

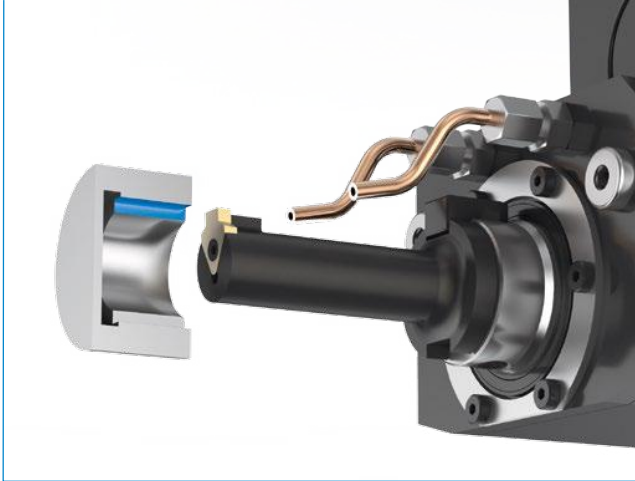
BENZ LINTEC

SHAPING TECHNOLOGY

1

Shaping technology / BENZ LinTec

▶ INTERNAL AND EXTERNAL PROCESSING



▶ Internal machining

Internal machining of a workpiece with a broaching unit.



▶ External machining

External machining of a workpiece with a broaching unit.

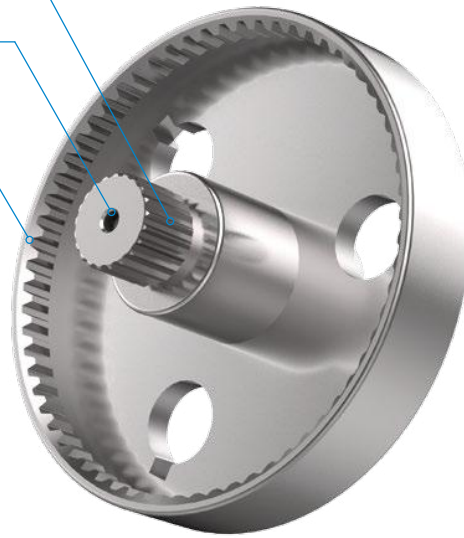
▶ PROCESSING TYPES



Splines

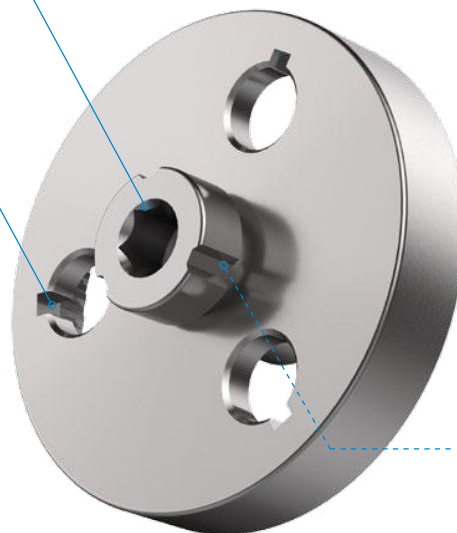
Torx

Involute tooting
(gears/shafts)



Hexagon socket

Groove



Other
special profiles



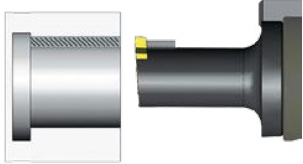
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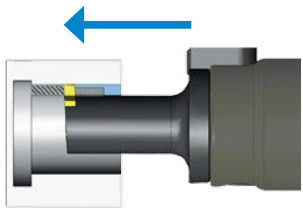
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▶ THE PRINCIPLE BEHIND THE SHAPING/BROACHING PROCESS



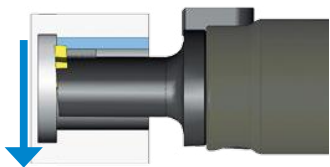
▶ Moving to the start position

Move with the cutter in the X-axis and Z-axis at the desired starting dimension.



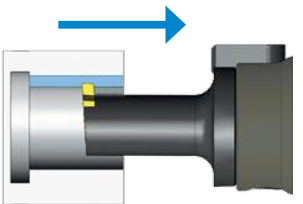
▶ Cutting movement

The cutter pushes forward into the workpiece and begins cutting.



▶ Integrated lift-off function

The broaching unit lifts up after the shaping process. It features an integrated lift-off device.



▶ Return stroke as idle stroke

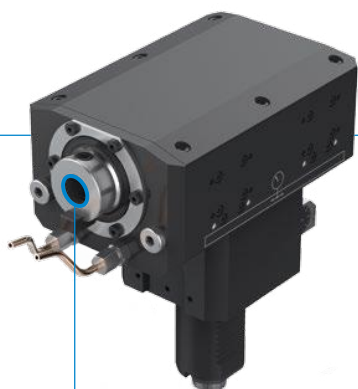
The non-contact return motion during the idle stroke prevents wear and prevents the cutter from breaking during the return motion.

- ▶ With the X-axis providing continuous feed, the cycle repeats until the desired groove depth has been reached.



For the BENZ LinS static fixture, the shaping process and the individual motions have to be performed entirely by the machine.














▶ MODULAR QUICK-CHANGE INTERFACE



- ▶ **High flexibility**
thanks to modular design
- ▶ **High stiffness**
thanks to planar support
- ▶ **Simple handling**
thanks to easy operation
- ▶ **Quick tool change**
Clamping holder securing using inclined plane and clamping screw
Clamping holder can be preset outside the machine
- ▶ **High repeating accuracy**
even across several tool changes



► EXPLANATION OF SYMBOLS AND ABBREVIATIONS

Symbol	► General specifications		
Services	 <p>Service</p> <p>Services, such as repair, preventive maintenance, etc.</p>		
Information	 <p>Important information</p> <p>Caution! Important note. Please carefully read these.</p>	 <p>Videos</p> <p>Product/function explanations using videos</p>	
Weight	 <p>Weight (in kg)</p> <p>Approximate weight information (for HSK 63). The weights differ depending on the desired drive cone.</p>		
Shapes	 <p>Serration</p>	 <p>Torx</p>	 <p>Involute toothing</p>
	 <p>Hexagon socket</p>	 <p>Groove</p>	 <p>Other</p>
Turret	 <p>Star turret</p>	 <p>Disc turret</p>	
Function	 <p>Shaping principle/process</p> <p>Functional principle behind the broaching unit</p>		

► Abbreviations

p. Page

max. Maximum



Special custom solutions

Products shown in dashed lines represent solutions adapted for a specific customer



Alignment option for clamping holder

This equipment variant comes standard for this unit. See p. 38