

Performance in Perfection

VERTIMASTER

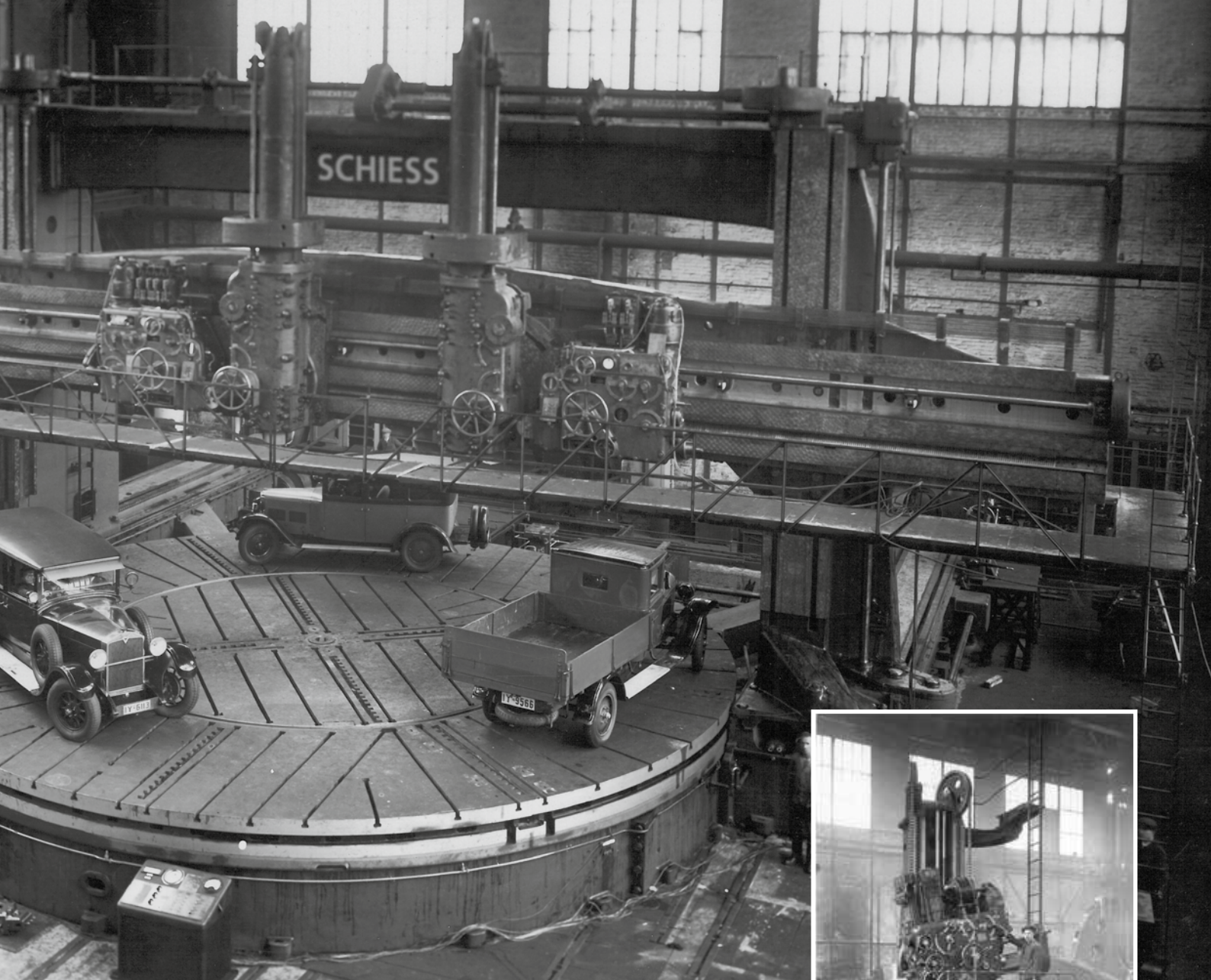


www.schiess.de

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Precision is our Tradition

Today's SCHIESS GmbH, which was established 150 years ago by VDW founding father Ernst Schiess as SCHIESS AG, is one of the oldest and still active machine tool manufacturers worldwide. The company name is still synonymous for highest product quality, precision and efficiency in heavy-duty machines. With innovative products and uncompromising quality, the company will continue to play a prominent role in metalworking.

Exclusive Technology for the Highest Demands

The SCHIESS VERTIMASTER is not a machine for everyone but designed for users with the highest quality criteria and a complex range of parts to be machined. Any combination of the manufacturing processes of turning, drilling and milling is possible in all rotary and linear axes. Also grinding and boring in one set-up as well as a customized level of automation are included in the design of these state-of-the-art portal milling and turning centers.

Your Benefits

- ✓ Ultimate repeatability
- ✓ Outstanding precision
- ✓ Maximum availability
- ✓ Every part in the highest quality
- ✓ Shorter production and cycle times

The SCHIESS Quick Check

Take a minute and check if the VERTIMASTER is the optimal machine for your production

- ✓ Workpieces up to 600 tons weight
- ✓ Turning, milling, drilling and grinding
- ✓ Tightest dimensional and positional tolerances
- ✓ High technical availability
- ✓ Longevity
- ✓ High complexity of workpieces
- ✓ Machining in maximum power density
- ✓ Head solutions for all applications



If you answered Yes to more than 5 questions, you should talk to a SCHIESS expert about the VERTIMASTER in detail.

If you answered Yes to 5 or less than 5 questions, you should learn about the other SCHIESS series.

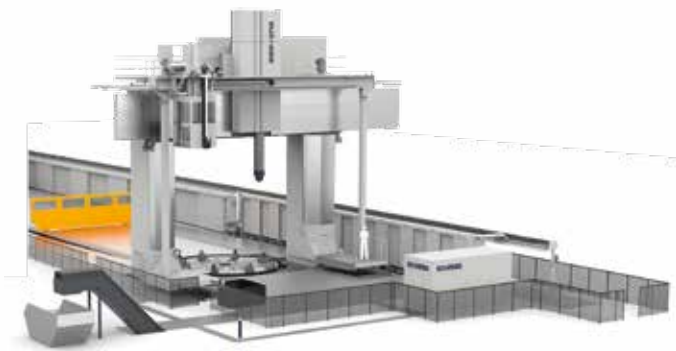
Three from a Single Cast

SCHIESS manufactures integrated solutions of large machines for a wide range of turning and milling applications with high competence and experience. The VERTIMASTER with its outstanding design features is one of the most advanced large machining systems of its kind. This machine concept guarantees the user a maximum productivity and profitability with fast cycle times at low cost. The VERTIMASTER is designed to meet individual customer needs in every respect by a combination of modular components. In use around the world, the VERTIMASTER proves its reliability every day.

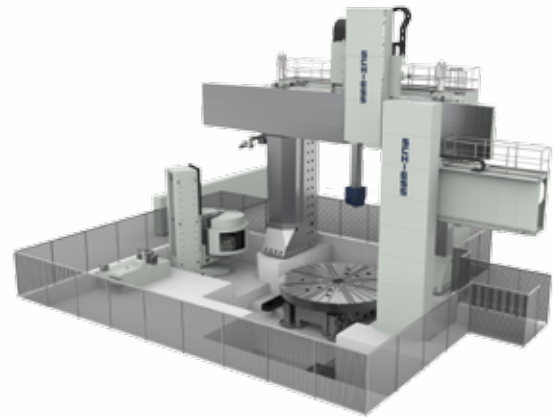


Your Benefits

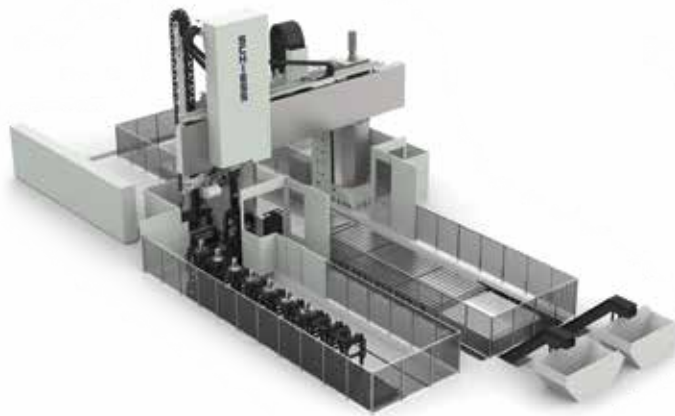
- ✓ Thermo-symmetric design by use of high-quality castings with stiffness-optimized ribbing and optimum vibration damping
- ✓ Hydrostatic guideways in all linear and rotary axes for additionally optimized vibration damping and stiffness under heavy loads in the machining process
- ✓ All RAMs provide high power and torques
- ✓ Maximum benefit at low total cost of ownership



VMG Portal Milling Machine in Gantry Design with 4 axes (X, Y, Z, C) available also with face plate



VT Vertical Lathe with 2 axes (X, Z)
VM Vertical Lathe with 3 axes (X, Y, C) as well as drilling and milling drive



VMT Portal Milling Machine in Table Design with up to 4 axes (X, Y, Z, C) in single, double or coupling table design

VT - VM - VMG		3	4	5	6	7	8	9	10	12
VMT		3	4							
Width floor plate/ table, max.	mm	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	12,000
Face plate diameter, max.	mm									
Machining height*, max.	mm	10,000								
Stroke X/Y-axis	mm	application-specific								
Face plate load, max.	t	600								

*VMT series with machining height of up to 5,000 mm

All a.m. technical parameters are customizable

State-of-the-art Technology ensures Top Performances

VERTIMASTER VMG

For the people behind the legendary SCHIESS quality, meeting high standards is part of their everyday routine. Generations of designers, engineers, technicians and fitters have shaped the growth of this pioneer in the manufacture of heavy-duty machines and laid the foundations for the company's strong reputation around the world. With a tradition for precision workmanship and attention to detail which has survived to the present day, each machine is adjusted and manufactured by craftsmen in Aschersleben to satisfy specific customer requirements depending on the respective field of application. A SCHIESS machine always lies at the heart of the production process for our customers. Our machines operate accurately and reliably for decades, even under the toughest of conditions.

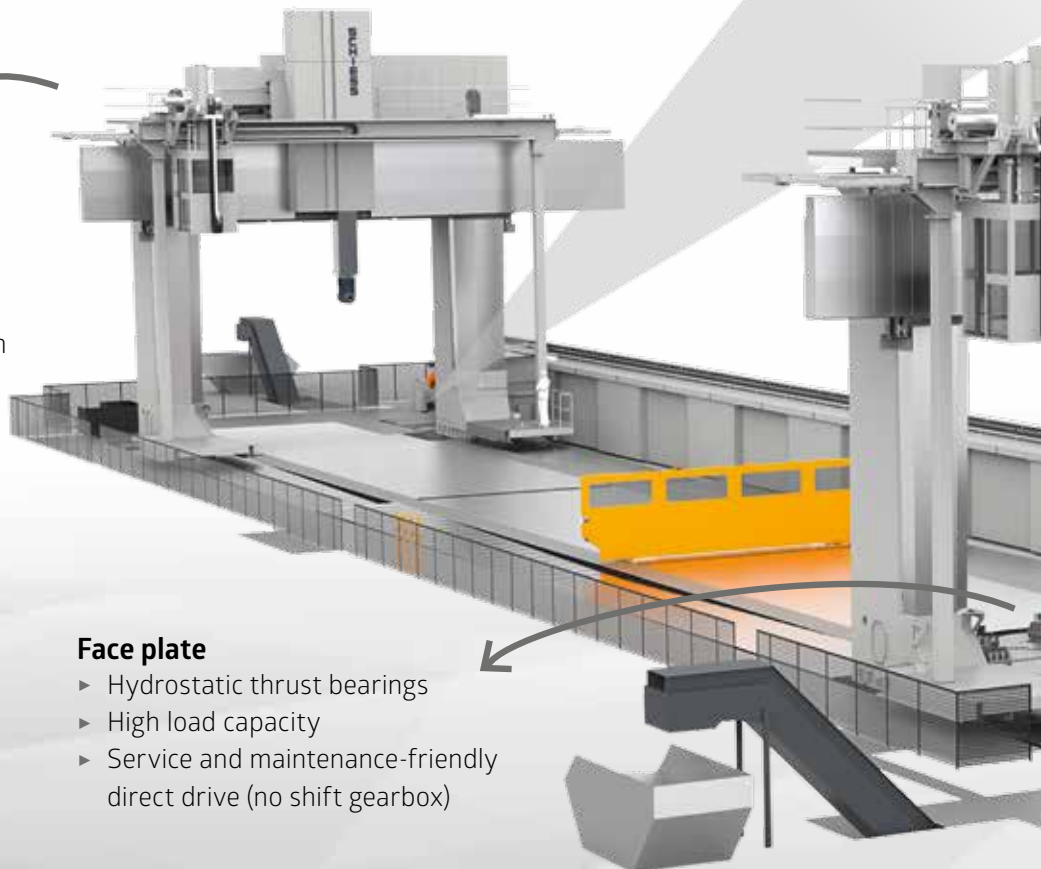
Modifications and adaptations to changing machining tasks are possible at a later date at any time, too.

Machine design

- ▶ Modular design
- ▶ High-quality casting with maximum stiffness and vibration dampening
- ▶ Bending and torsion-resistant design due to optimized force flow

Face plate

- ▶ Hydrostatic thrust bearings
- ▶ High load capacity
- ▶ Service and maintenance-friendly direct drive (no shift gearbox)





VERTIMASTER

VMG

Floor plate width, Face plate diameter	mm	3,000 - 12,000
Machining height, max.	mm	10,000
RAM stroke, max.	mm	4,000
Drive power – drilling and milling spindle (S1/100 % DC), max.	kW	100
Torque – drilling and milling spindle, max.	Nm	9,000

All a.m. technical parameters are customizable

RAM

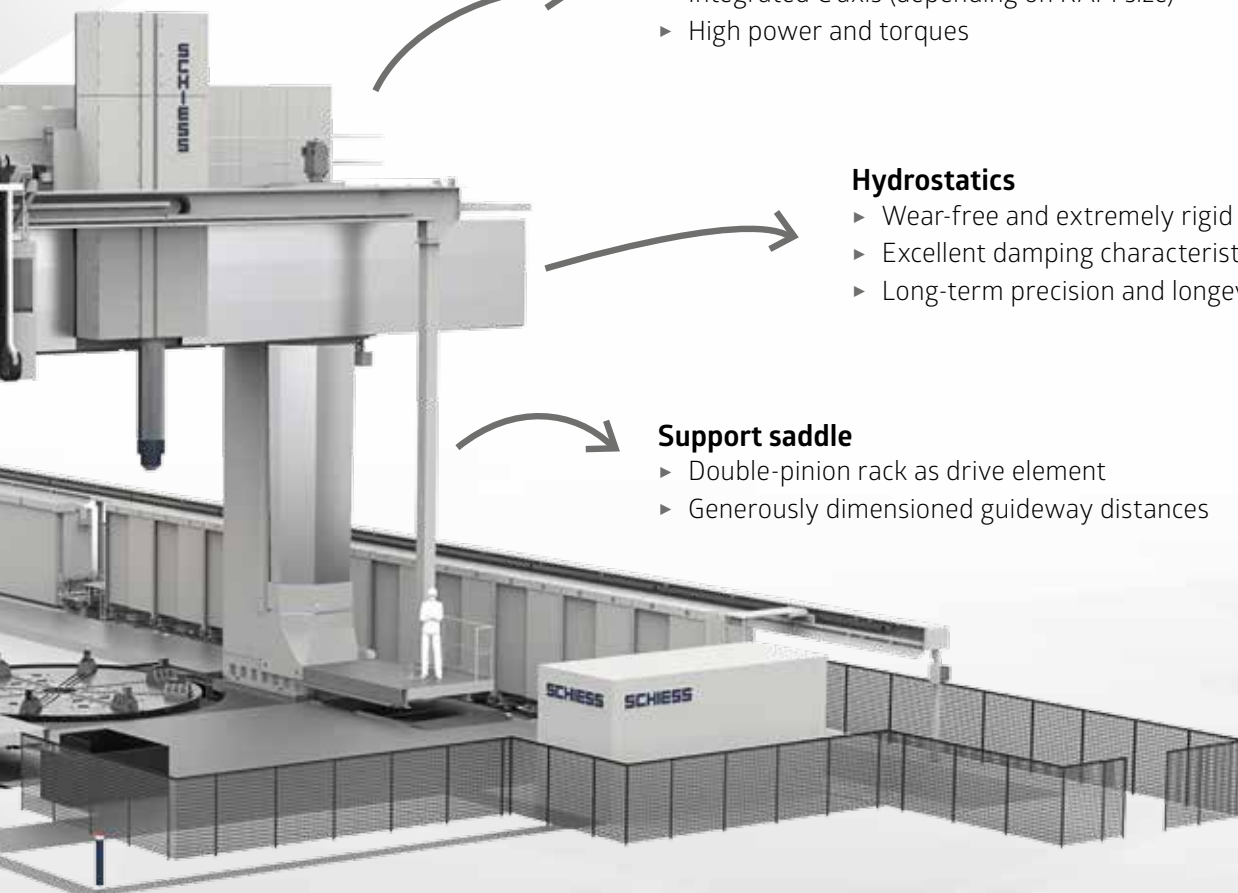
- Thermo-symmetric design
- Integrated C-axis (depending on RAM size)
- High power and torques

Hydrostatics

- Wear-free and extremely rigid guideways
- Excellent damping characteristics
- Long-term precision and longevity

Support saddle

- Double-pinion rack as drive element
- Generously dimensioned guideway distances



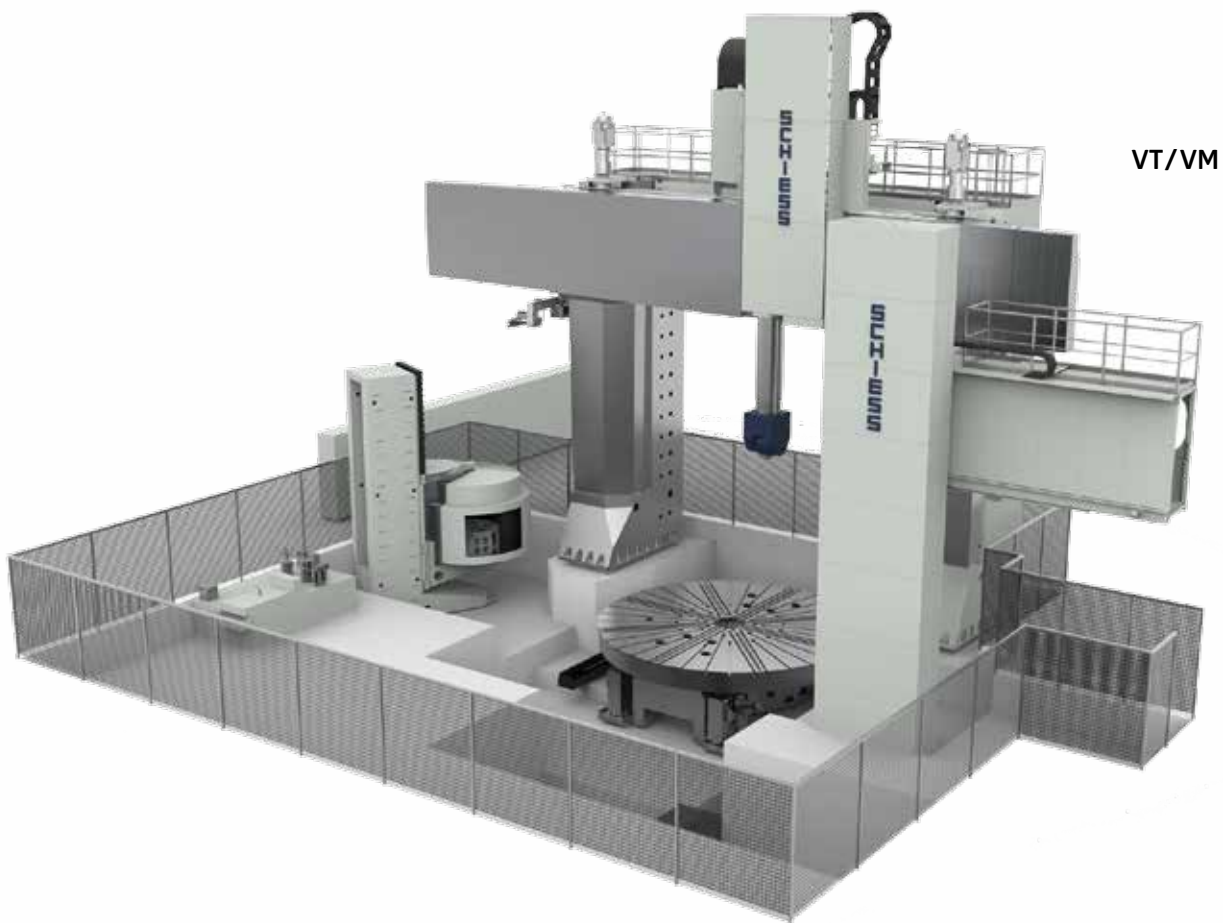
Highly Productive through Technology Integration

VERTIMASTER VT and VM

SCHIESS Vertical Lathes are unique not only in their dimensions, but also in their performance. All frame components are traditionally made from high-quality nodular cast iron and machined on our own, high-precision SCHIESS production equipment. This unique stability, in combination with the hydrostatic guideways, ensures a level of dynamics and precision that is outstanding in machines of this size – and goes on for decades, because the machines are nearly wear-free.

Modifications and adaptations to changing machining tasks are possible at a later date at any time, too.





VT/VM

VERTIMASTER		VT/VM
Face plate diameter, max.	mm	12,000
Main drive power (S1/100 % DC), max.	kW	550
Face plate load, max.	t	600
Machining height, max.	mm	10,000
RAM stroke, max.	mm	4,000
Drive power – drilling and milling spindle (S1/100 % DC), max.	kW	100
Torque – drilling and milling spindle, max.	Nm	9,000

Y-axis optionally available as traveling portal

All a.m. technical parameters are customizable

Single-Column Vertical Lathe of the Superlatives VERTIMASTER VME

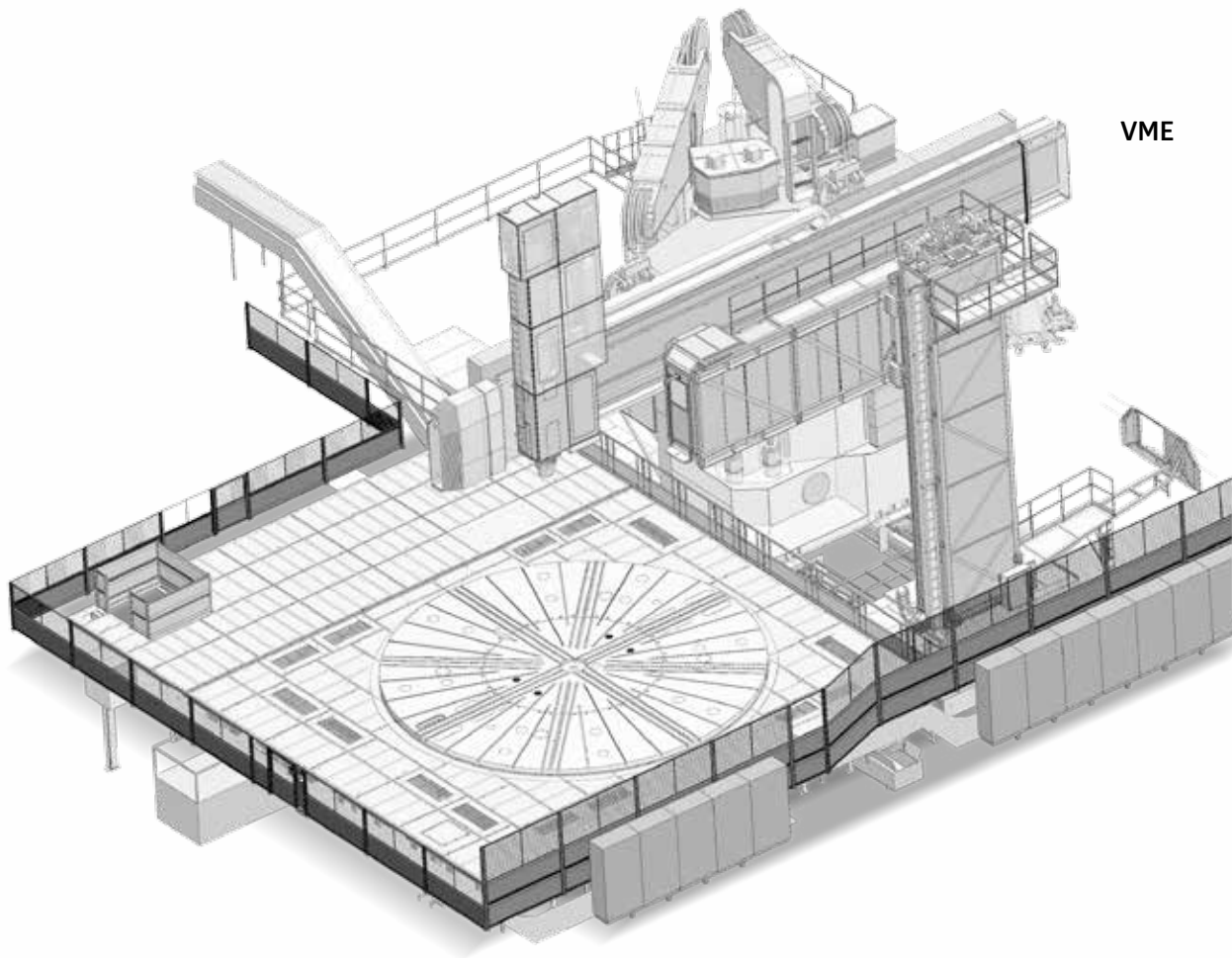
The multifunctional single column vertical turning lathe VME is based on the know-how gained with the VERTIMASTER series. Technological processes such as turning, drilling and milling can be carried out in just one set-up, which is particularly important when it comes to complex rotation-symmetrical workpieces with especially large dimensions.

The machine is individually adapted to the customer's requirements through a modular system configuration.





© Stempelkamp



VME

VERTIMASTER		VME
Face plate diameter, max.	mm	12,000
Machining diameter, max.	mm	22,000
Main drive power (S1/100 % DC), max.	kW	550
Face plate load, max.	t	600
Machining height, max.	mm	10,000
RAM stroke, max.	mm	4,000
Drive power – drilling and milling spindle (S1/100 % DC), max.	kW	100
Torque – drilling and milling spindle, max.	Nm	9,000
All a.m. technical parameters are customizable		

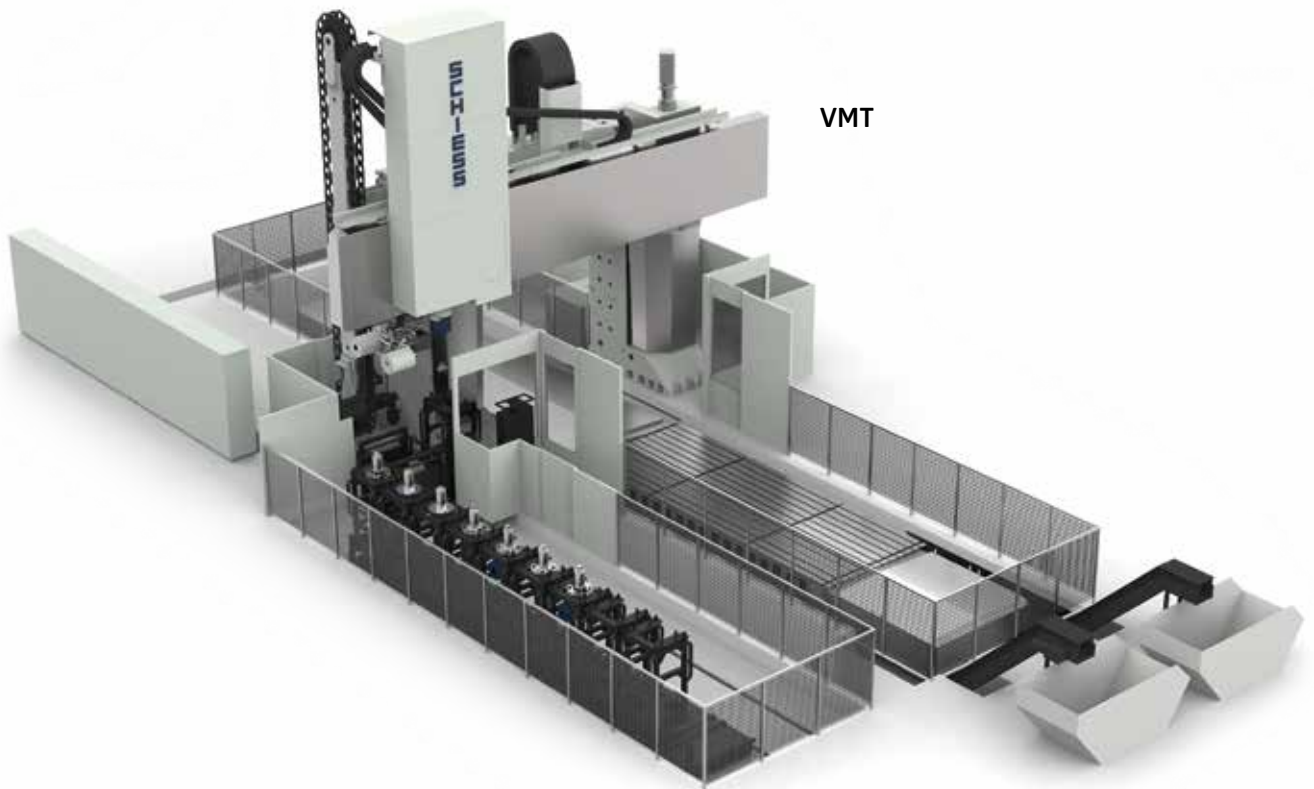
Precision is our Tradition

VERTIMASTER VMT

The Portal Milling Machine VERTIMASTER VMT in single, double or coupling table design is among the state-of-the-art and most precise machine tools of the classical design. Based on their modular and flexible system configuration, they are tailored by SCHIESS' experts cost-effectively to the customers' specific requirements.

Any combination of the manufacturing processes of drilling and milling as well as specific boring and grinding operations are possible.





VMT

VERTIMASTER		VMT
Table width, max.	mm	4,000
Machining height, max.	mm	5,000
Table stroke	mm	application-specific
RAM stroke, max.	mm	2,600
Drive power – drilling and milling spindle (S1/ 100 % DC), max.	kW	100
Torque – drilling and milling spindle, max.	Nm	6,000

All a.m. technical parameters are customizable

Exclusive RAMs

SCHIESS draws on decades of experience in the design of RAMs in each project and provides a customized solution for optimized machining of complex workpieces for any application. Their exclusive strength lies in the combination of maximum immersion depth and power with minimum RAM size. The RAMs with round or rectangular cross-sections ensure high technical flexibility for machining of complex workpieces, such as, for example, for milling of low-lying surfaces with minimal immersion diameter.





VT - VM - VMG		3	4	5	6	7	8	9	10	12
VMT		3	4							
RAM assignment (Z-axis) Cross-section	mm	280 x 240								
			420 x 340							
				520 x 460						
					640 x 570 / Ø 560					

RAM dimensions	mm x mm	280 x 240	420 x 340	520 x 460	640 x 570 / Ø 560
Drive power (S1/100% DC), max.	kW	52	52	772	100
Torque, max.	Nm	2,400	2,400	6,000	9,000
Speed, max.	rpm	3,150	3,150	3,000	2,500
RAM (Z-axis) stroke, max.	mm	1,800	2,600	3,000	4,000
Integrated C-axis		-	-	yes	yes

All a.m. technical parameters are customizable

280 x 240	420 x 340	520 x 460	640 x 570 / Ø 560

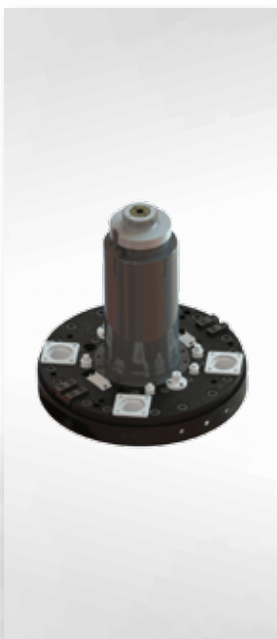
Real immersion diameter at workpiece

Customized Heads

With the Masterhead Principle, which has proved its advantages for decades, SCHIESS realizes the adaption of various standard and custom machining heads, always taking into account the most effective solution for customers in all industries. The modular system configuration of the Masterheads used by SCHIESS can be individually adapted to a wide range of parts based on customer requirements - both in the present and in the future. This ensures that the machine is always at the cutting edge of machining technology.

The Universal drilling and milling head and the technically sophisticated C-axis integrated in the SCHIESS RAM allow also simultaneous five-axis machining of workpieces.

Masterhead



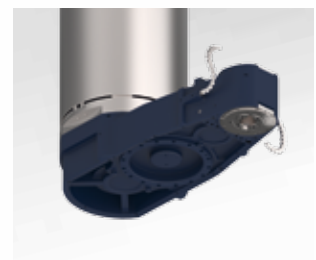
Heads for typical drilling and milling applications



Straight drilling and milling head



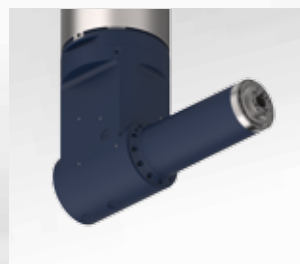
Angular drilling and milling head



Axis-offset drilling and milling head



Straight drilling and milling head



Angular drilling and milling head



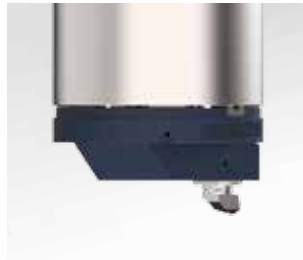
Axis-offset drilling and milling head



Heads for typical turning applications



Turning tool holder



Turning tool holder

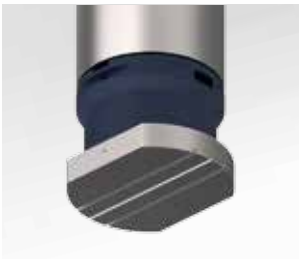


Multi-turning tool holder



Standard shaft tool holder

Heads for contouring and facing operations



Straight facing head



Angular facing head

Heads for multi-axis machining

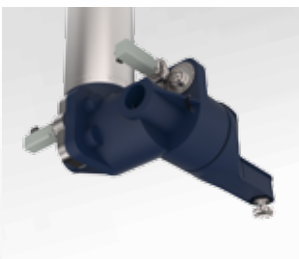


Universal drilling and milling head

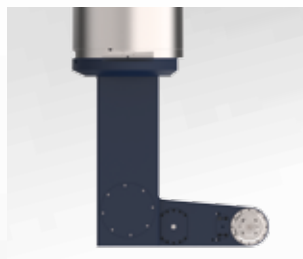


Universal drilling and milling head

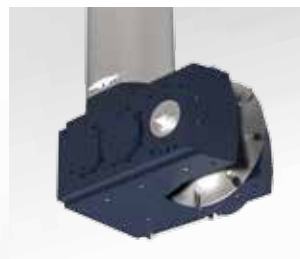
Heads for special applications



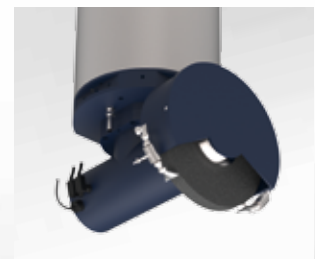
Universal drilling and milling head



Fixed angular milling head



Gear milling head



Grinding spindle
(horizontal and vertical)

Rental and Replacement Heads

You need a special head for temporary machining or a replacement head?

We offer temporary solutions. Just call us!

Intelligent Accessories

SCHIESS large machining centers excel not only through their performance and dynamics but also through their unique attachments, which ensure the highest level of productivity. Examples are:

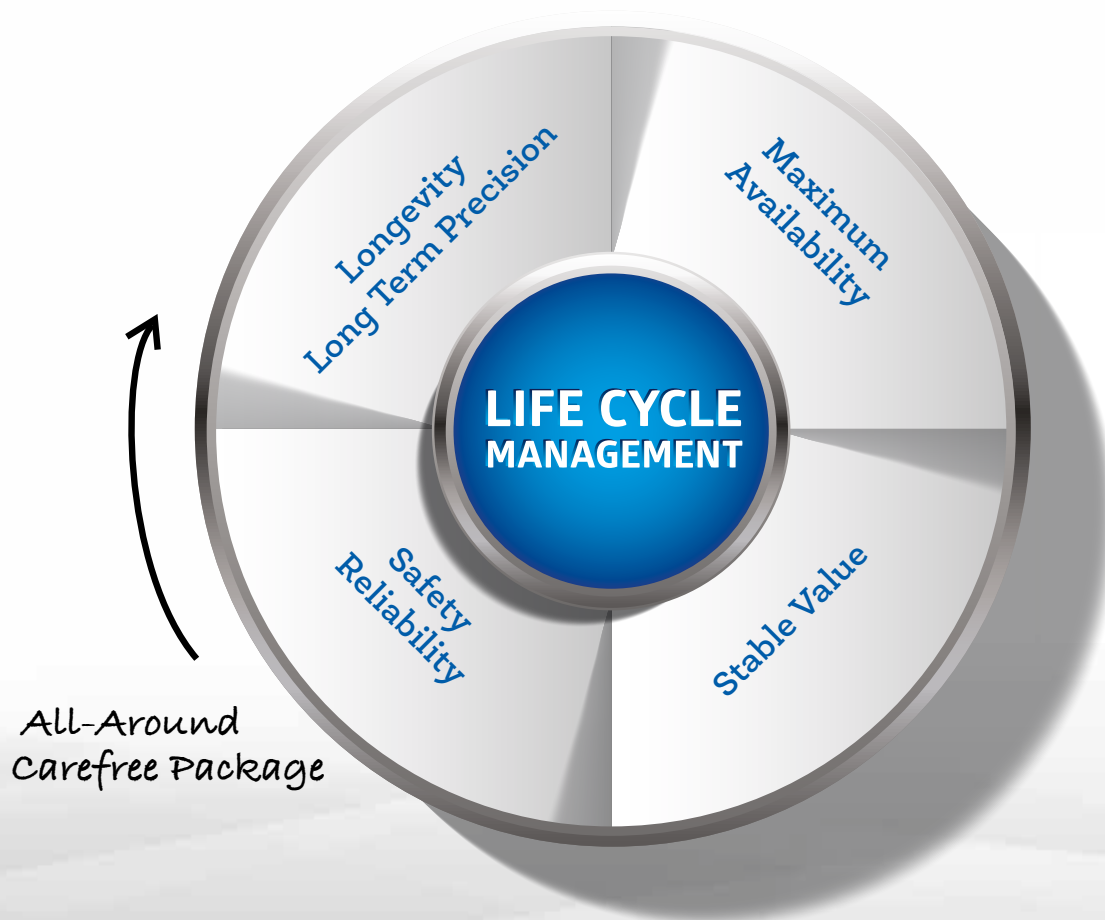
- ✓ Automatic or semi-automatic head changes
- ✓ Tool change systems with chain type magazine, disk type magazine, rack type magazine with robot or other special solutions
- ✓ Various approaches for optimized usability
- ✓ Tailored coolant and chip disposal management
- ✓ Extensive safety equipment





SCHIESS' Warranty of Confidence for maximum Availability

You don't just buy a SCHIESS machine but an all-around carefree package. Our service team never lets you down in your day-to-day production operations. From professional training of machine operators to smart diagnostic systems and the telephone help desk - customers will always meet competent and committed staff. And because we are convinced of the quality of our machines, we guarantee one of the highest machine availabilities in the market - over years.



The SCHIESS Life Cycle Service Management guarantees:

Professional training

- ▶ More safety in machine operation
- ▶ Avoiding error-related downtime
- ▶ Optimizing machine utilization

Application optimization

- ▶ Quick workpiece programming
- ▶ Quick program optimization
- ▶ Increase of efficiency

Hotline and diagnostics

- ▶ Safe and quick remote maintenance
- ▶ Clear overview of machine conditions
- ▶ Evaluation of the diagnostic system
- ▶ Vibration analysis
- ▶ Evaluation of error messages and error history
- ▶ Recommendations for preventive maintenance

Central archive and database

- ▶ Extensive, continuously updated database for status assessment and selection of spare parts

Maintenance and repair

- ▶ Minimizing downtime by preventative maintenance
- ▶ Excellently trained service technicians
- ▶ Short response time for maintenance and repair on site

Spare parts logistics

- ▶ High availability of wear parts, resulting in shorter downtimes
- ▶ Archive-supported spare parts advice
- ▶ Common components and spare parts kits always in stock
- ▶ Efficient warehouse and shipping logistics



Other HIGHLIGHTS of the SCHIESS product portfolio



Portal Milling Machines in Table Design
with table lengths of up to 8,000 mm



Vertical Turning/Milling Centers
with machining diameters of up to 3,500 mm



High-precision Boring Mills
with table loads of up to 40 tons



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