Thread Mills

Internal Threads • Insert and Holder Recommendations

thread	tap hole fl (mm)	indexable insert	largest milling cutter
M11 x 0,75	10,19	STN10075ISO-I	9X1R .. STN10M
M12	10,11	STN10175ISO-I-C	9X1R015B20-STN10C
M12 x 1,00	10,92	STN10100ISO-I	9X1R .. STN10M
M14	11,84	STN11200ISO-I-C	11X1R .. STN11N
M16	13,84	STN11200ISO-I-C	11X1R .. STN11N
M20	17,29	STN16250ISO-I-C	15X1R020B16-STN16C
M20 x 1,50	18,38	STN11150ISO-I	11X1R .. STN11N
M20 x 1,00	18,92	STN11100ISO-I	11X1R .. STN11N
M24	20,75	STN22300ISO-I-C	18X1R030B25-STN22C
M24 x 2,00	21,84	STN16200ISO-I	17X1R022B16-STN16N
M24 x 1,50	22,38	STN11150ISO-I	11X1R .. STN11N
M24 x 1,50	22,38	STN16150ISO-I	17X1R022B16-STN16N
M27	23,75	STN22300ISO-I-C	18X1R030B25-STN22C
M30	26,21	STN27350ISO-I-C	25X1R040B25-STN27C
M30 x 2,00	27,84	STN16200ISO-I	22X1R025B25-STN16L
M33	29,21	STN27350ISO-I-C	25X1R040B25-STN27C
M33 x 2,00	30,84	STN16200ISO-I	22X1R025B25-STN16L
M33 x 1,50	31,38	STN16150ISO-I	22X1R025B25-STN16L
M35 x 1,50	33,38	STN16150ISO-I	22X1R025B25-STN16L
M36 x 2,00	33,84	STN16200ISO-I	22X1R025B25-STN16L
M42 x 2,00	39,84	STN27200ISO-I	30X1R052B25-STN27N
M45 x 2,00	42,84	STN27200ISO-I	37X1R .. STN27N or L
M48 x 2,00	45,84	STN27200ISO-I	37X1R058B32-STN27N or L
M55 x 2,00	52,84	STN27200ISO-I	37X1R .. STN27N or L
M56 x 2,00	53,84	STN27200ISO-I	37X1R .. STN27N or L
M72 x 2,00	69,84	STN27200ISO-I	37X1R .. STN27N or L

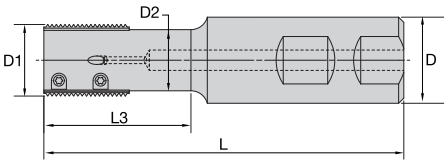
Internal Threads • Insert and Holder Recommendations

thread	tap hole fl (mm)	indexable insert	largest milling cutter
9/16 - 18UNF	12,76	STN1018UN-I	9X1R .. STN10M
5/8 - 24UNEF	14,73	STN1124UN-I	11X1R .. STN11N
5/8 - 18UNF	14,35	STN1118UN-I	11X1R .. STN11N
3/4 - 20UNEF	17,68	STN1120UN-I	11X1R .. STN11N
3/4 - 16UNF	17,33	STN1116UN-I	11X1R .. STN11N
7/8 - 14UNF	20,26	STN1114UN-I	11X1R .. STN11N
1 - 16UN	23,68	STN1616UN-I	18X1R030B25-STN22C
1 - 12UNF	23,11	STN1612UN-I	17X1R .. STN16N
1 1/8 - 12UNF	26,28	STN1612UN-I	22X1R .. STN16L
1 1/4 - 12UNF	29,46	STN1612UN-I	22X1R .. STN16L
1 3/8 - 12UNF	32,63	STN1612UN-I	22X1R .. STN16L

Whitworth Pipe Thread (Internal) to DIN 259

thread	tap hole fl (mm)	indexable insert	largest milling cutter
R 5/8	20,59	STN1614BSW	17X1R022B16-STN16N
R 3/4	24,12	STN1614BSW	20X1R043B20-STN16N
R 7/8	27,88	STN1614BSW	22X1R025B25-STN16L
R 1	30,29	STN1611BSW	22X1R025B25-STN16L

- 17–30mm cutting diameter range.
- For internal and external threading on most types of workpiece materials.
- One tool is used for both right- and left-hand threads.
- All cutters have through-coolant capability.
- Utilises inserts with various profiles and pitches.

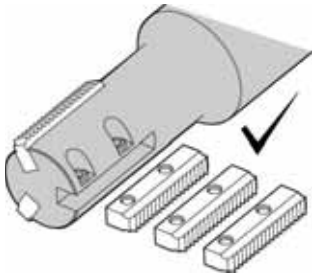


Thread Mill • Weldon Shank

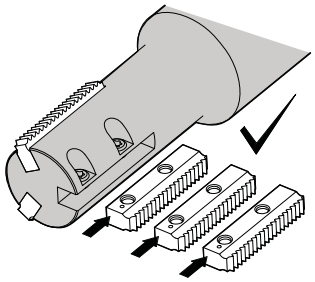
order number	catalogue number	D1	D	D2	L	L3	Z	insert screw	Torx Plus driver
3030845	**TM25D17L26Z2**	17,0	25	14,0	85	26	2	**TM25INSERTSCREW**	**DT8IP**
3030846	**TM25D17L36Z2**	17,0	25	14,0	95	36	2	**TM25INSERTSCREW**	**DT8IP**
3030849	**TM25D20L44Z3**	20,5	25	16,7	103	44	3	**TM25INSERTSCREW**	**DT8IP**
3030848	**TM25D20L37Z3**	20,5	25	16,7	96	37	3	**TM25INSERTSCREW**	**DT8IP**
3030850	**TM25D22L43Z3**	22,0	25	18,0	102	43	3	**TM25INSERTSCREW**	**DT8IP**
3030852	**TM25D22L55Z3**	22,0	25	18,0	114	55	3	**TM25INSERTSCREW**	**DT8IP**
3031705	**TMC25D30L80Z4**	30,0	25	26,0	140	80	4	**TM25INSERTSCREW**	**DT8IP**
3031703	**TM25D30L55Z5**	30,0	25	26,0	115	55	5	**TM25INSERTSCREW**	**DT8IP**

NOTE: Torque value for insert screw is 4 Nm.

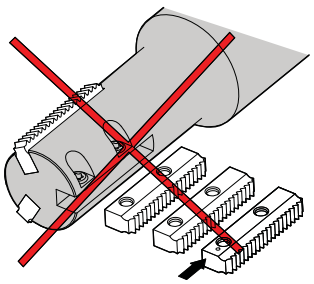
Thread Application per Toolholder min thread Ø						
toolholder	**D1 mm**	**ISO (coarse)**	**ISO (fine)**	**UNC**	**UN/UNF/UNEF/UNS**	**BSF**
TM25D17L26Z2 TM25D17L36Z2	17	M20 x 2.5	M19 x 1; M19 x 1.5; M20 x 2		7/8-10UNS; 13/16-12UN; 7/8-14UNF; 3/4-16UNF; 3/4-18UNS; 3/4-20UNEF;	7/8-11; 7/8-12; 7/8-14; 7/8-16
TM25D20L37Z3 TM25D20L44Z3	20,5	M24 x 3.0	M22 x 1; M23 x 1.5; M23 x 2; M23.5 x 2.5	1-8	15/16-9UN; 1.0-10UNS; 15/16-12UN 1.0-14UNS; 15/16-16UN; 7/8-18UNS; 7/8-20UNEF;	1-11; 1.-12; 1-14; 1.-16
TM25D22L43Z3 TM25D22L55Z3	22	M27 x 3.0	M24 x 1; M24 x 1.5; M25 x 2; M25 x 2.5		11/16-8UN; 1.0-9UN; 1.0-10UNS; 1.0-12UNF 1.0-14UNS; 1.0-16UN; 1.0-18UN; 15/16-20UNEF	1-11; 1-12; 1-14; 1-16
TM25D30L55Z5 TMC25D30L80Z4	30		M32 x 1; M32 x 1.5; M33 x 2; M33 x 2.5; M34 x 3		1 3/8-8UN; 1 3/8-9UN; 1 3/8-10UN; 1 5/16-12UN; 1 3/8-14UNS; 1 5/16-16UN; 1 5/16-18UNEF; 1 5/16-20UN	1 3/8-11; 1 3/8-12; 1 3/8-14; 1 3/8-16



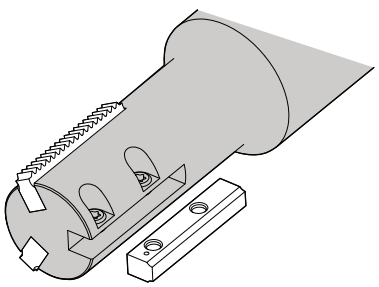
Always mount all inserts on the same side



Side with identification marks



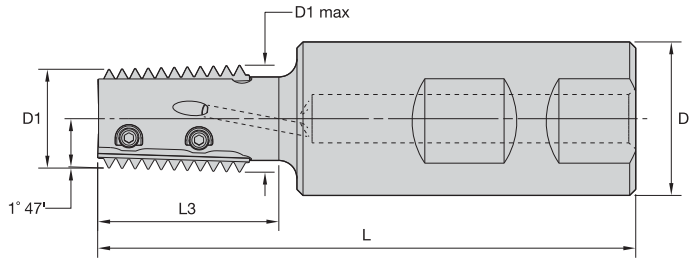
Side without identification marks



TM25 blank plug insert *

*** When not using an insert in each pocket, protect the pocket by using a TM25 blank.**

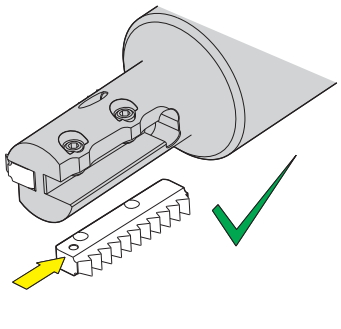
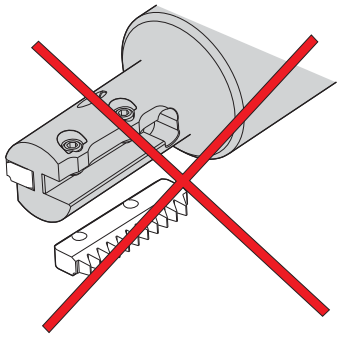
- 14–26mm cutting diameter range.
- For internal and external threading on most types of workpiece materials.
- One tool is used for both right- and left-hand threads.
- All cutters have through-coolant capability.
- Utilises inserts with various profiles and pitches.



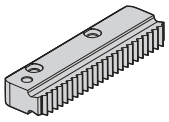
Thread Mill • Conical Thread

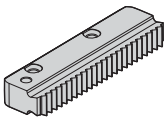

order number	catalogue number	D1	D	D1 max	L	L3	Z	insert screw	Torx Plus driver
3030847	**TMT25D17L26Z2**	14	25	17	85	26	2	**TM25INSERTSCREW**	**DT8IP**
3030851	**TMT25D22L43Z3**	18	25	22	102	43	3	**TM25INSERTSCREW**	**DT8IP**
3031704	**TMT25D28L43Z4**	26	25	28	103	43	4	**TM25INSERTSCREW**	**DT8IP**

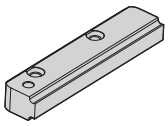
Thread Application per Toolholder min thread Ø				
toolholder	**D1 max**	**NPT**	**NPTF**	**BSPT**
TMT25D17L26Z2	17.1	1/2-14; 3/4-14; 1-11.5; 2-11.5	1/2-14; 3/4-14; 1-11.5; 2-11.5	1/2-14; 3/4-14; 1-11; 1 1/4-11; 1 1/2-11; 2-11
TMT25D22L43Z3	22	3/4-14; 1-11.5; 2-11.5	3/4-14; 1-11.5; 2-11.5	3/4-14; 1-11; 1 1/4-11;1 1/2-11; 2-11; 2 1/2-11; 3-11; 4-11; 5-11; 6-11
TMT25D28L43Z4	28	1-11.5; 2-11.5	1-11.5; 2-11.5	1-11; 1 1/4-11; 1 1/2-11; 2-11; 2 1/2-11; 3-11; 4-11; 5-11; 6-11

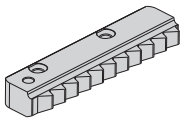



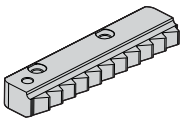
NOTE: On conical inserts the identification mark must be face up.

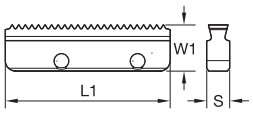

ISO Profiles

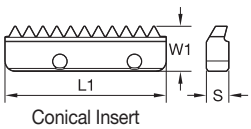

BSW Profiles


Blank


NPT Profiles


BSPT Profiles





Conical Insert

● first choice
○ alternate choice

		KC610M	KC635M
P		●	○
M		○	●
K		●	
N		●	
S			●
H		○	●

ISO Profiles • Internal

ISO catalogue number	ANSI catalogue number	thread pitch mm	L1	W1	S	KC610M	KC635M
TM25N100ISO	TM25N100ISO	1,0	25,00	7,62	3,56	●	●
TM25N150ISO	TM25N150ISO	1,5	25,00	7,62	3,56	●	●
TM25N200ISO	TM25N200ISO	2,0	25,00	7,62	3,56	●	●
TM25N250ISO	TM25N250ISO	2,5	25,00	7,62	3,56	●	●
TM25N300ISO	TM25N300ISO	3,0	25,00	7,62	3,56	●	●

UN Profiles • Internal

ISO catalogue number	ANSI catalogue number	TPI	L1	W1	S	KC610M	KC635M
TM25N8UN	TM25N8UN	8	25,00	7,62	3,56	●	●
TM25N9UN	TM25N9UN	9	25,00	7,62	3,56	●	●
TM25N10UN	TM25N10UN	10	25,00	7,62	3,56	●	●
TM25N12UN	TM25N12UN	12	25,00	7,62	3,56	●	●
TM25N14UN	TM25N14UN	14	25,00	7,62	3,56	●	●
TM25N16UN	TM25N16UN	16	25,00	7,62	3,56	●	●
TM25N18UN	TM25N18UN	18	25,00	7,62	3,56	●	
TM25N20UN	TM25N20UN	20	25,00	7,62	3,56	●	●

Whitworth Profiles • Internal/External

ISO catalogue number	ANSI catalogue number	TPI	LI	W1	S	KC610M	KC635M
TM25EN11W	TM25EN11W	11	25,00	7,62	3,56	●	●
TM25EN12W	TM25EN12W	12	25,00	7,62	3,56	●	
TM25EN14W	TM25EN14W	14	25,00	7,62	3,56	●	●

NPT Profiles • Internal/External

ISO catalogue number	ANSI catalogue number	TPI	L1	W1	S	KC610M	KC635M
TM25EN115NPT	TM25EN115NPT	11.5	25,00	7,62	3,56	●	●
TM25EN14NPT	TM25EN14NPT	14	25,00	7,62	3,56	●	●

BSPT Profiles • Internal/External

ISO catalogue number	ANSI catalogue number	internal TPI	L1	W1	S	KC610M	KC635M
TM25EN11BSPT	TM25EN11BSPT	11	25,00	7,62	3,56	●	●
TM25EN14BSPT	TM25EN14BSPT	14	25,00	7,62	3,56	●	

Blank Insert Form • Internal/External

ISO catalogue number	ANSI catalogue number	L	W1	S
TM25BLANK	TM25BLANK	25,00	5,59	3,56

Kennametal Thread Mill (TM Inserts)

materials	Brinell	surface speeds		indexable inserts
steel	HB	KC610M	KC635M	feed fz (mm/tooth)
P1	125	100–210	90–180	0,05–0,20
P2	180	100–170	90–160	0,05–0,20
P3	225	60–130	70–115	0,05–0,20
P4	250	80–150	80–160	0,05–0,20
P5	275	75–130	80–160	0,05–0,15
P6	325	70–110	60–100	0,05–0,10
stainless steel				
M1	180	100–170	120–180	0,05–0,10
M2	250	70–140	100–140	0,05–0,10
M3	330	70–120	100–120	0,05–0,10
cast iron				
K1	180	60–130	100–120	0,02–0,08
K2	220	60–125	80–100	0,05–0,15
K3	260	50–90	60–90	0,05–0,10
non-ferrous				
N1	60–100	100–250	–	0,05–0,25
high-temp alloys				
S1	200	20–45	20–40	0,05–0,10
S2	250	20–30	20–30	0,02–0,05
S3	280	15–20	15–20	0,02–0,05
S4	350	10–15	10–15	0,02–0,05
hardened steel				
H1	55 HRC	20–45	20–45	0,01–0,03

www.kennametal.com/en-US/customer_support/metalworking/software_download_reference_tools.jhtml
Kennametal thread mill software: TM — CNC Generator

Carbide Recycling

Help preserve and protect our planet!

It's easy for your company to be environmentally conscious with the Kennametal Carbide Recycling Program.

By sending us your used carbide tools, you help preserve and protect the environment and ensure that these products are recycled responsibly. Kennametal accepts any coated or non-coated carbide items, including inserts, drills, reamers, and taps.

By using the Kennametal Carbide Recycling Program, you will receive:

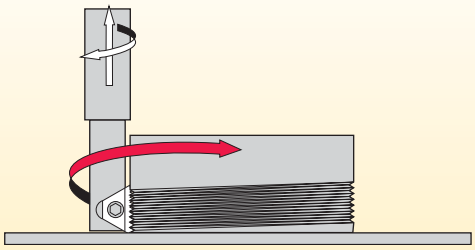
- A partner who cares about a sustainable environment.
- Easy-to-use web portal to value your used carbide.
- Access to our popular Green Box™ options for carbide collection.
- Systematic and efficient disposal of carbide materials.
- Improved profitability.

Program is not currently available in all geographical areas.
For more information, please visit **www.kennametal.com/carbiderecycling.**

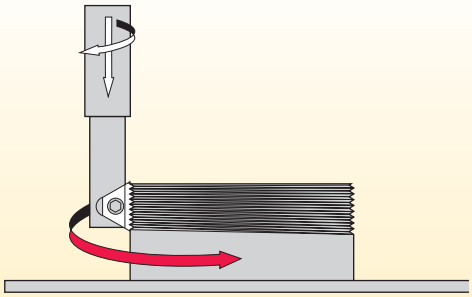
The Following Are a Few Thread Milling Methods (Work Directions)

NOTE: Climb milling results in lower cutting forces, better chip development, higher thread surface quality, and longer insert life. Therefore, it should be used whenever possible. However, in the case of some hardened materials, or when milling certain difficult-to-machine exotic materials, conventional milling may be preferred.

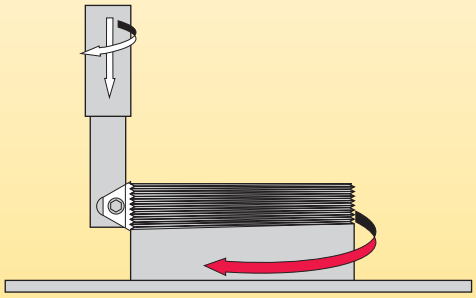
Methods of External Thread Milling



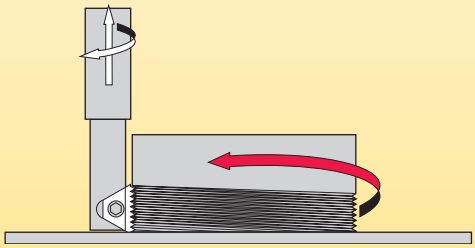
right-hand thread... conventional milling



left-hand thread... conventional milling

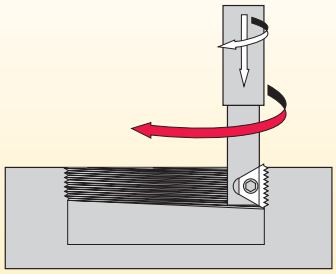


right-hand thread... climb milling

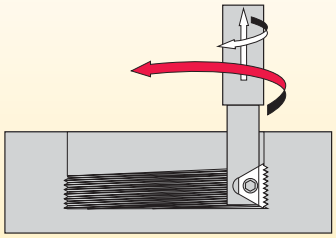


left-hand thread... climb milling

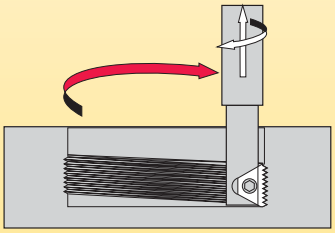
Methods of Internal Thread Milling



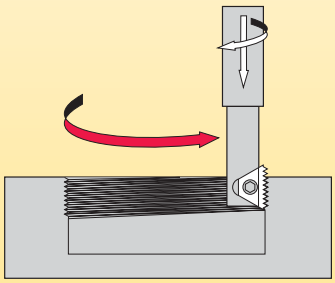
right-hand thread... conventional milling



left-hand thread... conventional milling

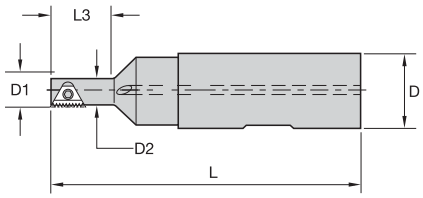


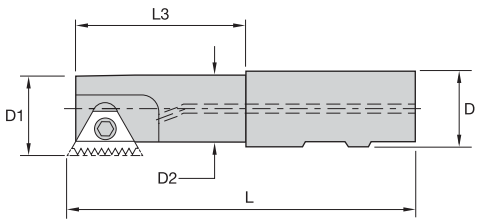
right-hand thread... climb milling



left-hand thread... climb milling

- 9mm cutting diameter.
- For internal and external threading on most types of workpiece materials.
- One tool is used for both right- and left-hand threads.
- All cutters have through-coolant capability.
- Utilises inserts with various profiles and pitches.





Thread Mill • Mini


order number	catalogue number	D1	D	D2	L	L3	Z	max RPM	insert 1	insert screw	Nm	Torx driver
1132616	9X1R012B12STN10M	9	12	6,8	69	12	1	39935	STN10	SN7T	1,7	DT7
1191395	9X1R017B20STN10M	9	20	6,8	84	17	1	39935	STN10	SN7T	1,7	DT7

Thread Mill • Normal Shank • STN11


order number	catalogue number	D1	D	D2	L	L3	Z	max RPM	insert 1	insert screw	Nm	Torx driver
1130302	11X1R020B20STN11N	12	20	8,9	85	20	1	36825	STN11	SN2TPKG	1,7	DT8
1294964	11X1R012B12STN11N	12	12	8,9	70	12	1	36825	STN11	SN2TPKG	1,7	DT8

Thread Mill • Normal Shank • STN16


order number	catalogue number	D1	D	D2	L	L3	Z	max RPM	insert 1	insert screw	Nm	Torx driver
1130686	17X1R022B16STN16N	17	16	13,6	90	22	1	25750	STN16	SN3TM	2,3	DT10
1130740	20X1R043B20STN16N	20	20	16,6	95	43	1	23330	STN16	SN3TPKG	2,3	DT10

Thread Mill • Normal Shank • STN27


order number	catalogue number	D1	D	D2	L	L3	Z	max RPM	insert 1	insert screw	Nm	Torx wrench
1130969	30X1R052B25STN27N	30	25	24,0	110	52	1	12900	STN27	SN5TM	5,0	TT25
1131069	37X1R058B32STN27N	37	32	27,0	120	58	1	11600	STN27	SN5TM	5,0	TT25

Thread Mill • Normal Shank • STN.38


order number	catalogue number	D1	D	D2	L	L3	Z	max RPM	insert 1	insert screw	Nm	Torx wrench
1178986	35X1R055B32STNB38N	35	32	31,0	115	55	1	11000	STNB38	SM7TPKG	6,5	TT30

Thread Mill • Long Shank • STN16


order number	catalogue number	D1	D	D2	L	L3	Z	max RPM	insert 1	insert screw	Nm	Torx driver
1130837	**22X1R025B25STN16L**	22	25	18,6	125	25	1	22230	STN16	**SN3TPKG**	2,3	**DT10**

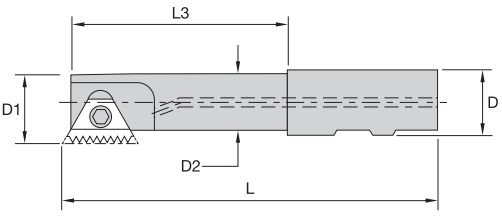
Thread Mill • Long Shank • STN27


order number	catalogue number	D1	D	D2	L	L3	Z	max RPM	insert 1	insert screw	Nm	Torx wrench
1130977	**30X1R092B25STN27L**	30	25	24,0	150	92	1	12900	STN27	**SN5TM**	5,0	**TT25**
1131086	**37X1R098B32STN27L**	37	32	31,0	160	98	1	11600	STN27	**SN5TM**	5,0	**TT25**

Thread Mill • Long Shank • STN38


order number	catalogue number	D1	D	D2	L	L3	Z	max RPM	insert 1	insert screw	Nm	Torx wrench
1566071	**46X1R100B40STNB38L**	46	40	38,0	170	100	1	10000	STNB38	**SM7TPKG**	6,5	**TT30**

- 16–25mm cutting diameter.
- For internal and external threading on most types of workpiece materials.
- One tool is used for both right- and left-hand threads.
- All cutters have through-coolant capability.
- Utilises inserts with various profiles and pitches.



Thread Mill • Internal Coarse Pitch Thread

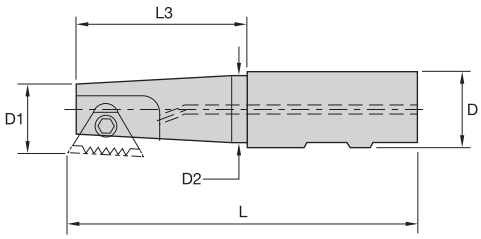
order number	catalogue number	D1	D	D2	L	L3	Z	max RPM	insert 1
1176964	**15X1R020B16STN16C**	16	16	12,2	91	21	1	26550	STN16___C
1176965	**18X1R030B25STN22C**	18	25	13,4	88	30	1	23350	STN22___C
1176967	**25X1R040B25STN27C**	25	25	19,0	98	40	1	22000	STN27___C

Spare Parts



D1	insert screw	Nm	Torx driver	Torx wrench
16	**SN3TPKG**	2,3	**DT10**	–
18	**SN4TMPKG**	4,0	**DT15**	–
25	**SN5TM**	5,0	–	**TT25**

- Cutting diameter ranges from 10–30mm.
- For internal and external threading on most types of workpiece materials.
- One tool is used for both right- and left-hand threads.
- All cutters have through-coolant capability.
- Utilises inserts with various profiles and pitches.



Thread Mill • Tapered Shank • Right Hand

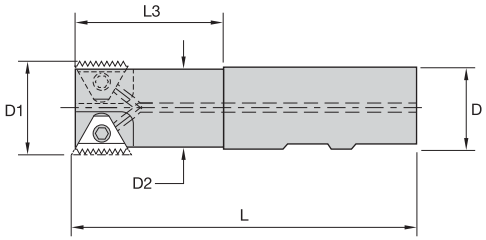
order number	catalogue number	D1	D	D2	L	L3	Z	max RPM	insert 1
1176970	**10X1R015B20STN11T**	10	20	7,4	77	16	1	36500	STN11
1132781	**15X1R022B16STN16T**	16	16	12,5	80	22	1	26550	STN16
1135826	**19X1R023B20STN16T**	19	20	15,0	85	23	1	24350	STN16
1124003	**30X1R052B25STN27T**	30	25	24,0	110	52	1	12900	STN27

Spare Parts



D1	insert screw	Nm	Torx driver	Torx wrench
10	**SN2TPKG**	1,7	**DT8**	**–**
16	**SN3TPKG**	2,3	**DT10**	**–**
19	**SN3TM**	2,3	**DT10**	**–**
30	**SN5TM**	5,0	**–**	**TT25**

- Cutting diameter ranges from 26–42mm.
- For internal and external threading on most types of workpiece materials.
- One tool is used for both right- and left-hand threads.
- All cutters have through-coolant capability.
- Utilises inserts with various profiles and pitches.



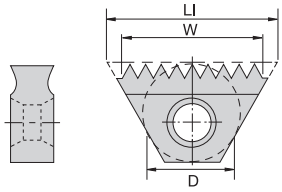
Thread Mill • Double Insert

order number	catalogue number	D1	D	D2	L	L3	Z	max RPM	insert 1
1124019	**26X2R043B25STN16D**	26	25	22,5	100	43	2	20530	STN16
1131118	**42X2R045B32STN27D**	42	32	36,0	120	45	2	10900	STN27

Spare Parts



D1	insert screw	Nm	Torx driver	Torx wrench
26	**SN3TPKG**	2,3	**DT10**	**–**
42	**SN5TM**	5,0	**–**	**TT25**



● first choice
○ alternate choice

P	●	○	○
M	○	●	●
K	●		
N	●		
S		●	●
H		●	●

Internal • UN Thread

catalogue number	TPI	D	LI	W	KC610M	KC620M	KC635M
STN1018UNI	18	6,00	10,41	8,38			●
STN1020UNI	20	6,00	10,41	8,89			●
STN1114UNI	14	6,35	10,92	9,14			●
STN1116UNI	16	6,35	10,92	9,65			●
STN1118UNI	18	6,35	10,92	9,91			●
STN1120UNI	20	6,35	10,92	10,16			●
STN1124UNI	24	6,35	10,92	9,65			●
STN1128UNI	28	6,35	10,92	9,91			●
STN1612UNI	12	9,53	16,00	14,73			●
STN1614UNI	14	9,53	16,00	14,48			●
STN1616UNI	16	9,53	16,00	14,22	●		
STN1624UNI	24	9,53	16,00	14,73			●
STN1627UNI	27	9,53	16,00	14,22			●
STN1632UNI	32	9,53	16,00	14,99			●

External • UN Thread

catalogue number	TPI	D	LI	W	KC610M	KC620M	KC635M
STN1118UNE	18	6,35	10,92	9,91			●
STN1614UNE	14	9,53	16,00	14,48			●
STN1616UNE	16	9,53	16,00	14,22			●
STN1620UNE	20	9,53	16,00	13,97			●
STN1624UNE	24	9,53	16,00	14,73			●
STN2710UNE	10	15,88	26,92	22,86			●
STN2716UNE	16	15,88	26,92	25,40			●
STN278UNE	8	15,88	26,92	22,35			●

Internal • ISO Thread

catalogue number	thread pitch mm	D	LI	W	KC610M	KC620M	KC635M
STN10075ISOI	0,75	6,00	10,41	9,65			●
STN10100ISOI	1,0	6,00	10,41	8,89		●	●
STN10125ISOI	1,25	6,00	10,41	8,64			●
STN10150ISOI	1,5	6,00	10,41	8,89			●
STN11050ISOI	0,50	6,35	10,92	10,41			●
STN11100ISOI	1,0	6,35	10,92	9,91			●
STN11125ISOI	1,25	6,35	10,92	8,64			●
STN11150ISOI	1,5	6,35	10,92	10,41			●
STN16100ISOI	1,0	9,53	16,00	14,99			●
STN16150ISOI	1,5	9,53	16,00	14,99			●
STN16175ISOI	1,75	9,53	16,00	13,97			●
STN16200ISOI	2,0	9,53	16,00	13,97			●

● first choice
○ alternate choice

		KC610M	KC620M	KC635M
P		●	○	○
M		○	●	●
K		●		
N		●		
S			●	●
H			●	●

External • ISO Thread • Coarse

catalogue number	thread pitch mm	D	LI	W	KC610M	KC620M	KC635M
STN22300ISOIC	3,0	12,70	22,10	18,00	●		
STN27350ISOIC	3,5	15,88	26,92	24,50	●		

External • ISO Thread

catalogue number	thread pitch mm	D	LI	W	KC610M	KC620M	KC635M
STN16150ISOE	1,0	9,53	16,00	14,99	●	●	
STN27200ISOE	2,0	15,88	26,92	23,88	●		

BSW Thread

catalogue number	TPI	D	LI	W	KC610M	KC620M	KC635M
STN1119BSW	19	6,35	10,92	9,40			●
STN1611BSW	11	9,53	16,00	13,97	●		●
STN1612BSW	12	9,53	16,00	14,73			●
STN1614BSW	14	9,53	16,00	14,48	●		●

NPS Thread

catalogue number	TPI	D	LI	W	KC610M	KC620M	KC635M
STN16115NPS	11.5	9,53	16,00	13,21			●
STN1614NPS	14	9,53	16,00	14,48			●

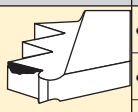
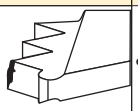
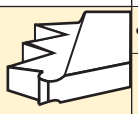
NPT Thread

catalogue number	TPI	D	LI	W	KC610M	KC620M	KC635M
STN1118NPT	18	6,35	10,92	9,91			●
STN16115NPT	11.5	9,53	16,00	13,21			●
STN1614NPT	14	9,53	16,00	14,48			●

NPTF Thread

ISO catalogue number	ANSI catalogue number	TPI	D	LI	W	KC610M	KC620M	KC635M
STN1118NPTF	STN1118NPTF	18	6,35	10,92	9,91			●
STN16115NPTF	STN16115NPTF	11.5	9,53	16,00	13,21			●
STN1614NPTF	STN1614NPTF	14	9,53	16,00	14,48			●

Thread Mill Troubleshooting

problem	possible cause	solution
excessive insert flank wear 	• Cutting speed too high.	• Reduce cutting speed.
	• Chip is too thin.	• Increase feed rate.
	• Insufficient coolant.	• Increase coolant quantity/pressure.
chipping of cutting edge 	• Chip is too thick.	• Reduce feed rate. • Use the tangential arc method of entrance. • Increase RPM.
	• Vibration.	• Check rigidity.
material build-up on the cutting edge 	• Cutting speed too slow.	• Increase cutting speed.
	• Chip thickness too small.	• Increase feed rate.
chatter/vibration	• Feed rate is too high.	• Reduce the feed.
	• Profile is too deep (coarse pitch threads).	• Execute two passes, each with increased cutting depth. • Execute two passes, each cutting only half the thread length.
	• Thread length is too long.	• Execute two passes, each cutting only half of the thread length.
insufficient thread accuracy	• Tool deflection.	• Reduce feed rate. • Execute a zero cut.

Insert Tolerance Classes

thread designation	standard designation	tolerance class
UN	ANSI B 1.174	2A/2B
UNJ	MIL-S-8879A	3A/3B
ISO	R262 (DIN 13)	6g/6H
NPT	USAS B2.1 : 1968	standard NPT
NPTF	ANSI B 1.20.3-1976	standard
BSW	B.S. 84 : 1956, DIN 259, ISO 228/1 : 1982	medium class A
BSPT	B.S. 21 : 1985	standard BSPT
ACME	ANSI B1/5 : 1988	3G
PG	DIN 40430	standard
TR	DIN 103	7e/7H

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That's **Different Thinking.**

At Kennametal, innovation follows vision. Our revolutionary products and services are inspired by asking "what if?" The solutions that follow — like our Beyond BLAST through-coolant inserts — deliver remarkable results in the world's most demanding machining environments.

A cutting-edge insert that delivers coolant precisely at the cutting edge. Now that's Different Thinking. That's Kennametal.

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Milling

- Beyond BLAST technology uses low-pressure conditions to offer many of the high-pressure performance benefits.
- Delivers superior performance on titanium, using either high- or low-pressure coolant systems.
- Effective thermal management results in reduced cutting temperatures, improved lubricity, superior chip control, and longer tool life.
- Beyond BLAST for milling increases tool life by up to 100% compared with conventional coolant delivery systems.

beyond™ BLAST™