GÜHRING

AMB 2024

Product news 2024/02

GÜHRING

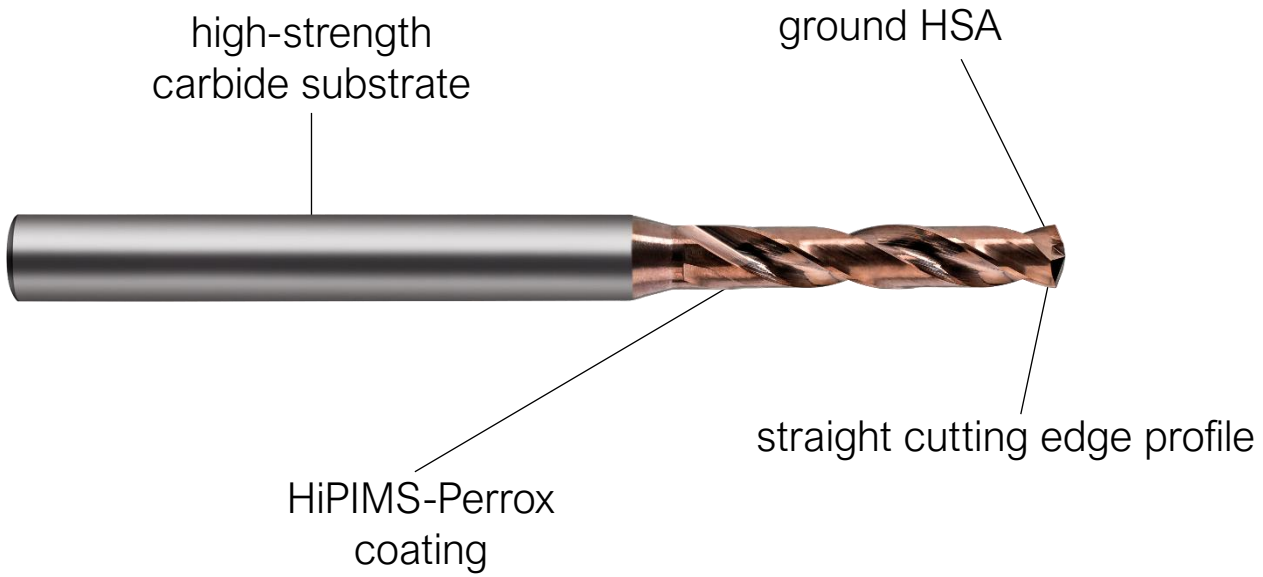
Drilling

Milling

GÜHRING

Solid carbide drill RT 100 H Micro

- Up to 65% higher feed rates compared to the competition
- Reduction of machining time
- Long tool lives on a par with the competition (at higher feed rates)
- High process reliability for automation
- Can be used with up to 67HRC
- Dry machining in steps

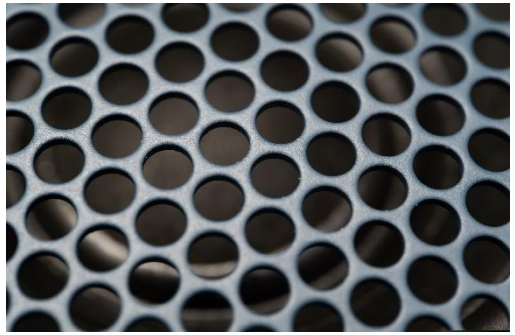


- Hard machining is a growing application group
- The trend is moving toward products being processed not before, but after hardening (for example, this saves time on eroding processes)
- RT100H drill as a reliable solution for difficult machining cases
- Micro tools as a standard solution

Industries:

Mould and die

Perforation technology

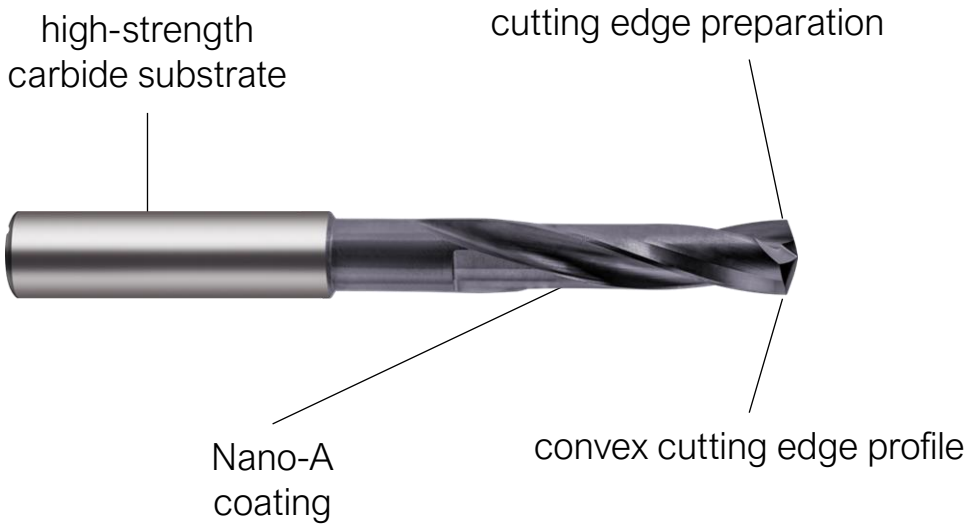


Contract suppliers / area customers

P	M	K	N	S	H	Tool illustration	Drilling depth	Shank form	Type	Tool material	Sur-face	d1/mm	Article no.
Micro-precision drills without coolant ducts													
○		○			●		NEW	3xD	Cyl	RT 100 H	VHM	X	0.800 - 3.000	7053

Solid carbide drill RT 100 H

- 25% increase in tool life compared to the competition
- High process reliability for automation
- Can be used with up to 67HRC
- Single-step wet machining



- Hard machining is a growing application group
- The trend is moving toward products being processed not before, but after hardening (for example, this saves time on eroding processes)
- RT100H drill as a reliable solution for difficult machining cases
- Micro tools as a standard solution

Industries & components:

Mould and die

Form punches, standard parts, cutting blades

Production of construction machinery

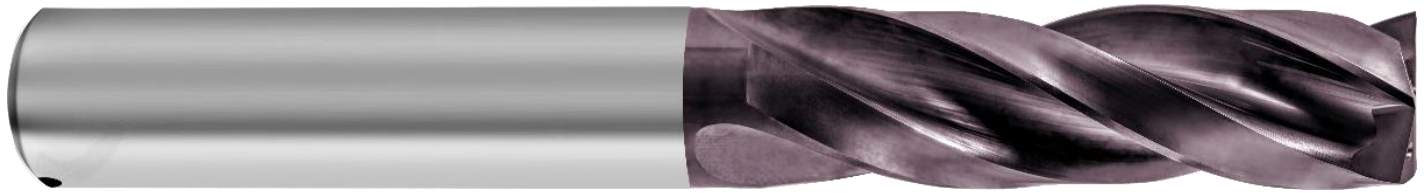
Buckets

Mining

Drill heads

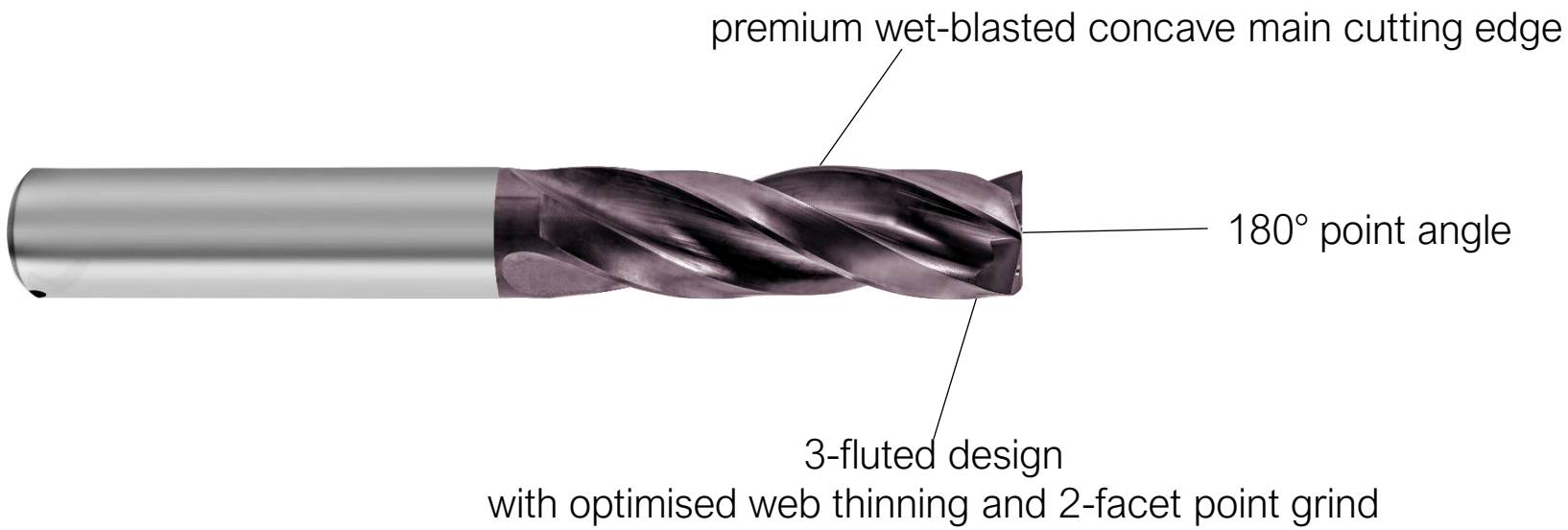
Contract suppliers / area customers

P	M	K	N	S	H	Tool illustration	Drilling depth	Shank form	Type	Tool material	Sur-face	d1/mm	Article no.
Ratio drills without coolant ducts													
○					●		NEW	3xD	HA	RT 100 H	VHM	a	3.100 - 16.000	7052



Flat drill FB 200 U

- Increased wear resistance
- Best chip formation
- True 180° hole base
- Top spot drilling performance on inclined and curved surfaces
- Holes with dimensional accuracy, even on flat surfaces without piloting or pre-drilling



Industries:

Mechanical engineering and plant construction

Valve body

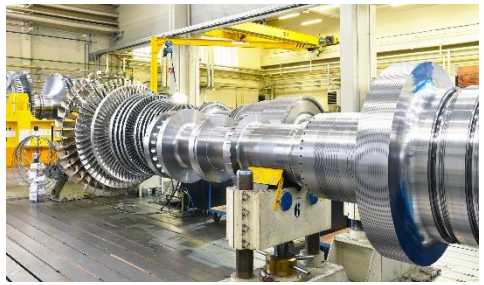
Automotive industry

Engine block

Mould and die

Mould and die

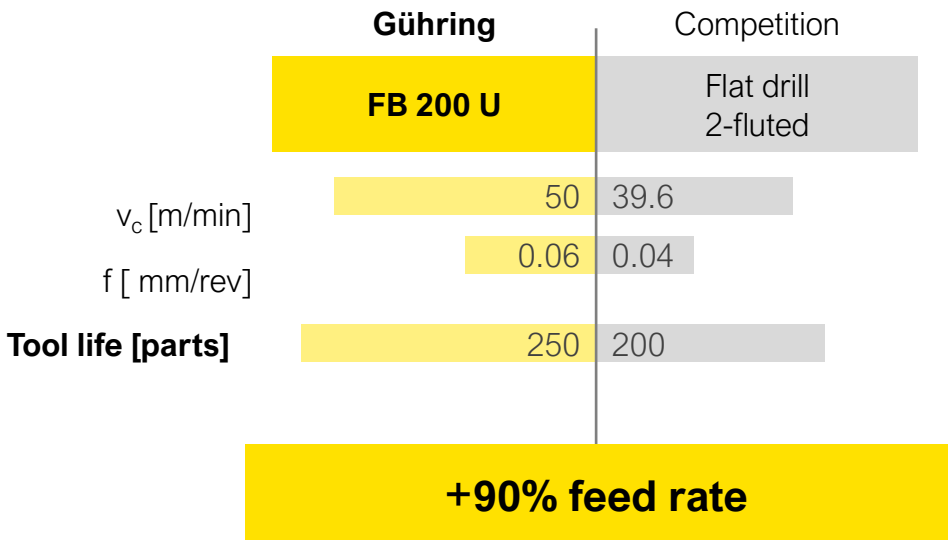
Energy technology



Turbine components

Ø4.20

Component	**Cog**
Material	42CrMo4 (1.7225), surface hardened up to 60 HRC
Cooling	Internal cooling (emulsion with 20 bar)
Drilling depth	10.50 mm



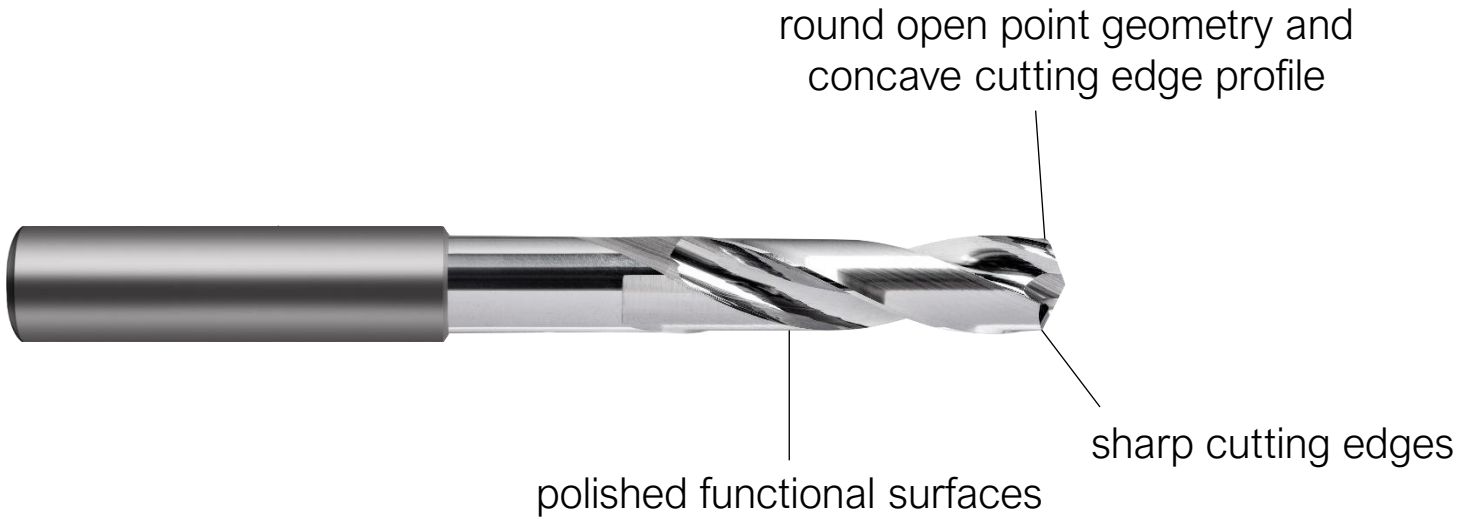
USP – FB 200 U:

- The only genuine 180° 3-fluted flat drill on the market
- Flat drilling on flat surfaces without pre-drilling or feed reduction
- At least 30% higher cutting data compared to the competition
- The 3-fluted cutter design achieves the best hole quality

P	M	K	N	S	H	Tool illustration		Drilling depth	Shank form	Type	Tool material	Sur-face	d1/mm	Article no.
Flat drills with coolant ducts, 3-fluted														
●	●	●	○	○	○		NEW	3xD	HA	FB 200 U	VHM	F	4.000 - 20.000	6065
●	●	●	○	○	○		NEW	5xD	HA	FB 200 U	VHM	F	4.000 - 20.000	6066

Solid carbide drill RT 100 AL

- Optimum chip formation and chip removal
- Prevention of built-up edges
- Polished functional surfaces prevent material adhesion
- Soft cutting characteristics even in heat-treated AlSi alloys
- Low process temperatures



Industries:

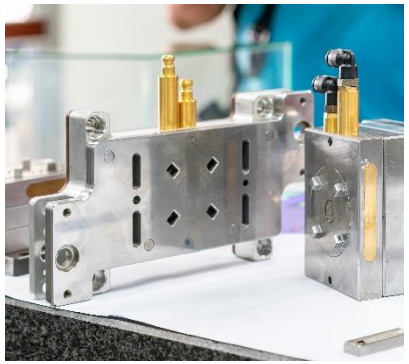
Mechanical engineering and plant construction

Valve body

Automotive industry

Battery carrier

Mould and die



Injection mould

Aerospace industry

Ribs / bulkheads

USP – RT 100 AL:

- Open radius web thinning to reduce built-up cutting edges in the centre
- Reduced cutting forces and process temperatures due to greater helix pitches
- Micro-polished sharp cutting edges for the optimum balance between cutting performance and cutting edge stability

P	M	K	N	S	H	Tool illustration		Drilling depth	Shank form	Type	Tool material	Surface	d1/mm	Article no.
Ratio drills with coolant ducts														
			•				NEW	3xD	HA	RT 100 AL	VHM	○	3.000 - 20.000	6062
			•					5xD	HA	RT 100 AL	VHM	○	3.000 - 20.000	5768
			•				NEW	7xD	HA	RT 100 AL	VHM	○	3.000 - 20.000	6063
			•				NEW	12xD	HA	RT 100 AL	VHM	○	3.000 - 16.000	6064

Indexable insert drill

- Comprehensive portfolio
- Very good economic efficiency thanks to indexable inserts with 4 usable cutting edges
- High-performance carbide grades and coatings
- Also suitable for difficult operating conditions, such as spot drilling on inclined or convex surfaces
- Insensitive to cross holes
- User-friendly Torxplus screws for reliable insert changes

- In addition to the large portfolio of solid carbide and HSS twist drills and the HT800 modular drill, we are closing a gap in the hole machining market.
- The tool system includes carriers with a hole diameter of up to 50 mm, equipped with economical indexable inserts.
- Areas of application:
  - Large-scale batch production
  - Single part or small batch production
  - Hole tolerances in the range of IT11–IT12
  - Machining centres and lathes

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P K M S

Industries:

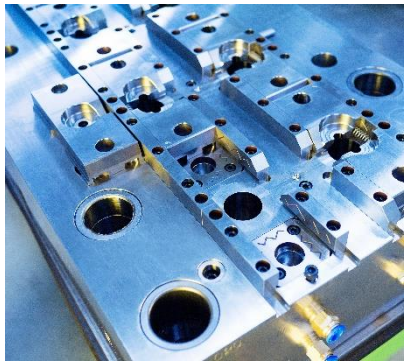
Mechanical engineering and plant construction

General machine components

Automotive industry

Engine block

Mould and die



Injection mould

Energy technology

Electrical industry

Field trials

Component: Wheel nut wrench for trucks
Material: C35 forged steel

Tool: Indexable insert drill Ø 23 mm, length 2 x D

Competitor's cutting values = Gühring:
Vc: 160 m/min
Fz: 0.12 mm

Competitor tool life: 190 components with 4 holes each
Gühring tool life: 250 components with 4 holes each

More info: Gühring – Drilling with less noise

USP – Indexable insert drill:

- Extensive standard range from 2xD to 5xD
- HiPIMS coatings

P	M	K	N	S	H	Tool illustration		Drilling depth	Shank form	Type	Tool material	Surface	d1/mm	Article no.
Indexable insert drills with internal cooling														
							NEW	2xD	ISO 9766	GMD			14.000 - 50.000	28500
							NEW	3xD	ISO 9766	GMD			14.000 - 50.000	28501
							NEW	4xD	ISO 9766	GMD			14.000 - 50.000	28502
							NEW	5xD	ISO 9766	GMD			14.000 - 50.000	28503

P	M	K	N	S	H	Tool illustration	Drilling depth	Shank form	Type	Tool material	Sur-face	d1/mm	Article no.
Indexable inserts SOLX, single-sided, external													
•		•						NEW		SOLX	VHM		28504
	•			•				NEW		SOLX	VHM		28505
Indexable inserts XOLIX, single-sided, internal													
•		•						NEW		XOLX	VHM		28508
	•			•				NEW		XOLX	VHM		28509

Solid carbide single-fluted deep hole drill EB 100 M AL

- Material specialist
  - Aluminium < 7% silicon
- Highest surface values
  - Polish → RZ 0.5 µ
  - Reduces adhesion
- Specific grind
  - Adapted point geometry for optimum chipping behaviour

Industries:

Mechanical engineering and plant construction

Automotive industry

Mould and die

Manifold

Cylinder head

Injection mould

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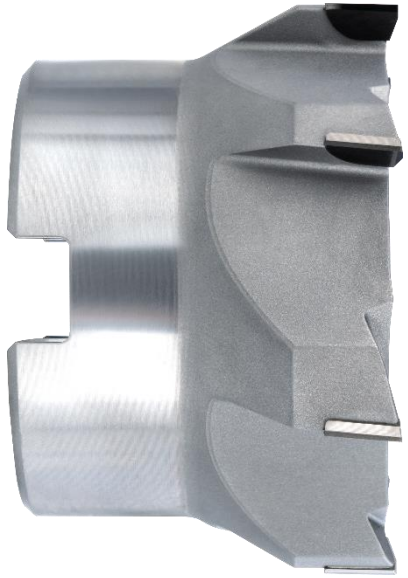
	Part	Material	Customer	Machine
①	oil pan	EN AC-Al Si9Cu3(Fe)	automotive	Machining Center/ Fill
②	Rotary Unions / case	AlMgSi1 (EN AW-6082)	fluid technology	Machining Center / DMG

	Example 1		Example 2	
	EB 100 M	EB 100 M AL	EB 100 M	EB 100 M AL
grinding	AB-001	AB-007	AB-001	AB-007
circumferential shape	"G"	"F"	"G"	"F"
coating	bright finish	bright finish	bright finish	bright finish
shank	HA-6	HA-6	HA-6	HA-6
tool diameter	Ø 6.000 mm	Ø 6.000 mm	Ø 3.000 mm	Ø 3.000 mm
flute length	330 mm	330 mm	190 mm	190 mm
overall length	370 mm	370 mm	230 mm	230 mm
cutting speed	140 m/min	140 m/min	110 m/min	110 m/min
feed	0.1 mm/rev	0.4 mm/rev	0.04 mm/rev	0.15 mm/rev
cooling	MQL / 11 bar	MQL / 11 bar	Emulsion / 80 bar	Emulsion/ 80 bar
machining time	23 s	6 s	24 s	4.8 s

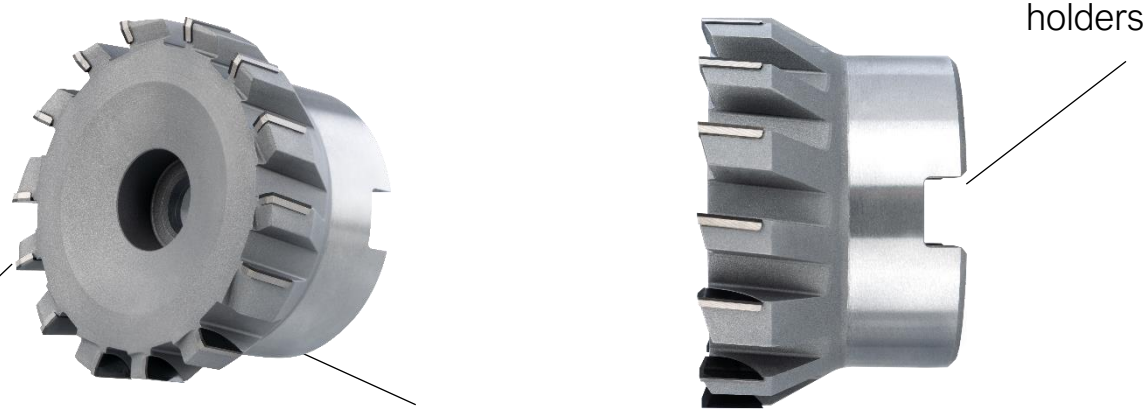



P	M	K	N	S	H	Tool illustration		Drilling depth	Shank form	Type	Tool material	Surface	d1/mm	Article no.
Single-fluted gun drills EB 100 M AL														
			•				NEW	20xD	HA	EB 100 M AL	VHM	○	2.000 - 12.000	6071
			•				NEW	40xD	HA	EB 100 M AL	VHM	○	2.000 - 10.000	6073
			•				NEW	60xD	HA	EB 100 M AL	VHM	○	2.000 - 7.144	6074



PCD face and corner milling cutter

- Maximum flexibility and modular design
- No adjustment required
- Depending on the diameter, it can be plunged into the component with a 1-2° ramp angle
- Cutting geometry for low-burr machining
- Laser-finished cutting edges
- Maximum tool lives with the PCD cutting material
- 2 variants:
  - PRO version with a high number of teeth
  - ECO version with a drastically reduced number of teeth



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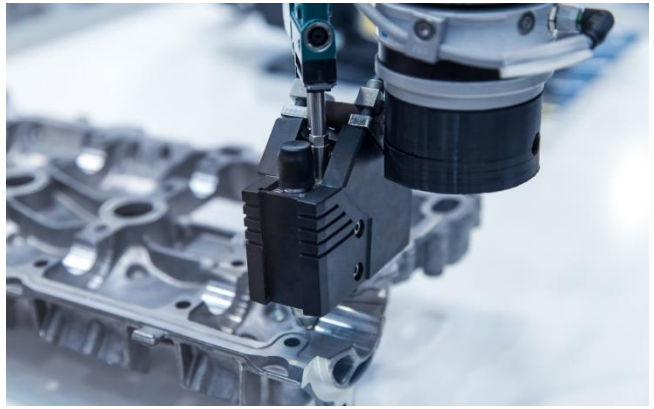
Industries:

Fluid technology

Valve bodies and fittings

Automotive industry



Engine and chassis components

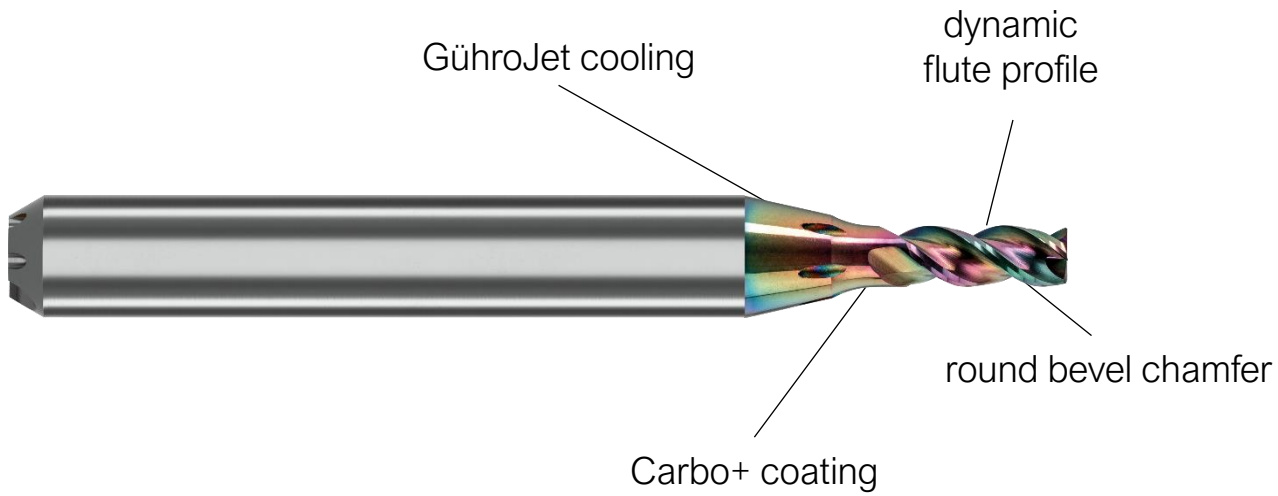
USP – PCD face and corner milling cutter:

- In terms of availability, most competitors state a delivery time of up to 6 weeks, even if these are listed as articles. In contrast, we offer different chamfering leads with soldered blanks within 2 weeks.
- Compared to the 3016 face/corner milling cutter, we achieve a softer cut thanks to higher rake and axis angles

P	M	K	N	S	H	O	Tool illustration	Z	Hard-ness	Cutting edge profile	Length	Tool material	Sur-face	d1/mm	Article no.
PCD face and corner milling cutters															
			•			•		NEW	8-22	0,2x15°		PKD	○	32.000 - 125.000	4193
			•			•		NEW	4-11	0,2x15°		PKD	○	32.000 - 125.000	4194
Coolant distributor															
								+Ø					B		4203

Solid carbide milling cutter RF 100 AL Micro

- Significant to extreme increase in metal removal rates
  - Up to 6x higher
- Newly developed geometry ensures very high process reliability due to very high running smoothness
- Very good finishing surfaces
  - Ra 0.15 µm and better
- Best possible chip removal and no built-up edges
  - Thanks to Gührojet cooling & Carbo+ coating



- ISO-N materials are among the fastest growing material groups
- The material specialist RF100ALPro Micro is ideal for this material & customer target group
- Best tool concept on the market for all customer-relevant features such as metal removal rate, process reliability, surface quality and burr development

Industries:

Electronics industry

Supporting plates

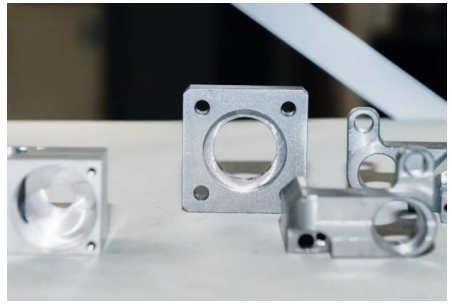
Semiconductor industry

Cooling element

Precision engineering

Precision engineering / joint body

Rail and sliding technology



End caps

USP – RF 100 AL Micro:

- Gührojet cooling as the only supplier for this tool segment
- Up to 6x higher metal removal rate compared to the competition, the most powerful tool on the market
- Very good, streak-free, low-burr surface quality of Ra 0.15 µm and better

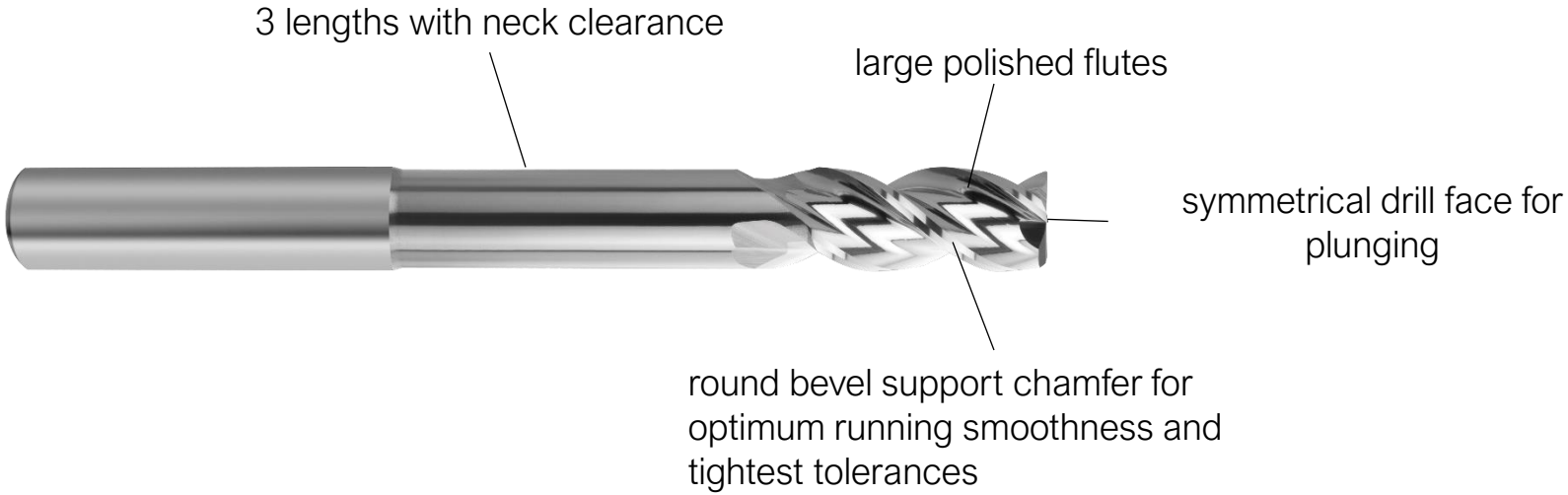
P	M	K	N	S	H	O	Tool illustration	Z	Hard-ness	Cutting edge profile	Length	Tool material	Sur-face	d1/mm	Article no.
Micro-precision milling cutters RF 100 AL															
			●			○		NEW	3		45°	2,5xD	VHM	Cb+	0.500 - 3.000	8069
			●			○		NEW	3		45°	5xD	VHM	Cb+	0.500 - 3.000	8070
			●			○		NEW	3		R±0,01	2,5xD	VHM	Cb+	0.500 - 3.000	8065
			●			○		NEW	3		R±0,01	5xD	VHM	Cb+	0.500 - 3.000	8066

Solid carbide milling cutter RF 100 AL

- Ultimate machining performance → +30%

- New nano-polished round bevel support chamfer
  - Perfect surfaces → < Rz 1µm
  - Accuracy and running smoothness →Angularity < 8µm

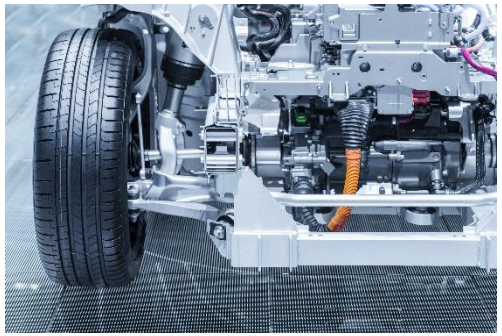
- Dry or MQL machining →No built-up edges
- With large polished flutes and unique internal cooling, we achieve longer tool lives and better chip removal



Industries:

Mechanical engineering and plant construction

Automotive industry



Aviation industry

Recommended use

The Carbo+ coating is recommended for use with the RF 100 AL in a bright design with cooling lubricant (emulsion) for dry or MQL machining.

Target customers

Series machining of components made of aluminium/plastics. Area customers with changing aluminium applications

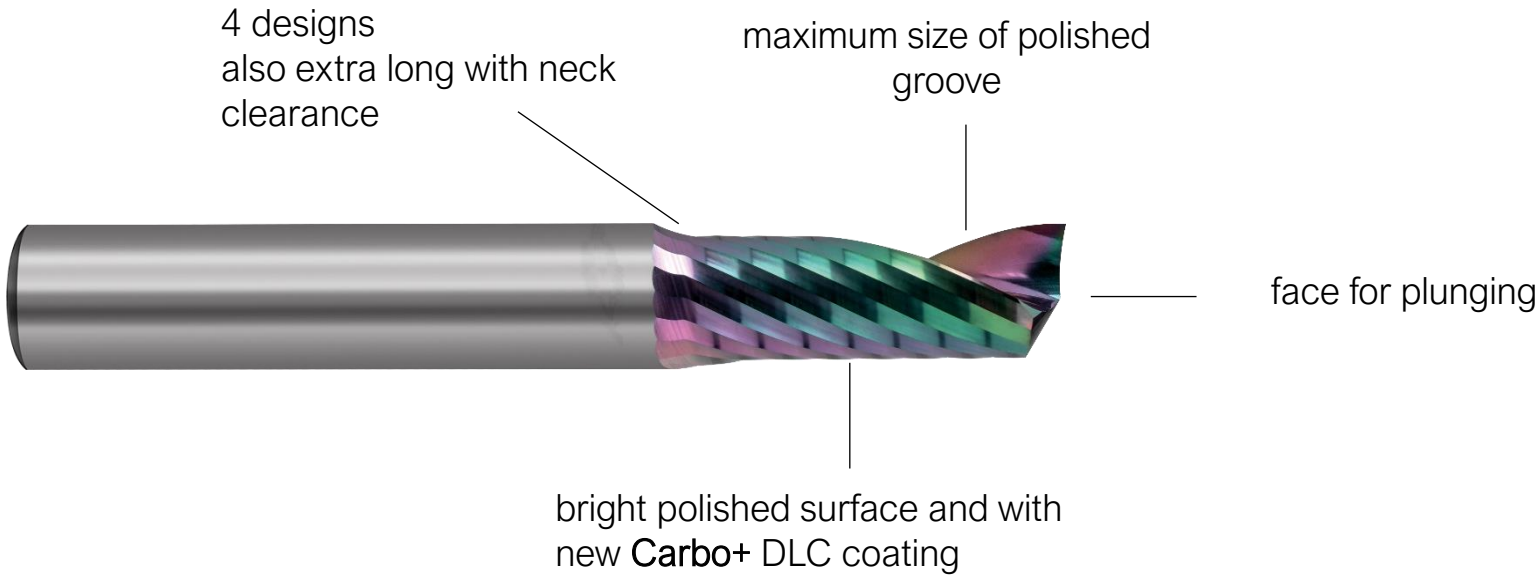
USP – RF 100 AL:

- High cutting performance thanks to the new dynamic flute profile
- Consistent range in 3 lengths with EF and ER Ø 1-20 mm with intermediate dimensions
- Perfect dimensional accuracy, best possible surface finish due to optimised geometry with micro round bevel support chamfer (js7)

P	M	K	N	S	H	O	Tool illustration	Z	Hard-ness	Cutting edge profile	Length	Tool material	Sur-face	d1/mm	Article no.
Ratio end mills RF 100 AL															
			•					NEW	3		45°	6xD	VHM	○	1.000 - 20.000	8240
			•					NEW	3		45°	6xD	VHM	○	3.500 - 20.000	8241
			•					NEW	3		R±0,05	6xD	VHM	○	1.000 - 20.000	8254
			•					NEW	3		R±0,05	6xD	VHM	○	4.000 - 20.000	8255

Solid carbide single-fluted cutter AL

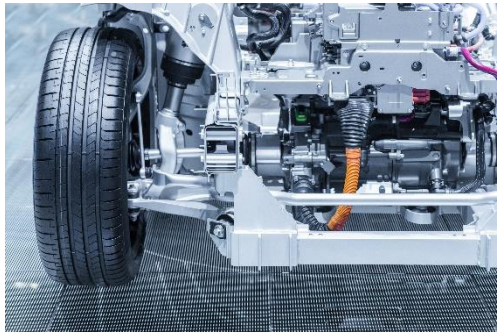
- Reliable processes
- Best possible chip removal
- Low power consumption
- Low-burr cut & best possible surfaces
- 50% longer tool life with Carbo+ vs. bright



- Slotting, cutting, axial grooving and contouring
- Low machining forces and minimum burr development
- Due to the lowest heat exposure, resource-conserving dry machining is possible
- Can also be used on very light machines and in unstable conditions

Industries:

Automotive industry



Battery trays & vehicle interior panelling

Aviation industry

Aluminium structural components

Mechanical engineering and plant construction

Industry profiles

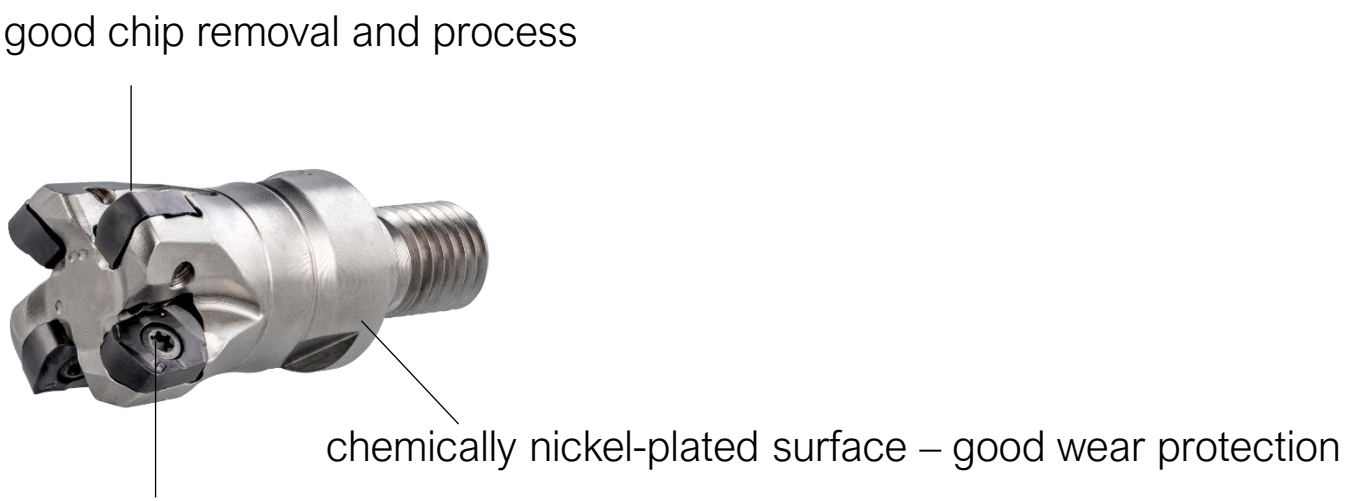
USP – Solid carbide single-fluted cutter AL:

With our broad range consisting of eight different grades – available in both bright and Carbo+ coated designs – we are becoming a complete supplier in the aluminium sector.

P	M	K	N	S	H	O	Tool illustration	Z	Hard-ness	Cutting edge profile	Length	Tool material	Sur-face	d1/mm	Article no.
End mills (single-fluted)															
			•			•		1		90°		VHM	○	2.000 - 16.000	6793
			•			•	NEW 	1		90°		VHM	Cb+	2.000 - 16.000	8138
			•			•	NEW 	1		90°		VHM	○	3.000 - 16.000	6935
			•			•	NEW 	1		90°		VHM	Cb+	3.000 - 16.000	8135
			•			•	NEW 	1		30°		VHM	○	1.000 - 10.000	6936
			•			•	NEW 	1		30°		VHM	Cb+	1.000 - 10.000	8136
			•			•	NEW 	1		30°		VHM	○	1.000 - 10.000	6937
			•			•	NEW 	1		30°		VHM	Cb+	1.000 - 10.000	8137

High-speed milling cutter with indexable inserts

- Gühring now maps the entire process chain from roughing to finishing
- Comprehensive portfolio
- Very good economy thanks to indexable inserts with 4 usable cutting edges
- High-performance carbide grades and HiPIMS coatings
- High-performance carbide grades and coatings ensure long tool lives



- Suitable for general roughing
- The focus of applications is on roughing close to the contour in the field of mould and die
- Ideal addition to the G-Mold range

Industries:

Mould and die

Forming tools

Mechanical engineering and plant construction

General machine components

Energy technology

Structural and housing components

USP – High-speed milling cutter with indexable inserts

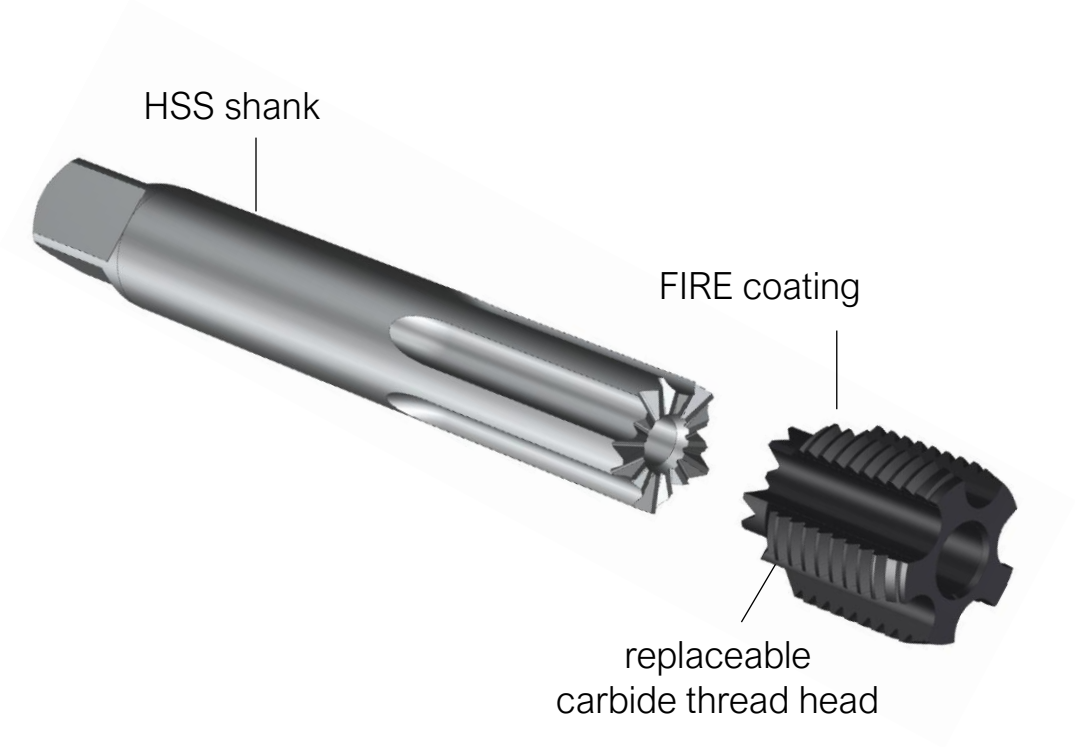
- High maximum possible infeed and a high maximum possible feed per tooth
- The maximum axial infeed is 1 mm and is approx. 20-30% higher compared to some competitors with similarly large cutting plates
- Maximum tooth feed is 1.5 mm and is also 20-30% higher
- Feed rates of above 13 m/min

P	M	K	N	S	H	O	Tool illustration	Z	Hard-ness	Cutting edge profile	Length	Tool material	Sur-face	d1/mm	Article no.
High feed milling cutters with indexable inserts, straight shank Weldon															
								NEW						16.000 - 32.000	28000
High feed milling cutters with indexable inserts, screw-in thread															
								NEW						16.000 - 42.000	28001
High feed milling cutters with indexable inserts, shell milling cutter															
								NEW						40.000 - 80.000	28002
Tool holders for screw-in milling cutters HSK-A															
								NEW					○		4199

P	M	K	N	S	H	O	Tool illustration	Z	Hard-ness	Cutting edge profile	Length	Tool material	Sur-face	d1/mm	Article no.
Indexable inserts XNMX, double-sided															
●	○	●		○					NEW			VHM			28003
●	●	○		○					NEW			VHM			28004

Modular tap

- High cost-effectiveness due to multiple use of the tool shank (up to 8x)
- Up to 10 times longer tool life compared to HSS-E taps
- 50% shorter machining time compared to HSS-E taps
- Lowest CPP



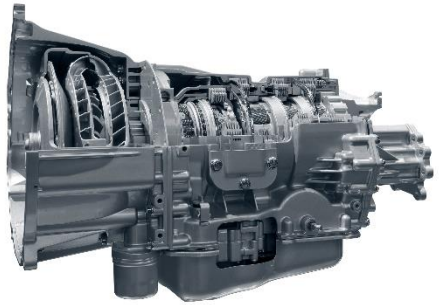
- Monolithic solid carbide tools are predominantly used on modern CNC machines and with smaller diameters
- The combination of HSS shank and carbide head creates a tool system that, on the one hand, solves the economic aspect and, on the other, is the ideal solution to unstable underlying conditions
- Especially in the larger diameter range from M16 onwards, we achieve a cost advantage compared to monolithic solid carbide tools.
- When considering general conditions that are not ideal, such as older machines, unstable clamping situations or longer tool designs, the advantage of the modular system lies in the longer tool life and shorter machining time compared to HSS-E taps.

Industries:

Mechanical engineering and plant construction

General machine components

Transport



Large gears

Energy technology

Rotor hubs

Fluid technology

Hydraulic manifolds

GÜHRING

Success story

	HSS-E tap	Modular tap
Material:	EN-GJL-200 (GG20)	EN-GJL-200 (GG20)
Dimensions:	M20x2.5	M20x2.5
Vc:	15 m/min	25 m/min
N:	238 rpm	398 rpm
Vf:	595 mm/min	995 mm/min
Thread depth:	50 mm	50 mm
Tool life:	2,220 threads	36,000 threads
Machining time:	63 sec.	38 sec.

USP – Solid carbide single-fluted cutter AL:

Thanks to our established cutting edge geometry with straight flutes, a small rake angle and a large clearance angle, combined with the FIRE coating, which is characterised by high temperature resistance, we exceed the performance of our competitors.

P	M	K	N	S	H	Tool illustration		Stand-ard	Type	Form	Tool material	Sur-face	d1/mm	Article no.
Interchangeable heads														
		•	•				NEW	DIN 376/374	GG	C	VHM	F	M12 x 1,5 - M30 x 3,5	6120
		•	•				NEW	DIN 376/374	GG	C	VHM	F	M12 x 1,5 - M30 x 3,5	6139
Interchangeable shanks														
							NEW	DIN 376/374			HSS-E			6121
Sockets														
							NEW							4868
Retaining screw														
							NEW							4889
							NEW							4869

Tap AL & fluteless tap AL

Advantages of the Carbo+ coating

- Super thin coating, very sharp cutting edges
- Superior smoothness, prevents material from sticking
- Increased wear resistance due to extreme hardness

Specifications

- Coating material: ta-C
- Coating technology: Arc
- Coating hardness: 6,500 HV

The new threading tools for ISO group N are perfectly suited for machining wrought aluminium alloys and aluminium casting alloys.

Applications can be found in various industries:

- Automotive industry incl. suppliers
  - Gearbox
  - Cylinder head or block
  - Structural components
- Control and automation technology
  - Terminal blocks
  - Distributor housing
- Aviation industry
- Mechanical engineering and plant construction

Industries:

Mechanical engineering and plant construction

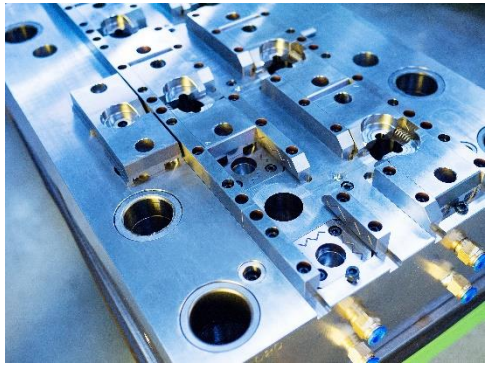
General machine components

Automotive industry

Gearbox / cylinder head (block)

Aviation industry

Control and automation technology



Distributor housing / terminal block

USP – tap AL & fluteless tap AL:

- Fewer built-up edges & less material adhesion
- Optimum chip removal, especially for blind hole threads
- High cutting speeds during aluminium machining
- Maximum process reliability and tool life thanks to Carbo+ coating

P	M	K	N	S	H	Tool illustration		Stand-ard	Type	Form	Tool material	Sur-face	d1/mm	Article no.
Taps for ISO metric threads														
			•				NEW	DIN 371/376	AL	B	HSS-E	Cb+	M2 - M16	8082
Taps with coolant ducts for ISO metric threads														
			•				NEW	DIN 371/376	AL	C	VHM	Cb+	M3 - M16	8085
			•				NEW	DIN 371/376	AL	E	VHM	Cb+	M3 - M16	6575
Taps for ISO metric fine threads														
			•				NEW	DIN 374	AL	B	HSS-E	Cb+	M4 x 0,5 - M24 x 1,5	6555
Taps with coolant ducts for ISO metric fine threads														
			•				NEW	DIN 371/374	AL	C	VHM	Cb+	M8 x 1 - M16 x 1,5	6574
			•				NEW	DIN 371/374	AL	E	VHM	Cb+	M8 x 1 - M16 x 1,5	6576

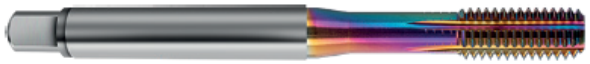
P	M	K	N	S	H	Tool illustration		Stand-ard	Type	Form	Tool material	Sur-face	d1/mm	Article no.
Taps for UNC threads														
			•				NEW	DIN 371/376	AL	B	HSS-E	Cb+	2 - 56 - 1 - 8	6556
Taps for UNF threads														
			•				NEW	DIN 371/374	AL	B	HSS-E	Cb+	2 - 64 - 1 - 12	6557
Taps for BSP threads														
			•				NEW	DIN 5156	AL	B	HSS-E	Cb+	G1/16 - G1	6558
Taps for EG/STI thread														
			•				NEW	DIN 40435	AL	B	HSS-E	Cb+	EG/STI M2 - EG/ STI M16	6559

P	M	K	N	S	H	Tool illustration		Stand-ard	Type	Form	Tool material	Sur-face	d1/mm	Article no.
Taps for ISO metric threads														
			•				NEW	DIN 371/376	AL	C	HSS-E	Cb+	M2 - M16	8080
			•				NEW	DIN 371/376	AL	E	HSS-E	Cb+	M2 - M16	8081
			•				NEW	WN	AL	C	HSS-E	Cb+	M3 - M20	6565
Taps with coolant ducts for ISO metric threads														
			•				NEW	DIN 371/376	AL	C	VHM	Cb+	M3 - M16	8083
			•				NEW	DIN 371/376	AL	E	VHM	Cb+	M3 - M16	8084

P	M	K	N	S	H	Tool illustration		Stand-ard	Type	Form	Tool material	Sur-face	d1/mm	Article no.
Taps for ISO metric fine threads														
			•				NEW	DIN 374	AL	C	HSS-E	Cb+	M4 x 0,5 - M24 x 1,5	6560
			•				NEW	DIN 374	AL	E	HSS-E	Cb+	M6 x 0,75 - M24 x 1,5	6568
			•				NEW	WN	AL	C	HSS-E	Cb+	M8 x 1 - M20 x 1,5	6566
Taps with coolant ducts for ISO metric fine threads														
			•				NEW	DIN 371/374	AL	C	VHM	Cb+	M8 x 1 - M16 x 1,5	6577
			•				NEW	DIN 371/374	AL	E	VHM	Cb+	M8 x 1 - M16 x 1,5	6578
Taps for UNC threads														
			•				NEW	DIN 371/376	AL	C	HSS-E	Cb+	2 - 56 - 1 - 8	6561

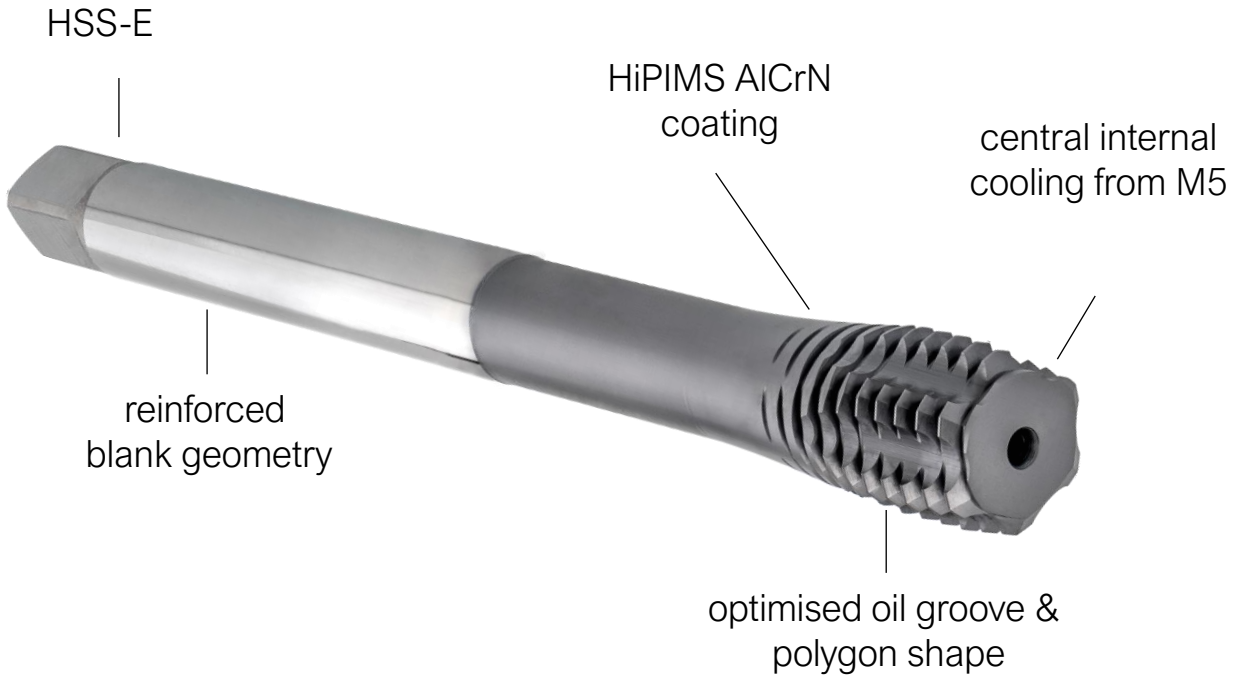
P	M	K	N	S	H	Tool illustration		Stand-ard	Type	Form	Tool material	Sur-face	d1/mm	Article no.
Taps for UNF threads														
			•				NEW	DIN 371/374	AL	C	HSS-E	Cb+	2 - 64 - 1 - 12	6562
Taps for BSP threads														
			•				NEW	DIN 5156	AL	C	HSS-E	Cb+	G1/16 - G1	6563
			•				NEW	DIN 5156	AL	E	HSS-E	Cb+	G1/16 - G1	6569
			•				NEW	WN	AL	C	HSS-E	Cb+	G1/8 - G1/2	6567
Taps for EG/STI thread														
			•				NEW	DIN 40435	AL	C	HSS-E	Cb+	EG/STI M2 - EG/STI M16	6564
Fluteless taps for ISO metric threads														
			•				NEW	~DIN 371/376	AL	C	HSS-E	Cb+	M2 - M16	8088

P	M	K	N	S	H	Tool illustration		Stand-ard	Type	Form	Tool material	Sur-face	d1/mm	Article no.
Fluteless taps with coolant ducts for ISO metric threads														
			•				NEW	~DIN 371/376	AL	E	HSS-E	Cb+	M2 - M16	8089
			•				NEW	DIN 371/376	AL	C	HSS-E	Cb+	M5 - M20	8090
			•				NEW	~DIN 371/376	AL	C	HSS-E	Cb+	M5 - M20	8091
			•				NEW	~DIN 371/376	AL	C	VHM	Cb+	M3 - M16	8094
			•				NEW	~DIN 371/376	AL	E	VHM	Cb+	M3 - M16	6580
Fluteless taps for ISO metric fine threads														
			•				NEW	~DIN 374	AL	C	HSS-E	Cb+	M8 x 1 - M20 x 1,5	6570

P	M	K	N	S	H	Tool illustration		Stand-ard	Type	Form	Tool material	Sur-face	d1/mm	Article no.
Fluteless taps with coolant ducts for ISO metric fine threads														
			•				NEW	~DIN 371/374	AL	E	HSS-E	Cb+	M8 x 1 - M20 x 1,5	6572
			•				NEW	~DIN 371/374	AL	C	HSS-E	Cb+	M8 x 1 - M16 x 1,5	8092
			•				NEW	~DIN 371/374	AL	C	VHM	Cb+	M8 x 1 - M16 x 1,5	6579
			•				NEW	~DIN 371/374	AL	E	VHM	Cb+	M8 x 1 - M16 x 1,5	6581
Fluteless taps for BSP threads														
			•				NEW	DIN 2189	AL	C	HSS-E	Cb+	G1/8 - G3/4	6571
Fluteless taps with coolant ducts for BSP threads														
			•				NEW	DIN 2189	AL	E	HSS-E	Cb+	G1/8 - G3/4	6573
			•				NEW	DIN 2189	AL	C	HSS-E	Cb+	G1/8 - G3/4	8093

InoxPro fluteless tap

- Outstanding tool lives, up to 100% increase in stainless steel
- Reliable fluteless tapping, even with water-mixed emulsions from a grease content of 6%
- Perfect thread quality
- From dimensions of M5 and above, the taps have central internal cooling



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The challenge

- Fluteless tapping with water miscible cooling lubricants
- Early wear and tear
- Tool breakage

Targeted optimisation

- Oil groove
- Macro-geometry
- Coating
- Best solution in terms of tool life and process reliability when used in stainless steels

Industries:

Mechanical engineering and plant construction

Valve body

Precision engineering

Clock mechanism

Fastening and joining technology

Spacer sleeves

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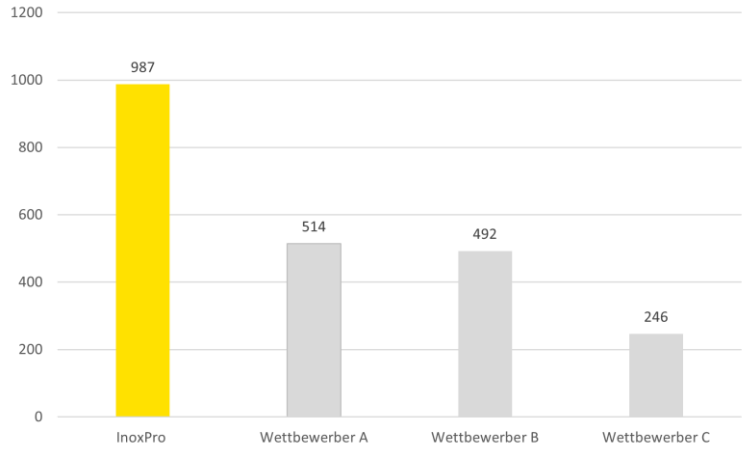
Success story

	Competitor A	InoxPro fluteless tap
Material:	X5CrNi18-10 (1.4301)	X5CrNi18-10 (1.4301)
Dimensions:	M8	M8
Vc:	6 m/min	6 m/min
N:	318 rpm	318 rpm
Vf:	398 mm/min	398 mm/min
Thread depth:	20 mm	20 mm
Tool life :	20 minutes	30 minutes

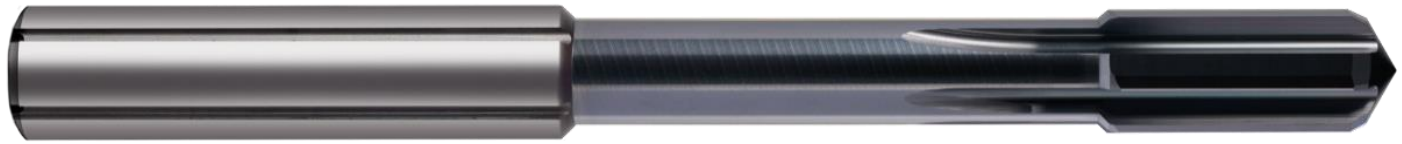
USP – InoxPro fluteless tap

Based on our newly developed InoxPro fluteless tap, we were able to achieve up to twice the tool life compared to the competition in stainless steel in internal benchmarks, in this example an M8 thread in the material 1.4301 with a cutting speed of 10 m/min

Dimensions:	M8
Cutting speed:	10 m/min
Thread depth:	20 mm
Cooling:	Emulsion 10%
Material:	X8CrNi18-10 (1.4301)



P	M	K	N	S	H	Tool illustration	Standard	Type	Form	Tool material	Surface	d1/mm	Article no.
Fluteless taps with coolant ducts for ISO metric threads													
	●			○			NEW	~DIN 371/376	INOX PRO	C	HSS-E	P	M2 - M12	8100
Fluteless taps with coolant ducts for ISO metric fine threads													
	●			○			NEW	~DIN 371/374	INOX PRO	C	HSS-E	P	M6 x 0,75 - M20 x 1,5	8101



High-performance reamer HR 500

HR 500 fixed dimension

HR 500 H7

HR 500 short H7

There are 2 series of reaming tools…

1. H7 series

This series is specially adapted to the H7 fitting system and thus achieves the best possible tool lives.

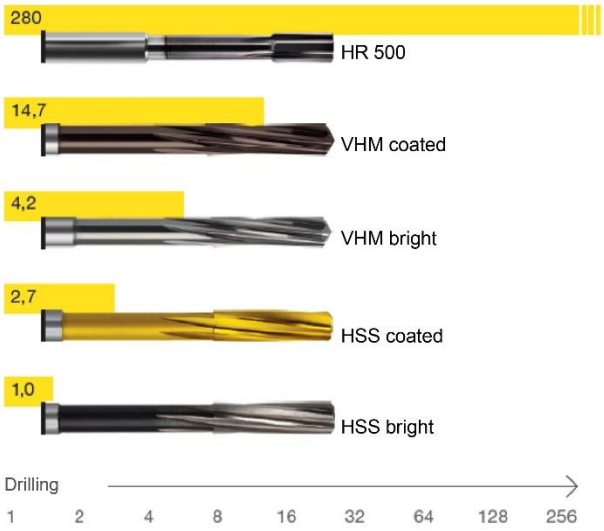
2. FIXED-SIZE series

This series also meets all requirements outside the H7 fit system (range of +/-0.05 and in 5µ increments)

Our target group is more or less industry-independent.
Thanks to its universal suitability, a wide range of materials can be covered.

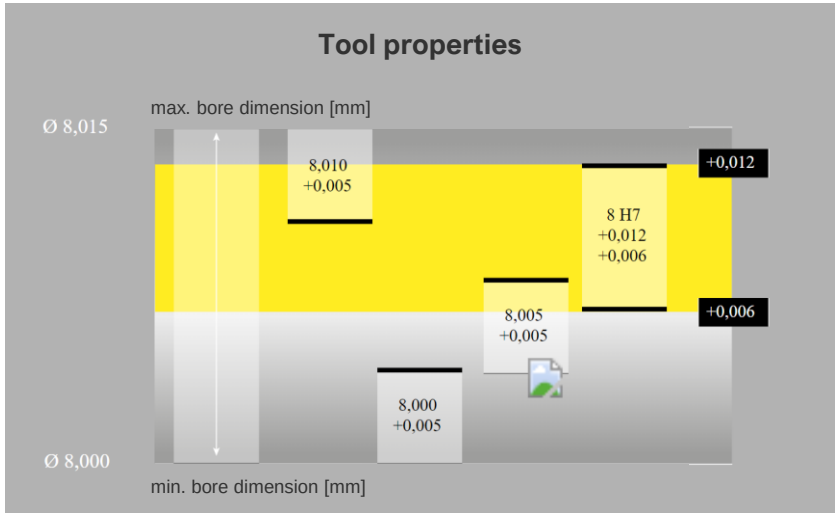
Large-scale machining:

HR 500 performance to HSS
(holes in the same time)



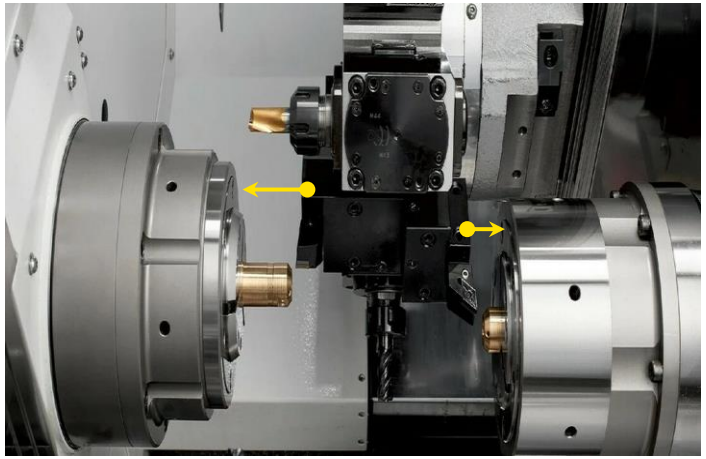
Contract suppliers:

With new fixed sizes, more than twice the standard tool life



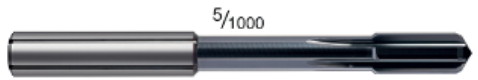
Limited installation space:

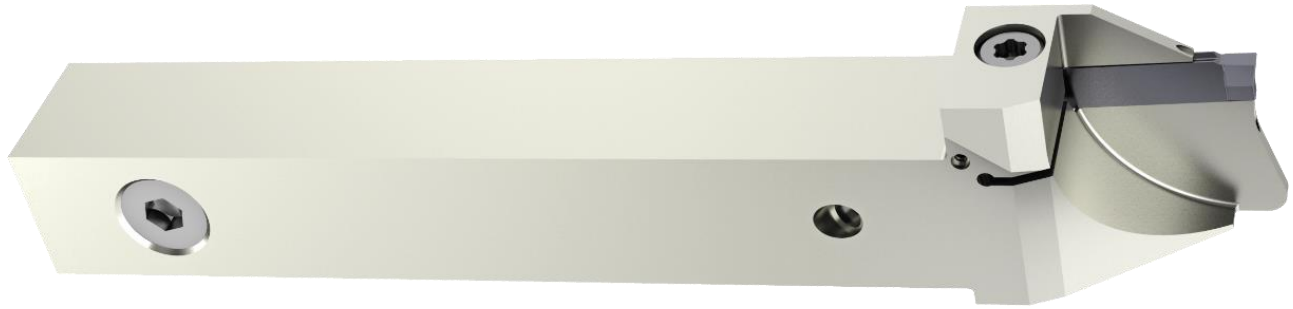
- Now also on short lathes…
- Raw material and CO2 savings
- Increased profitability



USP – HR 500:

- In the H7 series, we offer all half and whole dimensions from 2–20 mm from warehouse.
- We also offer the H7 series as a “short” version in a short expansion stage.
- We are setting new market standards with new FIXED-SIZE reamers.

P	M	K	N	S	H	Tool illustration		Ø tolerance	Hole type	Type	Shank form	Tool material	Surface	d1/mm	Article no.
High-performance reamers, fixed-size series															
●	●	○	○	●	●		+Ø	+0,005 +0		HR 500 S	HA	VHM	a	1.950 - 12.050	1675
●	●	○	○	●	●		+Ø	+0,005 +0		HR 500 D	HA	VHM	a	1.950 - 12.050	1676
High-performance reamers, H7 series															
●	●	○	○	●	●		+Ø	H7		HR 500 S	HA	VHM	a	2.000 - 20.000	1685
●	●	○	○	●	●		+Ø	H7		HR 500 D	HA	VHM	a	2.000 - 20.000	1686
●	●	○	○	●	●		NEW	H7		HR 500 Short S	HA	VHM	a	3.000 - 14.000	4195
●	●	○	○	●	●		NEW	H7		HR 500 Short D	HA	VHM	a	3.000 - 14.000	4196
			●				NEW	H7		HR 500 AL S	HA	VHM	Cb+	2.000 - 20.000	7285
			●				NEW	H7		HR 500 AL D	HA	VHM	Cb+	2.000 - 20.000	7286



System 222 for grooving and parting off

- Extended portfolio with optimised head length for tight spaces in sliding headstock lathes
- Product extension for parting off width of 2 mm in standard metric and imperial dimensions, with and without internal cooling
- Numerous field trials have shown that we are completely competitive.

General parting off applications on sliding headstock lathes with bar feeder/bar loader
Grooving and parting off in confined spaces on sliding headstock lathes for bars up to Ø42 mm

Industries:

- Automotive
- Mechanical engineering
- Medical technology
- Tool manufacturers
- Sub-contractors
- General contract manufacturing

USP – System 222:

- High-quality carriers
- Nickel-plated surface
- Clamping screw with double-sided Torx Plus to clamp the plates, both from above and below
- Optimised IC supply
- High-strength cutting material for a good tool life
- Maximum stability
- Reliable chip removal

P	M	K	N	S	H	Tool illustration	Ø tolerance	Hole type	Type	Shank form	Tool material	Surface	d1/mm	Article no.
Indexable inserts for parting off														
●	○	○		○	○					GZ222	N	VHM	F	26601
Square shank holder straight, external machining, without IC														
									NEW	GH222			R	26104
									NEW	GH222			L	26105

P M K N S H	Tool illustration	Ø tolerance	Hole type	Type	Shank form	Tool material	Surface	d1/mm	Article no.
Square shank holders straight, external machining, with IC									
				NEW	GH222			R	26106
				NEW	GH222			L	26107
Accessories									
				NEW					25930
				NEW					25931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New Products and Additions
General Catalogue Edition 01
2024