

ASCARAPID

A SCHIESS THAT'S FOR SURE



SCHIESS

The machine tools

Set up by the Magdeburg engineer and VDW founding father Ernst Schiess in 1866, SCHIESS quickly progressed to being one of the largest manufacturers for machine tools with several plants and almost 2000 employees. Since then, the name SCHIESS has stood for excellent product quality, precision and efficiency in the field of heavy machine construction.

After merging with Werkzeugmaschinenfabrik Aschersleben GmbH in 1991, the company portfolio today includes large vertical and horizontal machining centers as well as average-sized, highly complex and compact CNC machines, a wide range of services for complete modernizations as well as a well-structured contract machining.

Since 2004, SCHIESS is a wholly-owned subsidiary of the biggest machine tool manufacturing holding in China, Shenyang Machine Tool Co. Ltd. (SYMG), which continuously invests in the manufacturing and the development work carried out at Aschersleben.

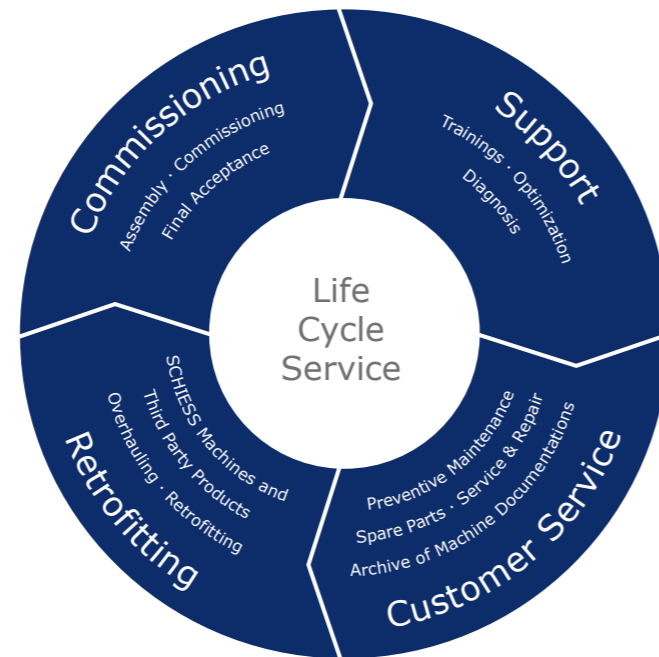
SCHIESS machines are being successfully used in Europe and all over the world for years now. Therefore, our customers are extremely satisfied with SCHIESS and remain loyal to us over decades:

- Long years of experience at the heart of manufacturing companies
- German engineering competence across generations in the field of heavy machine construction
- Renowned references worldwide
- Permanent optimization of the SCHIESS product portfolio with respect to ease of operation and versatility
- Individual maintenance and tight service network
- Fair collaboration



The Service

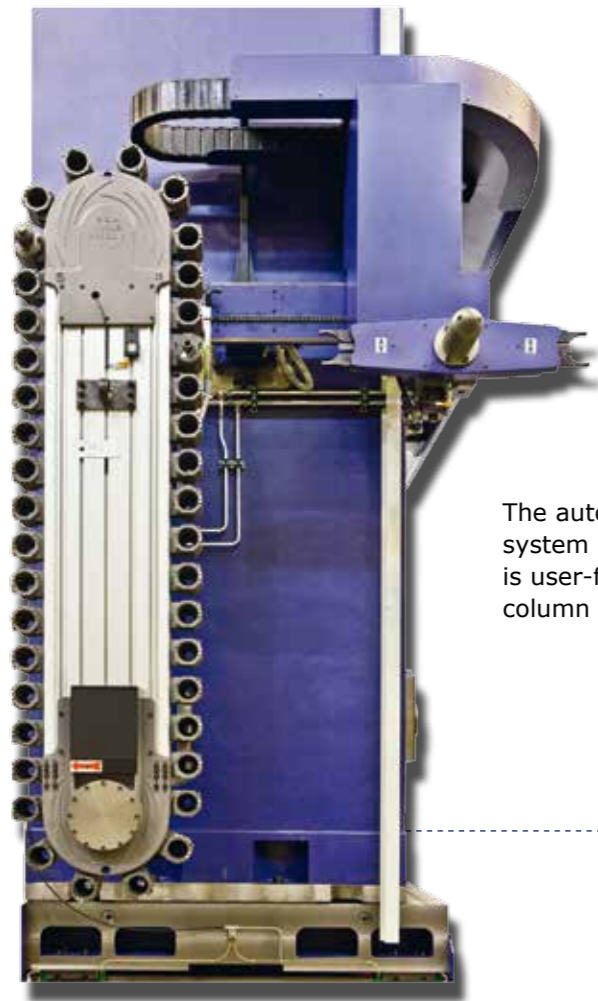
Life Cycle Service = Always at your Service!



Your partner right from commissioning up to retrofitting – a one-stop shop!



PRECISION, RELIABILITY & POWER



The automatic tool changing system with chain magazine is user-friendly mounted on the column of the machine.

Column, table, beds and saddles are all manufactured by high quality casting (GJS) to optimize dampening characteristics.

Absolute, direct scales on all axes eliminate the need for reference runs.

Linear guideway systems in column bed, table bed and vertical Y-axis. Sliding guide in the W-axis of boring spindle.

The W-, X-, Y- and Z-axes are driven by servomotor, gears and spindles with preloaded double nut.

This guarantees maximum stiffness and accuracy.



The headstock is a dampening optimized casting design (GJS). The nitrogen hardened and ground boring spindle guarantees a long time life cycle.

For highest precision – the W-axis is provided with an absolute direct measuring system.

As standard the machine is equipped with CNC Sinumerik 840 Dsl and energy-efficient servo drives.

The electronic preloading of B-axis drives guarantees very low back lash.

Optional with:
Fanuc 31i-B



MODERN HOUSING CONCEPT



Machine housing around the column with easy access to the tool changing system.

Electrical cabinets, hydraulic unit and further equipment can be integrated optionally into the machine housing.



Operator platform with machine control and best overview to the entire working area.

High-quality machine housing concept with integrated operator platform.

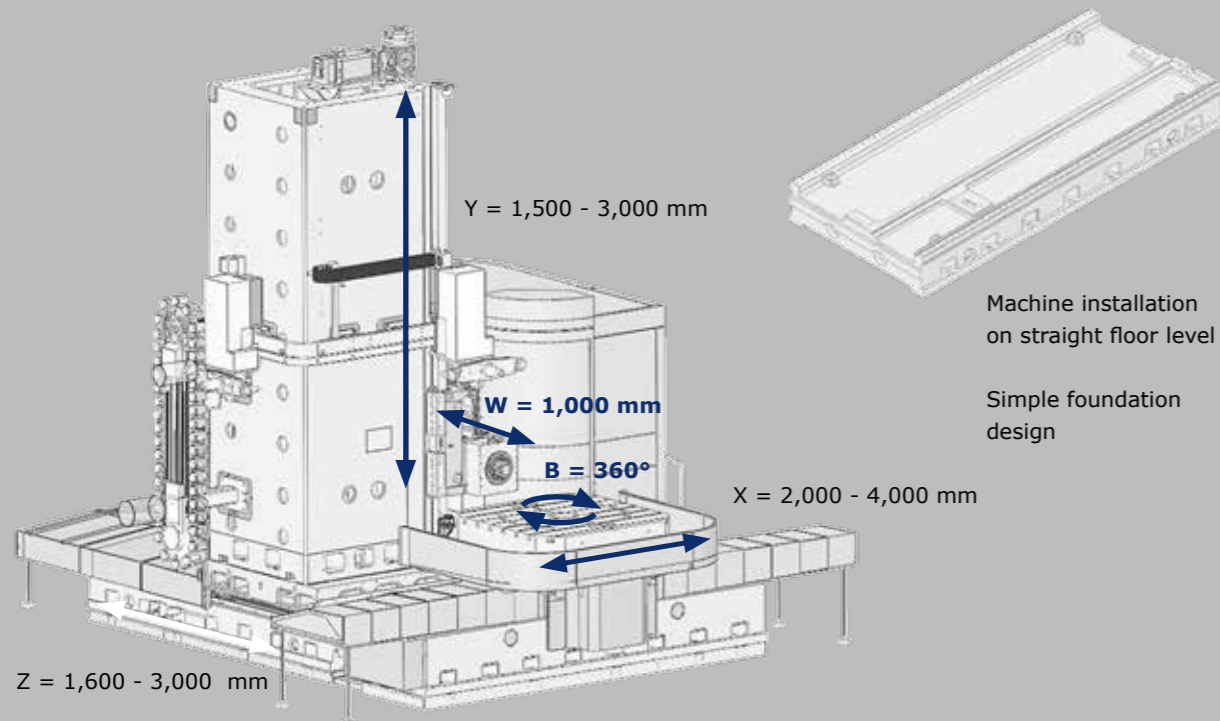
In our price-list selectable is a full-housing with electrically lowering doors for fast and efficient loading and unloading procedures.



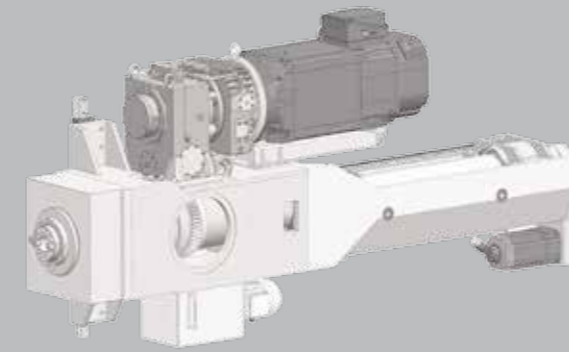
The Highlights

- Modular design kit to adjust the machine to your individual machining tasks
- Complete cast design of the frame units improve enormously the dampening characteristics and thermic stability
- Direct absolute scales in all axes for maximum precision make referece movements needlessly
- Load-optimized arrangement of drive systems and guideways stabilize axes motions
- High chip volume is realized by the high torque of main spindle
- Modern, energy-efficient servo drives
- High-quality housing with integrated ergonomic control stand
- Optimal accessibility for shorter maintenance and repairing times
- Most modern support software for preventive maintenance and servicing
- Quick and easy installation via fixators

ASCARAPID P 160 - Column, Table, Head Stock



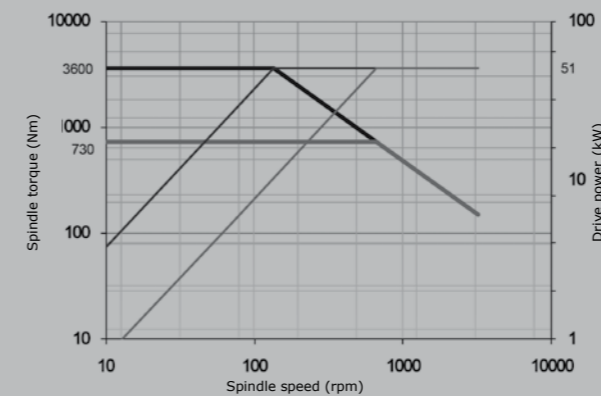
ASCARAPID P 160 - Head Stock



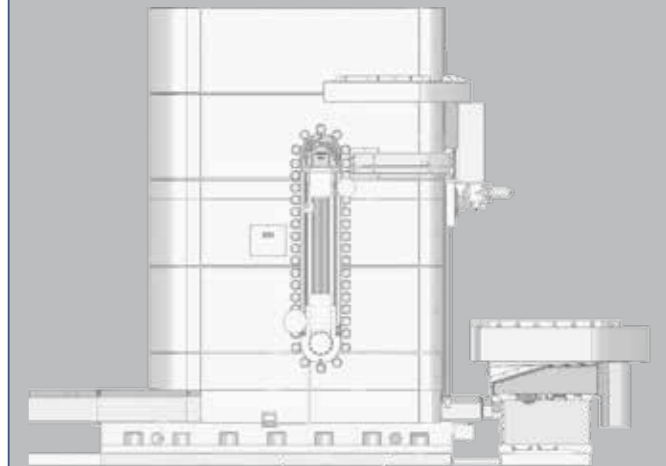
Boring spindle

Drive power (S1)	51 kW
Spindle speed	3,000 rpm
Max. spindle torque	3,600 Nm
Gear stages	2
Travel W-axis	1,000 mm

Guiding system	Sliding guide W-axis Linear guide Y-axis
Drive system	Ball screw
Scales	Absolute, direct

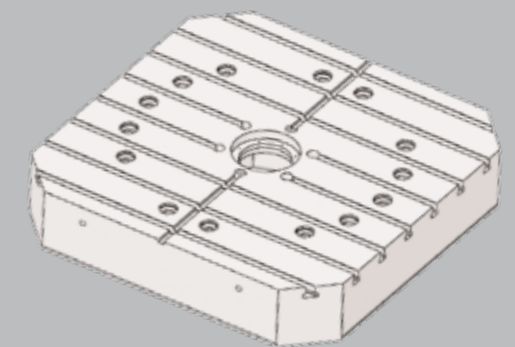


Automatic Tool Changing System



Tool magazine for 40 tools
 [optional 60, 80, 100, 120 tools
 or more on request]

Available Standard Table Sizes

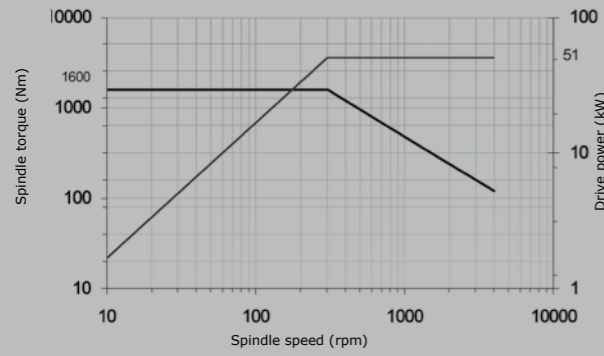
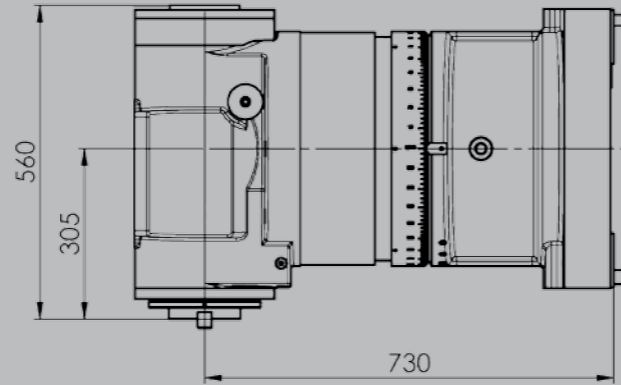


12 t
 1,000 x 1,000 mm
 1,000 x 1,250 mm
 1,400 x 1,600 mm

25 t
 1,600 x 1,600 mm
 1,600 x 1,800 mm
 1,800 x 2,000 mm

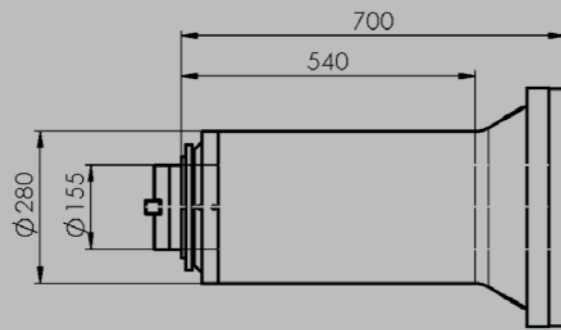
40 t
 2,000 x 2,000 mm
 2,000 x 2,500 mm
 2,500 x 3,000 mm

Angular Milling Head

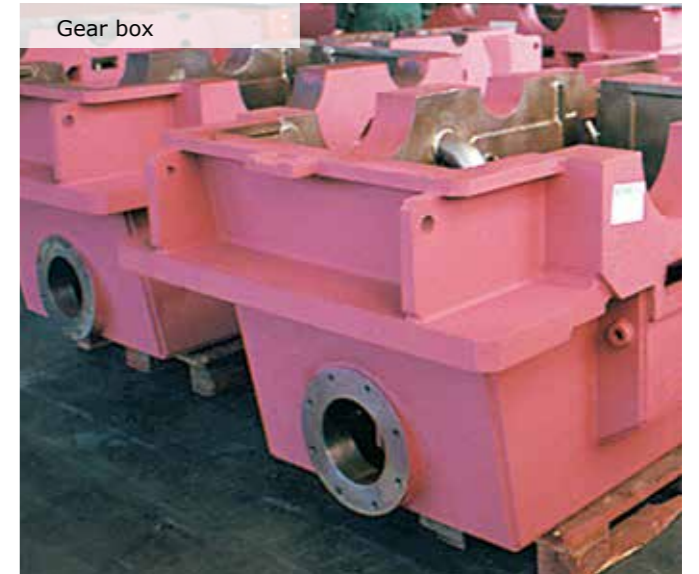
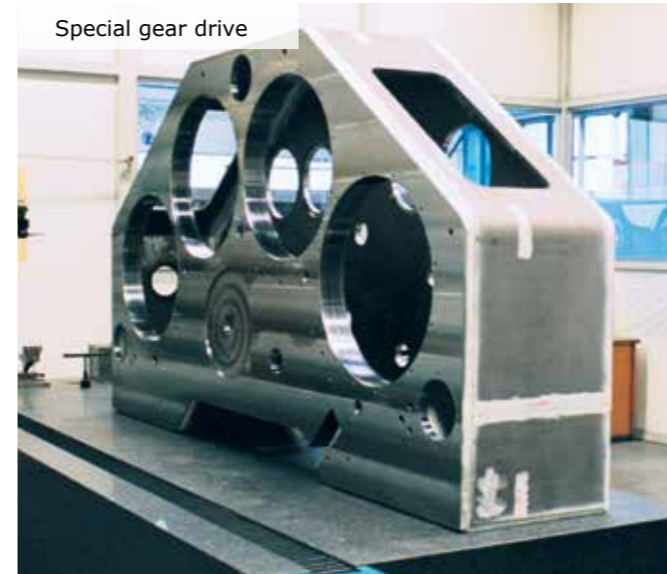
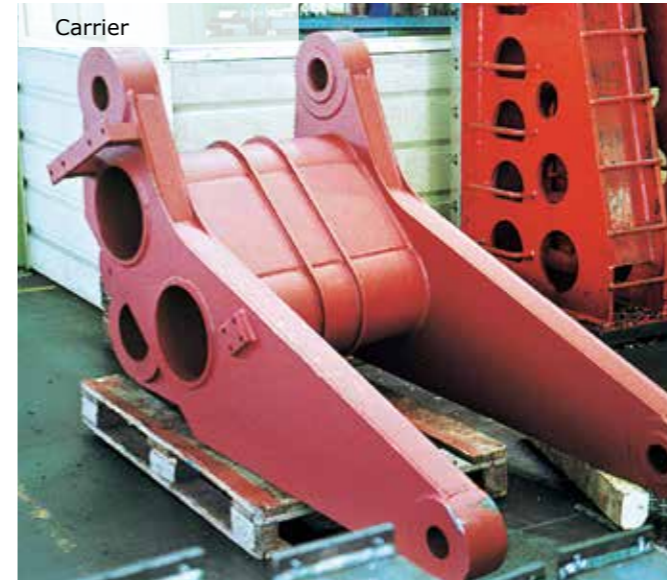


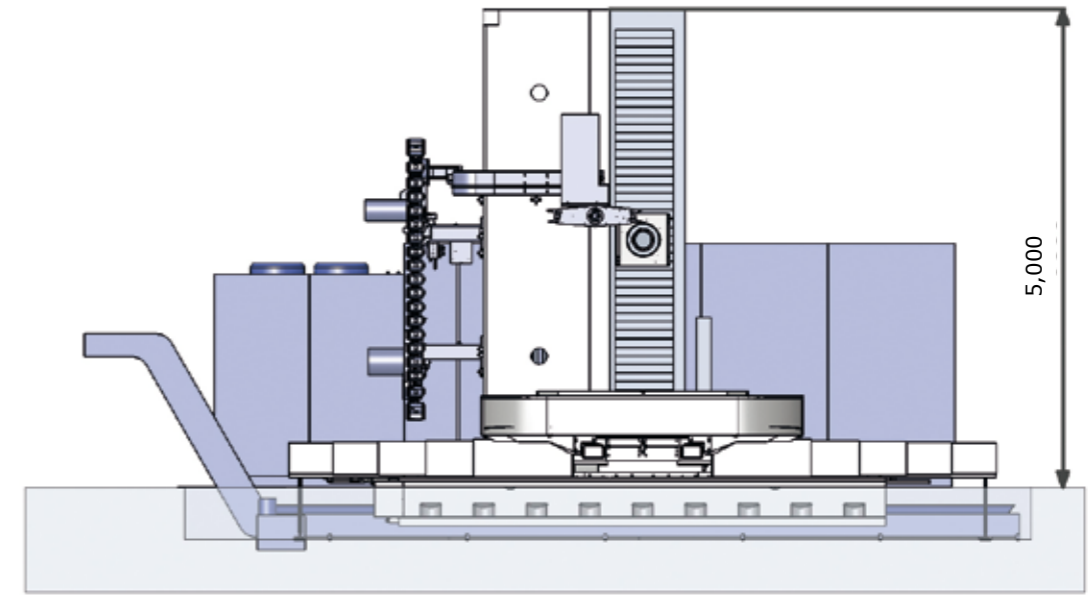
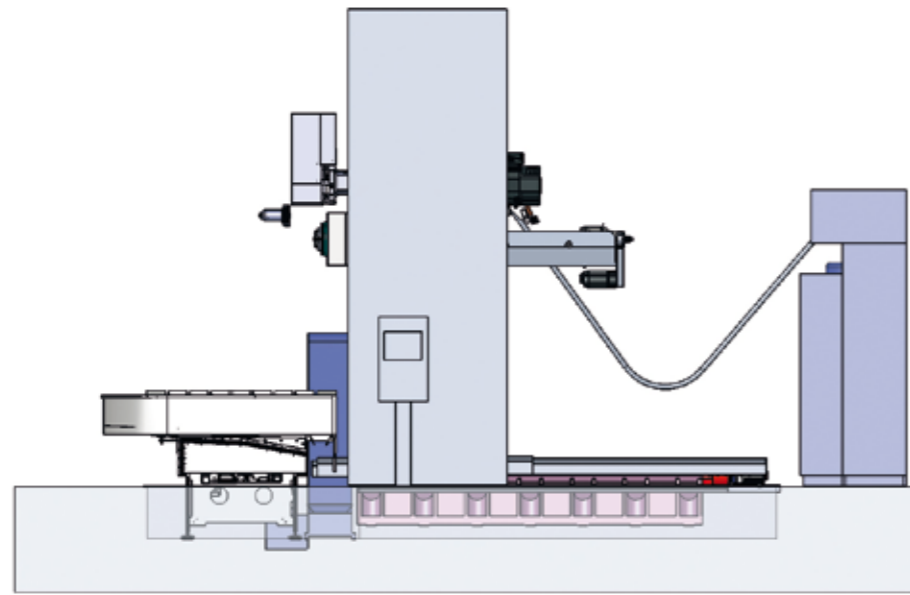
- Max. drive power 51 kW
- Max. spindle torque 1,600 Nm
- Max. spindle speed 3,000 rpm
- C-axis positioning 144 x 2.5°

Spindle Extension



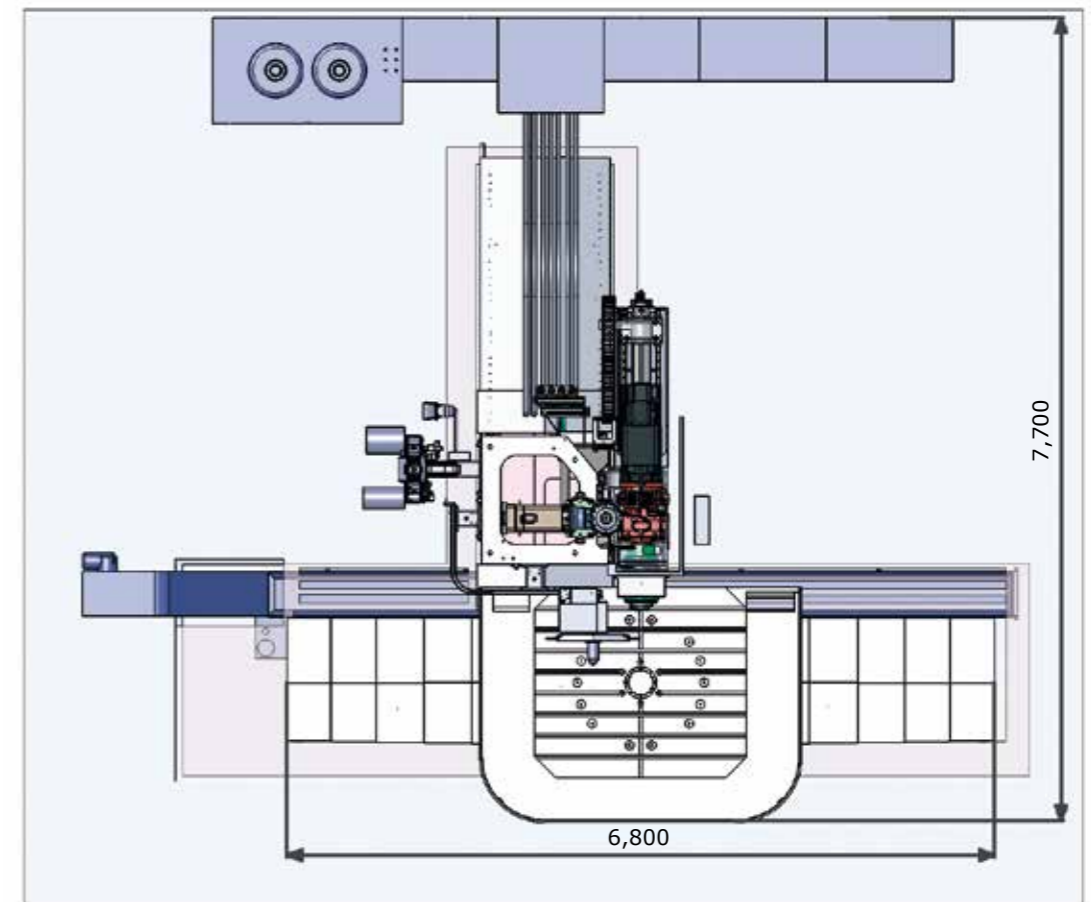
Extension 700 mm
 Outer diameter 280 mm



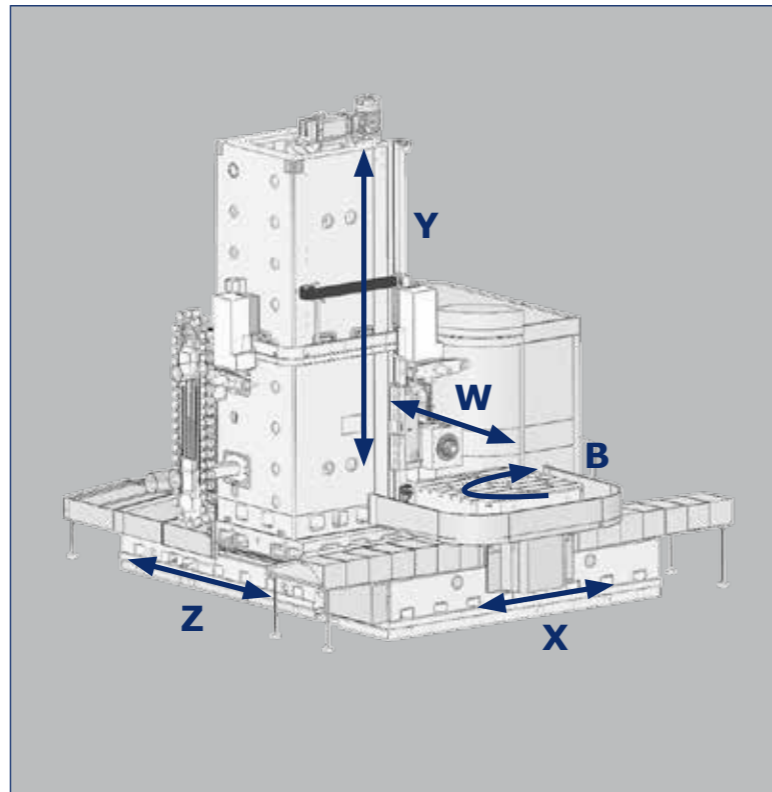


ASCARAPID P 160

Travels			
Table Adjustment, Horizontal	X-Axis	mm	2,000
Headstock Adjustment, Vertical	Y-Axis	mm	3,000
Column Adjustment, Horizontal	Z-Axis	mm	1,600
Boring Spindle, Horizontal	W-Axis	mm	1,000
Table Rotation, Continuous	B-Axis	Degree	360
Rotary and Traversing Table Size 25			
Clamping Surface		mm	1,600 x 1,600
T-Slots		mm	28 ^{H12}
2 x Reference Slots		mm	28 ^{H8}
Slot Spacing		mm	200
Max. Table Load		t	25 [optional 40]
Boring Spindle			
External Diameter Boring Spindle		mm	155
Drive Power S1 (100 % ED)		kW	51
Max. Spindle Speed		rpm	3,000
Max. Torque		Nm	3,600
Gear Stages			2
Tool Taper DIN 69871, form AD		SK	50
Feed Drives			
Feed Power	X-, Y-, Z-, W-Axis	N	40,000
Feed and Holding Torque	B-Axis	Nm	40,000
Feed / Rapid Traverse	X-, Y-, Z-, W-Axis	mm/min.	0 - 10,000
Feed / Rapid Traverse	B-Axis	rpm	0 - 3.3



CNC Axes Overview



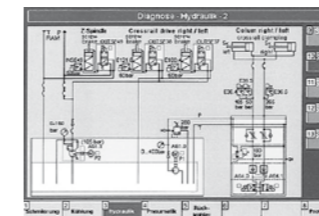
Machine Types		P 130	P 160	
Size				
Min. Tool Diameter for Enter	mm	135	160	
Boring Spindle Diameter	mm	130	155	
Boring Spindle Speed Max.	rpm	3,500 (4,000)	3,500	
Torque Max.	Nm	2,500 (1,800)	3,600	
Main Power Max.	kW	31	51	
Gear Stages		2	2	
Stroke / Axis Movement				
Boring Spindle W-Axis	mm	700	1,000	
Column Z-Axis / incl. Attachment Changer	mm	1,000	1,600	
W + Z-Axis, Total	mm	1,700	2,600	
Head Stock Y-Axis	min.	1,250	2,000	
	in Steps	+ 250	+ 500	
Table X-Axis	min.	1,250	2,000	
	in Steps	+ 250	+ 500	
Table				
	max.	2,500	4,000	
Table				
Loading Max.	t	12	25	40
		1,000 x 1,000	1,600 x 1,600	2,000 x 2,000
Table Surface	mm	1,000 x 1,250	1,600 x 1,800	2,000 x 2,500
		1,400 x 1,600	1,800 x 2,000	2,500 x 3,000

Easy Operation Combined with the Latest Technology

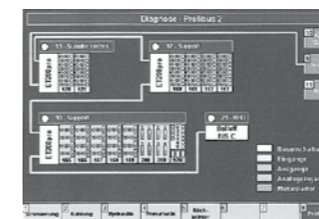
- Control Siemens 840 Dsl incl. Safety Integrated (Fanuc as option)
- Graphical displays for monitoring and setting up the machine:



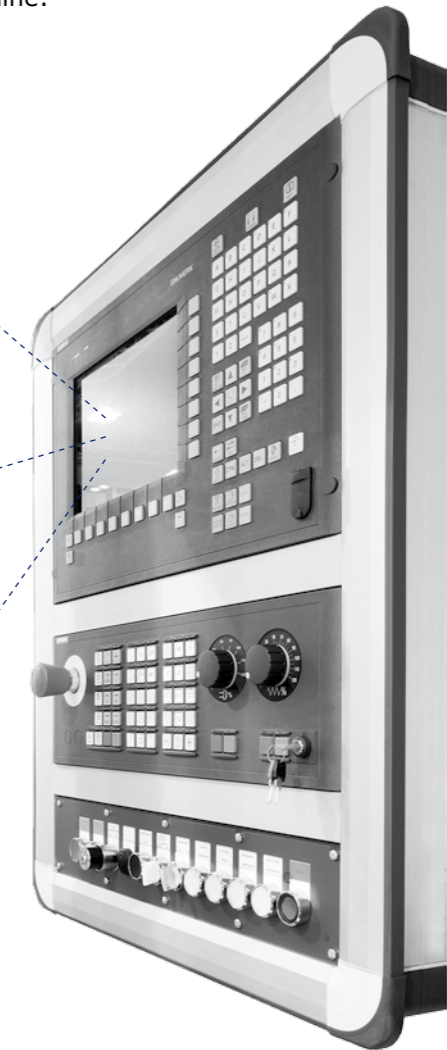
Programming of peripheral devices like chip conveyors



Monitoring of machine functions, e.g. lubrication cycles



Support in the case of default analysis, e.g. hydraulic and pneumatic circuits



Telediagnosis System

Our Telediagnosis System "Autinity" collects and stores data from the production process, e.g. machine status, fault reports, etc.

These data are available for evaluations locally or via Internet by the SCHIESS Service Department. We can also program customer-specific applications.





Please visit our website for further information

WWW.SCHIESS.DE

THE ASCA-SERIES PRODUCT LINE-UP



ASCAMILL



ASCATURN



ASCARAPID

SCHIESS GmbH

Ernst-Schiess-Strasse 1
06449 Aschersleben
Germany

Contact - Sales

☎ +49 (0) 3473 968-333
☎ +49 (0) 3473 968-121
✉ vertrieb@schuess.de

Contact - Service

☎ +49 (0) 3473 968-222
☎ +49 (0) 3473 968-146
✉ service@schuess.de

SCHIESS