

## Designation key for indexable insert thread milling cutters

Tool:

T	2	7	11	-	29	-	W	32	-	3	-	09	-	3	-	24
1	2	3	4	5	6		7	8		9		10		11		12

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>Tool group</b>	<b>Generation</b>	<b>Tool type</b>	<b>Tool type</b>	<b>1. Delimiters</b>	<b>Cutting diameter</b>
T Threading		7 Indexable insert thread milling cutter	11 Universal With triangular insert $2.0 \times D_N$ 12 Universal With triangular insert $2.5 \times D_N$ 13 Universal With triangular insert $3.0 \times D_N$ /modular	- Metric . Inch	
<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>Adaptor type</b>	<b>Adaptor size</b>	<b>Number of teeth</b>	<b>Insert size</b>	<b>Number of cutting rows</b>	<b>Cutting row spacing</b>
W Weldon shank C Walter Capto™					

Indexable insert:

P26300	-	09	02	-	D	6	7	W	SM	37	S
1		2	3		4	5	6	Walter	7	8	9

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>Family</b>	<b>Insert size</b>	<b>Insert radius</b>	<b>Chip breaker groove</b>	<b>Cutting edge</b>	<b>Flank face design</b>
26300 Triangular thread milling cutter insert, positive	06 09 11 14	01 = 0,1 mm 02 = 0,2 mm 04 = 0,4 mm	D = 10°	6	1 7
<b>7</b>	<b>8</b>	<b>9</b>			
<b>Application</b>	<b>ISO application range</b>	<b>Generation</b>			
SM Can be used universally with ISO P, M, K, S and H materials	Wear resistance 37 Toughness Cutting tool materials for: 7 thread milling	S Tiger-tec® Silver			

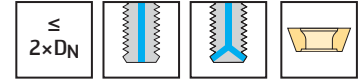
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# Indexable insert thread milling cutter

T2711 mm



- Radius correction values: See technical information
- D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness



	P	M	K	N	S	H	O
T2711	●	●	●	●	●	●	●

Tool		Designation	$D_N$	$P_{max}$ mm	$D_c$ mm	$l_{21}$ mm	$l_3$ mm	$l_1$ mm	$d_1$ mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B		T2711-19-W20-3-06-2-24	M 24	3,00	19	24	51	110	20	3	6	P26300-06 ..
		T2711-24-W25-3-09-2-31.5	M 30	3,50	24	31,5	64,5	132	25	3	6	P26300-09 ..
		T2711-52-W40-4-14-2-60	M 64	6,00	52	60	135	217	40	4	8	P26300-14 ..
Shank DIN 1835 B		T2711-29-W32-3-09-3-24	M 36	4,00	29	24	76,5	149	32	3	9	P26300-09 ..
		T2711-35-W32-3-11-3-27	M 42	4,50	35	27	89,5	160	32	3	9	P26300-11 ..
		T2711-40-W40-3-14-3-30	M 48	5,00	40	30	103	187	40	3	9	P26300-14 ..
		T2711-44-W40-3-14-3-33	M 56	5,50	44	33	119	202	40	3	9	

Bodies and assembly parts are included in the scope of delivery.

### Assembly parts

D <sub>c</sub> [mm]	19	24–29	35	40–52	
	Clamping screw for indexable insert	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm
	Coolant screw	FS2147 (Torx 6IP) 0,6 Nm	FS2111 (Torx 7IP) 0,9 Nm	FS2061 (Torx 7IP) 0,9 Nm	FS1457 (Torx 9IP) 2,0 Nm

### Accessories

D <sub>c</sub> [mm]	19	24–35	40–52	
	Torque screwdriver, analogue	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm
	Tightening torque	FS2001 0,4–1,2 Nm	FS2001 0,4–1,2 Nm	FS2003 1,5–5,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)
	Screwdriver for indexable insert	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)

### Thread milling cutter inserts P26300

Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O						
							HC	HC	HC	HC	HC	HC	HC	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S
	6	0,1	1,50–2,50	18–10	6,73	3	HC	HC	HC	HC	HC	HC	HC						
		0,2	3,00	8	6,58	3	HC	HC	HC	HC	HC	HC	HC						
	9	0,1	1,50–2,50	18–10	9,48	3	HC	HC	HC	HC	HC	HC	HC						
		0,2	3,00–4,00	8–6	9,34	3	HC	HC	HC	HC	HC	HC	HC						
	11	0,2	3,00–4,50	8–6	10,71	3	HC	HC	HC	HC	HC	HC	HC						
		14	0,1	1,50–2,50	18–10	13,87	3	HC	HC	HC	HC	HC	HC	HC					
0,2	3,00–4,50		8–6	13,72	3	HC	HC	HC	HC	HC	HC	HC							
0,4	5,00–6,00		5–4	13,43	3	HC	HC	HC	HC	HC	HC	HC							
	6	0,1	1,50–2,50	18–10	6,73	3	HC	HC	HC	HC	HC	HC	HC						
		0,2	3,00	8	6,58	3	HC	HC	HC	HC	HC	HC	HC						
	9	0,1	1,50–2,50	18–10	9,48	3	HC	HC	HC	HC	HC	HC	HC						
		0,2	3,00–4,00	8–6	9,34	3	HC	HC	HC	HC	HC	HC	HC						
	11	0,1	1,50–2,50	18–10	10,85	3	HC	HC	HC	HC	HC	HC	HC						
		0,2	3,00–4,50	8–6	10,71	3	HC	HC	HC	HC	HC	HC	HC						
	14	0,1	1,50–2,50	18–10	13,87	3	HC	HC	HC	HC	HC	HC	HC						
		0,2	3,00–4,50	8–6	13,72	3	HC	HC	HC	HC	HC	HC	HC						
		0,4	5,00–6,00	5–4	13,43	3	HC	HC	HC	HC	HC	HC	HC						

HC = Coated carbide

### Tool selection

Metric thread			Coarse pitch thread						Fine pitch thread															
Family	Body designation	l <sub>3</sub> [mm]	M24 / M30 / M36 / M42 / M48 / M56 / M64 / M27 / M33 / M39 / M45 / M52 / M59 / M68	P [mm]																				
			D <sub>N</sub> [mm]	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6											
T2711	T2711-19-W20-3-06-2-24	51	0602																					
	T2711-24-W25-3-09-2-31,5	64,5		0902																				
	T2711-29-W32-3-09-3-24	76,5			0902																			
	T2711-35-W32-3-11-3-27	89,5				1102																		
	T2711-40-W40-3-14-3-30	103					1404																	
	T2711-44-W40-3-14-3-33	119						1404																
	T2711-52-W40-4-14-2-60	135							1404															

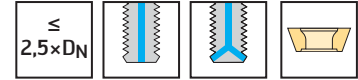
Example: With the T2711-29-W32-3-09-3-24 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902..), an M36 or M39 thread can be produced. Additionally, this body/indexable insert combination can be used to produce fine-pitch threads with a pitch of 3 or 4 mm, when the nominal diameter is ≥ 36 mm.

# Indexable insert thread milling cutter

T2712 mm



– Radius correction values: See technical information  
 – D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness



	P	M	K	N	S	H	O
T2712	●	●	●	●	●	●	●

Tool	Designation	D <sub>N</sub>	P <sub>max</sub> mm	P <sub>max</sub> TPI	D <sub>c</sub> mm	l <sub>21</sub> mm	L <sub>c</sub> mm	l <sub>3</sub> mm	l <sub>1</sub> mm	d <sub>1</sub> mm	Z	No. of index- able inserts	Type
Shank DIN 1835 B 	T2712-24-W25-3-09-2-31.5	M 30	3,50	-	24	31,5	63	79,5	147	25	3	6	P26300-09 ..
	T2712-29-W32-3-09-2-36	M 36	4,00	-	29	36	72	94,5	167	32	3	6	P26300-11 ..
	T2712-35-W32-3-11-2-40.5	M 42	4,50	-	35	40,5	81	110,5	180	32	3	6	P26300-14 ..
	T2712-40-W40-3-14-2-50	M 48	5,00	-	40	50	100	127	211	40	3	6	P26300-14 ..
Shank DIN 1835 B 	★ T2712-19-W20-3-06	M24	3,00	8	19	-	-	63	123	20	3	3	P26300-06 ..
	★ T2712-24-W25-3-09	M30	3,50	7	24	-	-	79,5	148	25	3	3	P26300-09 ..
	★ T2712-29-W32-3-09	M36	4,00	6	29	-	-	94,5	167	32	3	3	P26300-11 ..
	★ T2712-35-W32-3-11	M42	4,50	6	35	-	-	110,5	181	32	3	3	P26300-11 ..
	★ T2712-40-W40-3-14	M48	5,00	5	40	-	-	127	211	40	3	3	P26300-14 ..
	★ T2712-44-W40-3-14	M56	5,50	5	44	-	-	147	230	40	3	3	P26300-14 ..
	★ T2712-52-W40-4-14	M64	6,00	4	52	-	-	167	249	40	4	4	P26300-14 ..

Bodies and assembly parts are included in the scope of delivery.

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Assembly parts

D <sub>c</sub> [mm]		19	24–29	35	40–52
	Clamping screw for indexable insert	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)	FS2061 (Torx 7IP)	FS1457 (Torx 9IP)
	Tightening torque	0,6 Nm	0,9 Nm	0,9 Nm	2,0 Nm
	Coolant screw	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)	FS2061 (Torx 7IP)	FS1457 (Torx 9IP)
	Tightening torque	0,6 Nm	0,9 Nm	0,9 Nm	2,0 Nm

Accessories

D <sub>c</sub> [mm]		19	24–35	40–52
	Torque screwdriver, analogue	FS2001	FS2001	FS2003
	Tightening torque	0,4–1,2 Nm	0,4–1,2 Nm	1,5–5,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)
	Screwdriver for indexable insert	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)

Thread milling cutter inserts P26300

Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O				
							HC	HC	HC	HC	HC	HC	HC	HC	HC	HC	
	6	0,1	1,50–2,50	18–10	6,73	3											
		0,2	3,00	8	6,58	3											
	9	0,1	1,50–2,50	18–10	9,48	3											
		0,2	3,00–4,00	8–6	9,34	3											
	11	0,2	3,00–4,50	8–6	10,71	3											
		0,1	1,50–2,50	18–10	13,87	3											
	14	0,2	3,00–4,50	8–6	13,72	3											
		0,4	5,00–6,00	5–4	13,43	3											
		6	0,1	1,50–2,50	18–10	6,73	3										
0,2			3,00	8	6,58	3											
9		0,1	1,50–2,50	18–10	9,48	3											
		0,2	3,00–4,00	8–6	9,34	3											
11		0,1	1,50–2,50	18–10	10,85	3											
		0,2	3,00–4,50	8–6	10,71	3											
14		0,1	1,50–2,50	18–10	13,87	3											
		0,2	3,00–4,50	8–6	13,72	3											
P26300-1404-D61			0,4	5,00–6,00	5–4	13,43	3										

HC = Coated carbide

Tool selection

Metric thread			Coarse pitch thread						Fine pitch thread														
Family	Body designation	l <sub>3</sub> [mm]	M24 / M30 / M36 / M42 / M48 / M56 / M64 / M68						D <sub>N</sub> [mm]	P [mm]													
			M27	M33	M39	M45	M52	M59		M68	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6			
T2712	T2712-24-W25-3-09-2-31.5	79,5		0902					≥ 30	0901				0902									
	T2712-29-W32-3-09-2-36	94,5			0902				≥ 36	0901	0901		0902		0902								
	T2712-35-W32-3-11-2-40.5	110,5				1102			≥ 42	1101						1102							
	T2712-40-W40-3-14-2-50	127						1404	≥ 48		1401	1401										1404	
T2712	T2712-19-W20-3-06	63	0602						≥ 24		0601		0602										
	T2712-24-W25-3-09	79,5		0902					≥ 30		0901		0902										
	T2712-29-W32-3-09	94,5			0902				≥ 36		0901		0902										
	T2712-35-W32-3-11	110,5				1102			≥ 42		1101			1102									
	T2712-40-W40-3-14	127						1404	≥ 48		1401			1402			1404						
	T2712-44-W40-3-14	147							≥ 56		1401			1402				1404					
T2712-52-W40-4-14	167							≥ 64		1401			1402									1404	

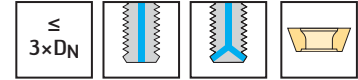
Example: With the T2712-29-W32-3-09-2-36 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902..), an M36 or M39 thread can be produced. Additionally, this body/indexable insert combination can be used to produce fine-pitch threads with a pitch of 3 or 4 mm, when the nominal diameter is ≥ 36 mm.

# Indexable insert thread milling cutter

T2713



– Radius correction values: See technical information  
 – D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness



	P	M	K	N	S	H	O
T2713	●	●	●	●	●		●

Tool	Designation	D <sub>N</sub>	P <sub>max</sub> mm	P <sub>max</sub> TPI	D <sub>c</sub> mm	l <sub>3</sub> mm	l <sub>1</sub> mm	d <sub>1</sub> mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B 	★ T2713-19-W20-3-06	M24	3,00	8	19	75	135	20	3	3	P26300-06 ..
	★ T2713-24-W25-3-09	M30	3,50	7	24	94,5	163	25	3	3	P26300-09 ..
	★ T2713-29-W32-3-09	M36	4,00	6	29	112,5	185	32	3	3	P26300-11 ..
	★ T2713-35-W32-3-11	M42	4,50	6	35	131,5	202	32	3	3	P26300-11 ..
	★ T2713-40-W40-3-14	M48	5,00	5	40	151	235	40	3	3	P26300-14 ..
	★ T2713-44-W40-3-14	M56	5,50	5	44	175	258	40	3	3	P26300-14 ..
	★ T2713-52-W40-4-14	M64	6,00	4	52	199	281	40	4	4	P26300-14 ..
Walter Capto™ in acc. with ISO 26623 	★ T2713-60-C5-4-14	M72	6,00	4	60	115	152	50	4	4	P26300-14 ..
	★ T2713-73-C6-5-14	M85	6,00	4	73	125	170	63	5	5	P26300-14 ..

Bodies and assembly parts are included in the scope of delivery.

### Assembly parts

D <sub>c</sub> [mm]	19	24–29	35	40–73	
	Clamping screw for indexable insert	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)	FS2061 (Torx 7IP)	FS1457 (Torx 9IP)
	Tightening torque	0,6 Nm	0,9 Nm	0,9 Nm	2,0 Nm
	Coolant screw	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)	FS2061 (Torx 7IP)	FS1457 (Torx 9IP)
	Tightening torque	0,6 Nm	0,9 Nm	0,9 Nm	2,0 Nm

### Accessories

D <sub>c</sub> [mm]	19	24–35	40–73	
	Torque screwdriver, analogue	FS2001	FS2001	FS2003
	Tightening torque	0,4–1,2 Nm	0,4–1,2 Nm	1,5–5,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)
	Screwdriver for indexable insert	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)

### Thread milling cutter inserts P26300

Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O					
							HC	HC	HC	HC	HC	HC	HC	HC				
	P26300-0601-D67	6	0,1	1,50–2,50	18–10	6,73	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-0602-D67	6	0,2	3,00	8	6,58	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-0901-D67	9	0,1	1,50–2,50	18–10	9,48	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-0902-D67	9	0,2	3,00–4,00	8–6	9,34	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1102-D67	11	0,2	3,00–4,50	8–6	10,71	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1401-D67	14	0,1	1,50–2,50	18–10	13,87	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1402-D67		0,2	3,00–4,50	8–6	13,72	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1404-D67		0,4	5,00–6,00	5–4	13,43	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-0601-D61	6	0,1	1,50–2,50	18–10	6,73	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-0602-D61	6	0,2	3,00	8	6,58	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-0901-D61	9	0,1	1,50–2,50	18–10	9,48	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-0902-D61	9	0,2	3,00–4,00	8–6	9,34	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1101-D61	11	0,1	1,50–2,50	18–10	10,85	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1102-D61		0,2	3,00–4,50	8–6	10,71	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1401-D61	14	0,1	1,50–2,50	18–10	13,87	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1402-D61		0,2	3,00–4,50	8–6	13,72	3	HC	HC	HC	HC	HC	HC	HC				
P26300-1404-D61	0,4		5,00–6,00	5–4	13,43	3	HC	HC	HC	HC	HC	HC	HC					

HC = Coated carbide

### Tool selection

Metric thread			Coarse pitch thread						Fine pitch thread									
Family	Body designation	l <sub>3</sub> [mm]	M24 / M27	M30 / M33	M36 / M39	M42 / M45	M48 / M52	M56 / M59	M64 / M68	D <sub>N</sub> [mm]	P [mm]							
			1,5–2,5	3	3,5	4	4,5	5	5,5		6							
T2713	T2713-19-W20-3-06	75	0602							≥ 24	0601	0602						
	T2713-24-W25-3-09	94,5		0902						≥ 30	0901	0902						
	T2713-29-W32-3-09	112,5			0902					≥ 36	0901	0902						
	T2713-35-W32-3-11	131,5				1102				≥ 42	1101	1102						
	T2713-40-W40-3-14	151					1404			≥ 48	1401	1402			1404			
	T2713-44-W40-3-14	175						1404		≥ 56	1401	1402			1404			
	T2713-52-W40-4-14	199							1404	≥ 64	1401	1402			1404			
	T2713-60-C5-4-14	115								≥ 72	1401	1402			1404			
	T2713-73-C6-5-14	125								≥ 85	1401	1402			1404			

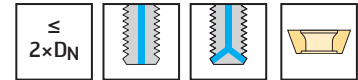
Example: With the T2713-29-W32-3-09 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902..), an M36 or M39 thread can be produced. Additionally, this body/indexable insert combination can be used to produce fine-pitch threads with a pitch of 3 or 4 mm, when the nominal diameter is ≥ 36 mm.

# Indexable insert thread milling cutter

T2711 mm



- Radius correction values: See technical information
- D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness



	P	M	K	N	S	H	O
T2711	●	●	●	●	●	●	●

Tool	Designation	D <sub>N</sub>	P <sub>max</sub> TPI	D <sub>c</sub> mm	l <sub>21</sub> mm	l <sub>3</sub> mm	l <sub>1</sub> mm	d <sub>1</sub> mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B 	T2711-20-W20-3-06-2-25.4	UNC 1	8	20	25,4	53,9	113	20	3	6	P26300-06 ..
	T2711-26-W25-3-09-2-32.7	UNC 1.1/4	7	26	32,66	68	135	25	3	6	P26300-09 ..
Shank DIN 1835 B 	T2711-31-W32-3-09-3-25.4	UNC 1.1/2	6	31	25,4	80,7	153	32	3	9	P26300-09 ..

Bodies and assembly parts are included in the scope of delivery.

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### Assembly parts

D <sub>c</sub> [mm]		20	26-31
	Clamping screw for indexable insert	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)
	Tightening torque	0,6 Nm	0,9 Nm
	Coolant screw	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)
	Tightening torque	0,6 Nm	0,9 Nm

### Accessories

D <sub>c</sub> [mm]		20	26-31
	Torque screwdriver, analogue	FS2001	FS2001
	Tightening torque	0,4-1,2 Nm	0,4-1,2 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)
	Screwdriver for indexable insert	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)

### Thread milling cutter inserts P26300

Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O					
							HC	HC	HC	HC	HC	HC	HC	HC				
	P26300-0601-D67	6	0,1	1,50-2,50	18-10	6,73	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-0602-D67		0,2	3,00	8	6,58	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-0901-D67	9	0,1	1,50-2,50	18-10	9,48	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-0902-D67		0,2	3,00-4,00	8-6	9,34	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1102-D67	11	0,2	3,00-4,50	8-6	10,71	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1401-D67	14	0,1	1,50-2,50	18-10	13,87	3	HC	HC	HC	HC	HC	HC	HC				
P26300-1402-D67	0,2		3,00-4,50	8-6	13,72	3	HC	HC	HC	HC	HC	HC	HC					
P26300-1404-D67	0,4		5,00-6,00	5-4	13,43	3	HC	HC	HC	HC	HC	HC	HC	HC				
	P26300-0601-D61	6	0,1	1,50-2,50	18-10	6,73	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-0602-D61		0,2	3,00	8	6,58	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-0901-D61	9	0,1	1,50-2,50	18-10	9,48	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-0902-D61		0,2	3,00-4,00	8-6	9,34	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1101-D61	11	0,1	1,50-2,50	18-10	10,85	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1102-D61		0,2	3,00-4,50	8-6	10,71	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1401-D61	14	0,1	1,50-2,50	18-10	13,87	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1402-D61		0,2	3,00-4,50	8-6	13,72	3	HC	HC	HC	HC	HC	HC	HC				
	P26300-1404-D61		0,4	5,00-6,00	5-4	13,43	3	HC	HC	HC	HC	HC	HC	HC	HC			

HC = Coated carbide

### Tool selection

UN threads		UNC			UNF					UN							
Family	Body designation	l <sub>3</sub> [mm]	1"	1 1/4"	1 1/2"	1"	1 1/8"	1 1/4"	1 3/8"	1 1/2"	D <sub>N</sub>	TPI					
												18*	16	14	12	8	6
T2711	T2711-20-W20-3-06-2-25.4	53,9	0602			0601	0601	0601	0601	0601	≥ 1,00"	0601	0601	0601	0601	0602	
	T2711-26-W25-3-09-2-32.7	68		0902							≥ 1,25"			0901			
	T2711-31-W32-3-09-3-25.4	80,7			0902					0901	≥ 1,50"	0901	0901	0901	0901	0901	0902

Example: With the T2711-31-W32-3-09-3-25.4 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902.), a UNC 1 1/2" thread can be produced. Additionally, this body/indexable insert combination can be used to produce UN threads with 8 and 6 TPI, when their nominal diameter is ≥ 1.5".

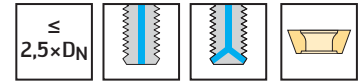
\* = UNEF

# Indexable insert thread milling cutter

T2712



- Radius correction values: See technical information  
 - D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness



	P	M	K	N	S	H	O
T2712	●	●	●	●	●		●

Tool	Designation	D <sub>N</sub>	P <sub>max</sub> TPI	P <sub>max</sub> mm	D <sub>c</sub> mm	l <sub>21</sub> mm	L <sub>c</sub> mm	l <sub>3</sub> mm	l <sub>1</sub> mm	d <sub>1</sub> mm	Z	No. of index- able inserts	Type
Shank DIN 1835 B 	★ T2712-26-W25-3-09-2-32.7	UNC 1 1/4	7	-	26	32,66	65,32	84	151	25	3	6	P26300-09 ..
	★ T2712-31-W32-3-09-2-38.1	UNC 1 1/2	6	-	31	38,1	76,2	99,8	172	32	3	6	
Shank DIN 1835 B 	★ T2712-19-W20-3-06	1,00"	8	3,00	19	-	-	63	123	20	3	3	P26300-06 ..
	★ T2712-24-W25-3-09	1,25"	7	3,50	24	-	-	79,5	148	25	3	3	P26300-09 ..
	★ T2712-29-W32-3-09	1,50"	6	4,00	29	-	-	94,5	167	32	3	3	P26300-11 ..
	★ T2712-35-W32-3-11	1,75"	6	4,50	35	-	-	110,5	181	32	3	3	
	★ T2712-40-W40-3-14	2,00"	5	5,00	40	-	-	127	211	40	3	3	
	★ T2712-44-W40-3-14	2,25"	4,5	5,50	44	-	-	147	230	40	3	3	P26300-14 ..
★ T2712-52-W40-4-14	2,75"	4	6,00	52	-	-	167	249	40	4	4		

Bodies and assembly parts are included in the scope of delivery.

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### Assembly parts

D <sub>c</sub> [mm]		19	24–31	35	40–52
	Clamping screw for indexable insert	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)	FS2061 (Torx 7IP)	FS1457 (Torx 9IP)
	Tightening torque	0,6 Nm	0,9 Nm	0,9 Nm	2,0 Nm
	Coolant screw	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)	FS2061 (Torx 7IP)	FS1457 (Torx 9IP)
	Tightening torque	0,6 Nm	0,9 Nm	0,9 Nm	2,0 Nm

### Accessories

D <sub>c</sub> [mm]		19	24–31	40–52
	Torque screwdriver, analogue	FS2001	FS2001	FS2003
	Tightening torque	0,4–1,2 Nm	0,4–1,2 Nm	1,5–5,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)
	Screwdriver for indexable insert	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)

### Thread milling cutter inserts P26300

Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O				
							HC	HC	HC	HC	HC	HC	HC	WSM37S	WSM37S	WSM37S	WSM37S
	6	0,1	1,50–2,50	18–10	6,73	3	HC	HC	HC	HC	HC	HC	HC				
		0,2	3,00	8	6,58	3	HC	HC	HC	HC	HC	HC	HC				
	9	0,1	1,50–2,50	18–10	9,48	3	HC	HC	HC	HC	HC	HC	HC				
		0,2	3,00–4,00	8–6	9,34	3	HC	HC	HC	HC	HC	HC	HC				
	11	0,2	3,00–4,50	8–6	10,71	3	HC	HC	HC	HC	HC	HC	HC				
		14	0,1	1,50–2,50	18–10	13,87	3	HC	HC	HC	HC	HC	HC	HC			
	0,2		3,00–4,50	8–6	13,72	3	HC	HC	HC	HC	HC	HC	HC				
	0,4	5,00–6,00	5–4	13,43	3	HC	HC	HC	HC	HC	HC	HC					
	6	0,1	1,50–2,50	18–10	6,73	3	HC	HC	HC	HC	HC	HC	HC				
		0,2	3,00	8	6,58	3	HC	HC	HC	HC	HC	HC	HC				
	9	0,1	1,50–2,50	18–10	9,48	3	HC	HC	HC	HC	HC	HC	HC				
		0,2	3,00–4,00	8–6	9,34	3	HC	HC	HC	HC	HC	HC	HC				
	11	0,1	1,50–2,50	18–10	10,85	3	HC	HC	HC	HC	HC	HC	HC				
		0,2	3,00–4,50	8–6	10,71	3	HC	HC	HC	HC	HC	HC	HC				
	14	0,1	1,50–2,50	18–10	13,87	3	HC	HC	HC	HC	HC	HC	HC				
		0,2	3,00–4,50	8–6	13,72	3	HC	HC	HC	HC	HC	HC	HC				
		0,4	5,00–6,00	5–4	13,43	3	HC	HC	HC	HC	HC	HC	HC				
			5,00–6,00	5–4	13,43	3	HC	HC	HC	HC	HC	HC	HC				

HC = Coated carbide

### Tool selection

UN threads			UNC				UNF					UN TPI						
Family	Body designation	l <sub>3</sub> [mm]	1"	1 1/4"	1 1/2"	2 1/4" ≥ 2 3/4"	1"	1 1/8"	1 1/4"	1 3/8"	1 1/2"	D <sub>N</sub>	18–10	8	6	5	4,5	4
T2712	T2712-26-W25-3-09-2-32.7	83,88		0902								≥ 1,25"						
	T2712-31-W32-3-09-2-38.1	99,75			0902						0901	≥ 1,50"	0901*	0902	0902			
T2712	T2712-19-W20-3-06	63	0602				0601	0601	0601	0601	0601	≥ 1,00"	0601	0602				
	T2712-24-W25-3-09	79,5		0902				0901	0901	0901	0901	≥ 1,25"	0901	0902				
	T2712-29-W32-3-09	94,5			0902					0901	0901	≥ 1,50"	0901	0902				
	T2712-35-W32-3-11	110,5										≥ 1,75"	1101	1102				
	T2712-40-W40-3-14	127										≥ 2,00"	1401	1402	1404			
	T2712-44-W40-3-14	147				1404						≥ 2,25"	1401	1402	1404			
	T2712-52-W40-4-14	167				1404						≥ 2,75"	1401	1402	1404			

Example: With the T2712-31-W32-3-09-2-38.1 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902.), a UNC 1 1/2" thread can be produced. Additionally, this body/indexable insert combination can be used to produce UN threads with 8 and 6 TPI, when their nominal diameter is ≥ 1.5".

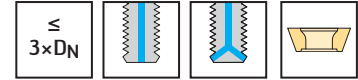
\* Exceptions: 13/11.5 and 11 TPI cannot be machined.

# Indexable insert thread milling cutter

T2713



– Radius correction values: See technical information  
 – D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness



	P	M	K	N	S	H	O
T2713	●	●	●	●	●		●

Tool	Designation	D <sub>N</sub>	P <sub>max</sub> TPI	P <sub>max</sub> mm	D <sub>c</sub> mm	l <sub>3</sub> mm	l <sub>1</sub> mm	d <sub>1</sub> mm	Z	No. of indexable inserts	Type
Shank DIN 1835 B 	★ T2713-19-W20-3-06	1,00"	8	3,00	19	75	135	20	3	3	P26300-06 ..
	★ T2713-24-W25-3-09	1,25"	7	3,50	24	94,5	163	25	3	3	P26300-09 ..
	★ T2713-29-W32-3-09	1,50"	6	4,00	29	112,5	185	32	3	3	P26300-11 ..
	★ T2713-35-W32-3-11	1,75"	6	4,50	35	131,5	202	32	3	3	P26300-11 ..
	★ T2713-40-W40-3-14	2,00"	5	5,00	40	151	235	40	3	3	P26300-14 ..
	★ T2713-44-W40-3-14	2,25"	4,5	5,50	44	175	258	40	3	3	P26300-14 ..
	★ T2713-52-W40-4-14	2,75"	4	6,00	52	199	281	40	4	4	P26300-14 ..
Walter Capto™ in acc. with ISO 26623 	★ T2713-60-C5-4-14	3,00"	4	6,00	60	115	152	50	4	4	P26300-14 ..
	★ T2713-73-C6-5-14	3,50"	4	6,00	73	125	170	63	5	5	P26300-14 ..

Bodies and assembly parts are included in the scope of delivery.

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### Assembly parts

D <sub>c</sub> [mm]	19	24-29	35	40-73	
	Clamping screw for indexable insert	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)	FS2061 (Torx 7IP)	FS1457 (Torx 9IP)
	Tightening torque	0,6 Nm	0,9 Nm	0,9 Nm	2,0 Nm
	Coolant screw	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)	FS2061 (Torx 7IP)	FS1457 (Torx 9IP)
	Tightening torque	0,6 Nm	0,9 Nm	0,9 Nm	2,0 Nm

### Accessories

D <sub>c</sub> [mm]	19	24-35	40-73	
	Torque screwdriver, analogue	FS2001	FS2001	FS2003
	Tightening torque	0,4-1,2 Nm	0,4-1,2 Nm	1,5-5,0 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)	FS2013 (Torx 9IP)
	Screwdriver for indexable insert	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)	FS1484 (Torx 9IP)

### Thread milling cutter inserts P26300

Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O					
							HC	HC	HC	HC	HC	HC	HC	WSM37S	WSM37S	WSM37S	WSM37S	WSM37S
	P26300-0601-D67	6	0,1	1,50-2,50	18-10	6,73	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-0602-D67	6	0,2	3,00	8	6,58	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-0901-D67	9	0,1	1,50-2,50	18-10	9,48	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-0902-D67	9	0,2	3,00-4,00	8-6	9,34	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-1102-D67	11	0,2	3,00-4,50	8-6	10,71	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-1401-D67	14	0,1	1,50-2,50	18-10	13,87	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-1402-D67		0,2	3,00-4,50	8-6	13,72	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-1404-D67		0,4	5,00-6,00	5-4	13,43	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-0601-D61	6	0,1	1,50-2,50	18-10	6,73	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-0602-D61		0,2	3,00	8	6,58	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-0901-D61	9	0,1	1,50-2,50	18-10	9,48	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-0902-D61		0,2	3,00-4,00	8-6	9,34	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-1101-D61	11	0,1	1,50-2,50	18-10	10,85	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-1102-D61		0,2	3,00-4,50	8-6	10,71	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-1401-D61	14	0,1	1,50-2,50	18-10	13,87	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-1402-D61		0,2	3,00-4,50	8-6	13,72	3	HC	HC	HC	HC	HC	HC	WSM37S				
	P26300-1404-D61		0,4	5,00-6,00	5-4	13,43	3	HC	HC	HC	HC	HC	HC	WSM37S				

HC = Coated carbide

### Tool selection

UN threads			UNC						UNF				UN							
Family	Body designation	l <sub>3</sub> [mm]	1"	1 1/4"	1 1/2"	2 1/4"	2 3/4"	≥ 3"	≥ 3 1/2"	1"	1 1/8"	1 1/4"	≥ 1 3/8"	D <sub>N</sub>	TPI					
			0602	0902	0902						0601	0601	0601	0601	≥ 1,00"	0601	0602			
T2713	T2713-19-W20-3-06	75	0602							0601	0601	0601	0601	≥ 1,00"	0601	0602				
	T2713-24-W25-3-09	94,5		0902							0901	0901	0901	≥ 1,25"	0901	0902				
	T2713-29-W32-3-09	112,5			0902								0901	≥ 1,50"	0901	0902				
	T2713-35-W32-3-11	131,5												≥ 1,75"	1101	1102				
	T2713-40-W40-3-14	151												≥ 2,00"	1401	1402	1404			
	T2713-44-W40-3-14	175				1404								≥ 2,25"	1401	1402	1404			
	T2713-52-C5-4-14	199					1404	1404	1404					≥ 2,75"	1401	1402	1404			
	T2713-60-C5-4-14	115						1404	1404					≥ 3,00"	1401	1402	1404			
T2713-73-C6-5-14	125							1404					≥ 3,50"	1401	1402	1404				

Example: With the T2713-29-W32-3-09 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902.), a UNC 1 1/2" thread can be produced. Additionally, this body/indexable insert combination can be used to produce UN threads with 8 to 6 TPI, when the nominal diameter is ≥ 1.5".

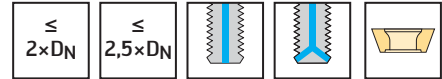
B4

# Indexable insert thread milling cutter

T2711 / T2712 inch



- Radius correction values: See technical information
- D67 geometry: Maximum tool life/D61 geometry: Best operational smoothness



	P	M	K	N	S	H	O
T2711	●	●	●	●	●	●	●
T2712	●	●	●	●	●	●	●

Tool	Designation	D <sub>N</sub>	P <sub>max</sub> TPI	P <sub>max</sub> mm	D <sub>c</sub> Inch	l <sub>21</sub> Inch	l <sub>3</sub> Inch	l <sub>1</sub> Inch	d <sub>1</sub> Inch	Z	No. of index- able inserts	Type
Weldon-Inch 	T2711.20-W19-3-06-2-25.4	UNC 1	8	-	0,787	1,000	2,122	4,461	0,750	3	6	P26300-06 ..
	T2711.26-W26-3-09-2-32.7	UNC 1.1/4	7	-	1,024	1,286	2,677	5,299	1,000	3	6	P26300-09 ..
Weldon-Inch 	T2711.31-W31-3-09-3-25.4	UNC 1.1/2	6	-	1,220	1,000	3,177	5,892	1,250	3	9	P26300-09 ..
Weldon-Inch 	★ T2712.20-W19-3-06	UNC 1	8	3,00	0,787	-	2,618	4,953	0,750	3	3	P26300-06 ..
	★ T2712.23-W26-3-09	UNC 1 1/8	7	3,50	0,886	-	2,992	5,695	1,000	3	3	P26300-09 ..
	★ T2712.28-W31-3-09	UNC 1 3/8	6	4,00	1,083	-	3,622	6,482	1,250	3	3	

Bodies and assembly parts are included in the scope of delivery.

### Assembly parts

D <sub>c</sub> [Inch]		0,787	0,886–1,220
	Clamping screw for indexable insert	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)
	Tightening torque	0,6 Nm	0,9 Nm
	Coolant screw	FS2147 (Torx 6IP)	FS2111 (Torx 7IP)
	Tightening torque	0,6 Nm	0,9 Nm

### Accessories

D <sub>c</sub> [Inch]		0,787	0,886 –1,220
	Torque screwdriver, analogue	FS2002	FS2002
	Tightening torque	0,4–1,2 Nm	0,4–1,2 Nm
	Interchangeable blade	FS2085 (Torx 6IP)	FS2011 (Torx 7IP)
	Screwdriver for indexable insert	FS2086 (Torx 6IP)	FS2088 (Torx 7IP)

### Thread milling cutter inserts P26300

Designation	Size	r mm	Pitch P mm	Pitch P TPI	l mm	Number of cutting edges	P	M	K	N	S	H	O			
							HC	HC	HC	HC	HC	HC	HC	HC		
	6	0,1	1,50–2,50	18–10	6,73	3	HC	HC	HC	HC	HC	HC	HC			
		0,2	3,00	8	6,58	3	HC	HC	HC	HC	HC	HC	HC			
		0,1	1,50–2,50	18–10	9,48	3	HC	HC	HC	HC	HC	HC	HC			
	9	0,2	3,00–4,00	8–6	9,34	3	HC	HC	HC	HC	HC	HC	HC			
		0,2	3,00–4,50	8–6	10,71	3	HC	HC	HC	HC	HC	HC	HC			
		0,1	1,50–2,50	18–10	13,87	3	HC	HC	HC	HC	HC	HC	HC			
	14	0,2	3,00–4,50	8–6	13,72	3	HC	HC	HC	HC	HC	HC	HC			
		0,4	5,00–6,00	5–4	13,43	3	HC	HC	HC	HC	HC	HC	HC			
		0,1	1,50–2,50	18–10	6,73	3	HC	HC	HC	HC	HC	HC	HC			
	6	0,2	3,00	8	6,58	3	HC	HC	HC	HC	HC	HC	HC			
		0,1	1,50–2,50	18–10	9,48	3	HC	HC	HC	HC	HC	HC	HC			
		0,2	3,00–4,00	8–6	9,34	3	HC	HC	HC	HC	HC	HC	HC			
	9	0,1	1,50–2,50	18–10	10,85	3	HC	HC	HC	HC	HC	HC	HC			
		0,2	3,00–4,50	8–6	10,71	3	HC	HC	HC	HC	HC	HC	HC			
		0,1	1,50–2,50	18–10	13,87	3	HC	HC	HC	HC	HC	HC	HC			
	14	0,2	3,00–4,50	8–6	13,72	3	HC	HC	HC	HC	HC	HC	HC			
		0,4	5,00–6,00	5–4	13,43	3	HC	HC	HC	HC	HC	HC	HC			

HC = Coated carbide

### Tool selection

UN threads			UNC					UNF					UN			
Family	Body designation	l <sub>3</sub> [inches]	1"	1 1/8"	1 1/4"	1 3/8"	1 1/2"	1"	1 1/8"	1 1/4"	1 3/8"	1 1/2"	D <sub>N</sub>	TPI		
														18–10	8	6
T2711	T2711.20-W19-3-06-2-25.4	2.122"	0602					0601	0601	0601	0601	0601	≥ 1,000"	0601	0602	
	T2711.26-W26-3-09-2-32.7	2.677"			0902								≥ 1,250"			
	T2711.31-W31-3-09-3-25.4	3.177"					0902					0901	≥ 1,500"	0901	0902	0902
T2712	T2712.20-W19-3-06	2.618"	0602					0601	0601	0601	0601	0601	≥ 1,000"	0601	0602	
	T2712.23-W26-3-09	2.992"		0902	0902				0901	0901	0901	0901	≥ 1,125"	0901	0902	
	T2712.28-W31-3-09	3.622"				0902	0902				0901	0901	≥ 1,375"	0901	0902	0902

Example: With the T2711.31-W31-3-09-3-25.4 body and the size 09 indexable insert with 0.2 mm radius (0902 -> P26300-0902...), a UNC 1 1/2" thread can be produced. Additionally, this body/indexable insert combination can be used to produce UN threads with 8 or 6 TPI, when the nominal diameter is ≥ 1.5".

# Cutting data

## Thread formers

The specified cutting data are average standard values.  
For specific applications, adjustment is recommended.

Material group	Overview of the main material groups and code letters		Birnell hardness HB	Tensile strength R <sub>m</sub> N/mm <sup>2</sup>	Machining group <sup>1</sup>	HSS-E thread formers				
						Coated				
						v <sub>c</sub> [m/min]				
						1,5 × D <sub>N</sub>	2 × D <sub>N</sub>	2,5 × D <sub>N</sub>		
<b>P</b>	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	46	37	32	<b>E</b>
		C > 0.25%... ≤ 0.55%	Annealed	190	640	P2	47	38	33	<b>E</b>
		C > 0.25%... ≤ 0.55%	Heat-treated	210	710	P3	29	23	20	<b>E</b>
		C > 0.55%	Annealed	190	640	P4	29	23	20	<b>E</b>
		C > 0.55%	Heat-treated	300	1010	P5	17	14	12	<b>E</b>
		Free-machining steel (short-chipping)	Annealed	220	750	P6	29	23	20	<b>E</b>
	Low-alloy steel		Annealed	175	590	P7	47	38	33	<b>E</b>
			Heat-treated	285	960	P8	15	12	11	<b>E</b>
			Heat-treated	380	1280	P9				
			Heat-treated	430	1480	P10				
	High-alloy steel and high-alloy tool steel		Annealed	200	680	P11	29	23	20	<b>E</b>
			Hardened and tempered	300	1010	P12	17	14	12	<b>E</b>
			Hardened and tempered	380	1280	P13				
	Stainless steel		Ferritic/martensitic, annealed	200	680	P14	13	10	9	<b>E O</b>
			Martensitic, heat-treated	330	1110	P15	5	4	3	<b>O</b>
<b>M</b>	Stainless steel		Austenitic, quench hardened	200	680	M1	15	12	11	<b>E O</b>
			Austenitic, precipitation hardened (PH)	300	1010	M2	5	4	4	<b>O</b>
			Austenitic/ferritic, duplex	230	780	M3	5	4	4	<b>E O</b>
<b>K</b>	Malleable cast iron		Ferritic	200	400	K1				
			Pearlitic	260	700	K2				
	Grey cast iron		Low tensile strength	180	200	K3				
			High tensile strength/austenitic	245	350	K4				
	Cast iron with spheroidal graphite		Ferritic	155	400	K5	29	23	20	<b>E</b>
			Pearlitic	265	700	K6	14	12	10	<b>E</b>
		GGV (CGI)		230	400	K7				
<b>N</b>	Wrought aluminium alloys		Not hardenable	30	–	N1	56	45	39	<b>E</b>
			Hardenable, hardened	100	340	N2	52	43	37	<b>E</b>
	Cast aluminium alloys		≤ 12% Si, not hardenable	75	260	N3	48	39	34	<b>E</b>
			≤ 12% Si, hardenable, hardened	90	310	N4	48	39	34	<b>E</b>
			> 12% Si, not hardenable	130	450	N5				
		Magnesium alloys		70	250	N6				
	Copper and copper alloys (bronze/brass)		Unalloyed, electrolytic copper	100	340	N7	21	17	15	<b>E</b>
			Brass, bronze, red brass	90	310	N8				
			Cu alloys, short-chipping	110	380	N9				
			High-tensile, Ampco	300	1010	N10				
<b>S</b>	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	8	6	5	<b>E</b>
			Hardened	280	940	S2				
		Ni- or Co-based	Annealed	250	840	S3	8	6	5	<b>O</b>
			Hardened	350	1180	S4				
			Cast	320	1080	S5				
	Titanium alloys		Pure titanium	200	680	S6				
			α and β alloys, hardened	375	1260	S7				
			β alloys	410	1400	S8				
		Tungsten alloys		300	1010	S9				
		Molybdenum alloys		300	1010	S10				
<b>H</b>	Hardened steel		Hardened and tempered	50 HRC	–	H1				
			Hardened and tempered	55 HRC	–	H2				
			Hardened and tempered	60 HRC	–	H3				
		Hardened cast iron		Hardened and tempered	55 HRC	–	H4			
<b>O</b>	Thermoplastics		Without abrasive fillers			O1				
	Thermosets		Without abrasive fillers			O2				
	Plastic, glass-fibre-reinforced		GFRP			O3				
	Plastic, carbon-fibre-reinforced		CFRP			O4				
	Plastic, aramid-fibre-reinforced		AFRP			O5				
	Graphite (technical)			80 Shore			O6			

<sup>1</sup> The classification of the machining groups can be found from page B 1174 onwards in the Walter General Catalogue 2017.

<sup>3</sup> Water-miscible coolants must not be used when machining magnesium-based alloys.



# Cutting data

## Thread milling

Material group	= Cooling lubricant recommended <b>E</b> = Emulsion <b>M</b> = MQL <b>A</b> = Compressed air <b>v<sub>c</sub></b> = Cutting speed [m/min] <b>f<sub>z</sub></b> = Feed rate per tooth [mm]		Overview of the main material groups and code letters	Brinell hardness HB	Tensile strength R <sub>m</sub> N/mm <sup>2</sup>	Machining group <sup>1</sup>		T2711 / T2712 / T2713		
								v <sub>c</sub> (m/min)	f <sub>z</sub> (mm)	
									06	Insert size 09 / 11 / 14
<b>P</b>	Non-alloyed steel	C ≤ 0.25%	Annealed	125	430	P1	<b>E M</b>	200	0,3	0,4
		C > 0.25 ... ≤ 0.55%	Annealed	190	640	P2	<b>E M</b>	200	0,3	0,4
		C > 0.25 ... ≤ 0.55%	Heat-treated	210	710	P3	<b>E M</b>	200	0,3	0,4
		C > 0.55%	Annealed	190	640	P4	<b>E M</b>	200	0,3	0,4
		C > 0.55%	Heat-treated	300	1010	P5	<b>E M</b>	200	0,3	0,4
	Low-alloy steel	Free-machining steel (short-chipping)	Annealed	220	750	P6	<b>E M</b>	200	0,3	0,4
		Heat-treated	Annealed	175	590	P7	<b>E M</b>	200	0,3	0,4
			285	960	P8	<b>E M</b>	200	0,3	0,4	
			380	1280	P9	<b>E M</b>	150	0,25	0,35	
	High-alloy steel and high-alloy tool steel	Heat-treated	430	1480	P10	<b>E M</b>	100	0,2	0,3	
		Annealed	200	680	P11	<b>E M</b>	200	0,3	0,4	
			300	1010	P12	<b>E M</b>	200	0,3	0,4	
	Hardened and tempered	380	1280	P13	<b>E M</b>	150	0,3	0,4		
		Stainless steel	Ferritic/martensitic, annealed	200	680	P14	<b>E M</b>	200	0,25	0,35
	Martensitic, heat-treated		330	1110	P15	<b>E M</b>	150	0,25	0,35	
<b>M</b>	Stainless steel	Austenitic, quench hardened	200	680	M1	<b>E</b>	200	0,2	0,3	
		Austenitic, precipitation hardened (PH)	300	1010	M2	<b>E</b>	150	0,2	0,3	
		Austenitic/ferritic, duplex	230	780	M3	<b>E</b>	80	0,2	0,3	
<b>K</b>	Malleable cast iron	Ferritic	200	400	K1	<b>E M</b>	200	0,3	0,4	
		Pearlitic	260	700	K2	<b>E M</b>	200	0,3	0,4	
	Grey cast iron	Low tensile strength	180	200	K3	<b>E M</b>	250	0,3	0,4	
		High tensile strength/austenitic	245	350	K4	<b>E M</b>	200	0,3	0,4	
	Cast iron with spheroidal graphite	Ferritic	155	400	K5	<b>E M</b>	200	0,3	0,4	
		Pearlitic	265	700	K6	<b>E M</b>	200	0,3	0,4	
GGV (CGI)		230	400	K7	<b>E M</b>	200	0,3	0,4		
<b>N</b>	Wrought aluminium alloys	Not hardenable	30	-	N1	<b>E M</b>	-	-	-	
		Hardenable, hardened	100	340	N2	<b>E M</b>	-	-	-	
	Cast aluminium alloys	≤ 12% Si, not hardenable	75	260	N3	<b>E M</b>	-	-	-	
		≤ 12% Si, hardenable, hardened	90	310	N4	<b>E M</b>	-	-	-	
		> 12% Si, not hardenable	130	450	N5	<b>E M</b>	200	0,3	0,4	
	Magnesium-based alloys <sup>3</sup>		70	250	N6	<b>A</b>	250	0,3	0,4	
	Copper and copper alloys (bronze/brass)	Unalloyed, electrolytic copper	100	340	N7	<b>E M</b>	-	-	-	
		Brass, bronze, red brass	90	310	N8	<b>E M</b>	-	-	-	
Cu alloys, short-chipping		110	380	N9	<b>E M</b>	-	-	-		
High-tensile, Ampco		300	1010	N10	<b>E M</b>	-	-	-		
<b>S</b>	Heat-resistant alloys	Fe-based	Annealed	200	680	S1	<b>E</b>	40	0,25	0,25
			Hardened	280	940	S2	<b>E</b>	25	0,15	0,15
		Ni- or Co-based	Annealed	250	840	S3	<b>E</b>	40	0,25	0,25
			Hardened	350	1180	S4	<b>E</b>	25	0,15	0,15
			Cast	320	1080	S5	<b>E</b>	30	0,2	0,2
	Titanium alloys	Pure titanium	200	680	S6	<b>E</b>	40	0,25	0,25	
		α and β alloys, hardened	375	1260	S7	<b>E</b>	40	0,25	0,25	
		β alloys	410	1400	S8	<b>E</b>	30	0,2	0,2	
	Tungsten alloys		300	1010	S9	<b>E</b>	40	0,25	0,25	
	Molybdenum alloys		300	1010	S10	<b>E</b>	40	0,25	0,25	
<b>H</b>	Hardened steel	Hardened and tempered	50 HRC	-	H1	<b>M A</b>	45	0,2	0,3	
		Hardened and tempered	55 HRC	-	H2	<b>M</b>	-	-	-	
		Hardened and tempered	60 HRC	-	H3	<b>M</b>	-	-	-	
	Hardened cast iron	Hardened and tempered	55 HRC	-	H4	<b>M A</b>	45	0,2	0,3	
<b>O</b>	Thermoplastics	Without abrasive fillers			O1	<b>E M</b>	200	0,3	0,4	
	Thermosets	Without abrasive fillers			O2	<b>E M</b>	150	0,3	0,4	
	Plastic, glass-fibre-reinforced	GFRP			O3	<b>E M</b>	50	0,3	0,4	
	Plastic, carbon-fibre-reinforced	CFRP			O4	<b>E M</b>	50	0,3	0,4	
	Plastic, aramid-fibre-reinforced	AFRP			O5	<b>E M</b>	50	0,3	0,4	
	Graphite (technical)		65		O6	<b>E M</b>	200	0,3	0,4	

<sup>1</sup> The classification of the machining groups can be found from page B 1174 onwards in the Walter General Catalogue 2017.

<sup>3</sup> Water-miscible coolants must not be used when machining magnesium alloys.

Machining must be performed synchronously. The specified cutting data are target values under good machining conditions.

Remedy for vibration:


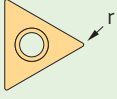
- Use indexable inserts with D61 geometry
- Reduce v<sub>c</sub> by 25–50% and/or increase f<sub>z</sub> by 25–50%
- Radial cutting pass.

T2711/T2712: One radial cut is recommended.

T2713: Radial cutting pass may be required.


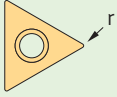
## Radius correction values for thread milling Walter T2711/T2712/T2713

Metric thread in accordance with DIN 13

Thread nominal diameter $D_N$			Radius correction		
			Minimum dimension for H tolerances	Middle of the tolerance range for a 6H tolerance	Middle of the tolerance range for a 6G tolerance
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
≥ 24 and ≤ 90	1,5	0,1	-0,05	-0,10	-0,12
	2	0,1	-0,10	-0,15	-0,17
	3	0,2	-0,10	-0,16	-0,19
	3,5	0,2	-0,15	-0,22	-0,24
	4	0,2	-0,20	-0,27	-0,30
	4,5	0,2	-0,25	-0,33	-0,36
	5	0,4	-0,10	-0,18	-0,22
	5,5	0,4	-0,15	-0,24	-0,27
	6	0,4	-0,20	-0,29	-0,33
> 90	2	0,1	-0,10	-0,16	-0,18
	3	0,2	-0,10	-0,17	-0,20
	4	0,2	-0,20	-0,28	-0,31
	6	0,4	-0,20	-0,30	-0,34

Based on the pitch diameter tolerances in accordance with DIN ISO 965-1. Valid from M24.

UN/UNC/UNF/UNEF thread in accordance with ASME B1.1

Thread nominal diameter $D_N$			Radius correction		
			Minimum dimension	Middle of the tolerance range for a 2B tolerance	Middle of the tolerance range for a 3B tolerance
[inches]	[TPI]	[mm]	[mm]	[mm]	[mm]
≥ 1" and < 3"	18	0,1	-0,04	-0,08	-0,07
	16	0,1	-0,06	-0,10	-0,09
	14	0,1	-0,08	-0,12	-0,11
	12	0,1	-0,11	-0,16	-0,15
	8	0,2	-0,12	-0,17	-0,16
	7	0,2	-0,16	-0,22	-0,21
	6	0,2	-0,22	-0,29	-0,27
	5	0,4	-0,11	-0,18	-0,16
	4,5	0,4	-0,16	-0,24	-0,22
	4	0,4	-0,23	-0,32	-0,30
≥ 3"	16	0,1	-0,06	-0,10	-0,09
	12	0,1	-0,11	-0,16	-0,15
	8	0,2	-0,12	-0,19	-0,17
	6	0,2	-0,22	-0,30	-0,28
	4	0,4	-0,23	-0,32	-0,30

Based on the pitch diameter tolerances in accordance with ASME B1.1. Valid from UNC 1.

If the measured tool radius is reduced by the value stated in the "Minimum dimension" column, the thread is still in the lower tolerance range after machining and is usually too narrow. If the thread has to be milled to bring it to the middle of the tolerance range, the measured tool radius must be reduced by the value stated in the "Middle of the tolerance range" column. The thread is generally true to gauge after machining. Radius correction values can also be determined in Walter GPS.

Example of an M36 - 6H thread	P	4 mm
	r	0,2 mm
Measured tool radius	14,53 mm	
Radius correction in the middle of the 6H tolerance range	- 0,27 mm	
<b>Tool radius to be used</b>	<b>= 14,26 mm</b>	

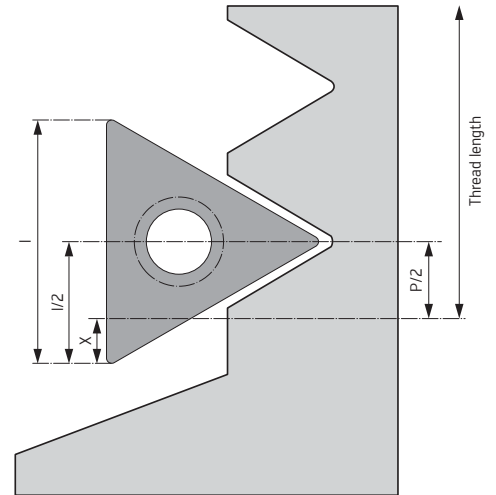
## Tool application Walter T2711/T2712/T2713

### UNUSABLE LENGTH

The thread length includes the last thread ridge plus half a pitch. Since  $l/2$  is greater than  $P/2$ , this results in an “unusable length” (X), which must be taken into consideration during programming. This is calculated as half of the insert length ( $l/2$ ) minus half of the thread pitch ( $P/2$ ).

**Example:** M36 with P26300-0902.. thread milling cutter insert.

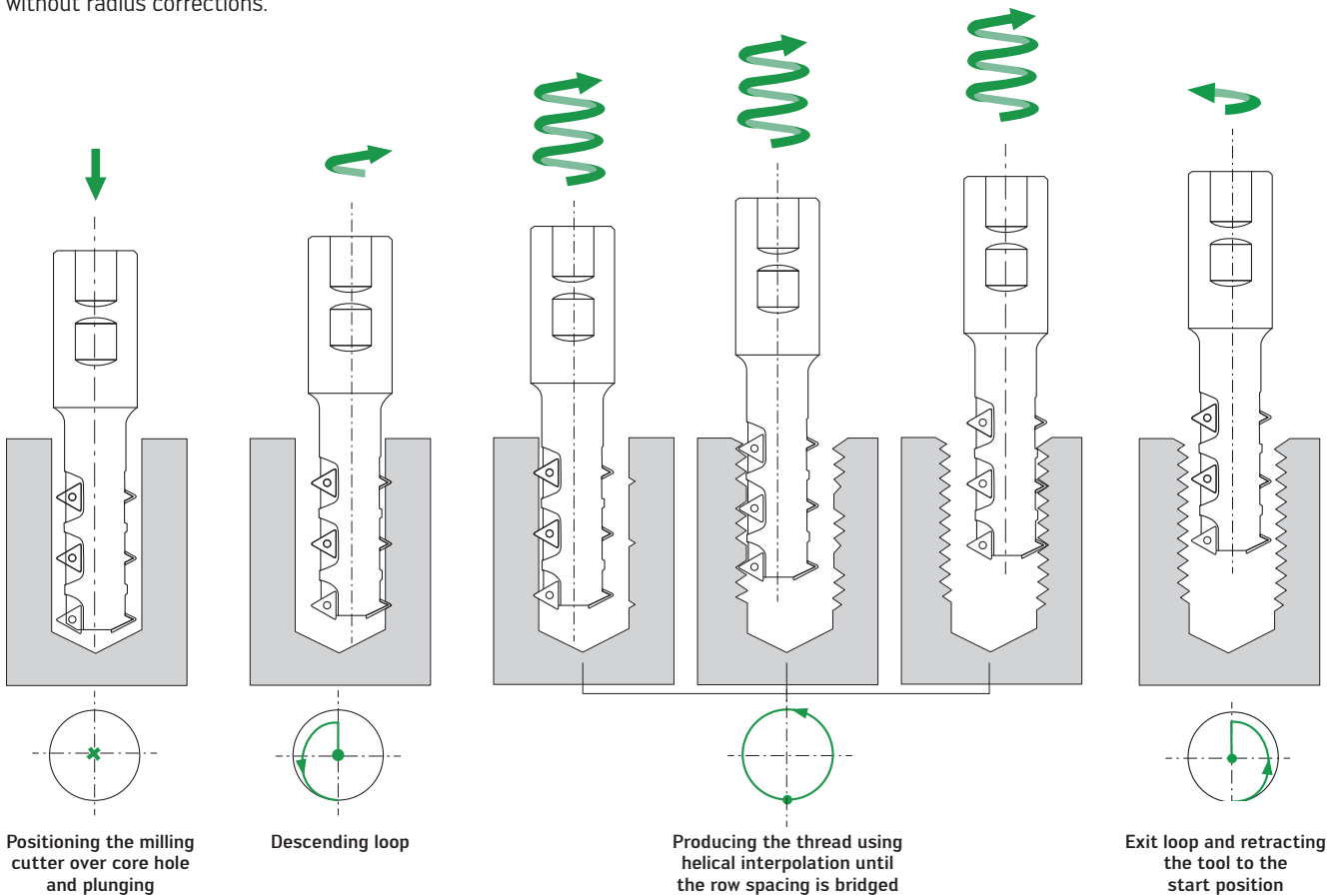
$$\text{Unusable length } X = l/2 - P/2 = \frac{9,34 \text{ mm}}{2} - \frac{4 \text{ mm}}{2} = 2,67 \text{ mm}$$



The unusable length of the T271.. families is less than the chamfer length of a tap.

### THE STRATEGY

It is recommended that the thread be produced with a radial cut using synchronous milling. Non-cutting passes can be carried out without radius corrections.



B4