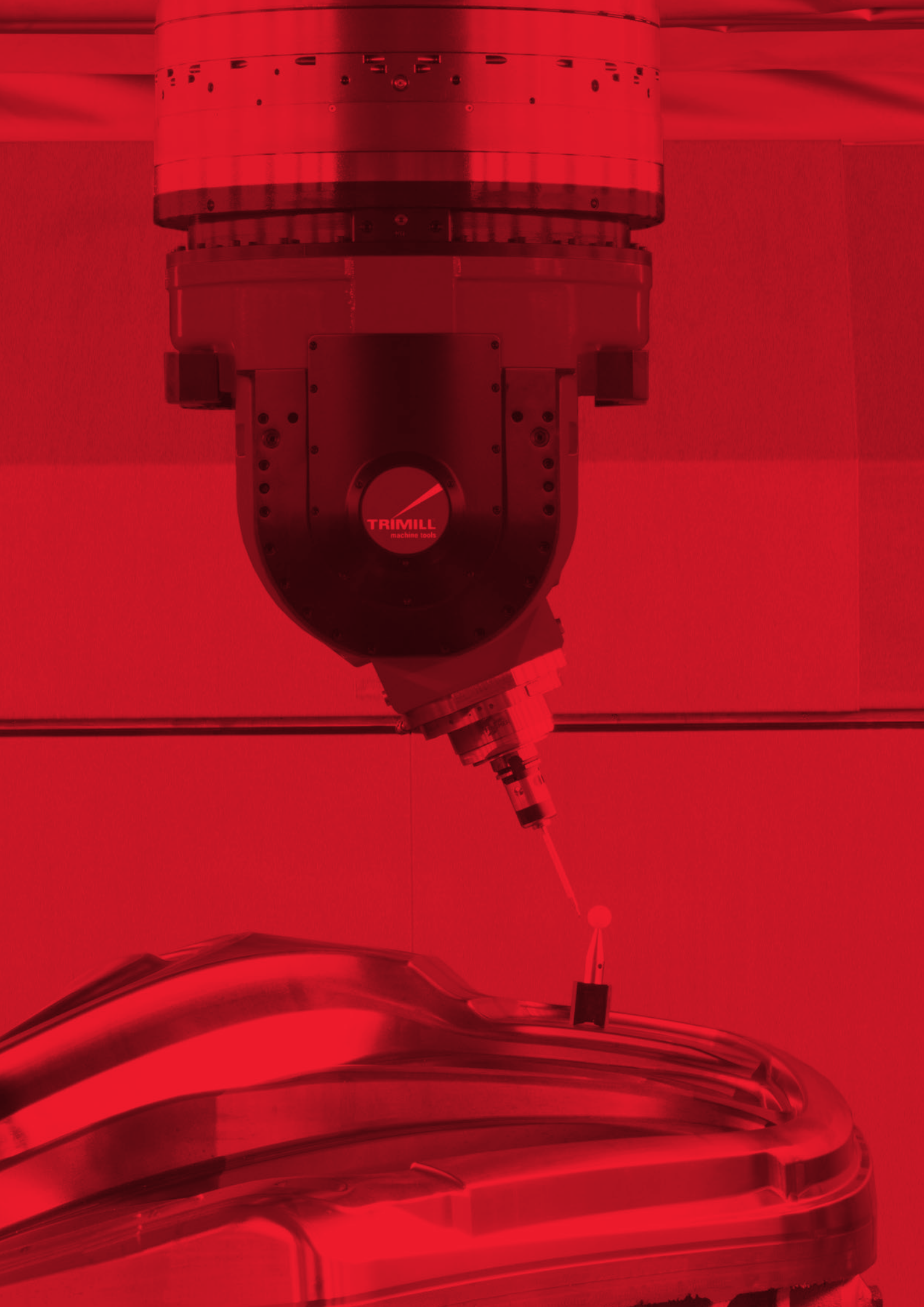




YOUR PARTNER  
FOR PORTAL  
MILLING MACHINES







Milan Julina



Hans-Georg Hornjak



Dear business partners,

When we founded TRIMILL, a.s. as a family business in 2000, our goal was to create a strong company focused primarily on the development and production of portal milling machines with an excellent **QUALITY – PERFORMANCE – RELIABILITY – PRICE** ratio. To date, we've managed to meet this goal, especially thanks to the professional approach, expertise and experience of our employees and partners. Our machines and solutions have quickly gained a strong foothold not only in the Czech Republic but also in foreign markets such as Germany, Poland, Brazil, the U.S., Portugal, Slovenia, USA, Mexico, Canada or Turkey. Our collaboration with every one of our customers is based on **TAILOR-MADE SOLUTIONS**. Our individual approach allows us to present and implement solutions that meet 100% of your needs. We view each and every business collaboration as a **PARTNERSHIP**, as the success of our customers is also our success. At the same time, we rely on our specialized team of experienced designers and the continuous **DEVELOPMENT** of new solutions.



**By strategically joining with YCM Industries Co., Ltd, we are stronger and closer to our customers around the world.**

We look to the future both with high expectations and respect. Our everyday challenges include not only maintaining the high standards of the products and services we provide to all our customers, but also continuously improving them. That is because the satisfaction of our customers is both our priority and commitment. We are based on a long machine tool production tradition in our region. We respect an individual approach to each customer, including permanent and high-quality service support. Through research, development and design, we respond to current market requirements such as automation, digitization, Industry 4.0, or demands for ever higher machining speed and precision. We respect the principles of nature protection and sustainability thanks to technical and technological development.

**We would also like to start working with you.**

Milan Julina

Hans-Georg Hornjak



# TRIMILL Your partner for PORTAL MILLING MACHINES



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Germany



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TRIMILL, a.s.  
Jasenice 2061  
755 01 Vsetín  
Czech Republic

## The numbers that speak for us. The facts behind our work.

2000

We have been operating worldwide since we were founded back in 2000.

---

12 900

We have 12 900 m<sup>2</sup> of production areas located in Zlín and Vsetín, complemented by our business/service branch in Herford, Germany.

---

130

We employ over one hundred experts in the fields of development, construction, assembly and technology.

---

500

We have already manufactured over 500 machines which operate reliably for our customers.

---

30

Our machines have become invaluable in production and industrial companies in 30 countries all over the world.

---

5

In addition to Czech, we also communicate in four world languages: English, German, Russian and Polish.

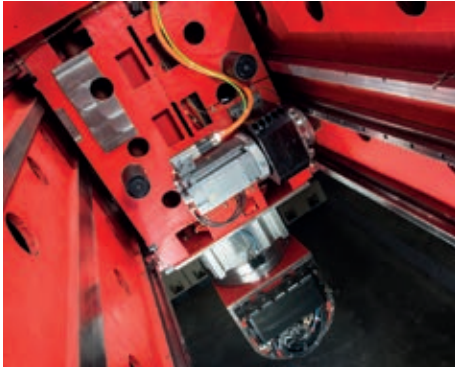
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200

200 satisfied customers: come and join them.

## ■ TRIMILL PRINCIPLE: BOX-IN-BOX and UHPC

The box-in-box is a unique system of closed construction of the cross-beam and cross-slide with internally positioned and guided ram unit (axes Y and Z). UHPC is a high strength concrete with excellent properties for vibration damping and thermal stability of machines.



### THE ADVANTAGES OF TRIMILL PRINCIPLE:

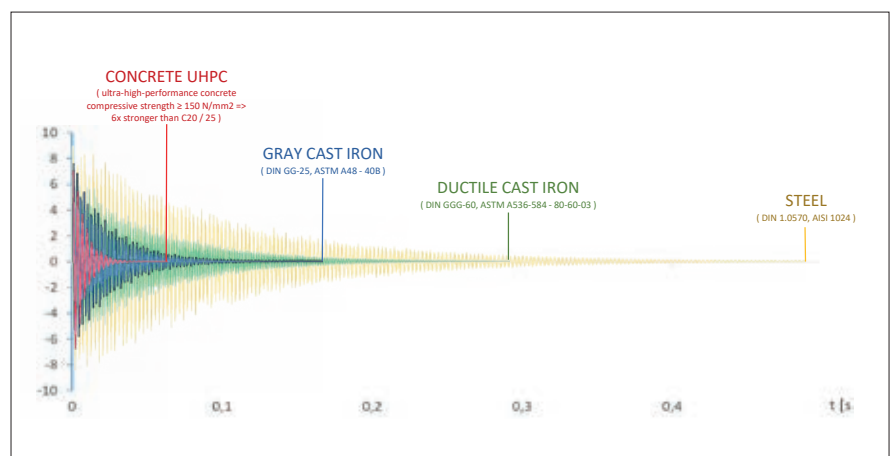
- Consistent milling results thanks to stable thermo-symmetrical arrangement on linear guideways
- Always 4 guides of the cross and vertical support for the machine, preventing the occurrence of the so-called „banana effect“ which deforms/bends the vertical support of the machine
- Increased rigidity of the machine in the X axis by +60%, in the Y axis by +30% and in the Z axis by +90%

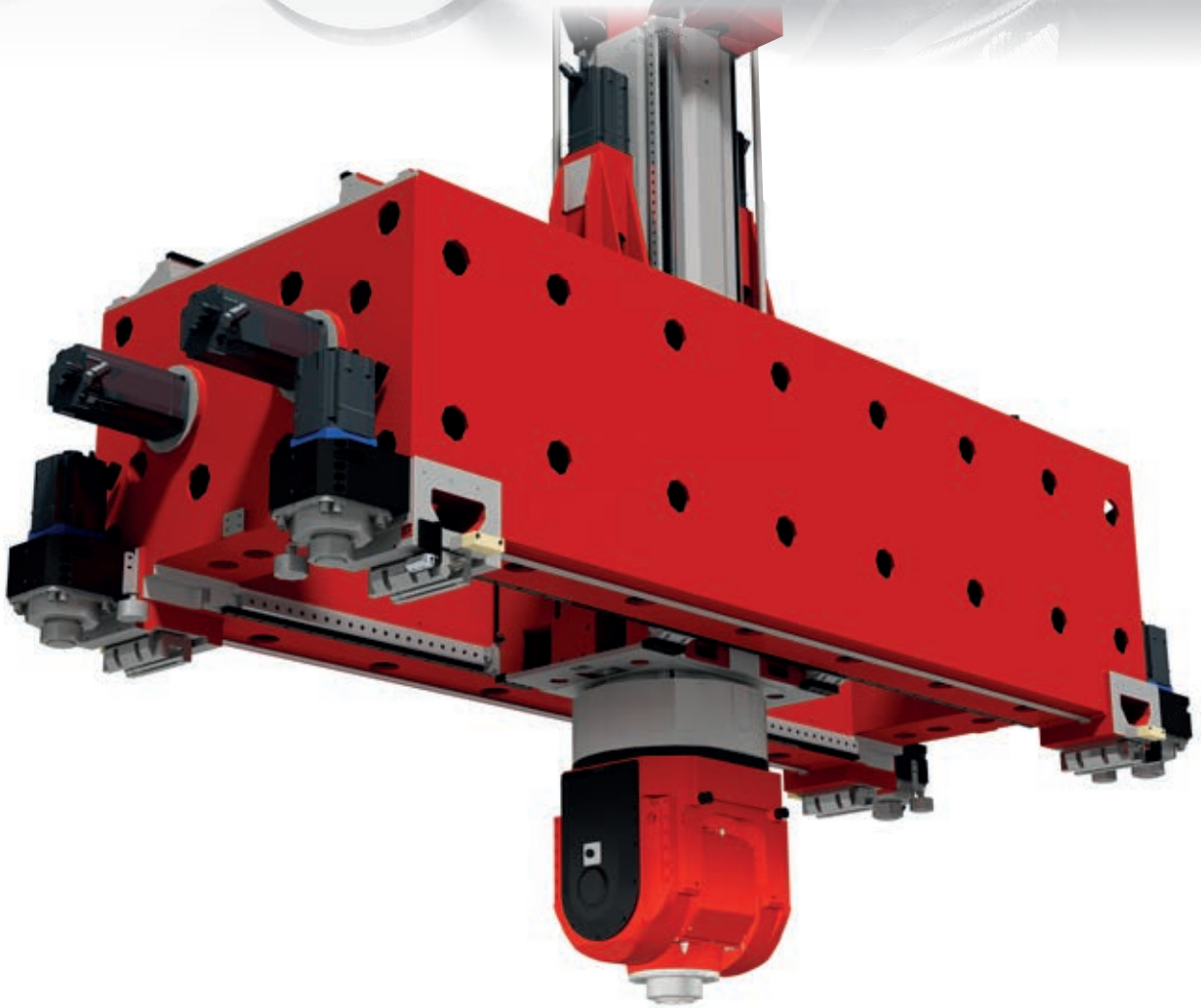


### ADVANTAGES OF USING UHPC:

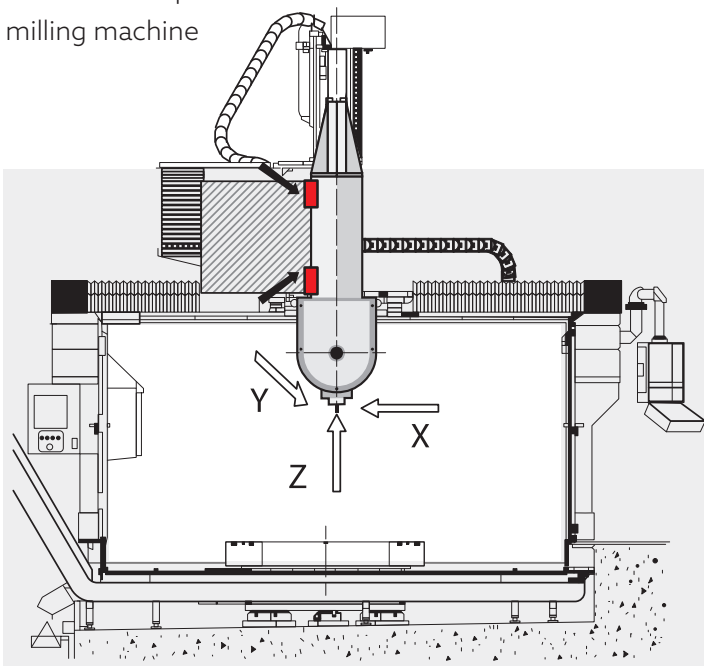
- The columns and longbeams of most TRIMILL machines are made of high-strength concrete (UHPC).
- Maximum vibration damping and extended tool life
- Low thermal conductivity and high heat capacity resulting in high thermal stability of the machines
- Compressive strength  $\geq 150 \text{ Mpa} \Rightarrow 6$  times stronger than C20/25 concrete
- Production in our own concrete plant in TRIMILL, a.s.

TRIMILL uses UHPC with the most effective damping properties for all stationary machine components, which ultimately means better surface quality, higher precision and longer tool life.

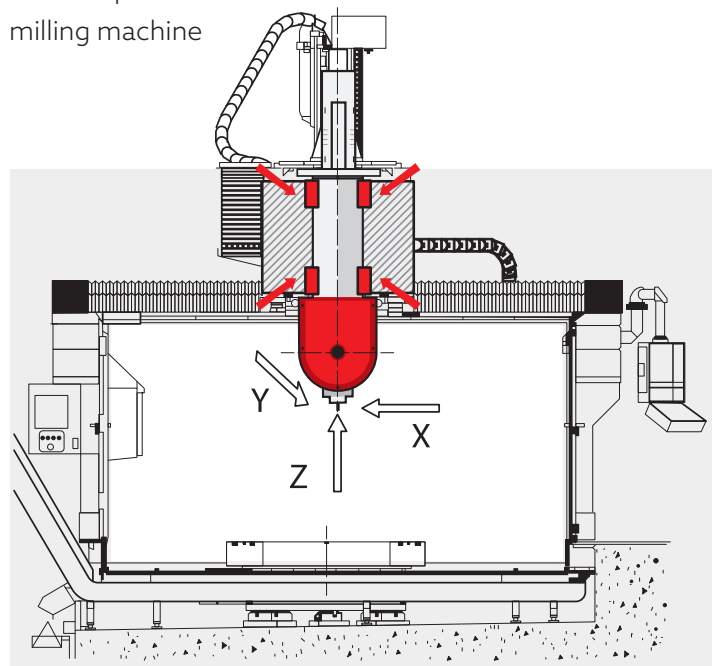




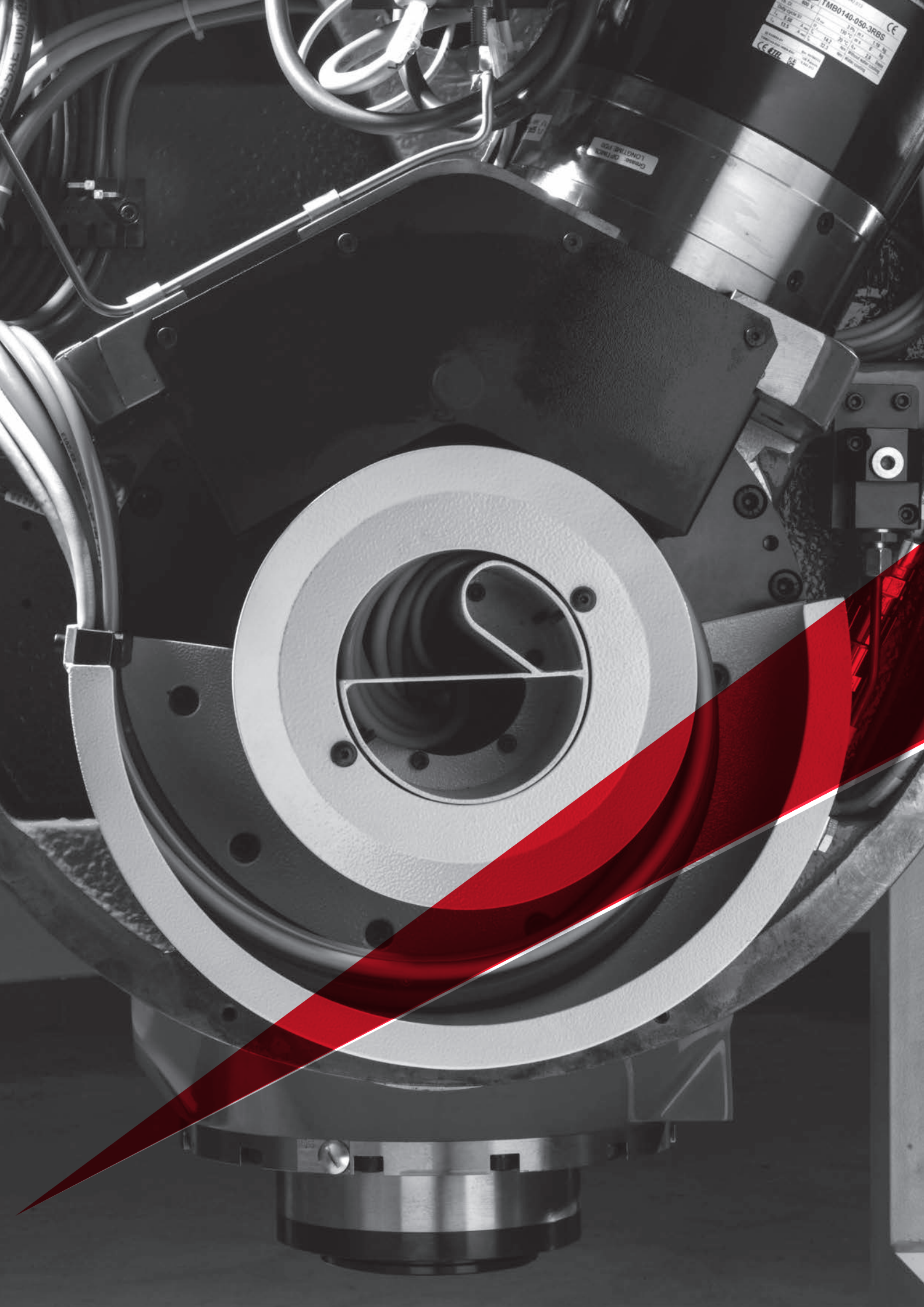
Conventional portal  
milling machine



TRIMILL portal  
milling machine



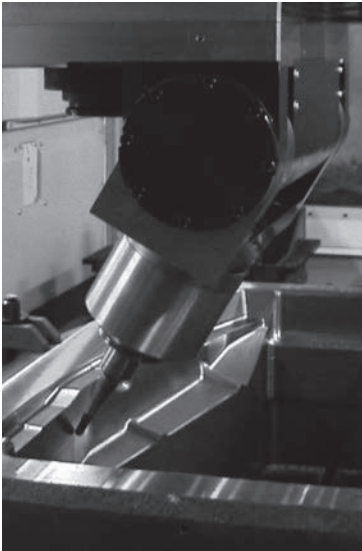






## DEVELOPMENT AND PRODUCTION OF MILLING HEADS

Along with our machines, we also develop, construct, manufacture and also carefully test our own milling heads. Plus we do it all in Zlín!



The history of our production of milling heads dates back to 2000, when we introduced our first milling head on the market as part of the DEPOMILL 2012 machine.

**Not only specialized areas dedicated to the production of milling heads, but our highly qualified staff with many years of experience also serve as a guarantee for the high-tech production of these items. We currently offer 12 types of milling heads.**

Thanks to our production of milling heads, our customers also receive a significant advantage in follow-up service. TRIMILL technicians know all the details related to the construction of our milling heads, and we have components and spare parts for our milling heads in stock. Virtually instantaneous reaction times to our customers' needs are therefore ensured.

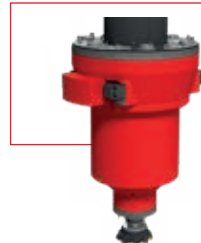
S1



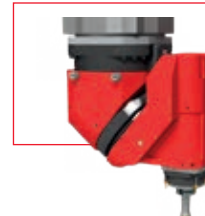
S2



S4



U2C/U3C



T15



T21



T30



H3



F2



F4/F5



A2.1



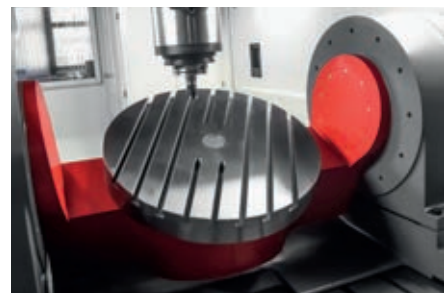
L1



## ■ VERTICAL MILLING MACHINES

### TRIMILL VC

TRIMILL VC 3-axis milling centres are characterized by their excellent rigidity and dynamic milling capabilities thanks to their portal construction with a fixed work table and the BOX-IN-BOX portal. This design allows customers to achieve high-quality milled surfaces and high dimensional accuracy.



VC



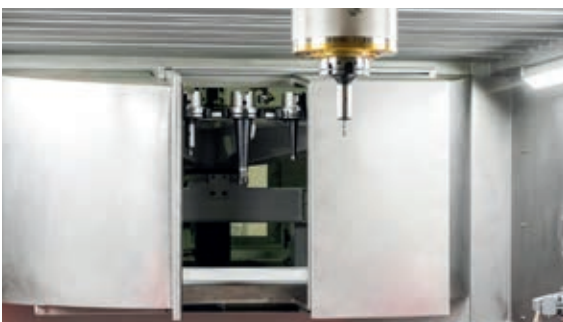
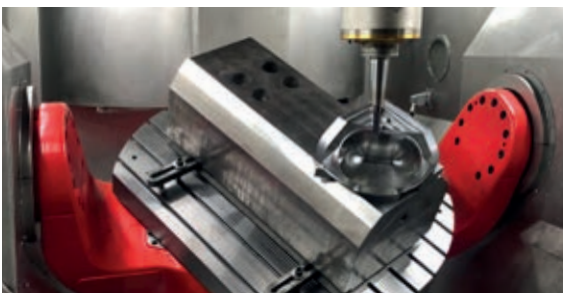
## VERTICAL MILLING MACHINES

### TRIMILL VS

The rigid 5-axis VS series TRIMILL machine is purposefully designed with upper gantry construction for very dynamic and precise machining of accurate single piece and small series production. It also has unique closed design of the cross-beam and cross-slide (box-in-box design) with internal, quadruple-guided, ram-type milling unit (Y- and Z-axis). Machine has ergonomic configuration and can be transported fully assembled.



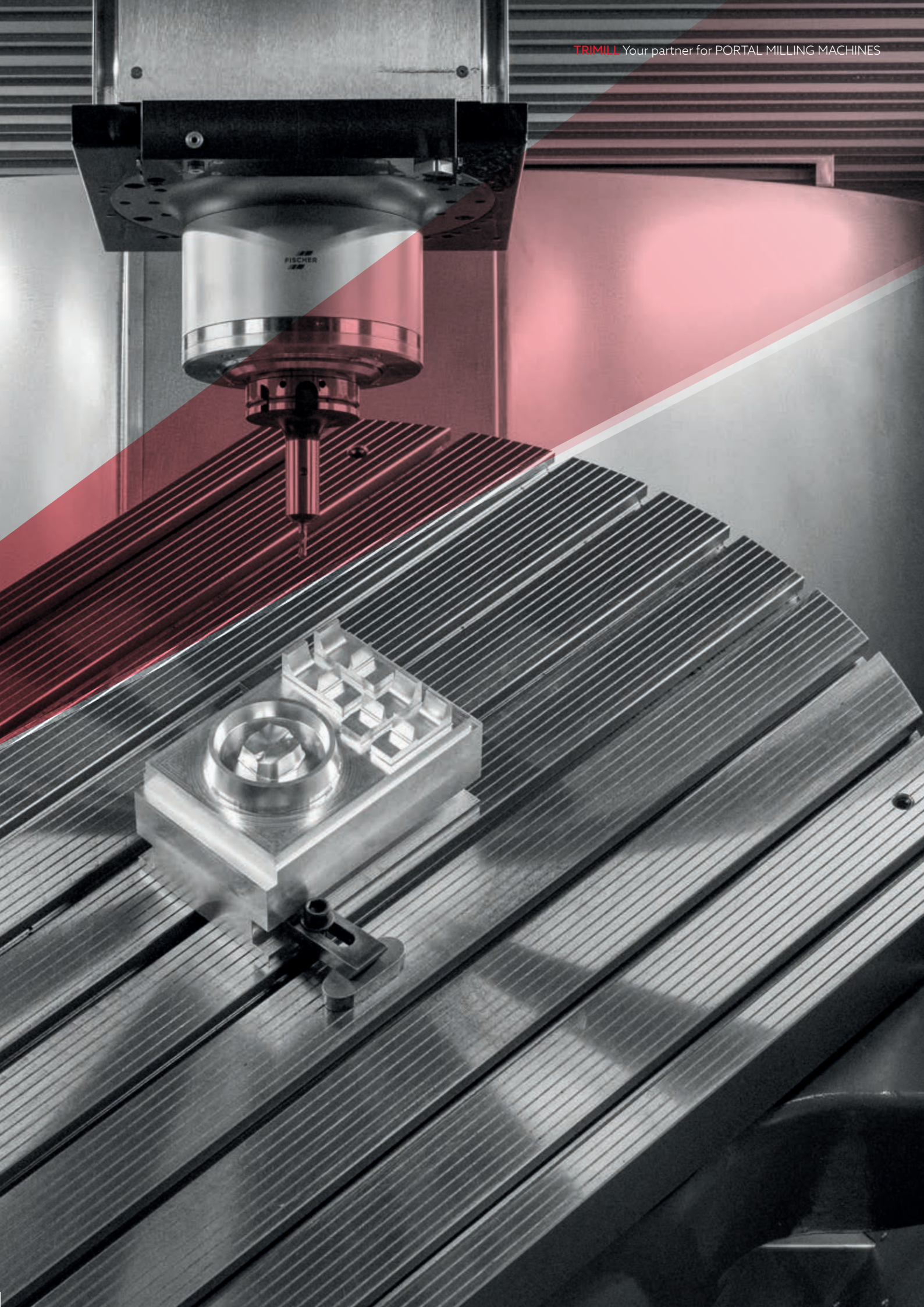
VS

















## VERTICAL MILLING MACHINES

### TRIMILL VU

TRIMILL VU 5-axis machines use a BOX-IN-BOX portal with overhead gantry design in combination with tilting milling head (B-axis) and a rotary table (C-axis). This concept allows the complete milling of parts from 5 sides in a single clamping set-up. TRIMILL VU machines have an incredibly advantageous ratio of minimum machine size to the maximum size of parts that can be processed.

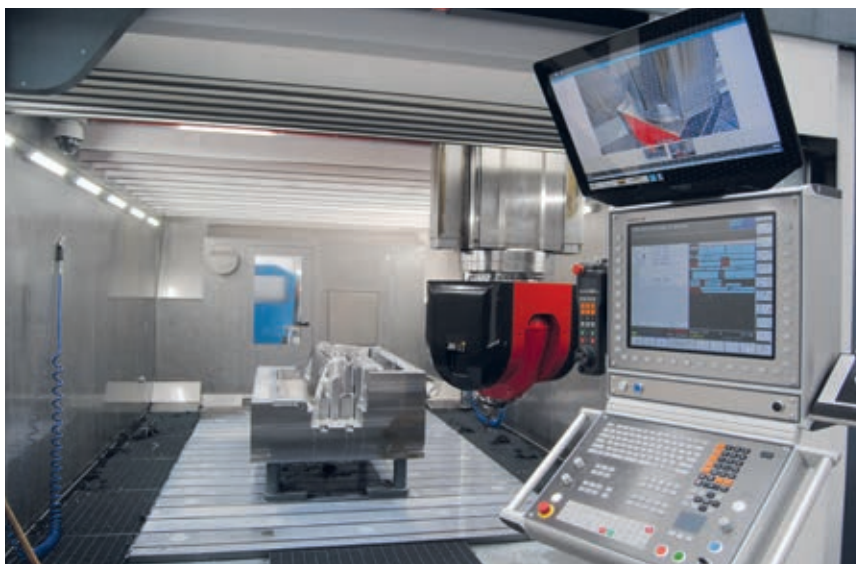


# VU

## ■ VERTICAL MILLING MACHINES

### TRIMILL VF

TRIMILL VF 5-axis portal machines achieve excellent results when milling precise workpieces with complex shapes and contours. This is achieved thanks to their highly rigid BOX-IN-BOX portal and fixed work table. The types of two-axis milling heads we offer ensure that the required technological parameters are achieved in the area of positionable (3+2 axes) or fully continuous milling.



VF





## VERTICAL MILLING MACHINES

### TRIMILL VR

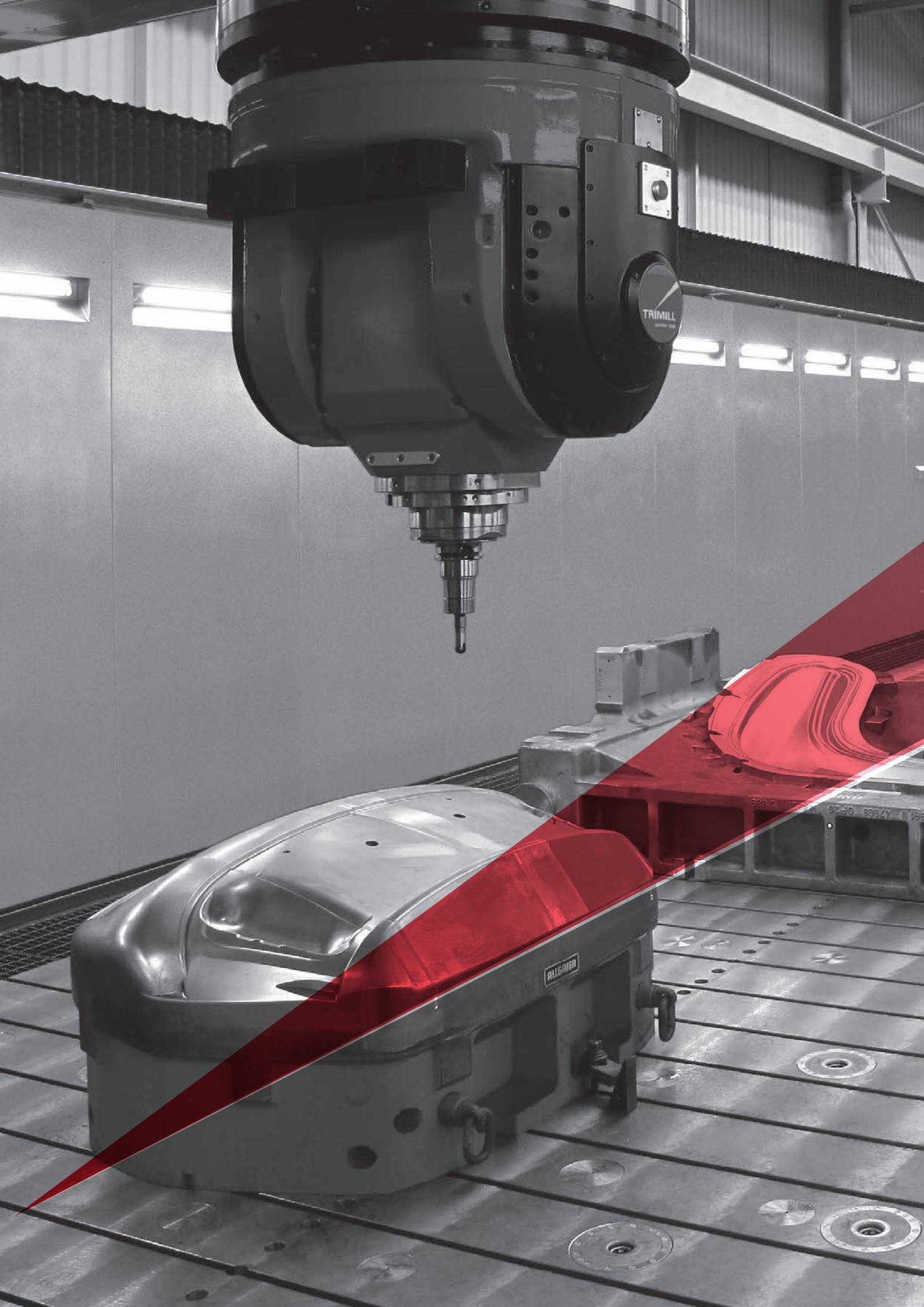
5-axis VR series TRIMILL gantry machines are specially developed for high-speed semi-finishing and finishing milling. The key technical parameters here are in particular the high feed rates (60,000 mm/min) and acceleration (5 m/s<sup>2</sup>), which are achieved by the use of linear motors and mass-optimised crossbeam.



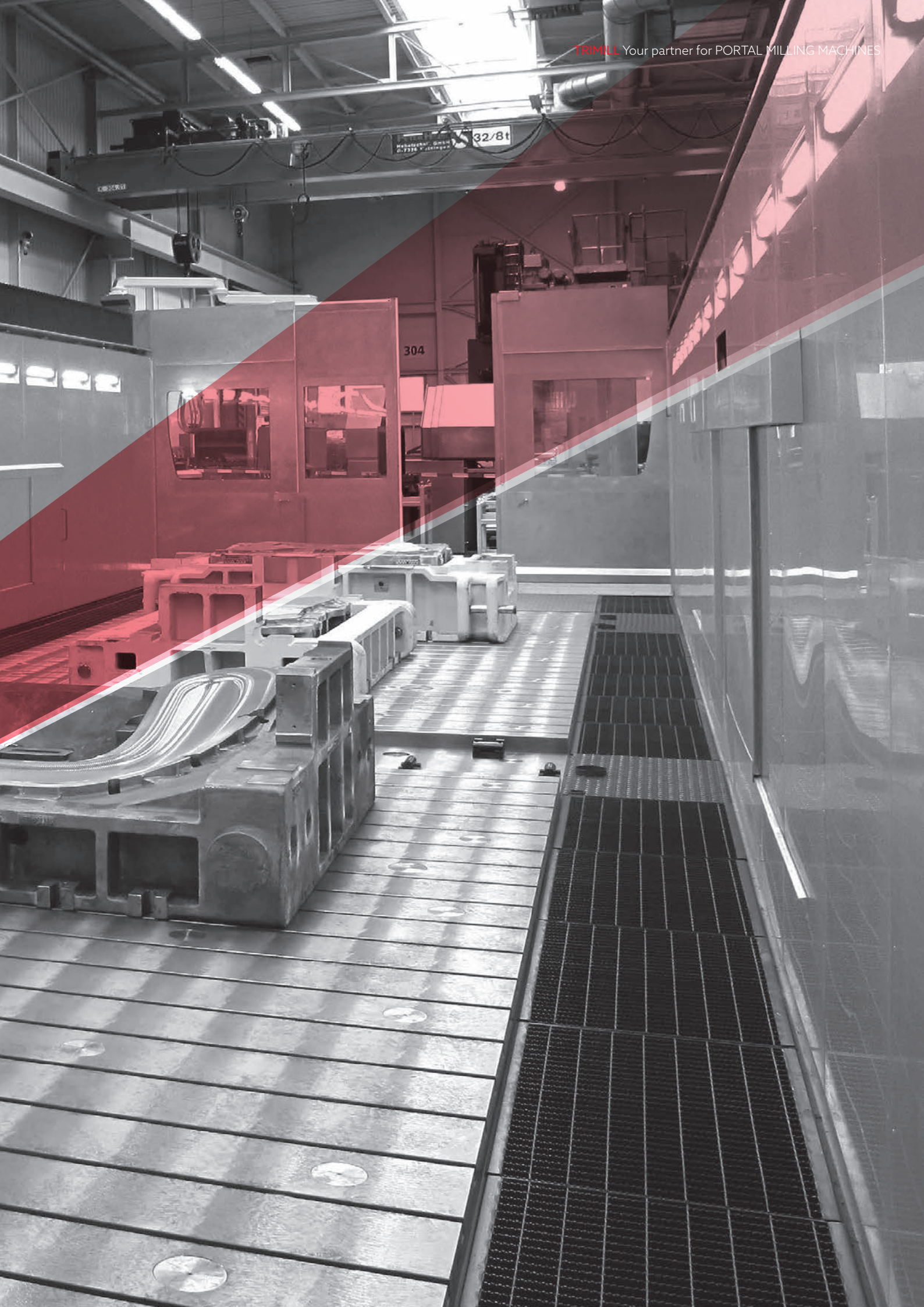
VR

















## VERTICAL MILLING MACHINES

### TRIMILL VM

TRIMILL VM portal machines support the fully automated exchange of milling heads. Thanks to the large number of milling heads offered, the customer can basically use these for any type of milling operation, from highly productive 3-axis roughing up to precise continuous 5-axis HSC finishing for a wide range of materials, such as, e.g., tool steel, aluminum alloys, titanium alloys, cast iron and other challenging materials.



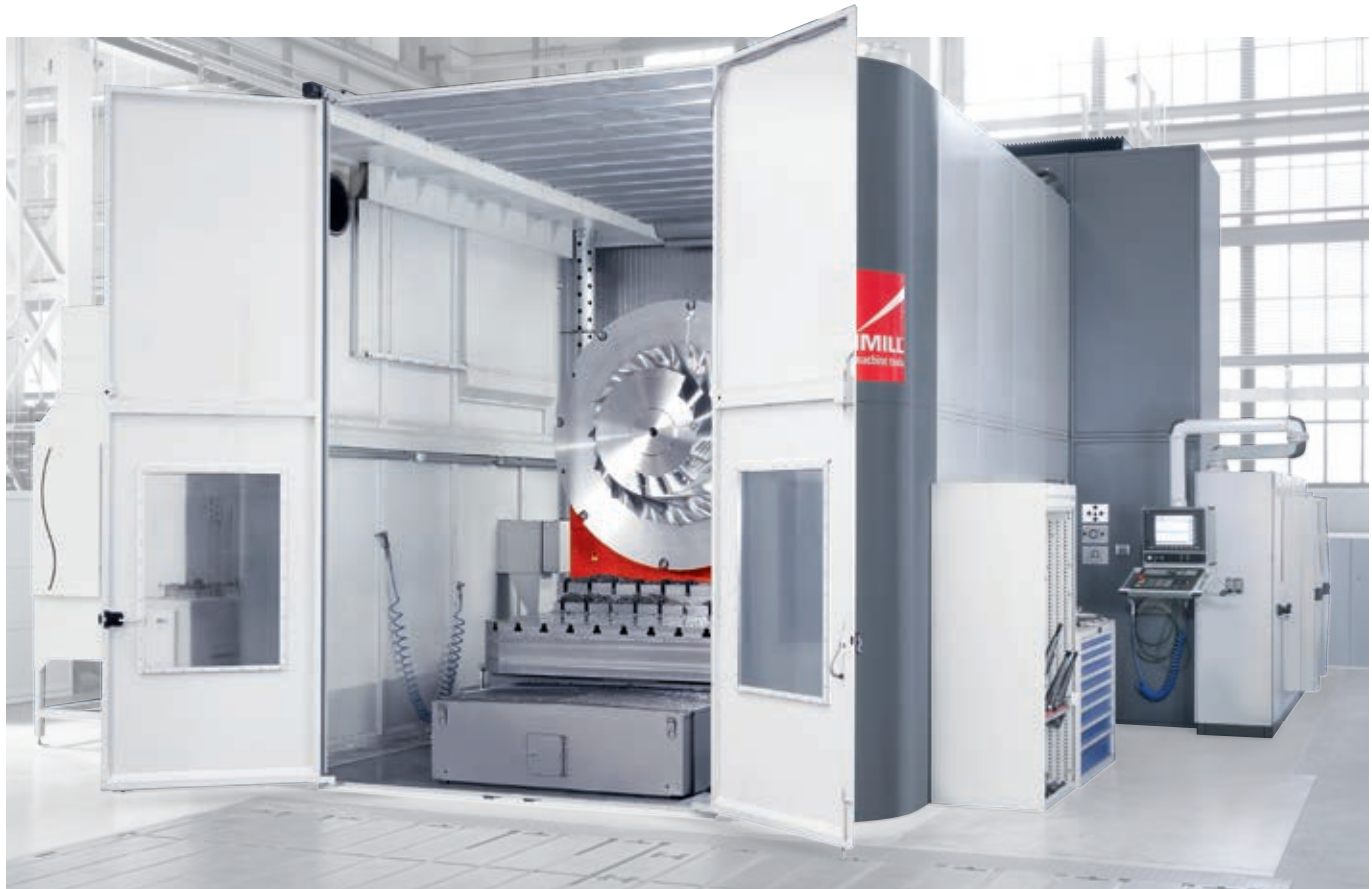
VM



## ■ HORIZONTAL MILLING MACHINES

### TRIMILL HC

TRIMILL HC horizontal portal machines differ from classical "boring" machines in their closed concrete base and load-bearing frame, inside which there is a moving BOX-IN-BOX type portal. This achieves significantly greater and identical rigidity of the machine in the upper and lower part of the linear Y-axis, i.e., productive milling within the whole working envelope of the machine.



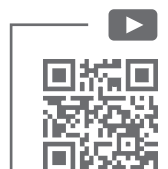
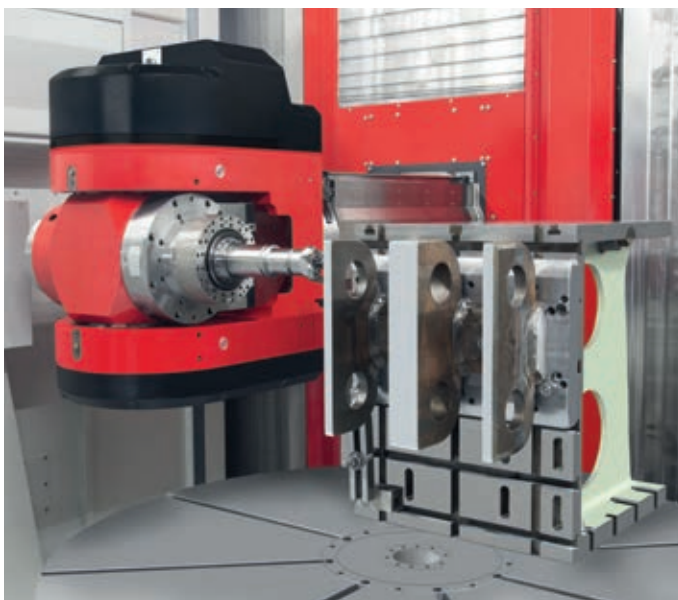
HC



# ■ HORIZONTAL MILLING MACHINES

## TRIMILL HF

Thanks to the unique closed structure of the load-bearing concrete frame, BOX-IN-BOX cross-beam, traversing rotary table along with a two-axis milling head, TRIMILL HF horizontal 7-axis portal machines allow complete milling of very complex workpieces with high demands on accuracy and quality of the milled surface. Typical examples of such workpieces include, e.g., moulds and mould frames with complicated shapes and dimensions, turbine and compressor wheels, large production workpieces, etc.









## DEVELOPMENT AND CONSTRUCTION

Being well-prepared for any requirements means being one step ahead. That is why we work systematically on the continuous development and improvement of all the technical parameters of our machines.



### OUR PRIORITIES:

- Quality, specifically the maximum accuracy of workpieces
- Speed of production
- Tailor-made and customer-friendly solutions
- Milling heads exchange speed
- Improvement of technical parameters of key parts of the machine

Close collaboration between our development employees in development and specialists in the areas of software and NC control, electronics, hydraulics and pneumatics not only provides us with results but also allows us to always be one step ahead and offer you precise solutions which will improve your competitive strength.



### Our development and construction designs have a range of advantages and applications:

- High-precision milling
- Milling of hard-to-mill materials
- Milling of pressing tools, moulds and dies
- Production milling in the aviation and automotive industries
- High productivity and long-term accuracy
- Complete production of a part on a single machine with a minimum number of required clamping set-ups
- Piece-by-piece production of workpieces with high shape and spatial requirements
- Reliability

TRIMM  
VM 13





## CUSTOMER CARE AND SERVICE



Roman Gomola  
Head of service Czech Republic, WorldwideT



### WE ALWAYS HAVE SOMETHING EXTRA FOR YOU

We also offer a range of standardized machine checks and additional services to meet your needs. Our aim is to minimize unplanned production downtime and ensure maximum production productivity. Preventive maintenance, prophylactic service or remote monitoring of the machine's condition are services that positively contribute to the trouble-free operation of the machine.

### SPINDLES

The engine of your production

It is the most important part of the machine, the condition of which significantly determines reliability and productivity. That's why we bring you the highest quality services in this area:

**Continuity of your production.** For all spindles in TRIMILL machines, we offer a unique service that no other spindle repair company can provide. If your spindle breaks down, we immediately bring a Replacement Spindle so that you don't have to wait for a repair and your machine is not taken out of production.

**100% guarantee.** With the Replacement Spindle, you have a warranty on all its parts. Not only for repaired parts!

**Original spare parts.** You can be sure that the Replacement Spindle supplied by us will be of the same quality as a new spindle. Only original spare parts are used for all repairs.

**24/7 availability.** You can order spindle replacement/repair at any time (24/7) using our myTRIMIL service web application.

### YOU CAN FIND IT ALL HERE

**We offer you the availability of all spare parts for all TRIMILL brand machines. Our main priority is to provide you with:**

**Availability.** Our stock of spare parts exceeds the value of CZK 150 million.

**Key material.** We regularly evaluate our customers' needs and adjust spare parts inventories to ensure availability of key components.

**Original spare parts.** Only original spare parts from the manufacturer can guarantee higher reliability and functionality of your machine.

**Modernized substitutes.** We replace outdated and unavailable parts with modern elements and thus ensure higher reliability and technical level of your machine.

**24/7 availability.** You can order spare parts at any time (24/7) using our web application myTRIMIL service.

■ TRIMILL



ŠKODA



Solutions for large and small companies.  
Always tailor-made.

**gorenje**



**SIEMENS**



**ŠKODA**



**autoneum**



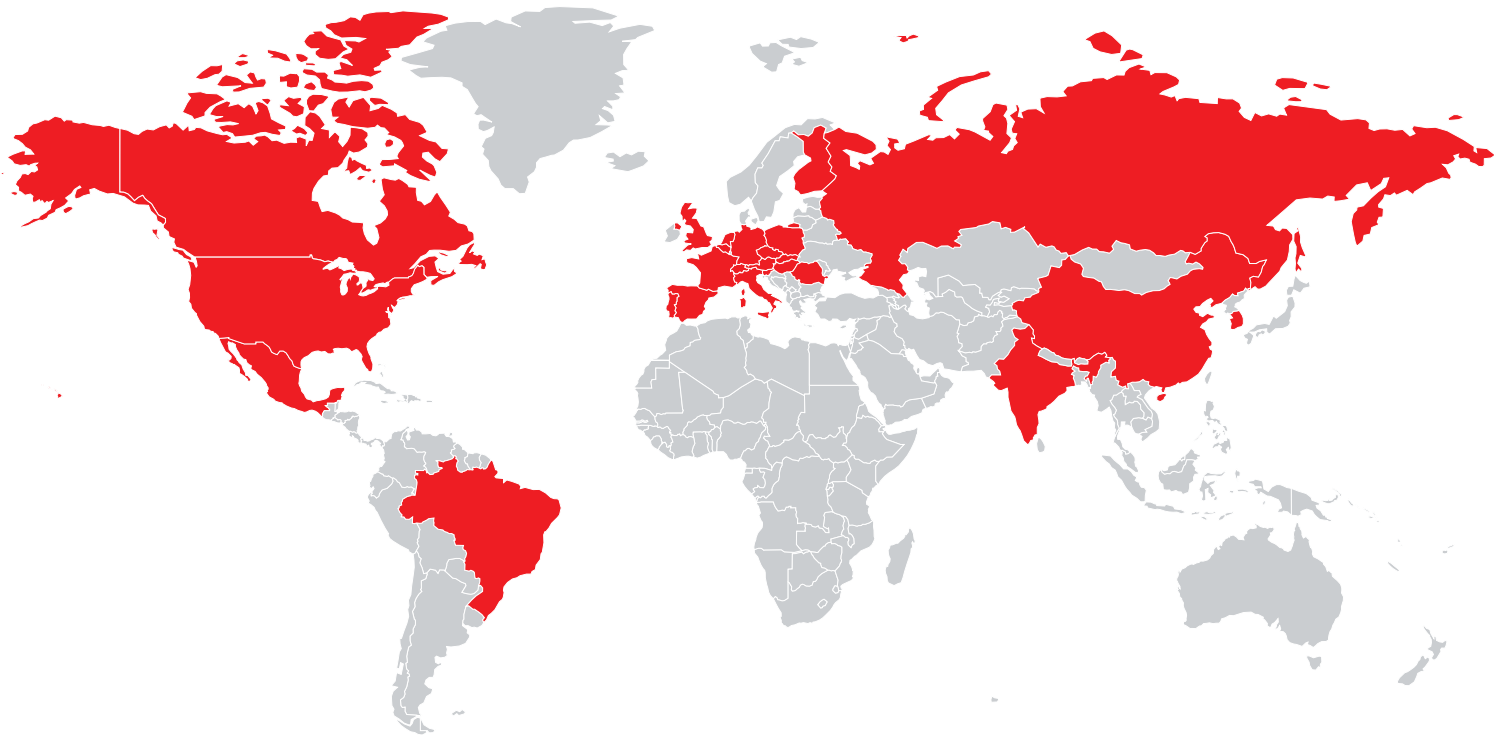




500 portal milling machines

with 200 satisfied customers

in 30 countries around the world.





$C = 0^\circ$

S1M

WEISS  
TECHNIK



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