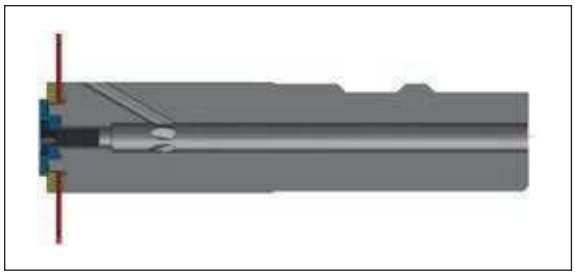
PolySAW

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 comparsion to conventional solid carbide circular saws.



Sectional drawing of PolySAW-ECO

PolySAW

Sawing Tools in New Dimensions of Performance

PolySAW -G

- With PolySAW-G 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

PolySAW -ECO

- PolySAW-ECO is the economical alternate to PolySAW-G

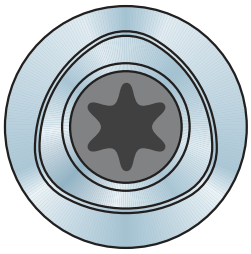
\+ deeper sawing depths (S)

\+ more cost-effective

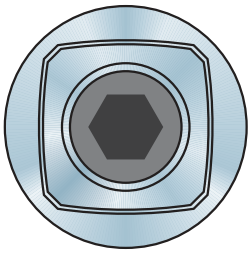
\+ Re-sharpen-Service 1x

– Minimum distance to shoulders: 2,45 mm (A = 1,5 mm) to 3,05 mm (A = 1,0 mm)

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

* patent-protected.

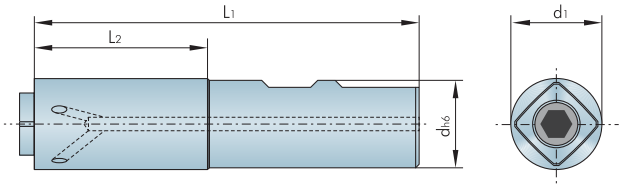
mimatic® Tool Systems

PolySAW Ø 32

Connectable in accordance with BLUEcoMPETENCE » mimatic mi » Driven Tool Holders

Basic Holders

- **Cutting data see page 180**
- **Carbide coating see page 118**

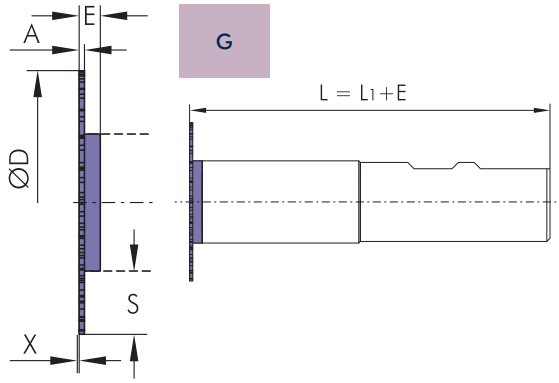


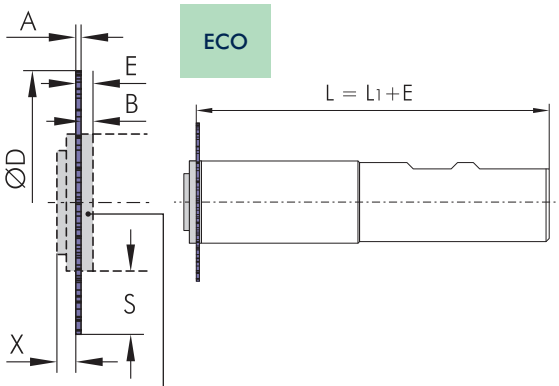
DIN 1835 Form B | DIN 1835 Form A

System	Typ	dh6 mm	DIN	L1 mm	L2 mm	d1 mm	Complete holder Bestell-Nr.	Spare Parts ** Screwdriver	Size
G	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
ECO	13	20	1835 B	86	35	17	163709	178297	SW 4
	13	20	1835 A	86	35	17	160058	178297	SW 4
	11	16	1835 B	80	30	15	163708	178296	SW 3
	11	16	1835 A	80	30	15	160057	178296	SW 3

Screw torques max.
Type 09 = max. 3,8 Nm
Type 11 = max. 10,5 Nm
Type 13 = max. 24,5 Nm

Milling Discs





Milling depth max. — Recommended cutting depth of the 1st cut for a material with approx. 800 N/mm² — Disc is included in the delivery

System	Type	A mm	S max. mm	S1 mm	X mm	D mm	E mm	B mm	Number of teeth	Order No. TINAMATIC	Deliverable
G	11	1,0	6,6	4	0,001	32	6	-	24	164430	on request
	9	1,0	7,6	4	0,001	32	6	-	24	164400	on stock
	11	1,5	6,6	4	0,001	32	6	-	24	164431	on request
	9	1,5	7,6	4	0,001	32	6	-	24	164401	on stock
ECO	13	1,0	7,5	4	3,95	32	1,65	0,65	24	164530	on request
	11	1,0	8,5	4	3,95	32	1,65	0,65	24	164500	on stock
	13	1,5	7,5	4	1,80	32	3,65	2,15	20	164531	on request
	11	1,5	8,5	4	1,80	32	3,65	2,15	20	164501	on stock
Especially for aluminium processing:											
G	9	1,0	7,6	4	0,001	32	6	-	16	179693	on stock
	9	1,5	7,6	4	0,001	32	6	-	16	179698	on stock

 ** more spare parts see page 117

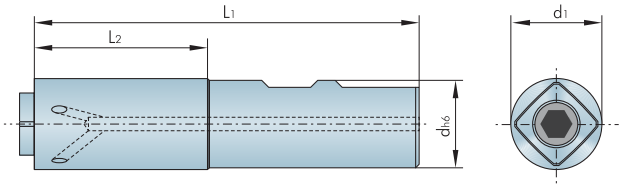
mimatic® Tool Systems

PolySAW Ø 40

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

Basic Holders

- **Cutting data see page 180**
- **Carbide coating see page 118**

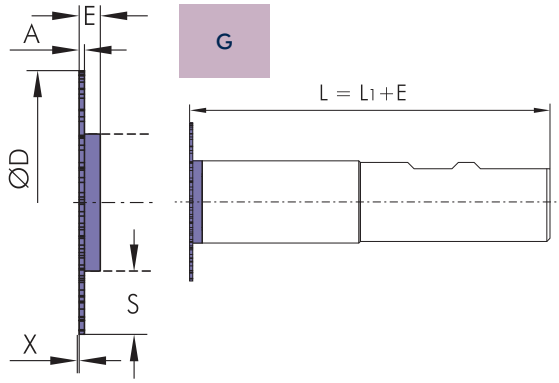


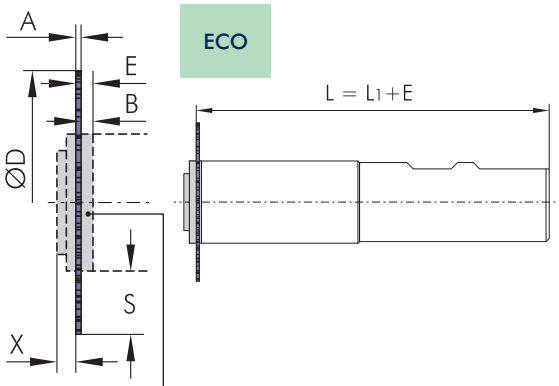
DIN 1835 Form B | DIN 1835 Form A

System	Typ	dh6 mm	DIN	L1 mm	L2 mm	d1 mm	Complete holder Bestell-Nr.	Spare Parts ** Screwdriver	Size
G	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
ECO	16	20	1835 B	91	40	20	163710	178296	SW 3
	16	20	1835 A	91	40	20	160059	178296	SW 3
	13	20	1835 B	86	35	17	163709	178297	SW 4
	13	20	1835 A	86	35	17	160058	178297	SW 4

Screw torques max.
Type 11 = max. 10 5Nm
Type 13 = max. 24,5 Nm
Type 16 = max. 6 Nm

Milling Discs





Milling depth max.

Recommended cutting depth of the 1st cut for a material with approx. 800 N/mm²

Disc is included in the delivery

System	Type	A mm	S max. mm	S1 mm	X mm	D mm	E mm	B mm	Number of teeth	Order No. TINAMATIC	Deliverable
G	13	1,0	9,2	4	0,001	40	6	-	32	164432	on request
	11	1,0	10,6	4	0,001	40	6	-	32	164406	on stock
	13	1,5	9,2	4	0,001	40	6	-	32	164433	on request
	11	1,5	10,5	4	0,001	40	6	-	32	164407	on stock
ECO	16	1,0	10,0	4	3,95	40	1,65	0,65	32	164532	on request
	13	1,0	11,5	4	3,95	40	1,65	0,65	32	164506	on stock
	16	1,5	10,0	4	1,80	40	3,65	2,15	32	164533	on request
	13	1,5	11,5	4	1,80	40	3,65	2,15	32	164507	on stock
Especially for aluminium processing:											
G	11	1,0	10,6	5	0,001	40	6	-	20	179694	on stock
	11	1,5	10,6	5	0,001	40	6	-	20	179699	on stock

** more spare parts see page 117

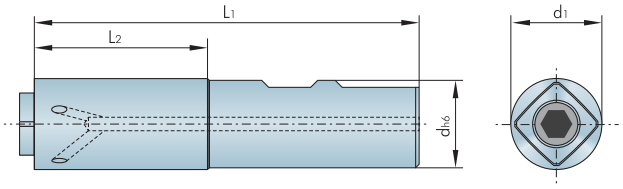
mimatic® Tool Systems

PolySAW Ø 50

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

Basic Holders

- Cutting data see page 180
- Carbide coating see page 118

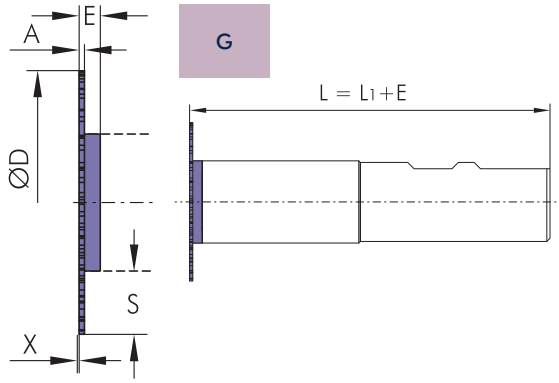


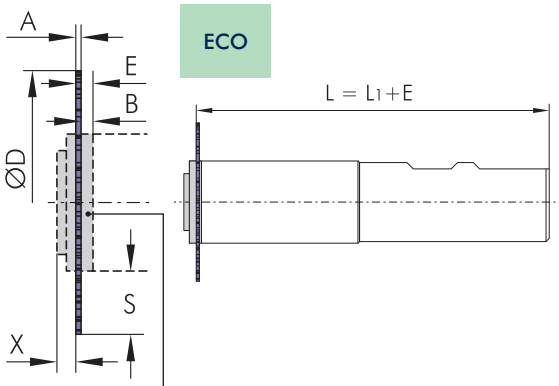
DIN 1835 Form B | DIN 1835 Form A

System	Typ	dh6 mm	DIN	L1 mm	L2 mm	d1 mm	Complete holder Bestell-Nr.	Spare Parts ** Screwdriver	Size
G	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
ECO	19	25	1835 B	105	45	23	163711	178296	SW 3
	19	25	1835 A	105	45	23	160060	178296	SW 3
	16	20	1835 B	91	40	20	163710	178296	SW 3
	16	20	1835 A	91	40	20	160059	178296	SW 3

Screw torques max.
Type 13 = max. 24,5 Nm
Type 16 = max. 6 Nm
Type 19 = max. 10,5 Nm

Milling Discs





Milling depth max.

Recommended cutting depth of the 1st cut for a material with approx. 800 N/mm²

Disc is included in the delivery

System	Type	A mm	S max. mm	S1 mm	X mm	D mm	E mm	B mm	Number of teeth	Order No. TINAMATIC	Deliverable
G	16	1,0	12,0	5	0,001	50	6	-	32	164434	on request
	13	1,0	14,2	5	0,001	50	6	-	32	164412	on stock
	16	1,5	12,0	5	0,001	50	6	-	32	164435	on request
	13	1,5	14,2	5	0,001	50	6	-	32	164413	on stock
ECO	19	1,0	13,5	4	3,95	50	1,65	0,65	40	164534	on request
	16	1,0	15,0	4	3,95	50	1,65	0,65	40	164512	on stock
	19	1,5	13,5	4	1,80	50	3,65	2,15	32	164535	on request
	16	1,5	15,0	4	1,80	50	3,65	2,15	32	164513	on stock
Especially for aluminium processing:											
G	13	1,0	14,2	5	0,001	50	6	-	20	179695	on stock
	13	1,5	14,2	5	0,001	50	6	-	20	179700	on stock

** more spare parts see page 117

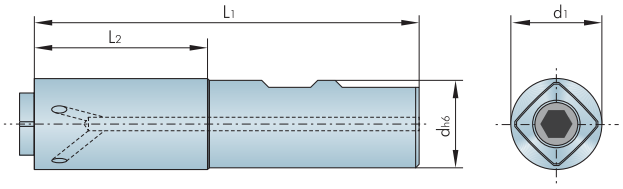
mimatic® Tool Systems

PolySAW Ø 63

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

Basic Holders

- **Cutting data see page 180**
- **Carbide coating see page 118**

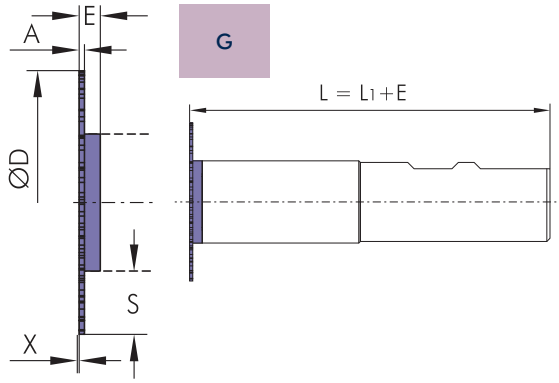


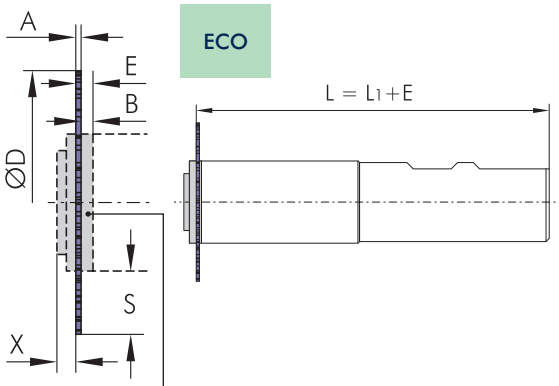
DIN 1835 Form B | DIN 1835 Form A

System	Typ	dh6 mm	DIN	L1 mm	L2 mm	d1 mm	Complete holder Bestell-Nr.	Spare Parts ** Screwdriver	Size
G	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
ECO	25	25	1835 B	122	55	29	163712	178297	SW 4
	25	25	1835 A	122	55	29	160061	178297	SW 4
	19	20	1835 B	105	45	23	163711	178296	SW 3
	19	20	1835 A	105	45	23	160060	178296	SW 3

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

Milling Discs





Milling depth max. — Recommended cutting depth of the 1st cut for a material with approx. 800 N/mm² — Disc is included in the delivery

System	Type	A mm	S max. mm	S1 mm	X mm	D mm	E mm	B mm	Number of teeth	Order No. TINAMATIC	Deliverable
G	19	1,0	16,5	5	0,001	63	6	-	40	164436	on request
	16	1,0	18,5	5	0,001	63	6	-	40	164418	on stock
	19	1,5	16,5	5	0,001	63	6	-	40	164437	on request
	16	1,5	18,5	5	0,001	63	6	-	40	164419	on stock
ECO	25	1,0	17,0	4	3,95	63	1,65	0,65	48	164536	on request
	19	1,0	20,0	4	3,95	63	1,65	0,65	48	164518	on stock
	25	1,5	17,0	4	1,80	63	3,65	2,15	40	164537	on request
	19	1,5	20,0	4	1,80	63	3,65	2,15	40	164519	on stock
Especially for aluminium processing:											
G	16	1,0	18,5	6	0,001	63	6	-	24	179696	on stock
	16	1,5	18,5	6	0,001	63	6	-	24	179701	on stock

** more spare parts see page 117

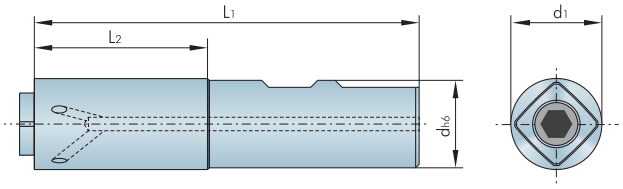
mimatic® Tool Systems

PolySAW Ø 80

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

Basic Holders

- Cutting data see page 180
- Carbide coating see page 118

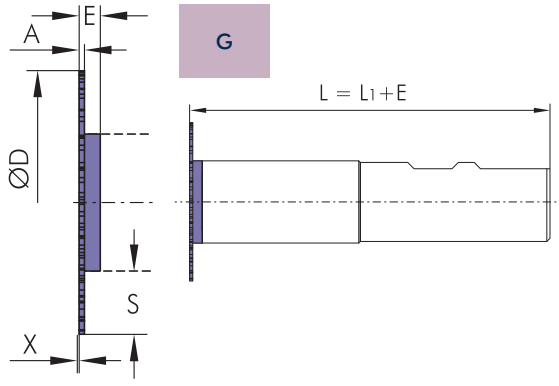


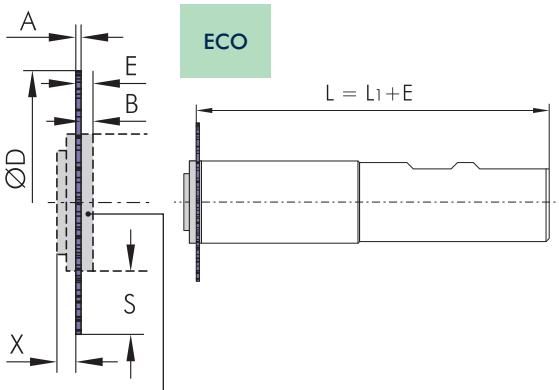
DIN 1835 Form B | DIN 1835 Form A

System	Typ	dh6 mm	DIN	L1 mm	L2 mm	d1 mm	Complete holder Bestell-Nr.	Spare Parts ** Screwdriver	Size
G	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
ECO	25	32	1835 B	122	55	29	163712	178297	SW 4
	25	32	1835 A	122	55	29	160061	178297	SW 4
	35	32	1835 B	127	60	39	163713	178297	SW 4
	35	32	1835 A	127	60	39	160062	178297	SW 4

Screw torques max.
Type 19 = max. 10,5 Nm
Type 25 = max. 24,5 Nm
Type 35 = max. 24,5 Nm

Milling Discs





Milling depth max. | Recommended cutting depth of the 1st cut for a material with approx. 800 N/mm² | Disc is included in the delivery

System	Type	A mm	S max. mm	S1 mm	X mm	D mm	E mm	B mm	Number of teeth	Order No. TINAMATIC	Deliverable
G	25	1,0	20,9	6	0,001	80	6	-	40	164438	on request
	19	1,0	25,0	6	0,001	80	6	-	40	164424	on stock
	25	1,5	20,9	5	0,001	80	6	-	40	164439	on request
	19	1,5	25,0	6	0,001	80	6	-	40	164425	on stock
ECO	35	1,0	20,5	4	3,95	80	1,65	0,65	64	164538	on request
	25	1,0	25,5	4	3,95	80	1,65	0,65	64	164524	on stock
	35	1,5	20,5	5	1,80	80	3,65	2,15	48	164539	on request
	25	1,5	25,5	5	1,80	80	3,65	2,15	48	164525	on stock
Especially for aluminium processing:											
G	19	1,0	18,5	8	0,001	80	6	-	24	179697	on stock
	19	1,5	18,5	8	0,001	80	6	-	24	179702	on stock

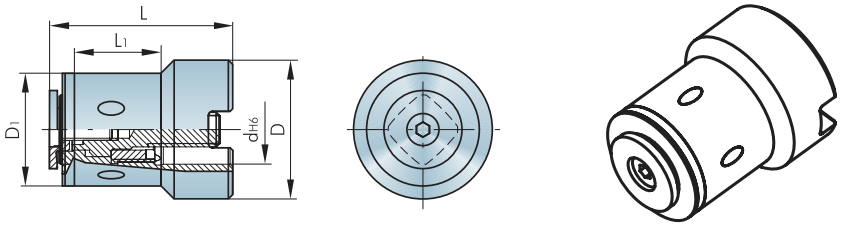
** more spare parts see page 117

PolySAW

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

Basic Holders with Location Bore

- Cutting data see page 180
- Carbide coating see page 118

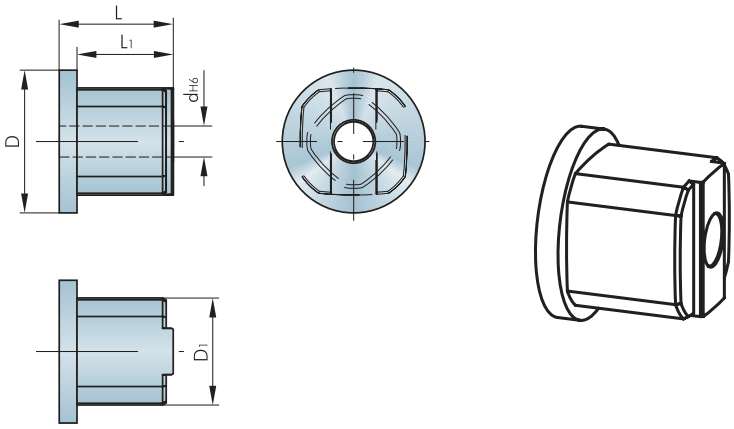


System		Typ	dH6 mm	L mm	L1 mm	D mm	D1 mm	Complete holder Bestell-Nr.	Spare Parts ** Screwdriver	Size
G	ECO	16	16	43	20	32	26	179727	178296	SW 3
		19	16	43	20	32	30	179728	178296	SW 3
		25	22	50	20	40	38,2	179817	178297	SW 4
		35	27	65	-	48	49	179818	178297	SW 4

Screw torques max.
Type 16 = max. 6 Nm
Type 19 = max. 10,5 Nm
Type 25 = max. 24,5 Nm
Type 35 = max. 24,5 Nm

Saw Blade Arbors for mimatic Saw Blade Holders

- Cutting data see page 180
- Carbide coating see page 118



System	Typ	dH6 mm	L mm	L1 mm	D mm	D1 mm	Complete holder Bestell-Nr.	Spare Parts ** Screwdriver	Size
ECO	25	10	32	27	30	25	179252	178297	SW 4
	35	12	32	27	30	35	180316	178297	SW 4

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

** more spare parts see page 117