1946 - 2026

M-LinTec-BU-F-EN-26-09

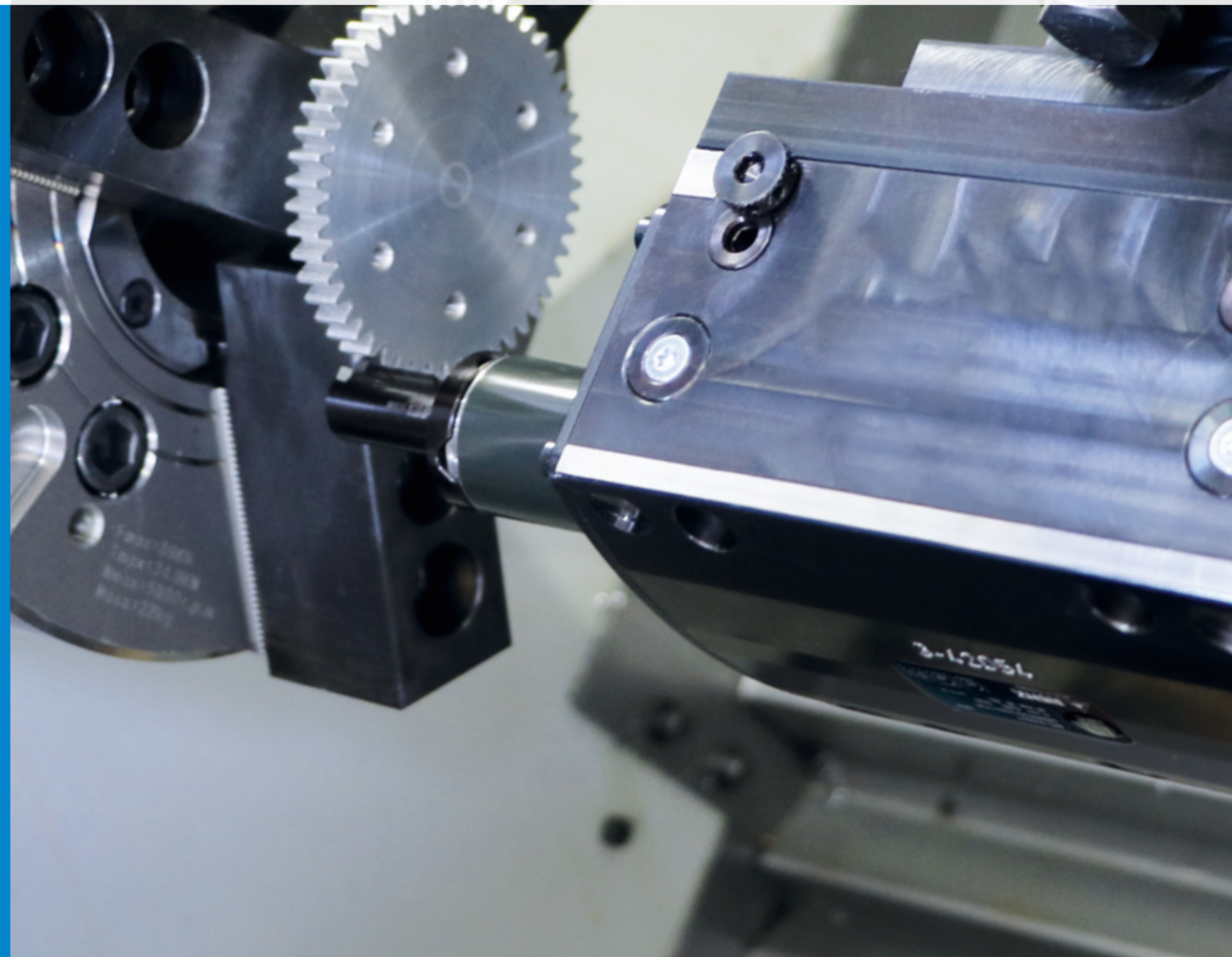
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BENZ LINTEC BROACHING UNITS

Tooling technology
for CNC turning centers and machining centers

Metal machining



PROCESSING TYPES

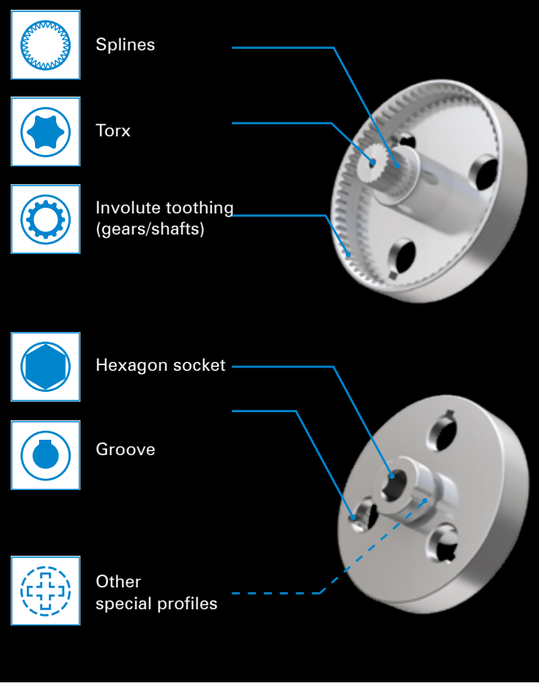
INTERNAL AND EXTERNAL MACHINING



Internal machining
of a workpiece with a broaching unit



External machining
of a workpiece with a broaching unit



BENZ LINA 4.0

OVERVIEW OF TYPES

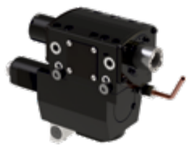
Design competitive processes to be more cost-effective
Specialized production workflows can be optimized by integrating driven units into machines. The integration of broaching units into a production process is an ideal example of how you can avoid complicated and expensive changeover and retooling processes all the way to complete machining.

As the leading company in broaching technology, BENZ provides units for all common CNC lathes and machining centers. Receive the benefits of our years of experience for your specific application.

The new generation of BENZ units is equipped with internal cooling as standard, which has a positive effect on the tool life of the cutting inserts and thus on the efficiency of the overall process!

CNC-TURNING CENTERS

BENZ LinA 4.0 – DRIVEN



axial
– standard stroke
– long stroke



radial
– standard stroke
– long stroke



radial ≠90°
– standard stroke
– long stroke

TURRET INTERFACES


VDI


BMT


CDI

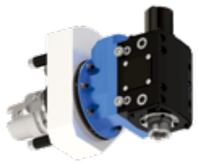

more on request

MACHINING CENTERS

BENZ LinA 4.0 – DRIVEN*



axial
– standard stroke
– long stroke (on request)



radial
– standard stroke
– long stroke

BENZ LinS – STATIC



axial

DRIVE CONE


SK


MAS BT


CAT


HSK


KM™


Coromant Capto®


more on request

* machining requires a three-point support

CLAMPING HOLDER

For internal and external machining

180°

LinA



Prism tool holder

LinS

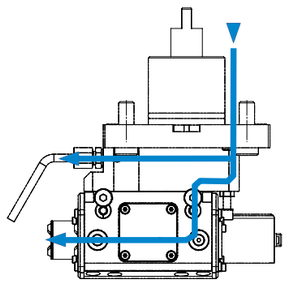


Whistle-Notch tool holder

You can find the right solution at your preferred cutting tool manufacturers. We would be happy to pass on corresponding contact information.

STANDARD EQUIPMENT

Internal cooling
Market innovation
BENZ broaching units with internal cooling

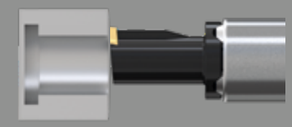


TECHNICAL DATA

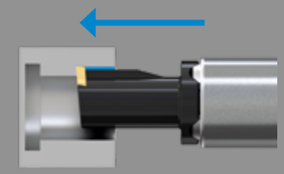
Variant	S	SL
Usable working stroke	32 mm	51 mm
Total stroke	34 mm	53 mm
No. of double strokes	1.500 min^{-1}	1.000 min^{-1}
Material strength$_{max}$	1000 N/mm²	
Material hardness	31,5 HRC	
Groove width$_{max}$	12 mm	
Gear ratio variants	2:1 / 1:1	
Feed per stroke$_{max}$	0,02 mm - 0,1 mm	

FUNCTIONAL PRINCIPLE

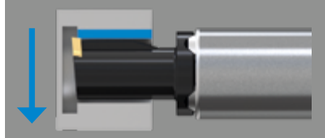
PROCESSING CYCLE



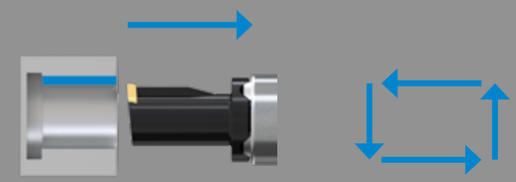
Moving to the start position
Move with the cutter in the x-axis and z-axis at the desired starting dimension.



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 mechanism.



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.

BENZ TOOLING