

Sawing, Cutting, Slitting



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

PolySAW

Cutting, Sawing, Slitting

The expectations of the performance and to the application range of cutting tools continuously evolve. In response to the demand for small yet powerful and specifically process safe operating sawblades, mimatic has developed the tooling system PolySAW.

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

These technical parameters resulted in the mimatic development result PolySAW with a up to tenfold cutting performance in comparison to conventional solid carbide circular saws.



PolySAW

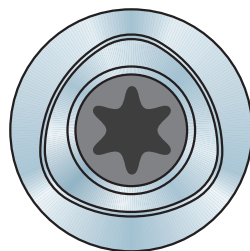
Sawing Tools in New Dimensions of Performance



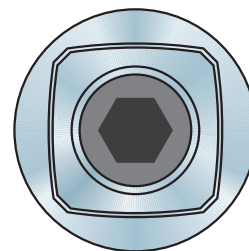
- With PolySAW profiles can be machined up to the shoulder
- On request: Increased sawing depths (S) achievable with reductions in speed/feed
- + **Re-sharpen-Service 2x**
- + Minimum distance for operations to shoulders: 0,001 mm

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

7



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.

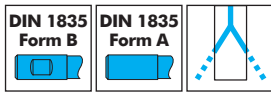
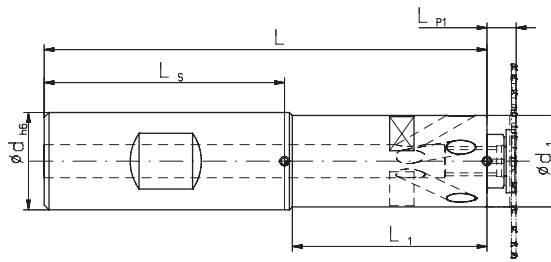
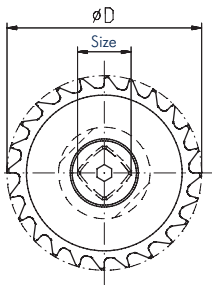
With the development of the new tool systems DeepMILL and PolySAW, the development of the polygon interface has evolved as well. Under the brand name mimatic Quadrogon, the inter-

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

* patent-protected.

Basic Holders

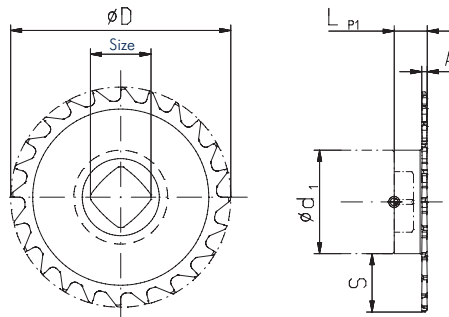
- Cutting data see page 190
- Carbide coating see page 123



Size	Typ	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
	9	20	1835 B	86	35	16,8	163700	178297	SW 4
	9	20	1835 A	86	35	16,8	160049	178297	SW 4

Screw torques max.
Type 09 = max. 3,8 Nm
Type 11 = max. 10,5 Nm

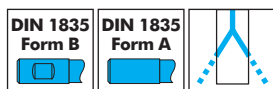
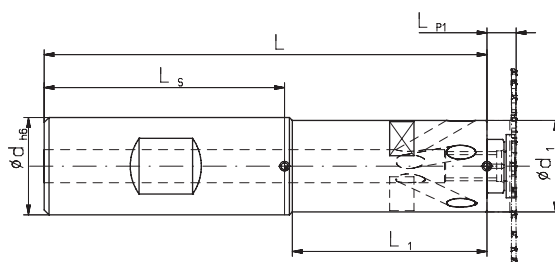
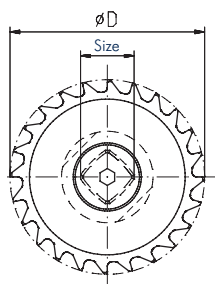
Milling Discs



Size	Type	A mm	S max. mm	D mm	Lp1 mm	Number of teeth	Order No.	Deliverable
							TINAMATIC	
Ø 32	11	1,0	6,6	32	6	18	164430	on request
	9	1,0	7,6	32	6	18	164400	on stock
	11	1,5	6,6	32	6	18	164431	on request
	9	1,5	7,6	32	6	18	164401	on stock
Especially for aluminium processing:								
Ø 32	9	1,0	7,6	32	6	16	179693	on stock
	9	1,5	7,6	32	6	16	179698	on stock

Basic Holders

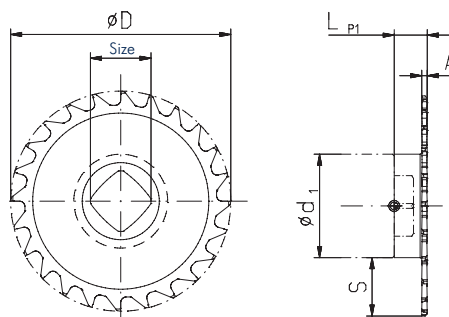
- Cutting data see page 190
- Carbide coating see page 123



Size	Typ	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
	11	20	1835 B	91	40	18,8	163701	178296	SW 3
	11	20	1835 A	91	40	18,8	160050	178296	SW 3

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

Milling Discs

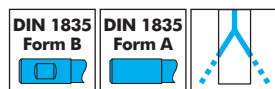
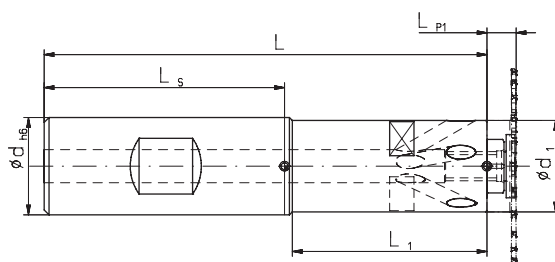
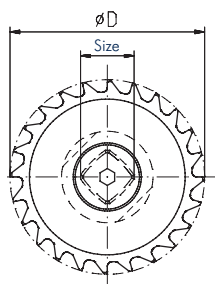


7

Size	Type	A mm	S max. mm	D mm	Lp1 mm	Number of teeth	Order No. TINAMATIC	Deliverable
Ø 40	13	1,0	9,2	40	6	24	164432	on request
	11	1,0	10,6	40	6	24	164406	on stock
	13	1,5	9,2	40	6	24	164433	on request
	11	1,5	10,5	40	6	24	164407	on stock
Especially for aluminium processing:								
Ø 40	11	1,0	10,6	40	6	20	179694	on stock
	11	1,5	10,6	40	6	20	179699	on stock

Basic Holders

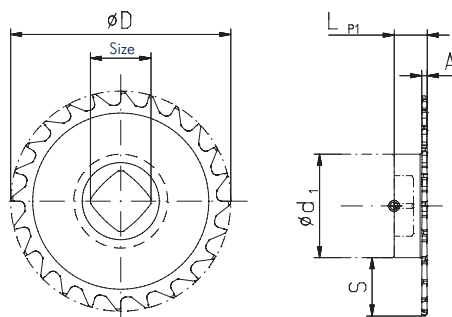
- Cutting data see page 190
- Carbide coating see page 123



Size	Typ	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
	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 13 = max. 24,5 Nm
Type 16 = max. 6 Nm

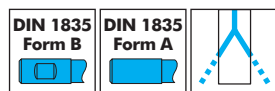
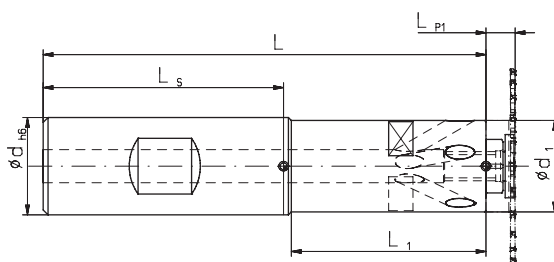
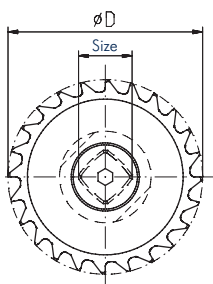
Milling Discs



Size	Type	A mm	S max. mm	D mm	Lp1 mm	Number of teeth	Order No.	Deliverable
							TINAMATIC	
Ø 50	16	1,0	12,0	50	6	32	164434	on request
	13	1,0	14,2	50	6	32	164412	on stock
	16	1,5	12,0	50	6	32	164435	on request
	13	1,5	14,2	50	6	32	164413	on stock
Especially for aluminium processing:								
Ø 50	13	1,0	14,2	50	6	20	179695	on stock
	13	1,5	14,2	50	6	20	179700	on stock

Basic Holders

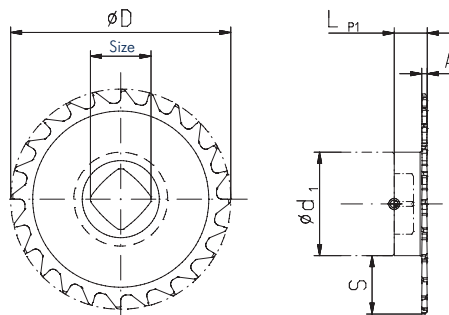
- Cutting data see page 190
- Carbide coating see page 123



Size	Typ	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
	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 16 = max. 6 Nm
Type 19 = max. 10,5 Nm

Milling Discs

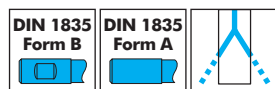
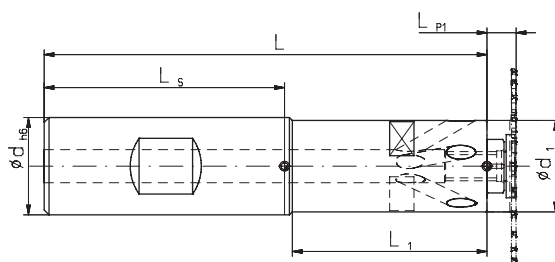
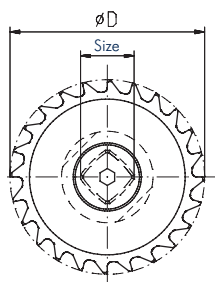


7

Size	Type	A mm	S max. mm	D mm	Lp1 mm	Number of teeth	Order No. TINAMATIC	Deliverable
Ø 63	19	1,0	16,5	63	6	40	164436	on request
	16	1,0	18,5	63	6	40	164418	on stock
	19	1,5	16,5	63	6	40	164437	on request
	16	1,5	18,5	63	6	40	164419	on stock
Especially for aluminium processing:								
Ø 63	16	1,0	18,5	63	6	24	179696	on stock
	16	1,5	18,5	63	6	24	179701	on stock

Basic Holders

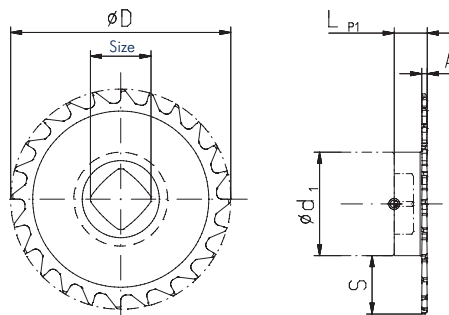
- Cutting data see page 190
- Carbide coating see page 123



Size	Typ	dh6 mm	DIN	L1 mm	L2 mm	d1 mm	Complete holder	Spare Parts **	
							Bestell-Nr.	Screwdriver	Size
Ø 80	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	38,2	163705	178297	SW 4
	25	32	1835 A	127	60	38,2	160054	178297	SW 4

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

Milling Discs



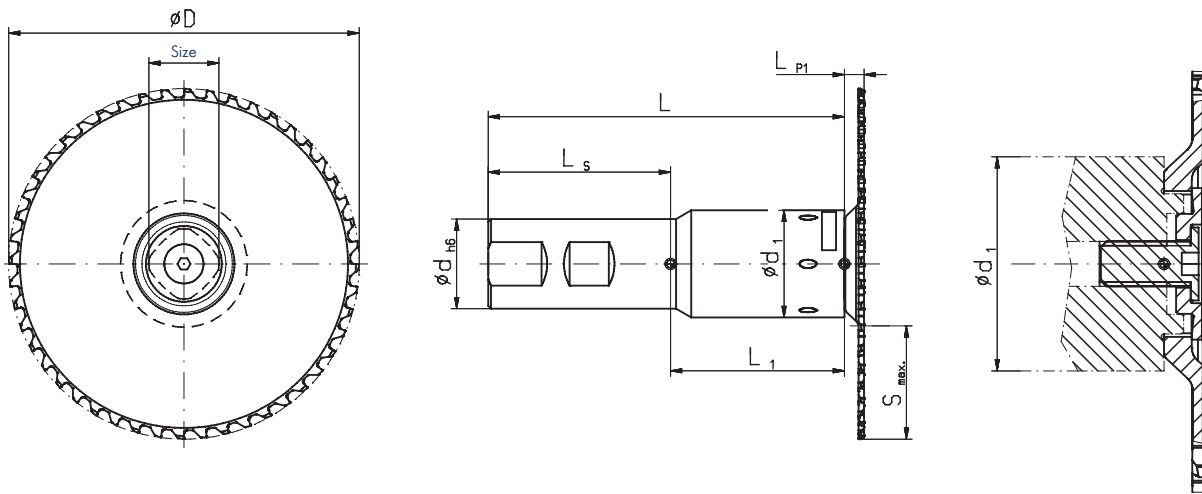
Size	Type	A mm	S max. mm	D mm	Lp1 mm	Number of teeth	Order No. TINAMATIC	Deliverable
Ø 80	25	1,0	20,9	80	6	40	164438	on request
	19	1,0	25,0	80	6	40	164424	on stock
	25	1,5	20,9	80	6	40	164439	on request
	19	1,5	25,0	80	6	40	164425	on stock
Especially for aluminium processing:								
Ø 80	19	1,0	18,5	80	6	24	179697	on stock
	19	1,5	18,5	80	6	24	179702	on stock

PolySAW Ø 100+125

Connectable in accordance with **BLUECOMPETENCE** » mimatic mi
» Driven Tool Holders

Basic Holders

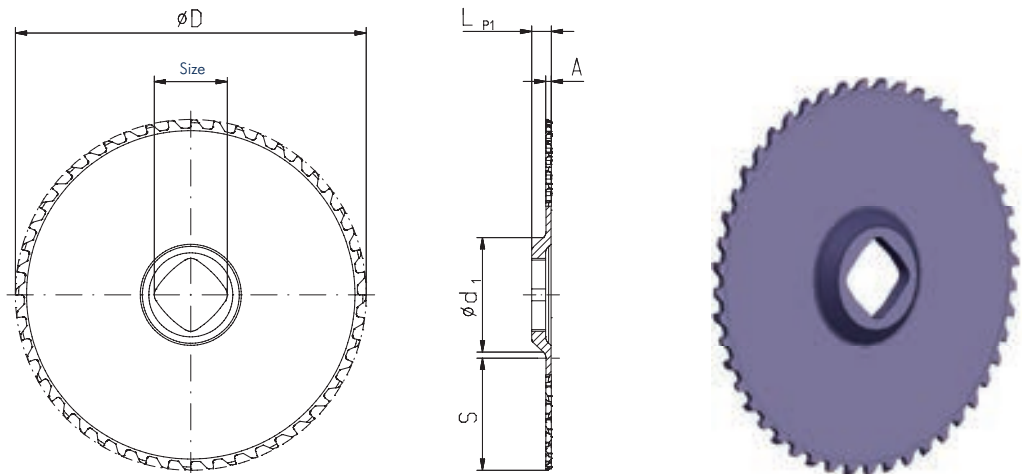
- Cutting data see page 190
- Carbide coating see page 123



Size	Typ	dh6 mm	DIN	L1 mm	L2 mm	d1 mm	Complete holder		Spare Parts **	
							Bestell-Nr.	Screwdriver	Size	
Ø100+125	25	32	1835 B	127	60	38,2	160870	NEW	178297	SW 4
	25	32	1835 A	127	60	38,2	160888	NEW	178297	SW 4

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

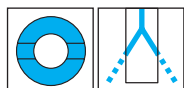
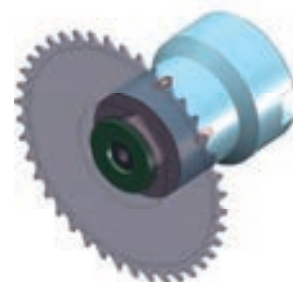
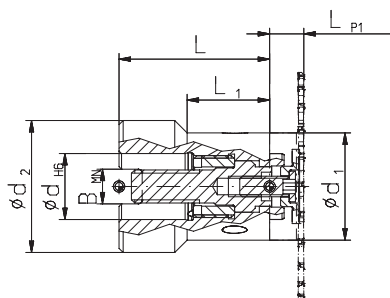
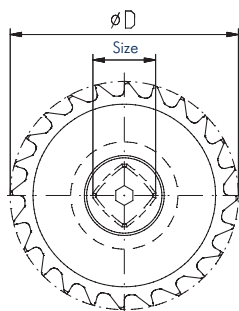
Milling Discs



Size	Type	A mm	S max. mm	D mm	LP1 mm	Number of teeth	Order No. TINAMATIC	Deliverable
Ø 100	25	2	30	100	7	44	188390	NEW on stock
Ø 125	25	2	40	125	7	48	187340	NEW on stock

Basic Holders with Location Bore

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



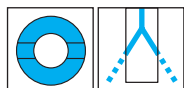
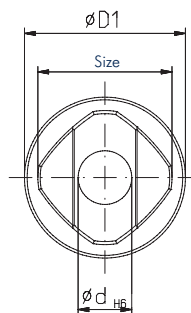
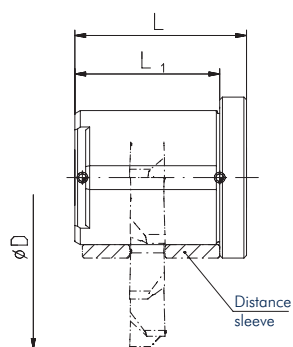
When using PolySaw ECO, as well as DeepMill ECO, the cutting depth is reduced by 6 or 7 mm

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	26	32	179727	178296	SW 3
19	16	8,4	43	20	30	32	179728	178296	SW 3
25	16	8,4	43	20	29	32	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



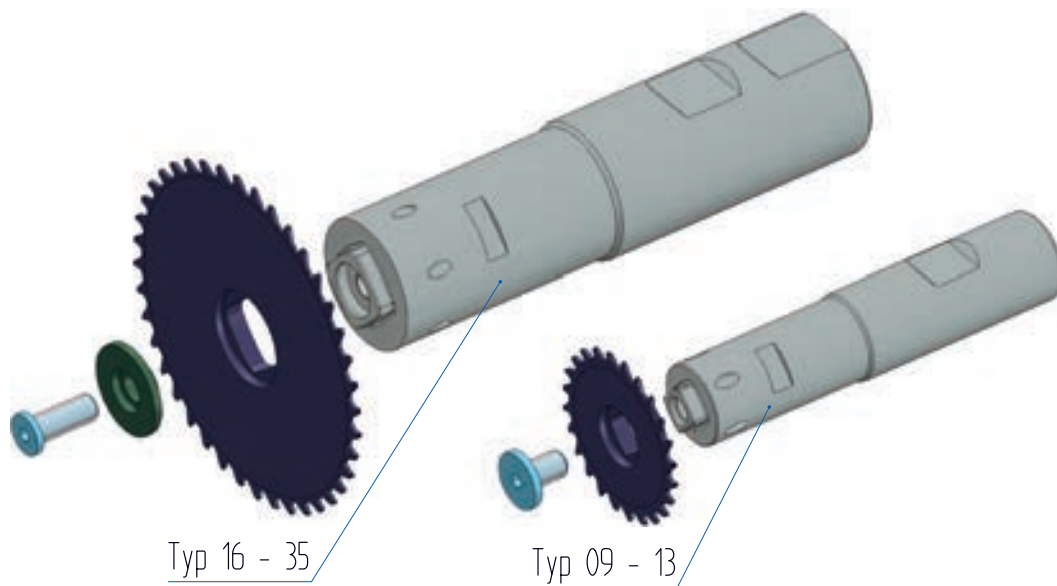
When using PolySaw ECO, as well as DeepMill ECO, the cutting depth is reduced by 6 or 7 mm

System	Typ	dH6 mm	L mm	L1 mm	D1 mm	Complete holder	Spare Parts **	
						Bestell-Nr.	Screwdriver	Size
ECO	25	10	32	27	30	179252	178297	SW 4
	35	10	32	27	30	180316	178297	SW 4

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

PolySAW

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