



# TOOL-FLO

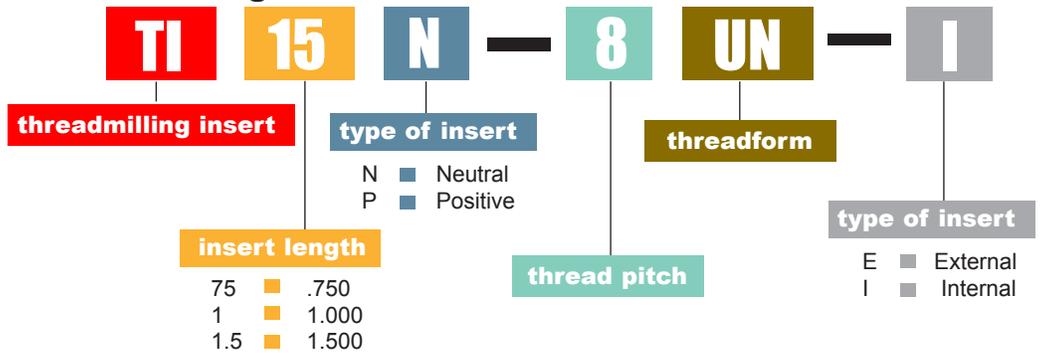


# THREAD MILLING

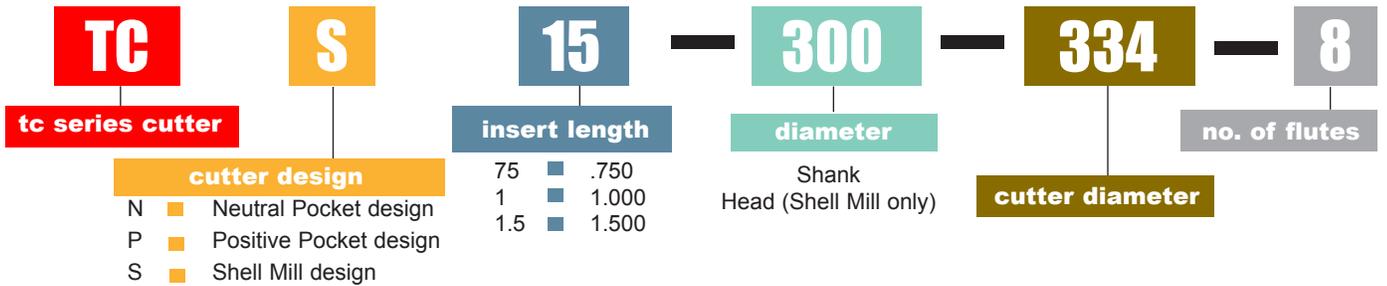
# TC SERIES THREADMILLING



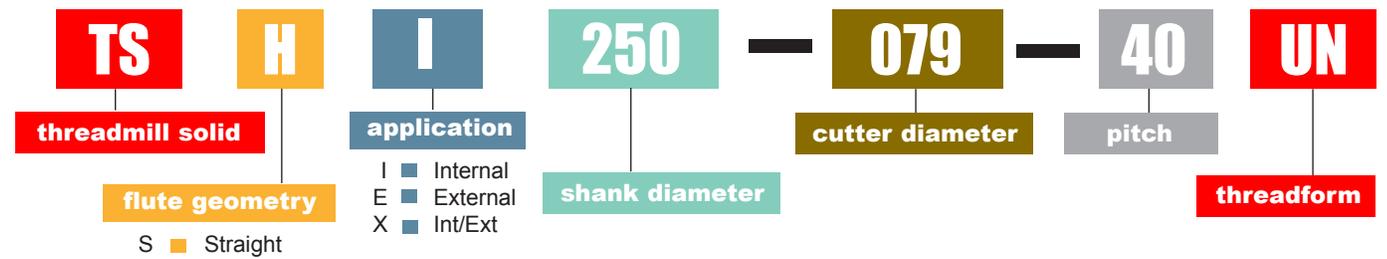
## Threadmilling Insert Nomenclature Chart



## Threadmilling Cutter Nomenclature Chart



## Solid Threadmill Nomenclature Chart



### TCT/TCN

- TCT cutters offer tapered head to accommodate NPT and NPTF style inserts
- TCN cutters offer straight head to accommodate UN and ISO style inserts
- Inserts are CNC ground to tolerance of +/- .0005 effective in the cutter
- Positive geometry provides high shear action which results in better quality threads

### TCP

- Cutters feature our patented locking system for accurate indexes
- Inserts are CNC ground to tolerance of +/- .0005 effective in the cutter
- Positive geometry provides high shear action which results in better quality threads
- Design allows for maximum number of flutes in minimum part diameter

### TCS

- Cutters feature our patented locking system for accurate indexes
- Inserts are CNC ground to tolerance of +/- .0005 effective in the cutter
- Positive geometry provides high shear action which results in better quality threads
- Design allows for maximum number of flutes in minimum part diameter
- Run at high speeds to reduce machining time by as much as 50%

### TSSI/X

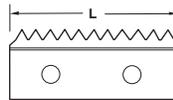
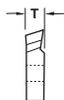
- Produce better quality threads than tapping
- Excels in materials that are difficult to cut

## BSPT THREADING

### TI\_P

Positive Rake

■ Internal/External



Description	EDP Code	Pitch	L	T	C3	GP3	ZS3
TI75P-19BSPT-I/E	TMIA4419I/E	19	.750	.080		●	●
TI1P-19BSPT-I/E	TMIB4419I/E	19	1.000	.140		●	●
TI1P-14BSPT-I/E	TMIB4414I/E	14	1.000	.140		●	●
TI1N-11BSPT-I/E - Neutral Rake	TMIC4411I/E	11	1.000	.140		●	●

	Uncoated	TIN Coated	AlTiN Coated
C3			
GP3	●	●	●
ZS3	●	●	●



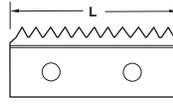
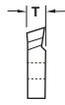
# TC SERIES THREADMILLING

## BSPB THREADING

TI\_P

Positive Rake

Internal/External



	Uncoated	TiN Coated	AlTiN Coated
C3	●	●	●
GP3	●	●	●
ZS3	●	●	●

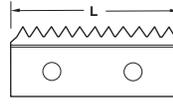
Description	EDP Code	TPI	L	T	C3	GP3	ZS3
TI75P-19BSPB-I/E	TMIA4419I/E	19	.750	.080	●	●	●
TI1P-19BSPB-I/E	TMIB4419I/E	19	1.000	.140	●	●	●
TI1P-14BSPB-I/E	TMIB4414I/E	14	1.000	.140	●	●	●

## NPT/NPTF THREADING

TI\_P

Positive Rake

Internal/External



	C3	GP3	ZS3
TI75P-18NPT-I/E	●	●	●
TI75P-18NPTF-I/E	●	●	●
TI1P-14NPT-I/E	●	●	●
TI1P-14NPTF-I/E	●	●	●

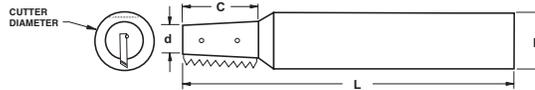
Description	EDP Code	TPI	L	T	C3	GP3	ZS3
TI75P-18NPT-I/E	TMIA3618I/E	18	.750	.080	●	●	●
TI75P-18NPTF-I/E	TMIA4618I/E	18	.750	.080	●	●	●
TI1P-14NPT-I/E	TMIB3614I/E	14	1.000	.140	●	●	●
TI1P-14NPTF-I/E	TMIB4614I/E	14	1.000	.140	●	●	●

## NPT/NPTF THREADING

TCT\_

Cutter Bodies

Internal/External



Description	EDP Code	Insert	D	d	L	Cutter Dia	C	Flutes	Screw*
TCT75-500-400-1	TMTA084001	TI75P-18NPT/NPTF/BSPT	.500	.229	3.000	.400	.750	1	TS250
TCT1-500-659-1	TMTB086591	TI1P-14NPT/NPTF/BSPT	.500	.379	3.000	.659	1.000	1	TS45

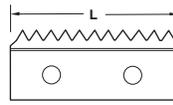
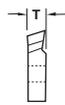
\*TS250 uses K-2 wrench, TS45 uses K-3 wrench

## UN THREADING

TI\_P

Positive Rake

Internal



	C3	GP3	ZS3
TI75P-32UN-I	●	●	●
TI75P-24UN-I	●	●	●
TI75P-20UN-I	●	●	●
TI75P-18UN-I	●	●	●
TI75P-16UN-I	●	●	●
TI1P-32UN-I	●	●	●
TI1P-24UN-I	●	●	●
TI1P-20UN-I	●	●	●
TI1P-18UN-I	●	●	●
TI1P-16UN-I	●	●	●
TI1P-14UN-I	●	●	●
TI1P-12UN-I	●	●	●
TI1P-10UN-I*	●	●	●

Description	EDP Code	Pitch	L	T	C3	GP3	ZS3
TI75P-32UN-I	TMIA6632I	32	.750	.080	●	●	●
TI75P-24UN-I	TMIA6624I	24	.750	.080	●	●	●
TI75P-20UN-I	TMIA6620I	20	.750	.080	●	●	●
TI75P-18UN-I	TMIA6618I	18	.750	.080	●	●	●
TI75P-16UN-I	TMIA6616I	16	.750	.080	●	●	●
TI1P-32UN-I	TMIB6632I	32	1.000	.140	●	●	●
TI1P-24UN-I	TMIB6624I	24	1.000	.140	●	●	●
TI1P-20UN-I	TMIB6620I	20	1.000	.140	●	●	●
TI1P-18UN-I	TMIB6618I	18	1.000	.140	●	●	●
TI1P-16UN-I	TMIB6616I	16	1.000	.140	●	●	●
TI1P-14UN-I	TMIB6614I	14	1.000	.140	●	●	●
TI1P-12UN-I	TMIB6612I	12	1.000	.140	●	●	●
TI1P-10UN-I*	TMIB6610I	10	1.000	.140	●	●	●

\*To be used in TCN1 750-611-1 cutter only.

THREAD MILLING

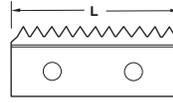
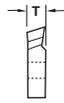
# TC SERIES THREADMILLING



## UNJ THREADING

TI\_P

Positive Rake



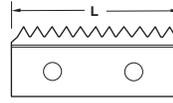
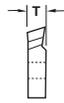
Internal

Description	EDP Code	TPI	L	T	Coating		
					C3	GP3	ZS3
TI75P-32UNJ-I	TMIA6832I	32	.750	.080	●	●	●
TI75P-24UNJ-I	TMIA6824I	24	.750	.080	●	●	●
TI75P-20UNJ-I	TMIA6820I	20	.750	.080	●	●	●
TI75P-18UNJ-I	TMIA6818I	18	.750	.080	●	●	●
TI75P-16UNJ-I	TMIA6816I	16	.750	.080	●	●	●
TI1P-32UNJ-I	TMIB6832I	32	1.000	.140	●	●	●
TI1P-24UNJ-I	TMIB6824I	24	1.000	.140	●	●	●
TI1P-20UNJ-I	TMIB6820I	20	1.000	.140	●	●	●
TI1P-18UNJ-I	TMIB6818I	18	1.000	.140	●	●	●
TI1P-16UNJ-I	TMIB6816I	16	1.000	.140	●	●	●
TI1P-14UNJ-I	TMIB6814I	14	1.000	.140	●	●	●
TI1P-12UNJ-I	TMIB6812I	12	1.000	.140	●	●	●
TI1P-10UNJ-I	TMIB6810I	10	1.000	.140	●	●	●

## ISO THREADING

TI\_P

Positive Rake



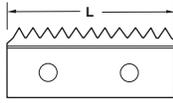
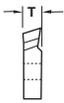
Internal

Description	EDP Code	Pitch	L	T	Coating		
					C3	GP3	ZS3
TI75P-1.5 ISO-I	TMIA7015I	1,5	.750	.080	●	●	●
TI75P-1.25 ISO-I	TMIA70125I	1,25	.750	.080	●	●	●
TI75P-1.0 ISO-I	TMIA7010I	1,0	.750	.080	●	●	●
TI75P-0.5 ISO-I	TMIA7005I	0,5	.750	.080	●	●	●
TI1P-2.0 ISO-I	TMIB7020I	2,0	1.000	.140	●	●	●
TI1P-1.5 ISO-I	TMIB7015I	1,5	1.000	.140	●	●	●
TI1P-1.0 ISO-I	TMIB7010I	1,0	1.000	.140	●	●	●

## UN THREADING

TI\_P

Positive Rake



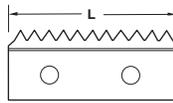
External

Description	EDP Code	TPI	L	T	Coating		
					C3	GP3	ZS3
TI75P-32UN-E	TMIA6632E	32	.750	.080	●	●	●
TI75P-24UN-E	TMIA6624E	24	.750	.080	●	●	●
TI75P-20UN-E	TMIA6620E	20	.750	.080	●	●	●
TI75P-18UN-E	TMIA6618E	18	.750	.080	●	●	●
TI75P-16UN-E	TMIA6616E	16	.750	.080	●	●	●
TI1P-32UN-E	TMIB6632E	32	1.000	.140	●	●	●
TI1P-24UN-E	TMIB6624E	24	1.000	.140	●	●	●
TI1P-20UN-E	TMIB6620E	20	1.000	.140	●	●	●
TI1P-18UN-E	TMIB6618E	18	1.000	.140	●	●	●
TI1P-16UN-E	TMIB6616E	16	1.000	.140	●	●	●
TI1P-12UN-E	TMIB6612E	12	1.000	.140	●	●	●

## UNJ THREADING

TI\_P

Positive Rake



External

Description	EDP Code	TPI	L	T	Coating		
					C3	GP3	ZS3
TI75P-32UNJ-E	TMIA6832E	32	.750	.080	●	●	●
TI75P-24UNJ-E	TMIA6824E	24	.750	.080	●	●	●
TI75P-20UNJ-E	TMIA6820E	20	.750	.080	●	●	●
TI75P-18UNJ-E	TMIA6818E	18	.750	.080	●	●	●
TI75P-16UNJ-E	TMIA6816E	16	.750	.080	●	●	●
TI1P-32UNJ-E	TMIB6832E	32	1.000	.140	●	●	●
TI1P-24UNJ-E	TMIB6824E	24	1.000	.140	●	●	●
TI1P-20UNJ-E	TMIB6820E	20	1.000	.140	●	●	●
TI1P-18UNJ-E	TMIB6818E	18	1.000	.140	●	●	●
TI1P-16UNJ-E	TMIB6816E	16	1.000	.140	●	●	●
TI1P-12UNJ-E	TMIB6812E	12	1.000	.140	●	●	●

THREAD MILLING



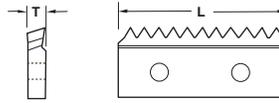
# TC SERIES THREADMILLING

## ISO THREADING

**TI1P**

Positive Rake

■ External



	Uncoated	TIN Coated	AlTiN Coated
C3	●	●	●
GP3	●	●	●
ZS3	●	●	●

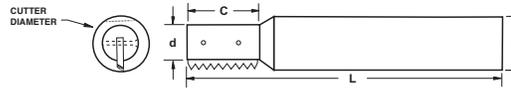
Description	EDP Code	Pitch	L	T
TI1P-2.0 ISO-E	TMIB7020E	2.0	1.000	.140
TI1P-1.5 ISO-E	TMIB7015E	1.5	1.000	.140
TI1P-1.0 ISO-E	TMIB7010E	1.0	1.000	.140

## UN THREADING

**TCN**

Cutter Bodies

■ Internal/External



Description	EDP Code	Insert	D	d	L	Cutter Dia	C	Flutes	Screw*
TCN75-500-394-1	TMNA083941	TI75P-UN/ISO/BSPP/NGT/SGT/UNJ	.500	.250	3.000	.394	.750	1	TS250
TCN75-500-468-1	TMNA084681	TI75P-UN/ISO/BSPP/NGT/SGT/UNJ	.500	.330	3.500	.468	.750	1	TS25
TCN1-750-625-1	TMNB126251	TI1P-UN/ISO/BSPP/NGT/SGT/UNJ	.750	.454	3.500	.625	1.000	1	TS40
TCN1-750-611-1	TMNB126111	TI1P-10UN	.750	.383	3.500	.611	1.000	1	TS40

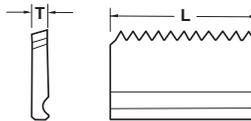
\*TS250 and TS25 uses K-2 wrench, TS40 uses K-3 wrench

## NGT/SGT THREADING

**TI\_N**

Neutral Rake

■ Internal/External



Description	EDP Code	TPI	L	T
TI15N-14NGT-I/E	TMID4714I/E	14	1.500	.140
TI15N-14SGT-I/E	TMID4914I/E	14	1.500	.140

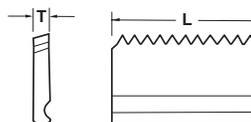
	Uncoated	TIN Coated	AlTiN Coated
C3	●	●	●
GP3	●	●	●
ZS3	●	●	●

## NPT/NPTF THREADING

**TI\_N**

Neutral Rake

■ Internal/External



Description	EDP Code	TPI	L	T
TI15N-11.5NPT-I/E	TMID3611I/E	11.5	1.500	.140
TI15N-11.5NPTF-I/E	TMID4611I/E	11.5	1.500	.140
TI15N-8NPT-I/E	TMID3608I/E	8	1.500	.140
TI15N-8NPTF-I/E	TMID4608I/E	8	1.500	.140

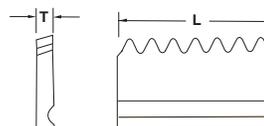
	Uncoated	TIN Coated	AlTiN Coated
C3	●	●	●
GP3	●	●	●
ZS3	●	●	●

## API ROUND THREADING

**TI15N**

Neutral Rake

■ Internal/External



Description	EDP Code	TPI	L	T
TI15N-10RD-I/E	TMID3410I/E	10	1.500	.140
TI15N-8RD-I/E	TMID3200I/E	8	1.500	.140

	Uncoated	TIN Coated	AlTiN Coated
C3	●	●	●
GP3	●	●	●
ZS3	●	●	●

**THREAD MILLING**

# TC SERIES THREADMILLING

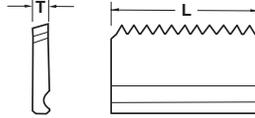


## UN THREADING

TI\_N

Neutral Rake

Internal



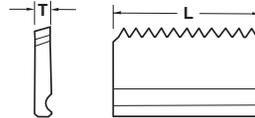
Description	EDP Code	TPI	L	T	Coating		
					C3	GP3	ZS3
TI1N-32UN-I	TMIC6632I	32	1.000	.140	●	●	●
TI1N-24UN-I	TMIC6624I	24	1.000	.140	●	●	●
TI1N-20UN-I	TMIC6620I	20	1.000	.140	●	●	●
TI1N-18UN-I	TMIC6618I	18	1.000	.140	●	●	●
TI1N-16UN-I	TMIC6616I	16	1.000	.140	●	●	●
TI1N-12UN-I	TMIC6612I	12	1.000	.140	●	●	●
TI1N-10UN-I	TMIC6610I	10	1.000	.140	●	●	●
TI15N-24UN-I	TMID6624I	24	1.500	.140	●	●	●
TI15N-20UN-I	TMID6620I	20	1.500	.140	●	●	●
TI15N-18UN-I	TMID6618I	18	1.500	.140	●	●	●
TI15N-16UN-I	TMID6616I	16	1.500	.140	●	●	●
TI15N-14UN-I	TMID6614I	14	1.500	.140	●	●	●
TI15N-12UN-I	TMID6612I	12	1.500	.140	●	●	●
TI15N-10UN-I	TMID6610I	10	1.500	.140	●	●	●
TI15N-8UN-I	TMID6608I	8	1.500	.140	●	●	●
TI15N-7UN-I	TMID6607I	7	1.500	.140	●	●	●
TI15N-6UN-I	TMID6606I	6	1.500	.140	●	●	●

## UNJ THREADING

TI\_N

Neutral Rake

Internal



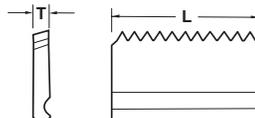
Description	EDP Code	TPI	L	T	Coating		
					C3	GP3	ZS3
TI1N-32UNJ-I	TMIC6832I	32	1.000	.140	●	●	●
TI1N-24UNJ-I	TMIC6824I	24	1.000	.140	●	●	●
TI1N-20UNJ-I	TMIC6820I	20	1.000	.140	●	●	●
TI1N-18UNJ-I	TMIC6818I	18	1.000	.140	●	●	●
TI1N-16UNJ-I	TMIC6816I	16	1.000	.140	●	●	●
TI1N-12UNJ-I	TMIC6812I	12	1.000	.140	●	●	●
TI1N-10UNJ-I	TMIC6810I	10	1.000	.140	●	●	●
TI15N-24UNJ-I	TMID6824I	24	1.500	.140	●	●	●
TI15N-20UNJ-I	TMID6820I	20	1.500	.140	●	●	●
TI15N-18UNJ-I	TMID6818I	18	1.500	.140	●	●	●
TI15N-16UNJ-I	TMID6816I	16	1.500	.140	●	●	●
TI15N-12UNJ-I	TMID6812I	12	1.500	.140	●	●	●
TI15N-10UNJ-I	TMID6810I	10	1.500	.140	●	●	●
TI15N-8UNJ-I	TMID6808I	8	1.500	.140	●	●	●

## ISO THREADING

T115N

Neutral Rake

Internal



Description	EDP Code	TPI	L	T	Coating		
					C3	GP3	ZS3
TI15N-6.0 ISO-I	TMID7060I	6.0	1.500	.140	●	●	●
TI15N-5.0 ISO-I	TMID7050I	5.0	1.500	.140	●	●	●
TI15N-4.5 ISO-I	TMID7045I	4.5	1.500	.140	●	●	●
TI15N-4.0 ISO-I	TMID7040I	4.0	1.500	.140	●	●	●
TI15N-3.5 ISO-I	TMID7035I	3.5	1.500	.140	●	●	●
TI15N-3.0 ISO-I	TMID7030I	3.0	1.500	.140	●	●	●
TI15N-2.5 ISO-I	TMID7025I	2.5	1.500	.140	●	●	●
TI15N-2.0 ISO-I	TMID7020I	2.0	1.500	.140	●	●	●
TI15N-1.5 ISO-I	TMID7015I	1.5	1.500	.140	●	●	●



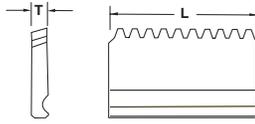
# TC SERIES THREADMILLING

## ACME THREADING

TI\_N

Neutral Rake - Full Profile

Internal/External



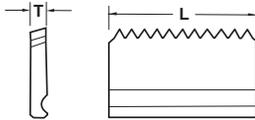
Description	EDP Code	TPI	L	T	C3	GP3	ZS3	Uncoated	TIN Coated	AlTiN Coated
T11N-12ACME-I/E	TMIC0212I/E	12	1.000	.140	●	●	●	●	●	●
T11N-10ACME-I/E	TMIC0210I/E	10	1.000	.140	●	●	●	●	●	●
T11N-8ACME-I/E	TMIC0208I/E	8	1.000	.140	●	●	●	●	●	●
T115N-12ACME-I/E	TMID0212I/E	12	1.500	.140	●	●	●	●	●	●
T115N-10ACME-I/E	TMID0210I/E	10	1.500	.140	●	●	●	●	●	●
T115N-8ACME-I/E	TMID0208I/E	8	1.500	.140	●	●	●	●	●	●
T115N-6ACME-I/E	TMID0206I/E	6	1.500	.140	●	●	●	●	●	●
T115N-5ACME-I/E	TMID0205I/E	5	1.500	.140	●	●	●	●	●	●
T115N-4ACME-I/E	TMID0204I/E	4	1.500	.140	●	●	●	●	●	●

## UN THREADING

TI\_N

Neutral Rake

External



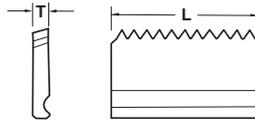
Description	EDP Code	TPI	L	T	C3	GP3	ZS3	Uncoated	TIN Coated	AlTiN Coated
T11N-32UN-E	TMIC6632E	32	1.000	.140	●	●	●	●	●	●
T11N-24UN-E	TMIC6624E	24	1.000	.140	●	●	●	●	●	●
T11N-20UN-E	TMIC6620E	20	1.000	.140	●	●	●	●	●	●
T11N-18UN-E	TMIC6618E	18	1.000	.140	●	●	●	●	●	●
T11N-16UN-E	TMIC6616E	16	1.000	.140	●	●	●	●	●	●
T11N-12UN-E	TMIC6612E	12	1.000	.140	●	●	●	●	●	●
T11N-10UN-E	TMIC6610E	10	1.000	.140	●	●	●	●	●	●
T115N-24UN-E	TMID6624E	24	1.500	.140	●	●	●	●	●	●
T115N-20UN-E	TMID6620E	20	1.500	.140	●	●	●	●	●	●
T115N-18UN-E	TMID6618E	18	1.500	.140	●	●	●	●	●	●
T115N-16UN-E	TMID6616E	16	1.500	.140	●	●	●	●	●	●
T115N-12UN-E	TMID6612E	12	1.500	.140	●	●	●	●	●	●
T115N-10UN-E	TMID6610E	10	1.500	.140	●	●	●	●	●	●
T115N-8UN-E	TMID6608E	8	1.500	.140	●	●	●	●	●	●
T115N-6UN-E	TMID6606E	6	1.500	.140	●	●	●	●	●	●

## UNJ THREADING

TI\_N

Neutral Rake

External



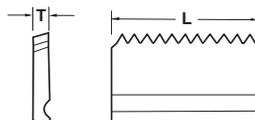
Description	EDP Code	TPI	L	T	C3	GP3	ZS3	Uncoated	TIN Coated	AlTiN Coated
T11N-32UNJ-E	TMIC6832E	32	1.000	.140	●	●	●	●	●	●
T11N-24UNJ-E	TMIC6824E	24	1.000	.140	●	●	●	●	●	●
T11N-20UNJ-E	TMIC6820E	20	1.000	.140	●	●	●	●	●	●
T11N-18UNJ-E	TMIC6818E	18	1.000	.140	●	●	●	●	●	●
T11N-16UNJ-E	TMIC6816E	16	1.000	.140	●	●	●	●	●	●
T11N-12UNJ-E	TMIC6812E	12	1.000	.140	●	●	●	●	●	●
T11N-10UNJ-E	TMIC6810E	10	1.000	.140	●	●	●	●	●	●
T115N-24UNJ-E	TMID6824E	24	1.500	.140	●	●	●	●	●	●
T115N-20UNJ-E	TMID6820E	20	1.500	.140	●	●	●	●	●	●
T115N-18UNJ-E	TMID6818E	18	1.500	.140	●	●	●	●	●	●
T115N-16UNJ-E	TMID6816E	16	1.500	.140	●	●	●	●	●	●
T115N-12UNJ-E	TMID6812E	12	1.500	.140	●	●	●	●	●	●
T115N-10UNJ-E	TMID6810E	10	1.500	.140	●	●	●	●	●	●
T115N-8UNJ-E	TMID6808E	8	1.500	.140	●	●	●	●	●	●

## ISO THREADING

TI15N

Neutral Rake

External



Description	EDP Code	TPI	L	T	C3	GP3	ZS3	Uncoated	TIN Coated	AlTiN Coated
T115N-6.0 ISO-E	TMID7060E	6.0	1.500	.140	●	●	●	●	●	●
T115N-5.0 ISO-E	TMID7050E	5.0	1.500	.140	●	●	●	●	●	●
T115N-4.5 ISO-E	TMID7045E	4.5	1.500	.140	●	●	●	●	●	●
T115N-4.0 ISO-E	TMID7040E	4.0	1.500	.140	●	●	●	●	●	●
T115N-2.0 ISO-E	TMID7020E	2.0	1.500	.140	●	●	●	●	●	●

**THREAD MILLING**

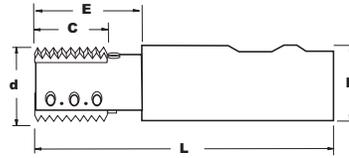
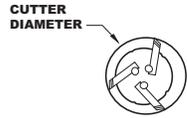
# TC SERIES THREADMILLING



## UN/NPT/ISO/ACME/API THREADING

### TCP Cutter Bodies

Internal/External

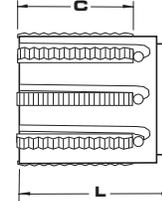
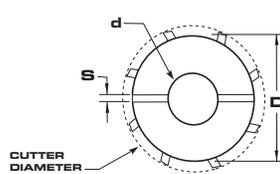


Description	EDP Code	Insert	Coolant Port	D	d	E	L	Cutter Dia. (UN/115NPT)	Cutter Dia. (8NPT)	C	Flutes	Screw	Pin
TCP1 100-969-2	TMPB169692	TI1N		1.000	.750	1.500	4.500	.969	.969	1.000	2	TSS-3	DP1
TCP1 125-175-5	TMPB201755	TI1N	✓	1.250	1.500	1.750	4.000	1.755	1.755	1.000	5	TSS-2	DP1
TCP15 100-932-1	TMPC169321	TI15N		1.000	.722	1.900	4.500	.932	1.065	1.500	1	TSS-2	DP135
TCP15 100-111-3	TMPC161113	TI15N	✓	1.000	.812	2.000	4.500	1.116	1.247	1.500	3	TSS-3	DP135
TCP15 125-175-5	TMPC201755	TI15N	✓	1.250	1.500	2.550	4.500	1.755	1.888	1.500	5	TSS-2	DP135
TCP15 125-175-5L	TMPC201755L	TI15N	✓	1.250	1.500	2.750	8.750	1.755	1.888	1.500	5	TSS-2	DP135

## UN/NPT/ISO/ACME THREADING

### TCS Shell Mill Cutter Bodies

Internal/External

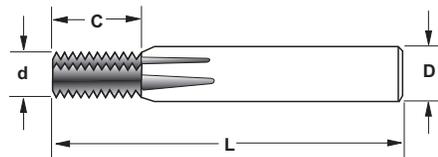


Description	EDP Code	Insert	D	d	S	L	Cutter Dia.	C	Flutes	Pin	Screw
TCS15 200-234-6	TMSC322346	TI15N	2.000	.750	.250	2.250	2.349	1.500	6	DP135	TSS-2
TCS15 250-274-7	TMSC402747	TI15N	2.500	1.000	.375	2.250	2.846	1.500	7	DP135	TSS-2
TCS15 300-334-8	TMSC483348	TI15N	3.000	1.250	.500	2.250	3.341	1.500	8	DP135	TSS-2

## UN THREADING

### TSSI Solid Threadmills

Internal

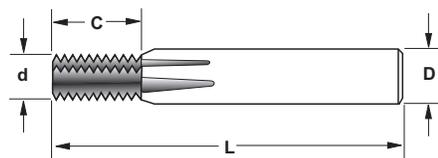


Min. I.D. Thread/Pitch	Description	EDP Code	d	C	Flutes	D	L	AC22
8-32	TSSI 125-120-32UN	TMCS0012032U	.120	.250	3	.125	1.500	●
12-24	TSSI 187-140-24UN	TMCS0114024U	.140	.417	3	.187	1.650	●
12-28	TSSI 187-145-28UN	TMCS0114528U	.145	.321	3	.187	1.650	●
10-32	TSSI 187-140-32UN	TMCS0114032U	.140	.343	3	.187	1.650	●
1/4-20	TSSI 187-160-20UN	TMCS0116020U	.160	.400	3	.187	1.650	●
5/16-18	TSSI 250-200-18UN	TMCS0220018U	.200	.500	3	.250	2.250	●
5/16-24	TSSI 250-200-24UN	TMCS0220024U	.200	.500	3	.250	2.250	●
3/8-16	TSSI 250-240-16UN	TMCS0224016U	.240	.563	5	.250	2.250	●
3/8-24	TSSI 250-240-24UN	TMCS0224024U	.240	.583	5	.250	2.250	●
7/16-14	TSSI 312-310-14UN	TMCS0431014U	.310	.625	5	.312	2.480	●
7/16-20	TSSI 312-310-20UN	TMCS0431020U	.310	.750	5	.312	2.480	●
1/2-13	TSSI 312-310-13UN	TMCS0431013U	.310	.769	5	.312	2.480	●
9/16-12	TSSI 375-375-12UN	TMCS0637512U	.375	.917	5	.375	2.840	●
9/16-18	TSSI 375-370-18UN	TMCS0637518U	.370	.944	5	.375	2.840	●
5/8-11	TSSI 500-437-11UN	TMCS0843711U	.437	1.090	5	.500	3.270	●
3/4-10	TSSI 500-470-10UN	TMCS0847010U	.470	1.100	5	.500	3.270	●
3/4-12	TSSI 500-470-12UN	TMCS0847012U	.470	1.167	5	.500	3.270	●
7/8-14	TSSI 500-470-14UN	TMCS0847014U	.470	1.142	5	.500	3.270	●
1-8	TSSI 625-620-8UN	TMCS1062008U	.620	1.500	6	.625	3.620	●

## NPT THREADING

### TSSX Solid Threadmills

Internal/External



Min. I.D. Thread/Pitch	Description	EDP Code	d	C	Flutes	D	L	AC22
1/16&1/8-27	TSSX 250-240-27NPT	TMCS0224027N	.240	.370	5	.250	2.250	●
1/4&3/8-18	TSSX 312-310-18NPT	TMCS0431018N	.310	.556	5	.312	2.480	●
1/2&3/4-14	TSSX 500-470-14NPT	TMCS0847014N	.470	.786	5	.500	3.270	●

THREAD MILLING



# TC SERIES THREADMILLING

## Threadmilling Kits



### NPT THREADING KITS

1 8NPT-THREADING

#### KIT #101

Kit Contents

1	TCT75 500-400-1
4	TI75-18NPT AC3
1	T8 WRENCH
1	TS252 INSERT SCREW

1 4NPT-THREADING

#### KIT #102

Kit Contents

1	TCT1 500-659-1
4	TI1P-14NPT AC3
1	T8 WRENCH
1	TS252 INSERT SCREW

### UN THREADING KITS

1 6UN-THREADING

#### KIT #201

Kit Contents

1	TCN75 500-394-1
4	TI75P-16UN AC3
1	T8 WRENCH
1	TS252 INSERT SCREW

1 8UN-THREADING

#### KIT #202

Kit Contents

1	TCN75 500-394-1
4	TI75P-18UN AC3
1	T8 WRENCH
1	TS252 INSERT SCREW

24UN-THREADING

#### KIT #204

Kit Contents

1	TCN75 500-394-1
4	TI75P-24UN AC3
1	T6 WRENCH
1	TS252 INSERT SCREW

20UN-THREADING

#### KIT #203

Kit Contents

1	TCN75 500-394-1
4	TI75P-20UN AC3
1	T8 WRENCH
1	TS252 INSERT SCREW

32UN-THREADING

#### KIT #205

Kit Contents

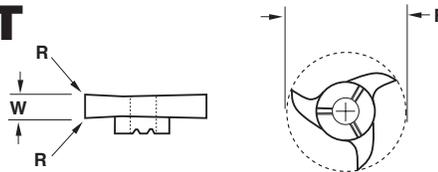
1	TCN75 500-394-1
4	TI75P-32UN AC3
1	T6 WRENCH
1	TS252 INSERT SCREW

*We welcome specials!  
Please call us with your  
specs.*

## MILL GROOVING INSERT

TFMG

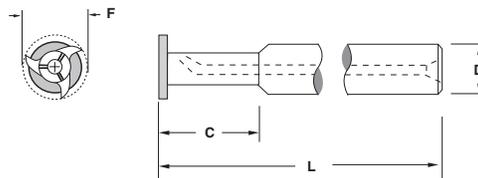
Grooving



Description	EDP Code	W	D.O.C.	R	F	GP22
TFMG-039W	9MG039	0.039	.177	-	0.854	●
TFMG-056W	9MG056	0.056	.177	-	0.854	●
TFMG-062W	9MG062	0.062	.177	0.008	0.854	●
TFMG-078W	9MG078	0.078	.177	0.008	0.854	●
TFMG-094W	9MG094	0.094	.177	0.008	0.854	●
TFMG-125W	9MG125	0.125	.177	0.008	0.854	●
TFMG-187W	9MG187	0.187	.177	0.008	0.854	●
TFMG-250W	9MG250	0.250	.177	0.008	0.854	●

## MILL GROOVING HOLDER

TFM



Description	EDP Code	C	L	D	F	Insert Screw
TFM-7-12M-100C	9CMI712M100	Straight shank	100mm	12mm	0.854	SD25
TFM-7-12M-130C	9CMI712M130	Straight shank	130mm	12mm	0.854	SD25
TFM-7-16M-42C	9CMI716M42	42mm	100mm	16mm	0.854	SD25
TFM-7-16M-60C	9CMI716M60	60mm	130mm	16mm	0.854	SD25
TFM-7-16M-85C	9CMI716M85	85mm	160mm	16mm	0.854	SD25
TFM-7-500-394C	9CMI7500394	Straight shank	3.94	0.500	0.854	SD25
TFM-7-500-512C	9CMI7500512	Straight shank	5.12	0.500	0.854	SD25
TFM-7-625-165C	9CMI7625165	1.650	3.94	0.625	0.854	SD25
TFM-7-625-236C	9CMI7625236	2.630	5.12	0.625	0.854	SD25
TFM-7-625-335C	9CMI7625335	3.350	6.30	0.625	0.854	SD25

THREAD MILLING



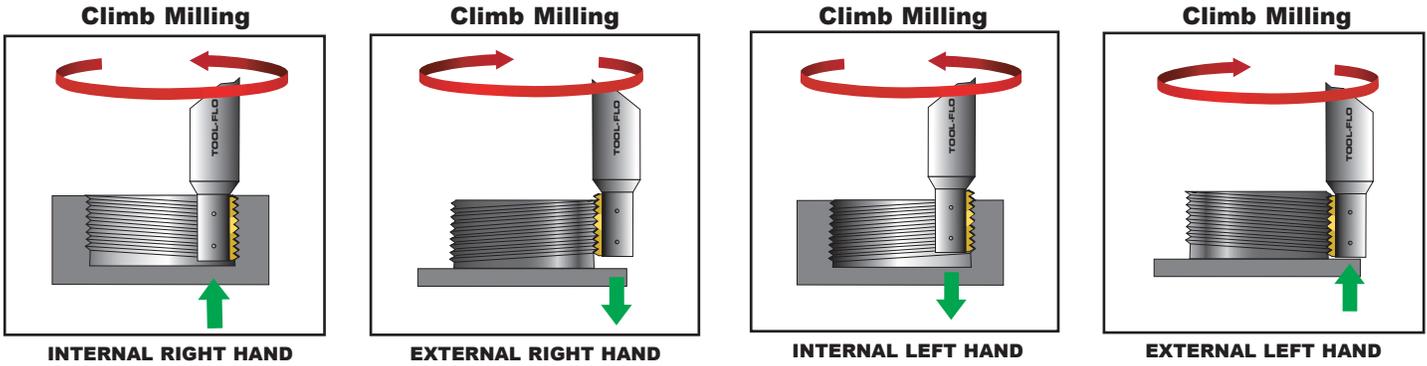
## Technical Information

### NPT & NPTF

When programming an NPT or NPTF thread form, a correction factor to compensate for the tapered thread form may need to be made. This is achieved by dividing the circular move into quarters or eighths, and moving the cutter out as the arc is generated so that the taper is included in the movement. The amount of taper for a given form is determined by the following formula:

$$\text{Taper per pitch} = \frac{.0625''}{\text{pitch}}$$

This amount of taper per pitch is then divided by number of programmed quadrants. This determines the amount that the cutter forms of the thread.



NPT SELECTION CHART		
SIZE	CUTTER	INSERT
1/4", 3/8"	TCT75 500-400-1	TI75P-18NPT
1/2", 3/4"	TCT1 500-659-1	TI1P-14NPT
1"	TCP15 100-932-1	TI15N-11.5NPT
1-1/4", 1-1/2"	TCP15 100-111-3	TI15N-11.5NPT
2"	TCP15 125-175-5	TI15N-11.5NPT
3"	TCP15 125-175-5	TI15N-8NPT

RECOMMENDED SPEED AND FEED RATES		
MATERIAL	CHIP LOAD	SPEED (SFPM)
1018 Steel	.0008 - .002	250 - 500
Standard steel (4140)	.0005 - .002	175 - 350
300 Series Stainless	.0005 - .0035	250 - 500
400 Series Stainless	.0002 - .0015	125 - 300
Gray Iron	.0005 - .003	400 - 800
Ductile iron	.001 - .005	600 - 1000
Aluminum	.0015 - .006	800 - 1200
Brass	.002 - .0065	400 - 700

### Minimum internal thread size vs pitch for given cutter body for UN threads

cutter body description	pitch	32	24	20	18	16	14	12	10	8
TCN75 500-394-1		1/2"	1/2"	1/2"	9/16"	9/16"	9/16"	9/16"		
TCN75 500-468-1		5/8"	5/8"	5/8"	5/8"	5/8"	11/16"	11/16"		
TCPN1 750-625-1		3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"		
TCP1 100-969-2		1-1/8"	1-1/8"	1-1/8"	1-3/16"	1-3/16"	1-3/16"	1-3/16"		
TCP1 125-175-5		1-15/16"	1-15/16"	1-15/16"	1-15/16"	1-15/16"	1-15/16"	1-15/16"		
TCP15 100-932-1				1-1/8"	1-1/8"	1-1/8"	1-1/8"	1-1/8"	1-1/8"	1-1/8"
TCP15 100-111-3				1-5/16"	1-5/16"	1-5/16"	1-5/16"	1-5/16"	1-3/8"	1-3/8"
TCP15 125-175-5				1-15/16"	1-15/16"	1-15/16"	2"	2"	2"	2"

THREAD MILLING