

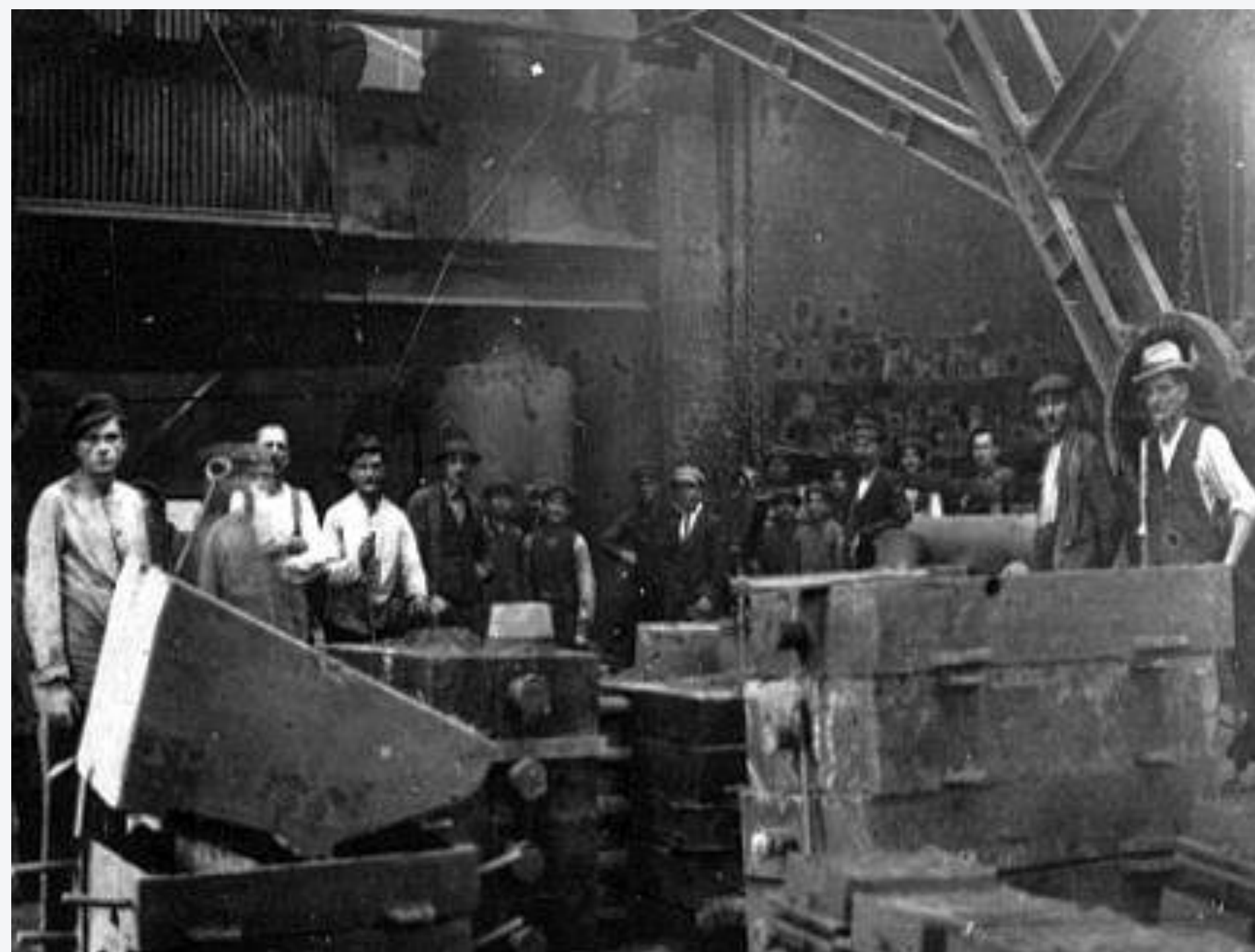


Reach for the **Shapes**

From the beginning...

At the beginning of the twentieth century the foundry shops then existing began producing wheel lathes for machining railway wheelsets. This type of production continues up to the present day and for more than a century, RAFAMET has served to meet the diverse needs of the metalworking industry.

Over the years, RAFAMET has become a global company and the most recognizable brand in the market of special purpose machine tools. Our company is a widely respected supplier of heavy-duty special-purpose machine tools for railway, machine-building, energy, shipbuilding, metallurgical, aerospace and arms industry.



Timeline



1846

After the start-up of the Berlin - Vienna railway line (which ran through Kuźnia Raciborska), the first steel plant called "Hope" is founded right next to the railway station. In the second half of the nineteenth century, a rolling mill and an cast iron foundry is added.

1889

Takeover of the factory by Wilhelm Hegenscheidt. During that time, the factory is manufacturing various building equipment and products for railways (such as bolts and axles for wheel sets).

1920

The first lathe for machining of heavy wheel sets is produced.

1946

After World War II, the RAFAMET comes into being. During the next few years the company acts under the name "RAFO".

1964

As an economic experiment, RAFAMET (and three other Polish companies) acquires the right to independent export and import activities without the Foreign Trade Agencies.

1996

The company's shares are admitted to be traded on the over the counter market CeTO S.A., making it the first company in Poland to do so.

2002

ARP S.A. (Industrial Development Agency) becomes a main shareholder of RAFAMET S.A.

2016

Acquisition of the POREBA trademark.

...until now



Now, just as back then, we are convinced that comprehensive solutions, advanced technologies and efficient productivity are obvious requirements the right equipment supplier is expected to meet in order to help various industries to be successful. That is why we are constantly adapting and continuing our efforts aimed at satisfying and serving customers' needs.

Whilst maintaining its traditional production RAFAMET continues to develop new product lines, using Company's own, engineering task force. Such a development, in recent years, has helped RAFAMET to be able to enter new manufacturing fields i.e. bridge type milling machines, horizontal axle lathes, special machines, modular machining centres and wheelset measurement systems.

RAFAMET S.A.



We are located at Staszica 1, 47-420
Kuźnia Raciborska, Silesia Region, Poland



The main shareholder of the Company
is ARP S.A. (Industrial Development Agency) – 47%



RAFAMET employs over 550 qualified employees

RAFAMET

Solid task force

Engineering & programming

Thanks to Company's own, highly-qualified engineering & programming task force, equipped with Solid Edge, EdgeCAM, AutoCAD and Simatic Step 7 software, as well as our extensive knowledge and hands-on experience in applications, we offer the best engineering solutions to our customers. Furthermore, for our company innovation processes are often based on close collaboration with customers.

Highly qualified, creative & experienced staff

From the concept, through production, to the maintenance phase – RAFAMET makes every effort to keep machine in peak operating condition. Therefore, we provide professional training and technical service. During installation, operators and maintenance staff receive specific training on how to use and maintain the machine in order to ensure its best performance and fault-free operations.

RAFAMET Group

RAFAMET S.A. is the parent company in the group of six organizationally separated units. Each of them has the set of clearly defined strategic goals to achieve, as well as the specified share in the RAFAMET Group overall business activities.



RAFAMET

Machine Tools

is one of the worldwide leading companies in the field of designing and manufacturing medium and large size heavy-duty machine tools, including vertical turning & boring lathes.



RAFAMET

Railways

is focused on machine tools for wheelset machining (wheels and axles), rail vehicle bogies. It also offers rail-road shunting vehicles, as well as measuring devices for the wheel geometry and flaw detection.



POREBA

Machine Tools

are CNC super heavy duty, heavy duty and medium centre and floor-type horizontal lathes, as well as large horizontal drilling machines and drilling & boring machines for deep hole drilling.



RAFAMET

Service & Trade

is providing after-sale services including technical support repairs and modernisations of the machine tools. Also offers the products complementary to the basic assortment of the RAFAMET Group units.



RAFAMET

Foundry

is a well-known manufacture of iron castings made from grey, ductile and alloy iron, which specializes in the production of large and heavy castings in small-batch series, weighing more than 5,000 kg.



RAFAMET

Large Part Machining

is directed to a selected group of customers interested in contract machining services on the large size CNC milling machines, as well as vertical turning and milling centres.

International presence

70

Countries around the world



5300

machines for railways

700

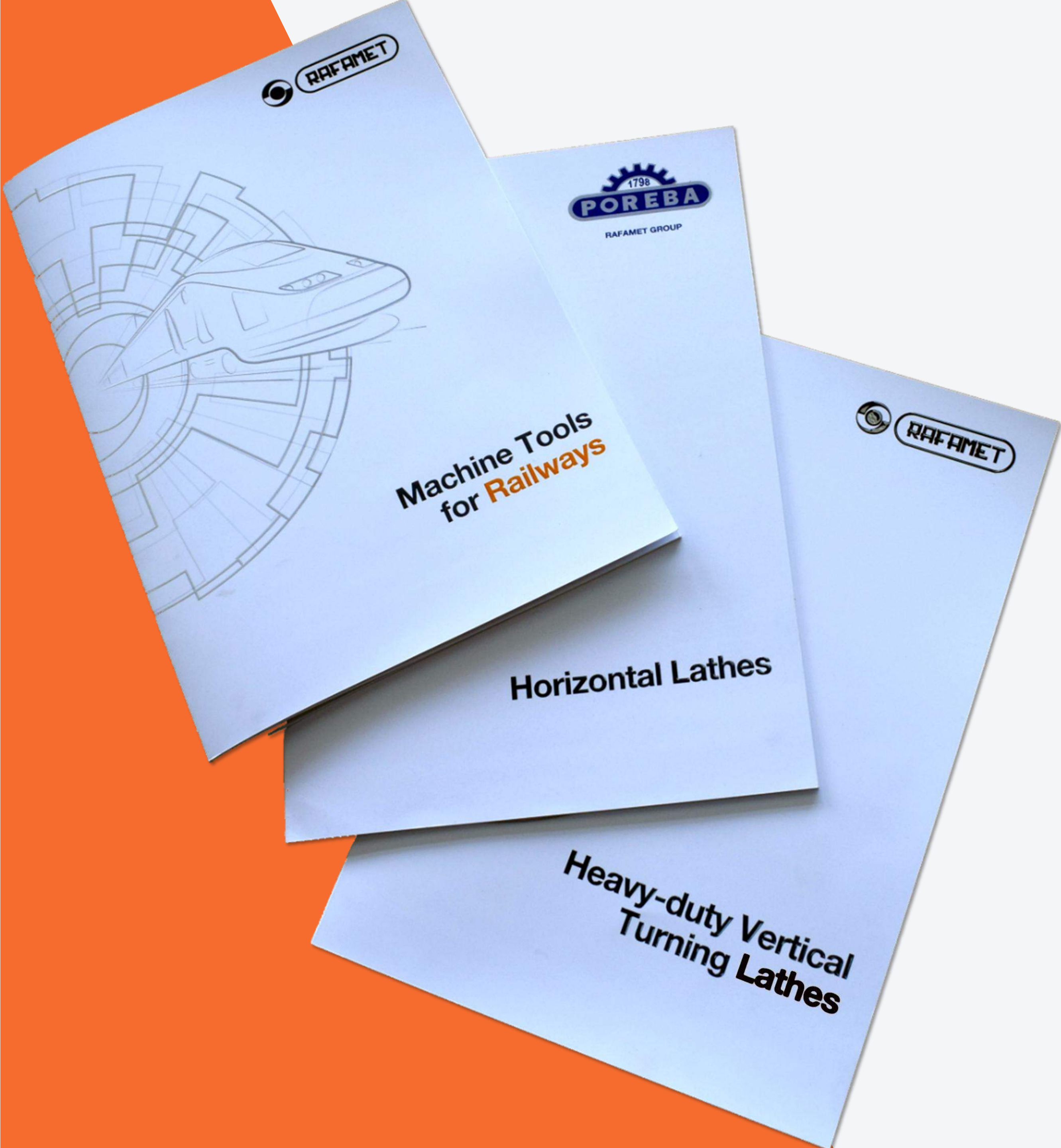
other heavy-duty machine tools

70

years of experience, innovation and quality

80

% export share in total sales



Product line

MACHINE TOOLS FOR RAILWAYS

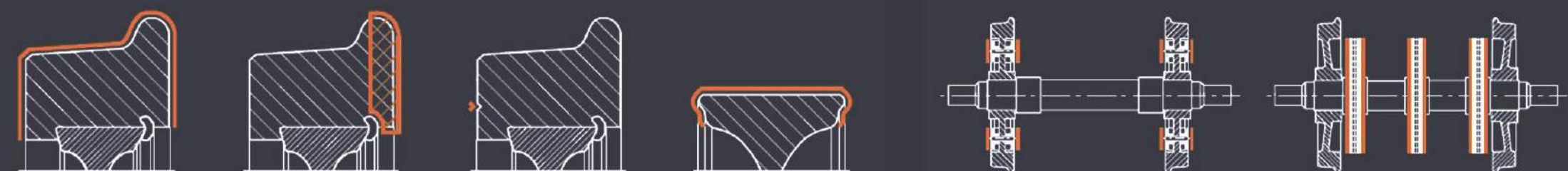
Above Floor Wheel Lathes

The RAFAMET above wheel lathes are built on the base of extremely rigid, single-piece, heavily-ribbed, high-grade grey iron casting of the main structure, allowing operation in roll-in roll-out or roll-through systems and providing efficient chip disposal. Surface wheel lathes are able to execute operations, including turning wheel profiles according to a technological program, facing of brake-disc friction surfaces and turning of wheel centres.

UBF 112 N

ABOVE FLOOR WHEEL LATHES
ROLL-IN ROLL-OUT / CHUCK TYPE

- ✓ Track gauge [mm]: 1435
- ✓ Min./Max. wheel tread diameter [mm]:
700 or 800 / 1120 or 1250
- ✓ Max. width of wheel rim [mm]: 145
- ✓ Min./Max. length of wheelset axle [mm]:
1910 / 2360
- ✓ Max. weight of wheelset [x10 kN]: 3

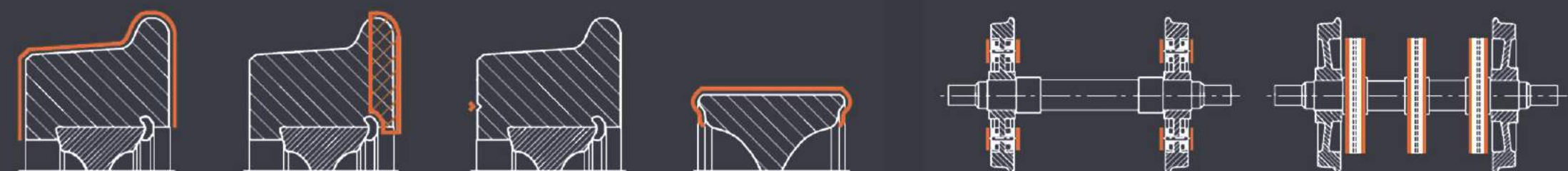


UDA 125 N

ABOVE FLOOR WHEEL LATHES

ROLL-THROUGH / RADIAL OR AXIAL CLAMPING

- ✓ Track gauge [mm]: 1435
- ✓ Min./Max. wheel tread diameter [mm]:
600 or 770 / 1250 or 1200
- ✓ Max. width of wheel rim [mm]: 145
- ✓ Min./Max. length of wheelset axle [mm]:
1645 / 2370
- ✓ Max. weight of wheelset [x10 kN]: 4.5



UFB 125 N

ABOVE FLOOR WHEEL LATHES

ROLL-IN ROLL-OUT / FRICTION ROLLER DRIVE

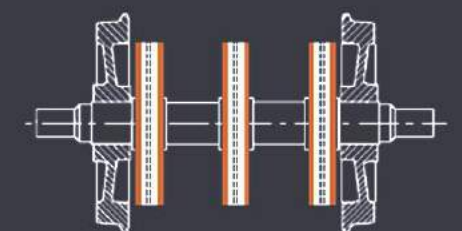
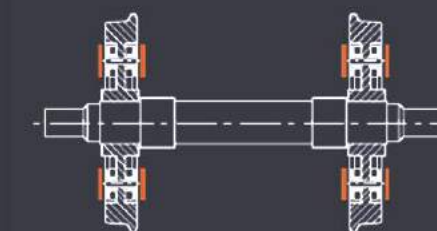
✓ Track gauge [mm]: 1000 to 1676

✓ Min./Max. wheel tread diameter [mm]:
600 / 1250

✓ Max. width of wheel rim [mm]: 150

✓ Min./Max. length of wheelset axle [mm]:
1215 / 2840

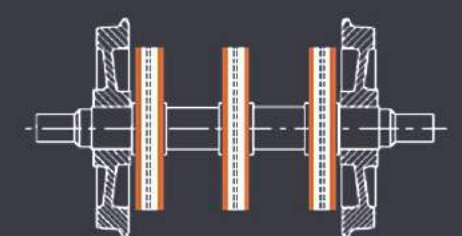
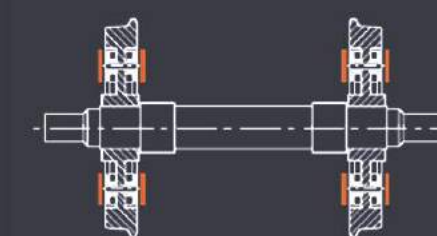
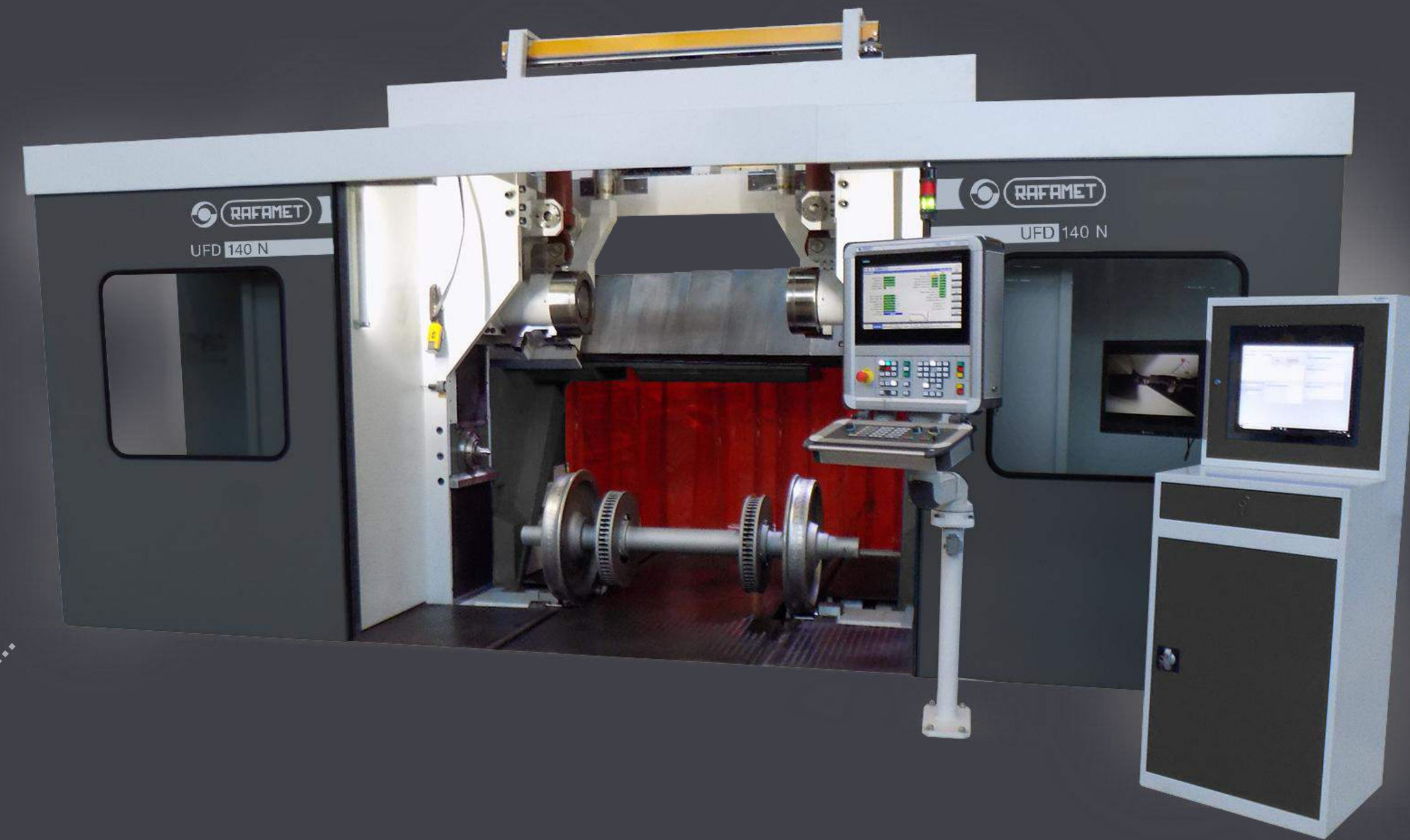
✓ Max. weight of wheelset [x10 kN]: 3



UFD 140 N

ABOVE FLOOR WHEEL LATHES ROLL-THROUGH / FRICTION ROLLER DRIVE

- ✓ Track gauge [mm]: 1435
- ✓ Min./Max. wheel tread diameter [mm]:
540 / 1400
- ✓ Max. width of wheel rim [mm]: 150
- ✓ Min./Max. length of wheelset axle [mm]:
1650 / 2600
- ✓ Max. weight of wheelset [x10 kN]: 5



MACHINE TOOLS FOR RAILWAYS

Underfloor Wheel Lathes

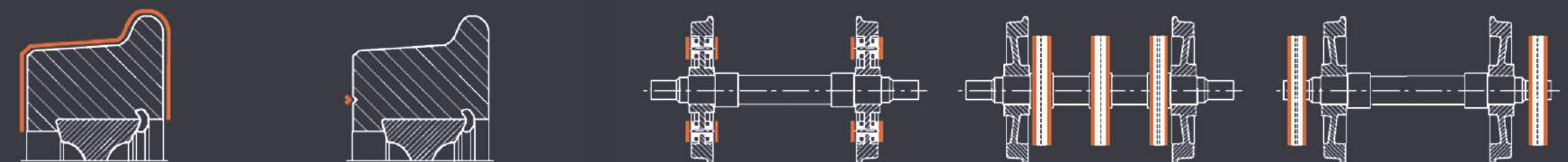
Available in both single and tandem versions, the machines are designed for turning wheel profiles and facing brake discs of one or two wheelsets at the same time. The machines are set below the rails. Permanent and retractable rails connecting with the floor rails to form a track allow the vehicle to travel over the machines. The machines can be provided with many optional elements and devices, including vehicle shunting arrangements, as well as dust extraction and swarf evacuation systems.

UGE 180 N

UNDERFLOOR WHEEL LATHE

ROLL-THROUGH / SINGLE OR TANDEM VERSION

- ✓ Track gauge [mm]: 1435
- ✓ Min./Max. wheel tread diameter [mm]: 350 / 1270
- ✓ Max. width of wheel rim [mm]: 145
- ✓ Continuously variable cutting speed for wheel profile machining [m/min]: 20 to 90
- ✓ Max. axle load [x10 kN]: 18

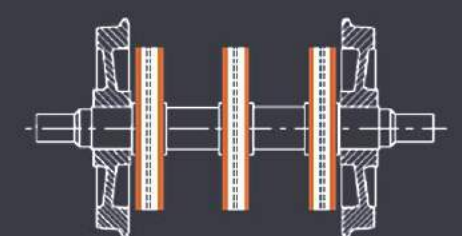
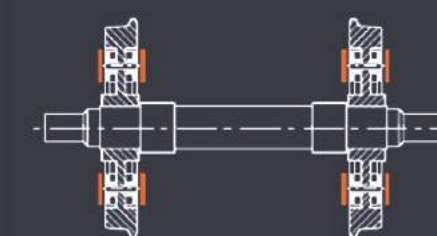


UGE 300 N

UNDERFLOOR WHEEL LATHE

ROLL-THROUGH / SINGLE OR TANDEM VERSION

- ✓ Track gauge [mm]: 1435
- ✓ Min./Max. wheel tread diameter [mm]: 600 / 1500
- ✓ Max. width of wheel rim [mm]: 150
- ✓ Continuously variable cutting speed for wheel profile machining [m/min]: 20 to 90
- ✓ Max. axle load [x10 kN]: 30 / 40



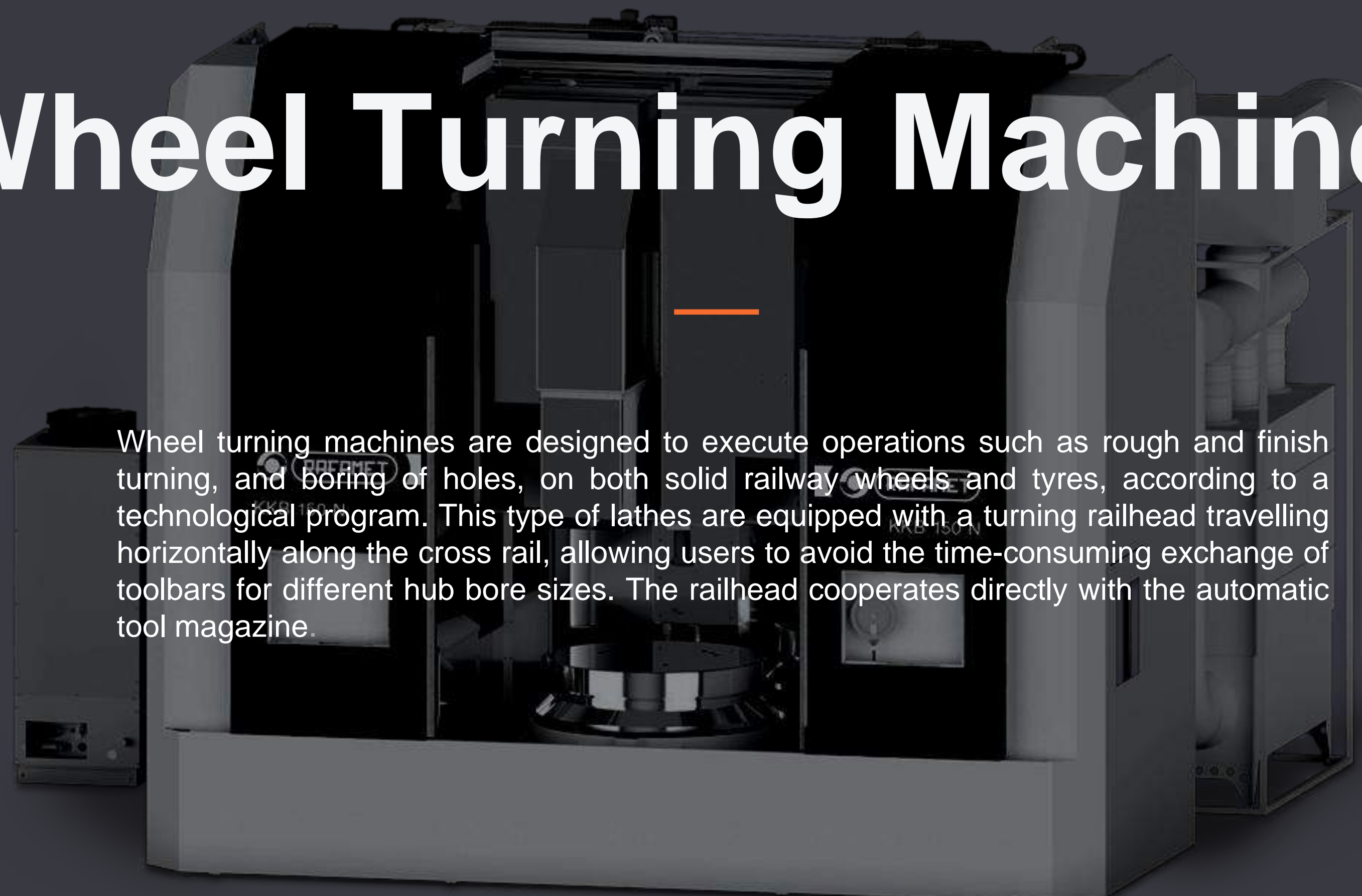
3RS 350

UNDERFLOOR WHEEL LATHE EQUIPMENT RAIL-ROAD SHUNTER

- ✓ Track gauge [mm]: 1435
- ✓ Min. turning radius [m]: 30
- ✓ Tractive force [kN]: min. 17.5
- ✓ Max. speed on road and rails without load [kmph]: 6
- ✓ Max. speed on rails with load [kmph]: 2
- ✓ Max. weight to shunt [t]: 350



Wheel Turning Machines



Wheel turning machines are designed to execute operations such as rough and finish turning, and boring of holes, on both solid railway wheels and tyres, according to a technological program. This type of lathes are equipped with a turning railhead travelling horizontally along the cross rail, allowing users to avoid the time-consuming exchange of toolbars for different hub bore sizes. The railhead cooperates directly with the automatic tool magazine.

KCM 150 N

WHEEL BORING MACHINES

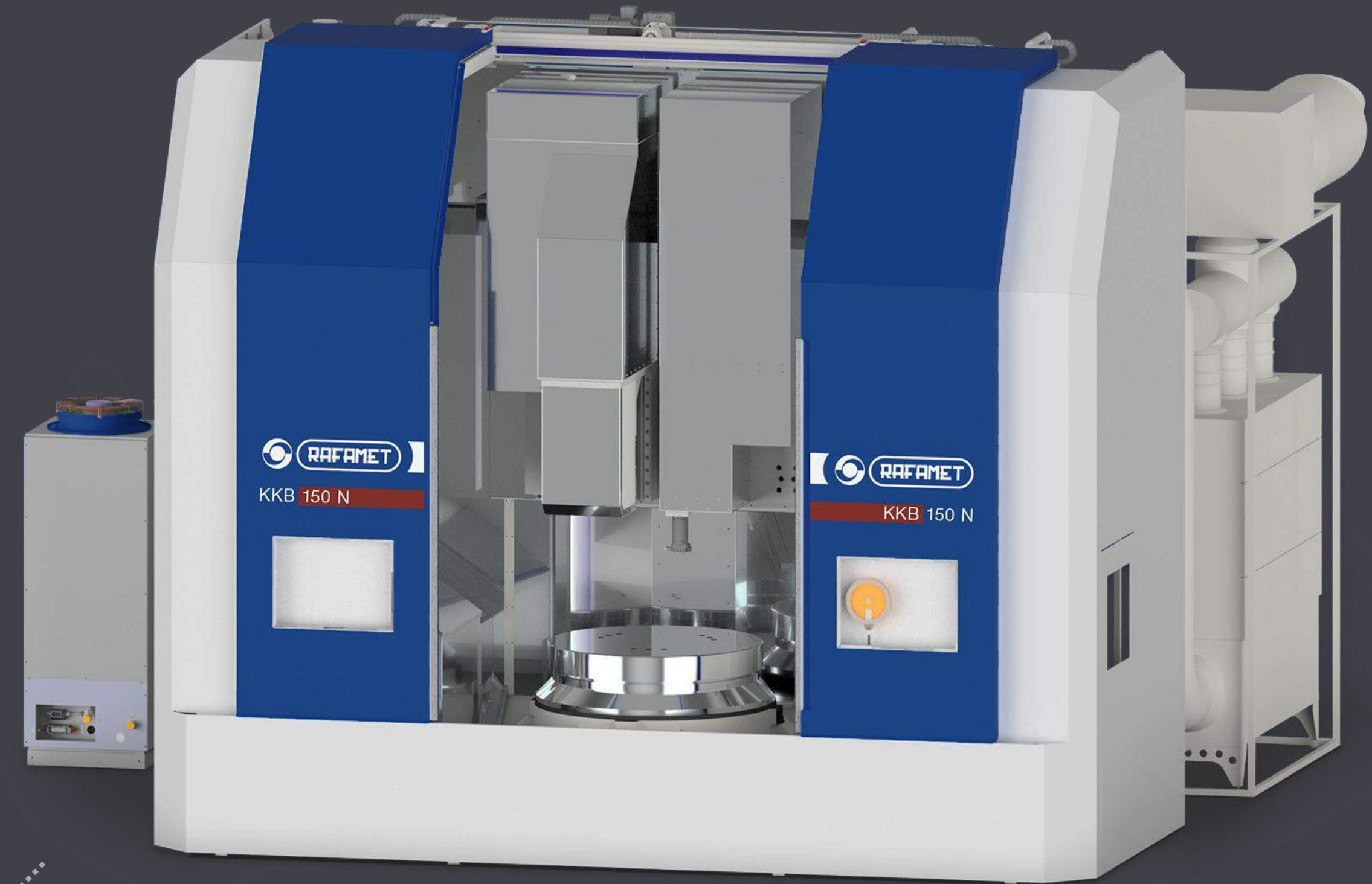
- ✓ Table diameter [mm]: 1500
- ✓ Max. turning diameter [mm]: 1800
- ✓ Max. wheel tread diameter [mm]: 1250
- ✓ Max. weight of workpiece [x10 kN]: 6
- ✓ Max. continuously variable rotation rates of table [rpm]: 250
- ✓ Power of main drive [kW]: 55 or 110



KKB 150 N

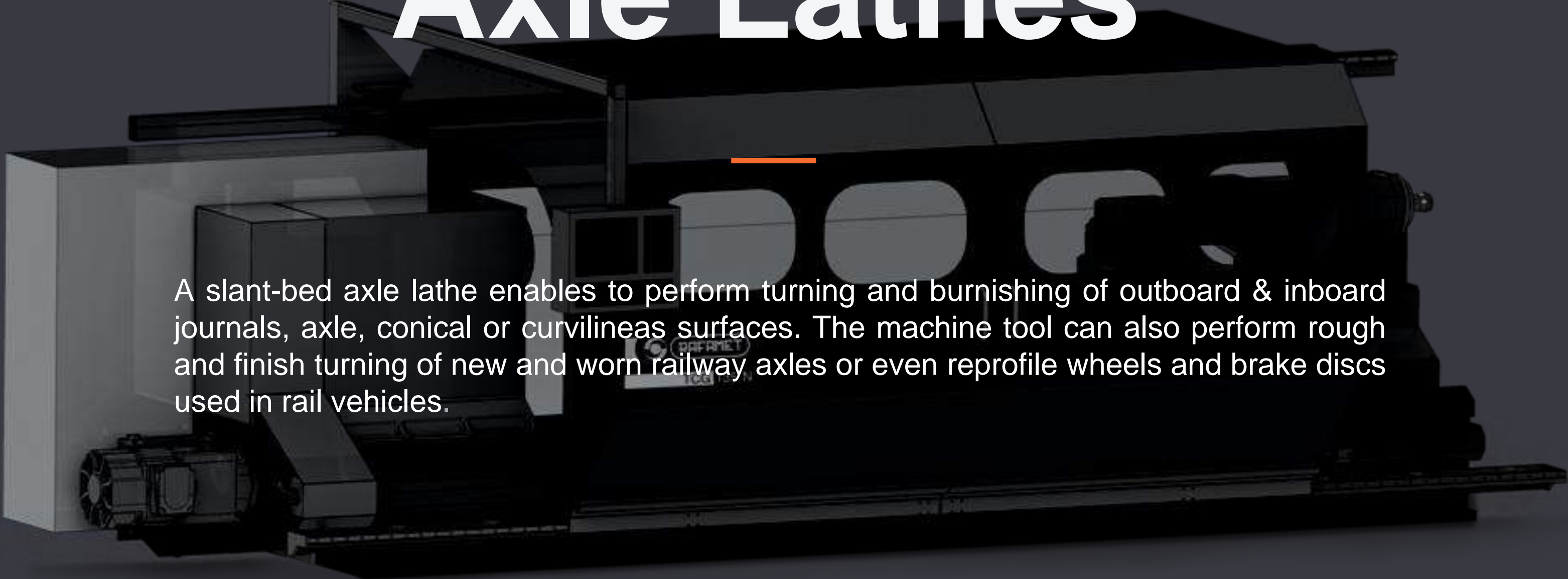
WHEEL TURNING MACHINES

- ✓ Table diameter [mm]: 1450
- ✓ Max. turning diameter [mm]: 2000
- ✓ Max. wheel tread diameter [mm]: 1250
- ✓ Max. weight of workpiece [x10 kN]: 2
- ✓ Max. continuously variable rotation rates of table [rpm]: 400
- ✓ Power of main drive [kW]: 362.5



MACHINE TOOLS FOR RAILWAYS

Axle Lathes

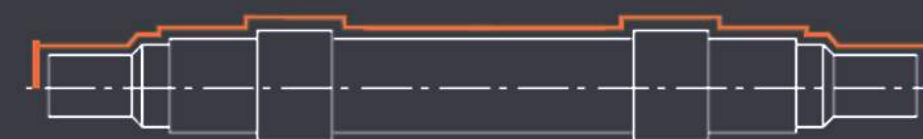


A slant-bed axle lathe enables to perform turning and burnishing of outboard & inboard journals, axle, conical or curvilinear surfaces. The machine tool can also perform rough and finish turning of new and worn railway axles or even reprofile wheels and brake discs used in rail vehicles.

TOK 80 N

AXLE LATHES

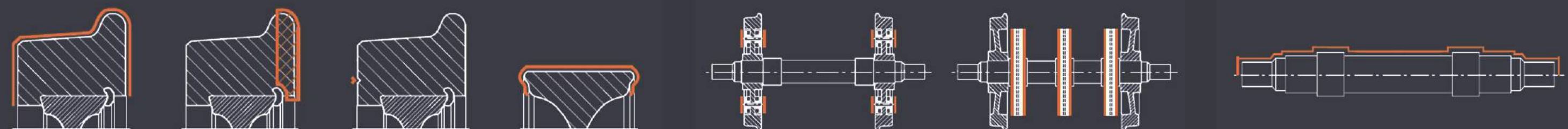
- ✓ Swing over bed [mm]: 800
- ✓ Swing over carriage [mm]: 670
- ✓ Max. distance between centres [mm]: 3000
- ✓ Max. weight of workpiece [x10 kN]: 6



TCG 135 N

AXLE LATHES FOR WHEELS AND AXLES

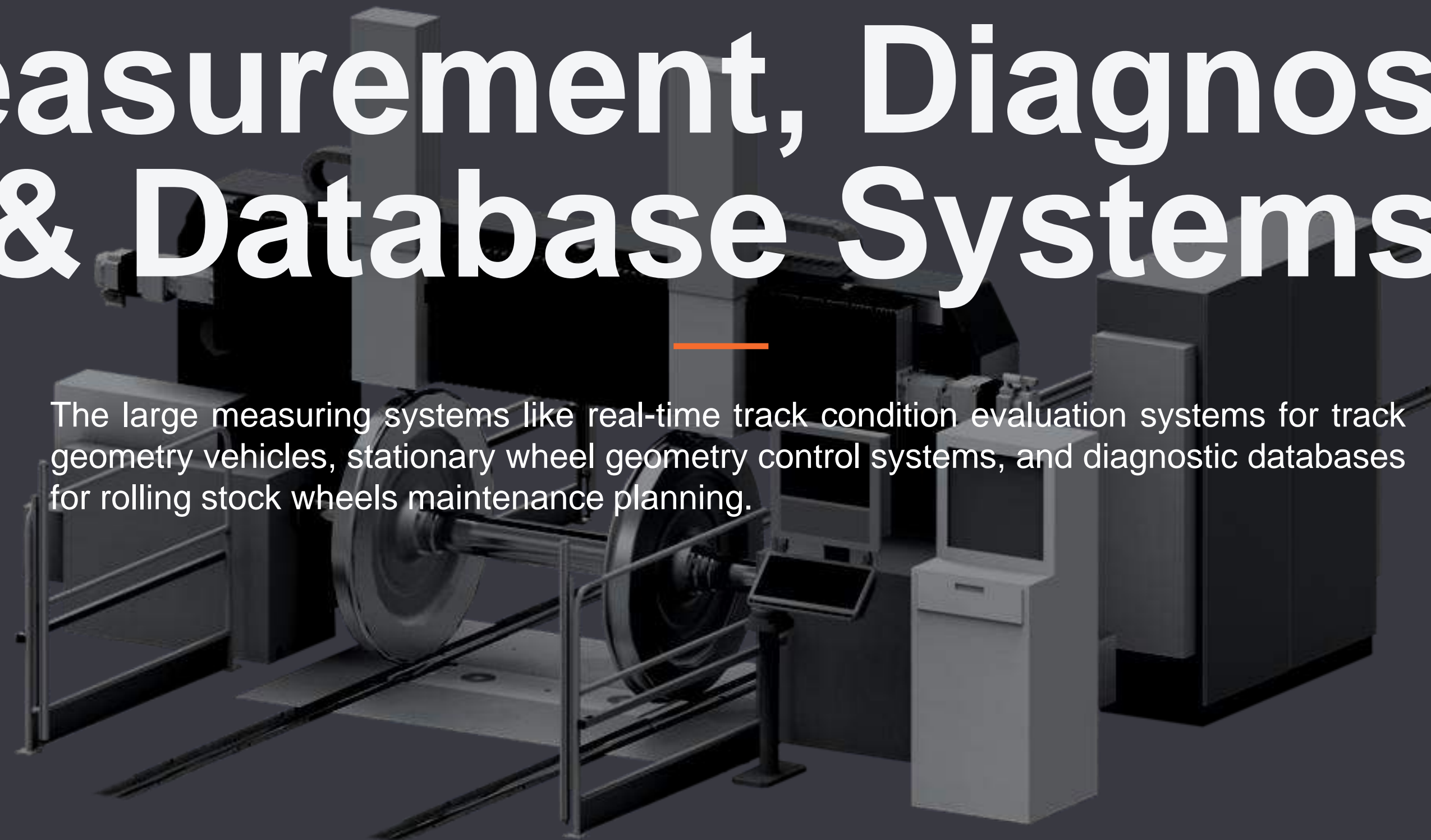
- ✓ Track gauge [mm]: 1435
- ✓ Min./Max. wheel tread diameter [mm]: 600 / 1250
- ✓ Max. width of wheel rim [mm]: 145
- ✓ Min./Max. length of wheelset axle [mm]: 2800
- ✓ Max. weight of wheelset [x10 kN]: 3



EQUIPMENT FOR RAILWAYS

Measurement, Diagnostic & Database Systems

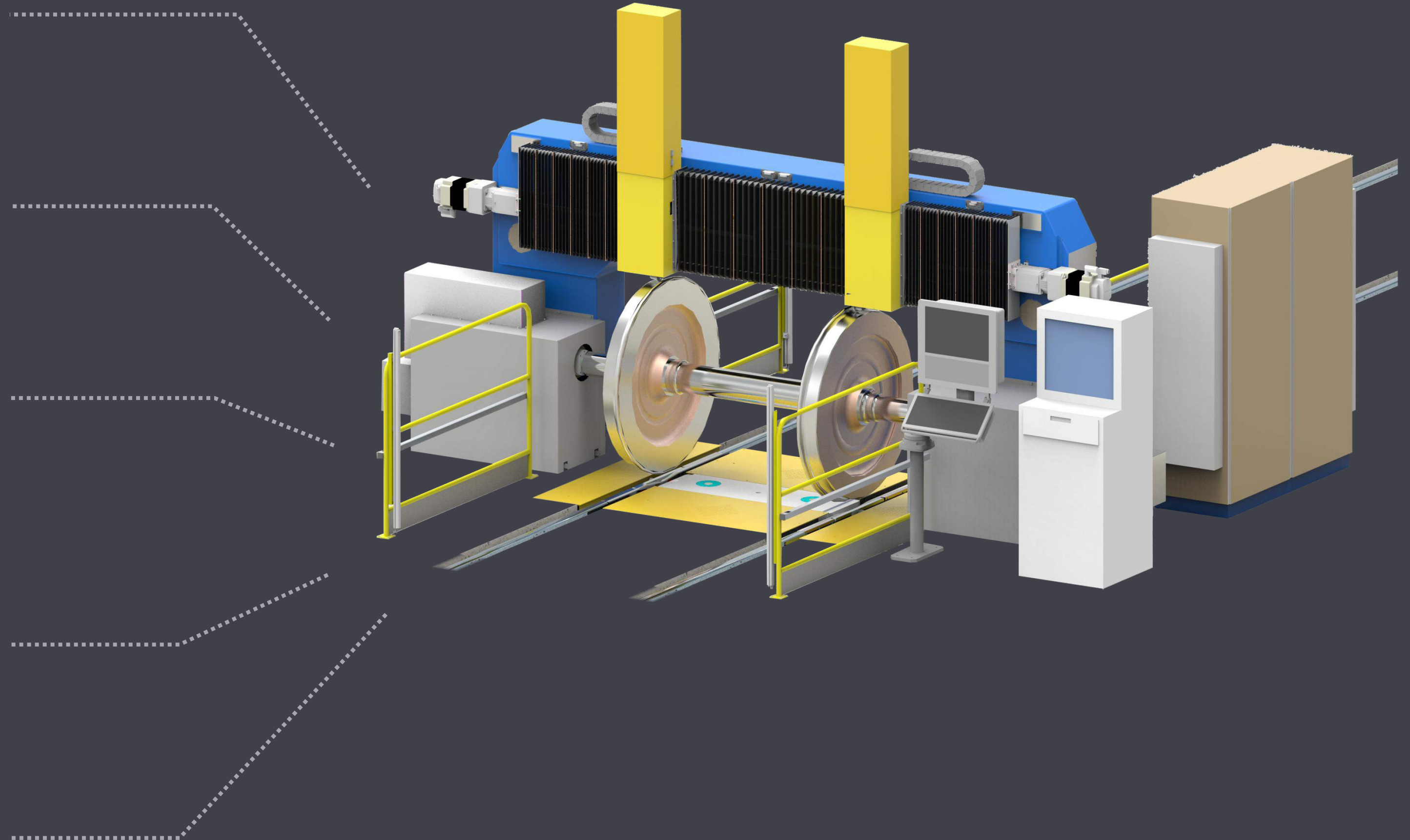
The large measuring systems like real-time track condition evaluation systems for track geometry vehicles, stationary wheel geometry control systems, and diagnostic databases for rolling stock wheels maintenance planning.



SP 125 N

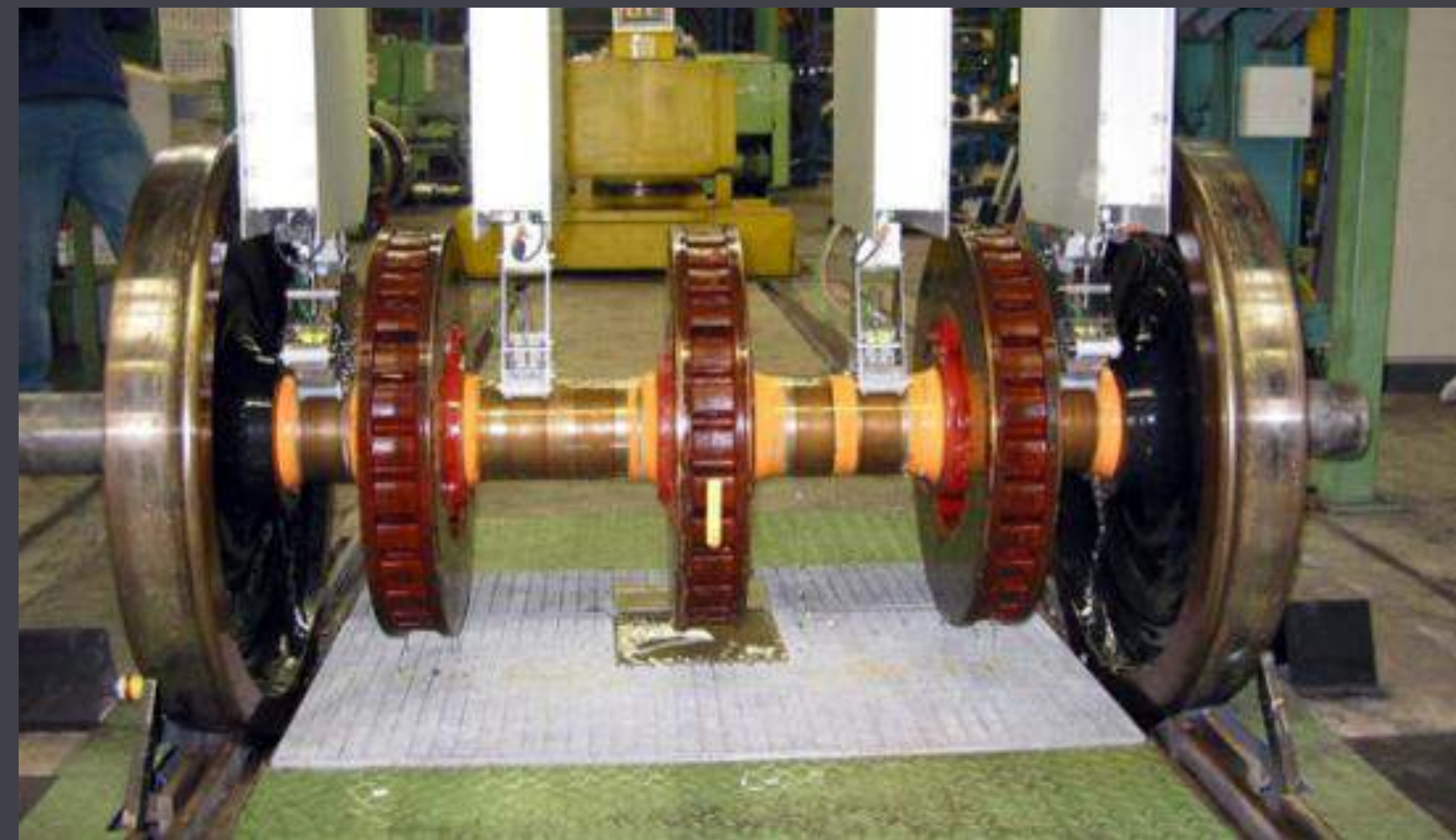
STATIONARY MEASUREMENT MACHINE

- ✓ Track gauge [mm]: 1435
- ✓ Min./Max. wheel tread diameter [mm]:
600 / 1250
- ✓ Min./Max. length of wheelset axle [mm]:
1720 / 2600
- ✓ Rapid travel [mm/min]: 5000
- ✓ Max. weight of wheelset [t]: 3





The laser measurement system for wheelsets is designed for monitoring of wheel profile wear. The degree of wheel profile wear is determined on the base of a virtual picture of wheel surface created from the measured data.*



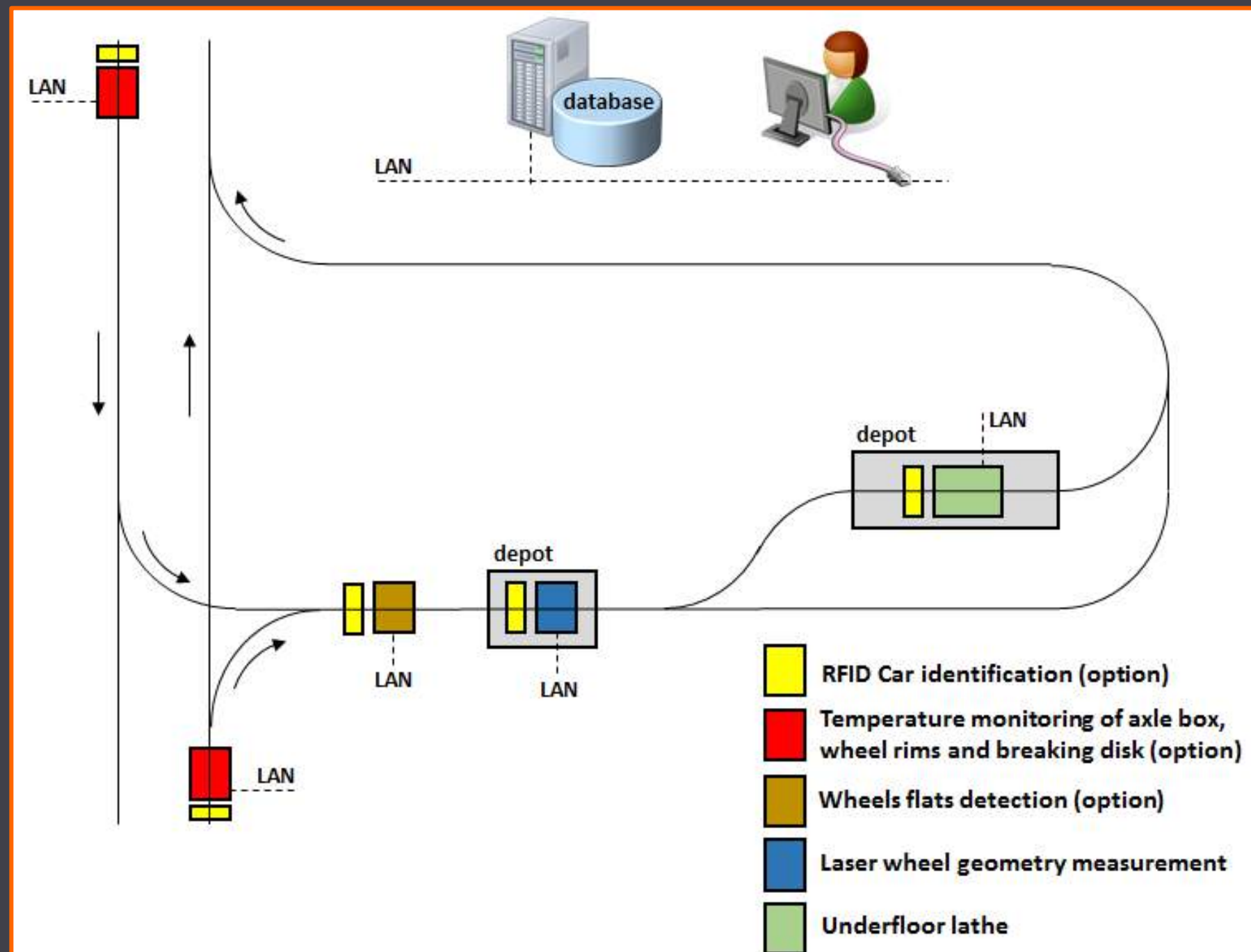
The system of wheelset ultrasonic flaw detection is based on the multi-encoder heads using the phased array ultrasonic inspection technology. It is delivered as a separate inspection station



The system of detection of flat spots on wheel profile operates on the base of vibrations recorded by a series of vibroacoustic sensors installed in track while a vehicle is running on the length of approximately 10 meters.*

* The offer elaborated in cooperation with the GRAW company, a supplier of track and rolling stock wheel measuring systems.

DATABASE SYSTEM



Automatic measurement procedure without operator involvement



All measurement data made by each measuring stand is collected and integrated in the local database, which can be accessed through the depot LAN



All trains and wheelsets are identified and assigned to each other before the measurements take place

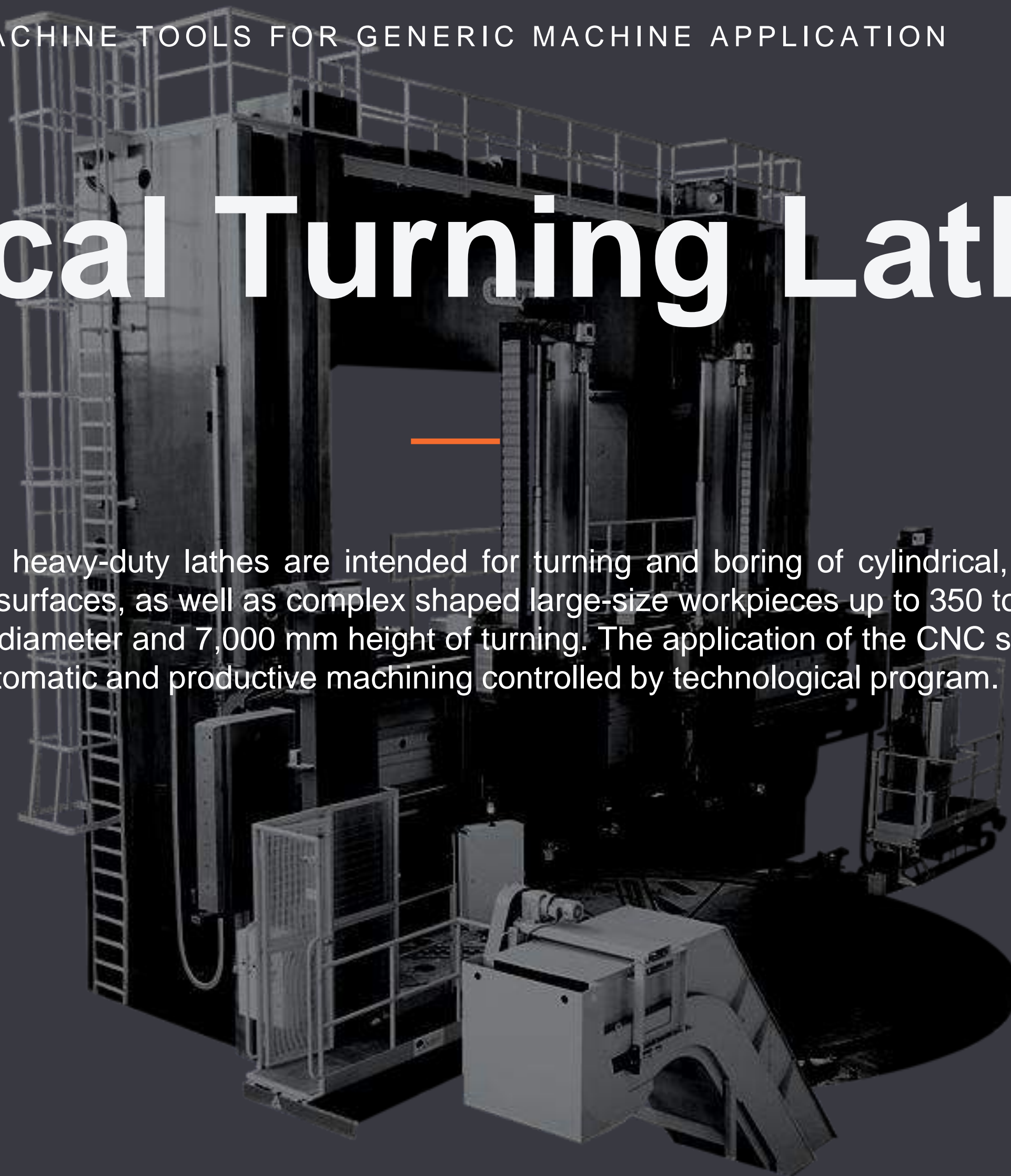


The system is delivered with the diagnostic and analysis subsystems and archives all measurement data in the main database

MACHINE TOOLS FOR GENERIC MACHINE APPLICATION

Vertical Turning Lathes

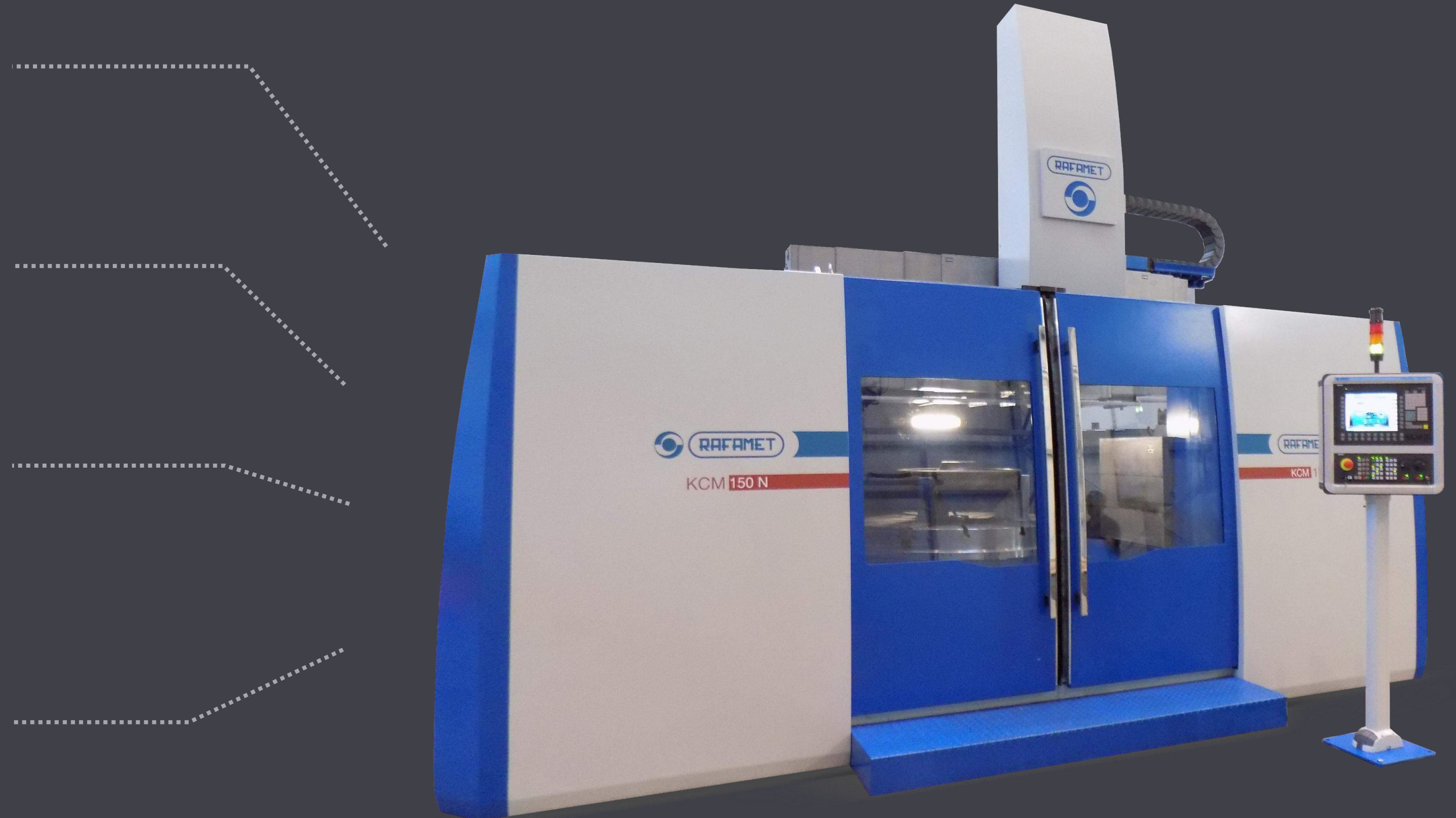
The vertical heavy-duty lathes are intended for turning and boring of cylindrical, conic and curved surfaces, as well as complex shaped large-size workpieces up to 350 tonnes, 16,000 mm diameter and 7,000 mm height of turning. The application of the CNC system provides automatic and productive machining controlled by technological program.



KCM 150 N

VERTICAL TURNING LATHES

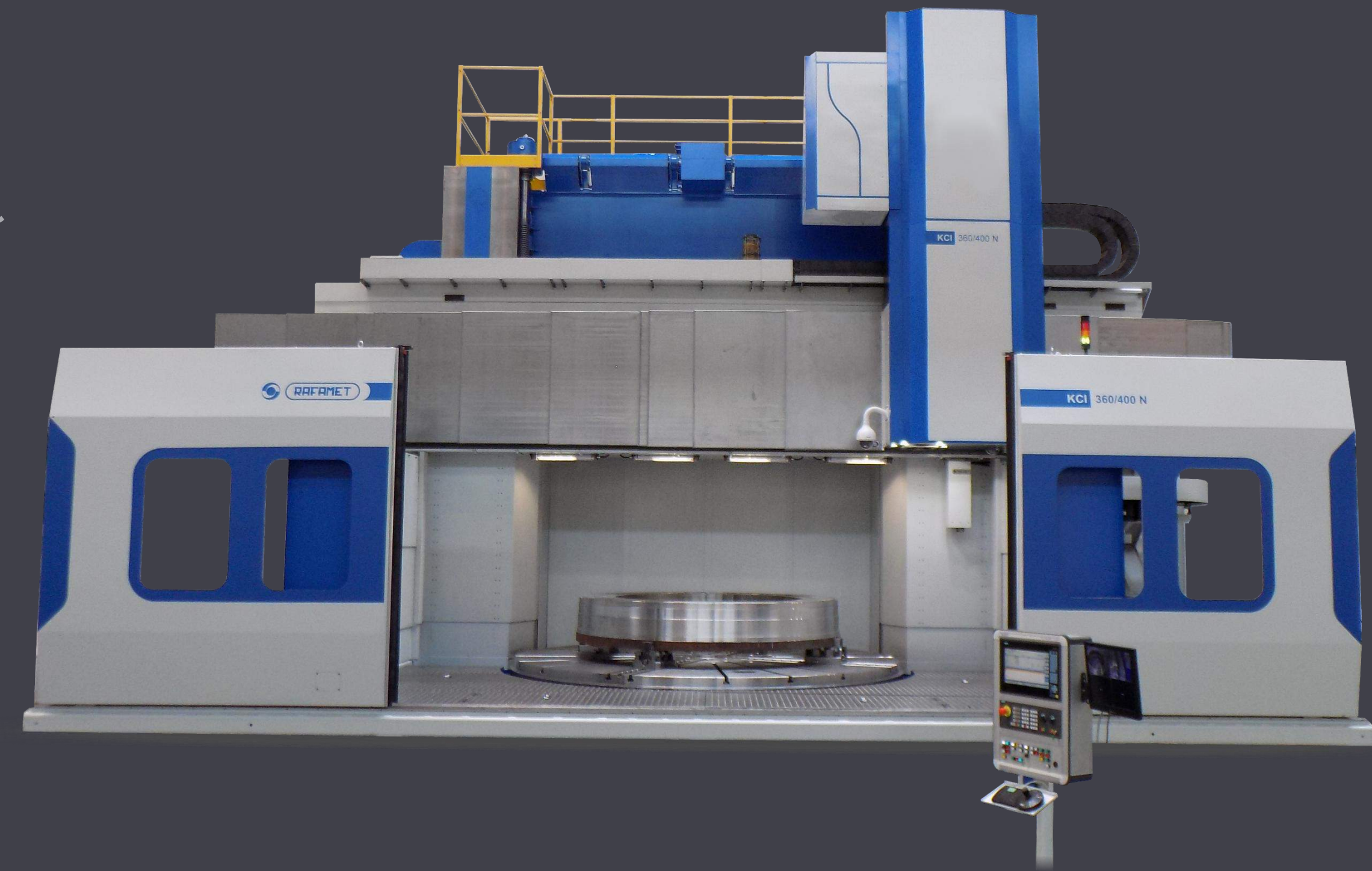
- ✓ Max. table diameter [mm]: 3000
- ✓ Max. swing diameter [mm]: 3500
- ✓ Max. turning height [mm]: 2000
- ✓ Max. weight of workpiece [x10 kN]: 10



KCI 250-500 N

VERTICAL TURNING LATHES

- ✓ Max. table diameter [mm]: 7000
- ✓ Max. swing diameter [mm]: 8000
- ✓ Max. turning height [mm]: 5000
- ✓ Max. weight of workpiece [x10 kN]: 150



KDC 700 N

HEAVY DUTY VERTICAL TURNING LATHES

- ✓ Max. table diameter [mm]: 10000
- ✓ Max. swing diameter [mm]: 13000
- ✓ Max. turning height [mm]: 8000
- ✓ Max. weight of workpiece [x10 kN]: 350



MACHINE TOOLS FOR GENERIC MACHINE APPLICATION

Special Milling Machines

We offer our clients with Special Purpose Milling Machines that can be used in various manufacturing machine shops and industries. This machines are available with a large variety of special tools and accessories; most of which are automatically changeable. This provides a machine of high flexibility for machining large, complex workpieces.

GMC 320-400 N

SPECIAL MILLING MACHINES

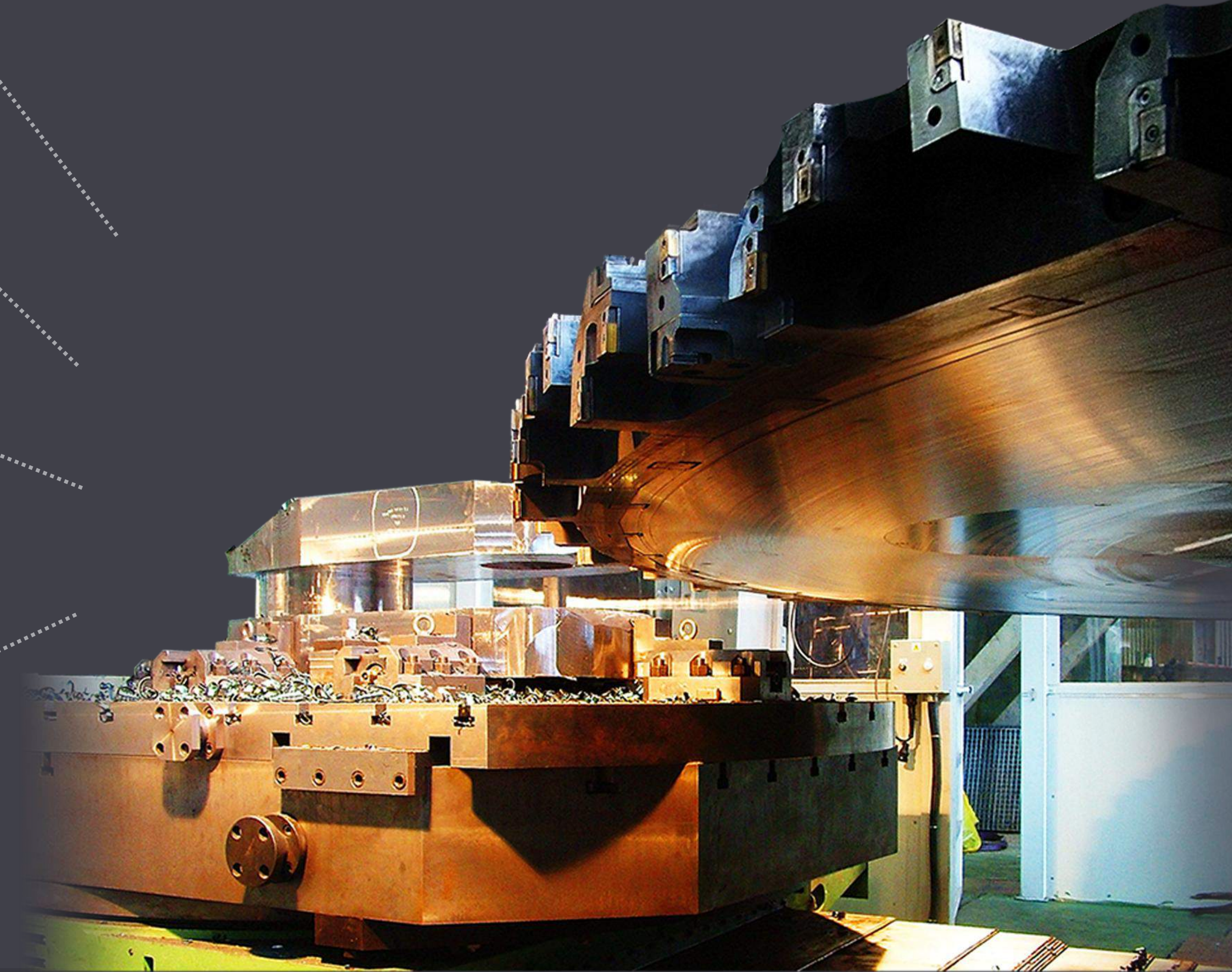
- ✓ Gantry with fixed or movable cross-rail (full NC W axis)
- ✓ 3D milling, drilling, reaming, boring, threading or envelope threading in all machining planes
- ✓ All movable assembly units travel along precise rolling or hydrostatic guideways
- ✓ High energy electro permanent magnetic system for rails



FS 550 N

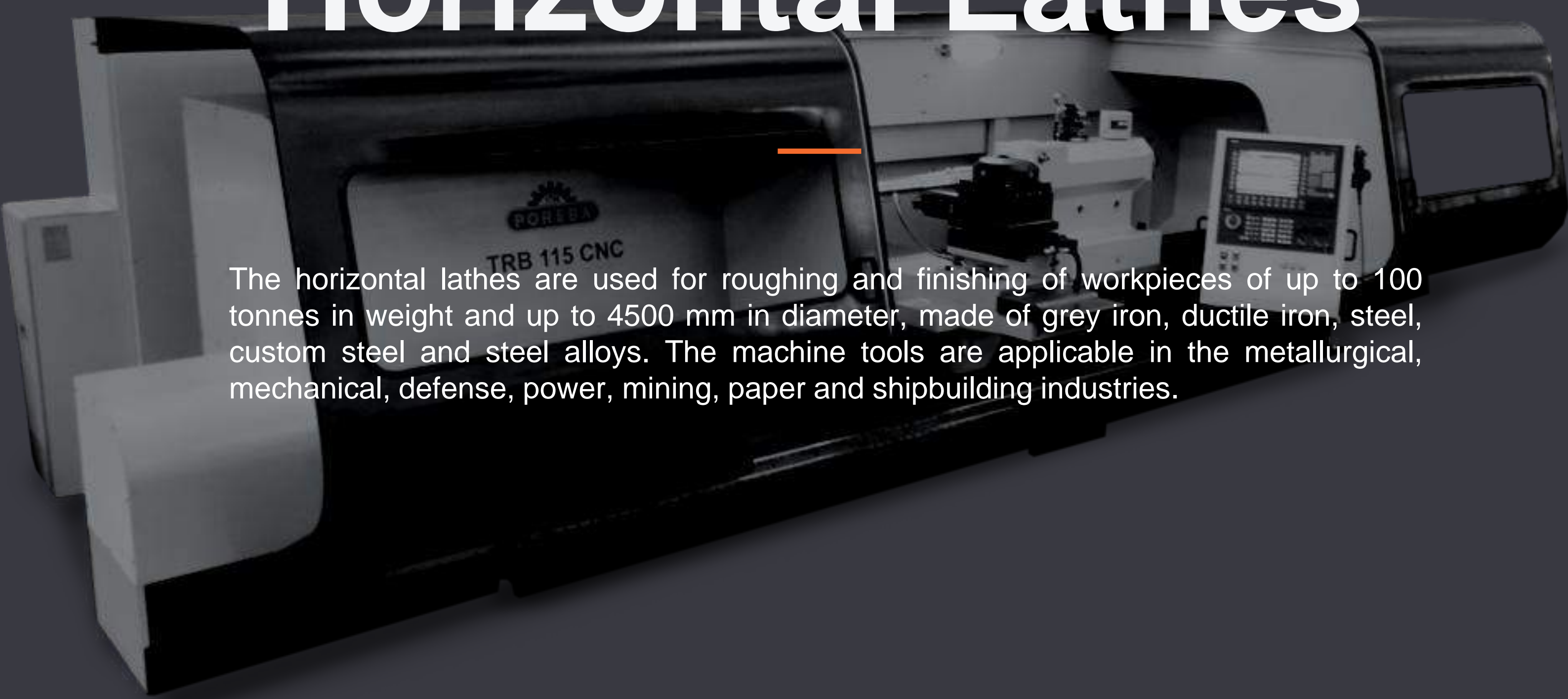
SPECIAL MILLING MACHINES

- ✓ Heavy-duty milling of webs of crank-throws used in vessel engines crankshafts.
- ✓ Rough and fine milling of inner surfaces of crank-throw webs
- ✓ Rough milling of crank-throw pins
- ✓ The entire machining process is controlled by CNC system and proprietary technological program.



MACHINE TOOLS FOR GENERIC MACHINE APPLICATION

Horizontal Lathes



The horizontal lathes are used for roughing and finishing of workpieces of up to 100 tonnes in weight and up to 4500 mm in diameter, made of grey iron, ductile iron, steel, custom steel and steel alloys. The machine tools are applicable in the metallurgical, mechanical, defense, power, mining, paper and shipbuilding industries.

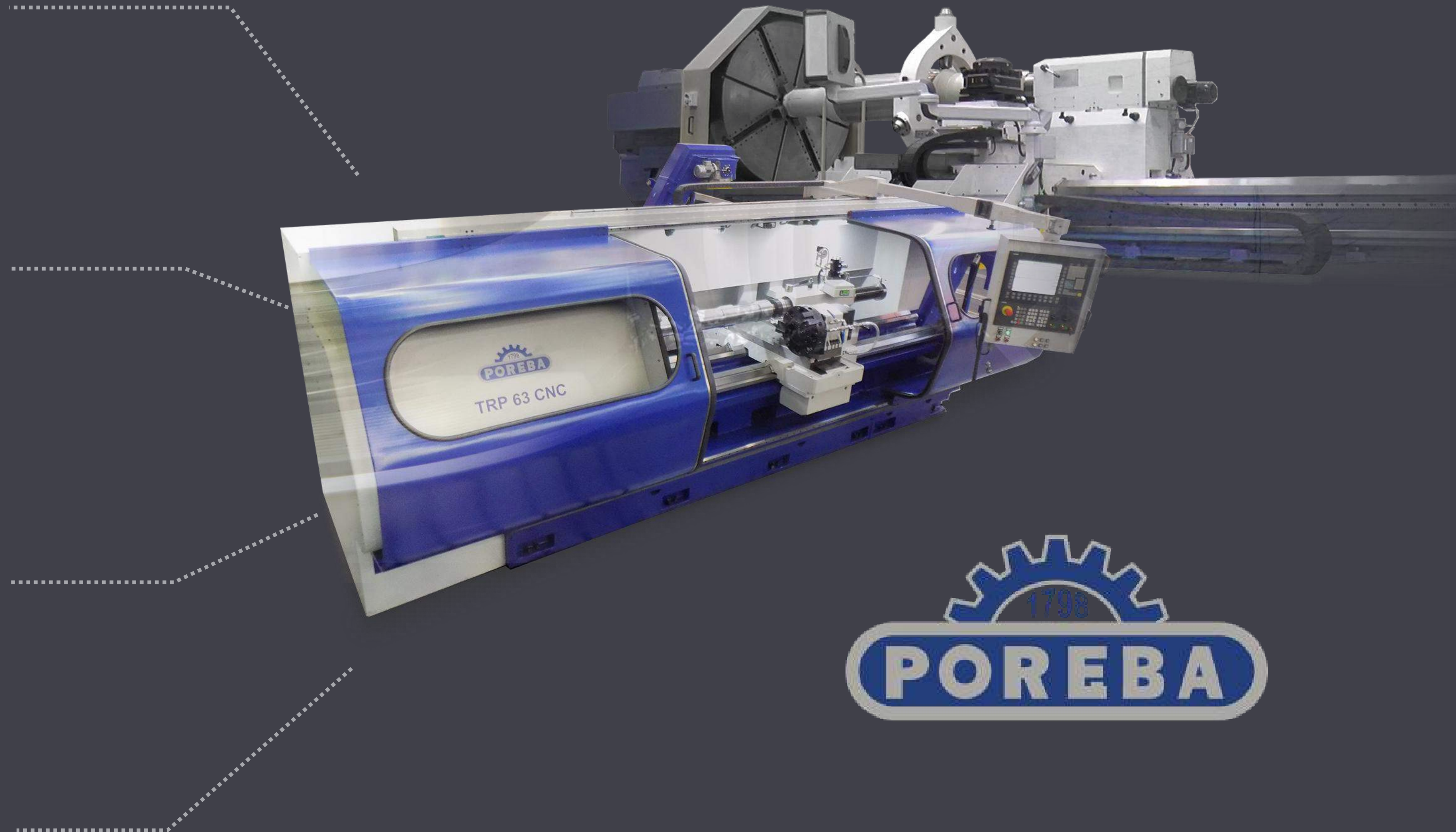
POREBA Horizontal lathes

✓ Max. swing over bed [mm]: 6000

✓ Max. length of workpiece [mm]: 33000

✓ Max. weight of workpiece [t]: 120

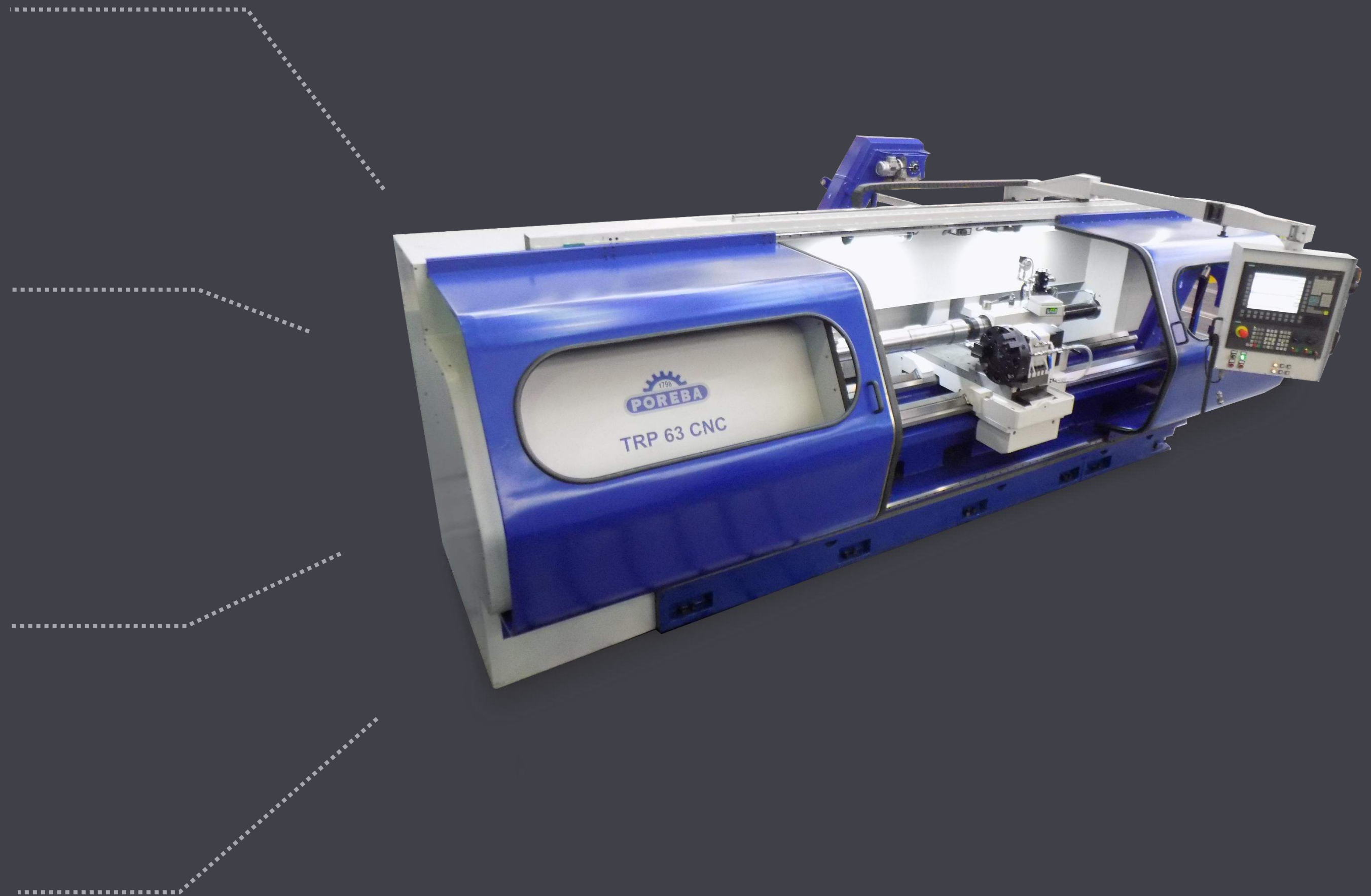
✓ Model lines:
TOK, TRP, TRB, TCM , TCF, TCE, TZL



TRP 63 CNC

CENTRE LATHES

- ✓ Swing over bed [mm]: 650
- ✓ Swing over carriage [mm]: 380
- ✓ Max. weight of workpiece [t]: 4,6
- ✓ Turning length (mm): 1000 - 8000



TCF 200 CNC

HEAVY CENTRE LATHES

✓ Swing over bed [mm]: 2000

✓ Swing over carriage [mm]: 1600

✓ Max. weight of workpiece [t]: 40

✓ Distance between centres (mm):
3000 - 25000



SERVICE & TECHNICAL SUPPORT



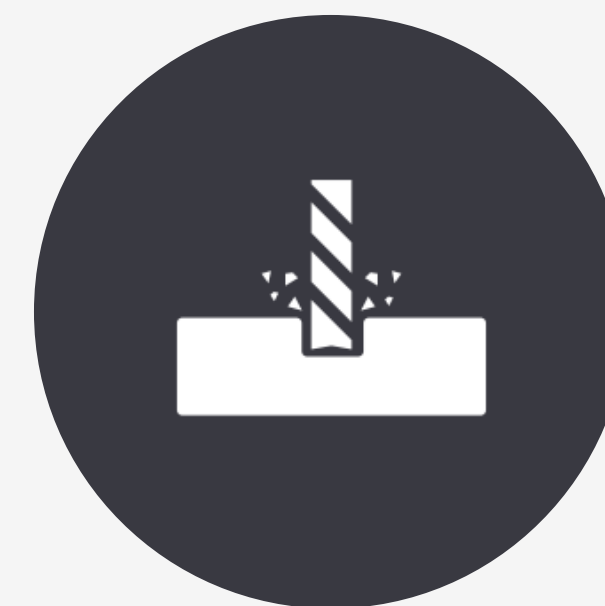
Warranty Services

- Full warranty support of supplied machines
- After-sales services



After-sale Services

- On-line and at-site technical support
- Delivery of spare parts
- Overhauls & upgrades of supplied machines



Large part workpiece machining

- Horizontal & vertical turning
 - Milling
 - Horizontal boring
 - Grinding
 - Honing
- Milling & grinding of gears

INTEGRATED MANAGEMENT SYSTEM

Sales of products and services to Customer's satisfaction while keeping safe work conditions and respecting natural environment is our Principal Goal.



Fabryka Obrabiarek „Rafamet” S.A.
ul. Staszica 1, 47-420 KUŹNIA RACIBORSKA
POLAND

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 9001:2015
ISO 14001:2015

Scope of certification

DESIGN AND DEVELOPMENT, PRODUCTION, SUPPLYING, INSTALLATION AND SERVICE OF MACHINE TOOLS AND EQUIPMENT RAILWAYS, VERTICAL TURNING AND BORING MILLS AND SPECIAL – PURPOSE MACHINE TOOLS.

Original cycle start date: 03-06-2011
Recertification Audit date: 18-05-2017
Recertification cycle start date: 30-05-2017

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 29-05-2020

Certificate No. PL007091/U Version: 1. Revision date: 29-05-2017

Signed on behalf of BUREAU VERITAS UK
Witold Dziugan Local Certification Manager

Certification body address: 5th Floor, 66 Prescot Street, London E1 8NG, United Kingdom
Local office: ul. Miodowa 4, 02-796 Warszawa

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.
To check this certificate validity please call: 22 549 04 00





CERTIFICATE

No. W - 81/10/2019

This is to certify that:

Fabryka Obrabiarek RAFAMET S.A.
ul. Staszica 1, 47-420 Kuźnia Raciborska

is in compliance with the requirements of

Art. 11(2) of the Act of 29 November 2000 on foreign trade in goods, technologies and services of strategic importance for national security and for the maintenance of international peace and security (as amended)

in the following scope of activities:

export, intraUnion transfer, brokering services, technical support, import, transit of goods, technologies and services of strategic importance

The audit carried out by the Polish Centre for Testing and Certification has afforded evidence of the above.
This Certificate shall remain valid provided that above requirements are respected by the Organization.

This certificate is valid:
from 21.06.2019 to 20.06.2022

Date of certification decision: 19.06.2019
PCBC is authorized to carry out certification of conformity and verification of conformity of the internal control system functioning under the Regulation of the Minister of Economy of 12 April 2013 on the list of certification bodies authorized to carry out certification of conformity and verification of compliance of the internal control system functioning (JO No. 2013, item 525)

Anna Wyroba, M.Sc.
Vice President

Polish Centre for Testing and Certification 23A Kłobucka Street, 02-699 Warsaw Poland, phone +48 22 46 45 200, e-mail: pcbc@pcbc.gov.pl



Certificate
Awarded to

Fabryka Obrabiarek „Rafamet” S.A.
ul. Staszica 1, 47-420 KUŹNIA RACIBORSKA
POLAND

Bureau Veritas Certification certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

STANDARD

PN-N 18001:2004

SCOPE OF SUPPLY

DESIGN AND DEVELOPMENT, PRODUCTION, SUPPLYING, INSTALLATION AND SERVICE OF MACHINE TOOLS AND EQUIPMENT RAILWAYS, VERTICAL TURNING AND BORING MILLS AND SPECIAL – PURPOSE MACHINE TOOLS.

Certification Cycle Start Date: 30 May 2017

Subject to the continued satisfactory operation of the organization's Management System, this certificate is valid until: 29 May 2020

To check this certificate validity please call: +48 22 549 04 00
Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.

Issue Date: 29 May 2017

Certificate Number: PL007093UP

Witold Dziugan
Local Certification Manager



AC 081
BHP

RAFAMET FOUNDRY

CASTINGS



Grey iron

- EN-GJL 200
- EN-GJL 250
- EN-GJL 300
- EN-GJL 350
- Castings of single-piece weight up to **40000 kg**



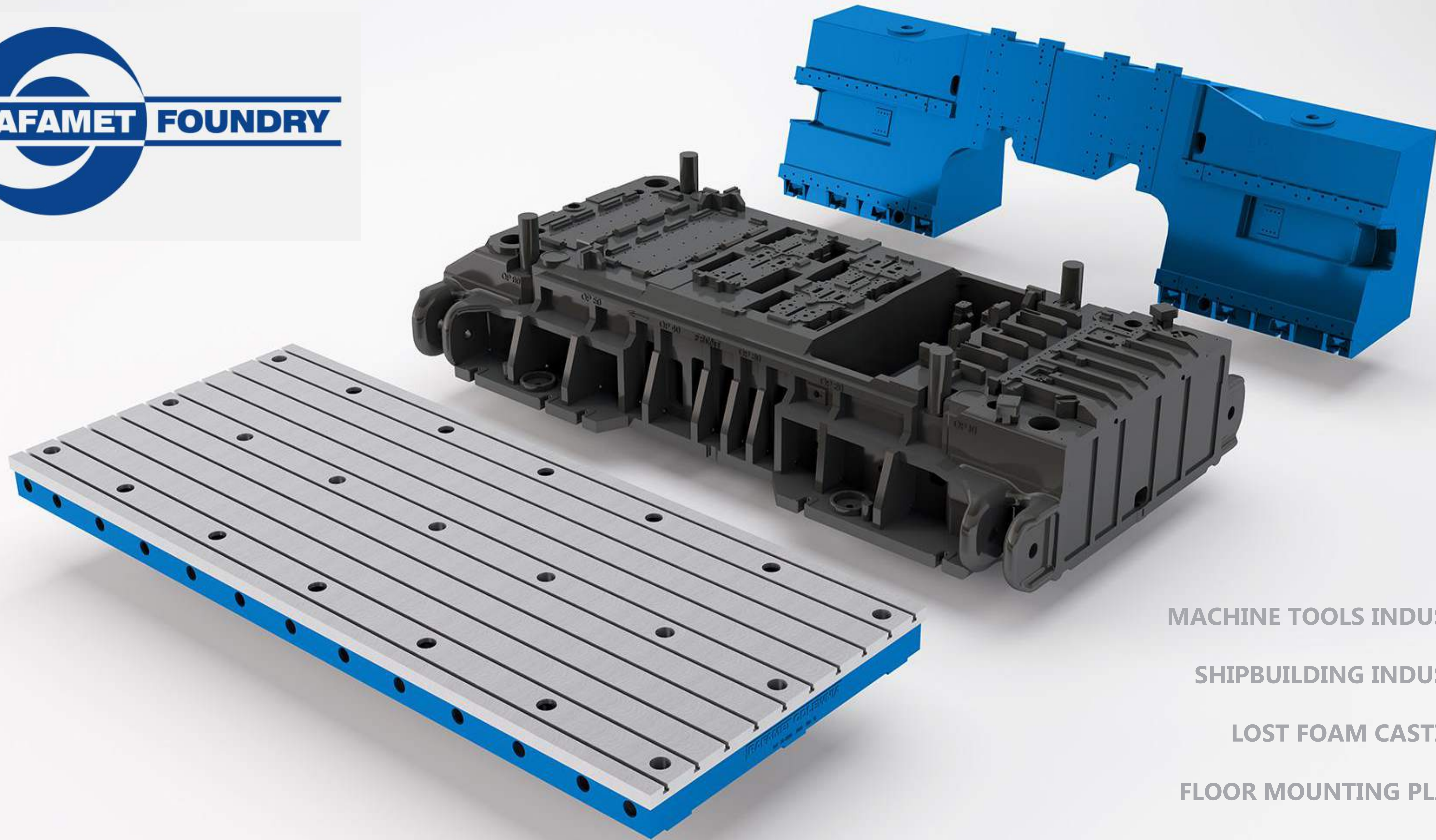
Ductile iron

- EN-GJS 400-18
- EN-GJS 400-15
- EN-GJS 400-12
- EN-GJS 500-7
- EN-GJS 600-3
- EN-GJS 700-2
- Castings of single-piece weight up to **30000 kg**



Special alloy cast iron

- Ni-hard
- Ni-resist
- Castings of single-piece weight up to **20000 kg**



MACHINE TOOLS INDUSTRY

SHIPBUILDING INDUSTRY

LOST FOAM CASTINGS

FLOOR MOUNTING PLATES



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IF YOU REQUIRE ANY MORE INFORMATION OR HAVE ANY QUESTIONS, PLEASE FEEL FREE TO CONTACT US:

RAFAMET S.A., STASZICA 1, 47-420 KUŹNIA RACIBORSKA, POLAND

RAFAMET@RAFAMET.COM.PL