

TD SERIES

TD Z800 / TD Z1350 MODELS



Turning the world

CMZ Danmark
Lanciavej 12C,
7100 Vejle (Denmark)
Tel: +45 7878 2610

CMZ Deutschland GmbH
Holderäckerstr. 31
70499 Stuttgart (Germany)
Tel. +49 (0) 711 469204 60
info-de@cmz.com
www.cmz.com

CMZ France SAS
Parc Technologique Nord
65, Rue Condorcet
38090 Vaulx Milieu (France)
Tel. +33 (0) 4 74 99 03 22
contact@cmz.fr
www.cmz.com

CMZ Italia S.r.l.
Via Arturo Toscanini 6
20020 Magnago (Mi) Italy
Tel. +39 (0) 331 30 87 00
info-it@cmz.com
www.cmz.com

CMZ Machinery Group S.A.
Azkorra s/n.
48250 Zaldibar (Vizcaya-Spain)
Tel. +34 94 682 65 80
info@cmz.com
www.cmz.com

CMZ UK Ltd.
6 Davy Court
Central Park
Rugby
CV23 0UZ (United Kingdom)
Tel. +44 (0) 1788 56 21 11
info-uk@cmz.com
www.cmz.com



CMZ Machine Tool Manufacturer, S.L.
Azkorra, s/n.
48250 Zaldibar (Vizcaya-Spain)
Tel. +34 946 826 580
info@cmz.com
www.cmz.com

Distributor

TD SERIES

TD Z800 / TD Z1350 MODELS



TD Z800 - TD Z1350 Series Catalogue_EN_V9



Turning the world

MODEL RANGE

TD Z800 MODEL

(15/20/25/30/35/45/55)
/- M-MS-Y-YS

PRECISION
RELIABILITY

TD SERIES

TD Z800



MODEL RANGE

TD SERIES TD Z1350

TD Z1350 MODEL

(15/20/25/30/35/45/55)
/- M-Y

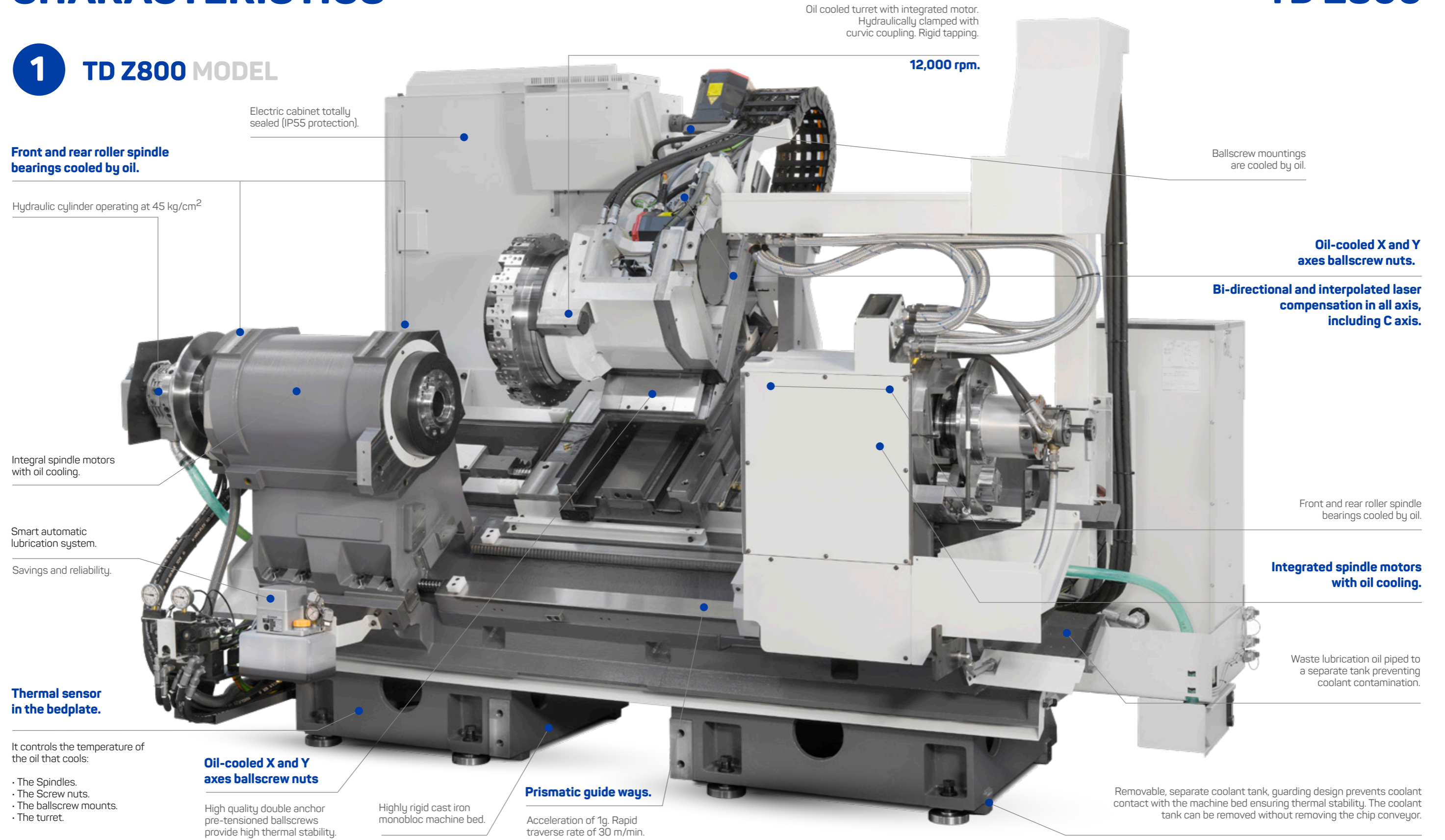
STRONG
PRISMATIC
GUIDE MACHINE



TECHNICAL CHARACTERISTICS

TD SERIES TD Z800

1 TD Z800 MODEL



Oil cooled turret with integrated motor.
Hydraulically clamped with curvic coupling. Rigid tapping.

12,000 rpm.

Electric cabinet totally sealed (IP55 protection).

Ballscrew mountings are cooled by oil.

Front and rear roller spindle bearings cooled by oil.

Oil-cooled X and Y axes ballscrew nuts.

Hydraulic cylinder operating at 45 kg/cm²

Bi-directional and interpolated laser compensation in all axis, including C axis.

Integral spindle motors with oil cooling.

Front and rear roller spindle bearings cooled by oil.

Smart automatic lubrication system.

Integrated spindle motors with oil cooling.

Savings and reliability.

Waste lubrication oil piped to a separate tank preventing coolant contamination.

Thermal sensor in the bedplate.

It controls the temperature of the oil that cools:

- The Spindles.
- The Screw nuts.
- The ballscrew mounts.
- The turret.

Oil-cooled X and Y axes ballscrew nuts

High quality double anchor pre-tensioned ballscrews provide high thermal stability.

Highly rigid cast iron monobloc machine bed.

Prismatic guide ways.

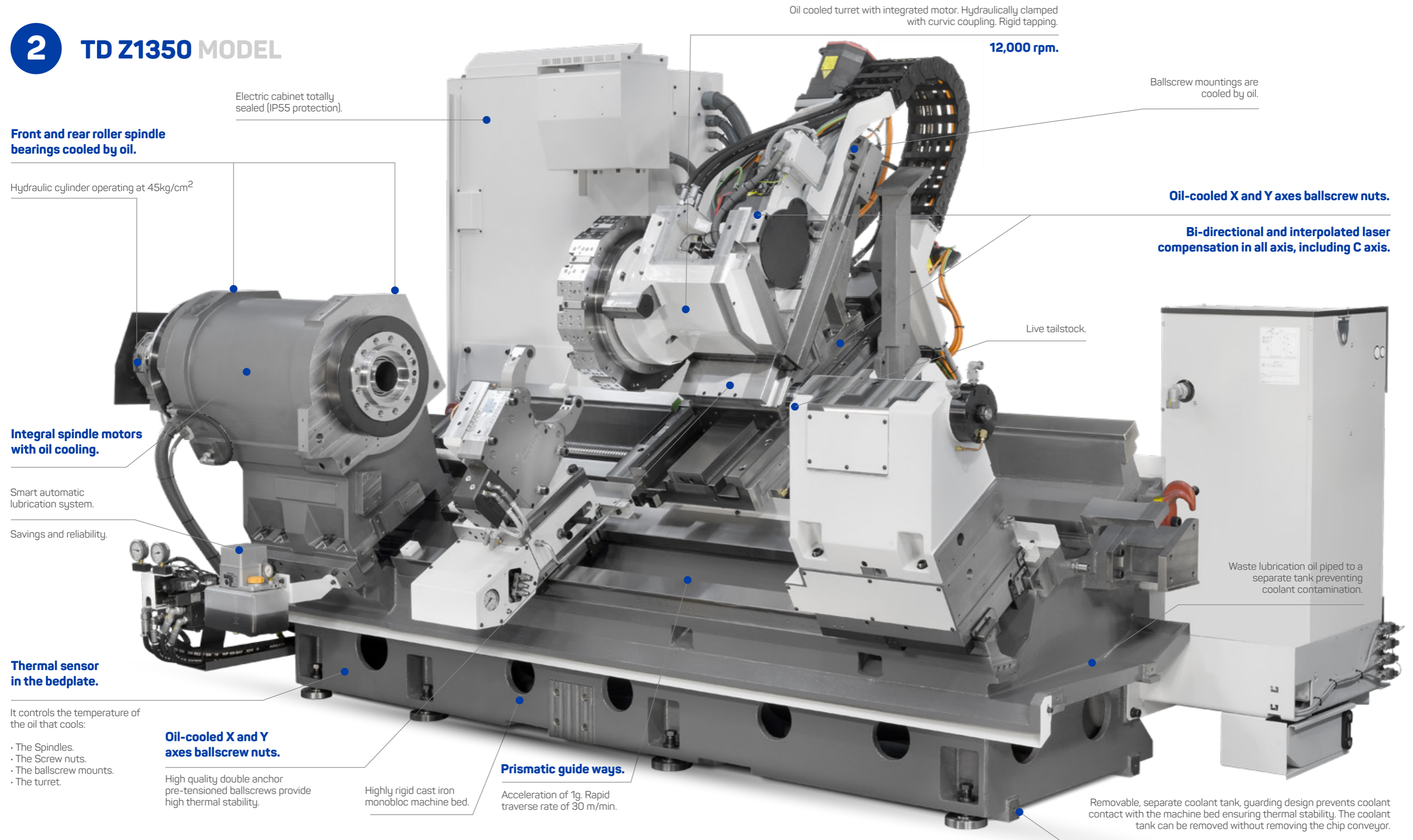
Acceleration of 1g. Rapid traverse rate of 30 m/min.

Removable, separate coolant tank, guarding design prevents coolant contact with the machine bed ensuring thermal stability. The coolant tank can be removed without removing the chip conveyor.

TECHNICAL CHARACTERISTICS

TD SERIES TD Z1350

2 TD Z1350 MODEL



Oil cooled turret with integrated motor. Hydraulically clamped with curvic coupling. Rigid tapping.

12,000 rpm.

Ballscrew mountings are cooled by oil.

Electric cabinet totally sealed (IP55 protection).

Front and rear roller spindle bearings cooled by oil.

Hydraulic cylinder operating at 45kg/cm²

Oil-cooled X and Y axes ballscrew nuts.

Bi-directional and interpolated laser compensation in all axis, including C axis.

Integral spindle motors with oil cooling.

Live tailstock.

Smart automatic lubrication system.

Savings and reliability.

Waste lubrication oil piped to a separate tank preventing coolant contamination.

Thermal sensor in the bedplate.

It controls the temperature of the oil that cools:

- The Spindles.
- The Screw nuts.
- The ballscrew mounts.
- The turret.

Oil-cooled X and Y axes ballscrew nuts.

High quality double anchor pre-tensioned ballscrews provide high thermal stability.

Highly rigid cast iron monobloc machine bed.

Prismatic guide ways.

Acceleration of 1g. Rapid traverse rate of 30 m/min.

Removable, separate coolant tank, guarding design prevents coolant contact with the machine bed ensuring thermal stability. The coolant tank can be removed without removing the chip conveyor.

INTEGRATED SPINDLES

TD SERIES

INTEGRATED SPINDLE MOTORS INCREASE ACCURACY AND REDUCE MACHINING TIMES

The spindle is driven through a motor integrated in the headstock body itself. This construction ensures an outstanding spindle robustness and vibration dampening that significantly improves surface finish and roundness.

Additionally, spindle acceleration and braking times are shortened by about 20-50% because of the reduced inertia and higher loading capacity of oil-cooled headstocks.

No pulleys or belts

- No belt slipping.
- Better surface finish.
- Lower noise level.

Hydraulic cylinder at 45kg/cm²

- More compact.
- Reduced cross-section means higher speed clamping.
- Higher sensitivity for light clamping.

Built-in encoder. Compensation of mensuration errors by laser measurement and bidirectional and interpolated error correction.

Double row roller bearings can withstand substantial impacts without damage.

Greater rigidity, accuracy and durability.

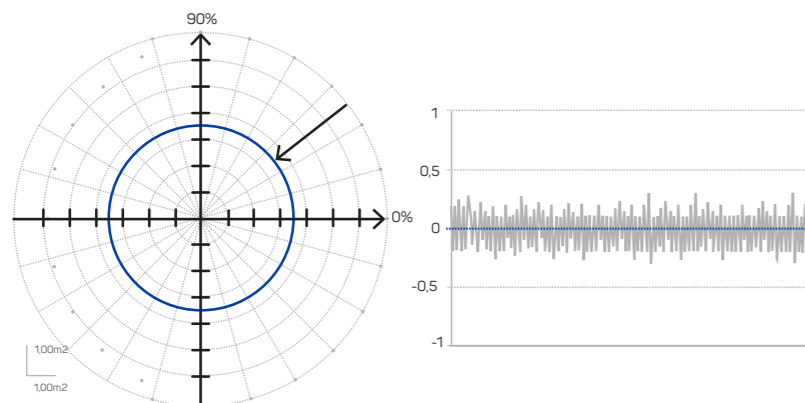
Spindle and bearings cooled by oil.

Hydraulic brake on C axis.

High performance integrated motor.

Special coolant collection tray made by CMZ.

Excellent access to adjust the detectors. Easy chip removal. Protection against coolant entering into the hydraulic circuit.



ROUNDNESS

- MACHINE: TD 15
- MATERIAL: ALUMINIUM
- Ø 60 mm.
- ROUNDNESS ACHIEVED: 0,3 µm
- FILTER: 150 p/r (50%)
- MEASUREMENT RANGE: 0,10°

SURFACE FINISH

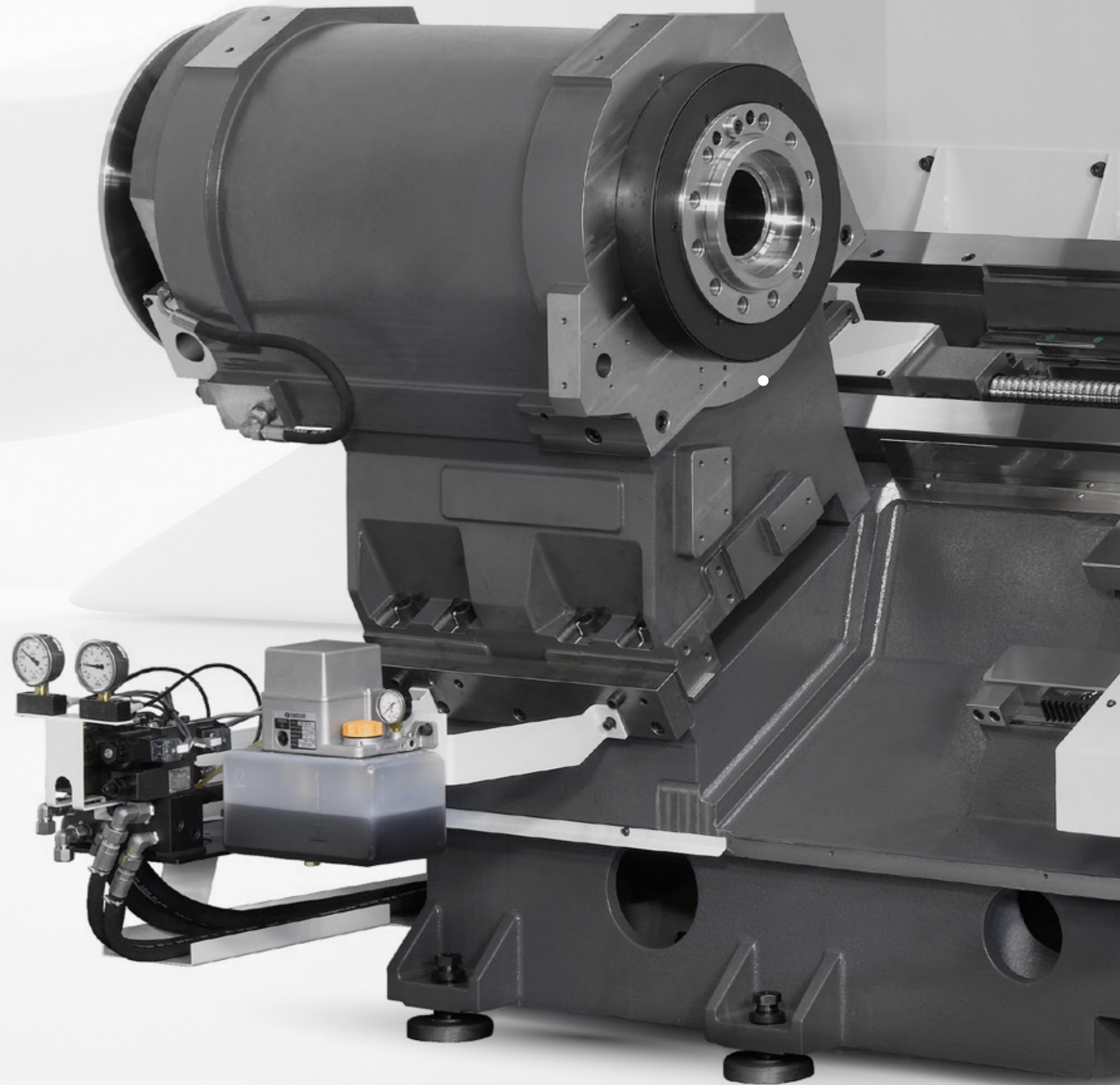
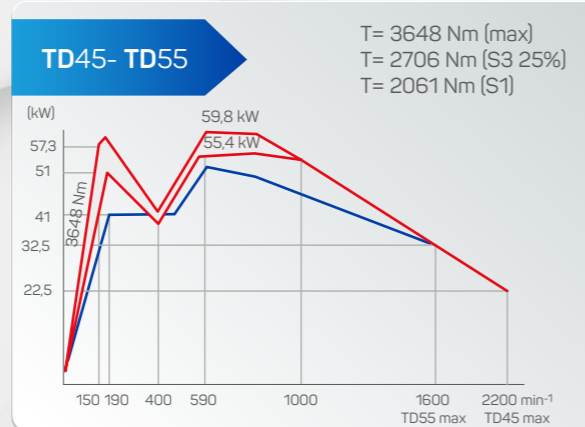
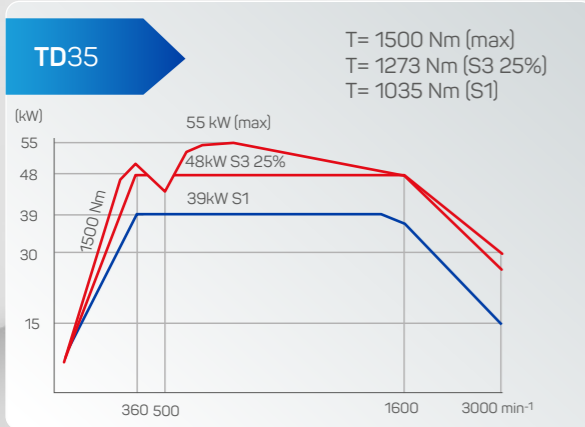
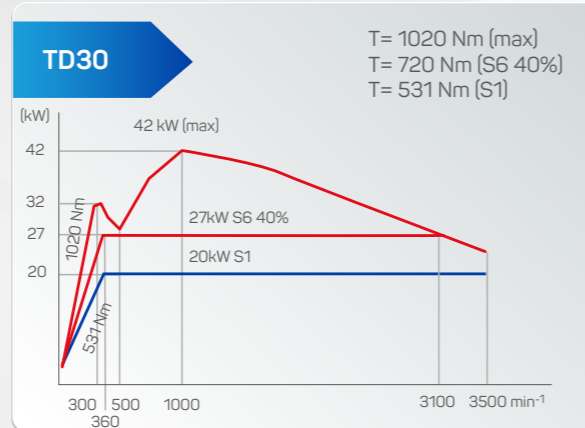
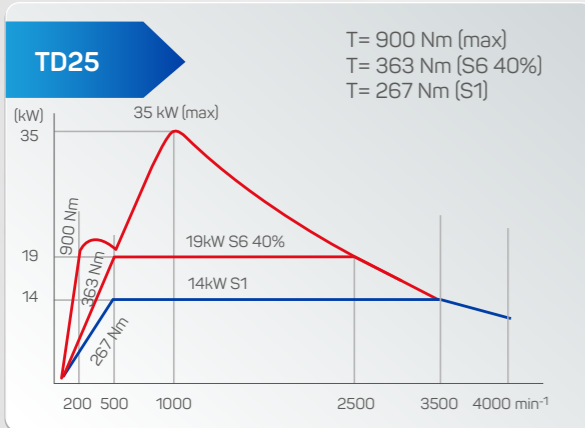
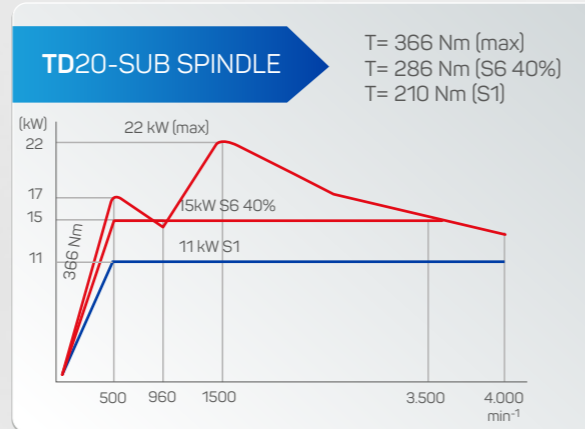
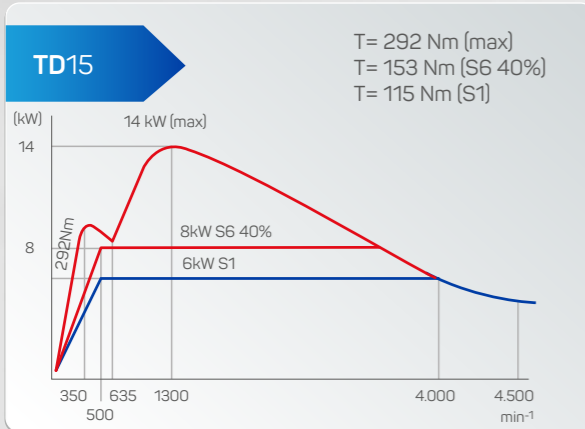
- MACHINE: TD 15
- MATERIAL: ALUMINIUM
- Ø 60 mm.
- ROUGHNESS ACHIEVED: Rmax 0,6 µm
- FILTER: 150 p/r (50%)

*The results obtained herein may not be attainable due to environmental and measuring differences.

INTEGRATED SPINDLES

TD SERIES

POWER AND TORQUE DIAGRAM OF SPINDLES

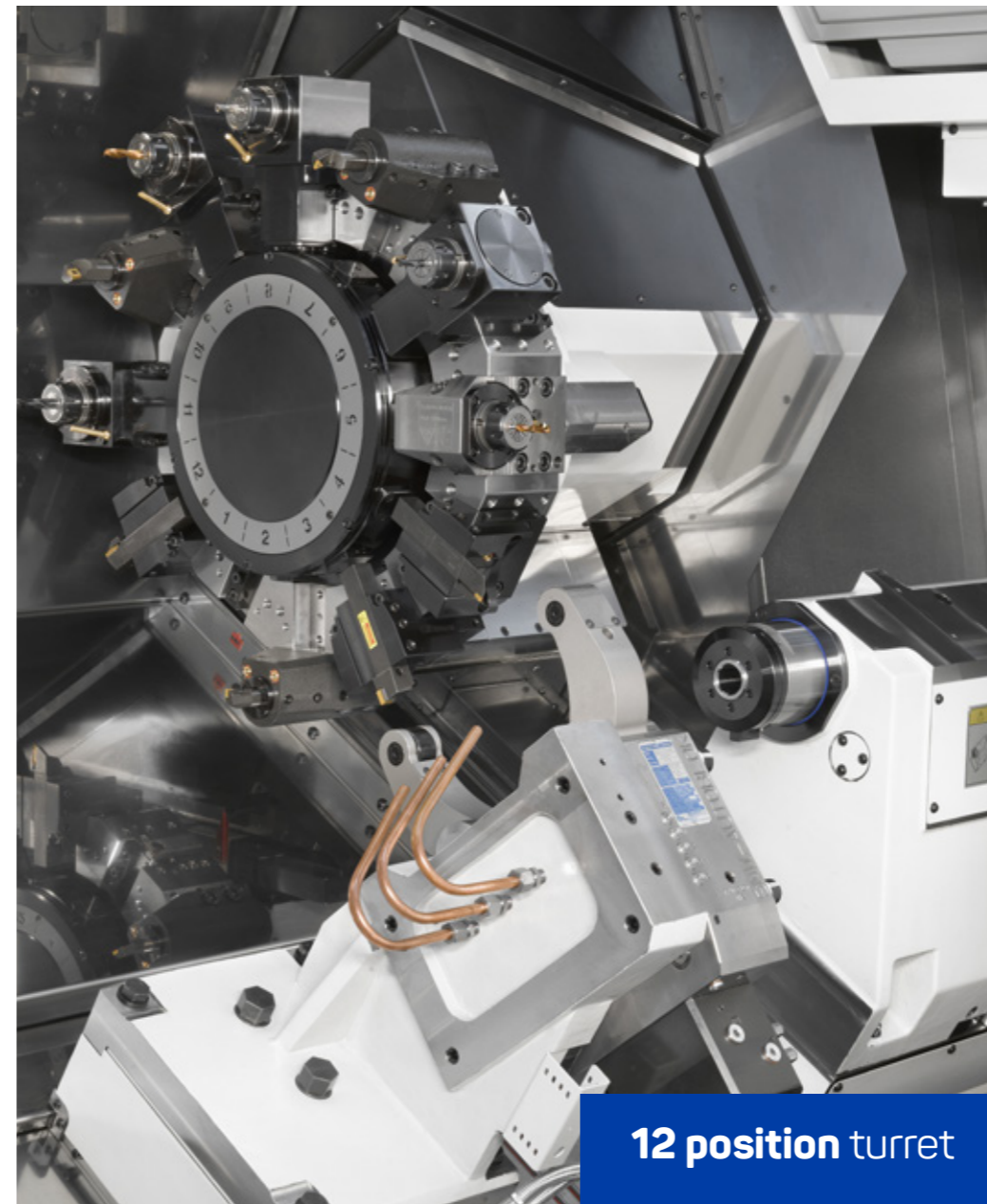
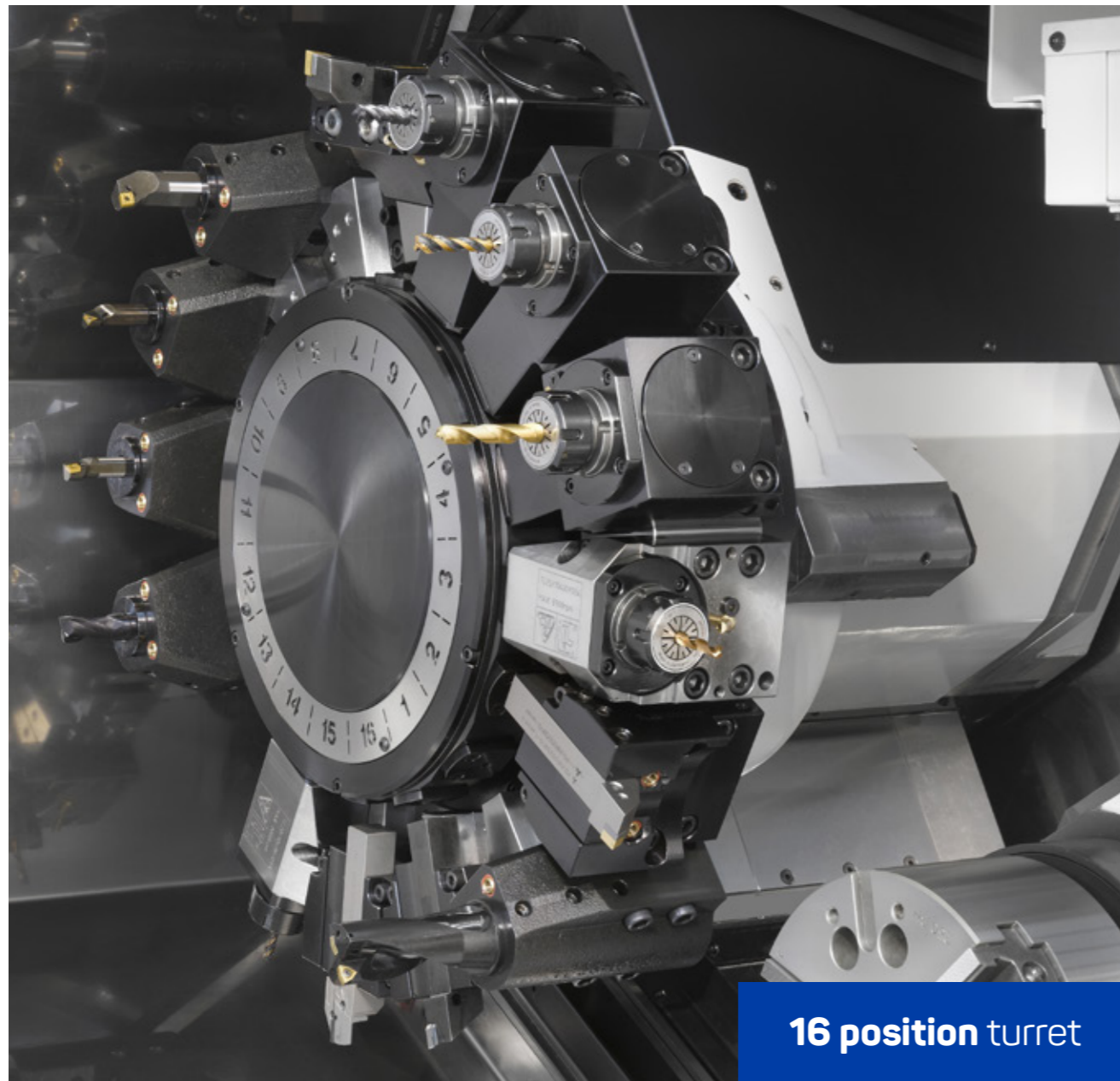


TURRET WITH A BUILT-IN MOTOR

AND HYDRAULIC
CLAMPING

TD SERIES

12,000 rpm /105 Nm/ 13kW



Turret

Sturdily-built turret, incorporating a large diameter turret disk which enables the interferences between tools and chuck to be reduced.

Indexing

Bi-directional high-speed indexing is driven by a servomotor. The motor used for turret rotation is similar to motors used for axis movement, thus achieving high rotation rigidity and smoothness. The indexing time is 0.2 seconds for adjacent turret positions and 0.5 seconds for 180 degrees.

Unclamping

The turret is unclamped on retract and clamped on approach, thus ensuring an effective tool changing time of 0.2 s.

Clamping

The clamping is done by means of a hydraulic system. The locking rings are 220 mm diameter and are a curvic coupling.

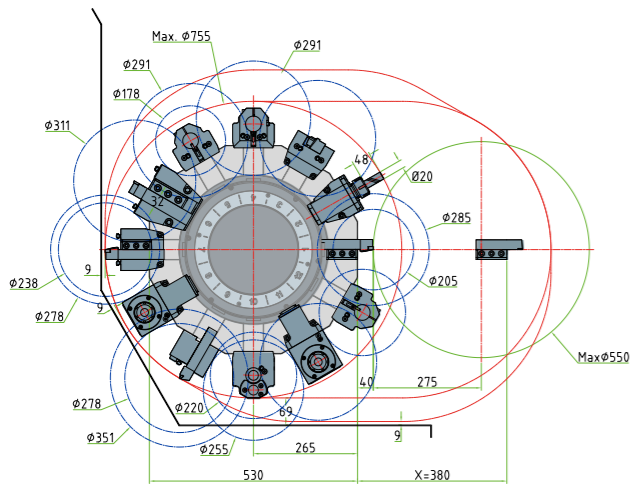
Transmission

The transmission of driven tools is fitted with Gleason type conical spiral gears, hardened and ground giving high accuracy when rigid tapping.

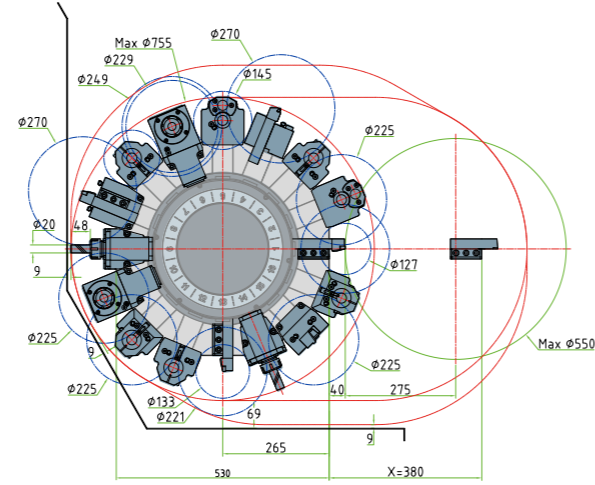
TURRET WITH A BUILT-IN MOTOR & HYDRAULIC CLAMPING

TD SERIES

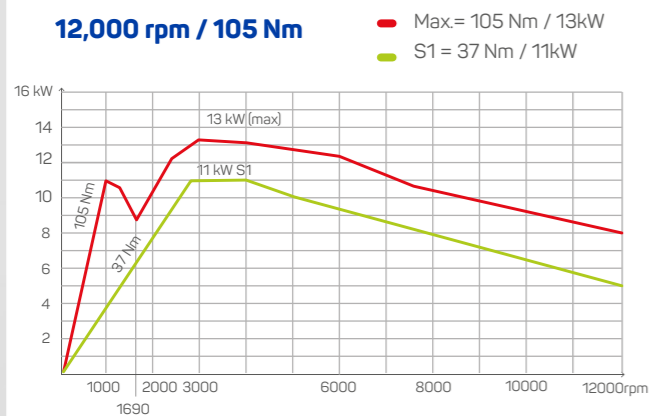
Interference diagram of driven tool motor. Turret with 12 positions.



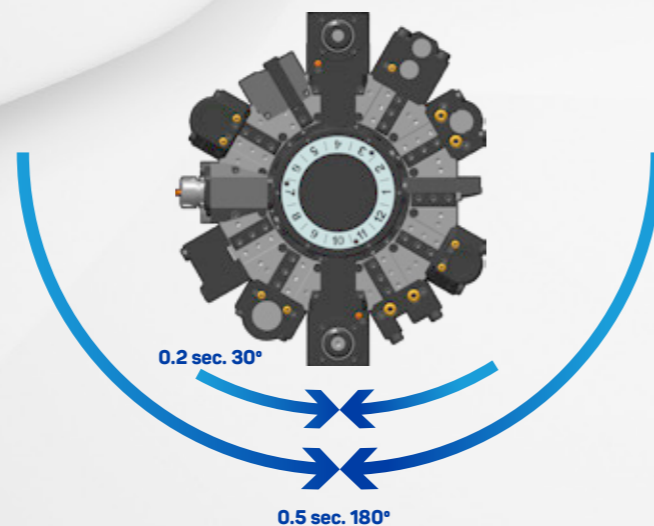
Interference diagram of driven tool motor. Turret with 16 positions.



Power and torque diagram of driven tool motor.

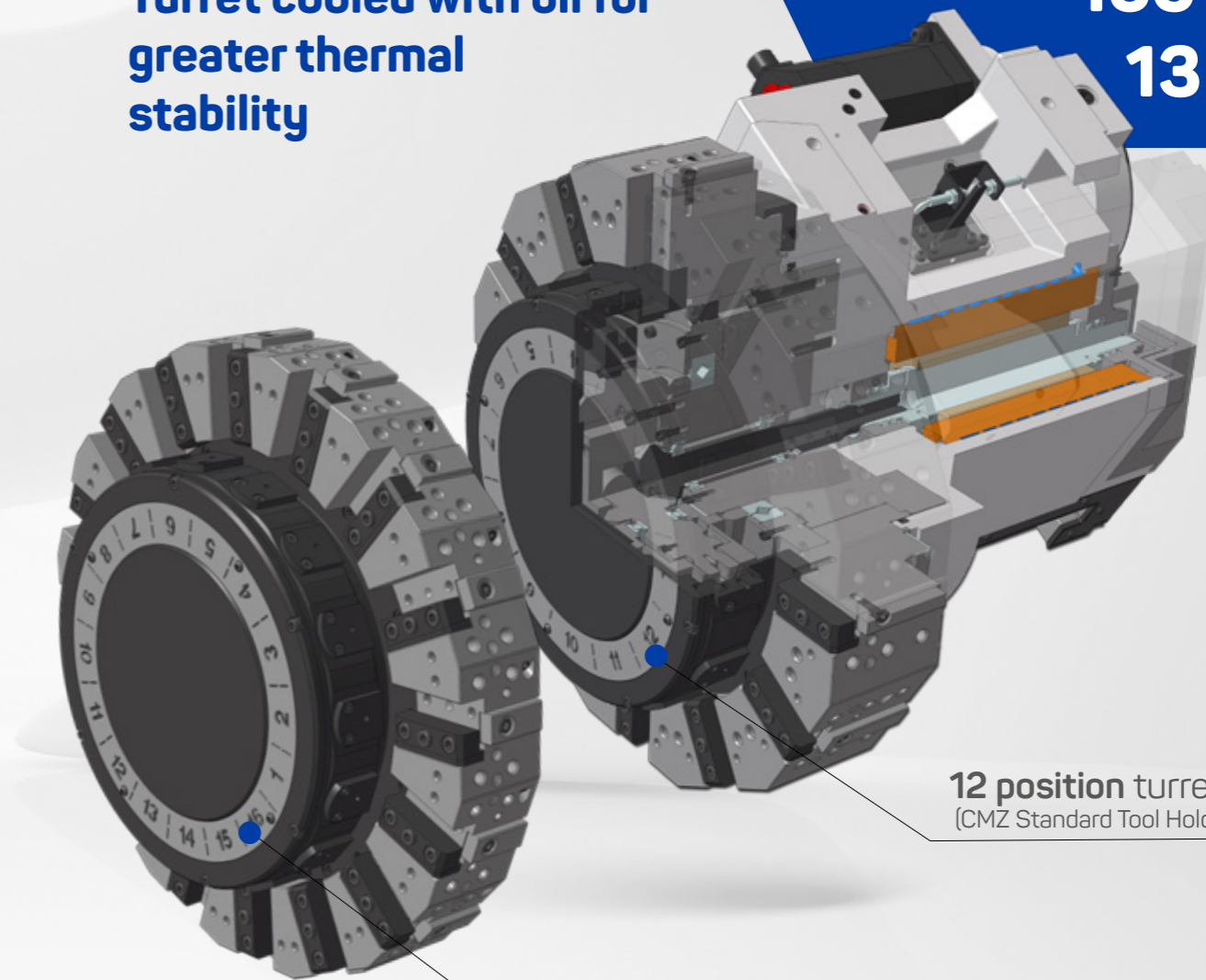


Indexing time
(30° in 200ms)



Turret cooled with oil for greater thermal stability

12,000 rpm
105 Nm
13 kW



12 position turret
(CMZ Standard Tool Holders)

16 position turret
(CMZ Standard Tool Holders)

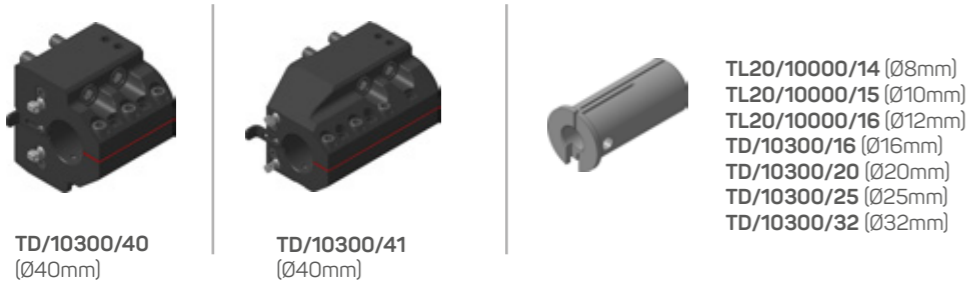
Robust turret construction

The ultra-rigid turret locks with a 3-piece curvic coupling design. The non-lift turret disk unclamps internally when moving away from the workpiece and clamps during the approach, thus achieving an effective 0.2 second indexing time. It also remains completely sealed preventing the ingress of dirt.

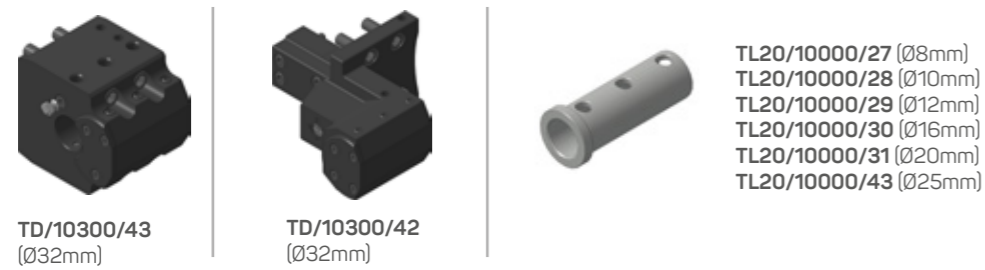
TOOL HOLDERS

TD SERIES

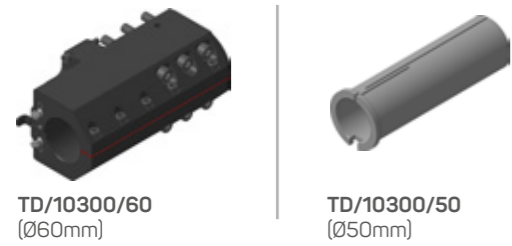
Boring & drilling holders Ø40



Double boring holders Ø32



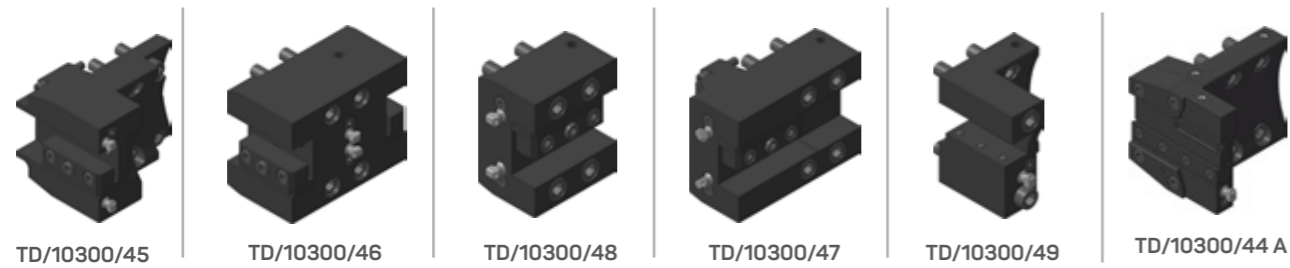
Boring holders Ø60



Boring holders Ø80



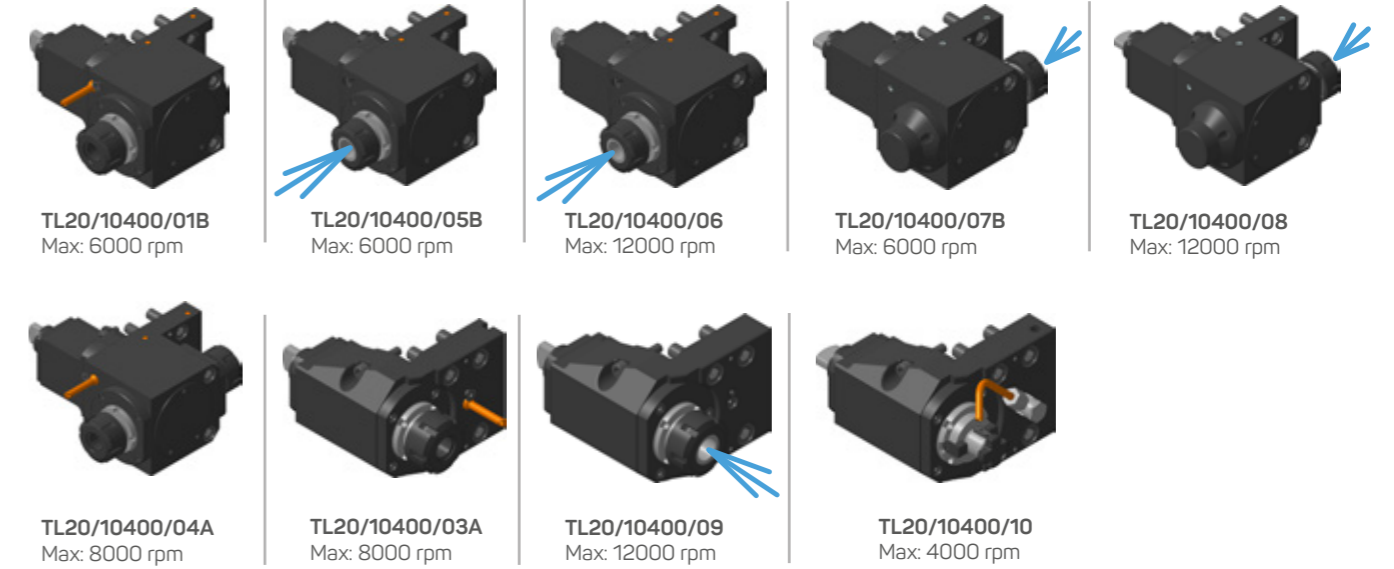
Turning holders □25



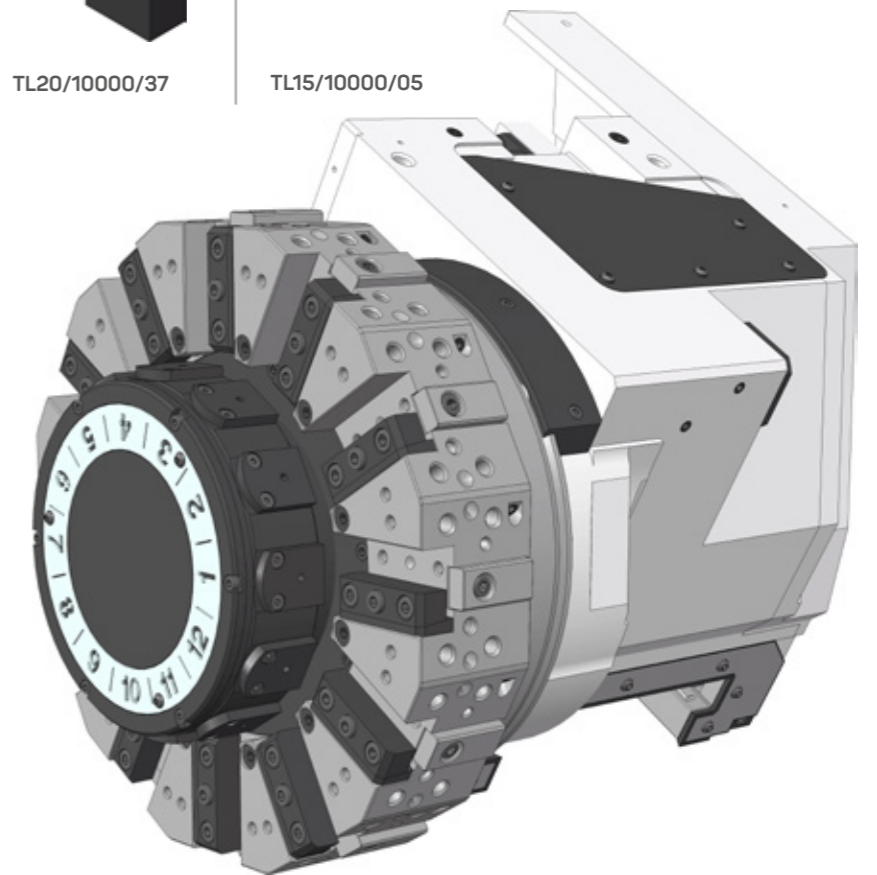
Turning holders □32



Live tool holders



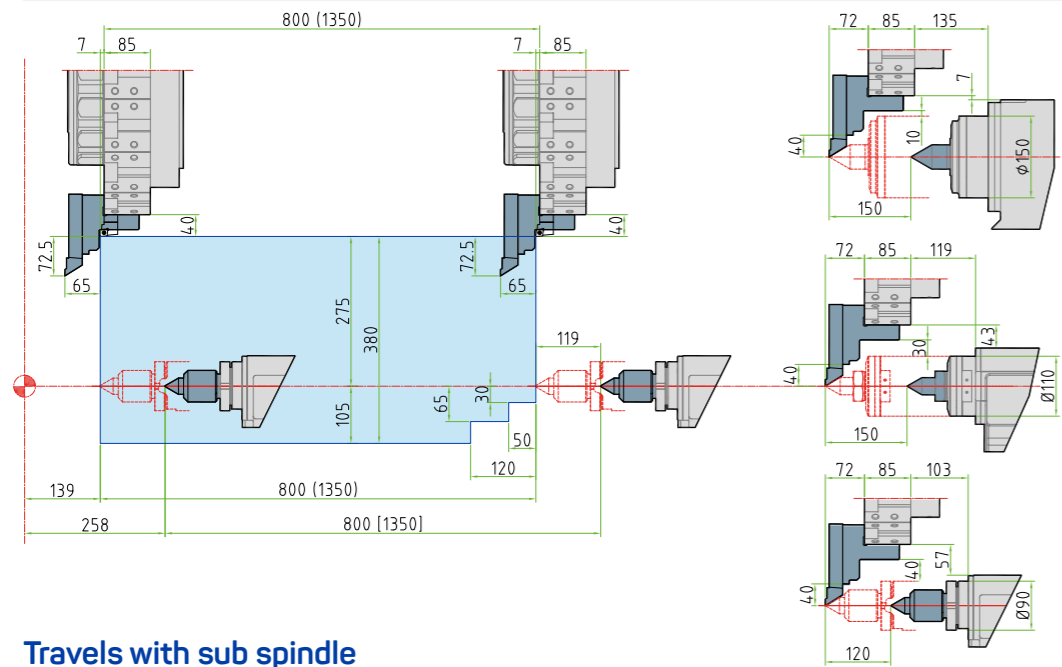
Others



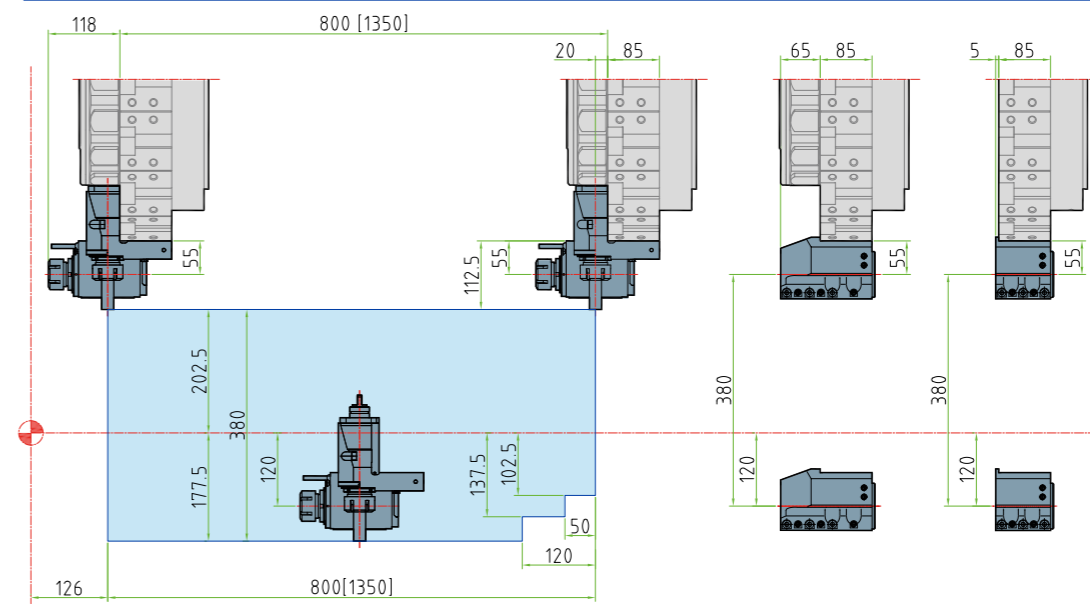
TRAVELS

TD SERIES

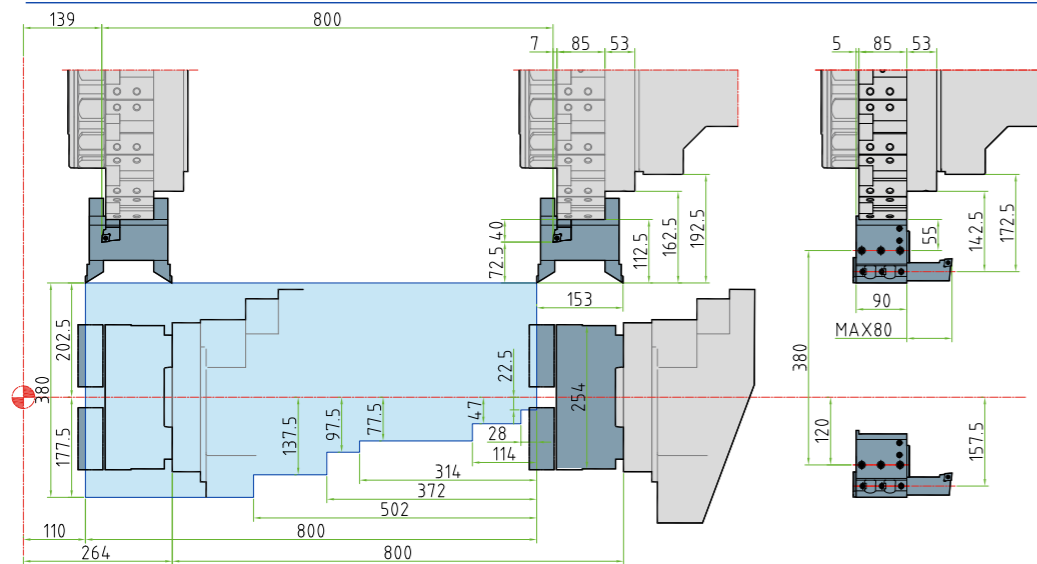
Travels with tailstock



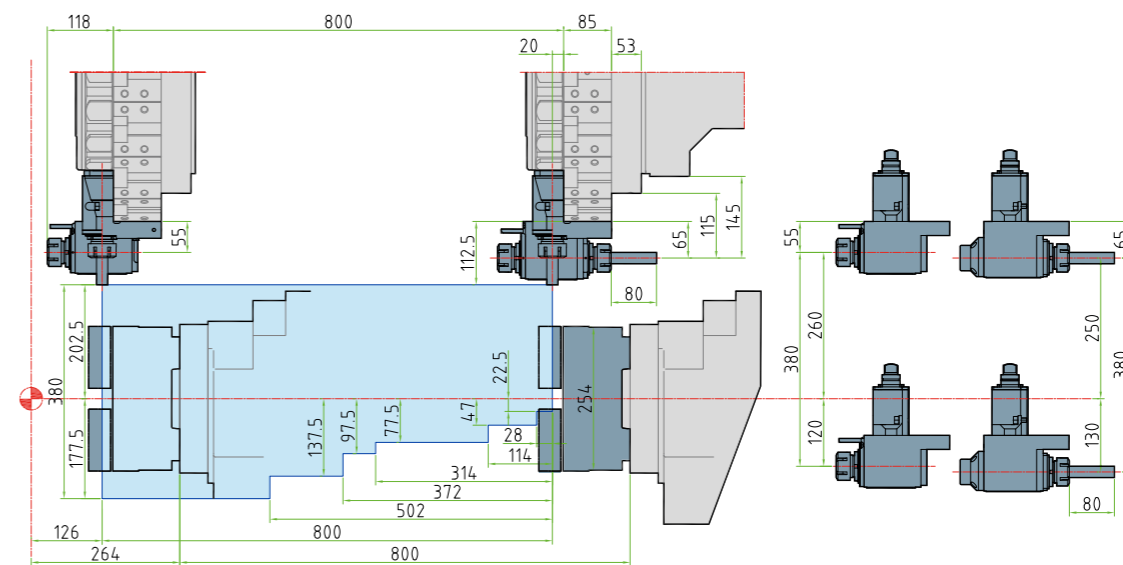
Travels with tailstock and live tooling



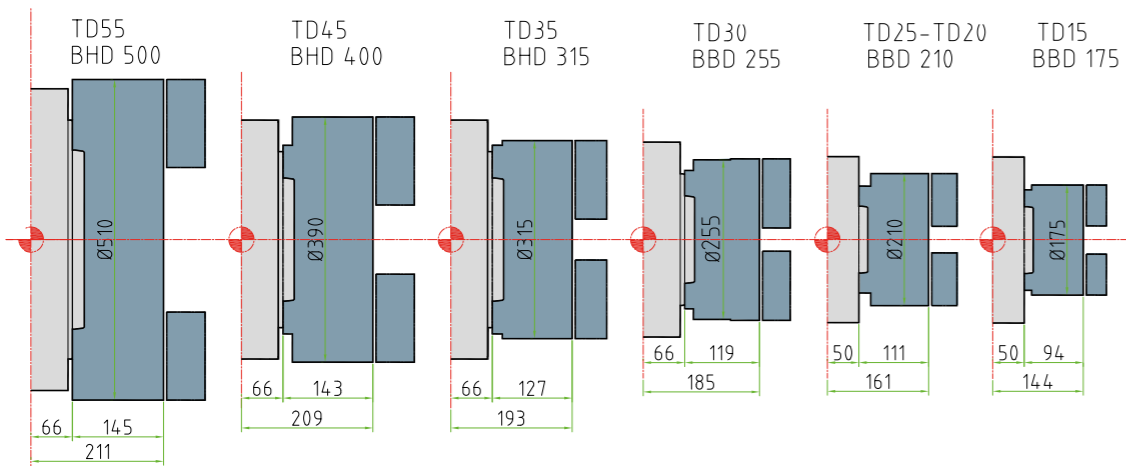
Travels with sub spindle



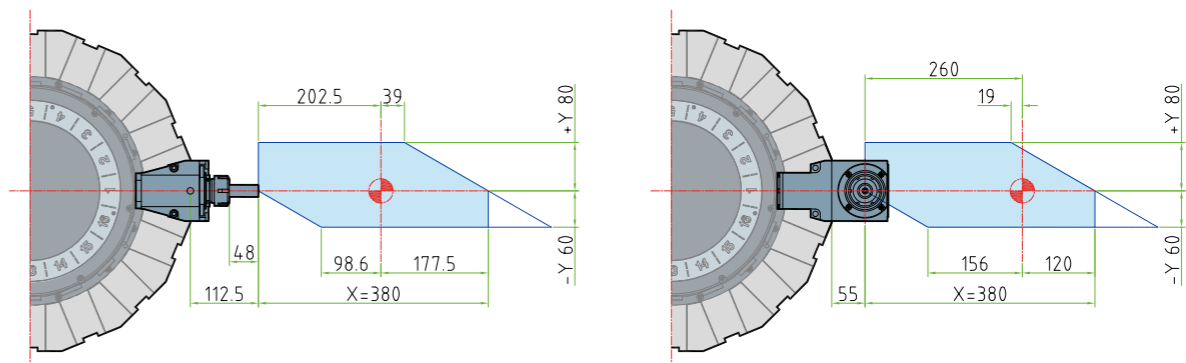
Travels with sub spindle and live tooling



Standard chucks dimensions



Y axis travel



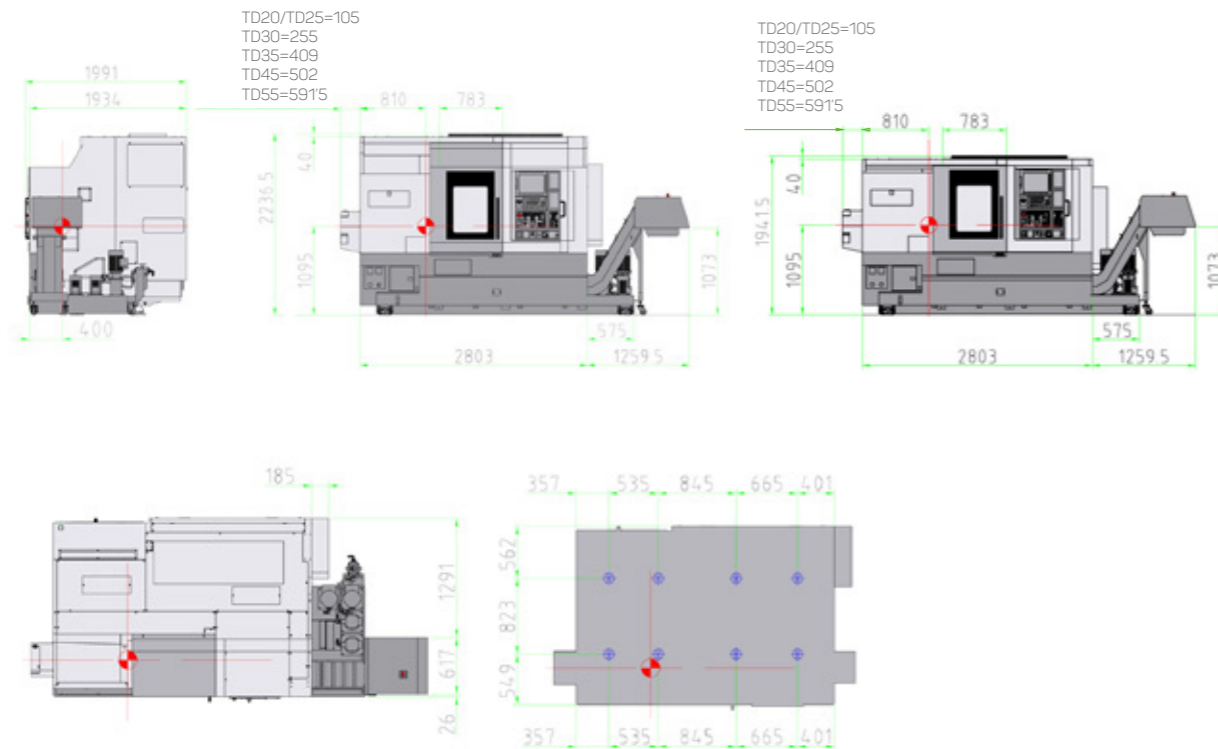
DIMENSIONS

SERIE TD

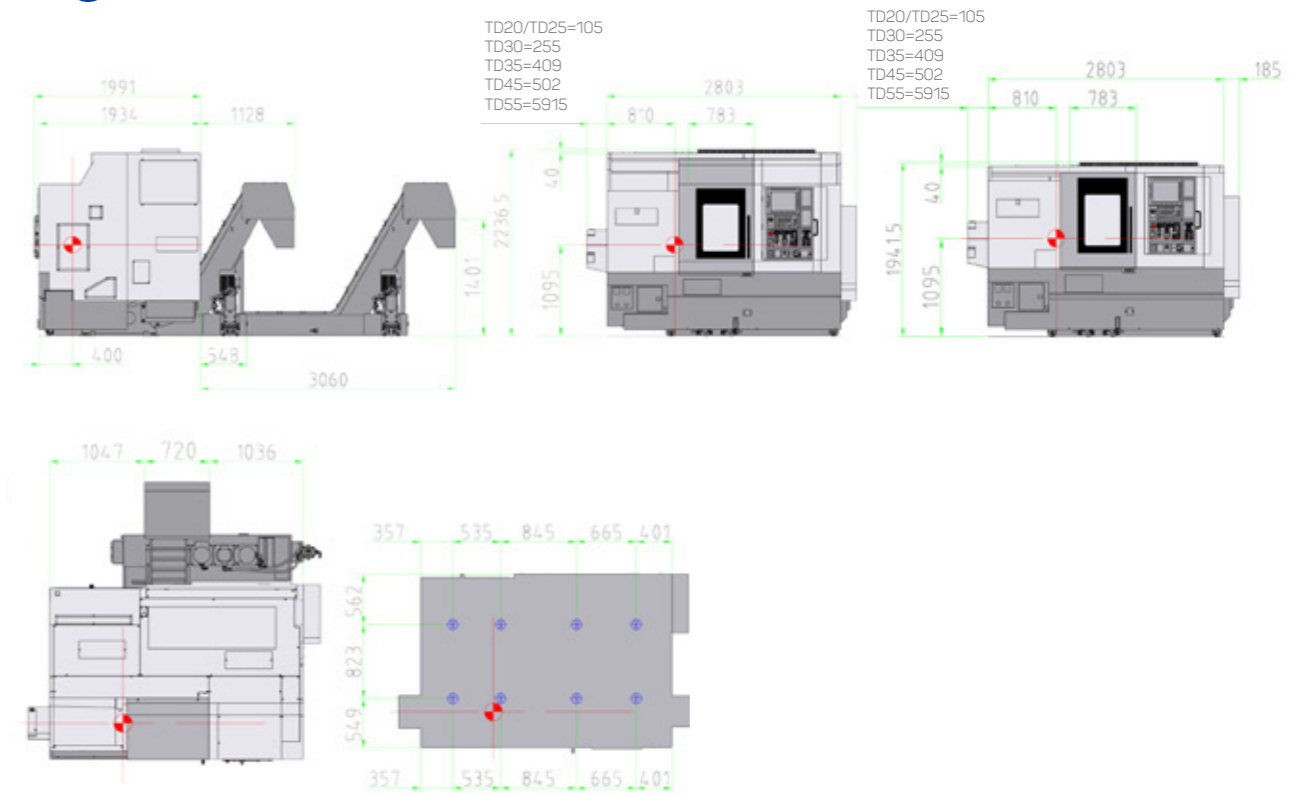
TD Z800 MODEL

TD Z800 MODEL

1 Lateral Extractor

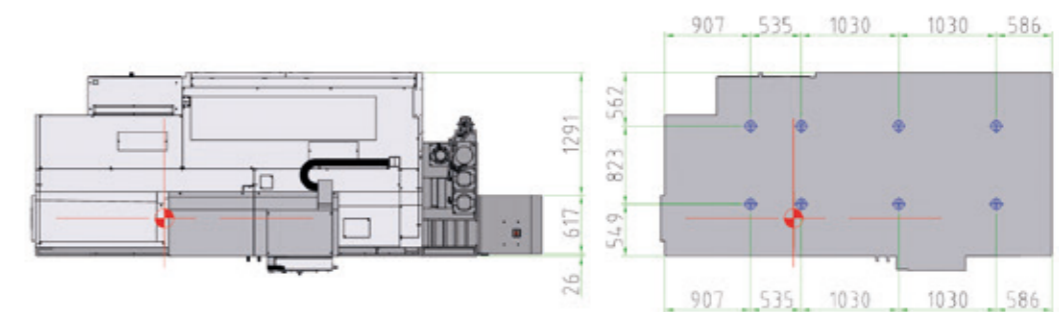
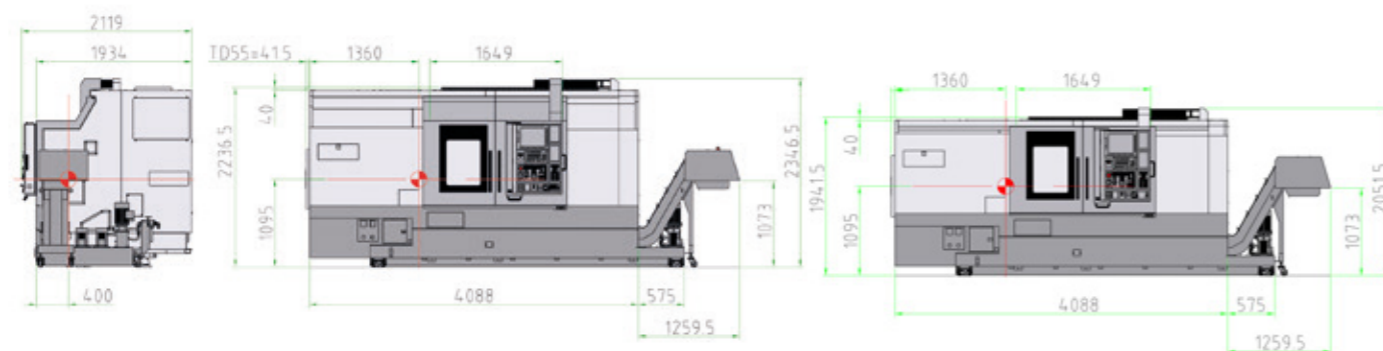


2 Back extractor



TD Z1350 MODEL

TD Z1350 MODEL



AUTOMATION SOLUTIONS ▶▶▶

AUTOMATE LONG AND SHORT BATCH RUNS



AUTOMATE SHORT AND LONG BATCH RUNS WITH OUR AUTOMATION SOLUTIONS

CMZ gantry robots are very easy to set up. Much simpler than solutions that use anthropomorphic robots. It is possible to automate short batch runs as well as higher numbers. Can't get the staff? Put the machine to work automatically and attend to the rest of your workshop while the gantry robot loader does the work for you.

- EASY TO SET UP
- SIMPLE CONVERSATIONAL PROGRAMMING SOFTWARE
- BILLETS AND SHAFTS. HIGHLY CONFIGURABLE
- WIDE RANGE OF SOLUTIONS

IF YOU ARE SHORT STAFFED, GET AUTOMATED



GL 20: 2X10 KG

- 3 Axis Gantry Robot
- Capacity to move **two 10 kg workpieces**
- High speed travel of **180 m/min**
- Fanuc servo motors
- Rack and pinion transmission
- Automatic lubrication
- Pneumatic/servo gripper

GL 100: 2X50 KG

- 3 Axis Gantry Robot
- Capacity to move **two 50 kg workpieces**
- High speed travel of **150 m/min**
- Fanuc servo motors
- Rack and pinion transmission
- Automatic lubrication
- Servo gripper

WORKSTOCKER CAN BE ADDED TO THE LEFT, RIGHT OR BOTH SIDES OF THE MACHINE



AUTOMATION OF **SHAFTS** AND **BILLETS**

WORKSTOCKER ▶▶▶

WS 280

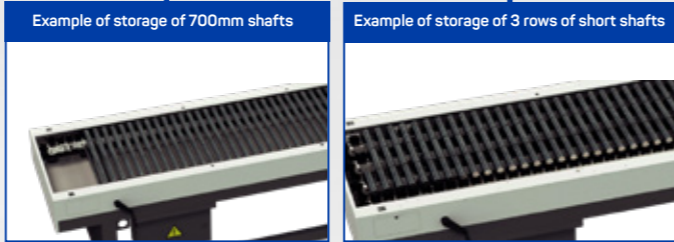


WIDE RANGE OF SOLUTIONS

WS 700



CHECKING STATION



100% CONFIGURABLE GRIPPERS SOLUTIONS ADAPTED FOR YOUR REQUIREMENTS

GL 20 ▶▶▶



GL 100 ▶▶▶



CONTROL ▶▶▶

CONVERSATIONAL PROGRAMMING SYSTEM QUICK AND SIMPLE

Our range of Gantry Robot Loaders are very easy to program and handle. Within the controller of the machine, we have developed a conversational programming system for the robot that allows for the fast changing of workpieces. Programming is simple, the software requires the minimum amount of information to be entered by the user. Our Gantry Robot Loaders can be set up quickly and efficiently making automation of short batch runs feasible.

VERY SIMPLE TO SET UP!



Enter these 6 variables and your Gantry is easily set up!

- 1 10600 Length of the raw material
 - 2 10601 Length of the finished part
 - 3 10602
 - 4 10603
 - 5 10667
 - 6 10668
- Size of the jaws on the main and sub-spindle



In most cases, for example, when working with saw-cut billets, by changing these 6 variables: length of raw material, length of finished part and size of the jaws mounted on the machine, we will have the Gantry Robot set up for the machining cycle.



EASY PROGRAMMING ALLOWS THE GANTRY TO BE USED FOR SHORT BATCH RUNS

Scan the QR code



CMZ, THE POWER OF A MANUFACTURER

CMZ has been manufacturing machine tools for more than **80 years**. Being part of an ever-changing sector has forced us to reinvent ourselves, renew and improve our production processes.

We continuously strive to produce the best CNC lathes we can. Built with a focus on precision and performance at a competitive price, we produce strong, reliable machines that offer longevity and continued machining accuracy. **Practically all of our parts are produced at the various manufacturing plants within our group.** This has helped us to acquire a very broad and professional vision of the product.

Together with more than **550 people** and **50,000 square metres** of facilities, we deliver almost **5 machines per day** to customers throughout the world.

HEADQUARTERS



CMZ Headquarters
CENTRAL SERVICES | TECH.ASSIST.SERVICE
Zaldibar-Spain



CMZ France
COMMERCIAL OFFICE | TECH.ASSIST.SERVICE
| SHOWROOM
Vaulx Milieu-France



CMZ Italia
COMMERCIAL OFFICE | TECH.ASSIST.SERVICE
| SHOWROOM
Milan-Italy



CMZ Deutschland
COMMERCIAL OFFICE | TECH.ASSIST.SERVICE
Stuttgart-Germany



CMZ UK
COMMERCIAL OFFICE | TECH.ASSIST.SERVICE
Rugby-UK



CMZ Danmark
COMMERCIAL OFFICE | TECH.ASSIST.SERVICE
Vejle-Denmark



CMZ USA
COMMERCIAL OFFICE | TECH.ASSIST.SERVICE
| SHOWROOM
Boston-USA

+ International commercial network
Scan this **QR code** and consult our **distribution network**



MANUFACTURING PLANTS

CMZ ASSEMBLY PLANT 1



CNC lathes assembly plant
5,500 m² | Zaldibar - Spain

CMZ ASSEMBLY PLANT 2 | SEUNER



CNC lathes Assembly plant
10,000 m² | Mallabia - Spain

CAFISUR



Sheet metal plant
15,000 m² | Cádiz - Spain

NEOPREC



Machining plant
10,000 m² | Mallabia - Spain

MECANINOR



Machining plant
4,900 m² | Elorrio - Spain

PRECITOR



Machining plant
2,000 m² | Elorrio - Spain

MEYDI



Assembly plant for electrical cabinets
1,250 m² | Zaldibar - Spain

CMZ HQ + ASSEMBLY PLANT 3



New headquarters & assembly plant
22,000 m² | Berriz-Spain

COMING SOON

#wearecmz

CMZ Danmark
Lanciavej 12C,
7100 Vejle (Danmark)
Tel: +45 7878 2610

CMZ Deutschland GmbH
Holderäckerstr. 31
70499 Stuttgart (Germany)
Tel. +49 (0) 711 469204 60
info-de@cmz.com
www.cmz.com

CMZ France SAS
Parc Technologique Nord
65, Rue Condorcet
38090 Vaulx Milieu (France)
Tel. +33 (0) 4 74 99 03 22
contact@cmz.fr
www.cmz.com

CMZ Italia S.r.l.
Via Arturo Toscanini 6
20020 Magnago (Mi) Italy
Tel. +39 (0) 331 30 87 00
info-it@cmz.com
www.cmz.com

CMZ Machinery Group S.A.
Azkorra s/n.
48250 Zaldibar (Vizcaya-Spain)
Tel. +34 94 682 65 80
info@cmz.com
www.cmz.com

CMZ UK Ltd.
6 Davy Court
Central Park
Rugby
CV23 0UZ (United Kingdom)
Tel. +44 (0) 1788 56 21 11
info-uk@cmz.com
www.cmz.com



Distributor

CMZ Machine Tool Manufacturer, S.L.
Azkorra, s/n.
48250 Zaldibar (Vizcaya-Spain)
Tel. +34 946 826 580
info@cmz.com
www.cmz.com