VC

VERTICAL MILLING MACHINES

3-AXIS

TRIMILL®
machine tools

TRIMILL – your partner for PORTAL MILLING MACHINES

Our main mission is to develop and manufacture portal milling machines with an excellent proportion of QUALITY – OUTPUT – RELIABILITY – PRICE. An important part of our services comprises a well-elaborated system of the warranty and after-warranty service.

A wide selection of the TRIMILL machines contains vertical and horizontal portal milling machines, which are distinguished by high rigidity and accuracy and are intended for machining of pressing tools, moulds and precise workpieces in the single-piece production.

- **Machine travels from (X,Y,Z) 1.100/1.000/700 mm to 13.500/4.500/1.800 mm**
- **Three-, five- and multi-axis design**

Partnership with our customers is based on following pillars:

- Proficiency, experience, professionalism
- Customized solutions
- Development of new solutions
- Top service and immediate availability of spare parts

Figures and facts

- 12.900 m^2 of the production area and more than 130 specialists in development, design, assembly and technology
- Since 2000, when our family company was established, we have been operating in the markets all over the world
- 500 portal machining centres at 200 satisfied customers in 30 countries of the world

Our customers

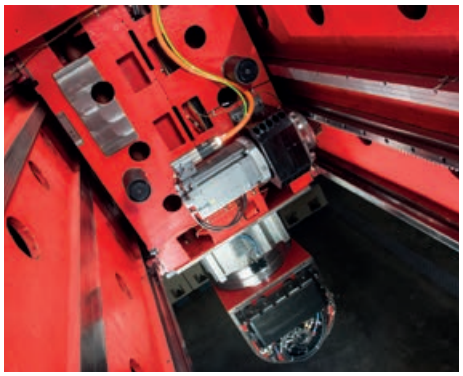
- Tool factories
- Forging shops
- Automotive industry
- Aerospace industry
- Energy industry

The most frequently machined materials on our machines

- Tool steel
- Aluminium alloys
- Cast iron
- Structural materials

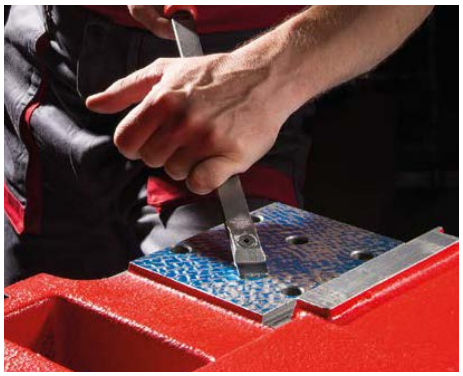
TRIMILL PRINCIPLE: BOX-IN-BOX and UHPC

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 an Z). UHPC is a high strength concrete with excellent properties for vibration damping and thermal stability of machines.



THE ADVANTAGES OF TRIMILL PRINCIPLE:

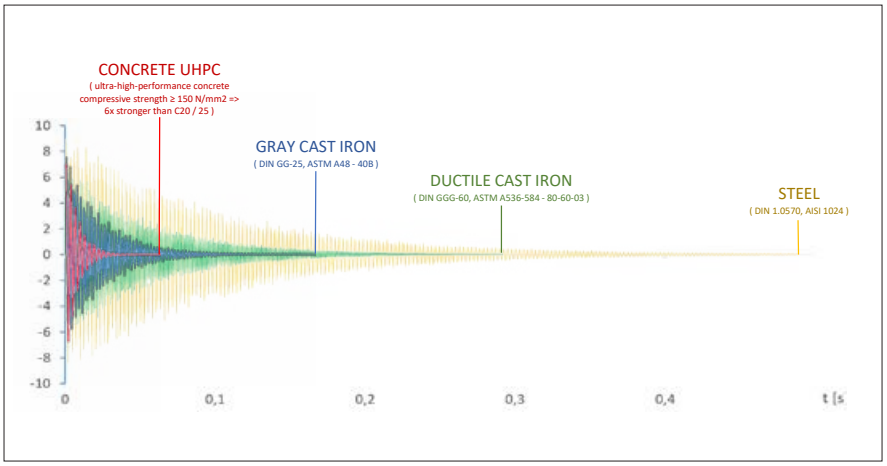
- Consistent milling results thanks to stable thermo-symmetrical arrangement on linear guideways
- Always 4 guides of the cross and vertical support for the machine, preventing the occurrence of the so-called „banana eff ect" which deforms/bends the vertical support of the machine
- Increased rigidity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

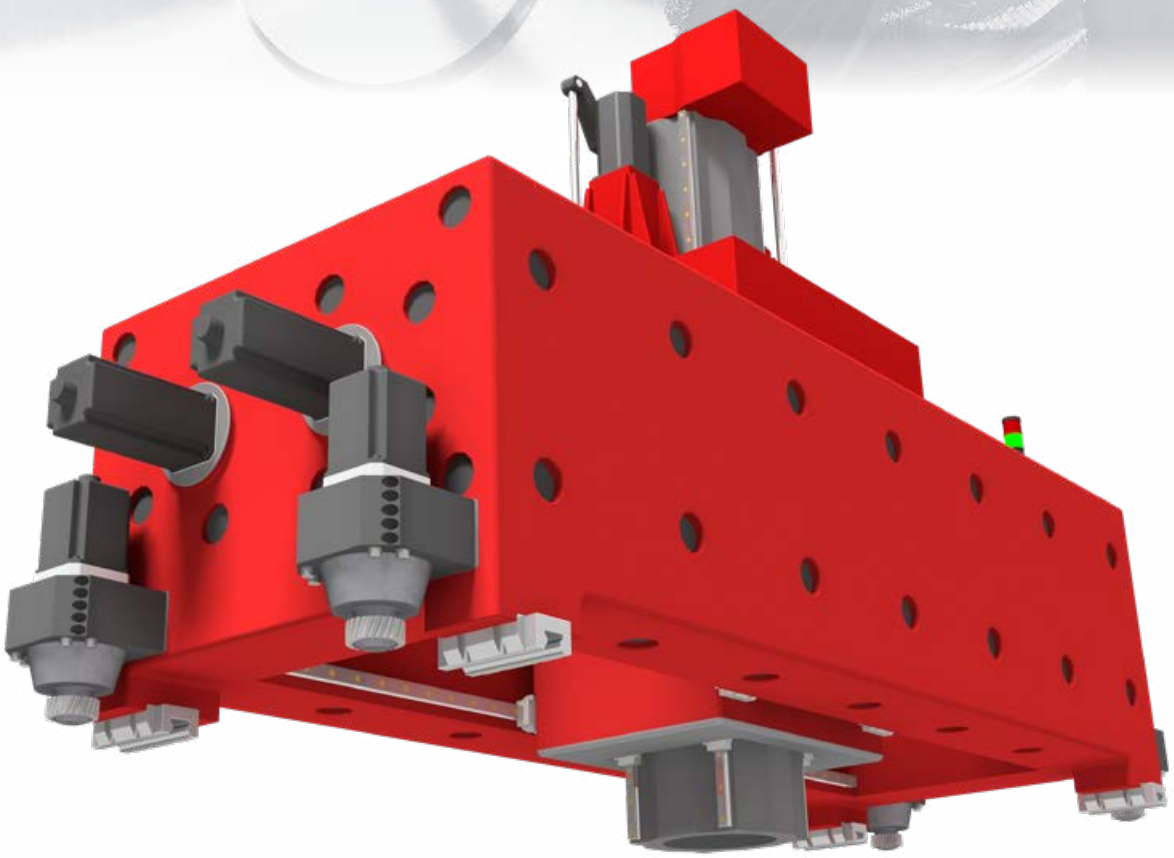


ADVANTAGES OF USING UHPC:

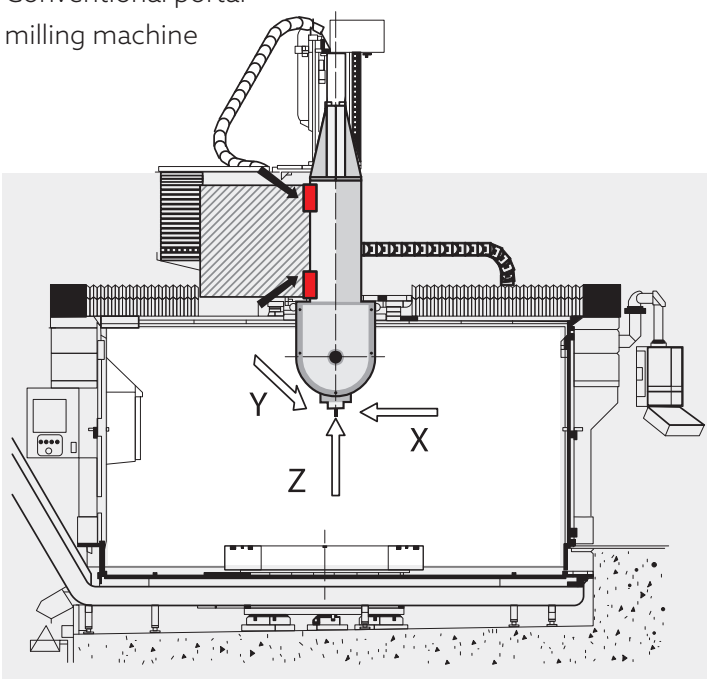
- The columns and longbeams of most TRIMILL machines are made of high-strength concrete (UHPC).
- Maximum vibration damping and extended tool life
- Low thermal conductivity and high heat capacity resulting in high thermal stability of the machines
- Compressive strength ≥ 150 Mpa => 6 times stronger 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.

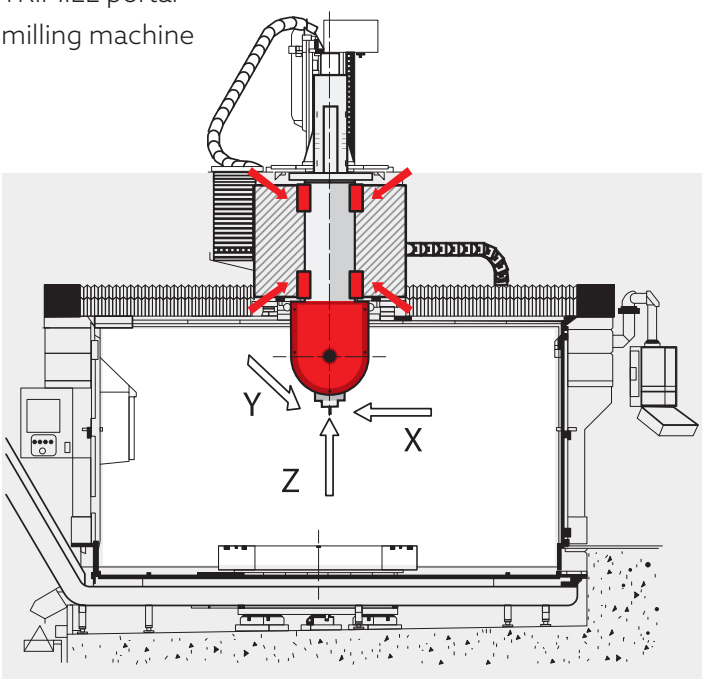




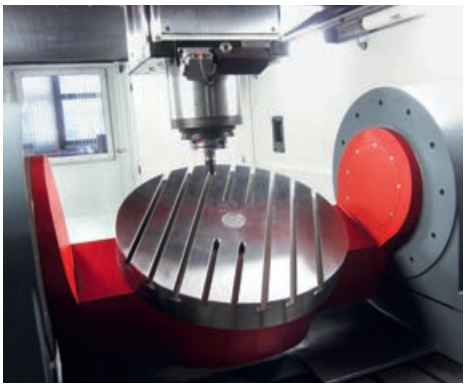
Conventional portal milling machine



TRIMILL portal milling machine



Machine travels X, Y, Z	1.100 × 1.000 × 700 mm
Optional spindle	25 kW, 200 Nm, 12.000 1/min, HSK - A100
Optional spindle	29 kW, 69 Nm, 24.000 1/min, HSK - A63
All data for spindles	S1/100%
Clamping surface	1.300 × 1.370 mm
Workpiece weight	max. 8.000 kg
Feed rate X, Y, Z	30.000 mm/min
Machine weight	approx. 16.000 kg
Machine dimensions	4.300 × 3.550 × 3.810 mm



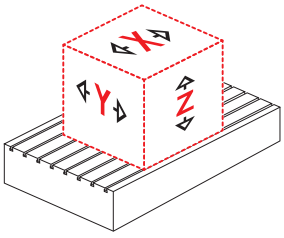
Possibility of continuous 5-axis machining by means of an attachable, tilting rotary table

Workpiece diameter max. 800 mm
Workpiece weight max. 1.000 kg

Maximal dimensions of the workpiece in vertical machining (mm)

X 1.100
Y 1.000
Z 800

(with the length of the tool and the holder 150 mm)



Machine travels X, Y, Z	1.800 × 1.000 × 700 mm
Optional spindle	25 kW, 200 Nm, 12.000 1/min, HSK - A100
Optional spindle	29 kW, 69 Nm, 24.000 1/min, HSK - A63
All data for spindles	S1/100%
Clamping surface	2.000 × 1.370 mm
Workpiece weight	max. 10.000 kg
Feed rate X, Y, Z	30.000 mm/min
Machine weight	18.000 kg
Machine dimensions	5.193 × 3.782 × 3.732 mm

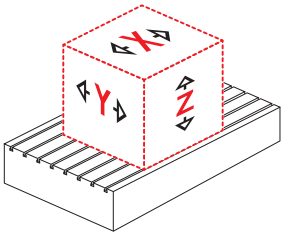
Possibility of continuous 5-axis machining by means of an attachable, tilting rotary table

Workpiece diameter max. 800 mm
Workpiece weight max. 1.000 kg

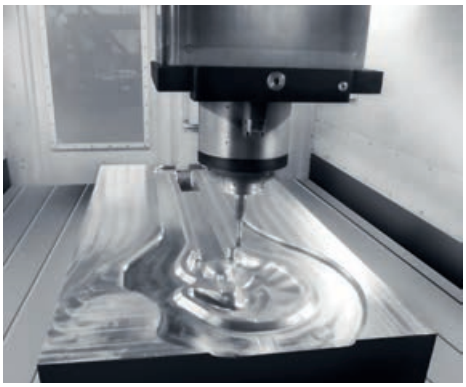
Maximal dimensions of the workpiece in vertical machining (mm)

X 1.800
Y 1.000
Z 800

(with the length of the tool and the holder 150 mm)

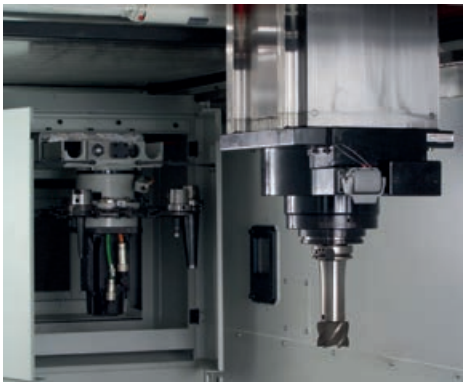


Machine travels X, Y, Z	2.300 × 1.400 × 800 mm
Optional spindle	25 kW, 200 Nm, 12.000 1/min, HSK - A100
Optional spindle	32 kW, 306 Nm, 14.000 1/min, HSK - A100
Optional spindle	29 kW, 69 Nm, 24.000 1/min, HSK - A63
All data for spindles	S1/100%
Clamping surface	2.500 × 1.900 mm
Workpiece weight	max. 18.000 kg
Feed rate X, Y, Z	30.000 mm/min
Machine weight approx.	25.500 kg
Machine dimensions	5.100 × 4.600 × 4.050 mm



Possibility of continuous 5-axis machining by means of an attachable, tilting rotary table

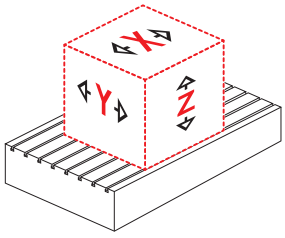
Workpiece diameter	max. 800 mm
Workpiece weight	max. 1.000 kg

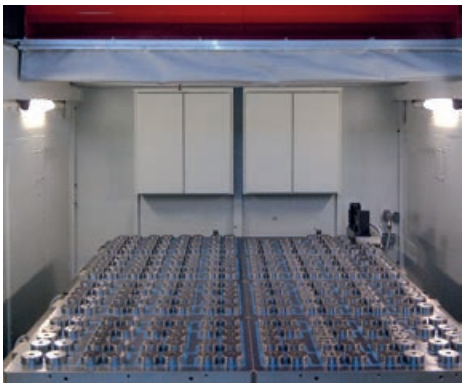


Maximal dimensions of the workpiece in vertical machining (mm)

X 2.300
Y 1.400
Z 925

(with the length of the tool and the holder 150 mm)





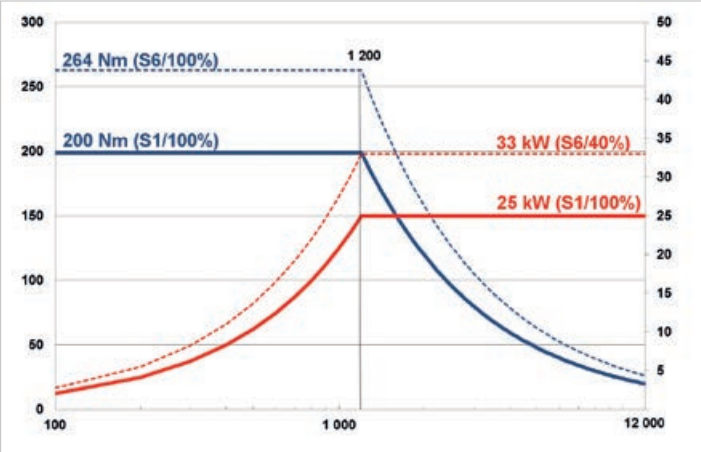
Machine travels X, Y, Z	4.500 × 4.500 × 1.500 mm
Optional spindle	32 kW, 306 Nm, 14.000 1/min, HSK - A100
Optional spindle	52 kW, 1.000 Nm, 2.500 1/min, HSK - A100
All data for spindles	S1/100%
Clamping surface	5.000 × 4.800 mm
Workpiece weight	max. 186.000 kg
Feed rate X, Y, Z	40.000 mm/min
Machine weight approx.	115.800 kg
Machine dimensions	9.415 × 9.830 × 6.208 mm

	X	×	Y	×	Z
VC 3016	3.000	×	1.600	×	1.200
VC 3021	3.000	×	2.100	×	1.200
VC 3525	3.500	×	2.500	×	1.500
VC 4525	4.500	×	2.500	×	1.500
VC xx25	xxxx	×	2.500	×	1.500
VC 4535	4.500	×	3.500	×	1.500
VC xx35	xxxx	×	3.500	×	1.500
VC 4545	4.500	×	3.500	×	1.500
VC xx45	xxxx	×	4.500	×	1.500

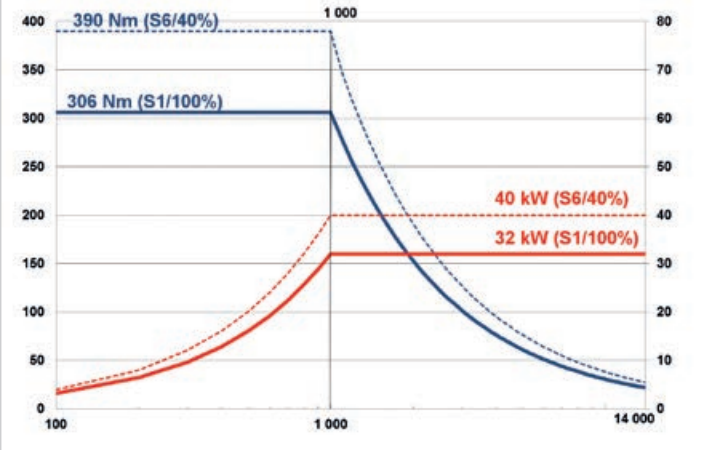
TRIMILL® machine tools

SPINDLE CHARACTERISTICS

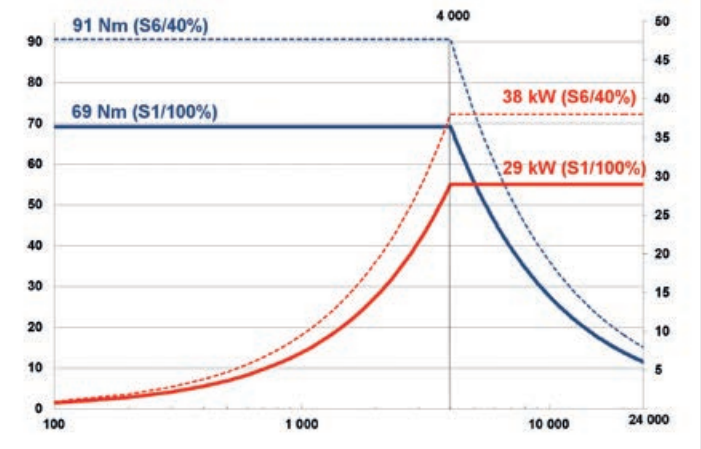
1. VC 1110 / 1810 / 2314



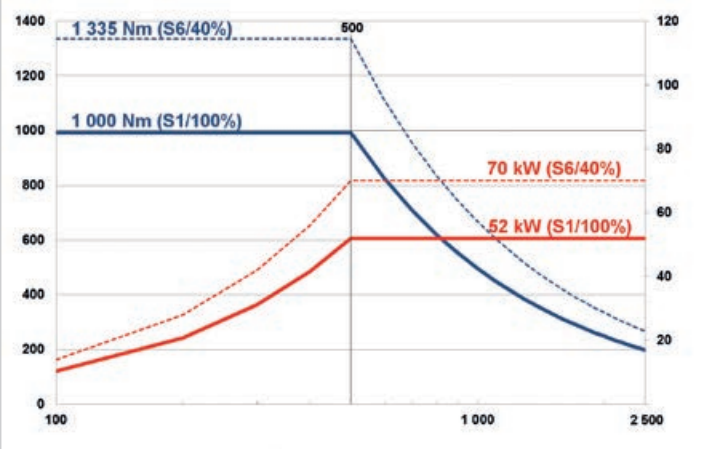
2. VC 4545/ VC 2314



3. VC 1110 / 1810 / 2314



4. VC 4545



Torque (S1/100%)

Power (S1/100%)

Torque (S6/40%)

Power (S6/40%)

Czech Republic

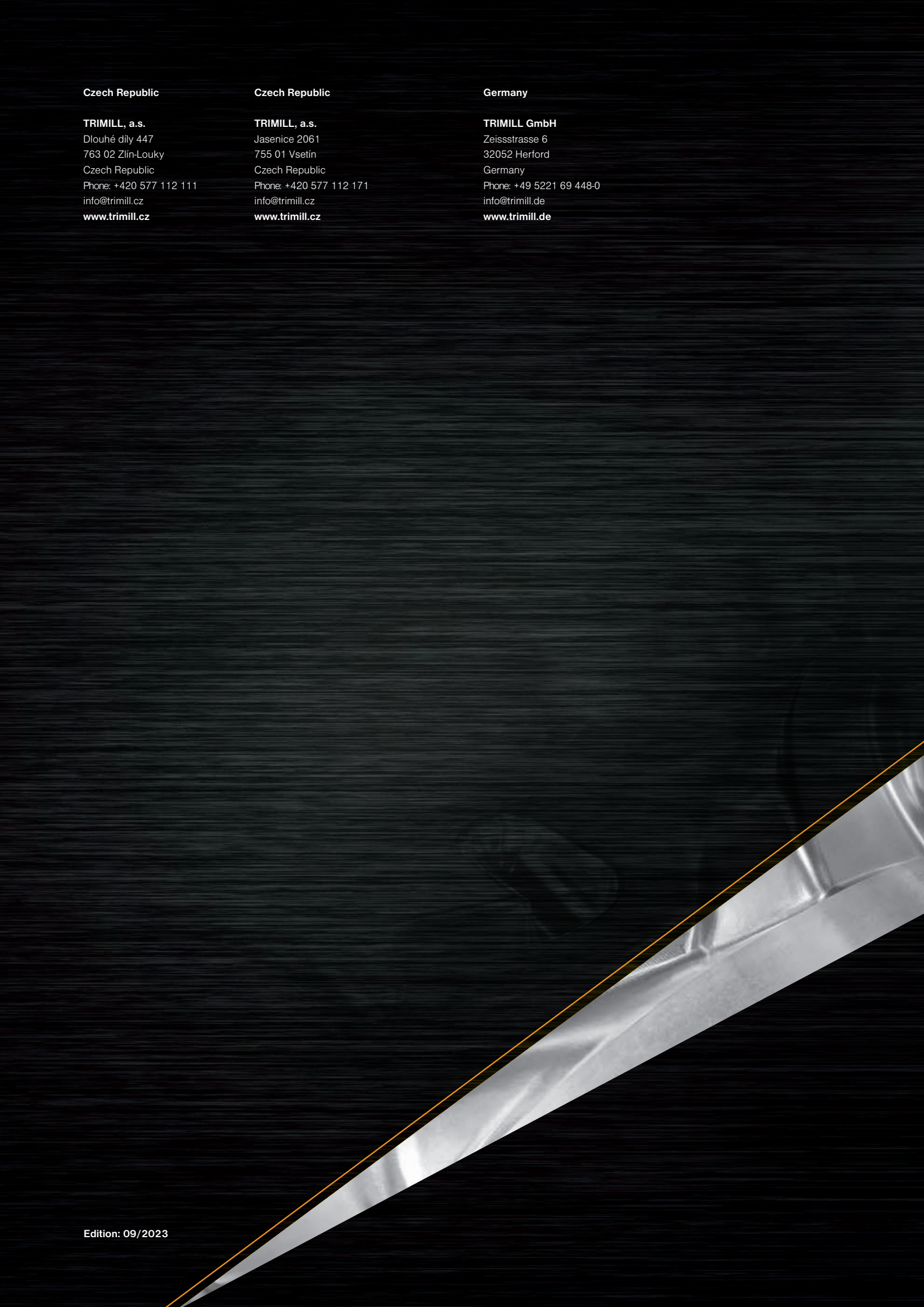
TRIMILL, a.s.
Dlouhé díly 447
763 02 Zlín-Louky
Czech Republic
Phone: +420 577 112 111
info@trimill.cz
www.trimill.cz

Czech Republic

TRIMILL, a.s.
Jasenice 2061
755 01 Vsetín
Czech Republic
Phone: +420 577 112 171
info@trimill.cz
www.trimill.cz

Germany

TRIMILL GmbH
Zeissstrasse 6
32052 Herford
Germany
Phone: +49 5221 69 448-0
info@trimill.de
www.trimill.de



Edition: 09/2023