
- All functions are input and retrieved directly at the touchscreen

Specifications AHK M NC		1230 NC	1540 NC	2160 NC
Pressure force	t	30	40	60
Brake length	mm	1.250	1.550	2.100
Travel in X-axis	mm	500	600	600
Rapid feed	mm/s	120	80	75
Motor rating main drive	kW	3	5,5	7,5
Overall dimensions (length x width x height)	m	1,76x1,38x2,14	2x1,6x2,23	2,45x1,6x2,23
Weight	kg	1.700	3.450	4.340
Throat	mm	255	320	320
Part No.		182640	182641	182642

Standard Equipment

Weintek 7" NC-control, Motorized backgauge X-axis, motorized backgauge R-axis, european type bottom tool 4V, Upper tool H European style H = 67 mm (segmented), Laser optical safety system, Light curtain, sliding front support arms (2 pcs), Foot pedal with emergency stop switch, Operator instructions

Hydraulic Shear

KHT M NC

Hydraulic swing-beam plate shears with controlled back gauge

- **Estun E21 NC control**
- **Back gauge with preloaded ball screws gauge**
- **Pneumatic plate hold-up feature**
- **Cutter also suitable for stainless steel**
- **Adjustable angular stop**

- The hydraulic Swing-Beam Shears with NC-controlled back gauge combines quality, reliability and easy handling
- The advantages of this design are low-torsion cuts, a more reliable release of cut parts, extended knife life, and easy kerf adjustments
- The large work table features roller balls and a rigid adjustable angular stop for easy handling and safe plate alignment
- During the cut, hydraulically regulated hold-downs ensure steady fixation of the sheet metal plate close to the cut-line

For more machines of this series and a large number of options, visit our website

Specifications KHT M		2006	2506	2508	3006	3008	3010	3012	4006
Plate thickness (max.) - 450 N/mm²	mm	6	6	8	6	8	10	12	6
Plate thickness(max.) - 700 N/mm²	mm	4	4	5	4	5	6	8	4
Working length	mm	2.000	2.500	2.500	3.200	3.200	3.200	3.200	4.000
Cutting angle	deg	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5
Strokes per minute	H/min	20	18	12	14	10	8	14	14
Number of support arms	positions	3	3	3	3	3	3	3	4
Motor rating main drive	kW	7,5	7,5	7,5	7,5	11	15	18,5	7,5
Weight	kg	4.500	5.000	7.000	6.700	8.300	8.500	10.800	8.600
Part No.		184218	184219	184228	184210	184212	184214	184216	184211

Standard Equipment

NC control Estun E21S, Pneumatic sheet support, Controlled backgauge, Shadow light cutting line, Front support arms, Foot pedal with emergency stop switch, Manual cutting gap adjustment, Full length finger guard, Safety system for back working area, Standard upper and lower knife for stainless steel sheets, Adjustable angle stop, Operating tools, Operator instructions

Motorized Swing-Beam Shears

KMT B 1253 • 1254 • 2053

Cost-effective and powerful plate shear series fulfills any workshop needs

- **Solid steel weldment**
- **Rugged long support arms**
- **Mobile control unit with foot switch**
- **Manual back gauge with counter (back-of-machine operation)**

Manual back gauge with counter

- The machine frame is made of a rigid, solid steel weldment
- A rubber-coated hold-down automatically fixates the plate
- A small knife angle ensures cut accuracy
- The rigid side angle stop simplifies alignment of the plate to the cut line

Specifications KMT B		1253	1254	2053
Working length	mm	1.250	1.250	2.050
Cutting angle	deg	2	2,4	2
Strokes per minute (automatic mode)	H/min	30	30	30
Work table height	mm	830	830	830
Number of support arms	positions	2	2	3
Rear stop	mm	630	630	630
Plate thickness (max.) - 450 N/mm²	mm	0,8 - 3	0,8 - 4	0,8 - 3
Motor rating main drive	kW	3	4	4
Overall dimensions (length x width x height)	m	1,69x1,48x1,1	1,72x1,6x1,19	2,5x1,6x1,19
Weight	kg	850	1.185	1.520
Part No.		133640	133642	133641

Standard Equipment

Foot pedal with emergency stop switch, Side angle stop, Support arms, automatic hold-down device, Cut-line lighting, Manual rear stop, Operator instructions

Workshop Press

KNWP H

Motorized workshop presses with moveable cylinders and V-blocks

- These universal presses are indispensable in technical workshops and maintenance departments
- Torsionally rigid welded gantry-style frame made of thick-walled sectional steel
- Heavy-duty design, intended for professional use
- Versatile for many kinds of repair and assembly work
- Finely adjustable press force for trueing axles, supports, shafts, and much more
- Long piston stroke for removing and press-fitting bearings and bushings
- The operator can see the current working pressure on the gauge at all times.
- Motorized hydraulic unit for efficient work
- Work cylinder with smooth horizontal adjustment for easier setup
- Premium components for guaranteed long-lasting reliable operation

See this machine in action on YouTube

- **Motorized hydraulic drive**
- **Horizontal piston travel**
- **Adjustable table height**
- **Set of prismatic blocks**

Specifications KNWP H		60	100	160	200
Working width	mm	830	1.020	1.100	1.550
Frame through-hole	mm	300	300	350	550
Pressure force	t	60	100	160	200
Operating pressure (max.)	bar	400	400	400	400
Stroke	mm	400	400	400	400
Forward motion speed	mm/s	6,1	7,12	6,2	6,4
Press speed	mm/s	6,1	7,12	6,2	6,4
Return speed	mm/s	10	13,42	9,8	11,04
Motor rating hydraulic pump	kW	3	4	5,5	7,5
Weight	kg	700	1.000	1.300	2.600
Part No.		131770	131772	131774	131777

Standard Equipment

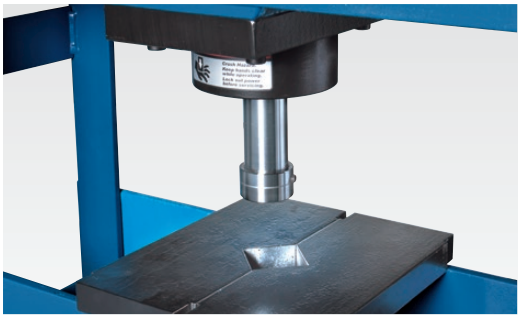
Movable working cylinder, Height adjustable work table, V-blocks, Manometer, Operator manual

Hydraulic Workshop Press

KNWP M

Ideal for craft shops, schools and training facilities

- Rigid machine frame freaturing a carefully machined weldment structure
- 2-step hydraulics - with change-over switch for changing between quick-stroke and work stroke
- Hydraulic pump can be operated by hand or foot control (KNWP 30 / 50 M)
- Automatic reset of piston, controllable by user via throttle valve and spring
- The support table features a rigid design, but is easy to handle with adjustable height
- Includes multi-function die for straightening flat material and corrugation
- Table lifting system (KNWP 50 M)
- Hydraulic cylinder with side adjustments (KNWP 30/50 M)



V-shaped support set

Foot control (KNWP 30 / 50 M) only)

Specifications KNWP M		15	30	50
Pressure force	t	15	30	50
Operating pressure (max.)	bar	382,2	374,6	399,5
Total piston stroke	mm	160	160	160
Throat width	mm	560	565	750
Hydraulic tank volume	l	1,65	1,65	1,65
Weight	kg	117	150	250
Overall dimensions (length x width x height)	m	0,83x0,6 x1,93	0,83x0,64 x2,05	1,1x0,76 x2,12
Part No.		131742	131741	131743

See this machine in action on YouTube

Bending machines

3-Roller Roll Bender

KRM AT Series

Motor-driven rollers in asymmetrical arrangement with manual back roller adjustment for machining fine and thin plates

Working length	**1.050 - 1.550 mm**
Plate thickness (max.) - 450 N/mm²	**2 - 3 mm**

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3-Roller Roll Bender

KRM T Series

Motor-driven rollers in asymmetrical arrangement with manual back roller adjustment for machining thin and medium plates

Working length	**1.050 - 2.050 mm**
Plate thickness (max.) - 450 N/mm²	**2 - 5 mm**

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Manual Swing-Beam Shears

KHS E 1000

Manual guillotine shears for precise cutting of thin plates, large support table and adjustable length stop

Working length **1.040 mm**
Plate thickness (max.)
- 450 N/mm² **1,5 mm**

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Folding Machine

SB E 2060/2

Torsion-resistant cast iron construction with large top beam stroke and one-piece upper tool

Working length **2.060 mm**
Plate thickness (max.)
- 450 N/mm² **2 mm**

Page 55

Folding Machine

SBS E Series

Heavy manual folding machine with segmented upper tool and manual crowning for large working length requirements

Working length **2.020 - 2.540 mm**
Plate thickness (max.)
- 450 N/mm² **1,5 - 2 mm**

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Folding Machine

SBS Series

Compact manual swivel bending machine with segmented upper tool

Working length **1.020 - 1.270 mm**
Plate thickness (max.)
- 450 N/mm² **2 - 2,5 mm**

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3-Roller Roll Bender

KRM AT

Motorized drive with foot pedal control and safety switch

- Asymmetrical structure
- Main motor with brakes
- Hardened rollers with wire insertion grooves
- Conical bender
- Manual feed or rear roller

Shown with options

Specifications KRM AT		10/3,0	12/2,5	15/2,0
Working length	mm	1.050	1.270	1.550
Plate thickness (max.) - 450 N/mm²	mm	3	2,5	2
Roll diameter	mm	90	90	90
Roller speed	m/min	6	6	6
Motor rating main drive	kW	1,1	1,1	1,5
Weight	kg	480	520	580
Part No.		131970	131971	131972

Standard Equipment

Conical bending feature, Hardened rollers, wire insert groove, Emergncy stop safety rope, seoarate control panel with foot switch, side cover, Operator instructions

3-Roller Roll Bender

KRM T

Modern and user-friendly machine

- Asymmetrical structure
- Main motor with brakes
- Hardened rollers with wire insertion grooves
- Conical bender
- Quick adjusting rolls (motor-driven, option)

Specifications KRM T		10/4,0	10/5,0	12/5,0	15/3,0	15/4,0	20/2,0	20/4,0
Working length	mm	1.050	1.050	1.270	1.550	1.550	2.050	2.050
Plate thickness (max.) - 450 N/mm²	mm	4	5	5	3	4	2	4
Roll diameter	mm	110	130	140	110	140	110	140
Roller speed	m/min	3	3,5	3,5	3	3,5	3	3,5
Motor rating main drive	kW	2,2	2,2	2,2	2,2	2,2	2,2	2,2
Weight	kg	990	1.200	1.350	1.200	1.420	1.380	1.650
Part No.		131980	131981	131983	131984	131985	131986	131988

Standard Equipment

Conical bending feature, Hardened rollers, wire insert groove, Emergncy stop safety rope, seoarate control panel with foot switch, side cover, Operator instructions

Manual Swing-Beam Shears

KHS E 1000

Robust manual swing-beam shears for easy and precise cutting of plates up to 1,5 mm thick

- Adjustable table stop
- Manually adjustable back-gauge
- Hardened cutters
- Counterweight to improve operator comfort
- Large dimensions steelplates sheets can be pushed through
- Large steel plates can be pushed through
- Simple and solid cast-iron construction
- Adjustable cutting stop

Specifications		KHS E 1000
Working length	mm	1.040
Rear stop	mm	0 - 580
Table dimensions	mm	605x1.100
Plate thickness (max.) - 450 N/mm²	mm	1,5
Overall dimensions (length x width x height)	m	1,3x1x1,5
Weight	kg	460
Part No.		132036

Standard Equipment

Operator manual, length stop

Folding Machine

SB E 2060/2

Heavy folding machine with large top beam travel

- Sturdy and torsionally rigid construction
- Long male die stroke with threaded spindles
- One-piece male die
- High counterweight for easy bending
- Cast-iron construction
- Versatile use

Specifications		SB E 2060/2
Working length	mm	2.060
Plate thickness (max.) - 400 N/mm²	mm	2
Bending bar angle (range)		135°
Top beam travel	mm	210
Adj. lower bending beam	mm	100
Weight	kg	1.750
Part No.		131336

Standard Equipment

male die, Operator manual

Folding Machine

SBS E

Heavy manual folding machine with segmented upper tool

See this machine in action on YouTube

Specifications		2020/2,0	2540/1,5
Working length	mm	2.020	2.540
Plate thickness (max.) - 400 N/mm²	mm	2	1,5
Working height	mm	920	920
Bending angle (max.)	deg	135	135
Adjustment range for A axis	mm	15	15
Weight	kg	1.025	1.250
Part No.		131367	131371

Standard Equipment

Segmented sharp nose tool type upper die, Operator manual

Folding Machine

SBS

Heavy manual folding machine with segmented upper tool

- Compact and torsion-proof
- Segmented maledie for many bending possiblities
- Built-in, manual bending compensation
- Adjustable angle stop for batch production

Specifications		SBS 1020/2,5	SBS 1270/2
Working length	mm	1.020	1.270
Plate thickness (max.) - 400 N/mm²	mm	2,5	2
Bending bar angle (range)		135°	135°
Overall dimensions (length x width x height)	m	1,35x0,85x1,18	1,6x0,9x1,18
Weight	kg	285	330
Part No.		131364	131363

Standard Equipment

Segmented sharp nose tool type upper die, Operator manual

Cutting systems

Laser Cutting System

ACE Laser Compact R Series

Small footprint design with Raytools cutting head and Raycus laser source

Table size **1.300 × 1.300 mm**
Fiber laser **1.000 - 2.000 W**

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Plasma Cutting System

Plasma-Jet AirPro Compact Series

Compact cutting systems suitable from small to large format sheets for the use of economical air plasma sources

Cutting length **1.550 - 3.050 mm**
Cutting Width **1.050 - 1.550 mm**

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Laser Cutting System

ACE Laser Compact R

All the advantages of advanced fiber laser technology in a small package

- **Compact design with small footprint**
- **Powerful built-in nesting and cutting software from Cypcut**
- **Highly energy efficient laser sources from Raycus**
- **High quality cutting head with auto-focus**

See this machine in action on YouTube

Specifications ACE Laser Compact R		1313 1.0 R	1313 1.5 R	1313 2.0 R
Table size	mm	1.300x1.300	1.300x1.300	1.300x1.300
Fiber laser	W	1.000	1.500	2.000
Laser source		Raycus	Raycus	Raycus
Shaft length	µm	1,08 ± 10%	1,08 ± 10%	1,08 ± 10%
Power consumption	kW	3,6	6	7
Cutting capacity in structural steel	mm	8	12	14
Cutting capacity in stainless steel	mm	3	4	5
Cutting capacity in aluminum	mm	2	3	4
Overall dimensions (length x width x height)	m	2,52x2,17x1,88	2,52x2,17x1,88	2,52x2,17x1,88
Weight	kg	2.040	2.040	2.040
Part No.		141100	141101	141102

Standard Equipment

CypCut CNC controler, Ytterbium fiber laser by Raycus, Fibre optics, High pressure cutting head with automatic focus adjustment, automatic focus position adjustment, Full protective housing, Automatic gas console with electrovelves for Oxygen and Nitrogen, Central lubrication, Recirculating water cooling system for the laser source, CAD/CAM software (CypCut), Operating manual and programming instructions, Voltage stabiliser

Plasma Cutting System

Plasma-Jet AirPro Compact

Compact plasma cutting systems for small- and large-format tables

Shown with options

- **Compact design, fast setup**
- **For air plasma sources by Hypertherm or Kjellberg (optional)**
- **EtherCAT technology for best CNC performance**
- **Professional Nesting Software solution included**
- **With vacuum table, also optional water cutting table**

Cutting capacity

- Kjellberg CutFire 100i: cutting up to 40 mm, grooving up to 20 mm
- Hypertherm Powermax 105 Sync: Cutting up to 38 mm, grooving up to 22 mm
- Hypertherm Powermax 125: cutting up to 44 mm, grooving up to 25 mm

Specifications Plasma-Jet AirPro		1515	1530	2010
Cutting Width	mm	1.550	1.550	1.050
Cutting length	mm	1.550	3.050	2.050
Distance from torch to support table	mm	200	200	200
Table height	mm	500	500	500
Table load capacity	kg/m²	800	800	800
Rapid feed	mm/min	15.000	15.000	15.000
Positioning accuracy	mm	0,05	0,05	0,05
Weight	kg	1.250	1.550	1.100
Overall dimensions (length x width x height)	m	2,25x2,5	2,25x4,15	1,72x3,15
Part No.		144046	144047	144045

Standard Equipment

PULSER 3 CNC-Einheit, 15" HMI with touchscreen, ProNest LT Essentials, Table prepared for filter system (mechanical closure), Automatic torch height control with THC sensor, Cutting torch with magnetic coupling and crash sensor, Panasonic Servomotors qand drivers, Laser pointer, Operator instructions

Certifications to address the lack of skilled workers

TDE Personal Service in Espenhain trains on KNUTH machines and uses the Milling Machine Operator/Grinding System test as its first training operation.

What convinced them to turn to KNUTH?

- Reliability: Machines with excellent price-performance ratio
- Wide selection: diverse machines with the best prerequisites for training
- Expertise and service: flexible, knowledgeable support for setting up the Milling Machine Operator/Grinding System test line

A successful region and the companies in it need well-trained skilled workers. The TDE training company in Espenhain, Leipzig is looking ahead and addressing this goal.

Training and continuing education in technical fields

TDE offers basic and advanced courses, refresher courses, and training in a variety of technical fields. There are currently 200 trainees here in 20 different fields, only 17 of them in the industrial-technical area. In the Central Saxony region, the service provider is responsible for providing training to major companies in the automotive supplier industry and well-known firms like

- Schindler Aufzüge und Fahrtreppen GmbH
- KONE GmbH
- KRW - Kugel- und Rollenlager Werk Leipzig GmbH
  (die Azubis auf den Fotos arbeiten fast alle bei der Firma)
- thyssenkrupp Automotive Systems GmbH

New specialization in grinding machine systems

“The need for well-trained skilled workers is increasing. At the same time, industry requirements have changed and existing job descriptions need to be updated to reflect modern production processes,” explains Daniel Müller, Metal Technology trainer at TDE. For the first operation in Germany, TDE is offering training for milling machine operators with the new specialization in grinding machine systems. “This specialization is highly sought-after, especially in the automotive supplier industry,” says Müller.

KNUTH for the new testing line

Good certification needs good training machines. That’s why TDE relies on the quality of KNUTH machine tools and has invested in two new grinding machines, in addition to the lathes, saws, and milling machines that have already been delivered in order to assemble the new testing line for grinders.

Altogether there are now eight conventional KNUTH machines operating in the training workshop. Another KNUTH machining center is also coming at the end of 2022.

Milling machine operator / grinding machine system test lines Outside, inside, and surface grinding

Trainees learn how to produce top-quality surfaces and dimensional stability through cylindrical grinding.

Daniel Müller – Metal Technology Trainer

Perfect basis for working with CNC machines

“The KNUTH machines we selected convinced us with their excellent price-performance ratio and robust reliability. They are user-friendly, intuitive, easy to operate and equipped to meet our training needs,” explains Daniel Müller. This is an ideal combination for training machines.

“Classic conventional machines are essential in order for the training to represent the machines and materials used in milling,” explains Dirk Rometsch – KNUTH East Field Service Specialist. “Trainees experience the influences of the various milling parameters on the machining process and the applied forces directly and immediately. These experiences are an important foundation for being able to optimize the milling conditions on a CNC machine and achieve high-quality production.”

TDE Personal Service GmbH
Training and Further Education Center
An der Werkstatt, D-04571 Rötha
Tel. + 49 34206 383010

www.tde-psgmbh.de

Accessories for Lathes

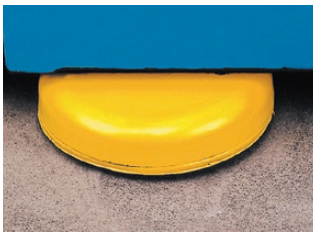
4-Jaw Lathe Chuck / cast-iron body

Lathe chucks are chucks for workpiece clamping fixtures on lathes and dividers. The machined steel body of the lathe chuck provides better high-speed performance. They are supplied either for direct mounting or must be attached to the machine or equipment using a flange. Four-jaw lathe chucks are ideal for round or regularly shaped 4-, 8-, and 12-sided workpieces. The workpiece is always held centered, because the jaws are operated by a scroll chuck. Basic lathe equipment includes hardened drill and lathe jaws.

Part No.	Article	Suitable for the following machines
116625	4-Jaw Lathe Chuck 315 mm	Sinus 330 D Series, Turnado PRO 280, Turnado 280 Series
116624	4-Jaw Lathe Chuck 250 mm	Turnado PRO, Turnado 230 Series, V-Turn PRO,
116622	4-Jaw Lathe Chuck 200 mm	Basic 180 Super, Basic 180 V
116621	4-Jaw Lathe Chuck 160 mm	Basic 170 Super PRO
116620	4-Jaw Lathe Chuck 160 mm	Basic 170 Super

Oscillating Elements

Many machine tools can be set up on a stable factory floor without anchoring and isolated against vibration. With leveling and based on the machine's weight, machines equipped with vibration elements can achieve precision comparable to that on a solid base, but with maximum flexibility.



Part No.	Article	Suitable for the following machines
103332	Oscillating Elements LK 6	Sinus 330 D Series, Turnado PRO 230, Turnado PRO 280, Turnado Series 280
103331	Oscillating Elements LK 5	Turnado Series 230
103330	Oscillating Elements LK 3	V-Turn Pro, Basic 180 V, Basic 180 Super, Basic 170 Super PRO, Basic 170 Super

Centers

Live centers are inserted in the tailstock of lathes or grinders and serve as thrust bearing and support for longer workpieces. To ensure high cutting performance, precision and surface quality, it is necessary to provide additional support by using a live center for optimum work results. KNUTH offers various center designs for different workpiece shapes.

Part No.	Article	Suitable for the following machines
106760	Live Centers MT 5	Sinus 330 D Series, Turnado 280 Serie
106755	Live Centers MT 4	Turnado PRO, Turnado 230 Series, V-Turn PRO,
106750	Live Centers MT 3	Basic 180 V, Basic 180 Super, Basic 170 Super PRO, Basic 170 Super

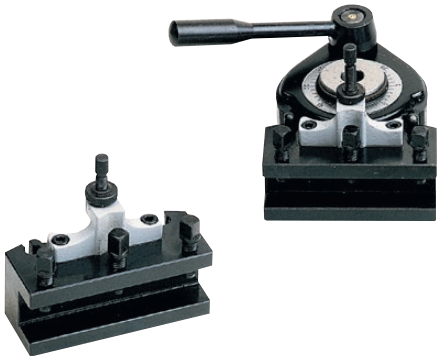
Set of Drill Chucks, Mounts, Reducing and Extension Sleeve

Accessories for mounting spiral drills are required for drilling, milling, and lathing machines. Drill chucks are used for mounting drills with cylindrical shanks, and machine drills with Morse taper require reduction or expansion sleeves to fit in the respective spindle or spindle sleeve. KNUTH Machine Tools offers a set of precision quick-grip drill chucks, as well as taper mandrels/tool holder bits, reduction/expansion sleeves, adapters, and accessories in a practical storage case.

Part No.	Article	Suitable for the following machines
104594	Accessory Set MT 4, 8-tlg.	Turnado PRO, Turnado 230 Serie, V-Turn PRO,
104593	Accessory Set MT 3, 7-tlg.	Basic 180 V, Basic 180 Super, Basic 170 Super PRO, Basic 170 Super

Lathe Tool Post

To ensure maximum performance of turning tools, they must be mounted on the machine with high precision and stability. Quick-action tool holders have a proven record in countless applications. Quick-change cartridges hold lathe tools, grooving tools and other turning tools and can be easily repositioned at a certain height or angle at the quick-action tool holder. This allows fast tool changes and a quick set up of new tools.

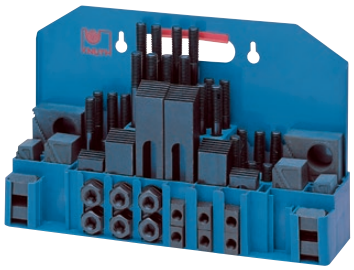


Part No.	Article	Suitable for the following machines
103301	Tool Changer WCD 32X150	Sinus 330 D Serie, Turnado PRO 230, Turnado PRO 280, Turnado Serie 280
103302	Tool Changer WCD 32X170	Sinus 330 D Serie, Turnado PRO 230, Turnado PRO 280, Turnado Serie 280
103304	Tool Changer WCD 40X170	Sinus 330 D Serie, Turnado PRO 230, Turnado PRO 280, Turnado Serie 280
103305	Tool Changer WCD 45X170	Sinus 330 D Serie, Turnado PRO 230, Turnado PRO 280, Turnado Serie 280
103307	Tool Changer WCH 50X160	Sinus 330 D Serie, Turnado PRO 230, Turnado PRO 280, Turnado Serie 280
103308	Tool Changer WCJ 40X160	Sinus 330 D Serie, Turnado PRO 230, Turnado PRO 280, Turnado Serie 280
103310	Cut-off holder WCA-A3a	Sinus 330 D Serie, Turnado PRO 230, Turnado PRO 280, Turnado Serie 280
103291	Tool Changer WBD 25X120	Turnado PRO, Turnado 230 Serie, V-Turn PRO
103292	Tool Changer WBD 25X140	Turnado PRO, Turnado 230 Serie, V-Turn PRO
103293	Tool Changer WBD 32X120	Turnado PRO, Turnado 230 Serie, V-Turn PRO
103294	Tool Changer WBD 32X140	Turnado PRO, Turnado 230 Serie, V-Turn PRO
103295	Tool Changer WBH 32X130	Turnado PRO, Turnado 230 Serie, V-Turn PRO
103297	Cut-off holder WBA-A2a	Turnado PRO, Turnado 230 Serie, V-Turn PRO
103281	Tool Changer WED 20X100	Basic 180 V, Basic 180 Super, Basic 170 Super PRO, Basic 170 Super
103282	Tool Changer WED 25X100	Basic 180 V, Basic 180 Super, Basic 170 Super PRO, Basic 170 Super
103283	Tool Changer WEH 30X100	Basic 180 V, Basic 180 Super, Basic 170 Super PRO, Basic 170 Super
103285	Tool Changer WEJ 40X100	Basic 180 V, Basic 180 Super, Basic 170 Super PRO, Basic 170 Super
103286	Cut-off holder WEA-A2a	Basic 180 V, Basic 180 Super, Basic 170 Super PRO, Basic 170 Super

Accessories for Milling Machines

Clamping Tool Set

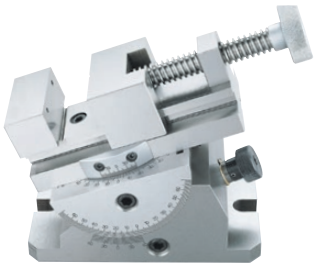
A combination of basic gripping tools, for fastening a workpiece or gripping device on a machine work table. Shorter tooling times, because all necessary clamping devices are available with one handle.



Part No.	Article	Suitable for the following machines
105295	Clamping Tool Set Deluxe	All milling machines from this brochure

Vises

Workpieces must be held firmly on the machine table. For small and medium workpieces, a vise is the optimum solution for a firm hold and precise angular and parallel clamping. The machine or milling vise must be matched to the application to provide the required high stability and clamping force to withstand the strong vibrations and lateral forces that are exerted on the workpiece during machining. KNUTH has the right vise for every application.



Part No.	Article	Suitable for the following machines
125024	Hydraulic Machine Vises HS 125	FPK-Serie, UWF 3.2,VHF 3.2
140918	Machine Vises with Pull-Down System NZM 125	VHF 1.1, VHF 2.2
104955	Machine Vises MS 125	Mark Super SV, Mark Super S, SBF 40

Combo Shell-End Milling Arbors

Milling arbors are included among the tool mounts for milling machines. They create an interface between the tool and the drive spindle of a machine and allow for rapid tool changing and precise processing of a workpiece. Combination shell end milling arbors are used to hold plain milling cutters, shell end mills, or measurement heads with lengthwise or crosswise slots.

Part No.	Article	Suitable for the following machines
103895	Milling Arbors Ø16 SK 40	FPK-Serie, UWF 3.2,VHF 3.2, VHF 1.1, VHF 2.2
103900	Milling Arbors Ø22 SK 40	FPK-Serie, UWF 3.2,VHF 3.2, VHF 1.1, VHF 2.2
103910	Milling Arbors Ø32 SK 40	FPK-Serie, UWF 3.2,VHF 3.2, VHF 1.1, VHF 2.2
103915	Milling Arbors Ø40 SK 40	FPK-Serie, UWF 3.2,VHF 3.2, VHF 1.1, VHF 2.2
103860	Milling Arbors Ø16 MT 4	Mark Super SV, Mark Super S, SBF 40
103861	Milling Arbors Ø22 MT 4	Mark Super SV, Mark Super S, SBF 40

ER Collet Chucks

ER Collet Chucks are well suited for gripping tools with cylindrical shafts in this special type of collet. The tool is secured in the collet quickly, tightly, and with high accuracy. The adjustment nut comes included.

Part No.	Article	Suitable for the following machines
106062	ER 40 Collet Chucks / Shank ISO 40	FPK-Serie, UWF 3.2, VHF 3.2, VHF 1.1, VHF 2.2
106064	ER 40 Collet Chucks / Shank MK 4	Mark Super SV, Mark Super S, SBF 40
106075	ER40 Collet Set 15-tlg.	All milling machines from this brochure

Set of Drill Chucks, Mounts, Reducing and Extension Sleeve

Accessories for mounting spiral drills are required for drilling, milling, and lathing machines. Drill chucks are used for mounting drills with cylindrical shanks, and machine drills with Morse taper require reduction or expansion sleeves to fit in the respective spindle or spindle sleeve. KNUTH Machine Tools offers a set of precision quick-grip drill chucks, as well as taper mandrels / tool holder bits, reduction / expansion sleeves, adapters, and accessories in a practical storage case.

Part No.	Article	Suitable for the following machines
104596	Accessory Set ISO 40, 5tlg.	FPK-Serie, UWF 3.2, VHF 3.2, VHF 1.1, VHF 2.2
104594	Accessory Set MT 4, 8-tlg.	Mark Super SV, Mark Super S, SBF 40

Oscillating Elements

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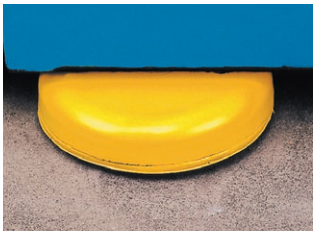

Part No.	Article	Suitable for the following machines
103331	Oscillating Elements LK 5	FPK-Serie, UWF 3.2, VHF 3.2, VHF 1.1, VHF 2.2
103330	Oscillating Elements LK 3	Mark Super SV, Mark Super S, SBF 40

The new KNUTH Accessory Shop is now live!

Discover our products in the category Accessories:

- Machine Accessories
- Measuring Technology
- Tool Holders
- Machining Tools
- Workpiece Holding
- Abrasives
- Saw Blades
- Consumables (EDM and cutting machines)
- Operating and Workshop Equipment

Visit KNUTH Machine Tools!

At our company headquarters, we present you on 16.000 m² of exhibition space machines and technologies from the entire spectrum of metalworking.

Book your machine demonstration!

We have over 1000 machines in stock - many of them ready for demonstration.

We present the whole world of metalworking - from machining and forming to cutting.

Conventional

Universal workshop machines for turning, milling, drilling, sawing and grinding. For repair, training, one-off production and industry.

CNC Machining

Vertical CNC machining centers, horizontal CNC lathes for individual and small series production.

Cutting Systems

We present the latest cutting technologies technologies under one roof: plasma and laser cutting.

Sheet Metal Working Machines

Machines for flexible sheet metal and tube processing. In addition to press brakes and guillotine shears, we will be exhibiting folding and round bending machines as well as hydraulic presses.

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KNUTH Werkzeugmaschinen GmbH • Schmalenbrook 14 • D-24647 Wasbek • Tel. +49 4321 - 609-0 • info@knuth.com

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