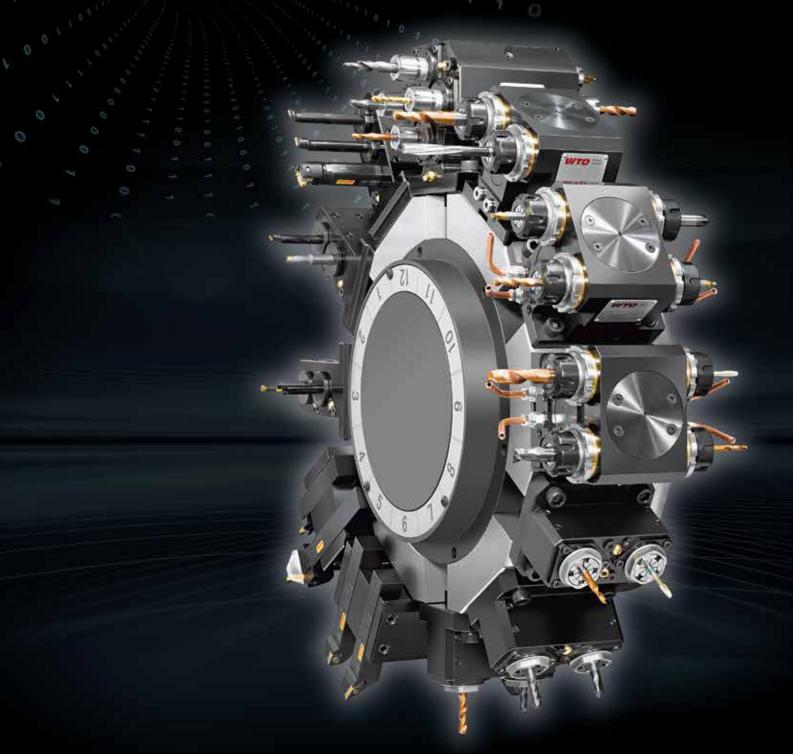


# INTELLIGENT PROCESS OPTIMIZATION







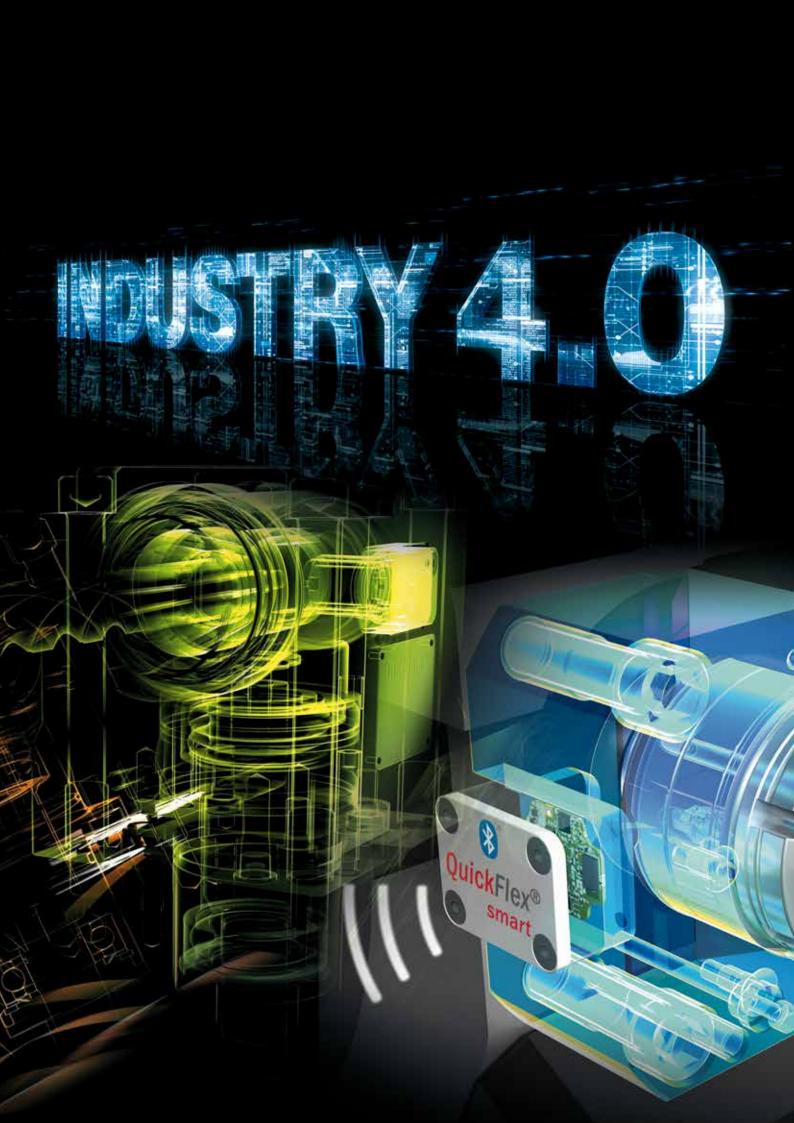
### **INNOVATION**

WTO has convinced in the renowned competition "TOP 100" and is now one of the TOP 100 Innovators in Germany! The decisive factors were WTO's right innovation strategy and innovative strength.

### HIGHER PRODUCTIVITY

As a global market leader, we manufacture technologically advanced high precision tool holders for turning centers, Swiss Type lathes, multi spindle turning centers and Ultra-High-Speed spindles that are known for high performance and long life-time.

By using our innovative tool holder technologies, our customers achieve higher productivity. This is one of the reasons why our products are used worldwide, wherever turning centers are used to produce precise parts with high productivity.





State-of-the-art technology for maximum productivity. With this claim, WTO develops and produces superior precision tool holders in terms of technology and quality.

Used intelligently, processes are optimized and <u>production</u> becomes more productive.

WTO Driven Precision Tool Holders equipped with innovative "smart" technology enable intelligent online process monitoring.



# INTELLIGENT PROCESS OPTIMIZATION







## WE WORK FOR THE SUCCESS OF OUR CUSTOMERS



Motivated employees are the basis for 100% consistent customer focus.

WTO, a family-run technology company, offers a modern working environment that contributes to highly motivated employees.

Today, WTO employs worldwide more than 300 well-trained and highly qualified specialists to support and promote customer success.





### **QuickFlex**®



High run-out accuracy and stability are guaranteed by two independent taper connections.



Quick and safe tool change with the patented one-hand wrench.







### **QuickFlex**<sup>®</sup> smart

### The New Generation of Smart Driven Tool Holders with intelligent Condition Monitoring

- Integrated wireless electronic sensor/transmitter unit
- Secure data transfer with Bluetooth standard BLE 4.2
- Monitoring of speed, temperature, vibrations, runtime
- Clear status presentation of all assigned driven tool holders
- Condition monitoring of the assigned machines
- Complete data history of each driven tool holder

#### True online process monitoring

- All relevant data is transmitted live during operation
- Permanent monitoring of production parameters
- Display of the operating time and remaining time until the service interval







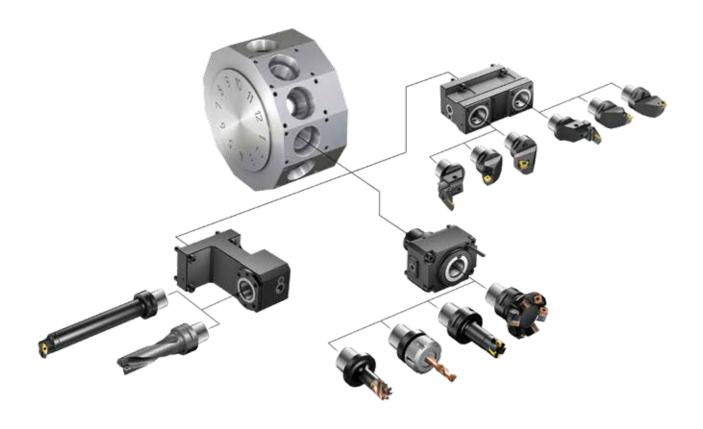
### **Coromant Capto®**

The quick change system from Sandvik Coromant for fastest tool setup time. Faster return on investment.

Coromant Capto® is a modular quick change system certified according to ISO 26623. It combines high rigidity with high flexibility in one system.

The globally available quick change system for turning centers is universally applicable for turning, drilling and milling.

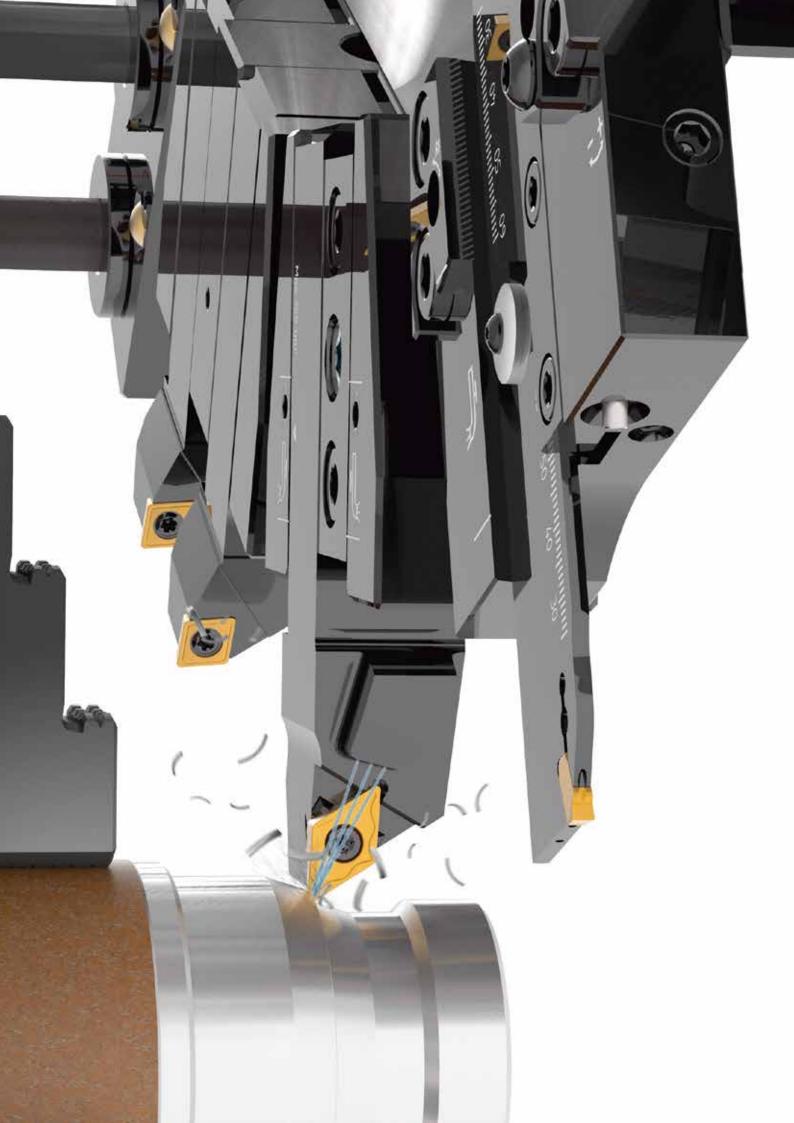
High investment security through ISO standard. Sales worldwide via Sandvik Coromant.



### Short adapters available from WTO

For precision driven tool holders with Coromant Capto® the use of short adapters with no gripper groove lead to significant advantages: More available cutting tool length, higher accuracy and higher stability.





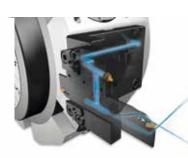


## Precision Static Tool Holders

Precision Static Tool Holders from WTO are individually designed for each turning center and manufactured with the highest precision so that you are able to use the full capacity of your machine.







### Internal coolant supply for highest productivity

The new generation of shank and blade tool holders with internal coolant supply through the tool shank: for increasing cutting tool life and cutting feed rate with fast tool set-up time.

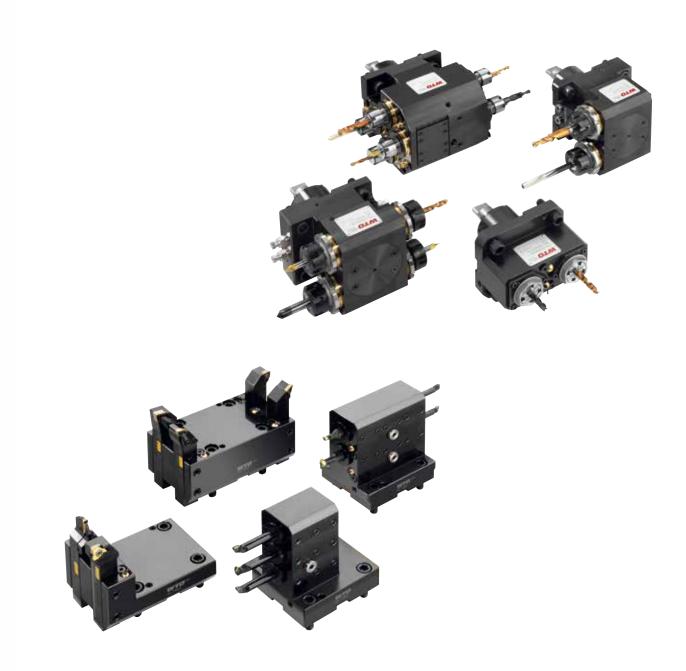


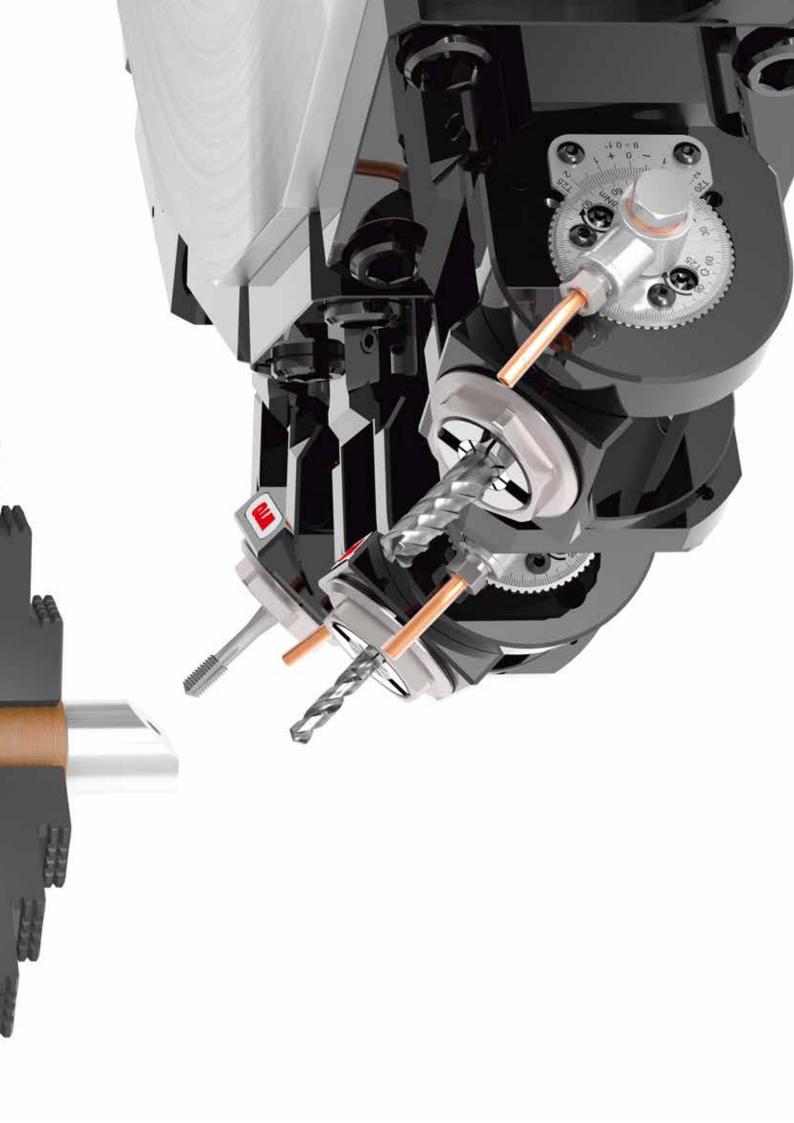


### Multiple Tool Holders

Multiple Tool Holders from WTO to multiply the available tools on turning centers with Y axis.

The enhancement of available cutting tools allows the production of a more complex and more comprehensive range of work pieces without changing the machine set-up.







### Adjustable Angle Units

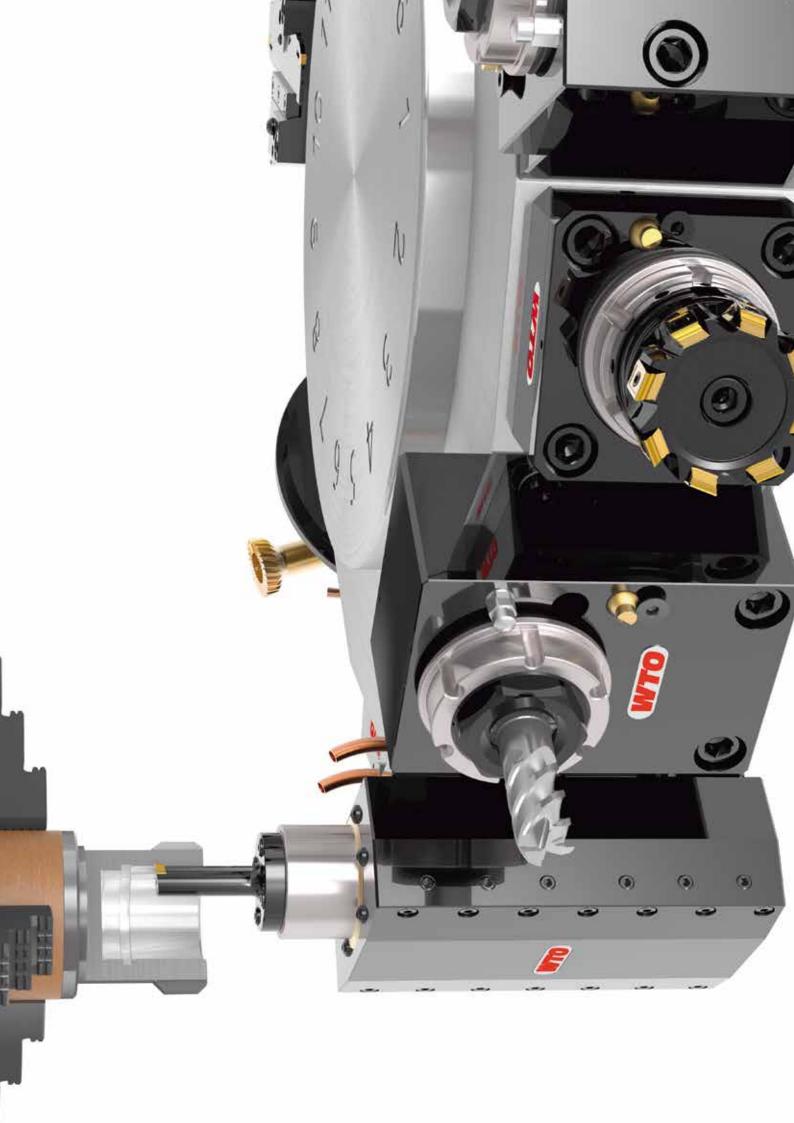
The WTO high precision Adjustable Angle Drill-Milling Units enable the complete machining at any angle on CNC Turning Centers.





### Internal coolant supply through the spindle with max. 80 bar/1160 PSI

Through various gear ratios and internal high pressure coolant supply up to 80 bar/1160 PSI, drilling and milling cycles can be optimized for higher productivity of your machine.

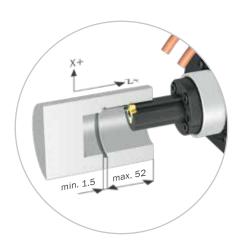






### **Broaching Unit**

The automatic Broaching Unit from WTO for economic manufacturing of oriented keyways and splines with up to 1,500 strokes per minutes and max. 12 mm groove width.





Same insert holder for ID and OD broaching by rotating 180 degrees.



1 Position insert on Z



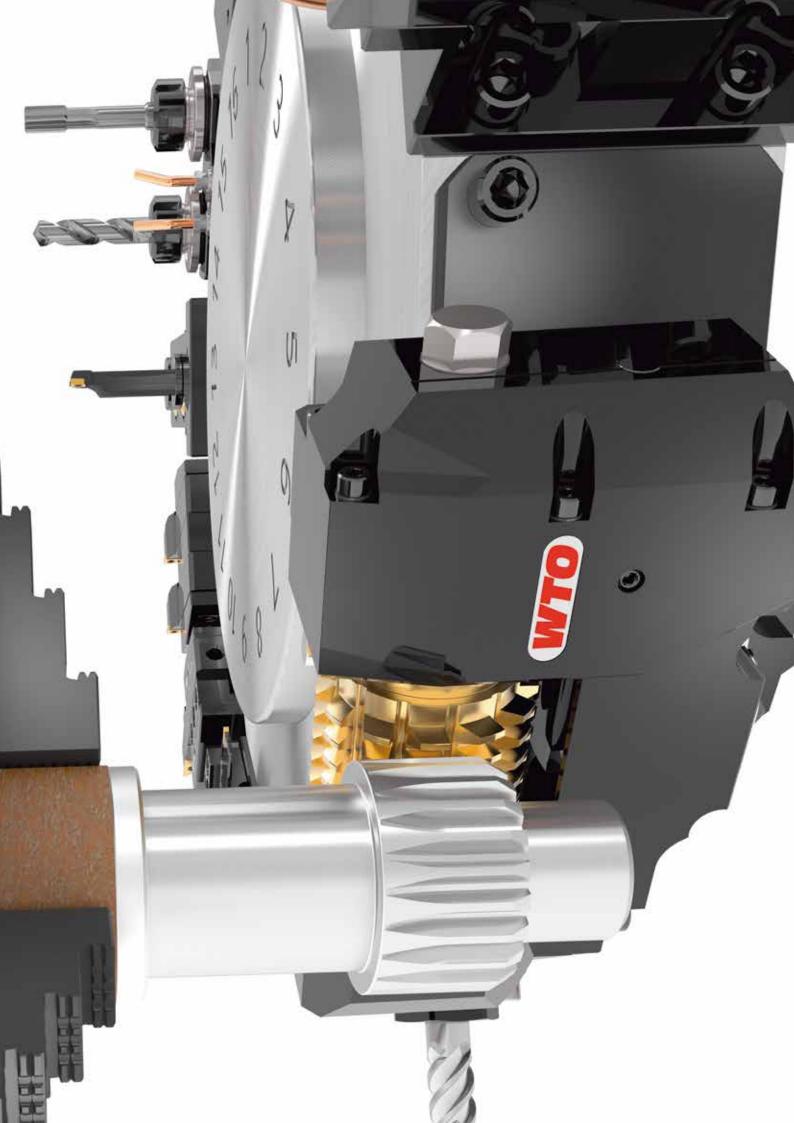
3 Cutter lifts from workpiece



2 Cutter drives into workpiece



4 Lift-off function prevents wear/ breakage when cutter retracts





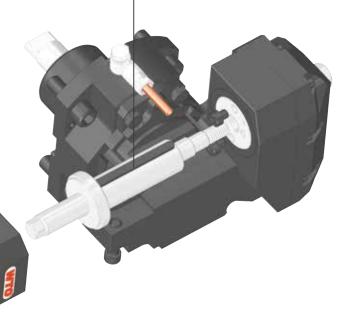
### Gear Hobbing Unit

Highly productive manufacturing of gears with CNC Turning Centers.

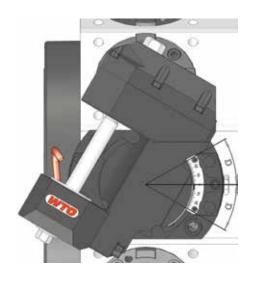
The Gear Hobbing Unit from WTO offers high stiffness and runout accuracy. High versatility due to interchangeable milling arbors for different cutting tools.

Usable for machining gear quality according to standard 8 ISO 1328, AGMA 8

Interchangeable milling arbor available in different sizes



Easy cutting tool change through removable counter support and withdrawal of the complete milling arbor



Maximum scale swing of ±30° with scale and vernier



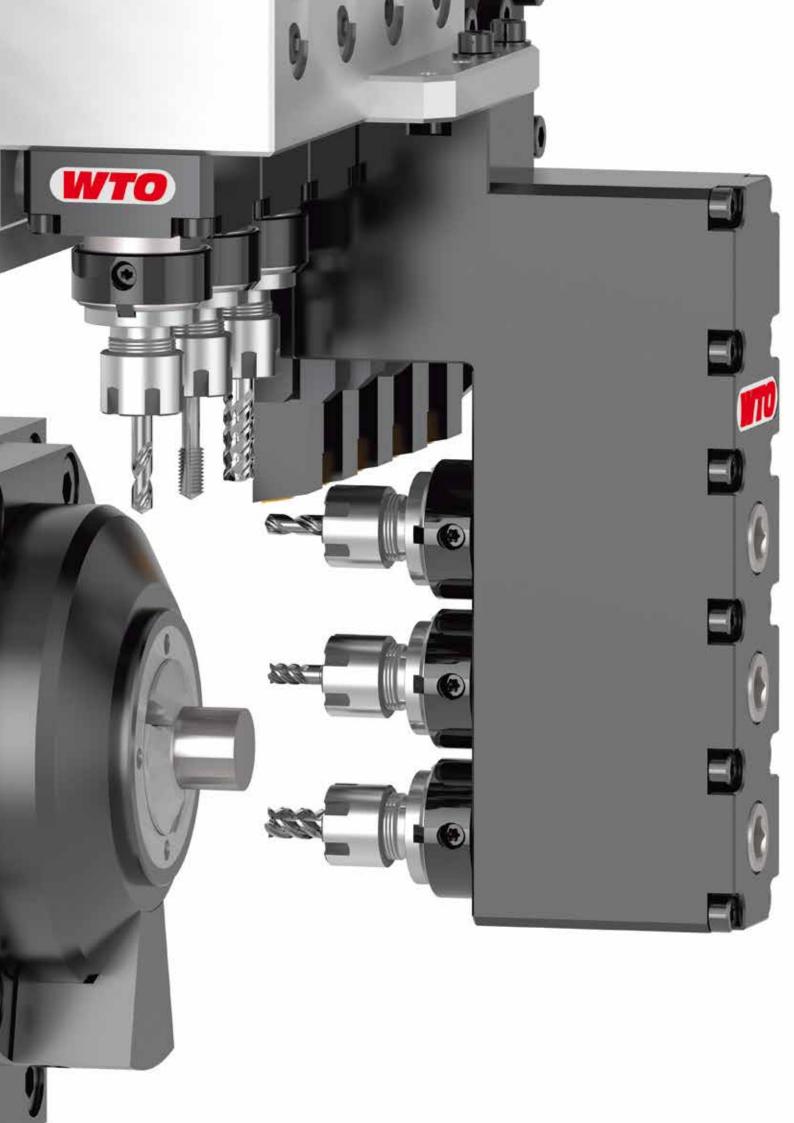


### Power Skiving Unit

Highly productive gear machining: Skiving of ID and OD splines on CNC Turning Centers.

The WTO Power Skiving Unit offers high stiffness and runout accuracy. The hydro chuck spindle enables an accurate and quick cutting tool change.







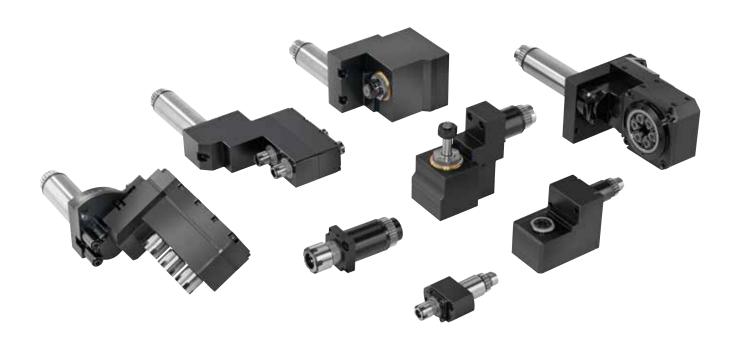
### nanoFlex®

The perfect combination: ER collet chuck and modular quick change system in one tool holder.



#### Large product range for Swiss Type Turning Centers

Besides the standard versions we are offering application specific driven tool holders to increase the productivity of your Swiss Type turning center:

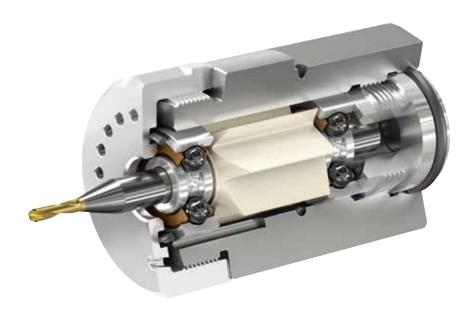


Thread whirling units, gear hobbing units, adjustable angle drill/milling units, high speed drill/milling units, deep hole drilling units up to 200 bar/2900 PSI coolant pressure and slitting saw units.

### **CoolSpeed®** mini

Affordable evolutionary high rotation speeds up to 80,000 rpm. Fits in standard tool holders.

Applications: Milling, Drilling, Grinding, Chamfering and Engraving.





# Driven by Rotation Speed Number of Jets Operating Pressure Flow Rate Maximum Power Tool Shank Ø

#### Coolant or Cutting oil 30,000-80,000 rpm 4 10-60 bar (145-870 psi) 24 I/min (6.3 gal/min) 420 W 3 mm, 4 mm, 6 mm







### **CoolSpeed®** Flex

Ideal for Swiss Type lathes and turning centers. Best dynamic runout. Extended tool life.



Rotation Speed
Number of Jets
Operating Pressure
Flow Rate
Maximum Power
Tool Shank Ø

Coolant or Cutting oil 30,000-80,000 rpm 1-5 10-60 bar (145-870 psi) 8-28 l/min (2.0-7.5 gal/min) 150-500 W 3 mm, 4 mm, 6 mm



### WTO worldwide





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