



CNC MACHINING



Turning & Milling

CNC solutions to meet any challenge, high precision in production

Sawing

Fully automatic production saws

Service

Install, train, maintain - worldwide!

Services

Our qualified service team will gladly assist you with an installation and training for your new machine!
We put your machine into operation and instruct your employees - worldwide!

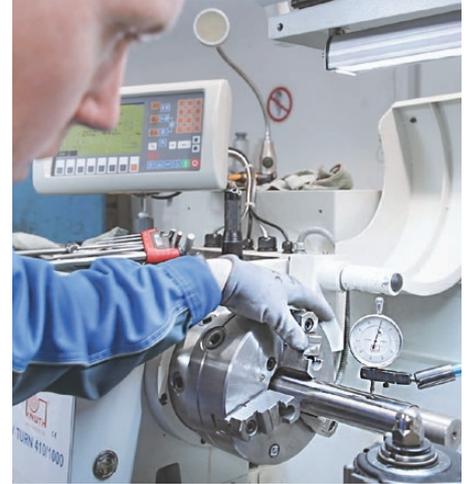
Assembly and Start-up Services

Start-up Package

- ✓ **Initial Setup**
Removing transportation locks, assembly of machine components, levelling of the machine tool
- ✓ **Machine Tool Commissioning**
Filling up operating fluids, conducting machine test run
- ✓ **Operator Training**
Training on all machine functions and maintenance

Add-ons

- ✓ **CNC Operator Training**
- ✓ **KNUTH-Protect - Machine Insurance**
- ✓ **First maintenance service**



Maintenance Services

With our preventive maintenance packages, we make sure your machine remains a reliable cornerstone of your production. In addition to the necessary service jobs according to the KNUTH maintenance schedule for the specific machine, our service technician will also provide you with a detailed service protocol containing a condition rating of your machine tool, results of the accuracy tests, and a proposal for further maintenance and repair jobs.

Conventional Machines

- ✓ **Testing of machine function**
- ✓ **Testing of safety features**
- ✓ **Geometric accuracy testing**
- ✓ **Checking all maintenance and wear points**
- ✓ **Service protocol**

CNC Machines

- ✓ **Testing of machine function**
- ✓ **Testing of safety features**
- ✓ **Geometric accuracy testing**
- ✓ **Checking all maintenance and wear points**
- ✓ **Control and software check-up**
- ✓ **Service protocol**

Cutting Machines

- ✓ **Testing of machine function**
- ✓ **Testing of safety features**
- ✓ **Geometric accuracy testing**
- ✓ **Checking all maintenance and wear points**
- ✓ **Control and software check-up**
- ✓ **Pump / laser source / plasma source check-up**
- ✓ **Service protocol**

Spare Parts

In case of unforeseen emergency situations, you will always have a KNUTH Machine Service available. Our Spare Parts Department at our headquarters in Wasbek keeps more than 10.000 parts in stock at all times.

The KNUTH Service Help Desk is at your side with advice and solutions. They offer technical support by phone or upon agreement in person at your site. Just give us a call or send us an e-mail.

KNUTH Technical Service Help Desk

Tel. +49 4321 609-263 / -273
E-Mail service@knuth.de

KNUTH Spare Parts Service

Tel. +49 4321 609-258 / -265
E-Mail ersatzteile@knuth.de



CNC Machining

CNC Lathes

Roturn C Series 2 / 3

Roturn M Series 4 / 5

Forceturn Series 6 / 7

Controls

Siemens 808D • 828D 24 / 25

Shopmill • Shopturn 24 / 25

CNC Milling Machines

VECTOR 1400 M SI 8 / 9

VECTOR 1200 M SI 10 / 11

VECTOR M Series 12 / 13

X.mill T Serie 14 / 15

X.mill 450 16 / 17

Saws

ABS S NC Series 26 / 27

ABS L Series 28 / 29

ABS 350 C 30 / 31

ABS 320 PLC 32 / 33

CNC Training Machines

LabCenter 260 CNC ab 18

LabTurn 2028 CNC ab 18

EDM Machines

Neospark T 500 34 / 35

ZNC-EDM Series 36 / 37

CNC Slant Bed Lathes

Roturn C Series



Siemens Sinumerik 828 D Basic for turning applications - a compact and user-friendly solution for lathes

Compact CNC lathe for series production with Siemens CNC control and tailstock

- Powerful main spindle motor
- 8 station tool turret
- Includes chip conveyor
- Siemens 828 control
- Chuck with through-hole

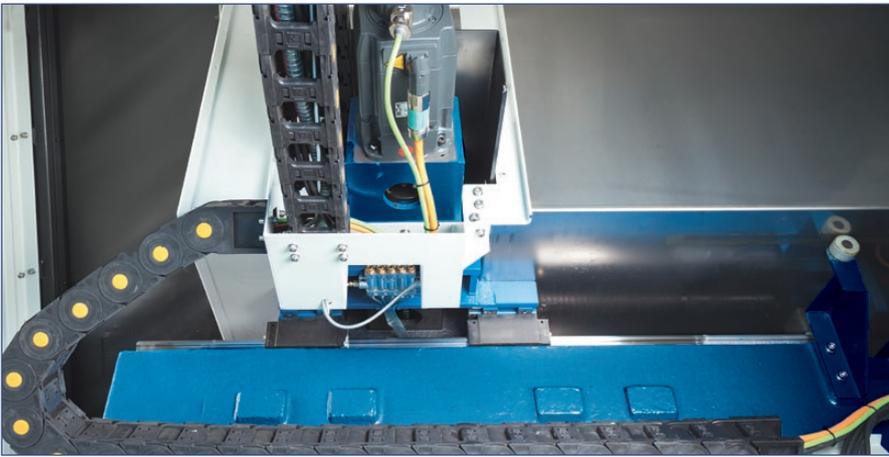
STANDARD EQUIPMENT

- ✓ Siemens 828 D control
- ✓ Hydr. 250 mm 3-jaw lathe chuck with through-hole
- ✓ 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

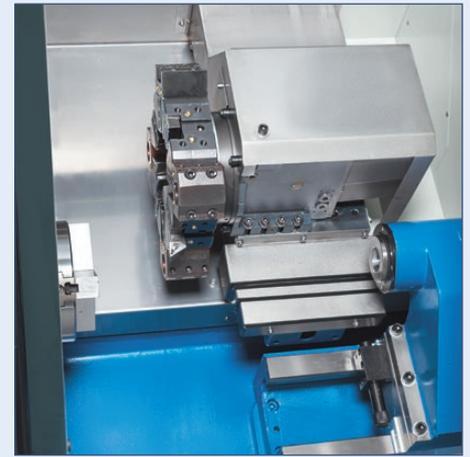
OPTIONAL EQUIPMENT

- Renishaw HPMA probe arm 450760
- Renishaw HPRA probe arm, removable 450747
- Upgrades for your KNUTH machine tool - CNC 270061
- E.T. Box LAN 270307
- E.T. Box WIFI 270308
- E.T. Box W4G 270309
- Preparation Barfeeder Interface 270250

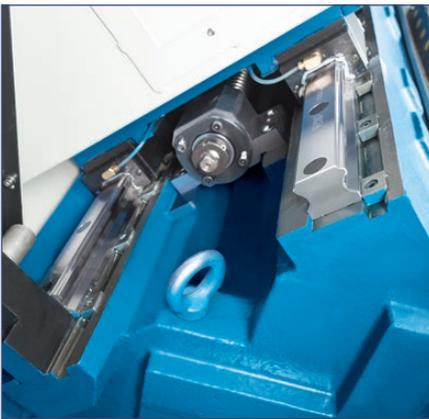




Siemens drive (X-axis)



8-station tool turret reduces downtime



45° inclined bed with linear guides



Rigid tailstock for exact workpiece alignment and support



Chip conveyor and chip cart are included

SPECIFICATIONS

| Machine model numbers | | Roturn 400 C | Roturn 402 C |
|--|-----------|---------------|---------------|
| Working area | | | |
| Workpiece length (max.) | mm | 430 | 420 |
| Center height | mm | 200 | 200 |
| Turning diameter over bed | mm | 400 | 400 |
| Turning diameter over support | mm | 250 | 250 |
| Travels | | | |
| Travel X-axis | mm | 200 | 200 |
| Travel Z-axis | mm | 450 | 425 |
| Headstock | | | |
| Lathe chuck diameter | mm | 200 | 250 |
| Speed range | 1/min | 50 - 3.000 | 50 - 2.000 |
| Spindle bore with draw tube | mm | 46 | 74 |
| Rapid feed | | | |
| Rapid feed X-axis | mm/min | 16.000 | 20.000 |
| Rapid feed Z-axis | mm/min | 20.000 | 25.000 |
| Tooling | | | |
| Number of tool stations | positions | 8 | 8 |
| Tailstock | | | |
| Tailstock taper | MT | 5 | 5 |
| Drive capacity | | | |
| Main motor rating | kW | 15 / 11 | 15 / 11 |
| Measures and weights | | | |
| Overall dimensions (length x width x height) | m | 3,8x1,87x1,91 | 3,8x1,87x1,91 |
| Weight | kg | 3.340 | 3.400 |
| Part No. | | 180633 | 180628 |

CNC Slant Bed Lathes

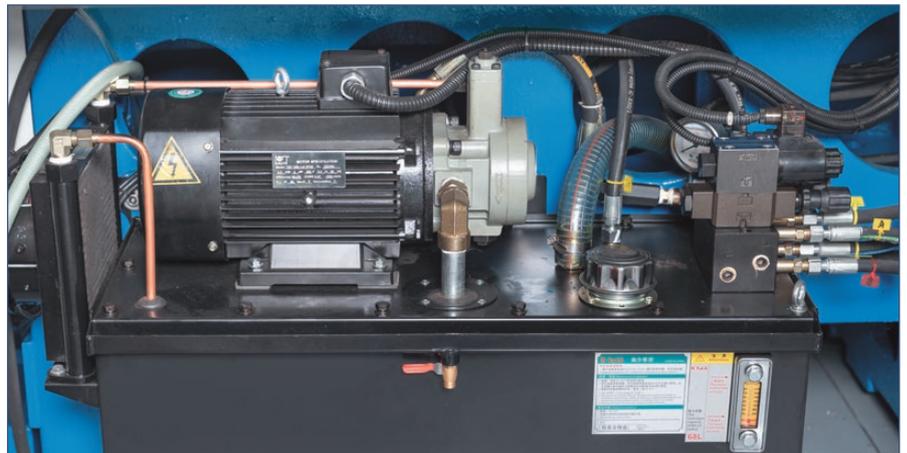
Roturn M Series



The Siemens 828 D Basic control meets all the requirements of modern control technology

Compact CNC lathe with driven tools and tailstock

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



Compact hydraulic unit with oil cooler ensures consistent performance under production conditions

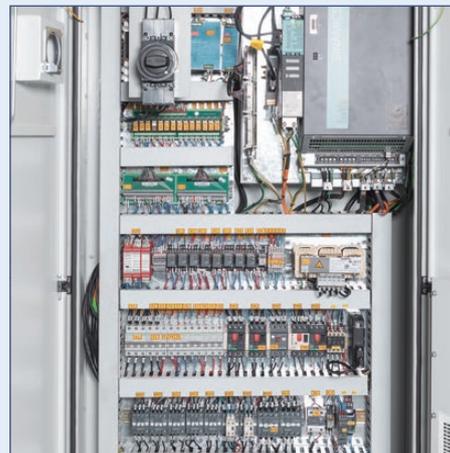


STANDARD EQUIPMENT

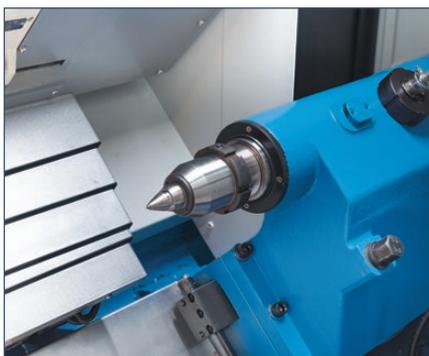
- ✓ Siemens 828 D control
- ✓ Hydr. 3-jaw- lathe chuck 200 mm with borehole
- ✓ Hydr. tailstock
- ✓ 12-station tool changer
- ✓ 1 piece driven tool holder radial
- ✓ 1 piece driven tool holder axial
- ✓ Bar feeder interface
- ✓ Measuring cycles (6FC5800-0AP28-0YB0)
- ✓ Automatic central lubrication
- ✓ 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

OPTIONAL EQUIPMENT

- Preparation Barfeeder Interface 270250
- E.T. Box LAN 270307
- E.T. Box WIFI 270308
- E.T. Box W4G 270309
- Renishaw HPRa measuring system 254042
- Renishaw HPMA measuring system 254043



Control cabinet with heat exchanger



A rigid tailstock guarantees high precision, flexibility, and safety



Spindle bore with up to 75 mm draw tube (Roturn 402M)

SPECIFICATIONS

| Machine model numbers | | Roturn 400 M | Roturn 402 M |
|--|-----------|---------------|---------------|
| Working area | | | |
| Workpiece length (max.) | mm | 340 | 340 |
| Center height | mm | 200 | 200 |
| Turning diameter over bed | mm | 400 | 400 |
| Turning diameter over support | mm | 250 | 250 |
| Machining length (max.) | mm | 330 | 330 |
| Travels | | | |
| Travel X-axis | mm | 150 | 150 |
| Travel Z-axis | mm | 350 | 380 |
| Headstock | | | |
| Lathe chuck diameter | mm | 200 | 250 |
| Speed range | 1/min | 50 - 3.000 | 50 - 2.000 |
| Rapid feed | | | |
| Rapid feed X-axis | mm/min | 20.000 | 20.000 |
| Rapid feed Z-axis | mm/min | 25.000 | 25.000 |
| Tooling | | | |
| Number of tool stations | positions | 12 | 12 |
| Speed, driven tools | 1/min | 3.000 | 3.000 |
| Tailstock | | | |
| Tailstock taper | MT | 5 | 5 |
| Drive capacity | | | |
| Main motor rating | kW | 15 / 11 | 15 / 11 |
| Motor rating, driven tools | kW | 2,3 | 2,3 |
| Measures and weights | | | |
| 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 |

CNC Flat Bed Lathes Forceturn Series



Fig. Forceturn 800.30

Precision flatbed lathe with Fagor control, 4-fold tool changer and electronic handwheels for manual operation

- Powerful main drive for heavy machining
- Servo-driven 4-station tool changer
- 2 electronic hand-wheels for manual operation
- Cycle programming for series production

OPTIONAL EQUIPMENT

| | |
|---|--------|
| • Chain Type conveyor for Forceturn 800.50 | 254040 |
| • Chain Type conveyor for Forceturn 800.30 | 254039 |
| • Chain Type conveyor for Forceturn 800.15 | 254038 |
| • Chain Type conveyor Forceturn 630.50 | 254037 |
| • Chain type chip conveyor Forceturn 630.30 | 251188 |
| • Chain-type chip conveyor Forceturn 630.15 | 253047 |
| • Sauter 8-pos. VDI 40 hydraulic servo turret Forceturn 800 | 254036 |
| • Sauter 8-pos. VDI 40 hydraulic servo turret Forceturn 630 | 254035 |
| • Live rest (50- 250mm) Forceturn 800 | 250942 |
| • Follow Rest (50 - 250mm) Forceturn 630.30 | 251189 |
| • Steady rest (280 - 400mm) Forceturn 800 | 250941 |
| • Steady rest (130 - 370mm) Forceturn 800 | 250939 |
| • Steady rest (50 - 300mm) Forceturn 800 | 250940 |
| • Steady rest (280-400mm) Forceturn 630 | 250937 |
| • Steady rest (50-300mm) Forceturn 630 | 250936 |
| • Steady rest (130-370mm) Forceturn 630 | 250935 |



Example for cycle mask insertion

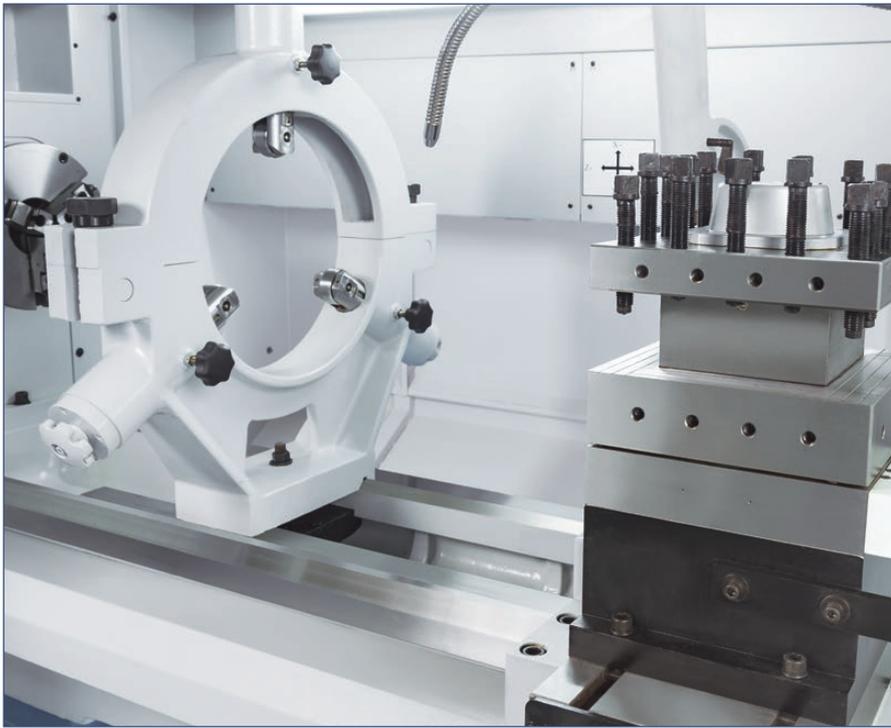


USB interface

STANDARD EQUIPMENT

- ✓ Fagor 8058 Elite control
- ✓ 2 electronic hand-wheels
- ✓ 3-jaw chuck Ø 300 mm
- ✓ Automatic 3-step gears
- ✓ 4-station servo tool holder
- ✓ Coolant system
- ✓ Central lubrication
- ✓ Tailstock
- ✓ Work lamp
- ✓ Operating tools
- ✓ Operating manual and programming instructions





Heavy, automatic 4-station servo-driven tool changer for programmed tool changes



Easy handling: for positioning, the tailstock can be coupled to the support



Option: steady rests up to 400 mm diameter

SPECIFICATIONS

| Machine model numbers | | 630.15 | 630.30 | 630.50 | 800.15 | 800.30 | 800.50 |
|--|-----------|-------------|---------------|---------------|-------------|---------------|---------------|
| Working area | | | | | | | |
| Turning diameter over bed | mm | 670 | 670 | 670 | 818 | 818 | 818 |
| Bed width | mm | 450 | 450 | 450 | 450 | 450 | 450 |
| Center height | mm | 335 | 335 | 335 | 420 | 420 | 420 |
| Turning- \varnothing over support | mm | 400 | 400 | 400 | 570 | 570 | 570 |
| Workpiece length (max.) | mm | 1.600 | 3.100 | 5.100 | 1.600 | 3.100 | 5.100 |
| Travels | | | | | | | |
| Travel X-axis | mm | 450 | 450 | 450 | 450 | 450 | 450 |
| Travel Z-axis | mm | 1.500 | 3.000 | 5.000 | 1.500 | 3.000 | 5.000 |
| Headstock | | | | | | | |
| Speed range | 1/min | 27 - 2.250 | 27 - 2.250 | 27 - 2.250 | 20 - 1.500 | 20 - 1.500 | 20 - 1.500 |
| Rapid feed | | | | | | | |
| Rapid feed X-axis | mm/min | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Rapid feed Z-axis | mm/min | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 | 5.000 |
| Tooling | | | | | | | |
| Number of tool stations | positions | 4 | 4 | 4 | 4 | 4 | 4 |
| Accuracies | | | | | | | |
| Positioning accuracy X-axis | mm | 0,015 | 0,015 | 0,015 | 0,015 | 0,015 | 0,015 |
| Positioning accuracy Z-axis | mm | 0,015 | 0,02 | 0,03 | 0,015 | 0,02 | 0,03 |
| Repeatability X-axis | mm | 0,007 | 0,007 | 0,007 | 0,007 | 0,007 | 0,007 |
| Repeatability Z-axis | mm | 0,007 | 0,01 | 0,015 | 0,007 | 0,01 | 0,015 |
| Tailstock | | | | | | | |
| Tailstock taper | MT | 5 | 5 | 5 | 5 | 5 | 5 |
| Drive capacity | | | | | | | |
| Motor rating main drive | kW | 22 | 22 | 22 | 22 | 22 | 22 |
| Main drive, continuous load | kW | 15 | 15 | 15 | 15 | 15 | 15 |
| Motor rating X-axis | kW | 2 | 2 | 2 | 2 | 2 | 2 |
| Motor rating Z-axis | kW | 3,6 | 3,6 | 3,6 | 3,6 | 3,6 | 3,6 |
| Total power consumption | kVA | 40 | 40 | 40 | 40 | 40 | 40 |
| Measures and weights | | | | | | | |
| Overall dimensions (length x width x height) | m | 4x2,25x2,25 | 5,5x2,25x2,25 | 7,5x2,25x2,45 | 4x2,25x2,25 | 5,5x2,25x2,25 | 7,5x2,25x2,45 |
| Weight | kg | 4.100 | 5.600 | 7.600 | 4.500 | 6.000 | 8.000 |
| Part No. | | 100356 | 100357 | 100358 | 100363 | 100364 | 100365 |

Vertical Machining Centers **VECTOR 1400 M SI**



Premium milling solution for machining large workpieces in multi-shift operation, with extensive customisation and automation options

- Spindle on multiple bearings ensures minimal vibrations
- 30-bar CTS to ensure optimum machining quality
- Designed for multi-shift operation
- Many customization and automation possibilities
- 2-year standard warranty



Siemens Sinumerik 828D with ShopMill



The totally enclosed work space features a large door and side doors for easy access, safety and cleaning



STANDARD EQUIPMENT

- ✓ Siemens 828D control with Shopmill
- ✓ Coolant through spindle 30 bar with double filter
- ✓ 24-station tool changer with dual-arm
- ✓ ST 40 mount
- ✓ Spindle oil cooler
- ✓ Chain-type conveyor with chip container
- ✓ Electronic hand-wheel
- ✓ Oil skimmer
- ✓ Automatic central lubrication
- ✓ Coolant system flush gun
- ✓ Chip wash system
- ✓ Heat Exchanger for electric control cabinet
- ✓ Telescoping axis cover
- ✓ Preparation for Renishaw TS 27 R
- ✓ USB port
- ✓ CF card reader
- ✓ Totally enclosed work space
- ✓ Work lamp
- ✓ 3-color signal lamp
- ✓ Coolant system
- ✓ Adjustable machine feet
- ✓ Operating tools
- ✓ Operator instructions

OPTIONAL EQUIPMENT

- Ø 210mm 4th axis (4th axis, servo motor, driver, air brakes)(Si) 253606
- Ø 250mm 4th axis (4th axis, servo motor, driver, air brakes)(Si) 253607
- Ø320 mm, 4th axis (4th axis, servo motor, driver, hydr. brakes) 254179
- 200mm diam. 4th & 5th axis for Vector 650/850/1000 (Si) 253682
- Spindle speed upgrade to 12000 rpm, belt-type 253781
- Upgrade from 828D PPU260 to 840DSL IPC447E 10.4" Vector 253835
- Upgrade for ATC from 24 to 30 tools (BT40) 253843
- Upgrade Spindle Taper from SK40 to BBT 40 253950
- Upgrade Spindle Taper from SK40 to HSK63 253952
- 12,000 rpm, direct drive CT 253955
- E.T. Box LAN 270307
- E.T. Box WIFI 270308
- E.T. Box W4G 270309
- SinuTrain for SINUMERIK Operate Version 4.8 423314
- Renishaw OMP40-2T Workpiece Scanning Probe 253288
- Renishaw SET OMP40-2T Scanning Probe+OTS Toolsetter 254026
- Renishaw OTS Toolsetter 254285
- SinuTrain for SINUMERIK Operate Version 4.8 423314



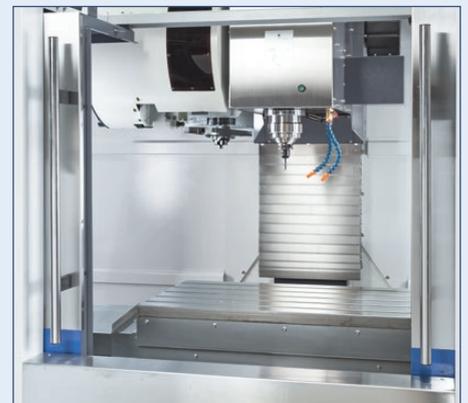
Tool changer with double-arm and spindle



Components with many slots, pockets and cavities can be produced with max. efficiency

SPECIFICATIONS

| Machine model numbers | | VECTOR 1400 M Si |
|--|-----------|------------------------------|
| Working area | | |
| Table dimensions | mm | 1.500x700 |
| Table load capacity | kg | 1.500 |
| Spindle nose-to-table surface distance | mm | 150 - 850 |
| Travels | | |
| Travel X-axis | mm | 1.400 |
| Travel Y-axis | mm | 720 |
| Travel Z-axis | mm | 700 |
| Headstock | | |
| Spindle speed | 1/min | 10.000 |
| Spindle mount | | SK 40 ISO 7388-1 (DIN 69871) |
| Rapid feed | | |
| Rapid feed | m/min | 24 |
| Feed | | |
| Work feed | mm/min | 0,1 - 10 |
| Tooling | | |
| Number of tool stations | positions | 24 |
| Tool-change time tool/tool | sec | 1,8 |
| Drive capacity | | |
| Main drive, continuous load | kW | 17 |
| Measures and weights | | |
| Weight | kg | 9.500 |
| Overall dimensions (L x w x h) | m | 3,8x2,6x3,3 |
| Part No. | | 181427 |



Wide opening front doors



Additional guides for even more load capacity and increased stability

Vertical Machining Centers **VECTOR 1200 M SI**



Premium milling solution for mould making and production with extensive customisation and automation options

- Spindle on multiple bearings ensures minimal vibrations
- 30-bar CTS to ensure optimum machining quality
- Designed for multi-shift operation
- Many customization and automation possibilities
- 2-year standard warranty



Siemens Sinumerik 828D with ShopMill



Wide opening front doors



Cost-effective solution for heavy machining and delicate contours

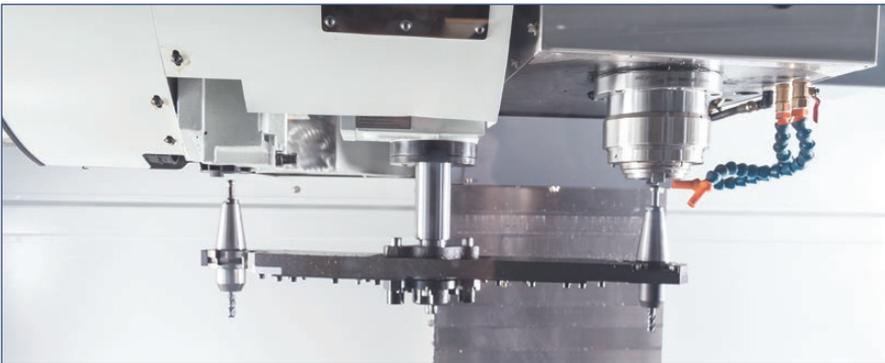


STANDARD EQUIPMENT

- ✓ Siemens 828D control with Shopmill
- ✓ Coolant through spindle 30 bar with double filter
- ✓ 24-station tool changer with dual-arm
- ✓ ST 40 mount
- ✓ Spindle oil cooler
- ✓ Chain-type conveyor with chip container
- ✓ Electronic hand-wheel
- ✓ Oil skimmer
- ✓ Automatic central lubrication
- ✓ Coolant system flush gun
- ✓ Chip wash system
- ✓ Heat Exchanger for electric control cabinet
- ✓ Telescoping axis cover
- ✓ USB port
- ✓ Work lamp
- ✓ 3-color signal lamp
- ✓ CF card reader
- ✓ Totally enclosed work space
- ✓ Coolant system
- ✓ Adjustable machine feet
- ✓ Operating tools
- ✓ Operator instructions
- ✓ Preparation for Renishaw TS 27 R

OPTIONAL EQUIPMENT

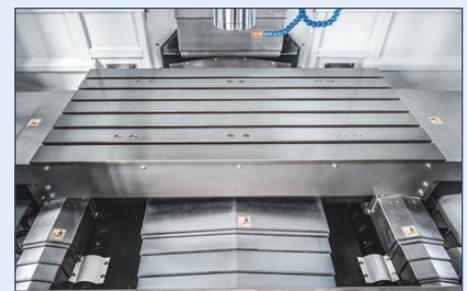
- Arm Type BT40 upg. from 24 to 30 tools 252967
- Ø 170mm 4th axis (4th axis, servo motor, driver, air brakes)(Si) 253605
- Ø 210mm 4th axis (4th axis, servo motor, driver, air brakes)(Si) 253606
- Ø 250mm 4th axis (4th axis, servo motor, driver, air brakes)(Si) 253607
- Z axis travel upgrade from 550 to 800mm 253625
- 200mm diam. 4th & 5th axis 253682
- Spindle speed upgrade to 12000 rpm, belt-type 253781
- Upgrade from 828D PPU260 to 840DSL IPC447E 10.4" 253835
- Upgrade Spindle Taper from SK40 to HSK63 253949
- Upgrade Spindle Taper from SK40 to BBT 40 253950
- 12,000 rpm, direct drive CTS 253956
- E.T. Box LAN 270307
- E.T. Box WIFI 270308
- E.T. Box W4G 270309
- SinuTrain for SINUMERIK Operate Version 4.8 423314
- Upgrade to 18 kW with 15,000 rpm direct drive + CTS 450352
- Renishaw OMP40-2T Workpiece Scanning Probe 253288
- Renishaw SET OMP40-2T Scanning Probe+OTS Toolsetter 254026
- Renishaw OTS Toolsetter 254285



Tool changer with dual-arm gripper and 24 tool stations

SPECIFICATIONS

| Machine model numbers | | VECTOR 1200 M Si |
|--|-----------|------------------------------|
| Working area | | |
| Table dimensions | mm | 1.300x600 |
| Table load capacity | kg | 1.200 |
| Spindle nose-to-table surface distance | mm | 150 - 750 |
| Spindle center - column | mm | 670 |
| Travels | | |
| Travel X-axis | mm | 1.220 |
| Travel Y-axis | mm | 600 |
| Travel Z-axis | mm | 600 |
| Headstock | | |
| Spindle speed | 1/min | 10.000 |
| Spindle mount | | SK 40 ISO 7388-1 (DIN 69871) |
| Rapid feed | | |
| Rapid feed | m/min | 36 |
| Feed | | |
| Work feed | mm/min | 0,1 - 10 |
| Tooling | | |
| Number of tool stations | positions | 24 |
| Tool-change time tool/tool | sec | 1,8 |
| Drive capacity | | |
| Main drive, continuous load | kW | 12 |
| Total power consumption | kVA | 20 |
| Measures and weights | | |
| Overall dimensions (L x w x h) | m | 3x2,4x2,93 |
| Weight | kg | 6.500 |
| Part No. | | 181423 |



Additional guides for even more load capacity and increased stability

Vertical Machining Centers

VECTOR M Series



Siemens Sinumerik 828D with ShopMill

Premium milling solution for production and one-off manufacturing with extensive customisation and automation options

- Extra-wide Y-shaped Meehanite column for maximum stability
- 30-bar CTS to ensure optimum machining quality
- Designed for multi-shift operation
- Many customization and automation possibilities

STANDARD EQUIPMENT

- ✓ Siemens 828D control with Shopmill
- ✓ Coolant through spindle 30 bar with double filter
- ✓ 24-station tool changer with dual-arm
- ✓ Main spindle motor 9 kW
- ✓ ST 40 mount
- ✓ Spindle oil cooler
- ✓ Chain-type conveyor with chip container
- ✓ Electronic hand-wheel
- ✓ Oil skimmer
- ✓ Automatic central lubrication
- ✓ Coolant system flush gun
- ✓ Chip wash system
- ✓ Heat Exchanger for electric control cabinet
- ✓ Preparation for Renishaw TS 27 R
- ✓ USB port
- ✓ Ethernet port (LAN)
- ✓ CF card reader,
- ✓ Work lamp
- ✓ 3-color signal lamp
- ✓ Coolant system
- ✓ Adjustable machine feet
- ✓ Operating tools
- ✓ Operator instructions



OPTIONAL EQUIPMENT

| | | | |
|---|--------|--|--------|
| • Top cover for X.Mill/ Vector 650-1000 | 252819 | • 12,000 rpm, direct drive CTS for Vector 650-1200(Si) | 253956 |
| • Ø 170mm 4th axis (4th axis, servo motor, driver, air brakes)(Si) | 253605 | • E.T. Box LAN | 270307 |
| • Ø 210mm 4th axis (4th axis, servo motor, driver, air brakes)(Si) | 253606 | • E.T. Box WIFI | 270308 |
| • Ø 250mm 4th axis (4th axis, servo motor, driver, air brakes) (Si) | 253607 | • E.T. Box W4G | 270309 |
| • Z axis travel upgrade from 550 to 800mm | 253625 | • Renishaw OMP40-2T Workpiece Scanning Probe | 253288 |
| • 200mm diam. 4th & 5th axis for Vector 650/850/1000 (Si) | 253682 | • Renishaw SET OMP40-2T Scanning Probe+OTS Toolsetter | 254026 |
| • Spindle speed upgrade to 12000 rpm, belt-type | 253781 | • Renishaw OTS Toolsetter | 254285 |
| • Upgrade Spindle Taper from SK40 to BBT 40 | 253951 | • SinuTrain for SINUMERIK Operate Version 4.8 | 423314 |
| • Upgrade Spindle Taper from SK40 to HSK63 | 253953 | • SinuTrain for SINUMERIK Operate Version 4.8 | 423314 |



Tool changer with dual-arm gripper and 24 tool stations allows quick tool changes

SPECIFICATIONS

| Machine model numbers | | 650 M Si | 850 M Si | 1000 M Si |
|--|-----------|------------------------------|------------------------------|------------------------------|
| Working area | | | | |
| Table dimensions | mm | 800x550 | 1.000x550 | 1.100x550 |
| Table load capacity | kg | 600 | 800 | 800 |
| Spindle nose-to-table surface distance | mm | 150 - 700 | 150 - 700 | 150 - 700 |
| Spindle center - column | mm | 619 | 619 | 619 |
| Travels | | | | |
| Travel X-axis | mm | 650 | 850 | 1.000 |
| Travel Y-axis | mm | 550 | 550 | 550 |
| Travel Z-axis | mm | 550 | 550 | 550 |
| Guideway | | Roller | Roller | Roller |
| Headstock | | | | |
| Spindle speed | 1/min | 10.000 | 10.000 | 10.000 |
| Spindle mount | | SK 40 ISO 7388-1 (DIN 69871) | SK 40 ISO 7388-1 (DIN 69871) | SK 40 ISO 7388-1 (DIN 69871) |
| Torque, constant | Nm | 57 | 57 | 57 |
| Spindle bearing | | 7012 x 4 | 7012 x 4 | 7012 x 4 |
| Rapid feed | | | | |
| Rapid feed X-/ Y-axis | mm/min | 36.000 | 36.000 | 36.000 |
| Rapid feed Z-axis | mm/min | 15.000 | 15.000 | 15.000 |
| Feed | | | | |
| Work feed | mm/min | 10.000 | 10.000 | 10.000 |
| Tooling | | | | |
| Tool changer type | | Dual-arm | Dual-arm | Dual-arm |
| Number of tool stations | positions | 24 | 24 | 24 |
| Tool selection | | Memory random | Memory random | Memory random |
| Tool weight max. | kg | 7 | 7 | 7 |
| Tool-change time tool/tool | sec | 1,8 | 1,8 | 1,8 |
| Drive capacity | | | | |
| Main drive, continuous load | kW | 9 | 9 | 9 |
| Measures and weights | | | | |
| Overall dimensions (L x w x h) | m | 2,42x2,2x2,7 | 2,42x2,2x2,7 | 2,62x2,2x2,7 |
| Weight | kg | 4.000 | 4.300 | 4.600 |
| Part No. | | 181430 | 181432 | 181421 |

Vertical Machining Centers

X.mill T Series



SINUMERIK 828 D – The powerhouse in the compact class of CNC controls



Compact all-in-one solution for complex solutions and powerful 3-axis machining

- Optimized frame design using FEM analysis
- Extra wide Y-shaped column for increased rigidity
- Ø32 mm C3 preloaded ball screws for high accuracy
- High customization and automation possibilities
- **Available with Siemens or Fanuc control**

STANDARD EQUIPMENT

- | | |
|---|---|
| ✓ Siemens 828D control | ✓ Preparation for Renishaw TS 27 R |
| ✓ Shield-type 20-station tool changer | ✓ Autom. power off |
| ✓ USB port | ✓ Electronic hand-wheel |
| ✓ Rigid Tapping | ✓ Screw-type chip conveyor with bucket |
| ✓ Heat Exchanger for electric control cabinet | ✓ Spindle air system |
| ✓ Work lamp | ✓ Fully enclosed work space (without top cover) |
| ✓ Automatic central lubrication | ✓ 3-color signal lamp |
| ✓ Coolant system | ✓ Leveling bolts and blocks |
| ✓ Manual coolant spray gun | ✓ Operating tools |

OPTIONAL EQUIPMENT

| | | | |
|--|--------|---|--------|
| • Top cover for X.Mill/Vector 650-1000 | 252819 | • Spindle speed upgrade 10.000 to 12.000 rpm (belt type) | 253609 |
| • Renishaw OMP 40 Workpiece Measuring | 252820 | • Spindle speed upgrade to 12.000 rpm direct drive no CTS | 253610 |
| • Connection for 4th axis (wiring only and axis chart) | 253019 | • Arm type ATC upgrade from 24 to 30 tools (BT40) | 253611 |
| • CTS 30 bar system with dual filter system | 253369 | • Upgrade from screw type to chain type chip conveyor | 253612 |
| • Disc Type Oil Skimmer | 253383 | • Preparation for Renishaw OMP40 | 253613 |
| • Chip Wash System | 253384 | • Renishaw OMP 60 workpiece measuring system (BT40) | 253681 |
| • Renishaw Tool Setter TS27R | 253386 | • Upgrade from 828D PPU260 to 840DSL IPC447E 10.4" for Vector | 253835 |
| • Arm Type BT-40/SK 40 24-Tool-Changer | 253436 | • Upgrade Spindle Taper from SK40 to BT40 | 253947 |
| • Spindle Oil Cooler | 253440 | • Upgrade Spindle Taper from SK40 to BBT 40 | 253951 |
| • Renishaw OTS wireless tool setter (OTS) | 253598 | • 12,000 rpm, direct drive CTS for X.mill 700-800(Si) | 253958 |
| • Ø125mm 4th axis (4th axis, servo motor, driver, air brakes)(Si) | 253604 | • Spindle upgrade from ST40 to HSK63 | 253959 |
| • Ø170mm 4th axis (4th axis, servo motor, driver, air brakes) (Si) | 253605 | • SinuTrain for SINUMERIK Operate Version 4.8 | 423314 |
| • Ø210mm 4th axis (4th axis, servo motor, driver, air brakes) (Si) | 253606 | • Air through spindle for CTS System | 252782 |
| • Ø250mm 4th axis (4th axis, servo motor, driver, air brakes) (Si) | 253607 | | |



The robust arm-less 20-station tool changer brings flexibility to everyday production operations



The guides in all axes are protected by robust stainless steel covers

SPECIFICATIONS

| Machine model numbers | | 700 SI | 800 SI | 1000 SI |
|--|-----------|------------------------------|------------------------------|------------------------------|
| Working area | | | | |
| Table dimensions | mm | 900x450 | 900x550 | 1.100x550 |
| Table load capacity | kg | 600 | 800 | 800 |
| Spindle nose-to-table surface distance | mm | 110 - 660 | 110 - 660 | 150 - 700 |
| Spindle center-to-stand distance | mm | 520 | 520 | 520 |
| Travels | | | | |
| Travel X-axis | mm | 700 | 800 | 1.000 |
| Travel Y-axis | mm | 450 | 520 | 550 |
| Travel Z-axis | mm | 550 | 550 | 550 |
| Headstock | | | | |
| Spindle speed | 1/min | 10.000 | 10.000 | 10.000 |
| Spindle mount | | SK 40 ISO 7388-1 (DIN 69871) | SK 40 ISO 7388-1 (DIN 69871) | SK 40 ISO 7388-1 (DIN 69871) |
| Torque, constant | Nm | 45 | 45 | 63,7 |
| Rapid feed | | | | |
| Rapid feed X-, Y-, Z- axis | mm/min | 36.000 | 36.000 | 36.000 |
| Feed | | | | |
| Work feed | mm/min | 10.000 | 10.000 | 10.000 |
| Tooling | | | | |
| Number of tool stations | positions | 20 | 20 | 20 |
| Tool weight max. | kg | 8 | 8 | 8 |
| Tool-change time tool/tool | sec | 10 | 10 | 10 |
| Drive capacity | | | | |
| Motor rating main drive | kW | 9 | 9 | 9 |
| Measures and weights | | | | |
| Overall dimensions (L x w x h) | m | 2,47x2,2x2,52 | 2,47x2,2x2,52 | 2,62x2,2x2,7 |
| Weight | kg | 4.200 | 4.400 | 4.600 |
| Part No. | | 181443 | 181446 | 181440 |

Vertical Machining Centers X.mill 450

NEW



The Siemens 828D control is the optimum solution for demanding milling jobs

Compact machining centre for high-performance 3-axis machining

- Compact design
- High-quality components and extensive equipment
- Siemens 828D control
- Robust 12-station tool changer

STANDARD EQUIPMENT

- ✓ Siemens 828D control
- ✓ Carousel-type 12-station tool changer
- ✓ Enclosed work area (without top cover)
- ✓ Automatic central lubrication
- ✓ Coolant System
- ✓ Manual coolant spray gun
- ✓ Air gun
- ✓ Heat exchanger for electric control cabinet
- ✓ Electronic hand-wheel
- ✓ Work lamp
- ✓ 3-color signal lamp
- ✓ Operating tools
- ✓ Operator instructions

OPTIONAL EQUIPMENT

- Ø125 mm 4th axis (complete) 254286
- Manual tailstock for 4th axis 254288
- E.T. Box WIFI 270308
- Spindle oil cooler 254265
- Chip flush-out system 254266
- Ölskimmer 254267
- Top cover 254268
- Siemens Function: Shopmill 254269
- Chain-type chip conveyor 254270
- Renishaw OMP40-2T Workpiece Scanning Probe 253288
- Renishaw SET OMP40-2T Scanning Probe+OTS Toolsetter 254026
- Renishaw OTS Toolsetter 254285



INFO



A 12-station tool changer provides for increased productivity, flexibility and safety during machining



Work space is totally enclosed and can be equipped with an exhaust system



The work area is easily accessible through wide opening doors

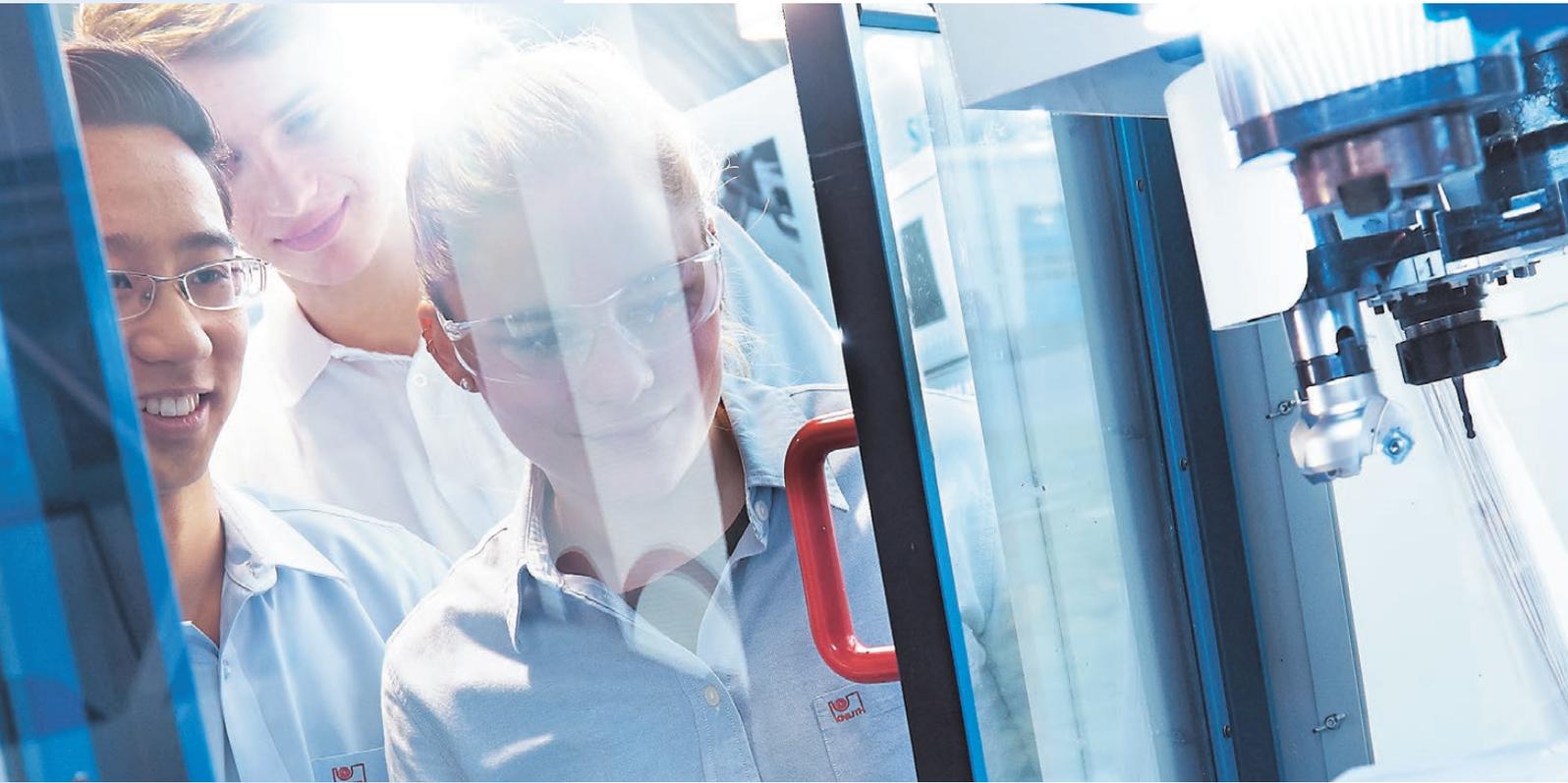


An automatic central lubrication system simplifies machine maintenance

| SPECIFICATIONS | | |
|--|-----------|------------------------------|
| Machine model numbers | | X.mill 450 |
| Working area | | |
| Table dimensions | mm | 700x260 |
| Table load capacity | kg | 200 |
| Spindle nose-to-table surface distance | mm | 80 - 500 |
| Spindle center - column | mm | 330 |
| Travels | | |
| Travel X-axis | mm | 450 |
| Travel Y-axis | mm | 260 |
| Travel Z-axis | mm | 420 |
| Headstock | | |
| Spindle speed | 1/min | 10.000 |
| Spindle mount | | SK 40 ISO 7388-1 (DIN 69871) |
| Torque, constant | Nm | 24 |
| Feed | | |
| Rapid feed | mm/min | 12.000 |
| Work feed | mm/min | 10.000 |
| Tooling | | |
| Number of tool stations | positions | 12 |
| Tool-change time tool/tool | sec | 1,8 |
| Drive capacity | | |
| Main drive, continuous load | kW | 3,7/5,5 |
| Measures and weights | | |
| Overall dimensions (L x w x h) | m | 2,11x1,78x2,25 |
| Weight | kg | 1.800 |
| Part No. | | 181366 |



A heat exchanger ensures reliable operation of control electronics under continuous operation



Information training See for yourself

Take the first step and familiarize yourself with our new training concepts. We will be happy to provide you with live information about the machines, documentation, and software.

A visit to our headquarters in Wasbek is the ideal opportunity for trainers to gain a comprehensive overview of all aspects of training with KNUTH machine tools. And while you're there, you can also visit the largest machine tool exhibition in northern Germany.

Make an appointment now with no obligation. We look forward to your visit.

Your KNUTH sales consultant

Easy learning on KNUTH machines with Siemens controls

For state and company training

Depending on requirements and training objectives, KNUTH CNC machine tools offer the proven opportunity to deepen theoretical learning content through concrete application and practical experience in dual vocational training. This principle has also proven itself in continuing vocational education and employee training.

The programming guide with simulation software for the Siemens 808 control system is ideal for CNC beginners, students, and trainees who have already completed training on conventional lathes and milling machines and have basic knowledge of CNC machining. KNUTH machine tools have proven themselves in schools and universities worldwide for decades.

KNUTH offers a comprehensive portfolio for teaching the basics of turning and milling. The Servoturn® and Servomill® servo-conventional machine tools represent the new generation of conventional machining. The SINUMERIK CNC controls from Siemens offer the right solution for every machine concept. The compact and user-friendly 808D and 828D are ideally suited for simple turning and milling applications or for standardized machine concepts with high CNC performance.

CNC Training Center

Smartlab

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

LabTurn 2028 CNC - CNC Inclined-Bed Lathe

- Turning diameter over bed 200 mm
- Z-axis travel 155 mm
- 8-station tool turret
- Machine frame features a solid cast-iron inclined-bed construction ensuring excellent rigidity and chip removal
- High-precision linear guides guarantee high rigidity and accuracy
- Central lubrication
- 8-station tool turret with 4 tools for inside and outside machining
- 3-jaw chuck (100 mm) and rigid tailstock are included

LabCenter 260 CNC - CNC Milling Machine

- Travels (X / Y / Z) 160 x 152 x 180 mm
- Max. spindle speeds up to 5000 1/min
- 4-station tool changer
- Carefully machined frame with premium cast-iron construction
- Dovetail guides and preloaded ball screws with servo drives on all axes
- Main spindle drive motor 1 kW
- Electronic hand-wheel for efficient, professional set-up operations

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

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.

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



LabTurn 2028 CNC



LabCenter 260 CNC

Vertical Machining Centers LabCenter 260 CNC



In combination with a new generation of spindle and axis drives, the SINUMERIK 808D ADVANCE with 8.4" LCD provides an innovative ready-to-use digital CNC solution for modern standard machines



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

- SIEMENS 808 Advance is the ideal introductory machine
- Preloaded ball screws on all axes
- Spindle speeds up to 5000 1/min
- 4-station tool changer
- Mobile machine base with storage space

STANDARD EQUIPMENT

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

OPTIONAL EQUIPMENT

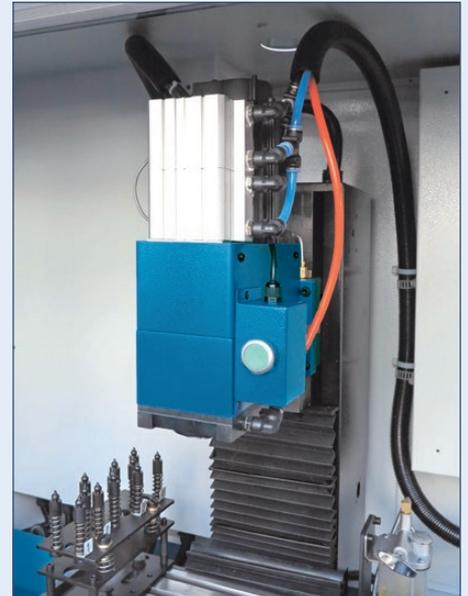
- Collet chucks ISO 20 / ER16 251480
- Collet set ER 16 with collet sizes of 3, 4, 5, 6, 7, 8, 9, and 10 mm 251481
- Engraving tool set (7 pieces) 251482



4-station tool changer



An electronic hand-wheel simplifies machine set-up



Pneumatic tool clamping



Practical drawers in base



The central lubrication system simplifies maintenance

SPECIFICATIONS

| Machine model numbers | | LabCenter 260 CNC |
|--|-----------|------------------------------|
| Working area | | |
| Table dimensions | mm | 400x145 |
| Table load capacity | kg | 20 |
| Spindle nose-to-table surface distance | mm | 60 - 240 |
| Throat | mm | 200 |
| Travels | | |
| Travel X-axis | mm | 160 |
| Travel Y-axis | mm | 152 |
| Travel Z-axis | mm | 180 |
| Headstock | | |
| Spindle speed | 1/min | 80 - 5.000 |
| Spindle mount | | SK 20 ISO 7388-1 (DIN 69871) |
| Rapid feed | | |
| Rapid feed | mm/min | 2.000 |
| Feed | | |
| Work feed | mm/min | 500 |
| Max. torque feed motor | Nm | 2,2 |
| Tooling | | |
| Number of tool stations | positions | 4 |
| Tool weight max. | kg | 0,5 |
| Tool-change time tool/tool | sec | 10 |
| Drive capacity | | |
| Motor rating main drive | kW | 1 |
| Measures and weights | | |
| Overall dimensions (L x w x h) | m | 1,4x0,9x1,8 |
| Weight | kg | 450 |
| Part No. | | 181615 |

CNC Slant Bed Lathes

LabTurn 2028 CNC



SINUMERIK 808D ADVANCED:
robust, simple – simply smart



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

- 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

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 / programming instr.

OPTIONAL EQUIPMENT

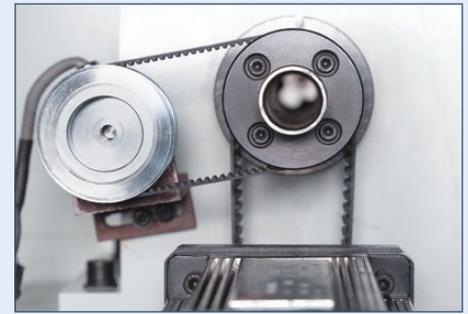
- Set of indexable inserts 251478
- Turning tool set (7 pieces) 251477
8 x 8 mm



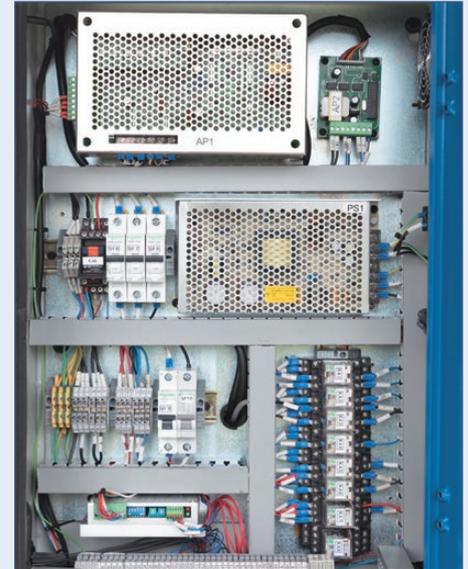
8-station tool turret with 4 tools per station for inside and outside turning



Inclined bed design optimizes work space and chip removal



Main spindle with spindle bore and lathe chuck with through-hole



Premium components for guaranteed safety and reliability

SPECIFICATIONS

| Machine model numbers | | LabTurn 2028 CNC |
|--------------------------------|-----------|------------------|
| Working area | | |
| Workpiece length (max.) | mm | 280 |
| Turning diameter over bed | mm | 200 |
| Turning-Ø over support | mm | 90 |
| Travels | | |
| Travel X-axis | mm | 86 |
| Travel Z-axis | mm | 155 |
| Headstock | | |
| Speed range | 1/min | 100 - 3.000 |
| Spindle mount | | MK 3 |
| Spindle bore | mm | 20 |
| Lathe chuck diameter | mm | 100 |
| Rapid feed | | |
| Rapid feed | mm/min | 2.000 |
| Feed | | |
| Feed speed | mm/min | 1.000 |
| Max. torque feed motor | Nm | 2,2 |
| Tooling | | |
| Number of tool stations | positions | 8 |
| Tool shank dimensions | mm | 8x8 |
| Boring bar mount Ø | mm | 12 |
| Tailstock | | |
| Tailstock quill diameter | mm | 20 |
| Tailstock quill stroke | mm | 30 |
| Tailstock taper | | MK 2 |
| Drive capacity | | |
| Motor rating main drive | kW | 1 |
| Measures and weights | | |
| Overall dimensions (L x w x h) | m | 1,4x0,9x1,85 |
| Weight | kg | 500 |
| Part No. | | 181625 |



Mobile base with large storage space



Manual central lubrication for reduced maintenance

Compact and Robust

Thanks to a panel-based CNC design with few interfaces and an operator panel with IP65 protection, the SINUMERIK 808D ADVANCED is perfectly suited for use in harsh environments.

Its compact dimensions allow for integration into small machines.

Optimized for Simple Turning and Milling Applications

With its technology-specific configurations, the SINUMERIK 808D ADVANCED control system is perfectly preconfigured for turning and milling. Its range of applications extends from simple, standardized milling machines or basic machining centers to cycle-controlled lathes and simple full-CNC turning machines. Thanks to hardware and software enhancements, the SINUMERIK 808D ADVANCED also provides sufficient performance for basic milling functions in mold and toolmaking.

Ideal for Beginners

With the uniform SINUMERIK operating and programming philosophy, the SINUMERIK 808D ADVANCED is the perfect partner for entering the world of CNC. Even the commissioning process is explained in a graphically interactive way.



LabTurn CNC with Siemens SINUMERIK 808D Advance



LabCenter CNC with Siemens SINUMERIK 808 D+

CNC Controls

Siemens 808D • Siemens 828D Shopmill • Shopturn



SINUMERIK 808D

Outstanding Performance, Simply Intelligent

The SINUMERIK 808D ADVANCED brings new momentum to basic turning and milling machines. CNC technology from the industry leader, combined with a revolutionary operating concept, makes the SINUMERIK 808D ADVANCED the perfect entry point into the world of CNC.

Shopmill • Shopturn

Includes the following functions:

- Step-by-step programming
- Multiple clamping of identical/different workpieces
- Manual machine mode

Operations such as drilling, centering, grooving, or pocket milling are clearly and simply represented as individual machining steps. This results in part programs that are very compact and easy to read—even for complex machining tasks.

Related machining steps are automatically linked and can be assigned to any desired positioning pattern.

Benefits

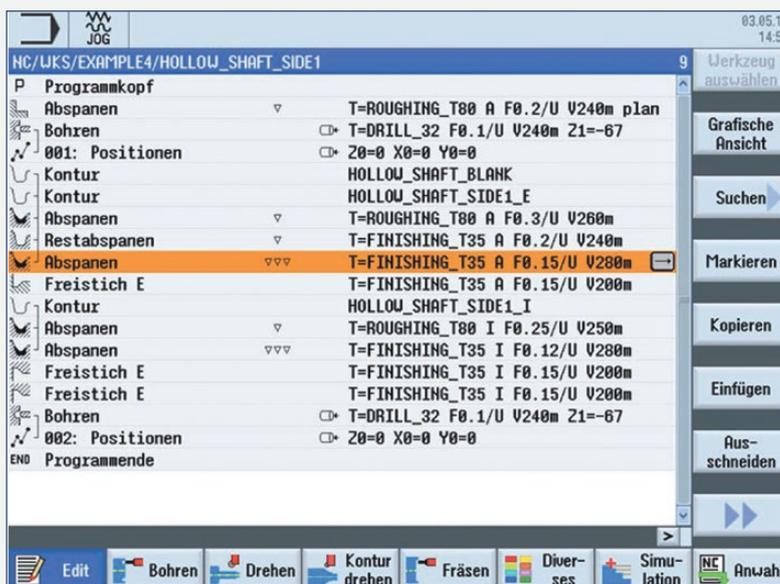
- Unique programming convenience
- Shortest programming times, even for demanding machining tasks



SINUMERIK 828D

The Powerhouse in the Compact Class of CNC Controls

Turning and milling on standardized machines, as well as functions for the simple automation of grinding machines – this is where the SINUMERIK 828D CNC controls set new standards in productivity with their exceptional CNC performance.



Simple programming and clearly structured representation of complex programs

Robust and Maintenance-Free

A magnesium die-cast operator panel front, panel-based CNC design with few interfaces, and a high degree of protection make SINUMERIK 828D CNC controls a reliable partner even in harsh environments. With a fanless and hard disk-free design and NVRAM memory technology that requires no backup battery, SINUMERIK 828D CNC systems are completely maintenance-free.

User-Friendly

Thanks to a full QWERTY CNC keyboard with short-travel keys and a high-resolution 10.4" TFT color display or 15.6" touchscreen, SINUMERIK 828D CNC controls are easy to operate. USB, CF card (on 10.4" models), and RJ45 interfaces located on the operator panel front enable fast and convenient CNC data transfer.

Optimally Scalable

With three CNC performance variants—SW 24x, SW 26x, and SW 28x—the SINUMERIK 828D CNC controls can be configured for both cost-effective compact machines and more complex setups featuring additional axes/spindles, two machining channels, and two handling channels.



Vector Serie with Siemens SINUMERIK 828 D



Return Serie with Siemens SINUMERIK 828 D

Horizontal Miter Band Saws

ABS S NC Series



ABS 325 S NC



Reliable OMRON control with rugged touchscreen input panel

Double-column design, OMRON NC control with high-precision servo material feed for series processing

- Double-column design with precise linear guidance
- Miter cutting with hydraulic workpiece clamping and digital display
- OMRON touchscreen controller for fast programming and setup
- Material servo-feeding for high precision $\pm 0,2$ mm
- Automated stroke height control with optical sensor

STANDARD EQUIPMENT

- ✓ OMRON control with touchscreen
- ✓ Automatic workpiece feed (servo)
- ✓ Hydraulic part clamping
- ✓ Hydraulic clamping of cutting angle
- ✓ Digital angle display
- ✓ Optical height adjustment
- ✓ Saw-band
- ✓ Mechanical saw blade tensioning with hydraulic pressure gauge
- ✓ Saw blade cleaner brush
- ✓ Coolant system
- ✓ Operating tools
- ✓ Operator manual



INFO



VIDEO

OPTIONAL EQUIPMENT

| | | | |
|--|--------|--|--------|
| • Hydraulic bundle clamping for ABS S 440 NC | 253898 | • 3 meter roller table for ABS S 540 NC | 253826 |
| • Hydraulic saw blade tensioning for ABS S 440 NC | 253823 | • Hydraulic bundle clamping for ABS S 540 NC | 253717 |
| • Chip conveyor for ABS S 440 NC | 253821 | • Minimum quantity cooling for Band Saws 400 - 810 | 253719 |
| • 3 meter roller table | 251873 | • Clamping force controlled at operator panel | 253808 |
| • Hydraulic bundle clamping for ABS S 360 NC | 253897 | • Chip conveyor for ABS S 540 NC | 253891 |
| • Micro spray cooling system for Band Saws 280-380 | 253851 | • Hydraulic saw blade tensioning for ABS S 540 NC | 253824 |
| • 3 meter roller table for ABS S 360 NC | 253825 | • Laser pointer | 253753 |
| • Hydraulic saw blade tensioning for ABS S 360 NC | 253822 | | |
| • Chip conveyor for ABS S 360 NC | 253820 | | |
| • Hydraulic saw blade tensioning for ABS S 325 NC | 253807 | | |
| • 3 meter roller table for ABS S 325 NC | 253752 | | |
| • Hydraulic bundle clamping for ABS S 325 NC | 253716 | | |



Chips around the saw blade are removed by a brush for increased efficiency and long tool life

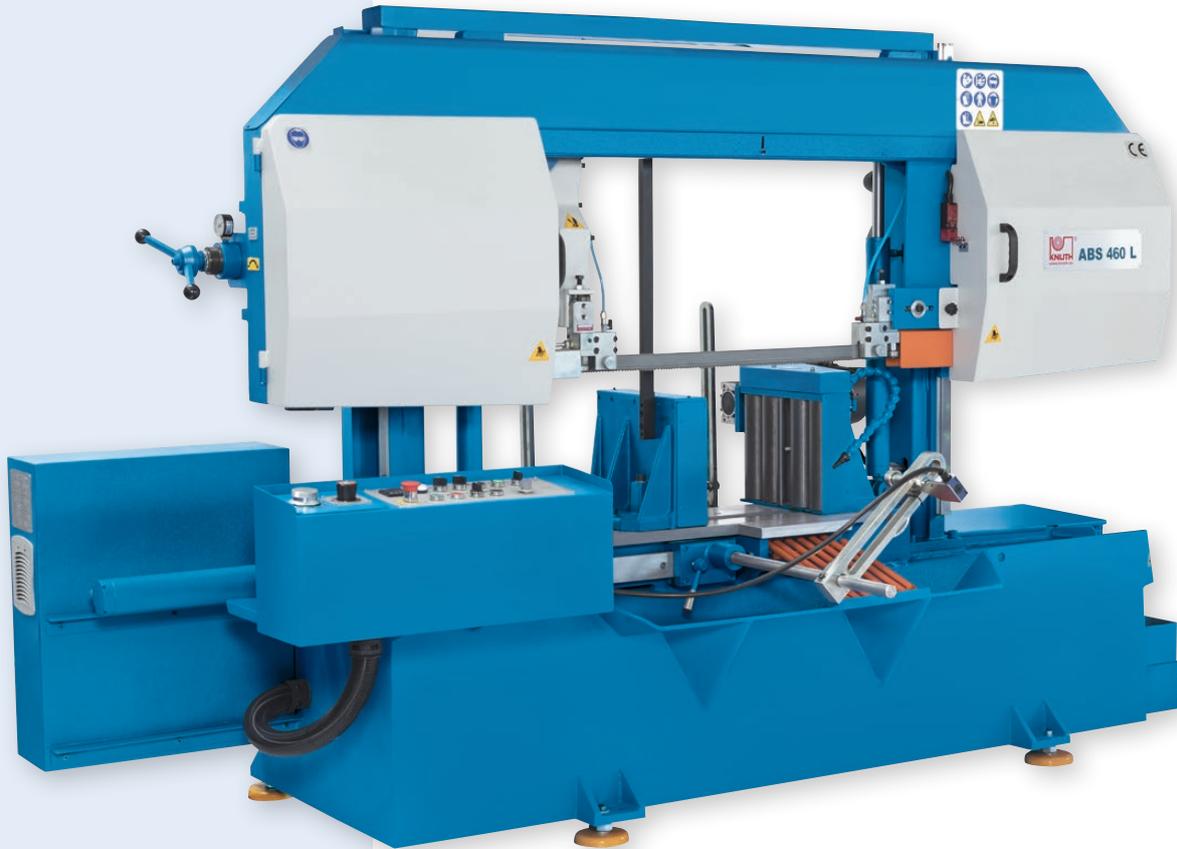


The slight drop of the saw blade is a smart design feature that increases efficiency, blade life and cut quality

SPECIFICATIONS

| Machine model numbers | | 325 | 360 | 440 | 540 |
|--|-------|----------------|----------------|--------------|--------------|
| Working area | | | | | |
| Minimum cut length | mm | 15 | 15 | 15 | 15 |
| Remaining length | mm | 275 | 190 | 190 | 190 |
| Cutting Capacities | | | | | |
| Feed per single stroke (max.) | mm | 700 | 700 | 700 | 700 |
| Cutting speed | m/min | 15 - 120 | 15 - 120 | 15 - 120 | 15 - 120 |
| Cutting capacity 0° (round) | mm | 325 | 360 | 440 | 540 |
| Cutting capacity 0° (flat) | mm | 400x325 | 610x360 | 610x440 | 690x540 |
| Cutting capacity 0° (square) | mm | 325 | 360 | 440 | 540 |
| Cutting capacity 30° (round) | mm | 325 | 360 | 440 | 540 |
| Cutting capacity 30° (flat) | mm | 360x325 | 530x360 | 540x440 | 550x540 |
| Cutting capacity 30° (square) | mm | 325 | 360 | 440 | 540 |
| Cutting capacity 45° (round) | mm | 300 | 360 | 440 | 470 |
| Cutting capacity 45° (flat) | mm | 260x325 | 400x360 | 440x400 | 410x540 |
| Cutting capacity 45° (square) | mm | 260 | 360 | 400 | 410 |
| Max. feed length (multiple strokes) | mm | 9.999 | 9.999 | 9.999 | 9.999 |
| Accuracies | | | | | |
| Positioning accuracy (multiple strokes) | mm | 0,2 | 0,2 | 0,2 | 0,2 |
| Cutting capacity in semi-automatic mode | | | | | |
| Cutting capacity 60° (round) | mm | 190 | 300 | 310 | 250 |
| Cutting capacity 60° (flat) | mm | 140x325 | 360x240 | 245x440 | 240x540 |
| Cutting capacity 60° (square) | mm | 140 | 240 | 245 | 240 |
| Drive capacity | | | | | |
| Motor rating main drive | kW | 2,2 | 3 | 4 | 4 |
| Motor rating hydraulic pump | kW | 1,5 | 1,1 | 2,2 | 2,2 |
| Motor rating coolant pump | kW | 0,12 | 0,12 | 0,12 | 0,12 |
| Measures and weights | | | | | |
| Blade dimensions | mm | 4.900x34x1,1 | 5.200x34x1,1 | 6.300x41x1,3 | 6.000x41x1,3 |
| Overall dimensions (l x w x h) | m | 2,31x2,15x1,65 | 2,85x2,25x1,87 | 3x2,25x2,05 | 3x2,42x2,25 |
| Weight | kg | 1.860 | 2.400 | 3.600 | 4.190 |
| Part No. | | 152890 | 152841 | 152891 | 152843 |

Horizontal Straight Cutting Bandsaws ABS L Series



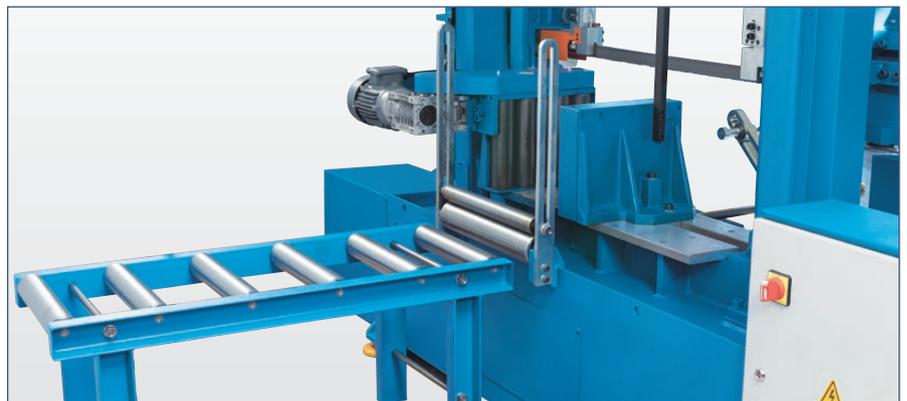
Pressure gauge for precise saw blade tensioning



INFO

Sturdy double-column design with large cutting capacity and robust fully automatic feed for efficient series production

- Dual column design for superior stability
- Material feed system with workpiece guide rollers
- Hydraulic workpiece clamping
- Optical detection of the workpiece height
- Feed roller table 1,2 m



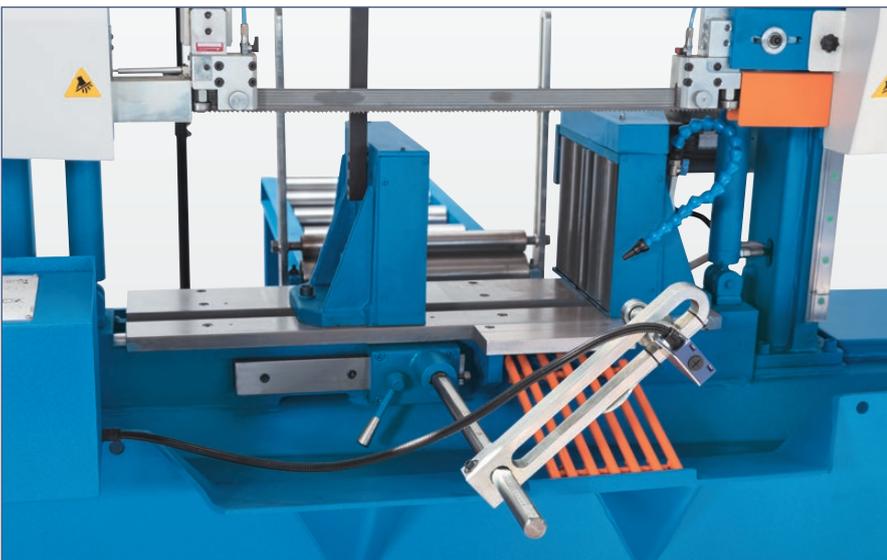
Solid feed roller table and material guide for workpiece bundles

OPTIONAL EQUIPMENT

- 3 meter roller table for ABS 330 L 253849
- 3 meter roller table for ABS 380 L 251869
- 3 meter roller table for ABS 460 L 253890
- 3 meter roller table for ABS 560 L 251877
- Chip conveyor for ABS 380 L 251870
- Chip conveyor for ABS 460 L 251874
- Chip conveyor for ABS 560 L 251878
- Hydraulic blade tentoning for ABS 380 L 251871
- Hydraulic blade tentoning for ABS 460 L 251875
- Hydraulic blade tentoning for ABS 560 L 251879
- Micro spray cooling system for Band Saws 280-380 253851
- Micro spray cooling system for band saws 400-810 254015
- Minimum quantity cooling 253719
- Laser pointer 253753
- Clamping force controlled at operator panel 253899

STANDARD EQUIPMENT

- ✓ Saw-band
- ✓ Workpiece counter
- ✓ Band break control
- ✓ Coolant system
- ✓ Hydraulic clamping
- ✓ Mechanical saw blade tentoning with hydraulic pressure gauge
- ✓ Feed roller table 1,2 m
- ✓ Linear stop
- ✓ Operator instructions



Driven feedrate rolls stop automatically when the material



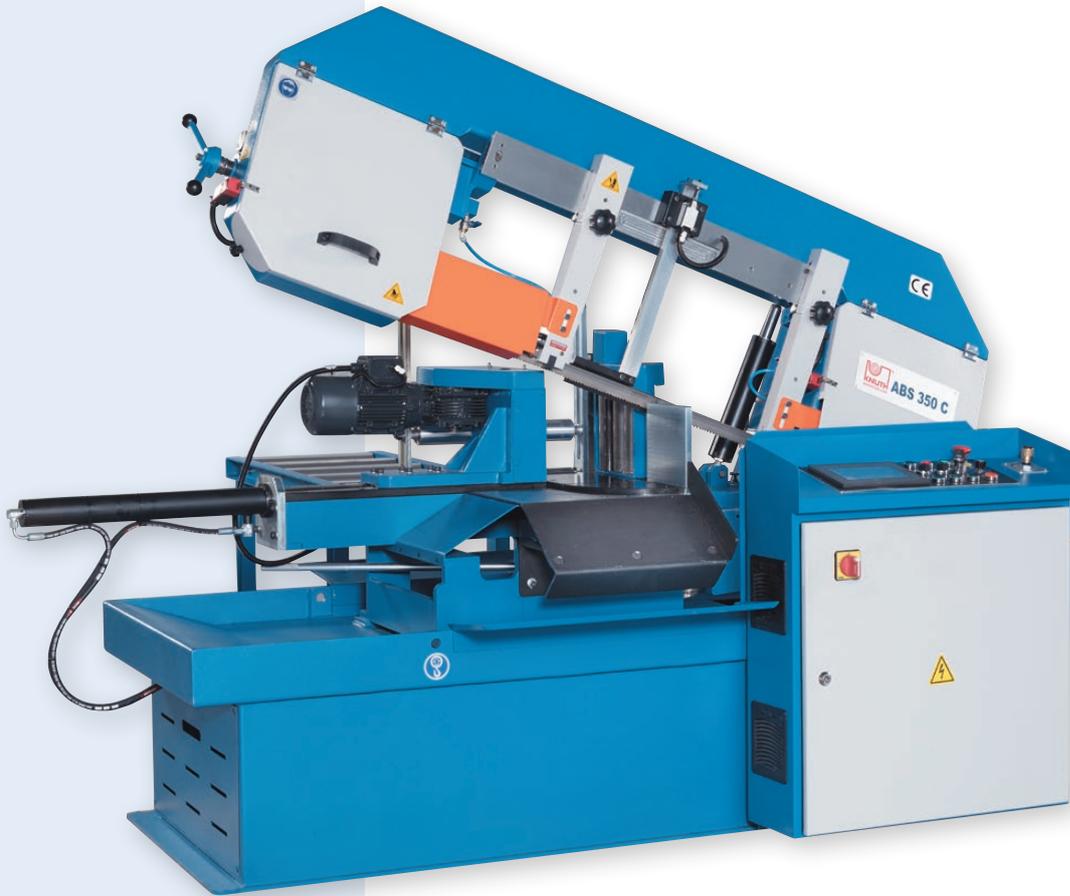
Powerful saw blade/feed motors and heavy-duty gears can handle demanding applications and high loads with quiet operation and minimal space requirement.

SPECIFICATIONS

| Machine model numbers | | 330 L | 380 L | 460 L | 560 L |
|-----------------------------------|-------|--------------|---------------|--------------|---------------|
| Cutting Capacities | | | | | |
| Cutting capacity 0° (flat) | mm | 360x330 | 430x380 | 470x460 | 570x560 |
| Cutting capacity 0° (round) | mm | 330 | 380 | 460 | 560 |
| Cutting capacity 0° (square) | mm | 330 | 380 | 460 | 560 |
| Cutting speed infinitely variable | m/min | 20 - 100 | 20 - 100 | 20 - 100 | 20 - 100 |
| Stop length | mm | 500 | 500 | 500 | 500 |
| Accuracy of the feeding | mm | 0,5 | 0,5 | 0,5 | 0,5 |
| Drive capacity | | | | | |
| Motor rating main drive | kW | 3 | 3 | 4 | 4 |
| Motor rating hydraulic pump | kW | 0,55 | 0,55 | 0,55 | 1,1 |
| Motor rating feed | kW | 0,25 | 0,25 | 0,25 | 0,55 |
| Measures and weights | | | | | |
| Overall dimensions (l x w x h) | m | 2,75x0,9x1,7 | 2,9x0,95x1,66 | 3,1x1x1,8 | 3,5x1,05x2,05 |
| Weight | kg | 1.400 | 1.250 | 1.500 | 2.100 |
| Blade dimensions | mm | 4.160x34x1,1 | 4.800x34x1,1 | 5.200x41x1,3 | 6.000x41x1,3 |
| Part No. | | 152763 | 152761 | 152766 | 152771 |

Horizontal Miter Band Saws

ABS 350 C



The touchscreen allows for easy and convenient programming for a fully automated operation

Fully automatic miter band saw with vice integrated feed rollers and touch screen control panel

- Vice with feed rollers
- Angle cutting possibility for increased versatility
- Facile operation via touchscreen
- Height adjustment with switch to speed up the cutting process
- Workpiece counter to facilitate continuous production
- Manual top vise for bundle cutting

STANDARD EQUIPMENT

- ✓ Automatic band break control
- ✓ Bundle vise
- ✓ Coolant system
- ✓ Hydraulic part clamping
- ✓ Saw-band
- ✓ Chip wiper
- ✓ Feed roller table 1,2 m
- ✓ Operating tools
- ✓ Operator instructions

OPTIONAL EQUIPMENT

- 3 meter roller table 253853
- Chip conveyor 253892
- Hydraulic saw blade tensioning 253895
- Micro spray cooling system for Band Saws 280-380 253851
- Laser pointer 253753
- Clamping force controlled at operator panel 253899



INFO



Machining of workpiece bundles possible



A feed roller table is part of the standard equipment package



The saw frame swivels up to 45° to either side



A pressure gauge is provided to ensure correct saw blade tension



The coolant systems is design highly accessible and easy to clean



Premium components for guaranteed long-lasting reliable operation

SPECIFICATIONS

| Machine model numbers | ABS 350 C | |
|--------------------------------|-----------|----------------|
| Cutting Capacities | | |
| Cutting capacity 0° (round) | mm | 350 |
| Cutting capacity 0° (flat) | mm | 400x350 |
| Cutting capacity 0° (square) | mm | 350 |
| Cutting capacity 30° (round) | mm | 320 |
| Cutting capacity 30° (flat) | mm | 400x350 |
| Cutting capacity 30° (square) | mm | 320 |
| Cutting capacity 45° (round) | mm | 320 |
| Cutting capacity 45° (flat) | mm | 290x300 |
| Cutting capacity 45° (square) | mm | 290 |
| Cutting speed | m/min | 20 - 100 |
| Drive capacity | | |
| Motor rating main drive | kW | 2,2 |
| Motor rating hydraulic pump | kW | 0,37 |
| Motor rating coolant pump | kW | 0,12 |
| Motor rating feed | kW | 0,25 |
| Measures and weights | | |
| Blade dimensions | mm | 4.160x34x1,1 |
| Overall dimensions (L x w x h) | m | 2,45x0,92x2,02 |
| Weight | kg | 1.050 |
| Part No. | | 152758 |

Horizontal Straight Cutting Bandsaws

ABS 320 PLC



PLC control with touchscreen

Fully automatic band saw with motorized material feed

- Touchscreen for automatic feed
- Hydraulic workpiece clamping
- Bundling vise
- Infinitely variable cutting speeds

STANDARD EQUIPMENT

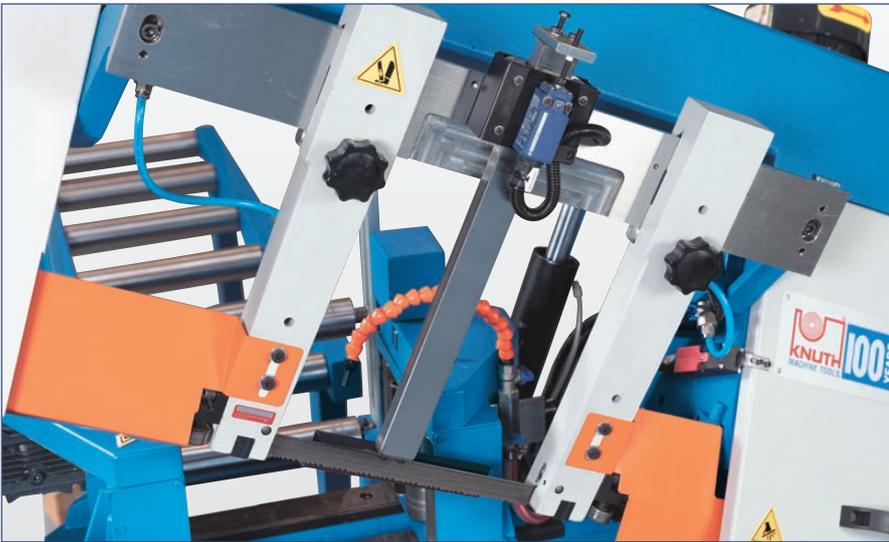
- ✓ PLC-control with touch-screen
- ✓ Hydraulic part clamping
- ✓ Bundle vise
- ✓ Mechanical saw blade tensioning with hydraulic pressure gauge
- ✓ Optical height adjustment
- ✓ Automatic band break control
- ✓ Feed roller table 1,2 m
- ✓ Coolant system
- ✓ Saw-band
- ✓ Saw blade cleaner brush
- ✓ Operating tools
- ✓ Operator instructions

OPTIONAL EQUIPMENT

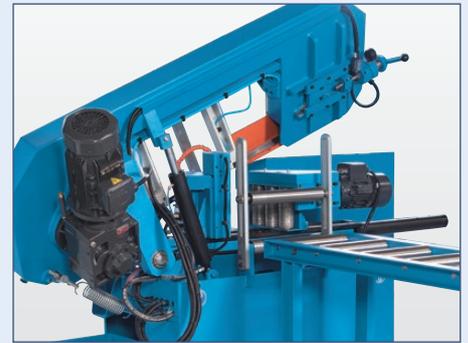
- 3 meter roller table 251888
- Chip conveyor 251889
- Hydraulic saw blade tensioning 253894
- Micro spray cooling system for Band Saws 280-380 253851
- Laser pointer 253753



INFO



Automatic limiting of saw frame stroke after the cut reduces down times



A motor with infinitely variable speeds transmits power via a continuous-operation idler gear to the machine drive wheel



Hydraulic part clamping included in standard equipment



Pressure gauge simplifies precise adjustment of saw blade tension



Long saw blade and large idlers for extended tool life

SPECIFICATIONS

| Machine model numbers | | ABS 320 PLC |
|--------------------------------|-------|--------------|
| Cutting Capacities | | |
| Cutting capacity 0° (round) | mm | 320 |
| Cutting capacity 0° (square) | mm | 300 |
| Cutting capacity 0° (flat) | mm | 320x300 |
| Cutting speed | m/min | 20 - 100 |
| Working height | mm | 640 |
| Drive capacity | | |
| Motor rating main drive | kW | 1,5 |
| Motor rating hydraulic pump | kW | 0,37 |
| Motor rating coolant pump | kW | 0,12 |
| Motor rating feed | kW | 0,25 |
| Measures and weights | | |
| Blade dimensions | mm | 3.660x27x0,9 |
| Overall dimensions (L x w x h) | m | 1,9x0,85x1,3 |
| Weight | kg | 765 |
| Part No. | | 152759 |



The control cabinet is set up ergonomically and meets all safety standards and regulations

Wire Cut EDM

Neospark T 500



The control system is user-friendly and reliable

CNC wire eroding machine with reciprocal high-speed eroding wire system

- Electrical discharge machining with highest cost-efficiency
- C3 class ballscrew transmission on XYUV axis
- Easily programmable CNC control with integrated CAD/CAM software
- Real-time system diagnostics, high process reliability
- Time-saving programming during the machining process

STANDARD EQUIPMENT

- ✓ IPC-based control system
- ✓ Electronic manual control unit
- ✓ Aluminium cutting function
- ✓ USB port
- ✓ Ethernet port
- ✓ Standard wire guides
- ✓ Dielectric tank with pump
- ✓ Work lamp
- ✓ Leveling plates and jacks
- ✓ Central lubrication
- ✓ Operating tools
- ✓ Operator instructions

OPTIONAL EQUIPMENT

- | | |
|---------------------------------------|--------|
| • Wire 0,18mm / 2000m | 516231 |
| • Dielektrikum JR 3A | 516233 |
| • Filter element YT-36Z-20 (27500066) | 516246 |



INFO



Handheld control for quick machine setup



The EDM wire system features excellent accessibility and is protected by rigid covers

| SPECIFICATIONS | | |
|--|----------------------|-----------------------|
| Machine model numbers | | Neospark T 500 |
| Working area | | |
| Table dimensions | mm | 800x500 |
| Workpiece, length x width x thickness (max.) | mm | 1.200x740x300 |
| Workpiece weight (max.) | kg | 600 |
| Travel X-axis | mm | 500 |
| Travel Y-axis | mm | 400 |
| Travel U / V-axis | | ±35 mm |
| Travel Z-axis | mm | 300 |
| Cutting angle (with guide) | | ± 12° / 80 mm |
| Cutting capacity (max.) | mm ² /min | 300 |
| Generator | A | 10 |
| CNC control | | |
| Display size / type | | 15" / LED |
| Controlled axis | | 4 |
| Input increment (min.) | mm | 0,001 |
| Dielectric system | | |
| Dielectric, tank capacity | l | 100 |
| Feed | | |
| Rapid feed X / Y axis | mm/min | 1.000 |
| Accuracies | | |
| Positioning accuracy X- / Y-axis | mm | ≤0.01 |
| Positioning accuracy U/V axis | mm | ≤0.025 |
| Repeatability X- / Y-axis | mm | ≤0.005 |
| Repeatability U / V axis | mm | ≤0.01 |
| Best surface roughness | µm Ra | 0,8 |
| Drive capacity | | |
| Motor rating X / Y axis | kW | 0,75 |
| Motor rating U / V axis | kW | 0,2 |
| Motor rating Z-axis | kW | 0,2 |
| Total power consumption | kVA | 2,3 |
| Measures and weights | | |
| Overall dimensions (L x w x h) | m | 1,81x1,35x2,3 |
| Weight | kg | 2.800 |
| Part No. | | 180563 |



The separate dielectric tank features an efficient filter unit



The central lubrication system simplifies maintenance

Die Sinker EDM ZNC-EDM Series



Fig. ZNC 435 L



ZNC-controlled electrical discharge machine with manually positioned work reservoir for tool and die making

- User-friendly CNC control
- Preloaded ball screws on all axes
- High-precision preloaded ball screws on Z-axis
- High quality components
- Integrated diagnostic system

STANDARD EQUIPMENT

- ✓ Control unit
- ✓ Fire extinguishing system
- ✓ Work lamp
- ✓ Filter system
- ✓ Scale X- / Y-axis
- ✓ Chuck
- ✓ Operating tools
- ✓ Operator instructions

OPTIONAL EQUIPMENT

- Magnetic clamping plate 250278
- Orbital head attachment with electrode holder 253961



Fire extinguishing system for added safety



Electrode holder with precision adjustment on 3 axes



Fig. ZNC-EDM 250



Large tank for dielectric mixture with integrated filter unit

SPECIFICATIONS

| Machine model numbers | | ZNC-EDM 250 | ZNC 435 L |
|------------------------------------|----------------------|---------------|-------------|
| Working area | | | |
| Table dimensions | mm | 450x280 | 700x450 |
| Electrode holder-to-table distance | mm | 200 - 400 | 250 - 600 |
| Workpiece weight (max.) | kg | 200 | 700 |
| Quill stroke | mm | 200 | 250 |
| Electrode weight (max.) | kg | 30 | 30 |
| Travels | | | |
| Travel X-axis | mm | 250 | 450 |
| Travel Y-axis | mm | 200 | 350 |
| Generator | | | |
| Generator power consumption | kVA | 3,5 | 7,5 |
| Removal rate (max.) | mm ³ /min | 400 | 500 |
| Electrode wear, min. | % | ≤ 0,2 | ≤ 0,2 |
| Mean generator capacity | A | 40 | 80 |
| Generator weight | kg | - | 200 |
| Accuracies | | | |
| Roughness | µm Ra | < 0,3 - 0,8 | < 0,3 - 0,8 |
| Measures and weights | | | |
| Overall dimensions (L x w x h) | m | 1,39x1,48x2,1 | 1,5x1,6x2,1 |
| Weight | kg | 1.000 | 1.800 |
| Part No. | | 100105 | 100115 |

The Entire World of Metalworking

More KNUTH Topic Catalogs:



Machining

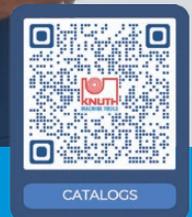
Modern conventional machine tools for turning, milling, drilling, sawing, and grinding – ideal for repair work, training, single-part production, and industrial use.

Cutting Technologies

We present state-of-the-art cutting technologies under one roof: laser and plasma cutting.

Sheet Metal Processing

Machines for flexible sheet and tube processing. In addition to press brakes and guillotine shears, we showcase folding and roll bending machines as well as hydraulic presses.



Simply request it here:

Visit KNUTH Machine Tools!

At our locations in **Wasbek**, **Denkendorf** and **Bocholt**, we present machines and technologies covering the full spectrum of metalworking.

Headquarter

Schmalenbrook 14
24647 Wasbek / Neumünster
Tel. +49 (0) 4321 - 609-0
info@knuth.de

Demonstration Centre South

Alemannenstr. 19
85095 Denkendorf / Ingolstadt
Tel. +49 (0) 8466 9419-0
verkauf-sued@knuth.de

Showroom West

Prinzenstraße 2
46399 Bocholt
Tel. +49 (0) 15150966157
verkauf-west@knuth.de