

# TriMILL

Connectable in accordance with  
**BLUECOMPETENCE** » mimatic.mt  
» Driven Tool Holders

## Circular Milling Tools for Contours

The circular milling principle allows outside and inside contours to be manufactured to individual requirements on all CNC machining centers and milling machines. High efficiency is achieved by short machining times, extended tool life, and by reducing or eliminating expensive special tools.

**– High-Precision Free Contours**

**– High-Precision Plunge Cuts**

can be executed with the utmost ease and without chip obstruction problems.

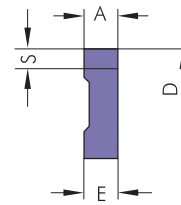
Blind holes can be tapped practically to the base without under-cutting. The use of uniform pitches also reduces storage and purchasing costs. As long as maximum dimensions are maintained, insert profiles can be customized to your specifications.

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## Slot Milling

- Insert holder see page 106-108
- Cutting data see page 179

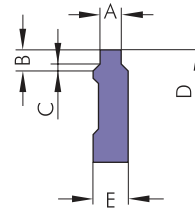


Ready for use with clearance angle

Type	A mm	D mm	E mm	S <sub>max</sub> mm	Order No.	
					K10	TINAMATIC
04	2,00	7,9	2,34	0,35	141737	141719
	2,34	10,6	2,34	1,60	141634	141642
03	3,00	10,6	3,00	1,60	141621	141669
	3,50	17,5	3,50	2,60	141563	141533
02	5,00	17,5	5,00	2,60	141582	141535
	6,00	17,5	6,00	2,60	141571	141544
01	4,00	23,0	4,00	3,45	141372	141361
	6,50	23,0	6,50	3,45	141386	141396
023*	5,00	17,5	5,00	4,00	142016	142060
013	6,50	23,0	6,50	6,00	141963	141972

## Circlip Grooves

- Insert holder see page 106-108
- Cutting data see page 179



With chamfered edge

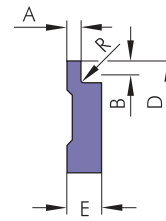
Type	G-Ring	D mm	E mm	A <sub>±0,03</sub> mm	B mm	Cx45° mm	Order No.	
							K10	TINAMATIC
03	1,10	10,6	2,34	1,18	0,50	0,10	141605	141556
	1,10	17,5	3,5	1,18	0,50	0,10	141392	141427
02	1,30	17,5	3,5	1,38	0,85	0,15	141374	141387
	1,60	17,5	3,5	1,68	1,00	0,15	141430	141399
	1,85	17,5	3,5	1,93	1,25	0,20	141419	141409
	2,15	17,5	3,5	2,23	1,50	0,20	141420	141333
	2,65	17,5	3,5	2,73	1,50	0,20	141446	141388
	1,10	23,0	4,0	1,18	0,50	0,10	141177	141161
01	1,30	23,0	4,0	1,38	0,70	0,15	141230	141209
	1,30	23,0	4,0	1,38	0,85	0,15	141198	141199
	1,60	23,0	4,0	1,68	0,85	0,15	141210	141237
	1,60	23,0	4,0	1,68	1,00	0,15	141207	141180
	1,85	23,0	4,0	1,93	1,25	0,20	141170	141193
	2,15	23,0	4,0	2,23	1,50	0,20	141217	141215
	2,65	23,0	4,0	2,73	1,50	0,20	141225	141222
	2,65	23,0	4,0	2,73	1,75	0,20	141227	141048
	3,15	23,0	4,0	3,23	1,75	0,20	141224	141186
	4,15	23,0	6,5	4,23	2,00	0,20	141171	141212
023	1,85	17,5	5,0	1,93	1,25	0,20	141977	141946
	2,15	17,5	5,0	2,23	1,50	0,20	141952	141949
	2,65	17,5	5,0	2,73	1,50	0,20	141992	141997
	2,65	17,5	5,0	2,73	1,75	0,20	141985	141970
	3,15	17,5	5,0	3,23	1,75	0,20	141984	141993
	4,15	17,5	5,0	4,23	2,50	0,20	141967	141973
013	1,85	23,0	6,5	1,93	1,25	0,20	141913	141914
	2,15	23,0	6,5	2,23	1,50	0,20	141867	141892
	2,65	23,0	6,5	2,73	1,50	0,20	141895	141915
	2,65	23,0	6,5	2,73	1,75	0,20	141906	141907
	3,15	23,0	6,5	3,23	1,75	0,20	141893	141924
	4,15	23,0	6,5	4,23	2,00	0,20	141904	141905
	4,15	23,0	6,5	4,23	2,50	0,20	141896	141927

## Circlip Grooves

- Insert holder see page 106-108
- Cutting data see page 179



Without chamfered edge

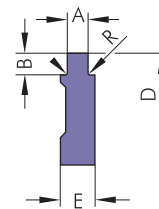


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Type	G-Ring	D mm	E mm	A <sub>0,03</sub> mm	B mm	R mm	Order No.	
							K10	TINAMATIC
04	0,90	7,9	2,34	0,98	0,30	0,3	141671	141726
	0,90	10,6	2,34	0,98	0,30	0,3	141623	141611
03	1,10	10,6	2,34	1,18	0,60	0,3	141558	141567
	1,30	10,6	2,34	1,38	0,80	0,3	141592	141609
	1,60	10,6	2,34	1,68	1,00	0,3	141638	141630
	1,85	10,6	2,34	1,93	1,40	0,3	141581	141574
	0,90	17,5	3,50	0,98	0,70	0,3	141414	141416
02	1,10	17,5	3,50	1,18	0,90	0,3	141447	141435
	1,30	17,5	3,50	1,38	1,10	0,3	141462	141431
	1,60	17,5	3,50	1,68	1,25	0,3	141474	141454
	1,85	17,5	3,50	1,93	1,25	0,3	141432	141436
	2,15	17,5	3,50	2,23	1,75	0,3	141445	141437
	2,65	17,5	3,50	2,73	1,75	0,3	141463	141477
	3,15	17,5	3,50	3,23	2,20	0,3	141438	141440
	0,90	23,0	4,00	0,98	0,70	0,3	141229	141254
01	1,10	23,0	4,00	1,18	0,90	0,3	141226	141245
	1,30	23,0	4,00	1,38	1,10	0,3	141249	141261
	1,60	23,0	4,00	1,68	1,25	0,3	141250	141255
	1,85	23,0	4,00	1,93	1,25	0,3	141263	141269
	2,15	23,0	4,00	2,23	1,75	0,3	141252	141258
	2,65	23,0	4,00	2,73	1,75	0,3	141275	141264
	3,15	23,0	4,00	3,23	2,20	0,3	141267	141293
	4,15	23,0	6,50	4,23	2,50	0,3	141253	141305
023	1,85	17,5	5,00	1,93	1,25	0,3	141990	141994
	2,15	17,5	5,00	2,23	1,75	0,3	142004	141980
	2,65	17,5	5,00	2,73	1,75	0,3	142011	141968
013	3,15	17,5	5,00	3,23	2,20	0,3	142008	142014
	2,15	23,0	6,50	2,23	1,75	0,3	141894	141937
	2,65	23,0	6,50	2,73	1,75	0,3	141922	141925
	3,15	23,0	6,50	3,23	2,20	0,3	141928	141930
	4,15	23,0	6,50	4,23	2,50	0,3	141933	141934
	5,15	23,0	6,50	5,23	3,50	0,3	141940	141932

## O-Ring Grooves

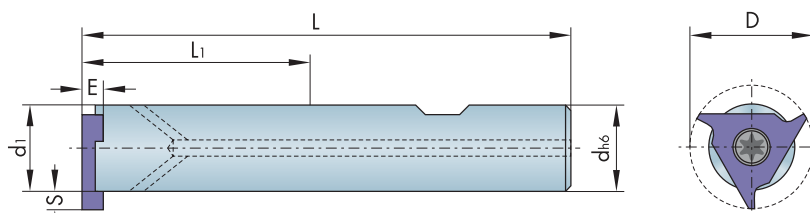
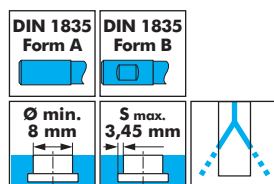
- Insert holder see page 106-108
- Cutting data see page 179



Type	G-Ring	D mm	E mm	A <sub>0,03</sub> mm	B mm	R mm	Order No.	
							K10	TINAMATIC
03	1,80	10,6	3,0	2,28	1,45	0,2	141661	141654
02	1,80	17,5	3,5	2,28	1,45	0,2	141509	141510
	2,65	17,5	5,0	3,08	2,30	0,2	141512	141470
01	1,80	23,0	4,0	2,28	1,45	0,2	141239	141236
	2,65	23,0	4,0	3,08	2,30	0,2	141310	141277
	3,55	23,0	6,5	4,08	3,10	0,2	141294	141306
023	1,80	17,5	5,0	2,28	1,45	0,2	141986	142012
	2,65	17,5	5,0	3,08	2,30	0,2	141974	142019
013	2,65	23,0	6,5	3,08	2,30	0,2	141897	141919
	3,55	23,0	6,5	4,08	3,10	0,2	141929	141916

## Circular Milling Tools

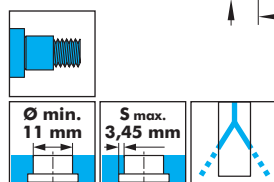
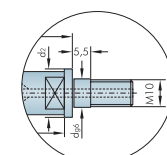
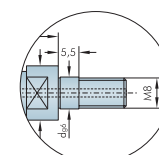
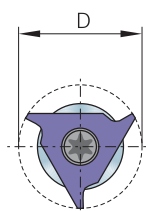
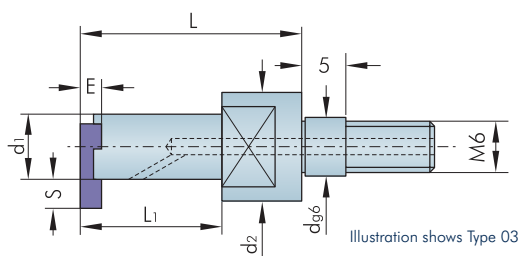
- Inserts see page 104-105
- Cutting data see page 179
- Carbide grades see page 118



Type	Order No.	Form	Bore Ø min.	D mm	dh6 mm	d1 mm	Smax. mm	E mm	*L mm	*L1 mm	Shaft	Spare part No.	
												Screw-driver	Screw
04	123491*	B	8	7,9	10	7,2	0,35	2,00	59,20	19,20	Steel	T6 IP 111705	107530
	123477*	B	11	10,6	10	7,4	1,60	2,34	59,54	19,54	Steel		
03	123478*	B	11	10,6	12	7,4	1,60	2,34	67,00	19,54	Steel		
	123479*	A	11	10,6	12	7,4	1,60	2,34	67,00	19,54	Steel		
	123480	B	11	10,6	10	7,4	1,60	2,34	76,54	36,54	Carbide		
123489	A	11	10,6	8	8,0	1,25	2,34	80,00	-	Carbide			
02	123445	B	20	17,5	12	12,0	2,60	3,50	77,55	32,20	Steel	T15 IP 111671	107547
	123446	B	20	17,5	16	12,0	2,60	3,50	82,10	32,20	Steel		
	123447	A	20	17,5	16	12,0	2,60	3,50	82,10	32,20	Steel		
	123448	B	20	17,5	12	12,0	2,60	3,50	112,20	67,20	Carbide		
	123470	A	20	17,5	12	12,0	2,60	3,50	82,80	-	Carbide		
	123471	A	20	17,5	12	12,0	2,60	3,50	100,00	-	Carbide		
123474	A	20	17,5	12	12,0	2,60	3,50	125,00	-	Carbide			
01	123412	B	25	23,0	16	16,0	3,45	4,00	91,00	42,5	Steel	T20 IP 111594	107551
	123414	B	25	23,0	16	16,0	3,45	4,00	120	71,5	Steel		
	123415**	A	25	23,0	20	17,0	3,00	4,00	97,00	45	Steel		
	170320	A	25	23,0	16	17,0	3,00	4,00	141	92,5	Carbide		
	123416	B	25	23,0	16	17,0	3,00	4,00	141	92,5	Carbide		
	123440	A	25	23,0	16	16,0	3,45	4,00	115	-	Carbide		
123441	A	25	23,0	16	16,0	3,45	4,00	152,5	-	Carbide			

\* Without internal coolant supply    \*\* Also suitable as basic body for a tandem cutter.

Screw torques max.  
Type 03 = 0,9 Nm, Size T6 IP  
Type 02 = 3,8 Nm, Size T15 IP  
Type 01 = 5,5 Nm, Size T20 IP



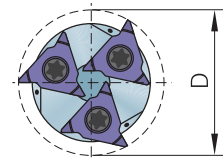
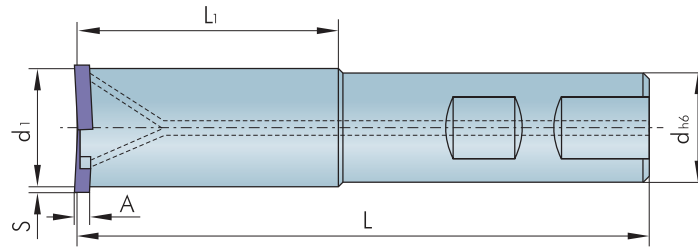
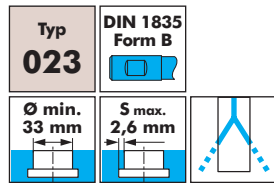
**Please adapt cutting data to overhangs length**

Type	Order No.	Bore Ø min.	D mm	dg6 mm	d1 mm	d2 mm	Smax. mm	E mm	*L mm	*L1 mm	Shaft	Spare part No.	
												Screw-driver	Screw
03	123481	11	10,6	6,5	7,4	10,0	1,60	2,34	25	16	Steel	111705	107530
02	123450	20	17,5	8,5	12,2	15,4	2,60	3,50	31	22	Steel	111671	107547
01	123419	25	23,0	10,5	16,1	18,0	3,45	4,00	36	33	Steel	111594	107551

Screw torques max.  
Type 03 = 0,9 Nm, Size T6 IP  
Type 02 = 3,8 Nm, Size T15 IP  
Type 01 = 5,5 Nm, Size T20 IP

## Circular Milling Tools

- Inserts see page 104-105
- Cutting data see page 179
- Carbide grades see page 118



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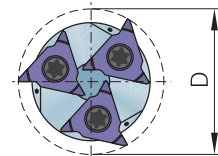
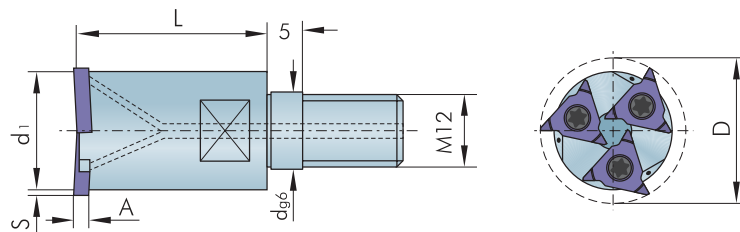
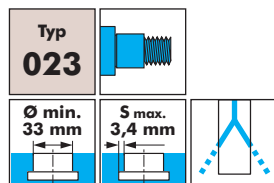
Order No.	Bore Ø min.	D mm	dh6 mm	d1 mm	Smax. mm	A mm	L mm	L1 mm	Inserts	Shaft
123462	33	32	25	26,8	2,6	5	125	67	3	Steel

Spare part No.

<b>T15 IP</b> Screw-driver	Screw
111671	107547

Screw torque max. 3,8 Nm

Please adapt cutting data to overhangs length

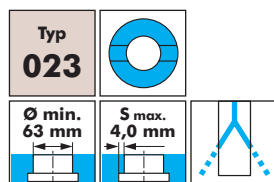
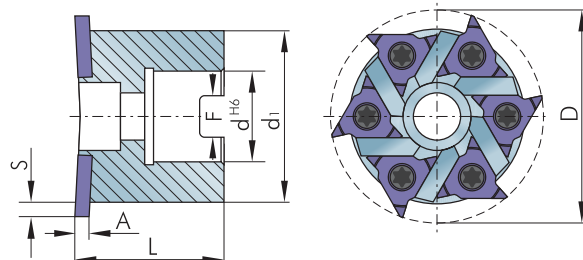
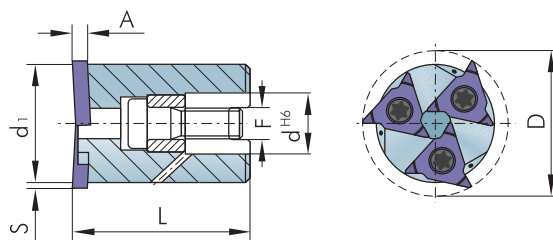


Order No.	Bore Ø min.	D mm	dg6 mm	d1 mm	Smax. mm	A mm	L mm	Inserts	Shaft
123465	33	32	12,5	24,3	3,8	5	40	3	Steel

Spare part No.

<b>T15 IP</b> Screw-driver	Screw
111671	107547

Screw torque max. 3,8 Nm



Order No.	Bore Ø min.	D mm	dh6 mm	d1 mm	Smax. mm	A mm	F mm	L mm	Inserts
123464	40	38	16	31	3,4	5,0	8,4	46	3
123461*	55	50	22	42	3,9	5,0	10,4	40	6

Accessories

Key	134984
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Spare part No.

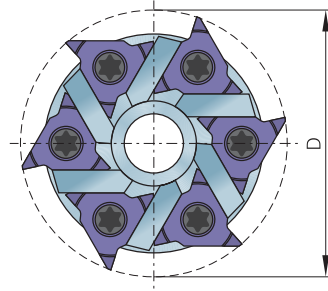
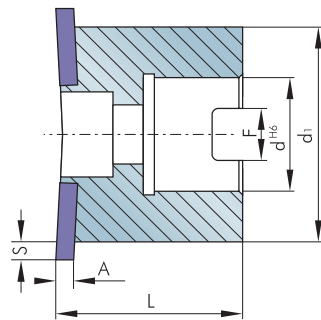
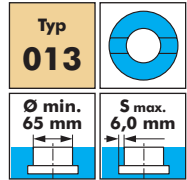
<b>T15 IP</b> Screw-driver	Screw
111671	107547
111671	107547

Screw torque max. 3,8 Nm

\* Cutter clamping screw internal hexagon  
**Order No.** 114684

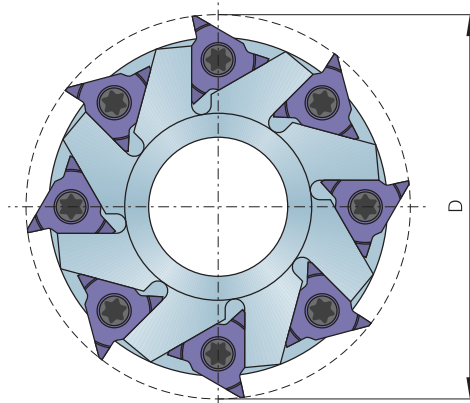
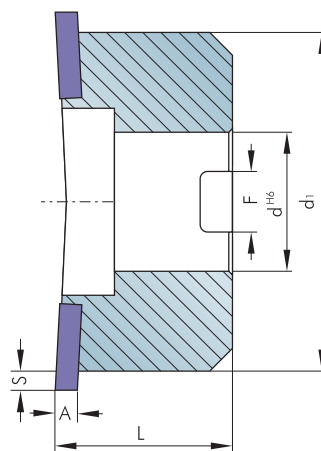
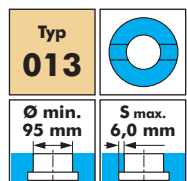
## Circular Milling Tools

- Inserts see page 104-105
- Cutting data see page 179
- Carbide grades see page 118



Order No.	Bore Ø min.	D mm	dH6 mm	d1 mm	Smax. mm	A mm	F mm	L mm	Inserts	Spare part No.	
										T20 IP Screw-driver	Screw
123435	65	63	27	51	6	6,5	12,4	44	6	111594	107551

Screw torque max. 5,5 Nm  
Cutter clamping screw internal hexagon  
Order No. 114695



Order No.	Bore Ø min.	D mm	dH6 mm	d1 mm	Smax. mm	A mm	F mm	L mm	Inserts	Spare part No.	
										T20 IP Screw-driver	Screw
123436	95	90	32	78	6	6,5	14,4	40	8	111594	107551

Screw torque max. 5,5 Nm