



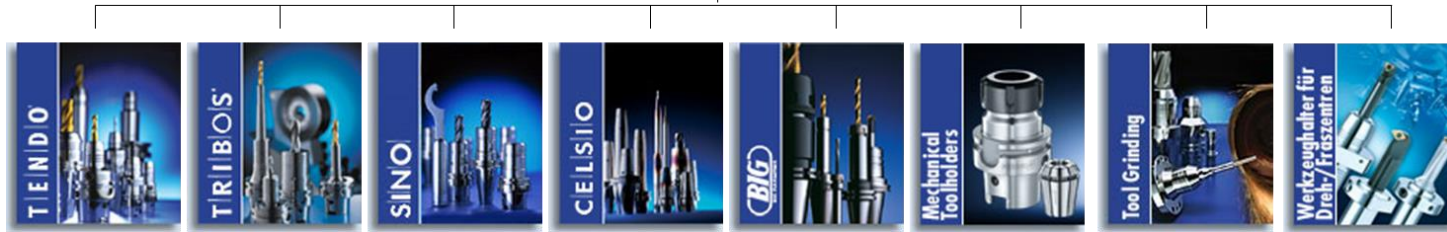
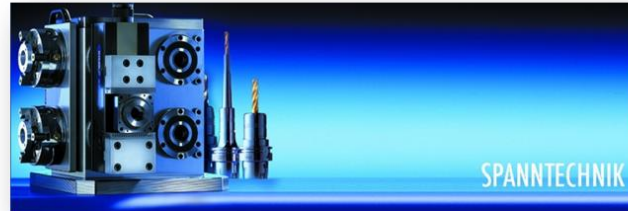
# TENDO<sup>TURN</sup>

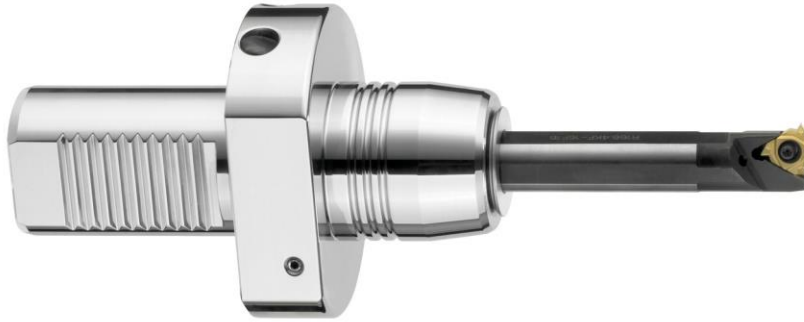
Hydraulic expansion clamping technology for turning / milling centers

Superior Clamping and Gripping



# Product overview





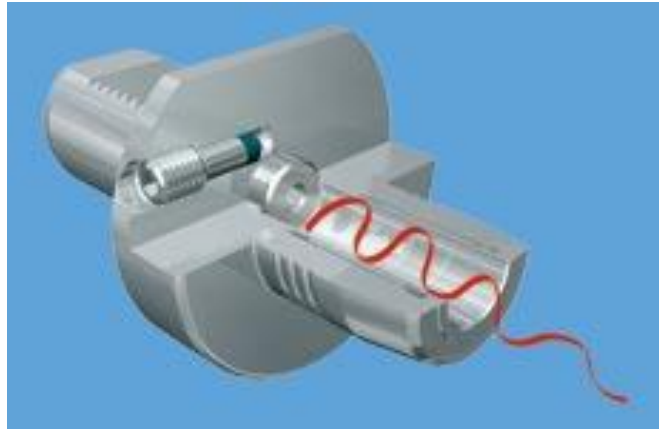
## Technical Highlights:

- Vibration damping
- Quick preadjustment
- Easy handling and tool change in seconds
- Compatible and universally applicable
- Flexible clamping range due to intermediate sleeves



# TENDOTURN optimal vibration damping

Due to the hydraulic system, TENDOturn has excellent vibration damping. Machining-induced vibrations are perfectly damped with TENDOturn, thus micro-blowouts on the cutting edge are avoided and the tool service life result is significantly increased.



Thus, a significantly better surface quality is achieved. In addition, longer projection lengths of turning fixture and boring bars are possible.

# TENDO<sup>TURN</sup> Features

- **Fast presetting**

Axial length adjustment screws enable convenient tool presetting.

Set-up times are drastically reduced and machine running time is significantly increased.

- **Compact design**

Optimal utilization of the machining area of a CNC lathe

- **Compatible and universally applicable**

TENDOfurn can be combined with all common turrets or interfaces, existing equipment/ basic holder can be used

- **Easy handling and tool change within seconds**

With a hexagonal wrench, the tool is clamped quickly and securely in no time at all

- **Flexible clamping range due to intermediate sleeves**

Several clamping ranges can be covered by using intermediate sleeves

Available for internal coolant supply and peripheral cooling

# TENDOTURN Practical example



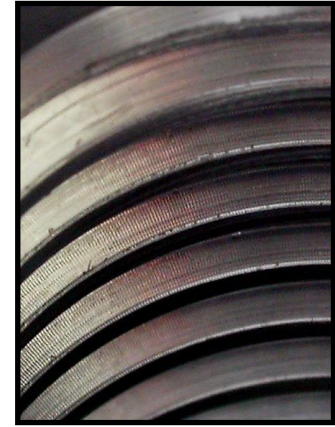
VDI boring bar holder with a threaded steel.

Result:

- Chatter marks clearly visible
- Downtime approx. 100 parts

Making a M24 thread on SK 50 toolholder

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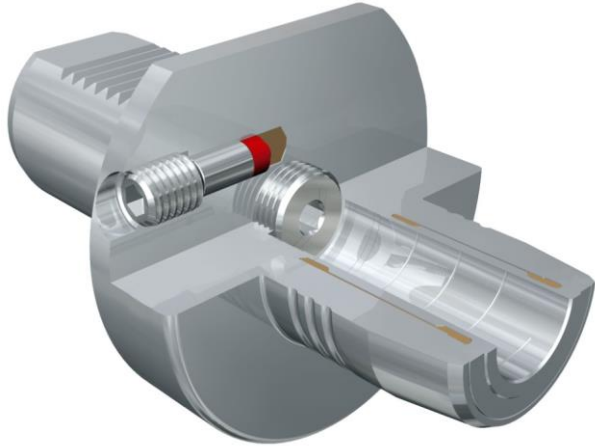


SCHUNK DKE clamp insert

result:

- perfect surface
- Downtime approx. 180 parts

# TENDOTURN<sup>TM</sup> with VDI interface



The compact solution for direct mounting in the turret of the lathe, naturally with hydraulic expansion technology from the market leader.

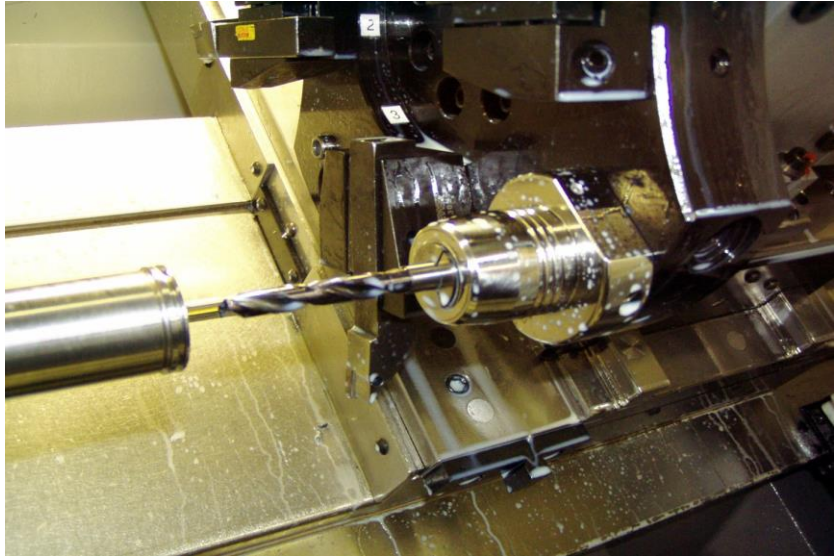
Suitable for internal coolant supply and additionally equipped with axial length adjustment screw for convenient tool presetting outside the machine.

Available with the interfaces VDI-25, VDI-30 or VDI-40.

All commercially available shank types can be clamped

Coolant-proof

# TENDOTURN Application VDI 40



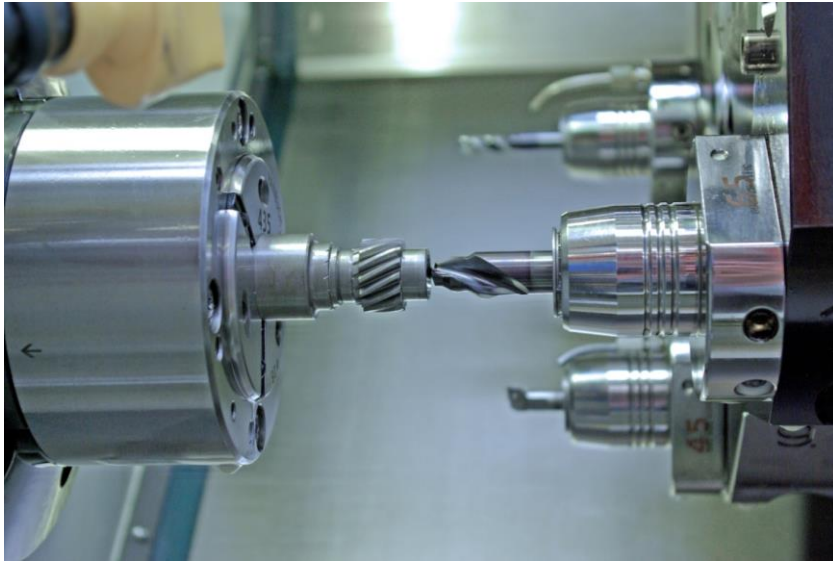
TENDOturn VDI 40  $\varnothing$ 20 mm

Drilling application VHM twist drill with cooling channel

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# TENDOTURN Customer application VDI 40

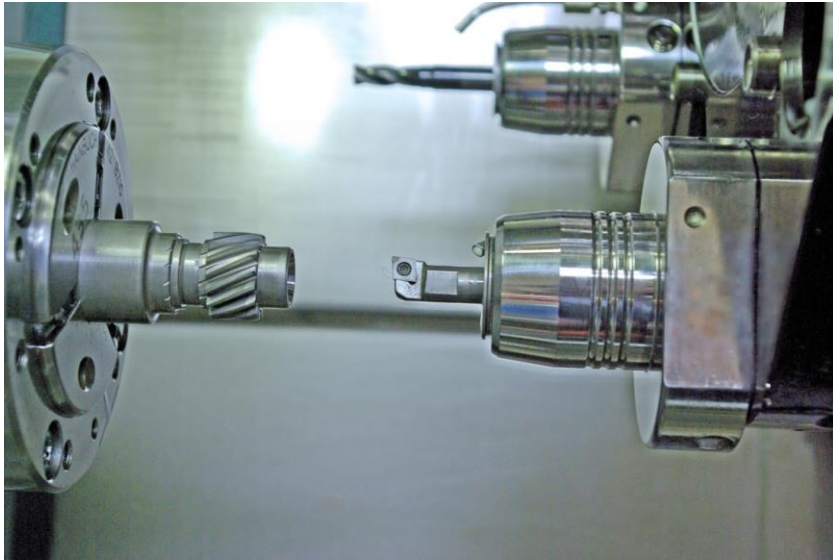


TENDOTurn is used at ZF-Lenksysteme for drilling  
in the field of hard turning

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# TENDO<sup>TURN</sup> Customer application VDI 40

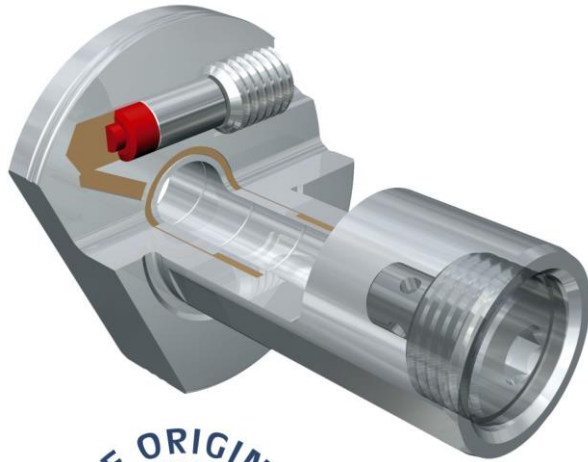


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Highest precision, excellent surface quality, low tool wear and minimal setup times are convincing arguments

# TENDO<sup>TURN</sup> Lathes Clamping Insert DKE

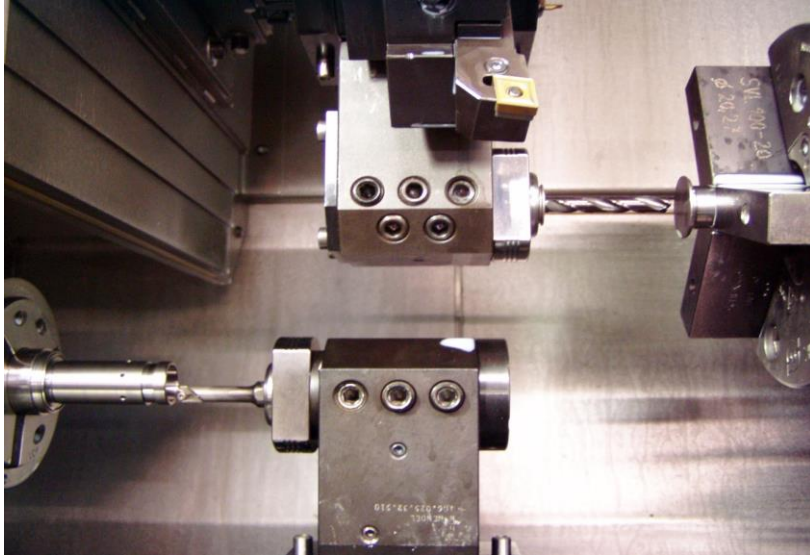


Increase the productivity of your existing equipment by using the lathes clamping insert DKE.

TENDOturn DKE does not rely on any specific interface and can be accommodated in any standard VDI boring bar holder to absorb vibrations that occur.

For standard VDI boring bar holders, no specific interface required, perfect vibration damping, all standard shank types can be clamped

# TENDO<sup>TURN</sup> Application VDI 40



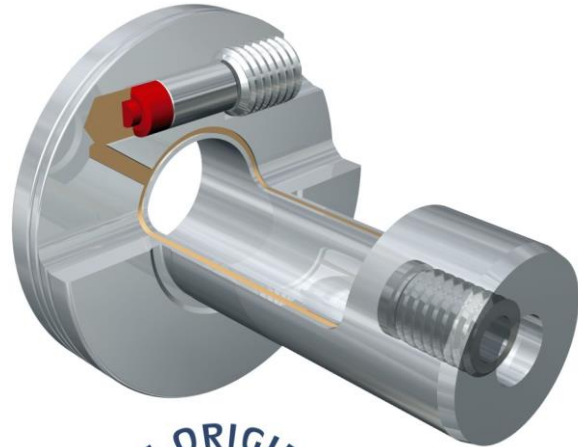
TENDOTurn DKE

Use in VDI boring bar holder on compact double spindles

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# TENDO<sup>TURN</sup> Double Clamping Insert DSE



Modular insert for driven tools, for perfect performance on existing equipment.

Maximum run-out quality and great vibration damping ensure optimal results. The uniform I.D. and O.D. clamping centers the insert providing maximum holding forces and correct and precise clamping of your tool.

All commercially available tool shank types can be clamped, no specific interface required ,vibration damping



# TENDOTURN Application DSE



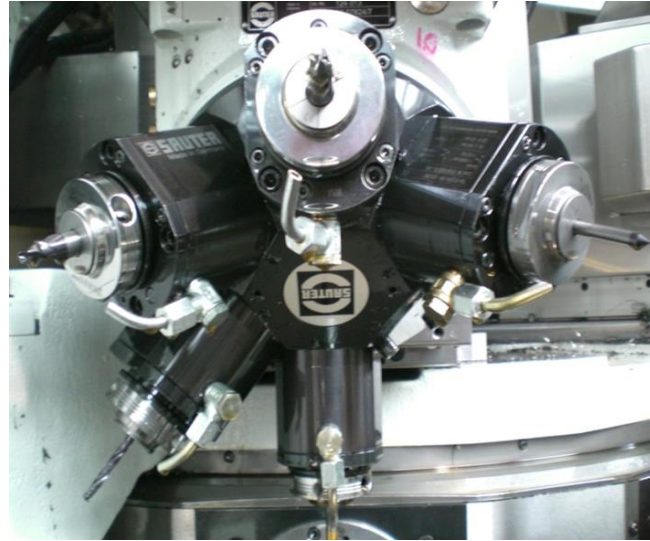
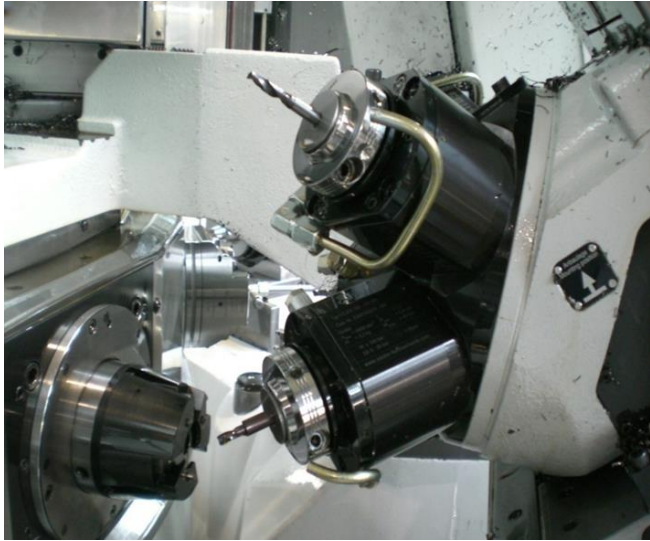
TENDOTurn DSE

Clamped on driven toolholders with NC centering tool  
in vertical machining centers

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# TENDO<sup>TURN</sup> Application DSE



TENDOturn DSE

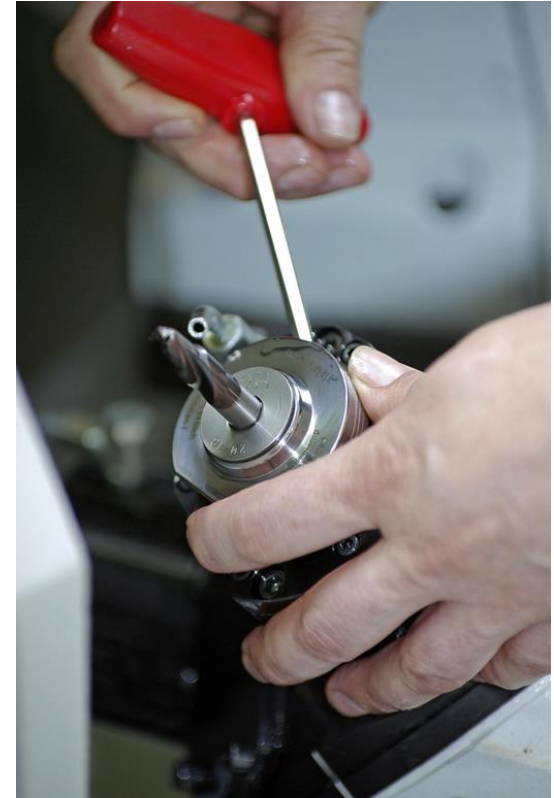
Application example tool crown turret for CNC rotary transfer centers

# TENDOTURN DSE

With TENDOTurn, tools can be clamped absolutely securely and precisely in a matter of seconds

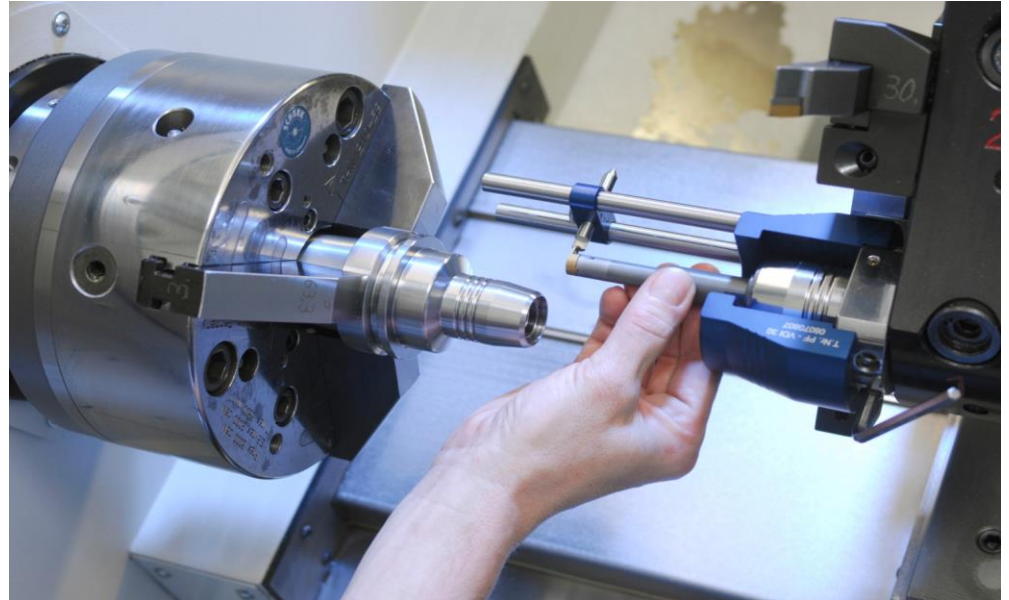


DSE - cross section



# TENDO<sup>TURN</sup> Aligning device

- Alignment device for setting the tip height / center height
- Easy operation, for best results
- Available for all three VDI interfaces  
VDI 25 / VDI 30 / VDI 40



Superior Clamping and Gripping



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