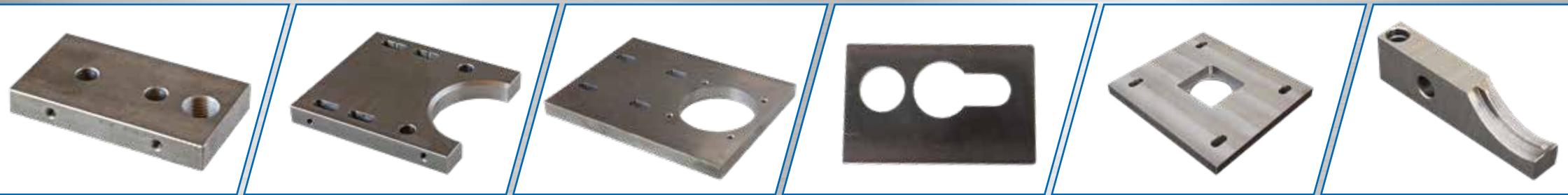


BAUER

MASCHINENBAU



DRILLING & MILLING

- simple, precise & time-saving -



You produce such parts?

Whether drilling, milling, long holes, circles, breakthroughs, cutting threads or drilling casting holes.

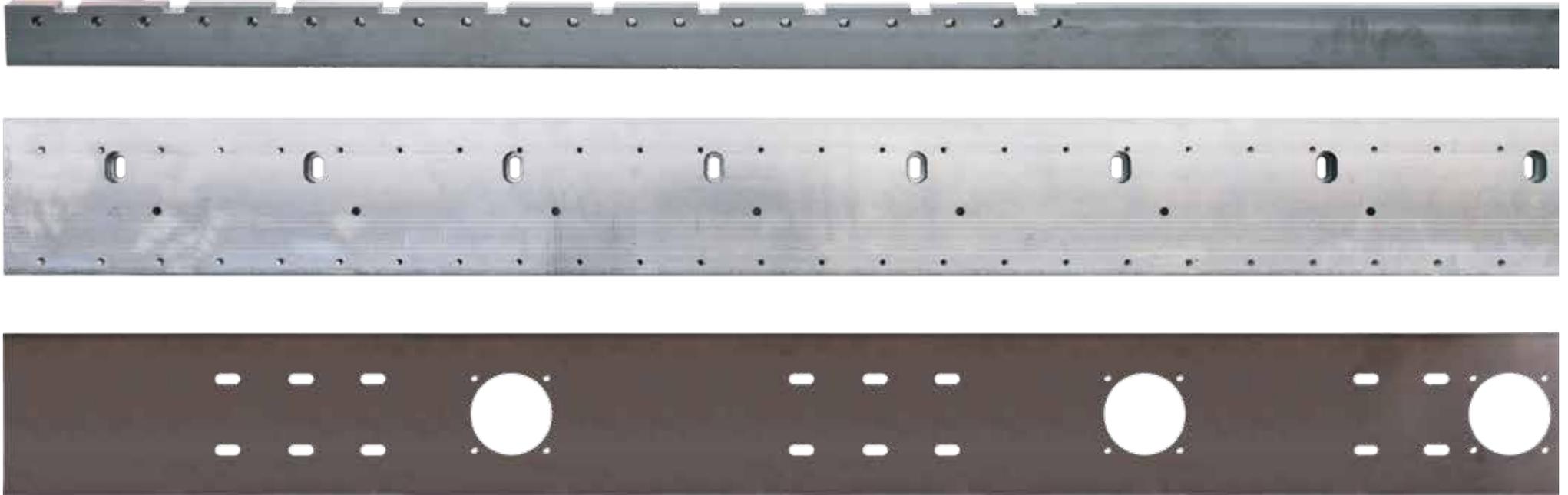
No problem with the **BAUER BOHRMAX**.

- Everything without programming knowledge -

Easier and more time-saving than any other machine!

Developed **from practical experience,**
for practical use!

DRILLING AND MILLING OF LONG PARTS. **MACHINING LENGTH UP TO 8 METERS!**



BAUER BOHRMAX

- IS THE SOLUTION! -

COMPANY HISTORY / PHILOSOPHY

The focus of **BAUER** 's corporate philosophy is on economical production for the customer.

Because quality creates trust - economic efficiency convinces!

BAUER Maschinenbau has been producing band saw machines at its Arnstorf production site since 1937. This long production experience and thousands of satisfied customers all over the world underline the reliability and longevity of our machines.

In 2015, a new generation of a drilling and milling machine was developed from an internal requirement. The entire concept was designed according to the intended clientele: The small and medium-sized steel construction as well as metalworking shops.

We want to offer the right solution for our customers through different systems. Simple operation and data import from the various drawing systems, robust design with a long service life are the cornerstones of the development of the drilling rigs.

BAUER machines are used nationally and internationally. Thousands of satisfied customers trust in our competence.

We have set ourselves clear goals to make your work easier:

- Simplest programming without CNC knowledge
- Robust construction for the rough everyday life
- Slot hole, circle milling should not be more complicated than drilling
- A reasonable price/performance ratio
- Clear machine design with minimum follow-up costs
- Data import in addition to simple workshop programming

With the

BAUER BOHRMAX

all these goals could be achieved.

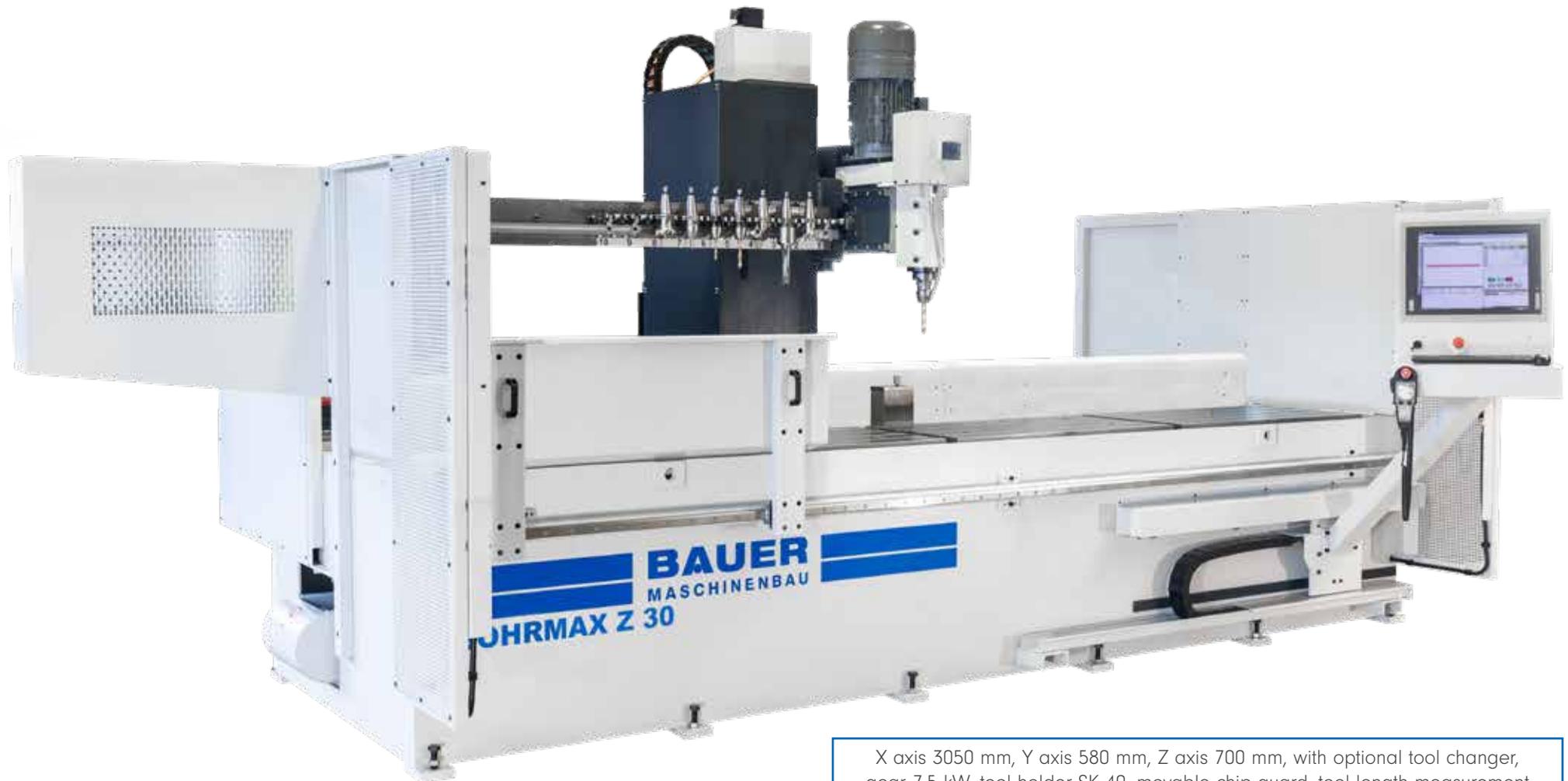
MODELS - EQUIPMENT VARIANTS

TYPE Procedure	X-axis (mm) Traverse path	Y-axis (mm) Traverse path	Z-axis (mm) Traverse path
BOHRMAX Z 20	2100	580	700
BOHRMAX Z 30	3050	580	700
BOHRMAX Z 40	4050	580	700
BOHRMAX Z 50	5080	580	700
BOHRMAX Z 60	6100	580	700
BOHRMAX Z 70	7100	580	700
BOHRMAX Z 80	8050	580	700
BOHRMAX LIGHT 30 L	3050	400	400
BOHRMAX LIGHT 60 L	6050	400	400

2	INTRODUCTORY REMARKS
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BAUER BOHRMAX Z30

- ✓ Travel 3050 mm
- ✓ Simple, robust construction
- ✓ Simplest operation
- ✓ Precise and productive
- ✓ Made in Germany



X axis 3050 mm, Y axis 580 mm, Z axis 700 mm, with optional tool changer, gear 7.5 kW, tool holder SK 40, movable chip guard, tool length measurement and manual control unit

SCOPE OF DELIVERY / TECHNICAL DATA

BAUER BOHRMAX

The answer to the problem of economical drilling and simple milling work on long workpieces that have already been sawn.

Drilling system on moving column principle - the table stops, the drilling head moves. Simplest operation, CNC knowledge not required. Data import DXF.

Robust design with proven machine components, clear machine design guarantee long service life and high availability. All this at a price that pays for itself faster than expected.

During the development of the control system, special attention was paid to simple operation. Therefore the PENTA TEC control has 2 user interfaces. A simple user interface „user“ for drilling, long hole, circle.

Qualified locksmith can program and process parts on this surface within approx. 1 hour, no CNC knowledge required.

In the second user interface „User“ DXF data can be imported (option). With this interface the **BOHRMAX** is a complete CNC machine with which all contours and markings can be milled.

SCOPE OF DELIVERY / TECHNICAL DATA:

- Drilling head speed range 140-2200 rpm
- Drive X, Y, Z Axis: Servomotor
- Rapid traverse X axis: 20 m/min
- Rapid traverse Y axis: 6 m/min
- Rapid traverse axis: 6 m/min
- Distance table top edge - lower edge tool holder 700 mm
- Table width: 560 mm
- T-slots M 12
- Drill diameter: 3- 32 mm
- Tapping: M 4 - M 24
- Tolerance X axis: ± 0.1 mm
- Tolerance Y and Z axis: 0.06 mm
- Drilling head drive motor: 4 kW
- Front light barrier
- Rear access guarding, on-site
- Control: Touchscreen 18"
- Simple programming on the machine
- Milling of oblong holes and circles
- Cooling

OPTIONS:

- Vices manual
- Support rollers
- Tool changer 10 tools moving with the drilling head
- Cooling
- Drive motor 7.5 kW
- Data import DXF
- Spray mist system
- Tool holder SK40 or BT40

BAUER BOHRMAX Z40

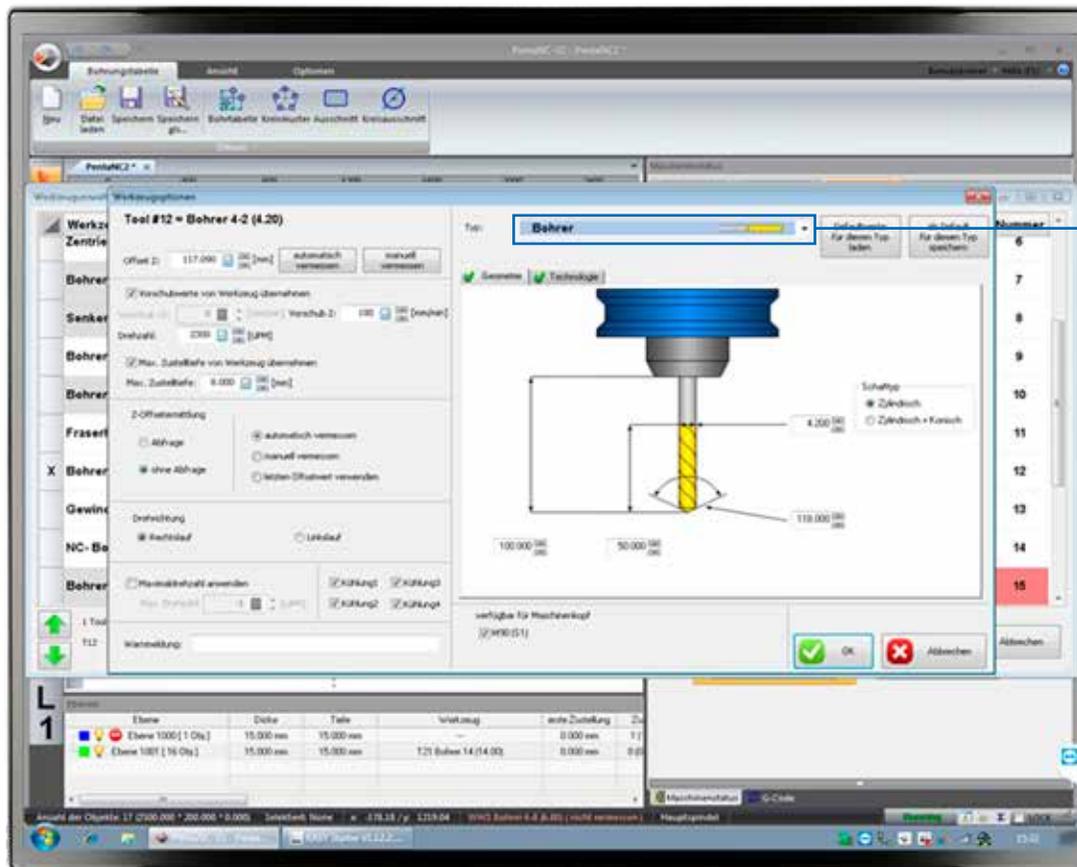
- ✓ Travel 4050 mm
- ✓ Simple, robust construction
- ✓ Simplest operation
- ✓ Precise and productive
- ✓ Made in Germany



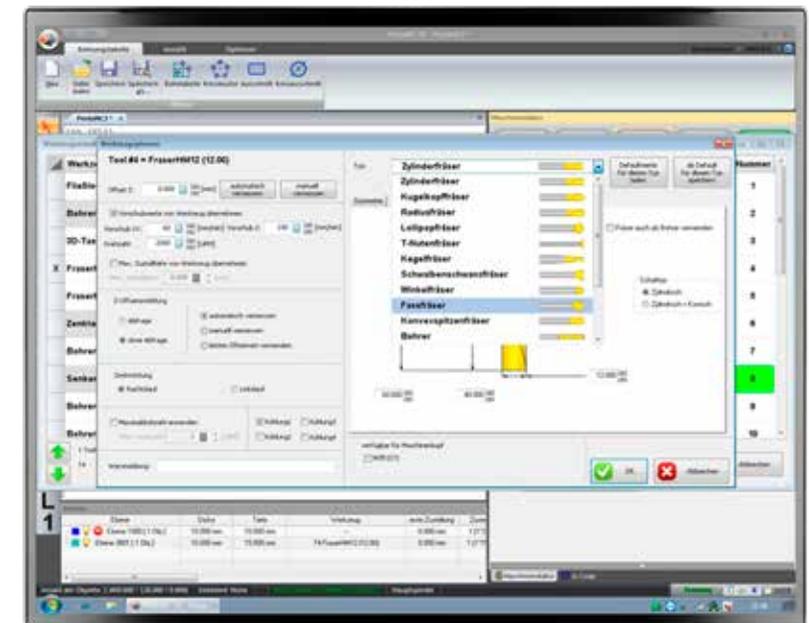
X axis 4050 mm, Y axis 580 mm, Z axis 700 mm, with option tool changer, gear 7.5 kW, tool holder SK 40, tool length measurement and manual control unit

BAUER BOHRMAX - CONTROL

Thanks to our clear, graphical user interface, you can produce after one hour of instruction without CNC knowledge!



Input of tool data



BAUER BOHRMAX Z80

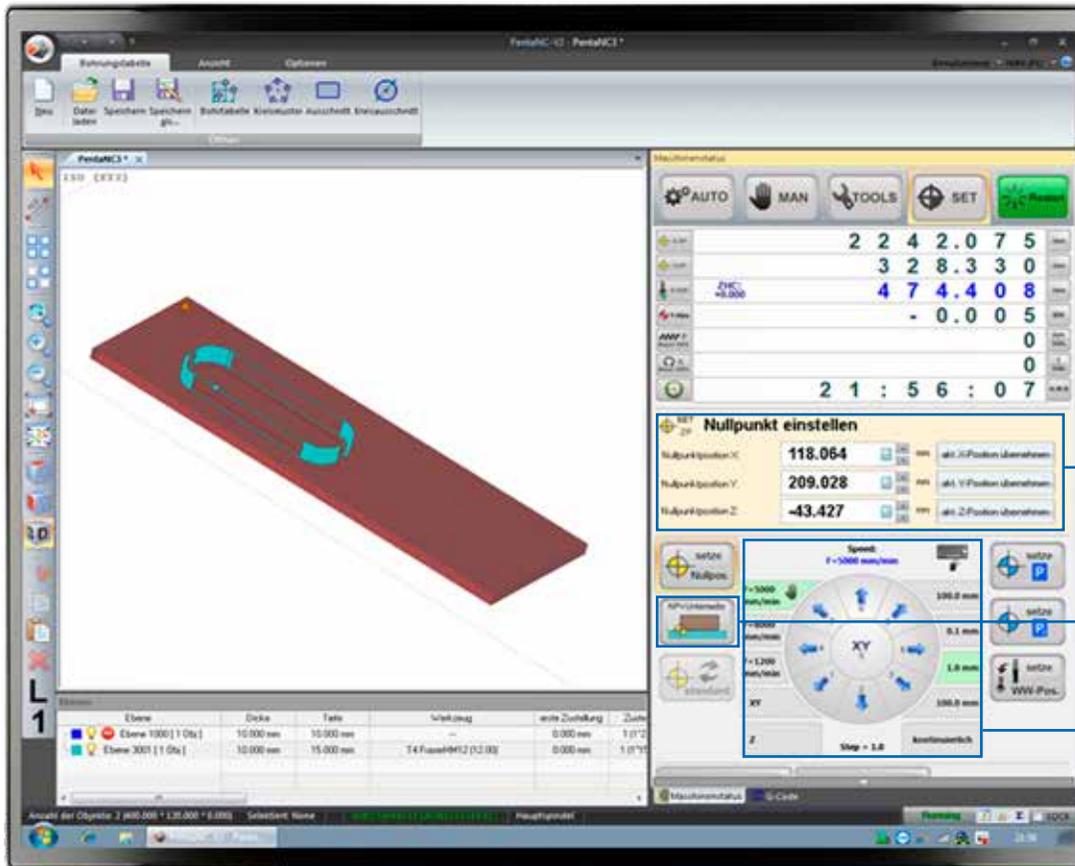
- ✓ Travel 8050 mm
- ✓ Simple, robust construction
- ✓ Simplest operation
- ✓ Precise and productive
- ✓ Made in Germany





X axis 8050 mm, Y axis 580 mm, Z axis 700 mm, with option tool changer,
gear 7.5 kW, tool holder SK 40, tool length measurement,
pendulum operation, vices

ADJUSTING ZERO POINTS



1

Easy setting of zero points X, Y, Z

2

Zero point workpiece lower edge or upper edge

3

Manual control of the individual axes

BAUER BOHRMAX - LIGHT 30 L

- ✓ Travel 3050 mm - 6050 mm
- ✓ Simple, robust construction
- ✓ Simplest operation
- ✓ Precise and productive
- ✓ Made in Germany



X-axis 3050 mm, Y-axis (transverse) 400 mm, Z-axis 400 mm.
Supplied without vices.

THE ENTRY-LEVEL MODEL

- for professional use -

BOHRMAX LIGHT

Fully automatic drilling system

In contrast to the **BOHRMAX**, the **BOHRMAX LIGHT** is a bit lighter and only equipped with the LAIP quick tool change system.

It is therefore mainly suitable for drilling, in contrast to the **BOHRMAX** which is very well suited for milling due to its different design and different gear head. The Bohrmax Light is used mainly for drilling and occasionally milling oblong holes or circles in profiles.

The **BOHRMAX**, on the other hand, has clear advantages when drilling large diameters into thick plates and when milling.

The two machines do not differ in the control and operation of the control system.

TYP	X-axis (mm) Traverse path	Y-axis (mm) Traverse path	Z-axis (mm) Traverse path
BOHRMAX LIGHT 30 L	3050	400	400
BOHRMAX LIGHT 60 L	6050	400	400

TECHNICAL DATA:

- Speed range drilling head 140-2000 rpm
- Drive Y+Z +X Axis: Servomotor
- Rapid traverse X axis: 25 m/min
- Rapid traverse Y+ Z axis: 6 m/min
- Distance table top edge - bottom edge tool holder 500 mm
- Table width: 360 mm
- T-slots M12
- Tapping: M4 - M20
- Tolerance X-axis+/-: 0.2 mm
- Tolerance Y and Z axis +/-: 0.1 mm
- Drilling head drive motor: 4 kW
- Front light barrier
- Rear access guarding, on-site
- Quick-change chuck Laip

CONTROL:

- Operation by a simple and clear industrial control, Network compatible with 19" Touch Panel
- Program memory for the workpieces
- Remote maintenance
- No data import
- Tool store for drilling tools, with dimensions, speed and feeds

OPTIONS:

- Automatic tool length measurement
- Vises
- Coolant system
- Tool changer pick up 5 tools

TECHNOLOGY IN DETAIL



Largely dimensioned linear guides, large guide distance, feed x-axis through ground helical toothed rack, servo gear and servo motor.



Large adjustable machine tables:
1050 mm x 570 mm x 40 mm
with T-slots M12.

TECHNOLOGY IN DETAIL



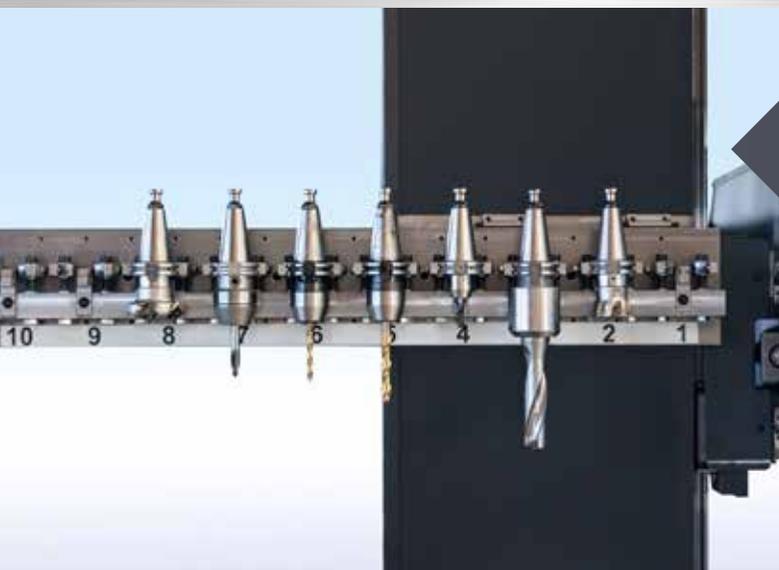
Control panel can be moved and rotated. Simple programming on the machine can be done via the touch panel or the keyboard.

OPTIONAL EXTRAS



BAUER offers roller blocks to facilitate the movement of long workpieces.

Movable chip & splash guard.



Tool changer SK 40 for 10 tools, optional BT 40.

Manual control unit for easier setting of the zero points on the machine. X,Y,Z axis and tool magazine can be moved sensitively by means of a handwheel (option).



OPTIONAL EXTRAS



Automatic tool length measurement,
movable swarf & splash water protection.

Spray device in addition to water cooling.
The function is automatically controlled
from the tool table.



Chip conveyor.
Ejection standard right, option left.

Robust gear head with SK 40,
optional with BT 40.



OPTIONAL EXTRAS



With the BOHRMAX, end faces can be milled or grooved with an angle head.

Tool holder with collet chuck
(milling cutter max d=40 mm)



Additional holes can be drilled at an angle for railing construction. With an adjustable angle head, for example, the drilling angle can be set to 20°. The drilling angle of 20° is entered in the drilling program. A special software control is used to drill at the set drilling angle. It is not necessary to swivel the entire drilling head.

The angle drilling heads are manually clamped into the SK 40 holder.

OPTIONAL EXTRAS

- BOHRMAX Z 40 pendulum machining (option) -

2 working areas protected by light barriers. Work area size can be freely selected by moving the control panel.

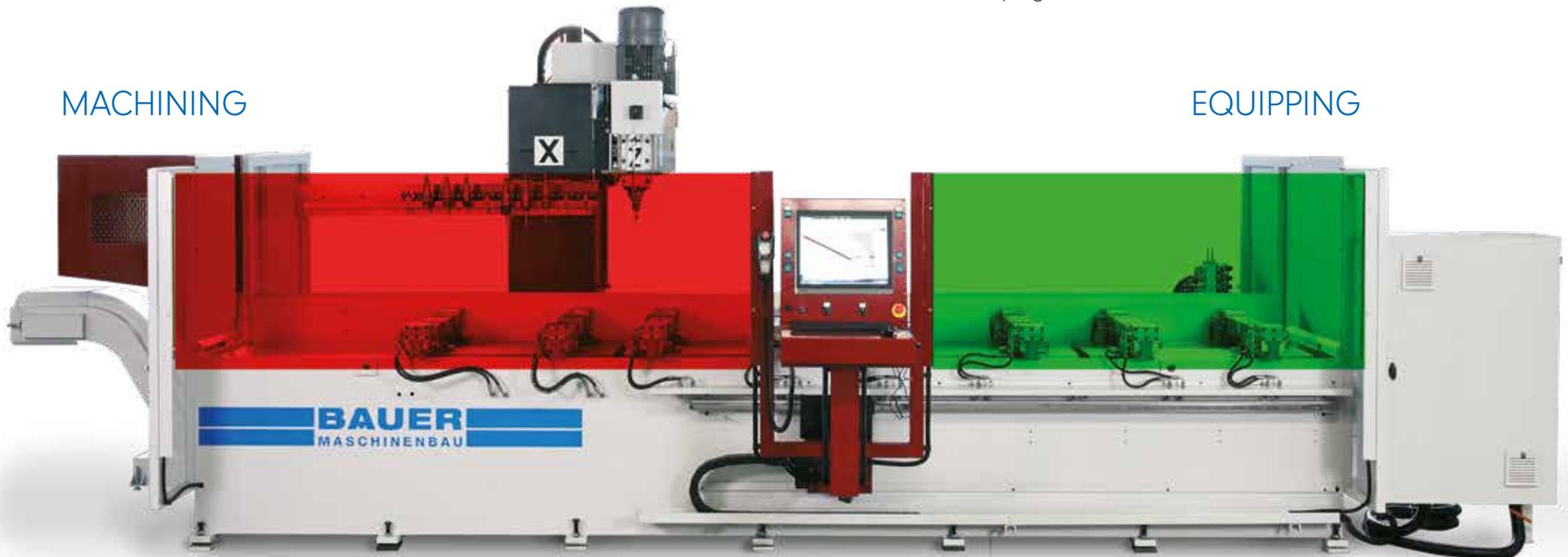
The machine is currently working in the area marked **in red**. Access is secured by a light barrier.

Parts can be clamped in the **green area**. After the parts have been clamped, this light barrier is also switched „active“ by a push-button.

As soon as the parts in the left area have been processed, the machine moves to the right. (Only if the light barrier is „active“) The left area is then automatically switched off by the light barrier and the area is released for clamping.

MACHINING

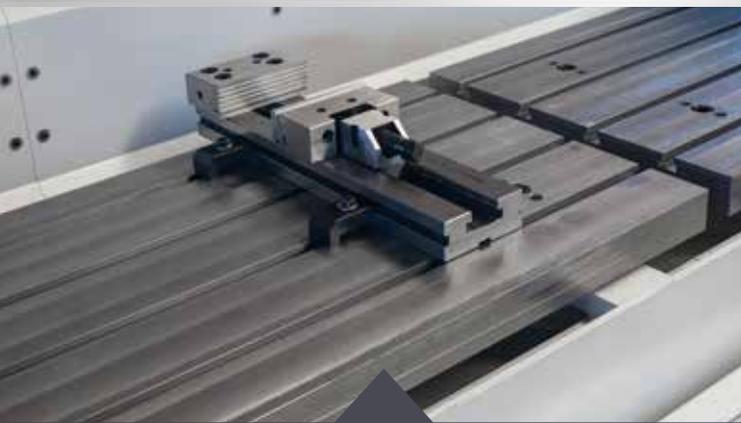
EQUIPPING



VICES

Vices are an important factor in the economic production of small or large series.

For the different requirements we offer different vices. All vices are supplied with guide and slot nuts for the table tops, incl. clamping claws, slot nuts. Special vices for clamping in front of beams on request.



MANUAL VICE SPM 1

Clamping width 300 mm, jaw width 150 mm,
Spindle stroke 50 mm,
Adjustment of the clamping width by 2 Allen screws

Jaw width: 150 mm • Total length: 520 mm



MANUAL VICE SPM 2

Clamping width 450 mm, or 500 mm, jaw width 150 mm,
Spindle stroke 100 mm, quick adjustment of the clamping width
through Set-out bolt, insert jaws with stepped support Width 10 mm,
Height 10 mm, fixed base jaw.
Unlike other vices, the SPM 2 has a smooth surface at the top.
Therefore no chips can be deposited between the guide rails.

Jaw width: 150 mm • Total length: 720/780 mm



„FLEXIBLE“ MANUAL VICE

Clamping range 400/600 mm, jaw width 111 mm,
Spindle stroke 40 mm. Fixed jaw and moveable jaw can be
locked by a special locking system without tools.
Can be adjusted over the entire clamping range.

Clamping range 400/600 mm
Jaw width: 111 mm • Total length: 688/888 mm

HYDRAULIC VICE SPH 2

Same design as SPM 2, but with hydraulic cylinder.
Cylinder stroke 100 mm, piston diameter 40 mm, incl.
Shut-off valve, quick-release coupling, throttle for the
Cylinder speed, pushbutton for control mounted in the
Lower part of the drilling rig in the area of the vice,
Additional central operation at the control panel.

Jaw width: 150 mm • Total length: 720/780 mm

„FLEXIBLE“ HYDRAULIC VICE

Design similar to Flexible, but with hydraulic cylinder.
Stroke 30 mm, incl. stopcock, quick-release coupling,
throttle for cylinder speed, button for control
mounted in the lower part of the drilling rig in the area of the vice,
additional central operation at the control panel.

Clamping range 400/600 mm
Jaw width: 150 mm • Total length: 688/888 mm

VICES



Bohrmax Z 40 with 8 hydraulic vices and pendulum operation

Bohrmax Z 80 with 12 pieces hydraulic vices and chip conveyor



ROLLER CONVEYOR

BAUER TAXIWAYS

Economical material feeding is only possible with the right roller conveyor system. For every application **BAUER** can offer the right roller conveyor system with driven or travelling rollers or cross conveyors.

For exact length measurement we equip the roller conveyors with different types of stops. Sliding stop with scale, digital display and NC stop.

Thus they are perfectly adapted to your needs.



Roller conveyor type C, roller width 530 mm, length 1000 mm, adjustable



Roller conveyor Type B, roller width 530 mm, length 2000 mm



Roller conveyor Type C, roller width 530 mm, length 3000 mm

DEMAND-ORIENTED SOLUTIONS

There are different possibilities to integrate the **BOHRMAX** into a roller conveyor system or a sawing system.

The covers on the left and right can be removed as standard. The material can then be transported through the **BOHRMAX**. We also offer an automatic version. A feed system transports the material into the **BOHRMAX** and feeds it automatically. Any horizontal or vertical saw can be installed, left or right.

**We offer here special customized solutions,
to meet the requirements in your production!**



BAUER DRILLING RIG WITH SAW

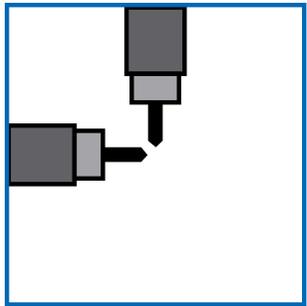
- ✓ Simple, robust construction
- ✓ Simplest operation
- ✓ Precise and productive
- ✓ Made in Germany



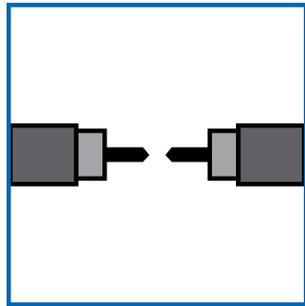
BAUER - Drilling machine with saw for 3 sides processing.

ADVANTAGES & FEATURES

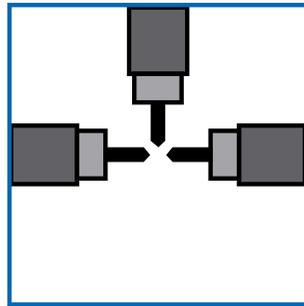
Available in various combinations:



BA450 - A



BA450 - B



BA450 - D

TOOL HOLDER



ADVANTAGES & FEATURES

SBA-VG45D-D

Bores in long beams, profiles or flat bars are usually produced with magnetic drills, saw drills or moving column drills. The equipment available on the market is very expensive and only pays off with large series. The quality of the work with magnetic drilling machines is person-dependent and very time-consuming.

This is why **BAUER** has developed a new generation of saw-drilling machines that is easy to operate and pays off even for small series. The data input does not require intensive training of the machine operator.

ADVANTAGES:

- Flexible production and short processing times
- High quality parts and less reworking
- Single parts, small and large series production
- Space-saving
- Easy and safe working
- Fast amortisation
- Robust and torsion-free steel construction, solid German mechanical engineering
- **Also available in combination with horizontal saw**

SPECIAL CHARACTERISTICS OF THE MATERIAL FEED:

- On the roller conveyor, the feed tongs are mounted laterally on a high-precision one, double linear guide.
- The positioning accuracy of the material feed is between 0.1 and 0.2 mm.
- The standard feed length is 6 m (total length of the roller conveyor 9 m) and can be extended up to 18 m according to customer requirements.
- For parts longer than 6 m shuttle feeding takes place.
- The material is hydraulically clamped by the feed tongs.
- With a gripper the material can be completely clamped by the drilling system. can be pushed. Since also on the right side of the band saw blade the material can be clamped, the remnant piece length in the Automatic operation only approx. 40mm (only with mitre band saw VG 450 L).

SPECIAL FEATURES OF THE DRILLING RIG:

- The drilling rig is available with up to three drilling heads.
- Simple operation, no CNC knowledge required.
- Suitable for angle irons from 20 x 20 mm and flat irons from 20 x 5 mm, pipes, profiles etc.
- The drill heads are guided by high-precision, double linear guides.
- Positioning of the axes by servo motors and ball screws.
- X axis rack and pinion and servo motor.
- Distance between drill tip and saw band for version with the vertical Saw only approx. 1700 mm.
- The tool change is carried out manually or automatically by means of a Laip quick-change system.
- Each drill head is equipped with a separate spraying device.
- Infinitely variable speed adjustment between 140 and 2,000 rpm by means of frequency converter.
- Drilling capacity in standard steel of 25mm diameter possible.
- Tapping with floating tap holder.
- The drilling unit can be integrated into any saw (horizontal or vertical).
- Data import DSTV and simple programming directly at the Machine.

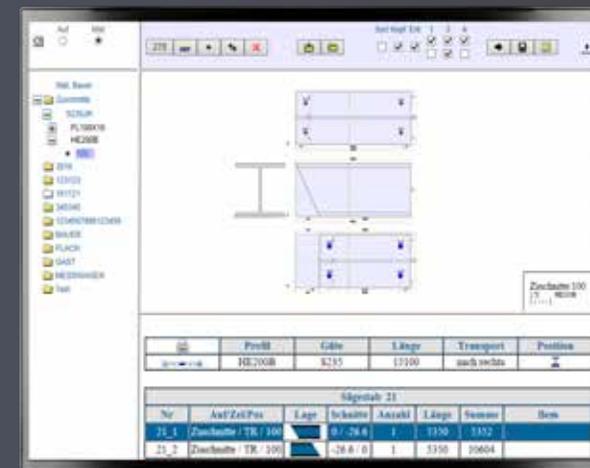
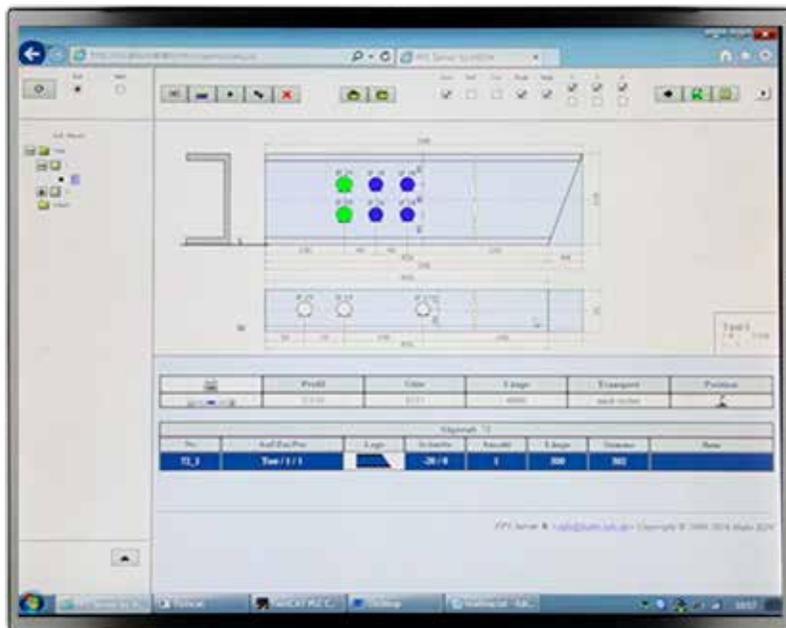
ADVANTAGES & FEATURES

With the Bauer saw drilling rig the parts can be pushed through the drilling rig with an extension. This results in only a remaining piece of e.g. 20 mm.

Depending on the material dimensions, there are different types of material clamping. Shown is a clamping with compressed air gripper for wall thicknesses up to approx. 5 mm.

The parts can be easily created on the screen or imported by data import DSTV.

The operator has information on the screen in which position the part is to be inserted.



TECHNICAL DATA BAUER DRILLING RIG BA

Drill heads

Material throughput through the drilling device with 200 mm long tools approx:	[mm]	400 x 400
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Traverse paths of the drill heads

Drill head vertically under the table:		
Travel, horizontal approx.	[mm]	600
Travel, vertical approx.	[mm]	160
Drilling head vertically above the table:		
Travel, horizontal approx.	[mm]	600
Travel, vertical approx.	[mm]	600
Drill head horizontal, right and left side:		
Travel, horizontal approx.	[mm]	320
Travel, vertical approx.	[mm]	450
Positioning accuracy of the drill heads	[mm]	0,1

Driving motor of the drill heads

Driving power of drill heads, standard	[kW]	2,2
Drilling capacity in standard steel at 2.2kW drive power	[mm]	ca.25
Driving power of the drill heads, option	[kW]	4
Drilling capacity in standard steel at 4kW drive power, option	[mm]	ca. 34
Infinitely variable speed adjustment with frequency converter	[1/min]	140 bis 2.000

Material feed

Length of feed unit, standard	[mm]	9.000
Maximum feed length due to single stroke, without feed pliers	[mm]	up to 8.500
Maximum feed length by single stroke, with feed tongs	[mm]	up to 6.000
Feed pliers clearance height	[mm]	320
Positioning accuracy of the feed	[mm]	+/- 0,2
Feed rate	[m/min]	0 bis 20

Machine dimensions

Material support height (with VG 450 L as saw)	[mm]	930
Total length approx.	[mm]	12.000
Total width approx.	[mm]	2.450
Total height approx.	[mm]	2.500
Weight of the machine approx.	[kg]	5.000

Paint

Machine grey RAL	[RAL]	7012
Covers white RAL 7035	[RAL]	9002

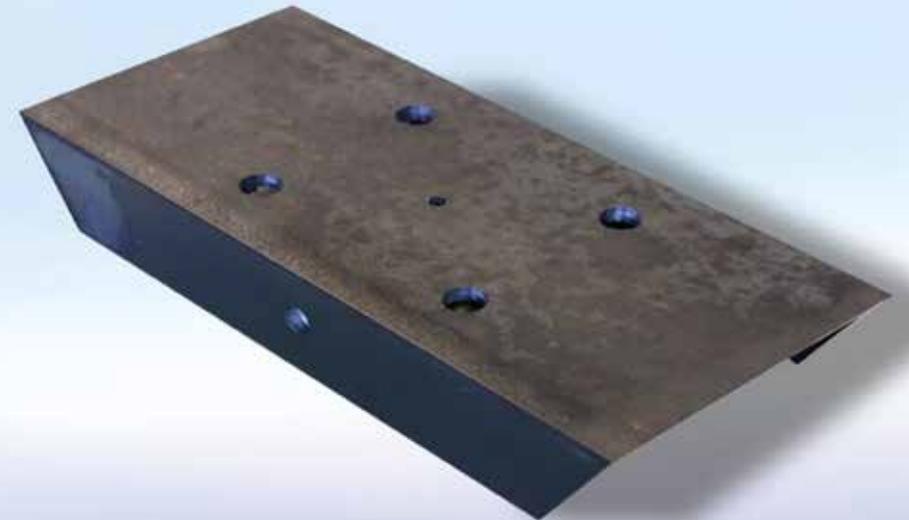
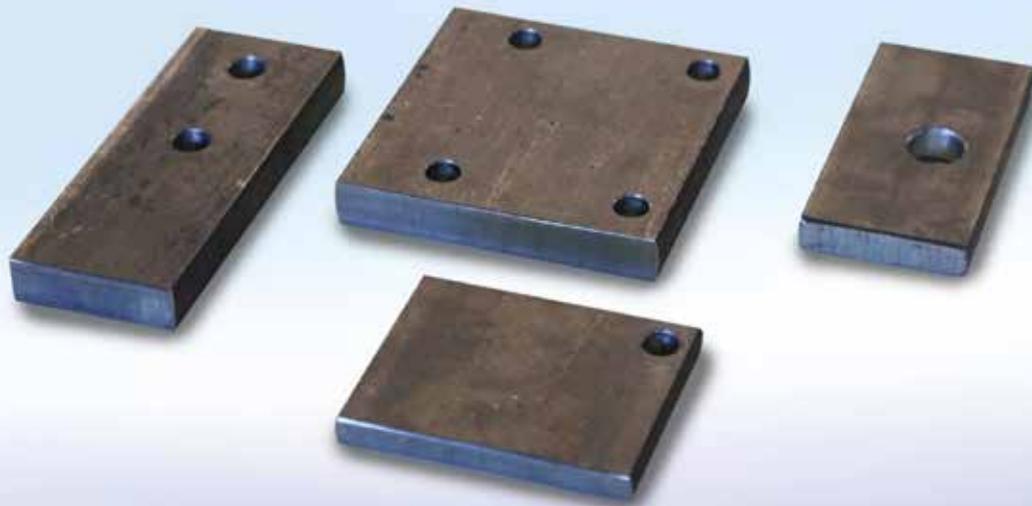
DRILLING RIG WITH SAW IN DETAIL





BAUER - DRILLING RIG WITH SAW

- End products -



With our 3-sided saw-drilling machines not only beams can be processed but also small dimensions.



BAUER - BA 100 -3 KR

- ✓ Simple, robust construction
- ✓ Simplest operation
- ✓ Precise and productive
- ✓ Made in Germany



Especially for small diameters we offer a 3-spindle drilling machine with a small circular saw or band saw.

TECHNICAL DATA:

- All feeds with servo motors
- Drill spindle stepless 4/ 5.5kW, internal cooling
- Speed 3000 rpm, higher speeds are possible
- Dimensions profile dimension 100 x 100 mm
- DSTV data import

According to special customer requirements we can also offer special solutions in the price regions of the standard machines.

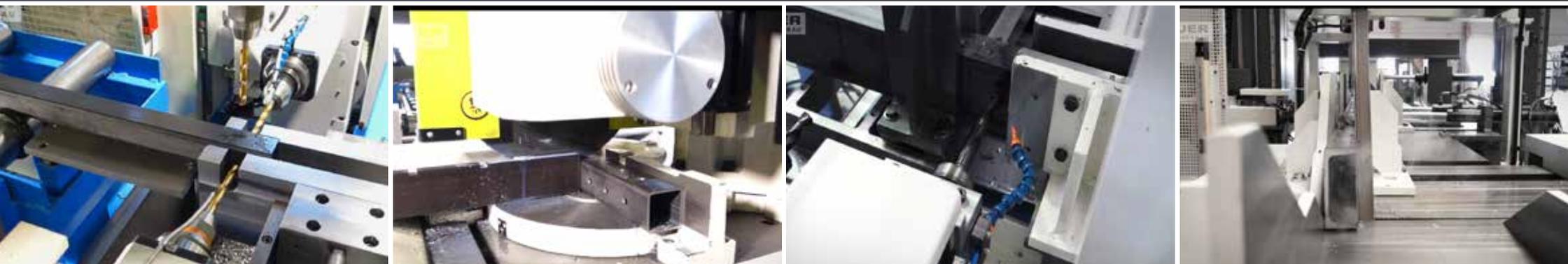
In the case of the machine shown, the entire system for the 80 mm x 80 mm profiles was kept very compact. Drilling spindle SK 40. A circular saw was used as sawing system.

BAUER BOHRMAX & DRILLING RIG

- in action -



Many videos in which you can experience the **BOHRMAX** & the **DRILLING RIG WITH SAW** in action can be found on our website under the heading „**VIDEOS**“.



BAUER

MASCHINENBAU

Quality - Made in Germany
Completely produced in Arnstorf / Bavaria

BAUER MASCHINENBAU GMBH

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