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Präzisions Spannfutter

Micro-ER



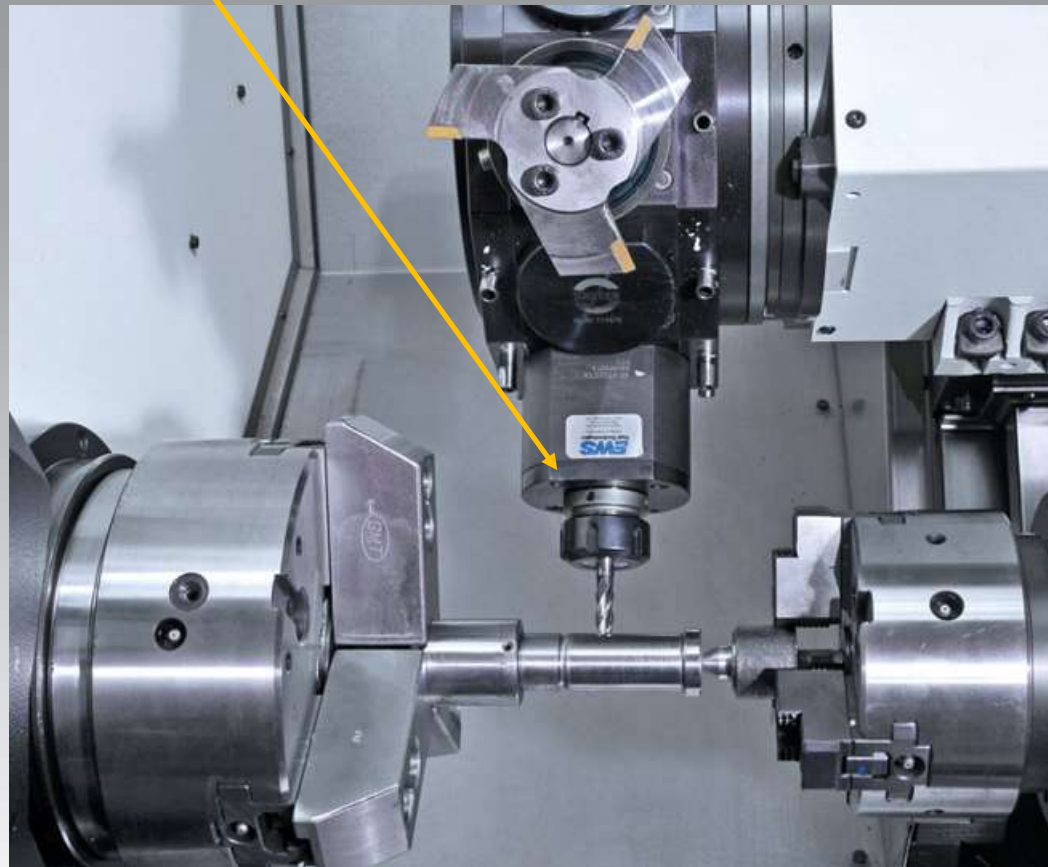
Market view for Micro-ER

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Where do we find the place to fit in a Micro-ER ?

Driven tools with ER collet chucks at a CNC lathe

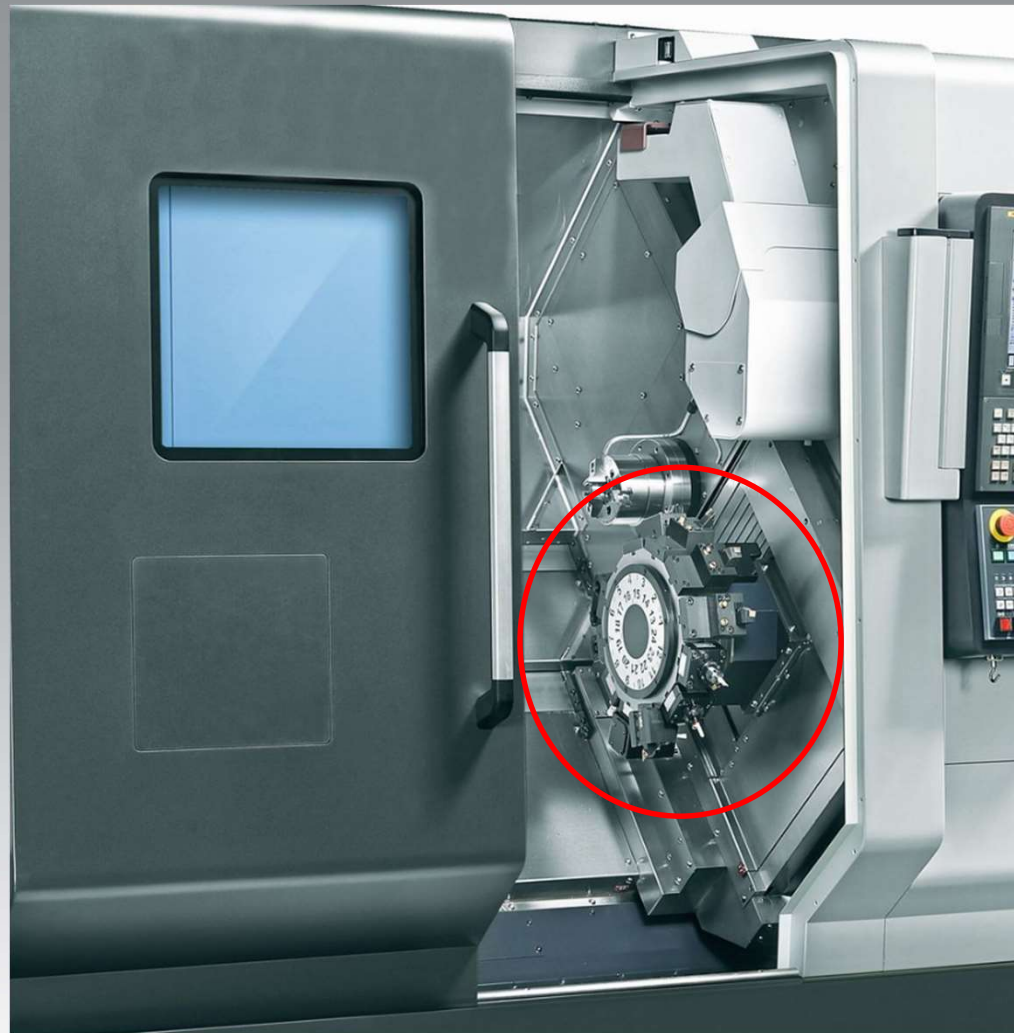


Market view for Micro-ER

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Most of the new modern turning lathe are nowadays equipped with driven tools



Market view for Micro-ER

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Revolver lathe with driven tools



Market view for Micro-ER

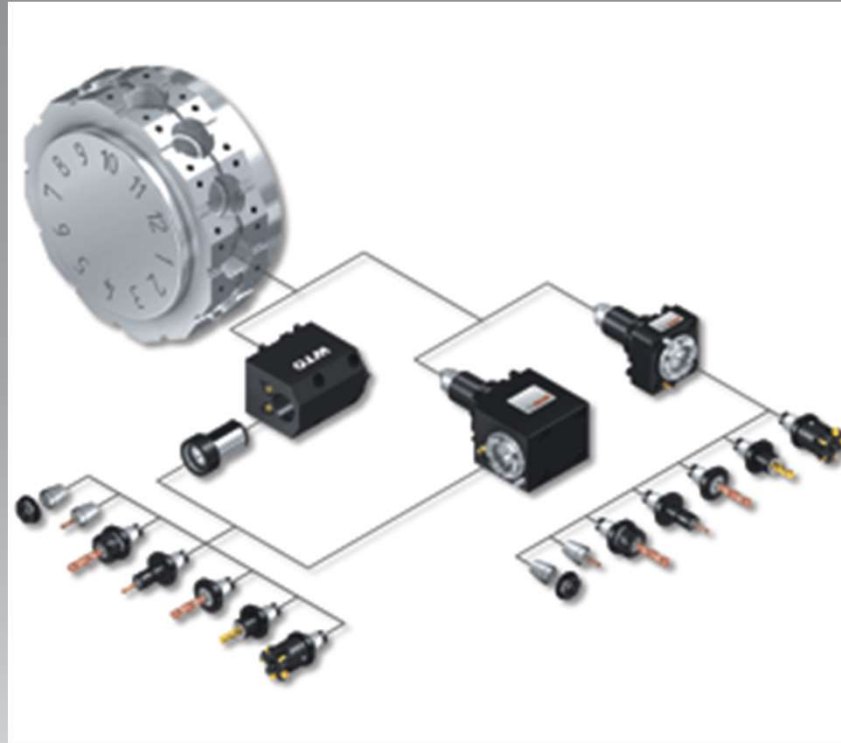
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Driven tool bank with ER-Collet Chucks



Market view for Micro-ER

Driven tool systems



https://www.youtube.com/watch?time_continue=8&v=3WeDkMrJ7BA&feature=emb_logo

Market view for Micro-ER

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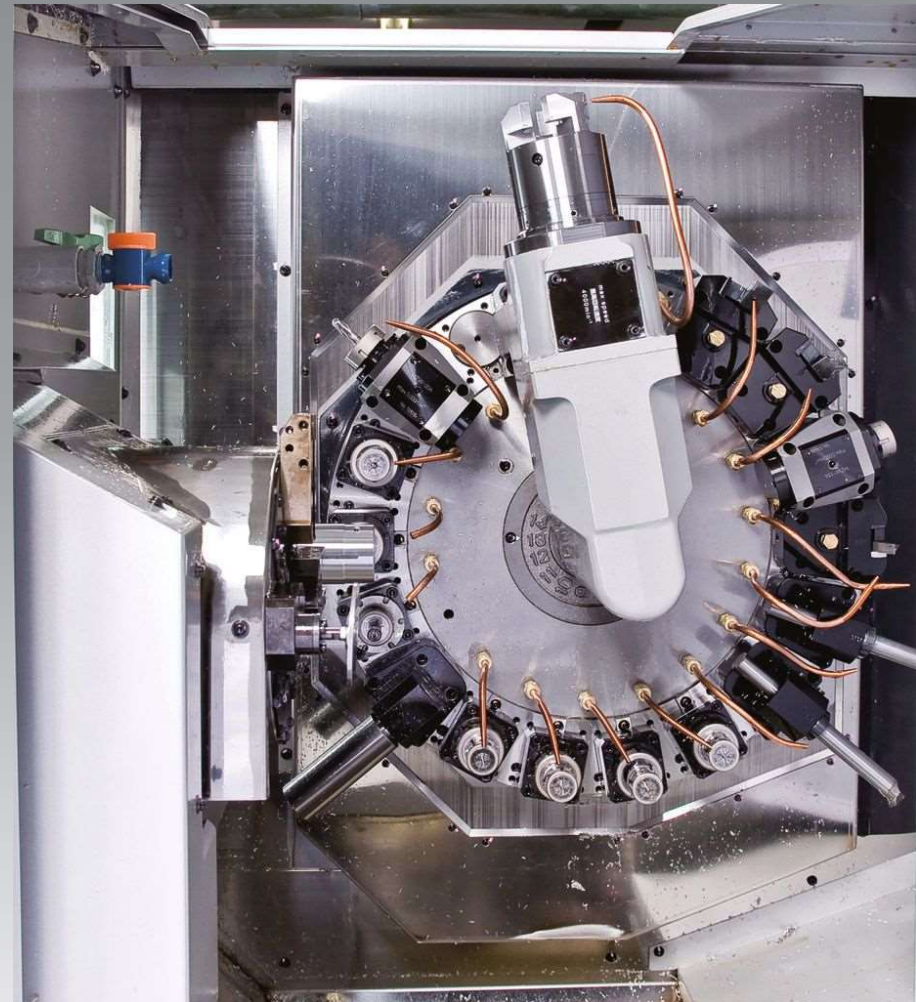
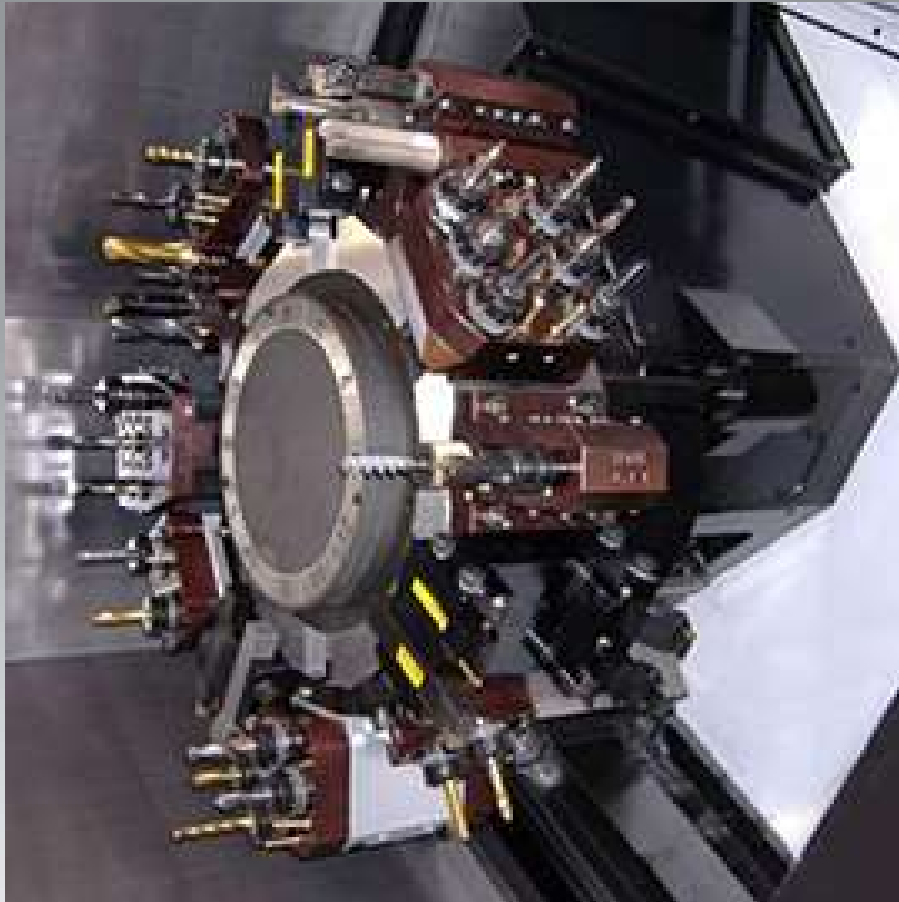
Driven tool systems



Market view for Micro-ER

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Driven tool systems

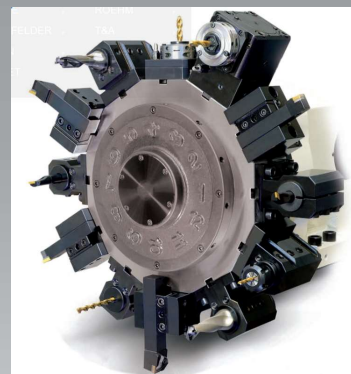


Market view for Micro-ER

There is a huge market of CNC lathe, mostly equipped with ER-Collets. They can partially replaced by Micro-ER

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Market view for Micro-ER

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There are a lot of CNC lathe with driven tools in the market!

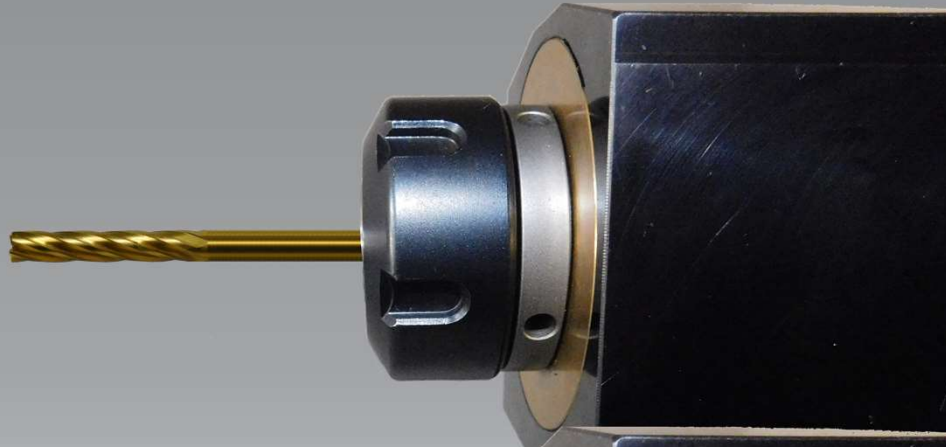
There is a particular market with different suppliers of driven tools systems and its accessories!

These are potential customers for the Micro-ER or Albrecht!

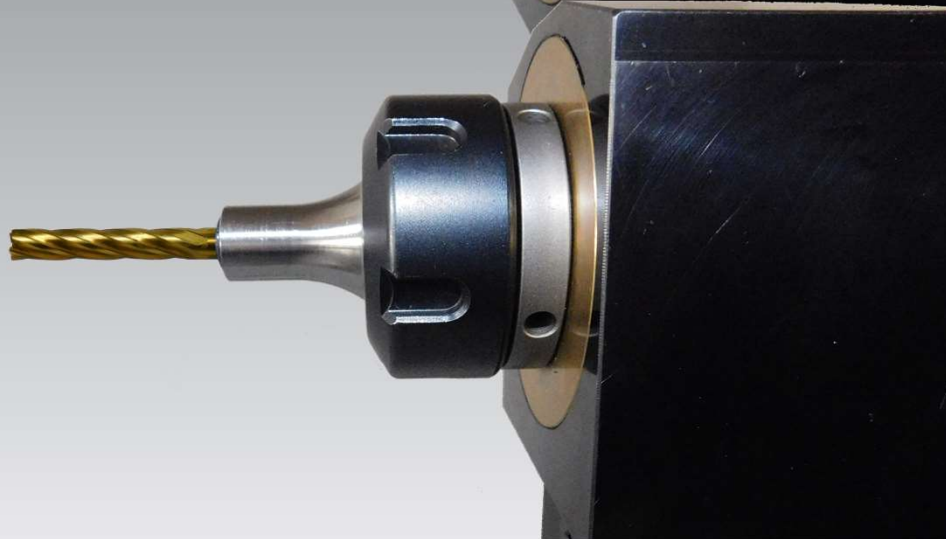
Market view for Micro-ER

Why Micro-ER?

ER-Collet Chuck



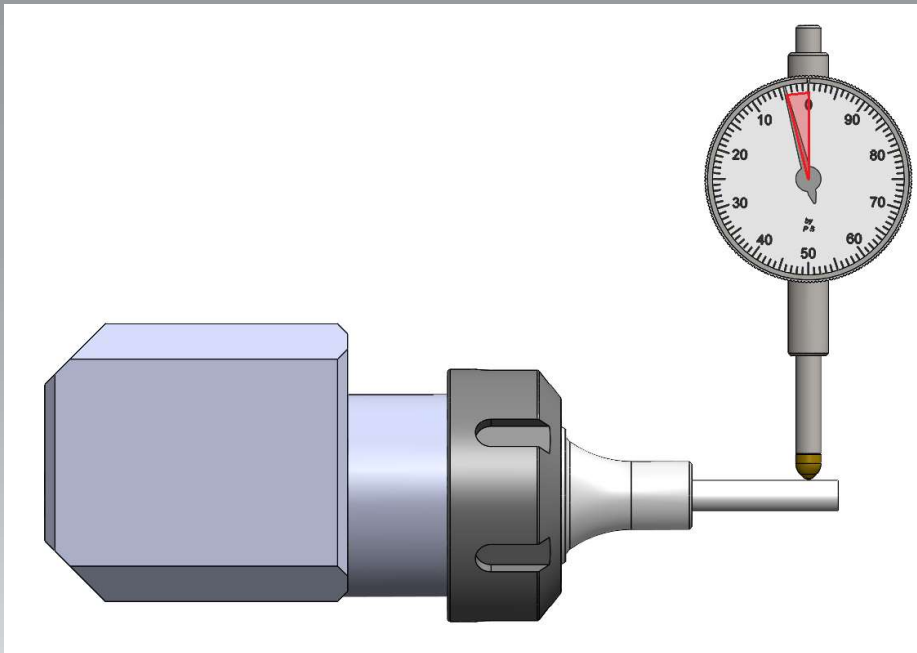
Albrecht Micro-ER



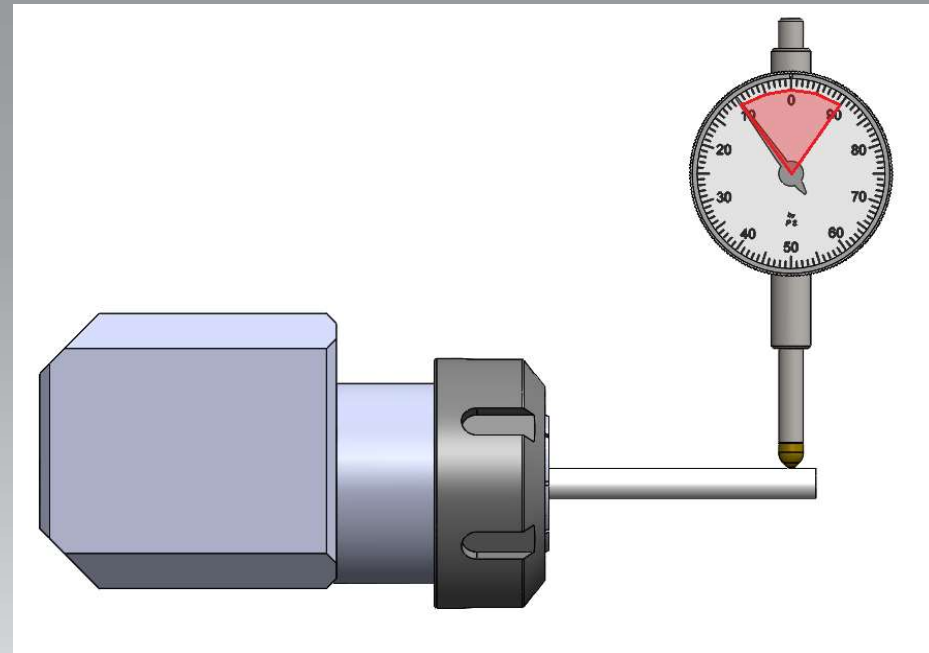
Market view for Micro-ER

Why Micro-ER?

Picture 1:
Micro-ER: perfect runout – perfect tool-guidance



Picture 2:
ER: the less tool support – the more runout-deviation.



Market view for Micro-ER

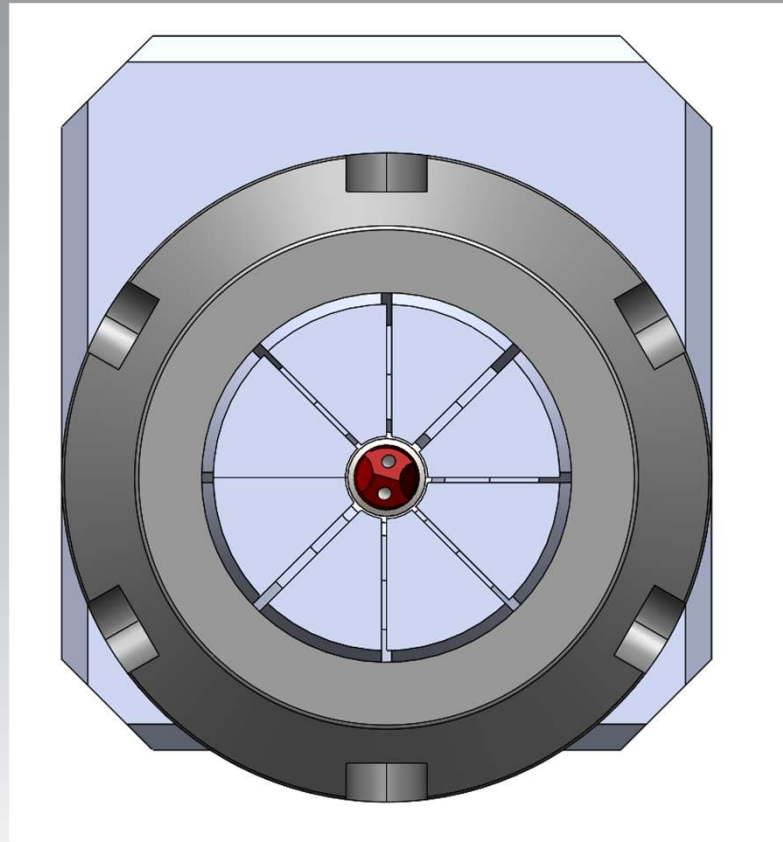
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Why Micro-ER?

Picture 3:

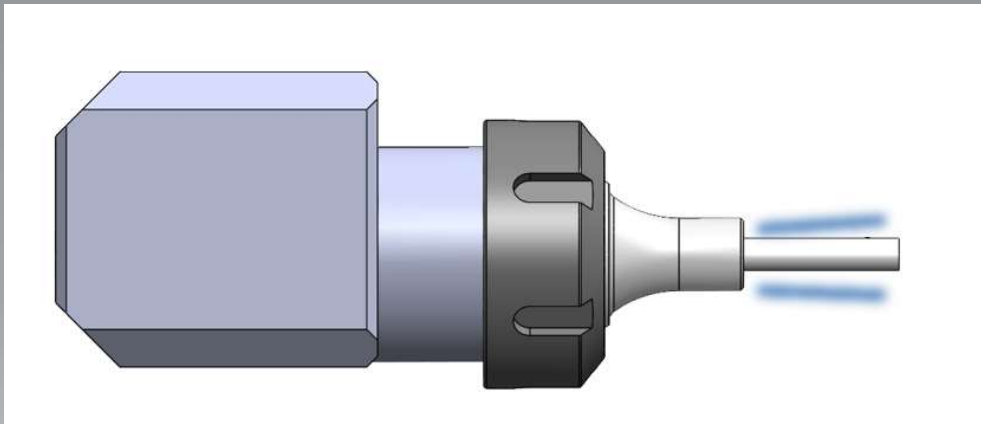
ER Collet segments could be deformed – the result is a bad runout.



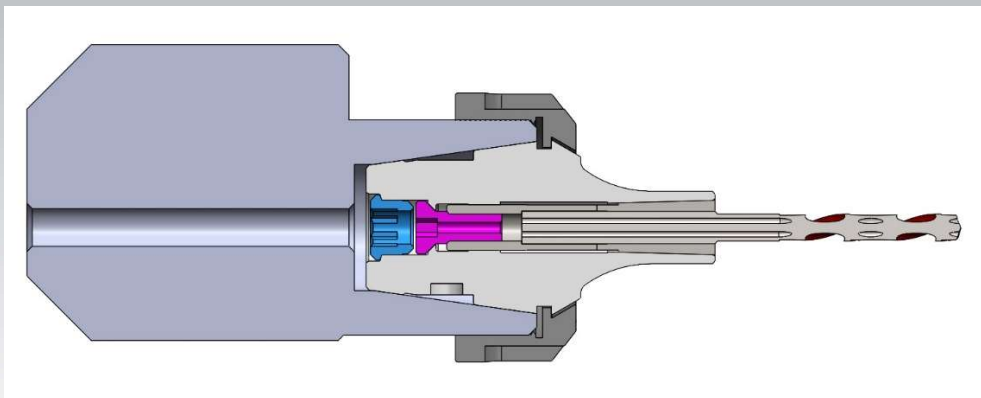
Market view for Micro-ER

Why Micro-ER?

Picture 4: Mirco-ER: perfect coolant support direct to Your cutting edge!



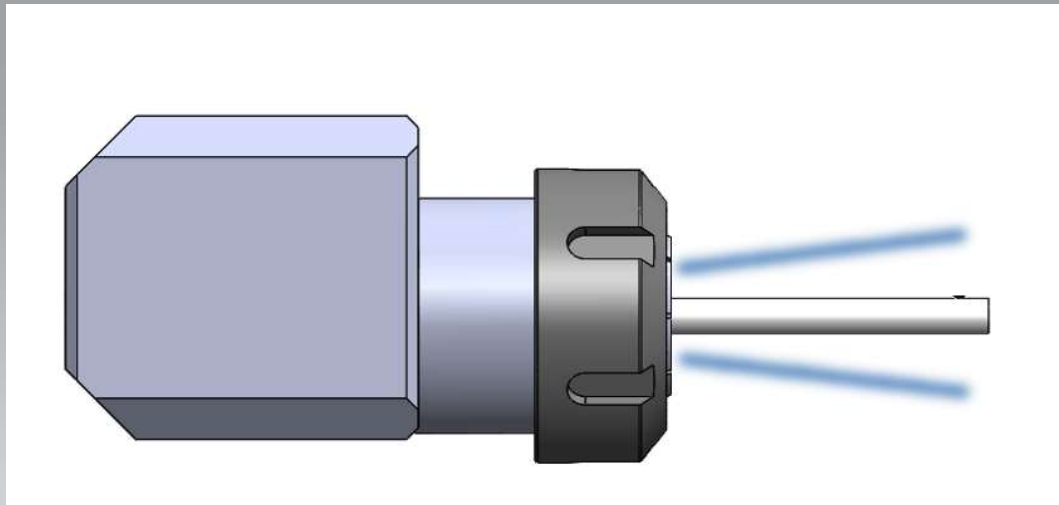
Picture 4.1: Mirco-ER – inner values: perfect coolant support thru all parts



Market view for Micro-ER

Why Micro-ER?

Picture 5: ER-Collets: coolant expands more, poor cooling performance at the cutting edge!



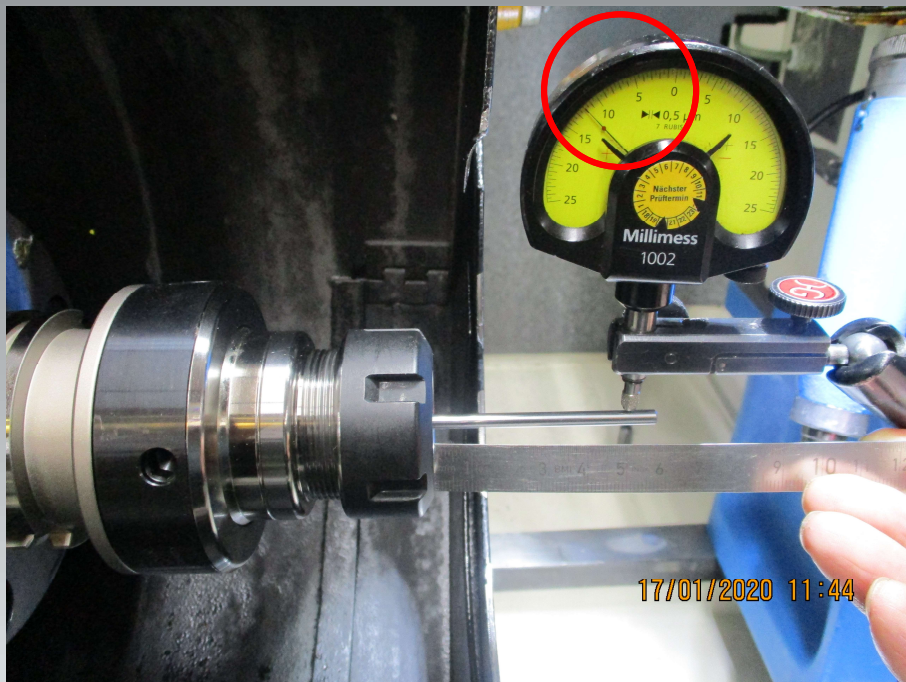
Market view for Micro-ER

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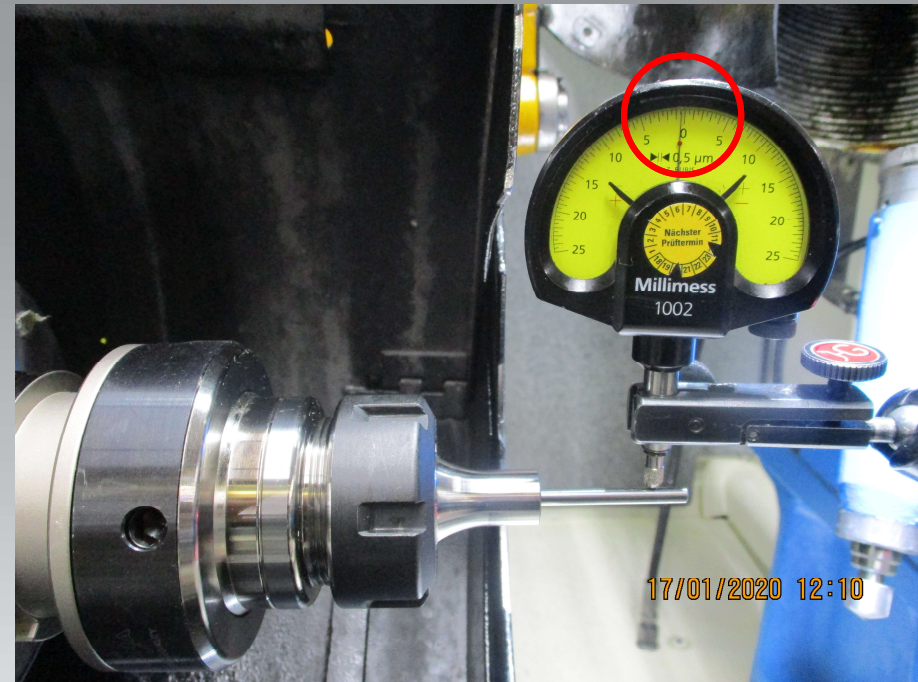
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Real Comparison Measurement ER-Collet vs. Albrecht Micro-ER

ER-Collet



Albrecht Micro-ER



Market view for Micro-ER

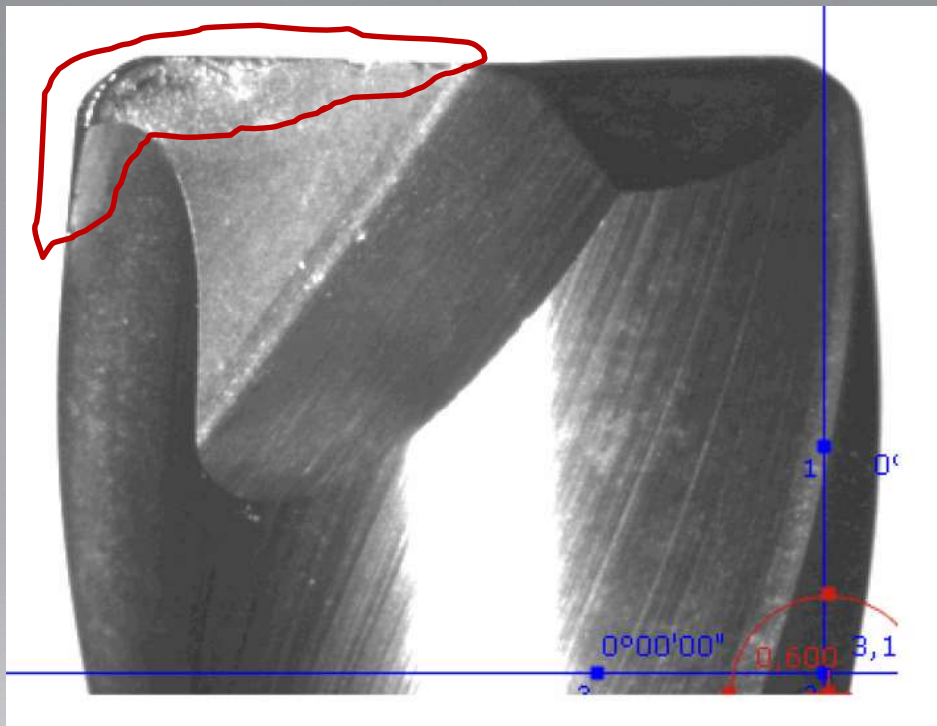
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Which benefit you will get by using Micro/Micro-ER?

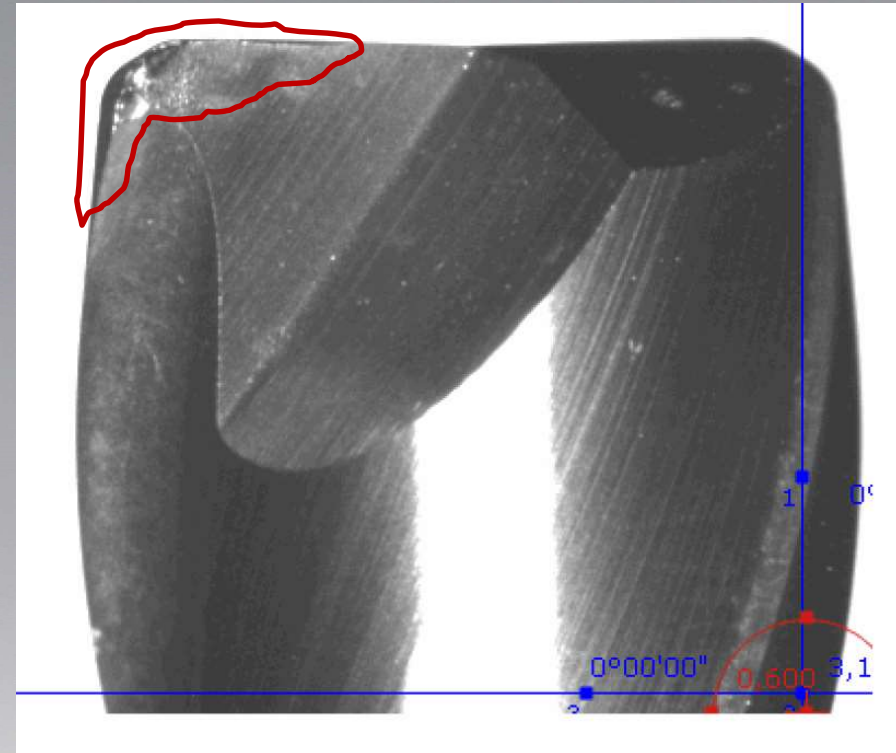
Chuck comparison

Shrink chuck



More cutting outbreaks
Cutting becomes dull faster
Less tool life

ALBRECHT Micro collet chuck



Less cutting outbreaks
Cutting stays sharp for longer
Longer tool life

Chuck comparison (Mai 2019, Company GKN – Portugal, EMUGE)

Tribos vs ALBRECHT Micro collet chuck

Material: 1.2379, 55-58HRC

Tribos

- worse surface
- after 1 piece, tool is worn out

Micro

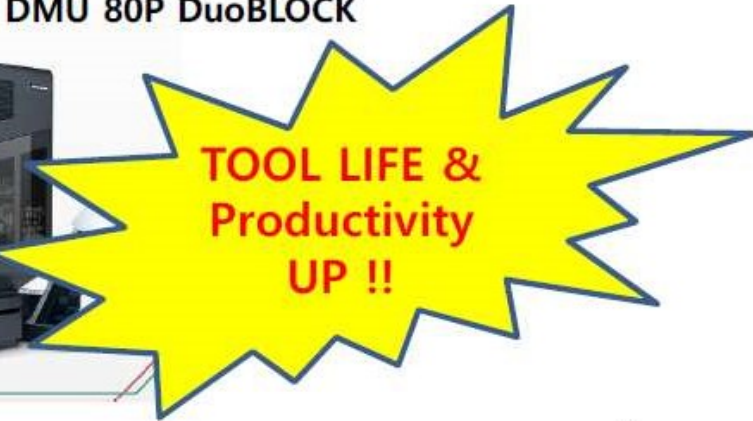
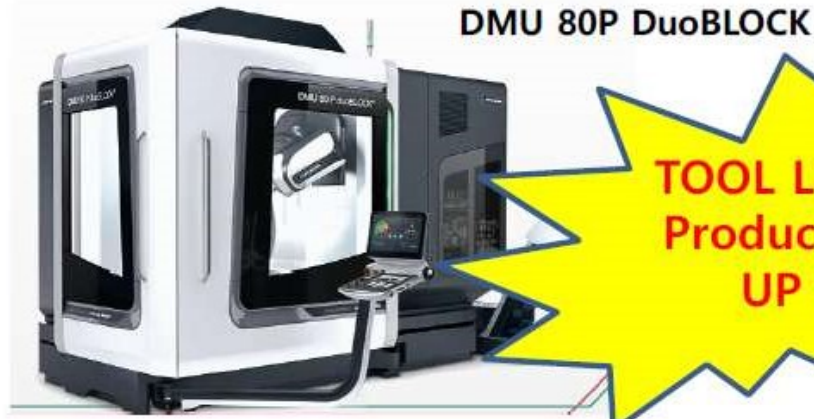
- good surface
- better handling
- better dampening
- 600% higher tool-lifetime
- > 6 pieces


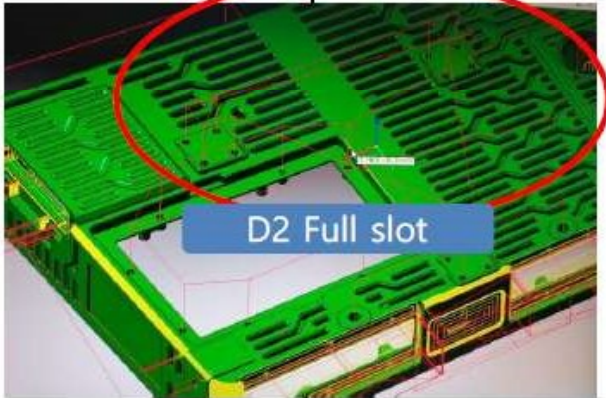



※ Success Story case

■ Customer Information

- [Redacted]
- Component name : Case
- Industry : Defence industry
- Material : **AL**
- Applications : Full slot milling
- Wet / Dry : Wet cutting (emulsion)
- Tool : D2 flat Endmill (2Z)



HSK63	ER Collet Chuck		APC Micro Chuck	
Photo				
Tool	D2 Endmill + ER Collet chuck		D2 Endmill + APC Micro chuck	
Vc (RPM)	V 100 (16,000 rpm)	←	V 100 (16,000 rpm)	←
F (fz)	F1,000 (fz 0.031)	←	F1,000 (fz 0.031)	F1,200 (fz 0.038)
Ap	0.5 mm (25%)	1 mm (50%)	1 mm (50%)	←
Ae	2 mm (100%)	←	2 mm (100%)	←
Results	40 EA	0.5~1 EA (Broken)	40 EA ↑	60EA ↑
C/T	50 min	25 min	25 min	20 min

ALBRECHT Micro and Micro-ER Collets chucks



Micro
for milling centers

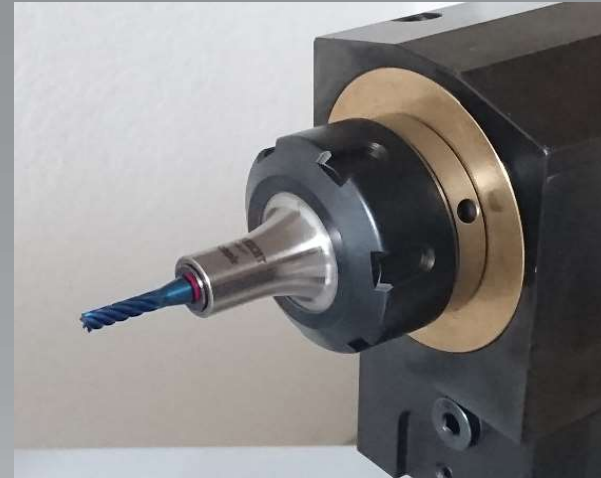


Micro-ER
For driven tools at CNC Lathes

Micro-ER-Chuck

Features, Functions, Benefits:

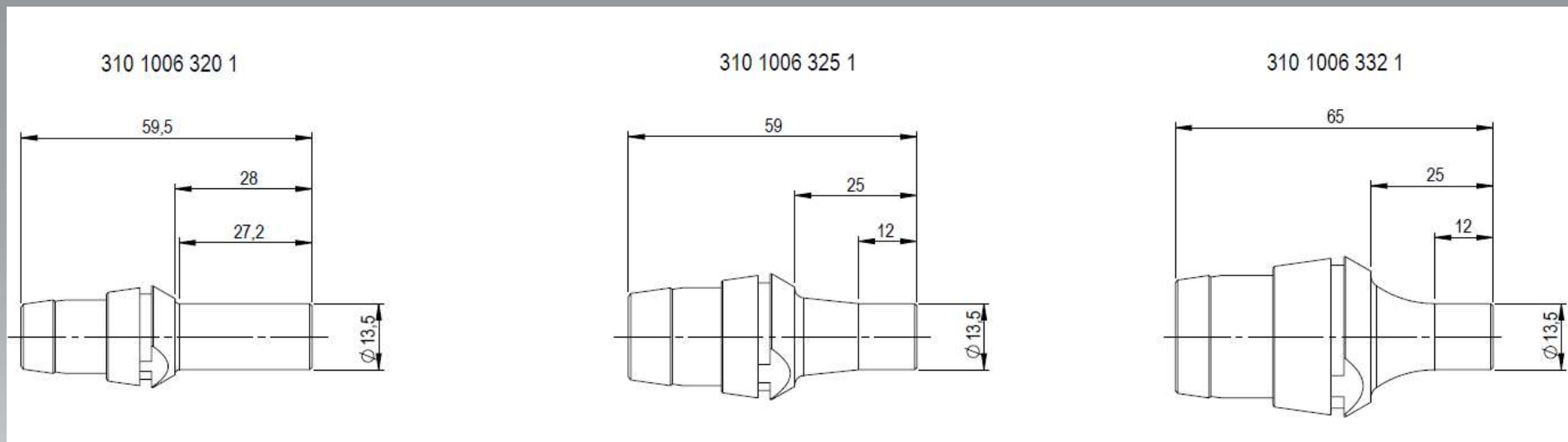
- Increases the access for Micro-tools
- Universal use, fits in all ER-chucks and nuts
- ER20, 25 and 32
- Range 1,0 – 6,0 mm
- Same collets like extensions (AMC)
- Optional Internal- or Peripheral-Coolant supply
- Better dampening in comparison to Shrinking Chucks – curve design
- Slim Shape $D1=13,5$ mm
- Perfect Runout and Clamping
- Balanced by design



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Overview:



ER20

1 - 6 mm

Part.No.	A	Coolant	L1	D1	kg
310 1006 320 1	28	central	28	13,5	0,09

ER25

310 1006 325 1	25	central	12	13,5	0,12
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ER32

310 1006 332 1	25	central	12	13,5	0,21
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