

Milling	Thread Milling	 Trapezoid thread ACME thread Knuckle thread TC 50 / TC 80	18-79	1
	Face Finish Milling		80-85	2
	Notch Impact Test		86-91	3
	Gear Milling		92-95	4
	Slot Milling		96-123	5
	Contour and Radius Milling Chamfering, Deburring	 Extended program	124-137	6
Sawing, Slitting	Sawing, Cutting, Slitting		138-149	7
Bore Machining	Drill Milling, Counterboring		150-165	8
	Reaming		166-173	9
Axial Grooving	Axial Grooving, adjustable		174-179	10
Special Tools	Special- and Combination Tools		180-185	11
	Technical Cutting Data		186-201	12

DeepMILL

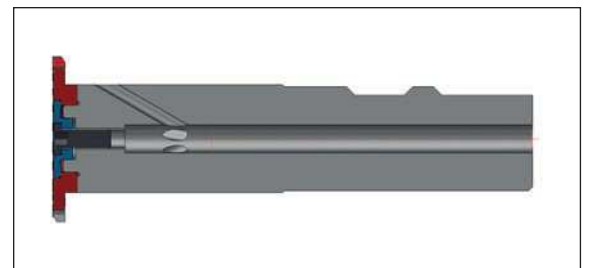
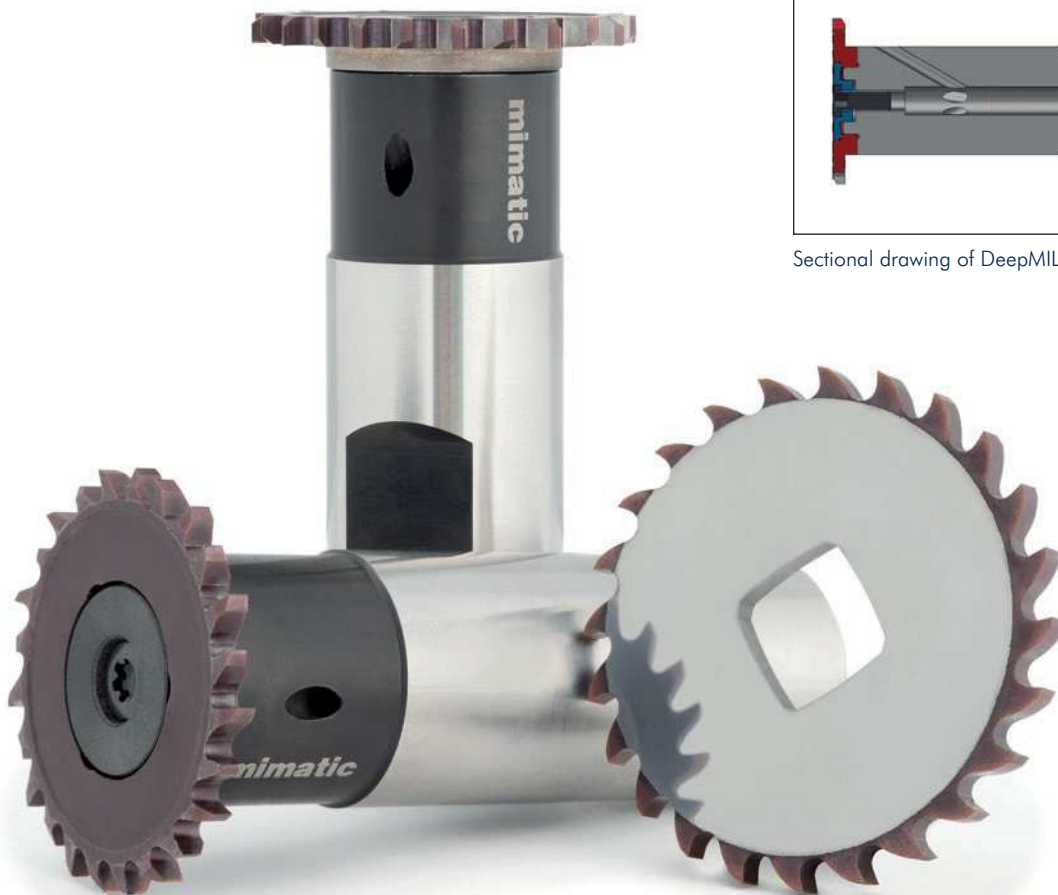
Slot Milling, Grooving, Milling of Cooling Fins

With PolyMILL and TriMILL solid carbide inserts, mimatic sets the bar for grooving and profile milling applications. With more than a decades worth of applications involving industry leading customers Mimatic is an established brand at the forefront of these applications.

mimatic meets the permanent demand for higher power and larger cutting depths with new innovations. With the latest product development DeepMILL, the limit of the impossible has been exceeded again by mimatic - and this time by a quantum leap.

- Larger range of applications
- Defined tooth and cutting edge geometry
- mimatic core competence: Polygon interface → Quadragon interface
- High performance coatings
- Internal coolant direct to the edges
- Clamping with only one center screw
- Special chip space geometry

**The Result of mimatic Development:
DeepMILL with a Up to Tenfold Cutting Performance.**



Sectional drawing of DeepMILL-G

DeepMILL

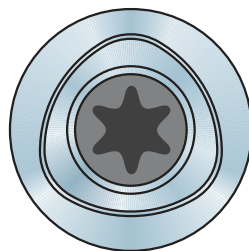
Milling Tools in New Dimensions of Performance



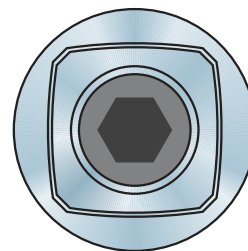
- With DeepMILL can be milled up to shoulders
- Cutting edges on the face can be used for special machining operations
- On request: Increased cutting depths (S) achievable with reductions in speed/feed
- + **Re-sharpen-Service 2x**
- + Minimum distance for operations to shoulders: 0,001 mm

5

The mimatic Polygon Interface – A Success Story with Continuous Evolution: Quadrogon



mimatic
Polygon Interface



mimatic
Quadrogon* Interface

Since their development and launch in 1994, the mimatic polygon interface is the guarantee for high cutting performance with maximum precision and repeatability in the circular milling.

In the tool systems PolyMILL and Poly-REAM, the polygon interface enables the reliable circular thread milling and reaming as well as T-slot milling and

grooving. In many practical applications, the interface has established itself as a key factor for successful milling operations under difficult conditions.

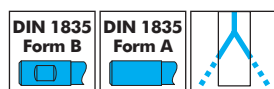
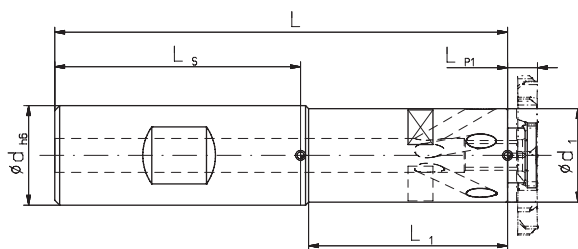
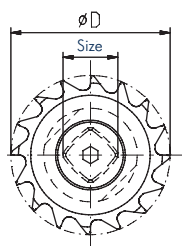
With the development of the new tool systems DeepMILL and PolySAW, the development of the polygon interface has evolved as well. Under the brand name mimatic Quadrogon, the inter-

face has been optimized specifically for the needs of this new mimatic high-performance tool.

* patent-protected.

Basic Holders

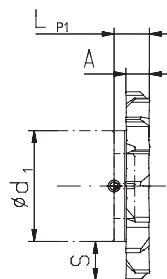
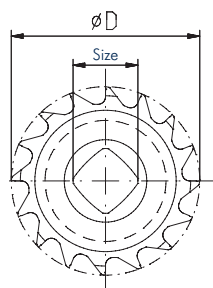
- Cutting data see page 190
- Carbide coating see page 123



Size	Type	dh6 mm	DIN	L1 mm	L2 mm	d1 mm	Complete holder	Spare Parts **	
							Bestell-Nr.	Screwdriver	Size
Ø 32	11	20	1835 B	91	40	18,8	163701	178296	SW 3
	11	20	1835 A	91	40	18,8	160050	178296	SW 3
	13	25	1835 B	105	45	21,6	163702	178297	SW 4
	13	25	1835 A	105	45	21,6	160051	178297	SW 4

Screw torques max.
Type 11 = max. 10,5 Nm
Type 13 = max. 24,5 Nm

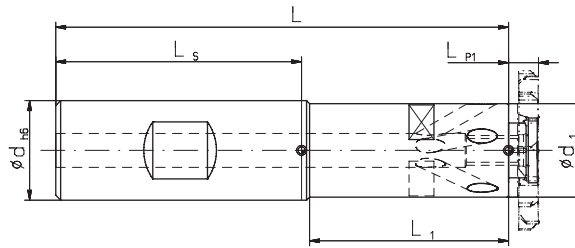
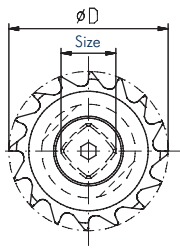
Milling Discs



Size	Type	A* mm	S max. mm	D mm	Lp1 mm	Number of teeth	Order No.	Deliverable
							TINAMATIC	
Ø 32	13	2	5,2	32	6	16	164440	on request
	11	2	6,6	32	6	16	164402	on stock
	13	3	5,2	32	6	16	164441	on request
	11	3	6,6	32	6	16	164403	on stock
	13	4	5,2	32	6	16	164404	on stock
	11	4	6,6	32	6	16	164442	on request
	13	5	5,2	32	6	16	164405	on stock
	11	5	6,6	32	6	16	164443	on request

Basic Holders

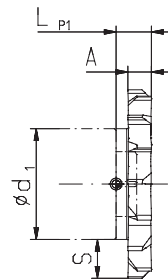
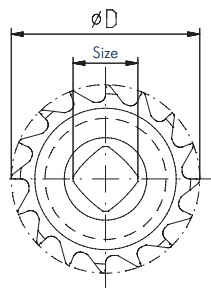
- Cutting data see page 190
- Carbide coating see page 123



Size	Type	dh6 mm	DIN	L1 mm	L2 mm	d1 mm	Complete holder	Spare Parts **	
							Bestell-Nr.	Screwdriver	Size
Ø 40	13	25	1835 B	105	45	21,6	163702	178297	SW 4
	13	25	1835 A	105	45	21,6	160051	178297	SW 4
	16	25	1835 B	110	50	26	163703	178296	SW 3
	16	25	1835 A	110	50	26	160052	178296	SW 3

Screw torques max.
Type 13 = max. 24,5 Nm
Type 16 = max. 6 Nm

Milling Discs

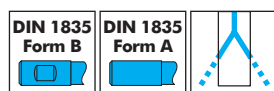
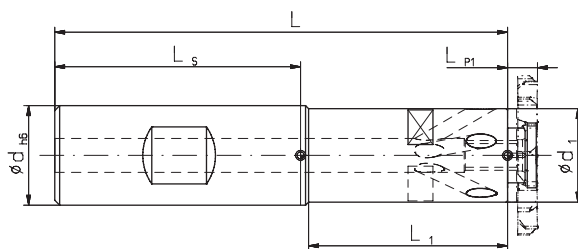
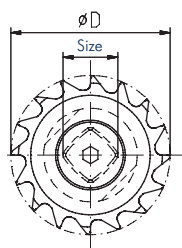


Size	Type	A* mm	S max. mm	D mm	LP1 mm	Number of teeth	Order No.	Deliverable
							TINAMATIC	
Ø 40	16	2	7,0	40	6	18	164444	on request
	13	2	9,2	40	6	18	164408	on stock
	16	3	7,0	40	6	18	164445	on request
	13	3	9,2	40	6	18	164409	on stock
	16	4	7,0	40	6	18	164410	on stock
	13	4	9,2	40	6	18	164446	on request
	16	5	7,0	40	6	18	164411	on stock
	13	5	9,2	40	6	18	164447	on request

* narrower widths, see PolySAW ** more spare parts see page 122

Basic Holders

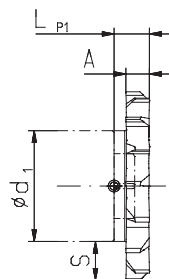
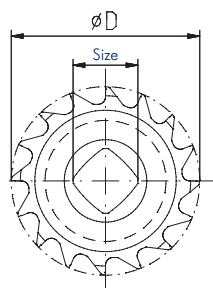
- Cutting data see page 190
- Carbide coating see page 123



Size	Type	dh6 mm	DIN	L1 mm	L2 mm	d1 mm	Complete holder	Spare Parts **	
							Bestell-Nr.	Screwdriver	Size
Ø 50	16	25	1835 B	110	50	26	163703	178296	SW 3
	16	25	1835 A	110	50	26	160052	178296	SW 3
	19	32	1835 B	122	55	30	163704	178296	SW 3
	19	32	1835 A	122	55	30	160053	178296	SW 3

Screw torques max.
Type 16 = max. 6 Nm
Type 19 = max. 10,5 Nm

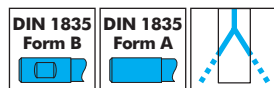
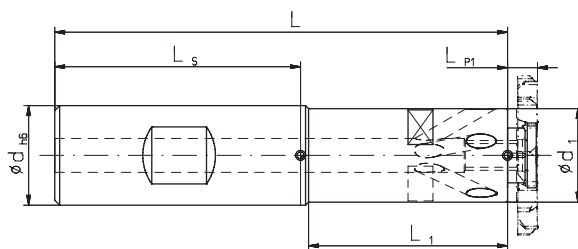
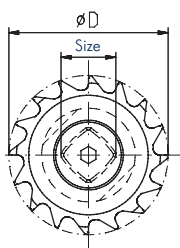
Milling Discs



Size	Type	A* mm	S max. mm	D mm	Lp1 mm	Number of teeth	Order No.	Deliverable
							TINAMATIC	
Ø 50	19	2	10	50	6	24	164448	on request
	16	2	12	50	6	24	164414	on stock
	19	3	10	50	6	24	164449	on request
	16	3	12	50	6	24	164415	on stock
	19	4	10	50	6	24	164416	on stock
	16	4	12	50	6	24	164450	on request
	19	5	10	50	6	24	164417	on stock
	16	5	12	50	6	24	164451	on request

Basic Holders

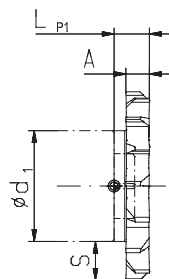
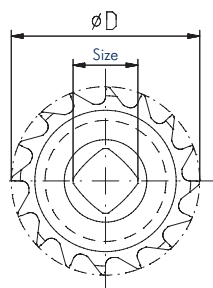
- Cutting data see page 190
- Carbide coating see page 123



Size	Type	dh6 mm	DIN	L1 mm	L2 mm	d1 mm	Complete holder	Spare Parts **	
							Bestell-Nr.	Screwdriver	Size
Ø 63	19	32	1835 B	122	55	30	163704	178296	SW 3
	19	32	1835 A	122	55	30	160053	178296	SW 3
	25	32	1835 B	127	60	38	163705	178297	SW 4
	25	32	1835 A	127	60	38	160054	178297	SW 4

Screw torques max.
Type 19 = max. 10,5 Nm
Type 25 = max. 24,5 Nm

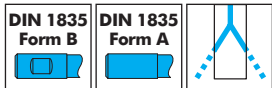
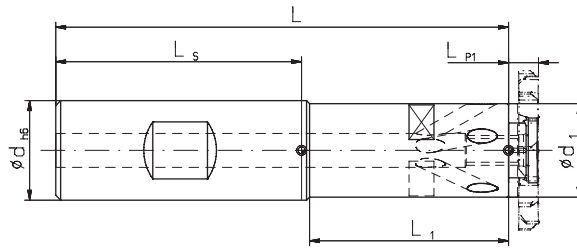
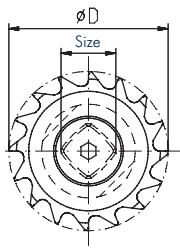
Milling Discs



Size	Type	A* mm	S max. mm	D mm	Lp1 mm	Number of teeth	Order No.	Deliverable
							TINAMATIC	
Ø 63	25	2	12,4	63	6	24	164452	on request
	19	2	16,5	63	6	24	164420	on stock
	25	3	12,4	63	6	24	164453	on request
	19	3	16,5	63	6	24	164421	on stock
	25	4	12,4	63	6	24	164422	on stock
	19	4	16,5	63	6	24	164454	on request
	25	5	12,4	63	6	24	164423	on stock
	19	5	16,5	63	6	24	164455	on request

Basic Holders

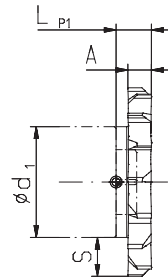
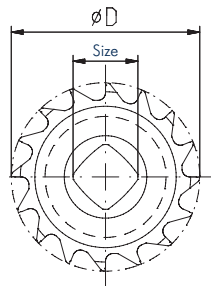
- Cutting data see page 190
- Carbide coating see page 123



Size	Type	dh6 mm	DIN	L1 mm	L2 mm	d1 mm	Complete holder	Spare Parts **	
							Bestell-Nr.	Screwdriver	Size
Ø 80	35	32	1835 B	132	65	49	163706	178297	SW 4
	35	32	1835 A	132	65	49	160055	178297	SW 4
	25	32	1835 B	127	60	38,2	163705	178297	SW 4
	25	32	1835 A	127	60	38,2	160054	178297	SW 4

Screw torques max.
Type 35 = max. 24,5 Nm
Type 25 = max. 24,5 Nm

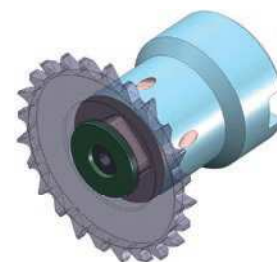
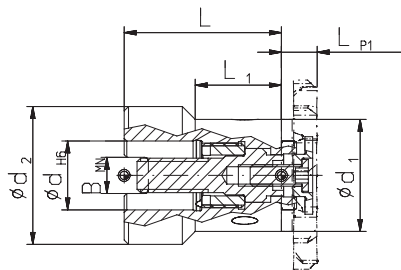
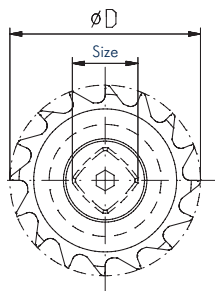
Milling Discs



Size	Type	A* mm	S max. mm	D mm	LP1 mm	Number of teeth	Order No.	Deliverable
							TINAMATIC	
Ø 80	35	2	15,5	80	6	24	164456	on request
	25	2	20,9	80	6	24	164426	on stock
	35	3	15,5	80	6	24	164457	on request
	25	3	20,9	80	6	24	164427	on stock
	35	4	15,5	80	6	24	164428	on stock
	25	4	20,9	80	6	24	164458	on request
	35	5	15,5	80	6	24	164429	on stock
	25	5	20,9	80	6	24	164459	on request

Basic Holders with Location Bore

- Cutting data see page 190
- Carbide coating see page 123



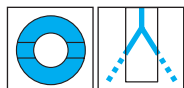
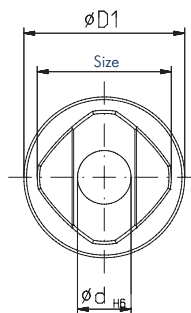
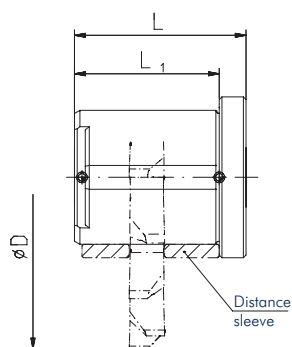
When using PolySaw ECO, as well as DeepMill ECO, the cutting depth is reduced by 6 or 7 mm

Type	dH6 mm	BMN mm	L mm	L1 mm	d1 mm	d2 mm	Complete holder	Spare Parts **	
							Bestell-Nr.	Screwdriver	Size
16	16	8,4	43	20	32	26	179727	178296	SW 3
19	16	8,4	43	20	32	30	179728	178296	SW 3
25	16	8,4	43	20	32	29	156493	178297	SW 4

Screw torques max.
Type 16 = max. 6 Nm
Type 19 = max. 10,5 Nm
Type 25 = max. 24,5 Nm

Saw Blade Arbors for mimatic Saw Blade Holders

- Cutting data see page 190
- Carbide coating see page 123

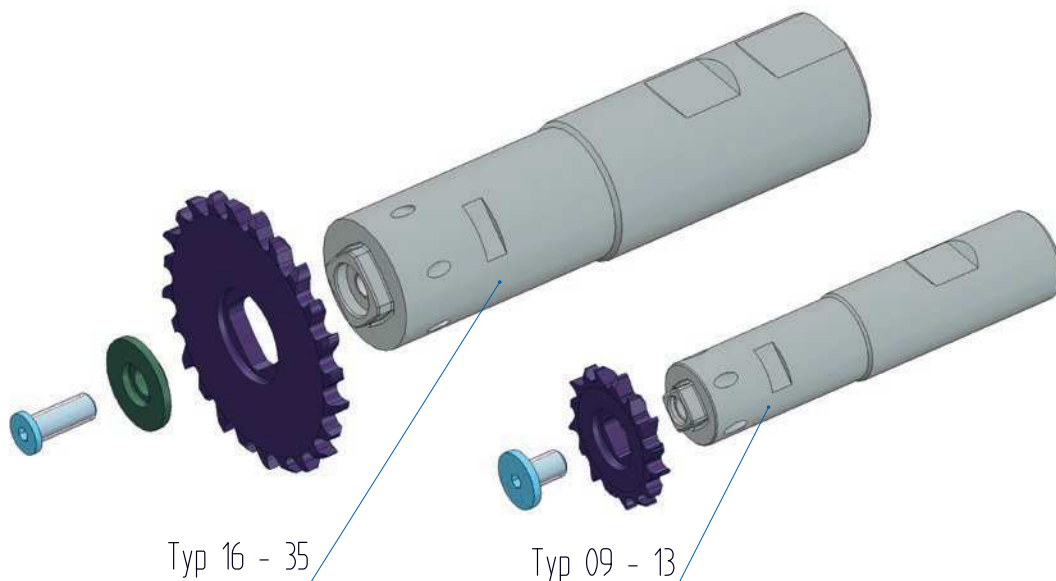


When using PolySaw ECO, as well as DeepMill ECO, the cutting depth is reduced by 6 or 7 mm

System	Typ	dH6 mm	L mm	L1 mm	D1 mm	Complete holder
						Bestell-Nr.
ECO	25	10	32	27	30	179252
	35	10	32	27	30	180316

DeepMILL

Assembly and Spare Parts



Assembly notes

Please tighten the clamping screw with the specified torque. In the selection of the DeepMILL basic holder and machine tool holder should be chosen the shortest possible setup.

Service

Please don't hesitate to take the advantage of the mimatic service. Mimatic engineers will offer machining recommendations to optimize your specific applications.

Spare Parts

Type	Screw	Clamping disc
09	163842	-
11	163843	-
13	163844	-
16	163850	175027
19	163848	163845
25	163849	163846
35	163849	163847

Screw torques max.

163842	Type 09	M4	3,8 Nm
163843	Type 11	M6	10,5 Nm
163844	Type 13	M8	24,5 Nm
163850	Type 16	M5	6,0 Nm
163848	Type 19	M6	10,5 Nm
163849	Type 24	M8	24,5 Nm
163849	Type 35	M8	24,5 Nm