



Sectional thread milling for high-quality large threads from M24.

STC-1 with 10 edges

Biggest advantage for any long threads from M24: A shorter process time compared to cutters with inserts and easier assembly.

STC-2 and STC-3

Depending on the thread length (pitch, material) much faster than STC-1.

Systems for Circular Thread Milling

PolyMILL

The **affordable system with high performance** allows **threading** and/or **circlip grooving** in high precision. The polygonal connection of insert and milling body improves the efficiency and precision of the process significantly:

- Longer tool life
- Higher machining volume
- Higher feed rates
- Shorter processing times
- High stability
- High security at interrupted cutting



TriMILL

Affordable and flexible system for short processing times and long tool lives.

- Deep, true to gauge threads
- Accurate free-form contours
- Accurate grooving

Bottom threads can be cut almost to the bottom without undercuts. By using the same pitches, the storage and acquisition costs decrease also.



TrioCUT

Smooth cutting and **low cutting pressure** results in high surface quality and long tool lives. A **conical position of insert pocket** guarantees stability of the tool shaft.

Further advantages are the **radially back ground thread profile**, extremely high wedge angle, a more stable cutting edge as well as a positive rake angle.

The optimum application area are fine threads and/or very short thread lengths.

- Thread milling with undercut
- Thread milling
- Drill thread milling



SolidCUT

Extensive range of solid carbide thread milling cutters.

- Spiral-grooved grooves
- Soft cut
- Excellent surface qualities
- Also for thin-walled workpieces
- A tool for right- and left-hand threads



14,5 15 21 26

Multi tooth thread milling cutters, ideal for short thread lengths and very rigid clamping of workpiece and cutter.



mimaticSTC

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STC-2 and STC-3

Depending on the thread length (pitch, material) much faster than STC-1.



Symbols

	Type designation		Thread standard
	Steel shaft without clamping surface		Thread with undercut (Trio-Cut)
	Steel shaft with Weldon clamping surface		for right- and left hand internal thread for left hand thread modify your NC-program!
	Solid carbide shaft without clamping surface		for right- and left hand external thread for left hand thread modify your NC-program!
	Solid carbide shaft with Weldon clamping surface		Full form thread milling
	Cutter with tightening thread		Partial form thread milling
	Smallest necessary bore-diameter		Point angle
	Internal coolant supply		Thread standard
	Number of inserts		

Short Descriptions

Alpha (α)	Point angle of milling insert	F	Width of trailing chamfer
A	Groove width	H _P	Insert height
A ₁	Basic width in the Groove	H _S	Slider height (Axial grooving tool)
B _{f6}	Insert holder width of axial grooving tool	L	Length of milling tool
B _{H7}	Groove width of axial grooving tool	L ₁	Clamping length of milling tool
B _w	Tool width of axial grooving tool	L _G	Usable thread length at the multi-tooth thread milling
C	Chamfer width	L _{HA}	Holder length
D	Cutting diameter	L _{P1}	Insert height of milling body – edge
d ₁	Milling body diameter (front)	L _{P2}	Insert height of edge – interfering contour
d ₂	Large diameter of milling body	L _{PF}	Length of fitting face
d _{g6}	Fitting face diameter of threaded milling tool	L _S	Shaft length – clamping length (Depth)
D _{h6}	Shaft diameter of milling body (Arbor)	M	Thread size
D _P	Flight circle of insert	P	Pitch
D _R	Nominal diameter of concave radius insert	R	Radius (general/common)
E	Width blank insert		

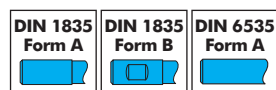
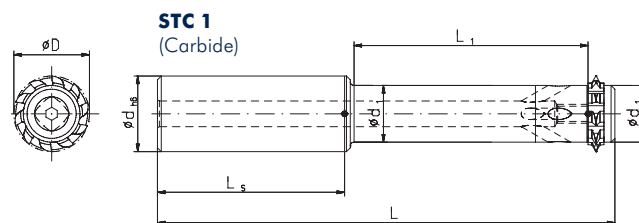
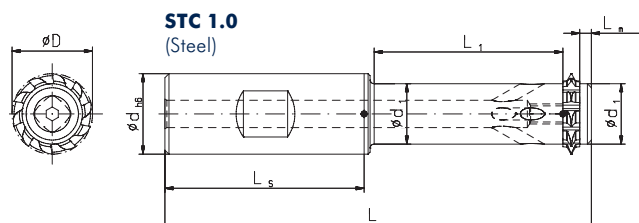
Formula for Tool Lengths

$$L_{WKZ} = L_{GK} + L_1 + L_{P1} (+L_{P2})$$

Milling System for Threads from Drill Hole Dia. 20,5 mm (≥ M 24)

■ Cutting data see page 190

■ Recommendation plunging movements see page 200



Complete holder
without Inserts

Spare Parts			
for	④ Clamping disc	② Clamping screw	③ Screw-driver
156500 156501 182043	159784	163852	178296

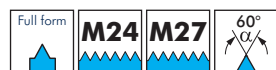
Screw torques max.

163852 SW3 6,0 Nm

Type	Shank DIN	① Order No.	d h6 mm	L mm	L1 mm	Ls mm	LG mm	LM mm	D mm	d1 mm	d2 mm	③ Thread inserts required
STC 1.0	1835 A	156500 NEW	20	106	47,9	50	–	2,9	20	15	–	1
	1835 B	156501 NEW	20	106	47,9	50	–	2,9	20	15	–	1
STC 1	6535 A	182043 NEW	20	121	62,9	50	–	2,9	20	15	–	1

Milling Inserts

■ Cutting Data see page 190



Pitch mm	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
3	10	20	1,702	2,1	159757

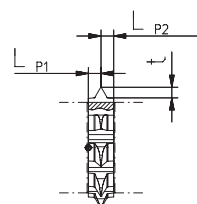


Pitch G/"	Number of teeth	D mm	t mm	LP1=LP2 mm	Thread	Order No TINAMATIC
8	10	20	1,809	2,1	1"	180331
7	10	20	2,043	2,1		156760
8	10	20	1,809	2,1	>1"	186515 NEW



Pitch mm G / °		Number of teeth	D mm	LP1=LP2 mm	Order No TINAMATIC
1-3	24-9	10	20	2,1	181817
2,5-4	10-6	10	20	2,1	181818

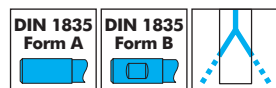
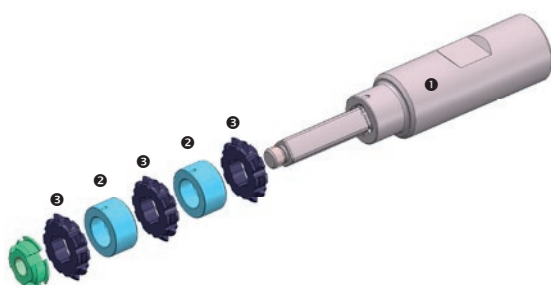
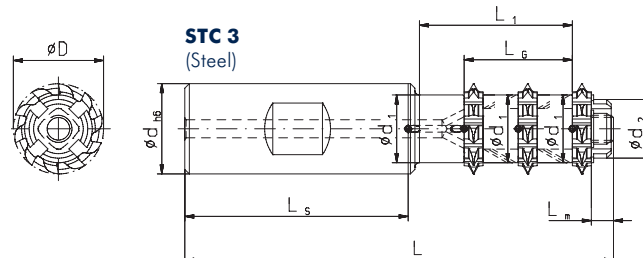
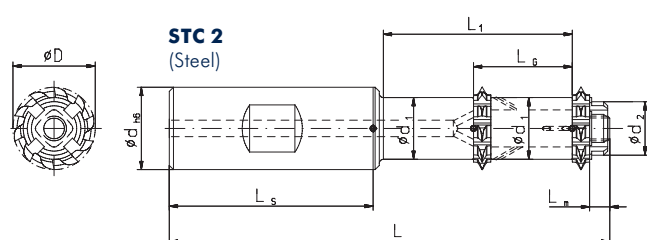
ATTENTION: Please ask for distance sleeves separately!



Milling System for Threads from Drill Hole Dia. 20,5 mm (≥ M 24)

■ Cutting data see page 190

■ Recommendation plunging movements see page 200



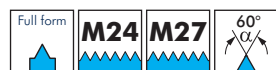
Complete holder
without inserts /
assembling wrench

	Spare Parts	Accessories
for	² Set of distance sleeves	Slotted nut Key
159876 159875	159796	185192 186814
159862 159861	159789	185192
Slotted nut torques max. 185192 11 Nm		

Type	Shank DIN	¹ Order No.	d h6 mm	L mm	L1 mm	Ls mm	Lg mm	Lm mm	D mm	d1 mm	d2 mm	³ Thread inserts required
STC 2	1835 A	159876	20	107	46,9	50	24	4,9	20	15	13	2
2xD	1835 B	159875	20	107	46,9	50	24	4,9	20	15	13	2
STC 3	1835 A	159862	20	95	34,9	50	12	4,9	20	15	13	3
1,5xD	1835 B	159861	20	95	34,9	50	12	4,9	20	15	13	3

Milling Inserts

■ Cutting Data see page 190



Pitch mm	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
3	10	20	1,702	2,1	159757

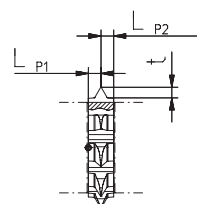


Pitch G/"	Number of teeth	D mm	t mm	LP1=LP2 mm	Thread	Order No TINAMATIC
8	10	20	1,809	2,1	1"	180331
7	10	20	2,043	2,1		156760
8	10	20	1,809	2,1	>1"	186515 NEW



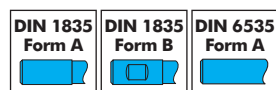
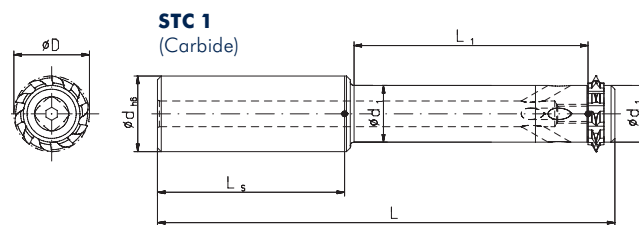
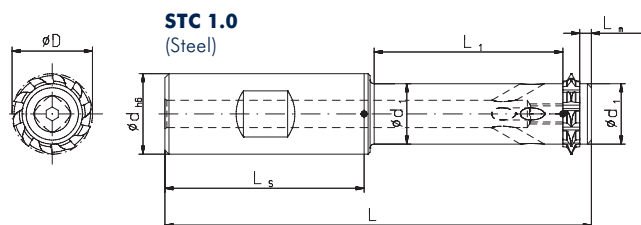
Pitch		Number of teeth	D mm	LP1 = LP2 mm	Order No
mm	G / °				TINAMATIC
1-3	24-9	10	20	2,1	181817
2,5-4	10-6	10	20	2,1	181818

ATTENTION: Please ask for distance sleeves separately!



Milling System for Threads from Drill Hole Dia. 26 mm ($\geq M30$)

- Cutting data see page 190
- Recommendation plunging movements see page 200



Complete holder
without Inserts

Spare Parts			
for	4 Clamping disc	2 Clamping screw	Screw-driver
156502 156503 182042	159785	163852	178296

Screw torques max.

163852 SW3 6,0 Nm

Type	Shank DIN	1 Order No.	d h6 mm	L mm	L ₁ mm	L _s mm	L _G mm	L _M mm	D mm	d ₁ mm	d ₂ mm	3 Thread inserts required
STC 1.0	1835 A	156502 NEW	20	121	62,9	50	–	2,9	24	19	–	1
	1835 B	156503 NEW	20	121	62,9	50	–	2,9	24	19	–	1
STC 1	6535 A	182042 NEW	20	141	82,9	50	–	2,9	24	19	–	1

Milling Inserts

- Cutting Data see page 190

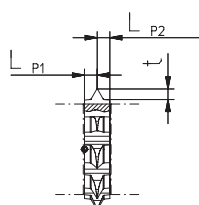


Pitch mm	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
3,5	10	24	1,982	2,1	159758



Pitch		Number of teeth	D mm	LP1=LP2 mm	Order No
mm	G / °				TINAMATIC
1-3	24-9	10	24	2,1	181726
3-4	9-6	10	24	2,1	181730

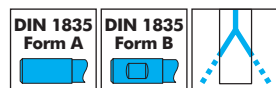
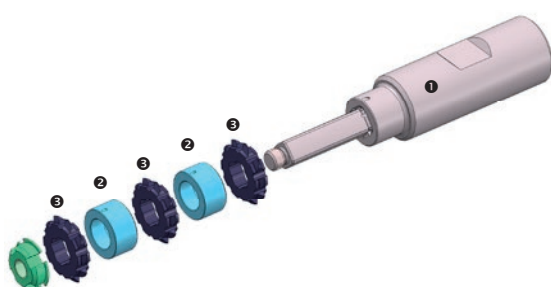
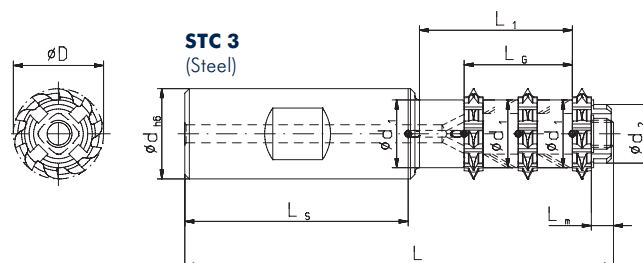
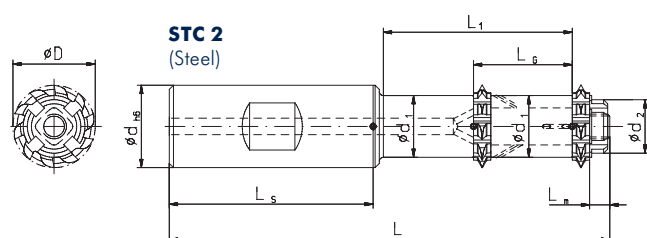
ATTENTION: Please ask for distance sleeves separately!



Milling System for Threads from Drill Hole Dia. 26 mm ($\geq M30$)

■ Cutting data see page 190

■ Recommendation plunging movements see page 200



Complete holder
without inserts /
assembling wrench

	Spare Parts	Accessories
for	² Set of distance sleeves	Slotted nut Key
159878 159878	159797	185299 186811
159864 159863	159790	185299
Slotted nut torques max. 185299 45 Nm		

Type	Shank DIN	¹ Order No.	dh6 mm	L mm	L1 mm	Ls mm	LG mm	LM mm	D mm	d1 mm	d2 mm	³ Thread inserts required
STC 2	1835 A	159878	20	120	59,9	50	31,5	4,9	24	19	17	2
2xD	1835 B	159877	20	120	59,9	50	31,5	4,9	24	19	17	2
STC 3	1835 A	159864	20	104	43,9	50	14	4,9	24	19	17	3
1,5xD	1835 B	159863	20	104	43,9	50	14	4,9	24	19	17	3

Milling Inserts

■ Cutting Data see page 190

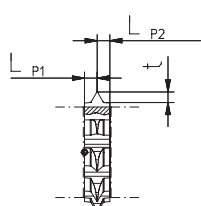


Pitch mm	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
3,5	10	24	1,982	2,1	159758



Pitch		Number of teeth	D mm	LP1=LP2 mm	Order No
mm	G / °				TINAMATIC
1-3	24-9	10	24	2,1	181726
3-4	9-6	10	24	2,1	181730

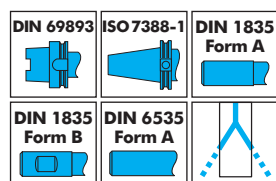
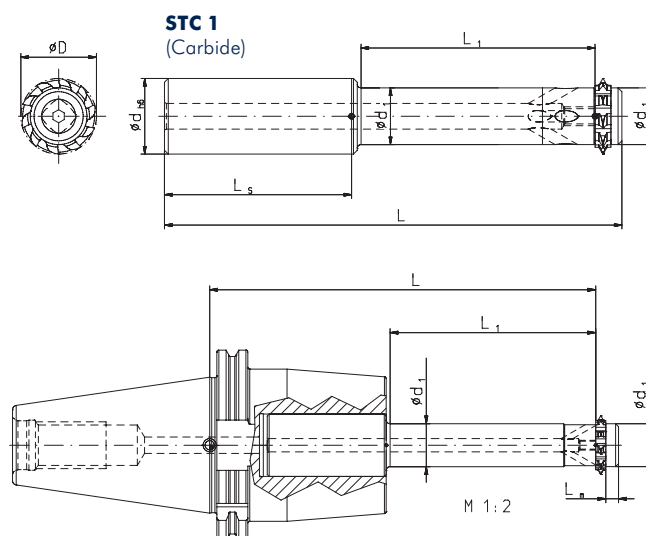
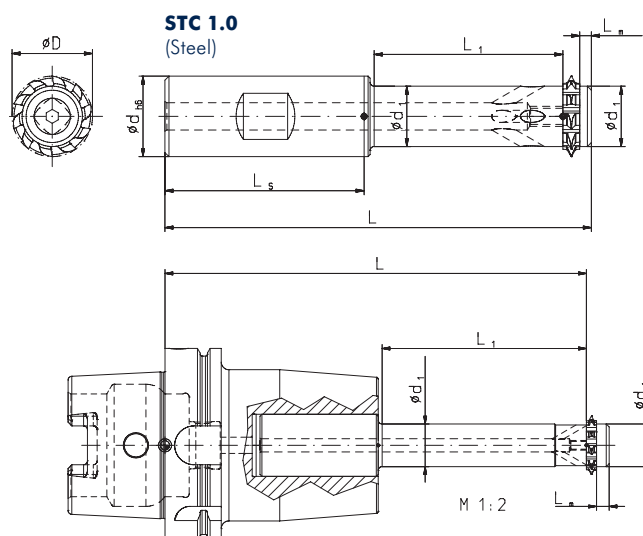
ATTENTION: Please ask for distance sleeves separately!



Milling System for Threads from Drill Hole Dia. 30 mm ($\geq M36$)

■ Cutting data see page 190

■ Recommendation plunging movements see page 200



Complete holder
without Inserts

Spare Parts			
for	④ Clamping disc	② Clamping screw	Screw-driver
156504 156505 160178 156489 156490	159786	114402	178640

Screw torques max.

114402 SW6 24,5 Nm

Type	Shank DIN	① Order No.	d h6 mm	L mm	L ₁ mm	L _S mm	L _G mm	L _M mm	D mm	d ₁ mm	d ₂ mm	③ Thread inserts required
STC 1.0	1835 A	156504 NEW	32	145,1	72,4	60	–	6,5	30	22	–	1
	1835 B	156505 NEW	32	145,1	72,4	60	–	6,5	30	22	–	1
STC 1 3xD	6535 A	160178	32	180,1	107,4	60	–	6,5	30	22	–	1
	HSK 100	156489	–	229,1	107,4	110	–	6,5	30	22	–	1
	SK 50	156490	–	209,1	107,4	90	–	6,5	30	22	–	1

Milling Inserts

■ Cutting Data see page 190



Pitch mm	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
4	10	10	2,263	2,6	159759

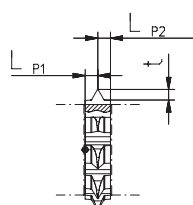


Pitch G/"	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
6	10	28	2,454	2,6	156761



Pitch		Number of teeth	D mm	LP1=LP2 mm	Order No
mm	G /"				TINAMATIC
1-3	24-9	10	30	2,6	181732
3-6	9-4	10	30	2,6	181733

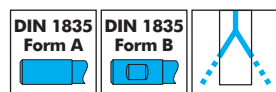
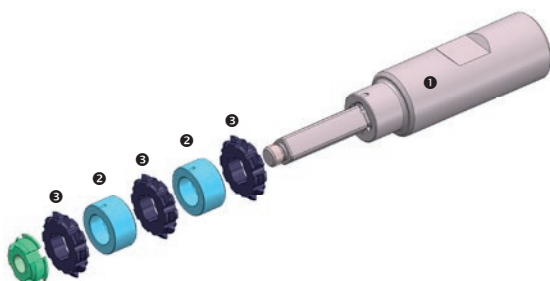
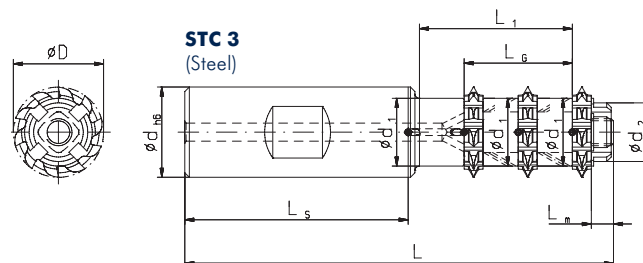
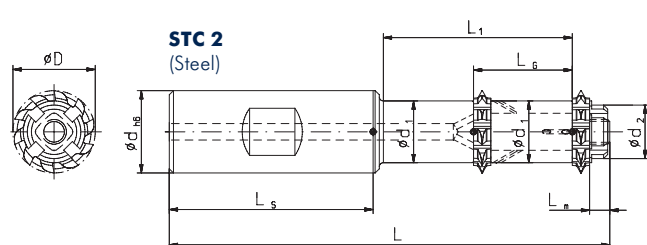
ATTENTION: Please ask for distance sleeves separately!



Milling System for Threads from Drill Hole Dia. 30 mm ($\geq M36$)

■ Cutting data see page 190

■ Recommendation plunging movements see page 200



Complete holder
without inserts /
assembling wrench

	Spare Parts	Accessories
for	² Set of distance sleeves	Slotted nut Key
159880 159879	159798	186195 186813
159866 159865	159791	186195

Slotted nut torques max.
185195 55 Nm

Type	Shank DIN	¹ Order No.	d h6 mm	L mm	L1 mm	L5 mm	L6 mm	LM mm	D mm	d1 mm	d2 mm	³ Thread inserts required
STC 2 2xD	1835 A	159880	32	144	70,8	60	36	6,0	30	22	20	2
	1835 B	159879	32	144	70,8	60	36	6,0	30	22	20	2
STC 3 1,5xD	1835 A	159866	32	126	52,8	60	16	6,0	30	22	20	3
	1835 B	159865	32	126	52,8	60	16	6,0	30	22	20	3

Milling Inserts

■ Cutting Data see page 190



Pitch mm	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
4	10	10	2,263	2,6	159759

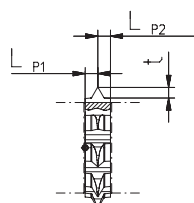


Pitch G/"	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
6	10	28	2,454	2,6	156761



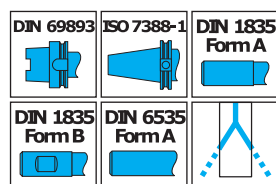
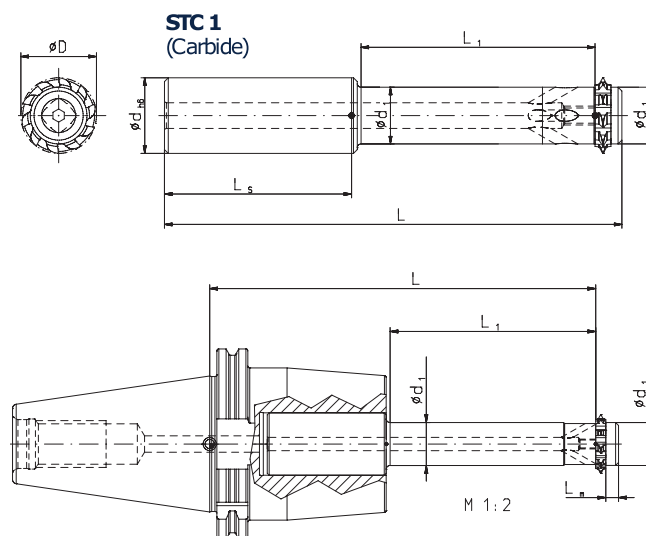
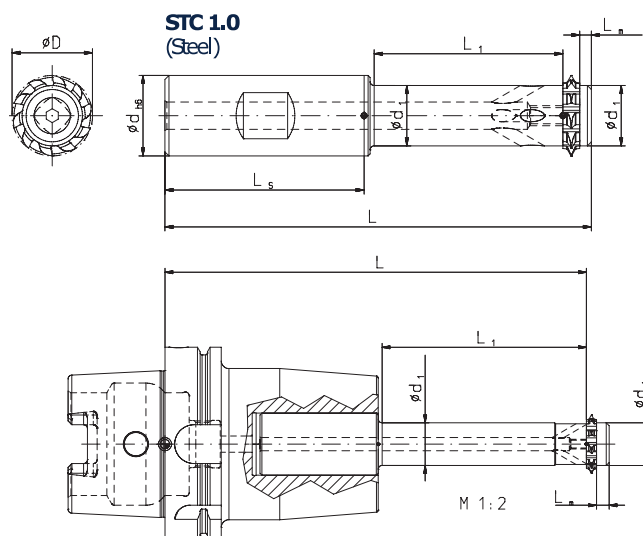
Pitch mm	Number of teeth	D mm	LP1=LP2 mm	Order No TINAMATIC
1-3	24-9	10	2,6	181732
3-6	9-4	10	2,6	181733

ATTENTION: Please ask for distance sleeves separately!



Milling System for Threads from Drill Hole Dia. 37 mm ($\geq$ M 42)

- Cutting data see page 190
- Recommendation plunging movements see page 200



Complete holder
without Inserts

Spare Parts			
for	Clamping disc	Clamping screw	Screw-driver
156506 156507 160179 156487 156488	159787	114523	178640

Screw torques max.
114523 SW6 24,5 Nm

Type	Shank DIN	Order No.	dh6 mm	L mm	L ₁ mm	L _s mm	L _G mm	L _M mm	D mm	d ₁ mm	d ₂ mm	Thread inserts required
STC 1.0	1835 A	156506 NEW	32	170,85	97,15	60	–	7,0	36	30	–	1
	1835 B	156507 NEW	32	170,85	97,15	60	–	7,0	36	30	–	1
STC 1 3xD	6535 A	160179	32	200,9	127,15	60	–	7,0	36	30	–	1
	HSK 100	156487	–	249,4	127,15	110	–	7,0	36	30	–	1
	SK 50	156488	–	229,8	127,15	90	–	7,0	36	30	–	1

Milling Inserts

- Cutting Data see page 190



Pitch mm	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
4,5	10	36	2,553	2,85	159760

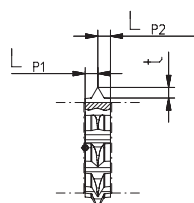


Pitch G/"	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
5	10	36	2,979	2,85	156762



Pitch mm	G /"	Number of teeth	D mm	LP1=LP2 mm	Order No
					TINAMATIC
1-3	24-9	10	36	2,85	182040
3-6	9-6	10	36	2,85	182041

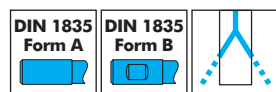
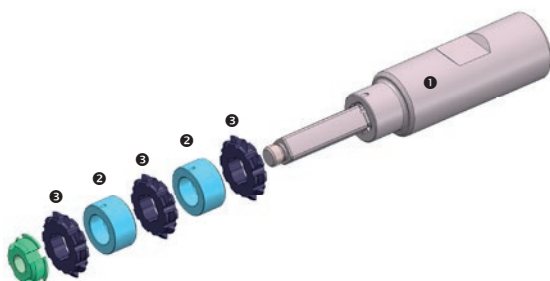
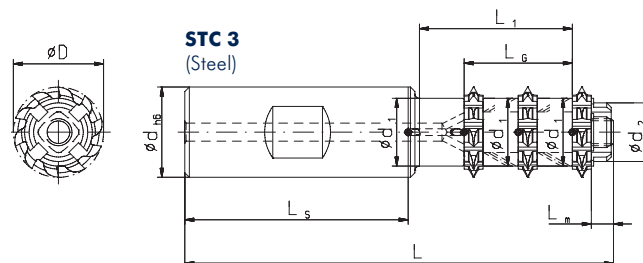
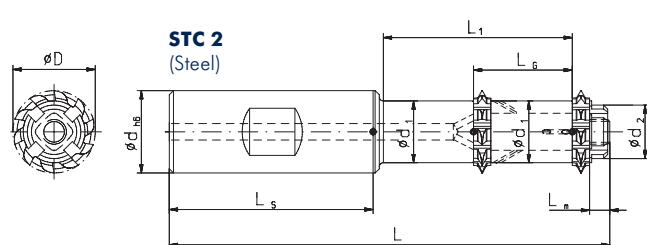
ATTENTION: Please ask for distance sleeves separately!



Milling System for Threads from Drill Hole Dia. 37 mm ($\geq M42$)

■ Cutting data see page 190

■ Recommendation plunging movements see page 200



Complete holder
without inserts /
assembling wrench

	Spare Parts	Accessories
for	² Set of distance sleeves	Slotted nut Key
159882 159881	159799	186195 186813
159868 159867	159792	186195

Slotted nut torques max.
185195 55 Nm

Type	Shank DIN	¹ Order No.	d h6 mm	L mm	L1 mm	L5 mm	L6 mm	LM mm	D mm	d1 mm	d2 mm	³ Thread inserts required
STC2 2xD	1835 A	159882	32	158	85,15	60	40,5	6,15	36	30	20	2
	1835 B	159881	32	158	85,15	60	40,5	6,15	36	30	20	2
STC 3 1,5xD	1835 A	159868	32	137	45	60	22,5	6,15	36	30	20	3
	1835 B	159867	32	137	45	60	22,5	6,15	36	30	20	3

Milling Inserts

■ Cutting Data see page 190



Pitch mm	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
4,5	10	36	2,553	2,85	159760

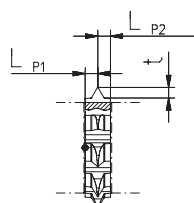


Pitch G /"	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
5	10	36	2,979	2,85	156762



Pitch		Number of teeth	D mm	LP1=LP2 mm	Order No
mm	G / °				TINAMATIC
1-3	24-9	10	36	2,85	182040
3-4	9-6	10	36	2,85	182041

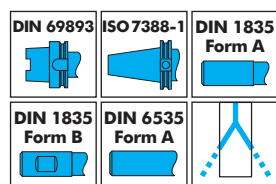
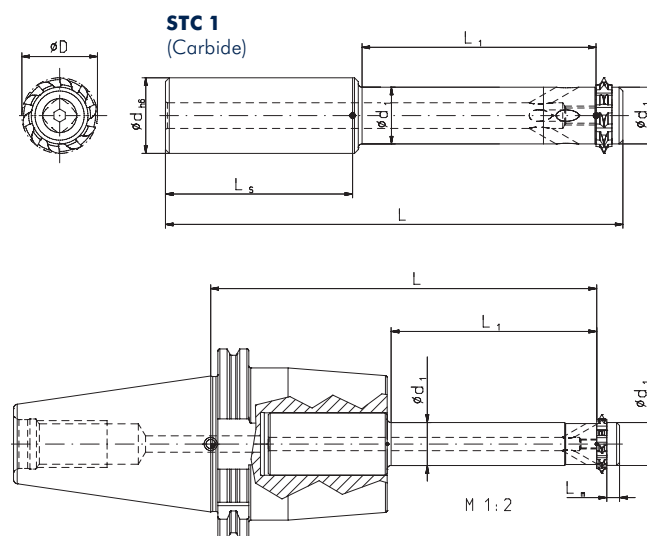
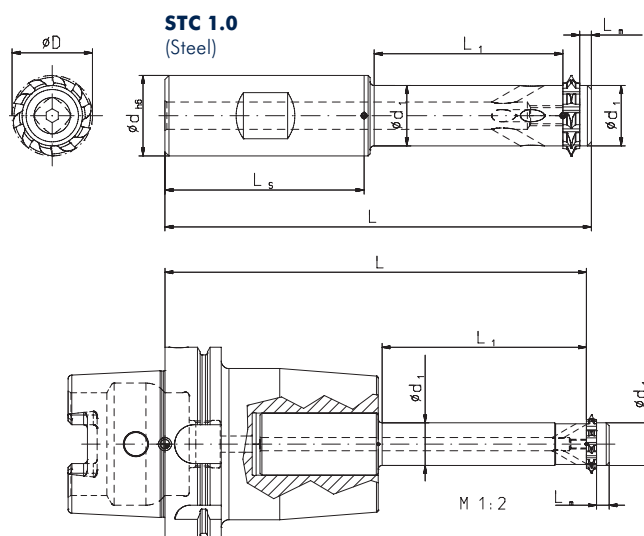
ATTENTION: Please ask for distance sleeves separately!



Milling System for Threads from Drill Hole Dia. 42,6 mm (≥ M48)

■ Cutting data see page 190

■ Recommendation plunging movements see page 200



Complete holder
without Inserts

Spare Parts			
for	④ Clamping disc	② Clamping screw	Screw-driver
156508 156509 160180 156486 156485	159788	114503	178640
		114523	
Screw torques max. SW6 24,5 Nm			

Type	Shank DIN	① Order No.	d h6 mm	L mm	L ₁ mm	L ₅ mm	L _G mm	L _M mm	D mm	d ₁ mm	d ₂ mm	③ Thread inserts required
STC 1.0	1835 A	156508 NEW	32	201	126,9	60	–	7,0	40	32	–	1
	1835 B	156509 NEW	32	201	126,9	60	–	7,0	40	32	–	1
STC 1 3xD	6535 A	160180	32	221,1	147,9	60	–	7,0	40	32	–	1
	HSK 100	156486	–	270	146,9	110	–	7,0	40	32	–	1
	SK 50	156485	–	250	146,9	90	–	7,0	40	32	–	1

Milling Inserts

■ Cutting Data see page 190

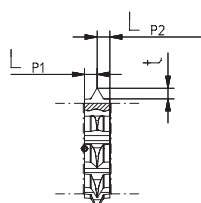


Pitch mm	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
5	10	40	2,836	3,1	159761



Pitch		Number of teeth	D mm	LP1=LP2 mm	Order No
mm	G / °				TINAMATIC
1-3	24-9	10	40	3,1	159836
3-6	9-4	10	40	3,1	180440

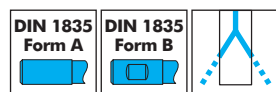
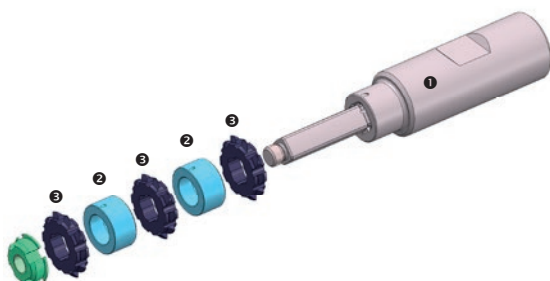
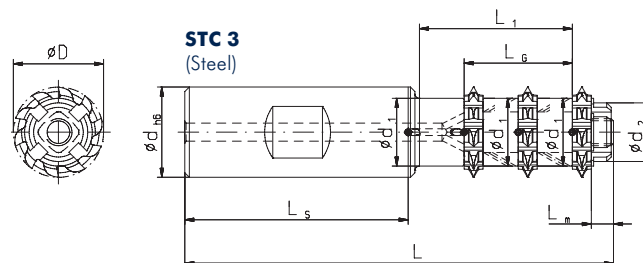
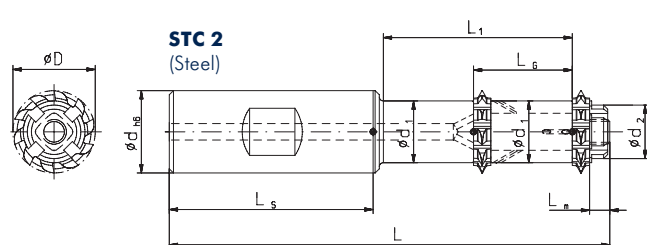
ATTENTION: Please ask for distance sleeves separately!



Milling System for Threads from Drill Hole Dia. 42,6 mm (≥ M48)

■ Cutting data see page 190

■ Recommendation plunging movements see page 200



Complete holder
without inserts /
assembling wrench

	Spare Parts	Accessories
for	² Set of distance sleeves	Slotted nut Key
159884 159883	159801	186145 186819
159870 159869	159793	186145

Slotted nut torques max.
186145 110 Nm

Type	Shank DIN	¹ Order No.	dh6 mm	L mm	L1 mm	L5 mm	L6 mm	LM mm	D mm	d1 mm	d2 mm	³ Thread inserts required
STC 2 2xD	1835 A	159884	32	170	95,3	60	50	6,5	40	32	30	2
	1835 B	159883	32	170	95,3	60	50	6,5	40	32	30	2
STC 3 1,5xD	1835 A	159870	32	147	72,3	60	25	6,5	40	32	30	3
	1835 B	159869	32	147	72,3	60	25	6,5	40	32	30	3

Milling Inserts

■ Cutting Data see page 190

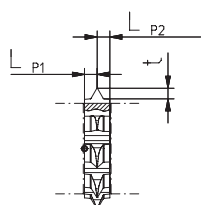


Pitch mm	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
5	10	40	2,836	3,1	159761



Pitch mm	Number of teeth	D mm	LP1=LP2 mm	Order No TINAMATIC
1-3	24-9	40	3,1	159836
3-6	9-4	40	3,1	180440

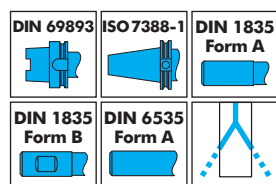
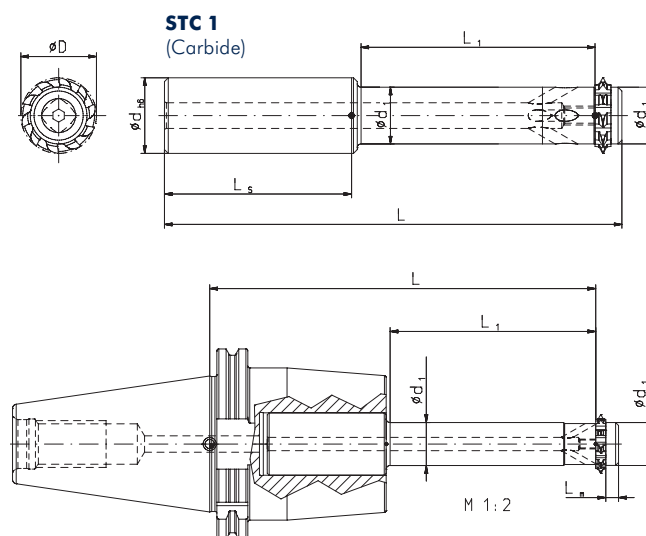
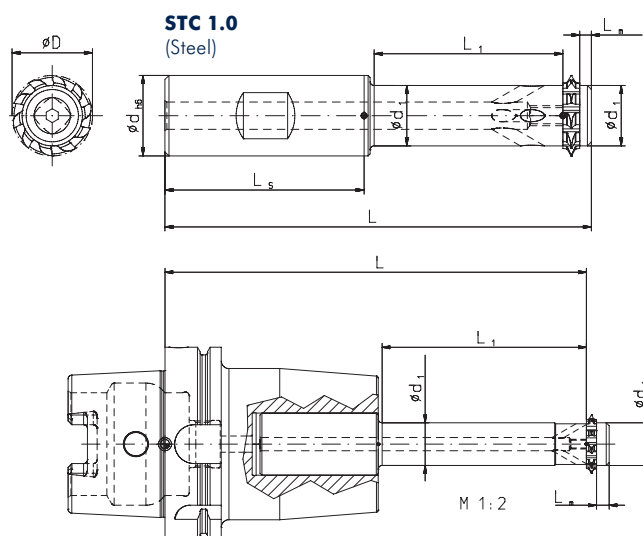
ATTENTION: Please ask for distance sleeves separately!



Milling System for Threads from Drill Hole Dia. 50 mm ($\geq M56$)

■ Cutting data see page 190

■ Recommendation plunging movements see page 200



Complete holder
without Inserts

Spare Parts			
for	④ Clamping disc	② Clamping screw	Screw-driver
156508 156509 160180 156486 156485	159786	114503 114523	178640
Screw torques max. SW6 24,5 Nm			

Type	Shank DIN	① Order No.	d h6 mm	L mm	L ₁ mm	L ₅ mm	L _G mm	L _M mm	D mm	d ₁ mm	d ₂ mm	③ Thread inserts required
STC 1.0	1835 A	156508 NEW	32	201	126,9	60	–	7	40	32	–	7
	1835 B	156509 NEW	32	201	126,9	60	–	7	40	32	–	7
STC 1 3xD	6535 A	160180	32	221,1	147,9	60	–	7	40	32	–	7
	HSK 100	156486	–	270	146,9	110	–	7	40	32	–	7
	SK 50	156485	–	250	146,9	90	–	7	40	32	–	7

Milling Inserts

■ Cutting Data see page 190

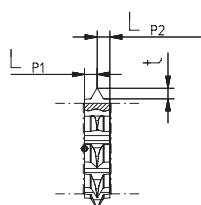


Pitch mm	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
5,5	10	40	3,106	3,1	159762



Pitch		Number of teeth	D mm	LP1=LP2 mm	Order No
mm	G / °				TINAMATIC
1-3	24-9	10	40	3,1	159836
3-6	9-4	10	40	3,1	180440

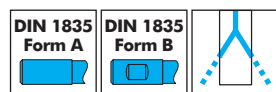
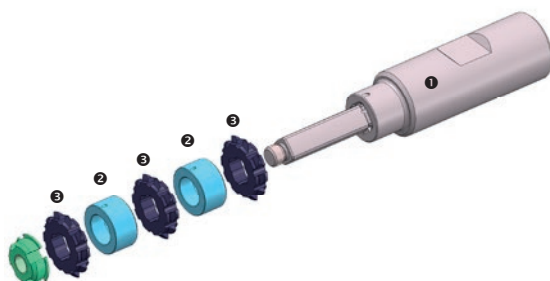
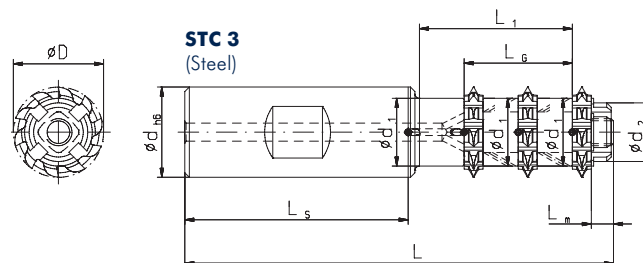
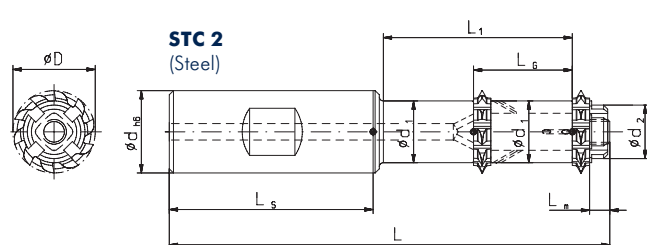
ATTENTION: Please ask for distance sleeves separately!



Milling System for Threads from Drill Hole Dia. 50 mm ($\geq M56$)

■ Cutting data see page 190

■ Recommendation plunging movements see page 200



Complete holder
without inserts /
assembling wrench

	Spare Parts	Accessories
for	² Set of distance sleeves	Slotted nut Key
159886 159885	159798	186145 186819
159872 159871	159791	186145

Slotted nut torques max.
186145 110 Nm

Type	Shank DIN	¹ Order No.	dh6 mm	L mm	L1 mm	Ls mm	Lg mm	Lm mm	D mm	d1 mm	d2 mm	³ Thread inserts required
STC 2 2xD	1835 A	159886	32	186	111,3	60	55,0	6,5	40	32	30	2
	1835 B	159885	32	186	111,3	60	55,0	6,5	40	32	30	2
STC 3 1,5xD	1835 A	159872	32	158	83,3	60	27,5	6,5	40	32	30	3
	1835 B	159871	32	158	83,3	60	27,5	6,5	40	32	30	3

Milling Inserts

■ Cutting Data see page 190

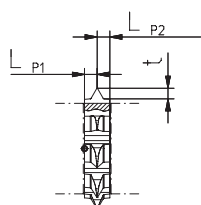


Pitch mm	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
5,5	10	40	3,106	3,1	159762



Pitch mm	Number of teeth	D mm	LP1=LP2 mm	Order No TINAMATIC
1-3	24-9	40	3,1	159836
3-6	9-4	40	3,1	180440

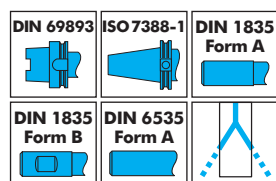
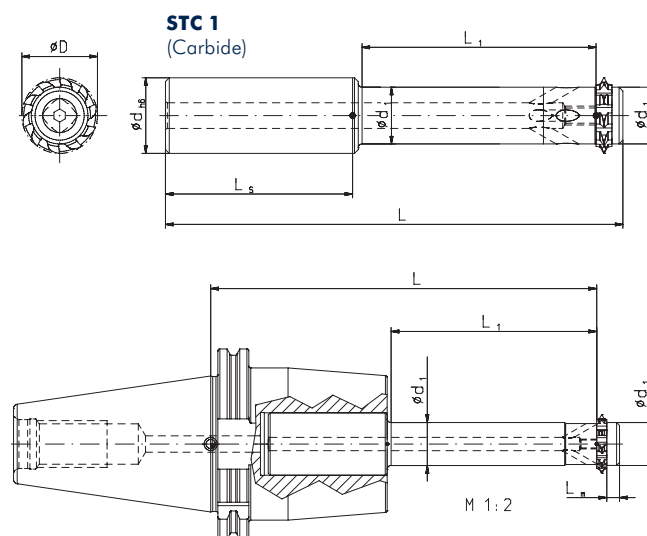
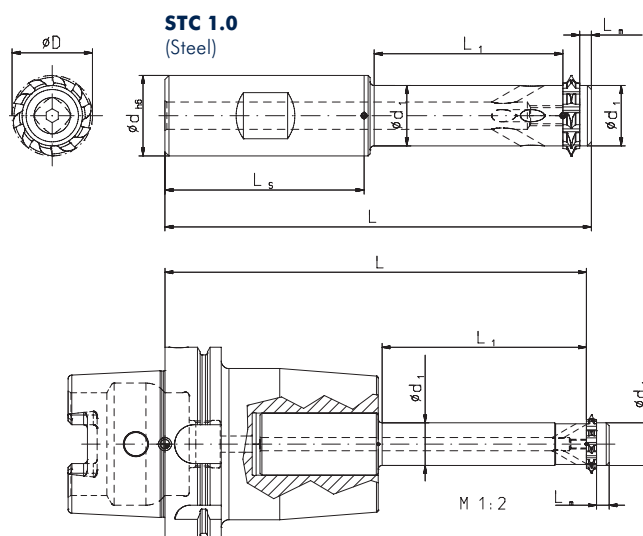
ATTENTION: Please ask for distance sleeves separately!



Milling System for Threads from Drill Hole Dia. 57,5 mm (≥ M 64)

■ Cutting data see page 190

■ Recommendation plunging movements see page 200



Complete holder
without Inserts

Spare Parts			
for	④ Clamping disc	② Clamping screw	Screw-driver
156508 156509 160180 156486 156485	159788	114503	178640
		114523	

Screw torques max.
SW6 24,5 Nm

Type	Shank DIN	① Order No.	d h6 mm	L mm	L ₁ mm	L ₅ mm	L _G mm	L _M mm	D mm	d ₁ mm	d ₂ mm	③ Thread inserts required
STC 1.0	1835 A	156508 NEW	32	201	126,9	60	–	7,0	40	32	–	1
	1835 B	156509 NEW	32	201	126,9	60	–	7,0	40	32	–	1
STC 1 3xD	6535 A	160180	32	221,1	147,9	60	–	7,0	40	32	–	1
	HSK 100	156486	–	270	146,9	110	–	7,0	40	32	–	1
	SK 50	156485	–	250	146,9	90	–	7,0	40	32	–	1

Milling Inserts

■ Cutting Data see page 190

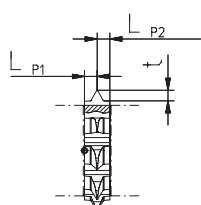


Pitch mm	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
6	10	40	3,415	3,1	159763



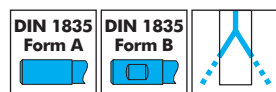
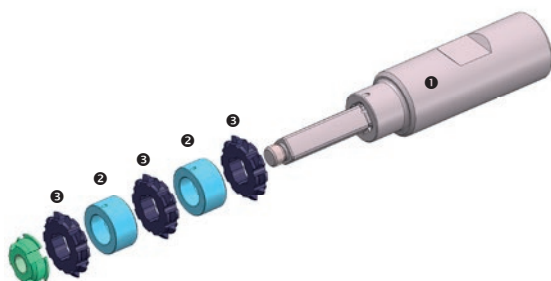
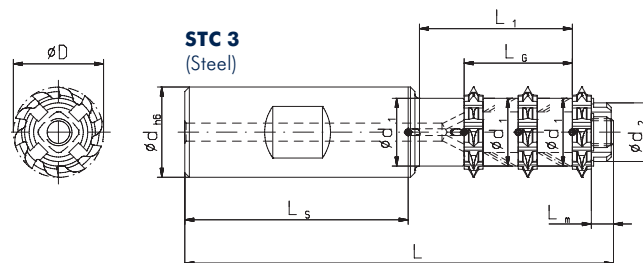
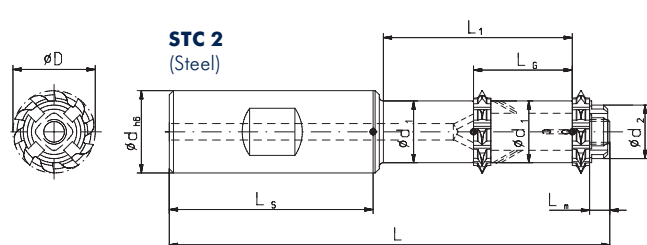
Pitch		Number of teeth	D mm	LP1 = LP2 mm	Order No
mm	G / °				TINAMATIC
1-3	24-9	10	40	3,1	159836
3-6	9-4	10	40	3,1	180440

ATTENTION: Please ask for distance sleeves separately!



Milling System for Threads from Drill Hole Dia. 57,5 mm (≥ M64)

- Cutting data see page 190
- Recommendation plunging movements see page 200



Complete holder
without inserts /
assembling wrench

	Spare Parts	Accessories
for	² Set of distance sleeves	Slotted nut Key
159888 159887	159803	186145 186819
159874 159873	159795	186145

Slotted nut torques max.
186145 110 Nm

Type	Shank DIN	¹ Order No.	dh6 mm	L mm	L1 mm	L5 mm	L6 mm	LM mm	D mm	d1 mm	d2 mm	³ Thread inserts required
STC 2 2xD	1835 A	159888	32	202	127,3	60	66	6,5	40	32	30	2
	1835 B	159887	32	202	127,3	60	66	6,5	40	32	30	2
STC 3 1,5xD	1835 A	159874	32	170	95,3	60	30	6,5	40	32	30	3
	1835 B	159873	32	170	95,3	60	30	6,5	40	32	30	3

Milling Inserts

- Cutting Data see page 190

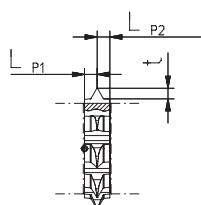


Pitch mm	Number of teeth	D mm	t mm	LP1=LP2 mm	Order No TINAMATIC
6	10	40	3,415	3,1	159763



Pitch mm	Number of teeth	D mm	LP1=LP2 mm	Order No TINAMATIC
1-3	24-9	40	3,1	159836
3-6	9-4	40	3,1	180440

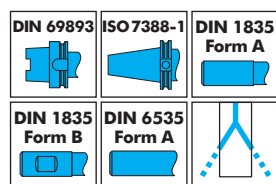
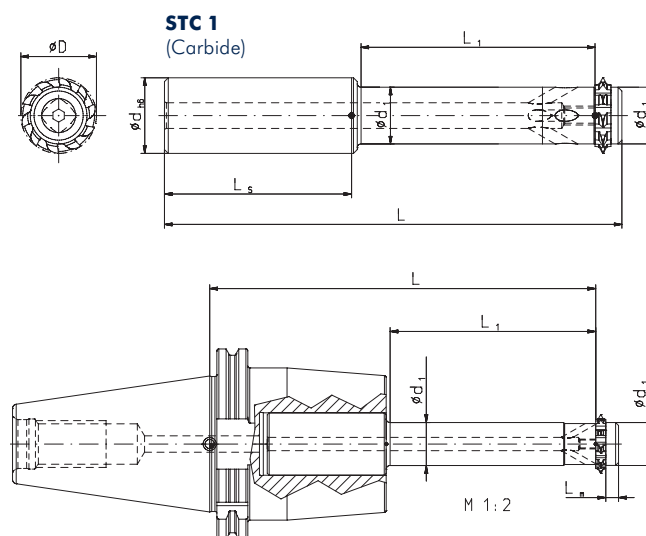
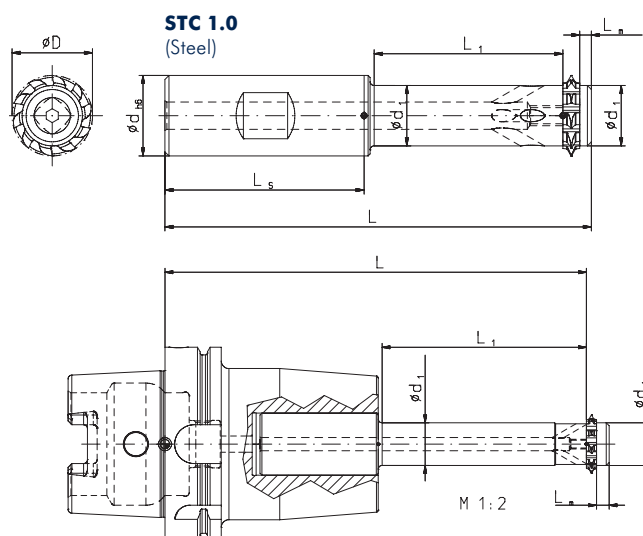
ATTENTION: Please ask for distance sleeves separately!



Milling System for Threads from Drill Hole Dia. 60 mm ($\geq M64$)

■ Cutting data see page 190

■ Recommendation plunging movements see page 200



Complete holder
without Inserts

Spare Parts			
for	④ Clamping disc	② Clamping screw	Screw-driver
156510 156511 182044 182715 182716	159788	114523	178640

Screw torques max.
SW6 24,5 Nm

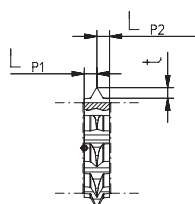
Type	Shank DIN	① Order No.	d h6 mm	L mm	L ₁ mm	L ₅ mm	L _G mm	L _M mm	D mm	d ₁ mm	d ₂ mm	③ Thread inserts required
STC 1.0	1835 A	156510 NEW	40	232	146,4	70	–	7,4	50	39	–	1
	1835 B	156511 NEW	40	232	146,4	70	–	7,4	50	39	–	1
STC 1 3xD	6535 A	182044 NEW	40	299	196,4	88	–	7,4	50	39	–	1
	HSK 100	182715 NEW	–	351	196,4	140	–	7,4	50	39	–	1
	SK 50	182716 NEW	–	311	196,4	100	–	7,4	50	39	–	1

Milling Inserts

■ Cutting Data see page 190



Pitch mm	G / °	Number of teeth	D mm	LP1=LP2 mm	Order No TINAMATIC
1-3	24-9	12	50	3,6	181735
3-6	9-4	12	50	3,6	181736
5-8	6-3	12	50	3,6	181737





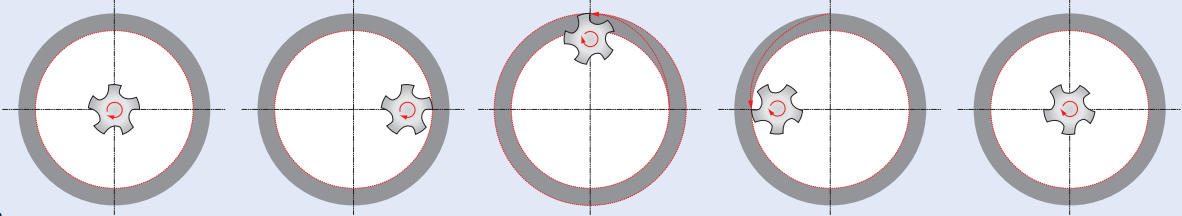
Cutting Data Reference Values

		Material	Strength	STC			PolySAW / DeepMILL			
				TINAMATIC	STC-1	STC-2 STC-3	TINAMATIC	0,3 x S _{max}	0,6 x S _{max}	S _{max}
				V _c (m/min.)	f _z mm	f _z mm	V _c (m/min.)	f _z mm	f _z mm	f _z mm
A	1.1	General construction steel	< 800 N/mm ²	120-180	0,05-0,2	0,05-0,1	120-180	0,03-0,05	0,02-0,04	0,015-0,03
	1.2	Free cutting steel	< 800 N/mm ²	120-180	0,05-0,2	0,05-0,1	120-180	0,03-0,05	0,02-0,04	0,015-0,03
	1.3	Unalloyed cementation steel	< 800 N/mm ²	120-180	0,05-0,2	0,05-0,1	120-180	0,03-0,05	0,02-0,04	0,015-0,03
	1.4	Alloyed cementation steels	< 1000 N/mm ²	100-120	0,05-0,2	0,05-0,1	100-120	0,03-0,05	0,02-0,04	0,015-0,03
	1.5	Unalloyed heat-treatable steel	< 850 N/mm ²	120-180	0,05-0,2	0,05-0,1	120-180	0,03-0,05	0,02-0,04	0,015-0,03
	1.6	Unalloyed heat-treatable steel	< 1000 N/mm ²	100-120	0,05-0,2	0,05-0,1	100-120	0,03-0,05	0,02-0,04	0,015-0,03
	1.7	Alloyed heat-treatable steel	< 800 N/mm ²	120-180	0,05-0,2	0,05-0,1	120-180	0,03-0,05	0,02-0,04	0,015-0,03
	1.8	Alloyed heat-treatable steel	< 1300 N/mm ²	80-100	0,05-0,2	0,05-0,1	80-100	0,03-0,05	0,02-0,04	0,015-0,03
	1.9	Cast Steel	< 850 N/mm ²	100-120	0,05-0,2	0,05-0,1	100-120	0,03-0,05	0,02-0,04	0,015-0,03
	1.10	Nitriding steel	< 1000 N/mm ²	100-120	0,05-0,2	0,05-0,1	100-120	0,03-0,05	0,02-0,04	0,015-0,03
	1.11	Nitriding steel	< 1200 N/mm ²	80-100	0,05-0,2	0,05-0,1	80-100	0,03-0,05	0,02-0,04	0,015-0,03
	1.12	Ball bearing steel	< 1200 N/mm ²	80-100	0,05-0,2	0,05-0,1	80-100	0,03-0,05	0,02-0,04	0,015-0,03
	1.13	Spring steel	< 1200 N/mm ²	80-100	0,05-0,2	0,05-0,1	80-100	0,03-0,05	0,02-0,04	0,015-0,03
	1.14	Rapid steel	< 1300 N/mm ²	80-100	0,05-0,2	0,05-0,1	80-100	0,03-0,05	0,02-0,04	0,015-0,03
	1.15	Cold work tool steel	< 1300 N/mm ²	80-100	0,05-0,2	0,05-0,1	80-100	0,03-0,05	0,02-0,04	0,015-0,03
	1.16	Hot work tool steel	< 1300 N/mm ²	80-100	0,05-0,2	0,05-0,1	80-100	0,03-0,05	0,02-0,04	0,015-0,03
R	2.1	Stainless steel, sulphured	< 850 N/mm ²	120-150	0,05-0,2	0,05-0,1	120-150	0,03-0,05	0,02-0,04	0,015-0,03
	2.2	Stainless steel, ferritic	< 750 N/mm ²	120-150	0,05-0,2	0,05-0,1	120-150	0,03-0,05	0,02-0,04	0,015-0,03
	2.3	Stainless steel, martensitic	< 900 N/mm ²	100-120	0,05-0,2	0,05-0,1	100-120	0,03-0,05	0,02-0,04	0,015-0,03
	2.4	Stainless steel, ferritic/martensitic	< 1100 N/mm ²	100-120	0,05-0,2	0,05-0,1	100-120	0,03-0,05	0,02-0,04	0,015-0,03
	2.5	Stainless steel, austenitic/ferritic	< 850 N/mm ²	120-180	0,05-0,2	0,05-0,1	120-180	0,03-0,05	0,02-0,04	0,015-0,03
	2.6	Stainless steel, austenitic	< 750 N/mm ²	120-180	0,05-0,2	0,05-0,1	120-180	0,03-0,05	0,02-0,04	0,015-0,03
	2.7	Heat-resisting steel	< 1100 N/mm ²	80-100	0,05-0,2	0,05-0,1	80-100	0,03-0,05	0,02-0,04	0,015-0,03
F	3.1	Flake-graphite cast iron	100-350 N/mm ²	120-180	0,05-0,2	0,05-0,1	120-180	0,03-0,05	0,02-0,04	0,015-0,03
	3.2	Flake-graphite cast iron	300-1000 N/mm ²	120-180	0,05-0,2	0,05-0,1	120-180	0,03-0,05	0,02-0,04	0,015-0,03
	3.3	Spheroidal graphite cast iron	300-500 N/mm ²	120-180	0,05-0,2	0,05-0,1	120-180	0,03-0,05	0,02-0,04	0,015-0,03
	3.4	Spheroidal graphite cast iron	550-800 N/mm ²	120-150	0,05-0,2	0,05-0,1	120-150	0,03-0,05	0,02-0,04	0,015-0,03
	3.5	Whiteheart malleable cast iron	350-450 N/mm ²	120-180	0,05-0,2	0,05-0,1	120-180	0,03-0,05	0,02-0,04	0,015-0,03
	3.6	Whiteheart malleable cast iron	500-650 N/mm ²	120-180	0,05-0,5	0,05-0,1	120-180	0,03-0,05	0,02-0,04	0,015-0,03
	3.7	Blackheart malleable cast iron	350-450 N/mm ²	120-180	0,05-0,2	0,05-0,1	120-180	0,03-0,05	0,02-0,04	0,015-0,03
	3.8	Blackheart malleable cast iron	500-700 N/mm ²	120-180	0,05-0,2	0,05-0,1	120-180	0,03-0,05	0,02-0,04	0,015-0,03
N	4.1	Aluminium (unalloyed, low alloyed)	< 350 N/mm ²	160-400	0,05-0,2	0,05-0,1	160-400	0,03-0,05	0,02-0,04	0,015-0,03
	4.2	Aluminium alloys < 0,5% Si	< 500 N/mm ²	160-400	0,05-0,2	0,05-0,1	160-400	0,03-0,05	0,02-0,04	0,015-0,03
	4.3	Aluminium alloys 0,5-10% Si	< 400 N/mm ²							
	4.4	Aluminium alloys 10-15% Si	< 400 N/mm ²							
	4.5	Aluminium alloys > 15% Si	< 400 N/mm ²							
	4.6	Cooper (unalloyed, low alloyed)	< 350 N/mm ²	300-500	0,1-0,25	0,1-0,2	300-500	0,03-0,05	0,02-0,04	0,015-0,03
	4.7	Copper wrought alloys	< 700 N/mm ²							
	4.8	Cooper special alloys	< 200 HB							
	4.9	Cooper special alloys	< 300 HB							
	4.10	Cooper special alloys	> 300 HB							
	4.11	Brass, short-chipping, Bronze, Red brass	< 600 N/mm ²	200-300	0,1-0,25	0,1-0,2	200-300	0,03-0,05	0,02-0,04	0,015-0,03
	4.12	Brass, long-chipping	< 600 N/mm ²							
	4.13	Thermoplastic		300-500	0,1-0,25	0,1-0,2	300-500	0,03-0,05	0,02-0,04	0,015-0,03
	4.14	Thermosetting plastic		300-500	0,1-0,25	0,1-0,2	300-500	0,03-0,05	0,02-0,04	0,015-0,03
	4.15	Fibre-reinforced plastics								
	4.16	Magnesium and magnesium alloys	< 850 N/mm ²							
	4.17	Graphite		300-500	0,1-0,25	0,1-0,2	300-500	0,03-0,05	0,02-0,04	0,015-0,03
	4.18	Wolfram and wolfram alloys								
	4.19	Molybdenum and molybdenum alloys								
S	5.1	Pure nickel								
	5.2	Nickel alloys		80-120	0,05-0,2	0,05-0,1	80-120	0,03-0,05	0,02-0,04	0,015-0,03
	5.3	Nickel alloys	< 850 N/mm ²	80-120	0,05-0,2	0,05-0,1	80-120	0,03-0,05	0,02-0,04	0,015-0,03
	5.4	Nickel-chrome alloys								
	5.5	Nickel- and cobalt alloys	< 1300 N/mm ²							
	5.6	Nickel- and cobalt alloys	< 1300 N/mm ²							
	5.7	High temperature alloys	< 1300 N/mm ²							
	5.8	Nickel-cobalt-(chrome-) alloys	< 1400 N/mm ²							
	5.9	Pure Titanium	< 900 N/mm ²							
	5.10	Titanium alloys	< 700 N/mm ²	70-100	0,01-0,08	0,01-0,08	70-100	0,03-0,05	0,02-0,04	0,015-0,03
	5.11	Titanium alloys	< 1200 N/mm ²	60-90	0,01-0,08	0,01-0,08	60-90	0,03-0,05	0,02-0,04	0,015-0,03
H	6.1	Hardened steel	< 45 HRC	80-100	0,03-0,1	0,03-0,1	80-100	0,03-0,05	0,02-0,04	0,015-0,03
	6.2		46-55 HRC	80-100	0,03-0,1	0,03-0,1	80-100	0,03-0,05	0,02-0,04	0,015-0,03
	6.3		56-60 HRC	40-50	0,01-0,05	0,01-0,05	40-50	0,03-0,05	0,02-0,04	0,015-0,03
	6.4		61-65 HRC	30-40	0,01-0,04	0,01-0,04	30-40	0,03-0,05	0,02-0,04	0,015-0,03
	6.5		65-70 HRC							

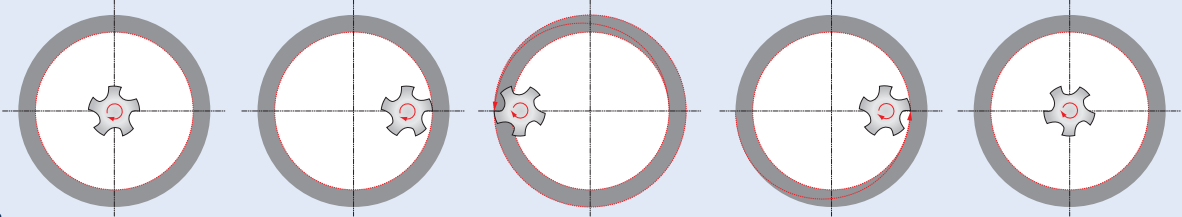
* The indicated feed values apply only with circular bringing in loop. During linear bringing in movement the feed motion amounts to max. 30%

Plunge-in Ramps Effect of In- and Outward Movements

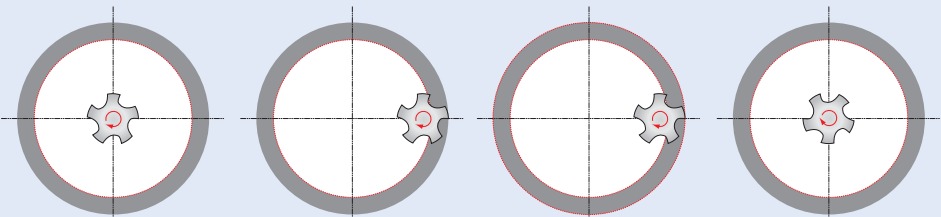
- 90° plunge-in
- 180° plunge-in
- Straight plunge-in

a	Plunge-in and -out	Processing time	Surface quality	Tool life
	90°	++	++	+
				

⚠ Always recommended whenever possible.

a	Plunge-in and -out	Processing time	Surface quality	Tool life
	180°	+	+++	+++
				

⚠ To be used for large tool diameters in relation to the core diameter, e.g. for all STC tools.

a	Plunge-in and -out	Processing time	Surface quality	Tool life
	straight	+++	---	---
				

⚠ Not recommended. When straight plunge-in, use only 1/3 of feed. After reaching the depth of grooving, give full feed.