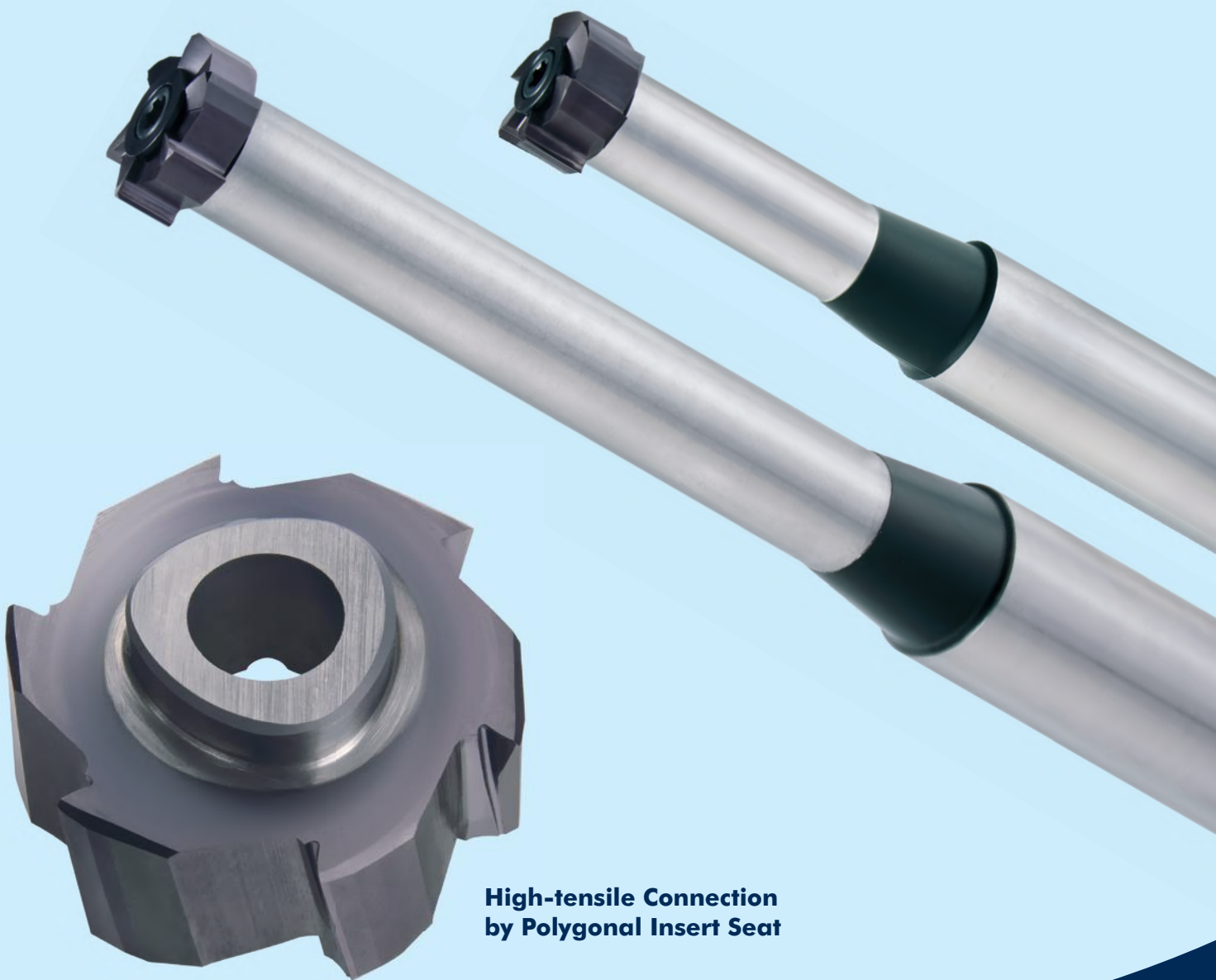


RPK-Reamers with Polygonal Interface



**High-tensile Connection
by Polygonal Insert Seat**

RPK-Reamers

RPK-Reamers with Polygonal Insert Seat for high Chip Removal

A new generation of reamers allow to introduce blind and through holes into components with high precision. The polygonal connection of the cutting insert and shaft improves the economy of the machining process significantly.

Two basic types RPK 40 and RPK 42 are available, which cover a wide range of applications by their different shanks and cutting insert designs. The insert change is fast and easy to run.

Due to the frontal clamping screw the shaft must not be unclamped. Different overall lengths are available.

Advantages

- High-tensile connection by polygonal insert seat
- Easy insert change
- Internal coolant supply directly to the cutting edge
- High concentricity
- Longer durabilities
- High precision
- Higher volume of metal removed by reaming
- Higher feeds
- Shorter processing times
- Special dimensions available

Configurations

- Shank sizes 16 / 20 mm
- Lengths design short / long
- Left-hand twist for through holes
- Straight grooves for blind bores
- Diameters area 12,00-20,20 mm
- Any gate geometries
- Any tolerances
- Cutting materials: carbide / Cermet
- Coatings: TINAMATIC / without



RPK-Reamers

Order-Key for your individual Customizing of Reamers

Order numbers for reamers are predefined for common applications within the order tables. Alternatively, the user can completely individually

customize its own ream (intermediate dimension, geometry, cutting material, tolerance,...). An additional key is generated with the

following table that serves your initial order. For subsequent orders, you will receive a short order number assigned.

Type	Size	Diameter	Tolerance	Gate geometry	Cutting mat.	Coating					
RPK 40 = Straight grooves for blind bores RPK 42 = Left-hand twist for through holes	J = 16 M = 20	Specifying in mm	• +10 -10 • H7	see page 6 and in the table below	1 = Carbide 7 = Cermet	0 = without (blank) 1 = TINAMATIC (Thin layer)					
Example:											
R	P	K	4 0	J	2 0, 1 0 0	+10 -12	L	B	G	1	1

Cutting Data Standard Values according to Gate Geometries

Material to be machined		Favoured gate geometry (see table on page 6)				Cutting speed Vc m/min.	Feed per tooth fz mm/t
		Through holes		Blind bores			
		left-hand twist	straight grooved	left-hand twist	straight grooved		
P	Unalloyed steel, Construction steel, Free cutting steel	LBG			LBG	100 - 250	0,15 - 0,30
	Low alloyed steel	LBG			LBG	100 - 250	0,15 - 0,30
	High alloyed steel, Tool steel, Heat-treatable steel, Nitriding steel	LBG			LBG	20 - 50	0,05 - 0,15
M	Stainless steel, martensitic	LBG			LBG	15 - 40	0,05 - 0,15
	Stainless steel, austenitic	LBG			LBG	10 - 30	0,05 - 0,15
	Stainless steel, heat resistant	LBG			LBG	10 - 30	0,05 - 0,15
K	Cast iron, Alloyed cast iron (GG)		CND		CND	80 - 200	0,12 - 0,25
	Spheroidal cast iron, ferritic (GGG40-GGG55)		CND		CND	60 - 180	0,12 - 0,25
	Spheroidal cast iron ferr./pearl. (GGG60-GGG80)		CND		CND	80 - 200	0,12 - 0,25
N	Aluminium cast alloys < 10% Si		CNG		CNG	200 - 400	0,10 - 0,25
	Aluminium cast alloys > 10% Si		CNG		CNG	200 - 400	0,10 - 0,25
	Copper, Bronze, Brass		CNG		CNG	50 - 250	0,10 - 0,20

Ream addition

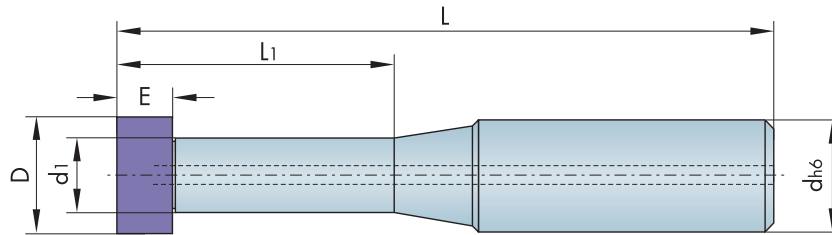
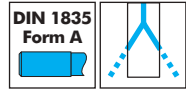
Ream diameter (mm)	Ream addition (mm)
≤ 16,00	0,10 - 0,25
> 16,00	0,20 - 0,30

Type RPS 400

Reamer Holder with polygonal Interface

- Cutting Data Page 3
- Gate Geometries Page 6

Typ
**RPS
400**



Order-No.	Shank size	D min.-max.	Drilling depth	dh6 mm	d1 mm	E mm	L mm	L1 mm	Description	Shank mat.	Spare part No.		
											T15 IP Screwdriver	Screw	Prall- scheibe
169208	J	12,00-16,20	3 x D	16	11	9	110	38	RPS400J3D6	Steel	111671	107473	107536
169209	J	12,00-16,20	5 x D	16	11	9	140	68	RPS400J5D6	Steel	111671	107473	107536
169210	M	16,21-20,20	3 x D	20	11	9	125	50	RPS400M3D6	Steel	111594	169815	169812
169211	M	16,21-20,20	5 x D	20	11	9	175	100	RPS400M5D6	Steel	111594	169815	169812

Screw torque for T15 IP = 3,8 Nm
Screw torque for T20 IP = 5,5 Nm

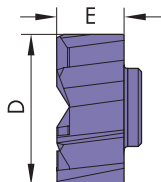
Type RPK 42

Reamer Head with polygonal Interface

- Grooves with left-hand twist for through holes
- For steel materials (P, M)



Please generate order-key for individual customizing and intermediate sizes (see page 3)

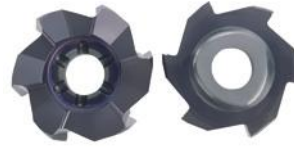


Type	D mm	Shank size	Tolerance	E mm	Number of edges	Gate geometry	Description	Order No. TINAMATIC
RPK 42	12,00	J	H7	9	6	LBG	RPK42J12,00H7LBG11	169490
RPK 42	13,00	J	H7	9	6	LBG	RPK42J13,00H7LBG11	169492
RPK 42	14,00	J	H7	9	6	LBG	RPK42J14,00H7LBG11	169494
RPK 42	15,00	J	H7	9	6	LBG	RPK42J15,00H7LBG11	169496
RPK 42	16,00	J	H7	9	6	LBG	RPK42J16,00H7LBG11	169498
RPK 42	17,00	M	H7	9	6	LBG	RPK42M17,00H7LBG11	169500
RPK 42	18,00	M	H7	9	6	LBG	RPK42M18,00H7LBG11	169502
RPK 42	19,00	M	H7	9	6	LBG	RPK42M19,00H7LBG11	169504
RPK 42	20,00	M	H7	9	6	LBG	RPK42M20,00H7LBG11	169506

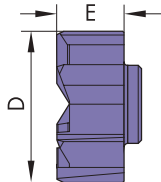
Type RPK 40

Reamer Head with polygonal Interface

- Straight grooves for blind bores
- For steel materials (P, M)



Please generate order-key for individual customizing and intermediate sizes (see page 3)

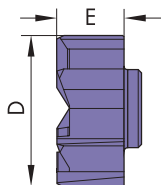


Type	D mm	Shank size	Tolerance	E mm	Number of edges	Gate geometry	Description	Order No. TINAMATIC
RPK 40	12,00	J	H7	9	6	LBG	RPK40J12,00H7LBG11	169489
RPK 40	13,00	J	H7	9	6	LBG	RPK40J13,00H7LBG11	169491
RPK 40	14,00	J	H7	9	6	LBG	RPK40J14,00H7LBG11	169493
RPK 40	15,00	J	H7	9	6	LBG	RPK40J15,00H7LBG11	169495
RPK 40	16,00	J	H7	9	6	LBG	RPK40J16,00H7LBG11	169497
RPK 40	17,00	M	H7	9	6	LBG	RPK40M17,00H7LBG11	169499
RPK 40	18,00	M	H7	9	6	LBG	RPK40M18,00H7LBG11	169501
RPK 40	19,00	M	H7	9	6	LBG	RPK40M19,00H7LBG11	169503
RPK 40	20,00	M	H7	9	6	LBG	RPK40M20,00H7LBG11	169505

- Straight grooves for blind bores
- For cast iron materials (K)



Please generate order-key for individual customizing and intermediate sizes (see page 3)

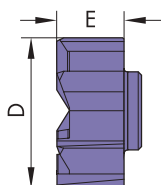


Type	D mm	Shank size	Tolerance	E mm	Number of edges	Gate geometry	Description	Order No. TINAMATIC
RPK 40	12,00	J	H7	9	6	CND	RPK40J12,00H7CND11	169945
RPK 40	13,00	J	H7	9	6	CND	RPK40J13,00H7CND11	169947
RPK 40	14,00	J	H7	9	6	CND	RPK40J14,00H7CND11	169949
RPK 40	15,00	J	H7	9	6	CND	RPK40J15,00H7CND11	169951
RPK 40	16,00	J	H7	9	6	CND	RPK40J16,00H7CND11	169953
RPK 40	17,00	M	H7	9	6	CND	RPK40M17,00H7CND11	169955
RPK 40	18,00	M	H7	9	6	CND	RPK40M18,00H7CND11	169957
RPK 40	19,00	M	H7	9	6	CND	RPK40M19,00H7CND11	169959
RPK 40	20,00	M	H7	9	6	CND	RPK40M20,00H7CND11	169961

- Straight grooves for blind bores
- For aluminium cast alloys (N)



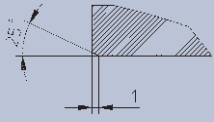
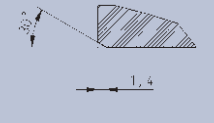
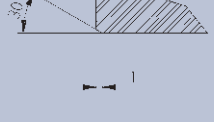
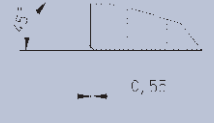
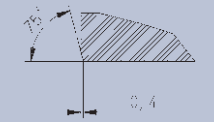
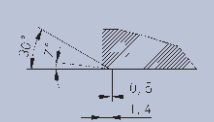

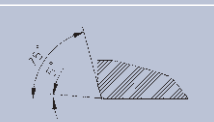
Please generate order-key for individual customizing and intermediate sizes (see page 3)



Type	D mm	Shank size	Tolerance	E mm	Number of edges	Gate geometry	Description	Order No. TINAMATIC
RPK 40	12,00	J	H7	9	6	CNG	RPK40J12,00H7CNG11	169946
RPK 40	13,00	J	H7	9	6	CNG	RPK40J13,00H7CNG11	169948
RPK 40	14,00	J	H7	9	6	CNG	RPK40J14,00H7CNG11	169950
RPK 40	15,00	J	H7	9	6	CNG	RPK40J15,00H7CNG11	169952
RPK 40	16,00	J	H7	9	6	CNG	RPK40J16,00H7CNG11	169954
RPK 40	17,00	M	H7	9	6	CNG	RPK40M17,00H7CNG11	169956
RPK 40	18,00	M	H7	9	6	CNG	RPK40M18,00H7CNG11	169958
RPK 40	19,00	M	H7	9	6	CNG	RPK40M19,00H7CNG11	169960
RPK 40	20,00	M	H7	9	6	CNG	RPK40M20,00H7CNG11	169962

RPK-Reamers

Gate geometries

Gate geometry	Chip breaker		Chip angle		Gate code	
	Code		Code			
	L	YES	B	0°	D	LBD
		NO	N			LND
		YES	B	6°	G	LBG
		NO	N			LNG
		YES	B	12°	R	LBR
		NO	N			LNR
	E	YES	B	0°	D	EBD
		NO	N			END
		YES	B	6°	G	EBG
		NO	N			ENG
		YES	B	12°	R	EBR
		NO	N			ENR
	G	YES	B	0°	D	GBD
		NO	N			GND
		YES	B	6°	G	GBG
		NO	N			GNG
		YES	B	12°	R	GBR
		NO	N			GNR
	C	YES	B	0°	D	CBD
		NO	N			CND
		YES	B	6°	G	CBG
		NO	N			CNG
		YES	B	12°	R	CBR
		NO	N			CNR
	A	YES	B	0°	D	ABD
		NO	N			AND
		YES	B	6°	G	ABG
		NO	N			ANG
		YES	B	12°	R	ABR
		NO	N			ANR
	D	YES	B	0°	D	DBD
		NO	N			DND
		YES	B	6°	G	DBG
		NO	N			DNG
		YES	B	12°	R	DBR
		NO	N			DNR
	R	YES	B	0°	D	RBD
		NO	N			RND
		YES	B	6°	G	RBG
		NO	N			RNG
		YES	B	12°	R	RBR
		NO	N			RNR
	W	YES	B	0°	D	WBD
		NO	N			WND
		YES	B	6°	G	WBG
		NO	N			WNG
		YES	B	12°	R	WBR
		NO	N			WNR
SPECIAL	S					001 - 999

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The brand for innovative manufacturing technologies

As a medium-size business with global activities, we have been developing and producing CNC precision and special tools for the automotive, mechanical engineering, aircraft and woodworking industries since 1974. The mimatic® brand is acknowledged worldwide for its compliance with strict quality requirements in the context of integrated system solutions for the machining segment.

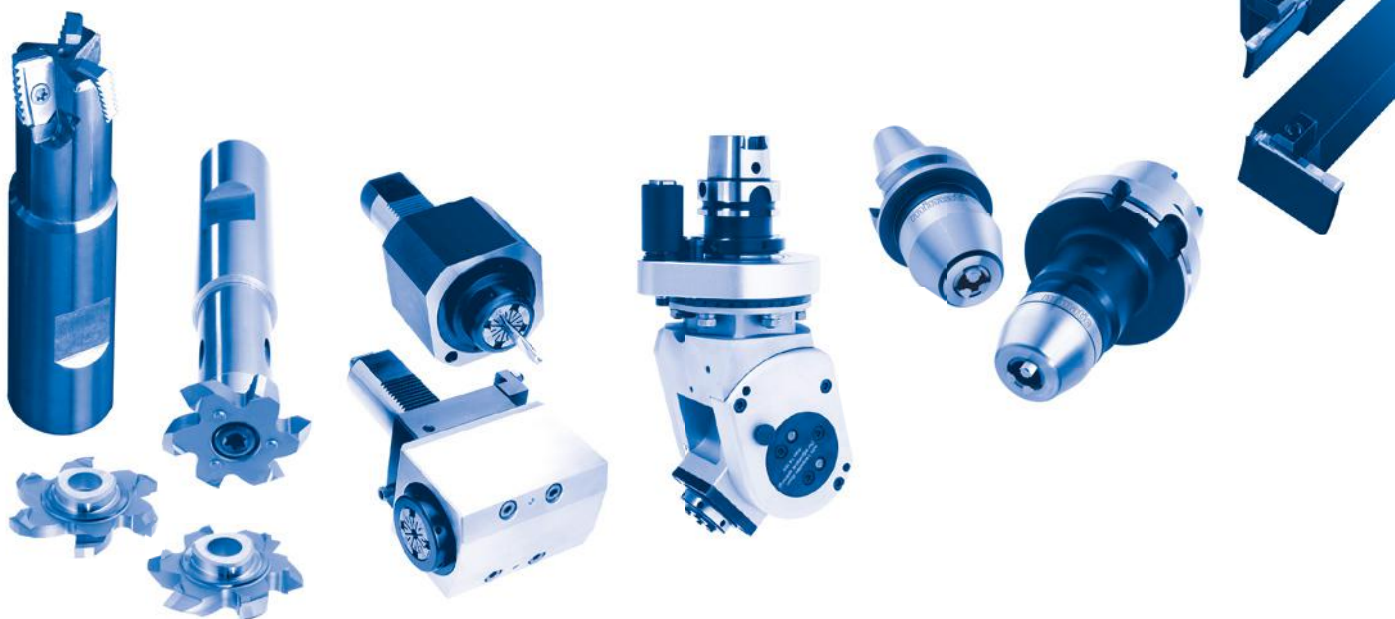
We produce all manner of mimatic® driven tool units for all conventional CNC lathes, machining centers and woodworking machines. We can supply a broad spectrum of straight and offset drill and mill heads, with or without internal coolant feed, for high torque transmission and speeds, and with every conceivable shank variant for all applications.

The unique design principle of the mimatic® circular and thread milling cutters gives rise to efficient machining. They allow the simple production of exact recesses for O-rings and circlip grooves to DIN standards, true-to-gauge internal and external threads, as well as ring grooves and T-slots. We join forces with our customers to design and manufacture special tools exactly in compliance with individual manufacturing criteria and existing drawings.

mimatic® mi modular quick change system for driven tool holders. All popular tool holders need only 1 Basic holder! This system provides a consistent clamping system for all ranges of production. The default setup of the tools may be outside the machine using a length adjustment screw. The tool

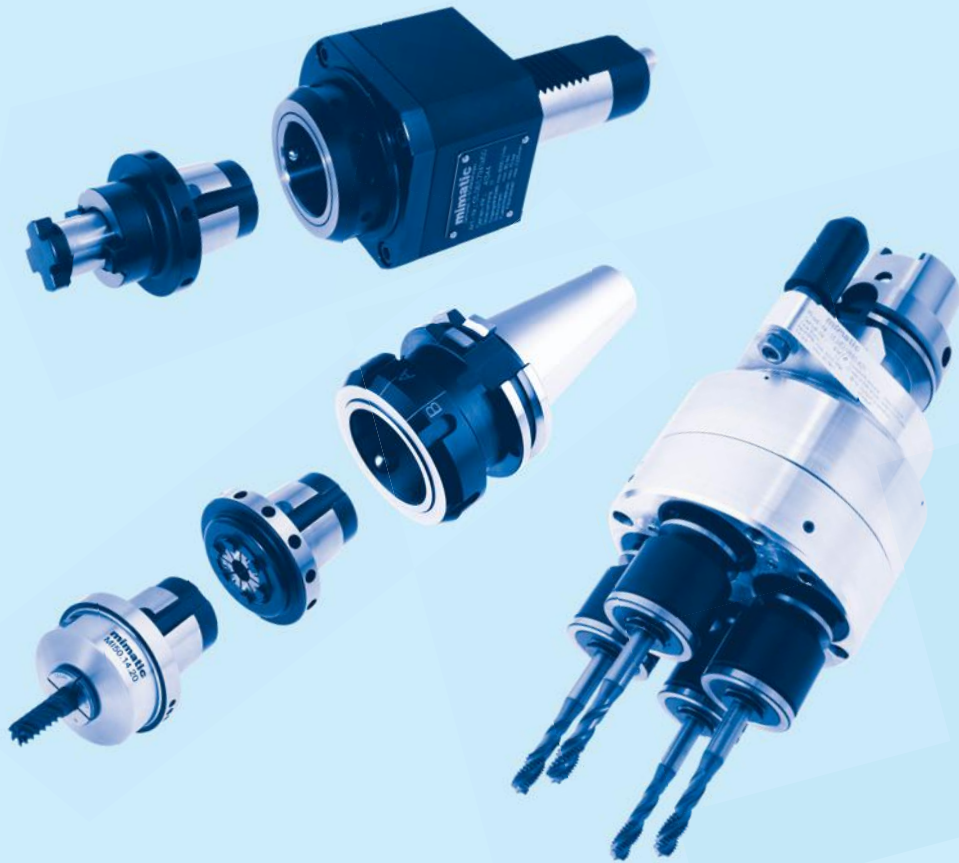
change occurs within a few seconds. This interface provides a concentricity of 0.002 mm and by its form closure a secure torque transmission. mimatic® mi is available with internal coolant supply.

Every day high quality special solutions leave our house where we always put the satisfaction of our customers on top priority.



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- Cutting and Turning Tools
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