

RAPID THREAD

Solid Carbide Thread Mills

Diameters:

0.250", 0.312", 0.375",
0.394", 0.472", 0.602",
0.625", 0.630", 0.750"

Thread Form:

UN, ISO, NPT, NPTF, UN and
ISO Profile for 2xD and 3xD

Applications:

Internal and External Thread Milling

Materials:

Cast Iron, Steel, Stainless Steel,
Aluminum, Titanium and other
high temperature or nickel-based
alloys.



SERIES:

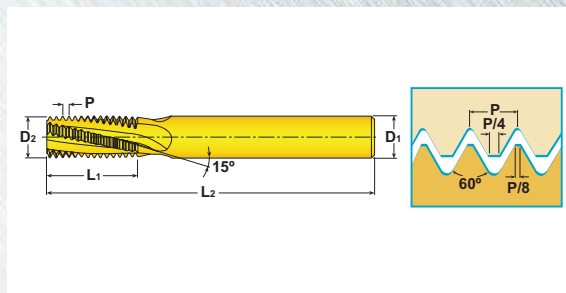
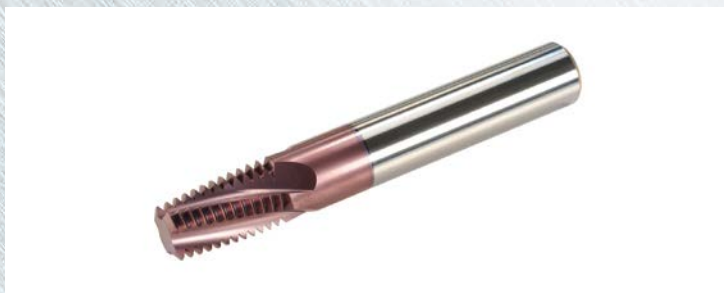
MTEC_UN
MTECB_UN
MTECS_UN
MTECSH_UN
MTEC_ISO
MTECS_ISO
MTECSH_ISO
MTEC_NPT/NPTF
MTECB_NPT/NPTF
47Y_UN_RA (Chipsurfer Style)
47Y_IS_RA (Chipsurfer Style)

Series Features:

- Thread Milling in One Pass
- Short Machining Time
- Thread Milling Next to the Bottom of Blind Hole
- Bottom Thread Relief Not Required
- No Problem with Broken Taps
- One Tool is Suitable for Various Thread Milling Profile Inserts
- Excellent Thread Surface Finish - High Accuracy

RAPID[®]THREAD SERIES MTEC_UN

SOLID CARBIDE THREAD MILLS - INTERNAL THREAD MILLS FOR UN THREAD



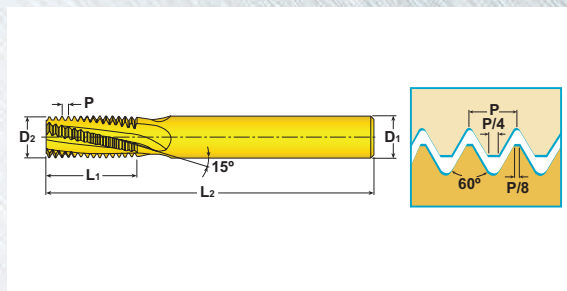
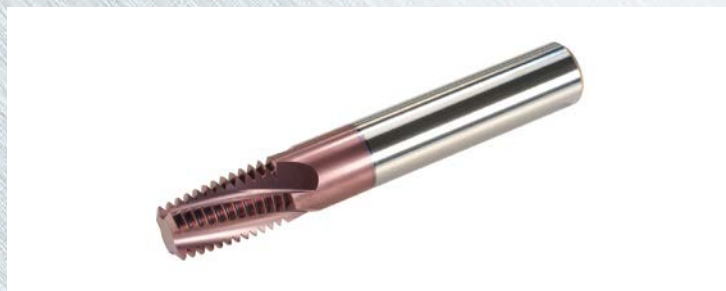
NEW Item Description	OLD Item Description	P Pitch (TPI)	UNC	UNF	UNEF	Shank Style/Size	D2 Thread	No. of Flutes	L1 Extension Length	L2 Overall Length
MTEC0250C0240UN	IN2005 46Y-40UNR6RA060	IN2005 40	5	NA	-	.250" Cyl.	0.098	3	0.240	2.5
MTEC0250C0232UN	IN2005 46Y-32UNR6RA060	IN2005 32	8	10	12	.250" Cyl.	0.126	3	0.270	2.5
MTEC0250C0428UN	IN2005 46Y-28UNR6RA100	IN2005 28	-	1/4	-	.250" Cyl.	0.157	3	0.450	2.5
MTEC0250C0528UN	IN2005 46Y-28UNR6RA140	IN2005 28	-	-	7/16-1/2	.250" Cyl.	0.236	3	0.570	2.5
MTEC0250C0624UN	IN2005 46Y-24UNR6RA150	IN2005 24	-	5/16-3/8	-	.250" Cyl.	0.197	3	0.560	2.5
MTEC0312C0824UN	IN2005 46Y-24UNR7RA200	IN2005 24	-	NA	9/16-5/8	.312" Cyl.	0.276	3	0.810	2.5
MTEC0250C0520UN	IN2005 46Y-20UNR6RA120	IN2005 20	1/4	-	-	.250" Cyl.	0.177	3	0.480	2.5
MTEC0312C0820UN	IN2005 46Y-20UNR7RA200	IN2005 20	-	7/16-1/2	-	.312" Cyl.	0.276	3	0.830	2.5
MTEC0500E1120UN	IN2005 47Y-20UNS4RA280	IN2005 20	-	-	3/4-1	.500" Cyl.	0.472	5	1.080	3.5
MTEC0250C0618UN	IN2005 46Y-18UNR6RA150	IN2005 18	5/16	-	-	.250" Cyl.	0.197	3	0.580	2.5
MTEC0375D1018UN	IN2005 47Y-18UNR8RA250	IN2005 18	-	9/16-5/8	11/8-15/8	.375" Cyl.	0.375	4	1.030	3
MTEC0250C0716UN	IN2005 46Y-16UNR6RA180	IN2005 16	3/8	-	-	.250" Cyl.	0.236	3	0.660	2.5
MTEC0500D1216UN	IN2005 47Y-16UNS4RA300	IN2005 16	-	3/4	-	.500" Cyl.	0.472	4	1.220	3.5
MTEC0312C0814UN	IN2005 46Y-14UNR7RA200	IN2005 14	7/16	-	-	.312" Cyl.	0.276	3	0.820	2.5
MTEC0625E1514UN	IN2005 47Y-14UNS6RA380	IN2005 14	-	7/8	-	.625" Cyl.	0.591	5	1.460	4
MTEC0312C0913UN	IN2005 46Y-13UNR7RA230	IN2005 13	1/2	-	-	.312" Cyl.	0.313	3	0.880	2.5
MTEC0375C1012UN	IN2005 46Y-12UNR8RA250	IN2005 12	9/16	-	-	.375" Cyl.	0.375	3	1.040	3
MTEC0625E1612UN	IN2005 47Y-12UNS6RA410	IN2005 12	-	1-11/2	-	.625" Cyl.	0.625	5	1.630	4
MTEC0375C1111UN	IN2005 46Y-11UNR8RA270	IN2005 11	5/8	-	-	.375" Cyl.	0.375	3	1.140	3
MTEC0500C1410UN	IN2005 46Y-10UNS4RA350	IN2005 10	3/4	-	-	.500" Cyl.	0.472	3	1.350	3.5
MTEC0625C159UN	IN2005 46Y-09UNS6RA380	IN2005 09	7/8	-	-	.625" Cyl.	0.591	3	1.500	4
MTEC0625C178UN	IN2005 46Y-08UNS6RA430	IN2005 08	1	-	-	.625" Cyl.	0.625	3	1.690	4
MTEC0750D177UN	IN2005 47Y-07UNS7RA450	IN2005 07	11/8-11/4	-	-	.750" Cyl.	0.750	4	1.780	4

RAPID THREAD SERIES MTEC_ISO

SOLID CARBIDE THREAD MILLS - INTERNAL THREAD MILLS FOR ISO THREAD



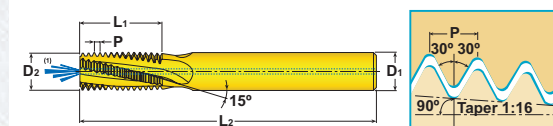
Int. Thread



NEW Item Description	OLD Item Description	P Pitch (mm)	Thread Size	Shank Style/Size	D2 Thread	No. of Flutes	L1 Extension Length	L2 Overall Length
MTEC0250C020.5ISO	IN2005 46Y050ISR6RA050	IN2005 0.500	M03	.250" Cyl.	0.087	3	0.210	2.5
MTEC0250C040.5ISO	IN2005 46Y050ISR6RA100	IN2005 0.500	-	.250" Cyl.	0.150	3	0.410	2.5
MTEC0250C030.7ISO	IN2005 46Y070ISR6RA070	IN2005 0.700	M04	.250" Cyl.	0.122	3	0.290	2.5
MTEC0250C040.75ISO	IN2005 46Y075ISR6RA100	IN2005 0.750	-	.250" Cyl.	0.177	3	0.400	2.5
MTEC0250C040.8ISO	IN2005 46Y080ISR6RA090	IN2005 0.800	M05	.250" Cyl.	0.142	3	0.360	2.5
MTEC0250C041.0ISO	IN2005 46Y100ISR6RA100	IN2005 1.000	M06	.250" Cyl.	0.157	3	0.410	2.5
MTEC0250C061.0ISO	IN2005 46Y100ISR6RA140	IN2005 1.000	M06	.250" Cyl.	0.157	3	0.570	2.5
MTEC0250C051.0ISO	IN2005 46Y100ISR6RA130	IN2005 1.000	-	.250" Cyl.	0.236	3	0.490	2.5
MTEC0312D071.0ISO	IN2005 47Y100ISR7RA180	IN2005 1.000	-	.375" Cyl.	0.313	4	0.650	2.5
MTEC0250C061.25ISO	IN2005 46Y125ISR6RA150	IN2005 1.250	M08	.250" Cyl.	0.197	3	0.570	2.5
MTEC0250C071.25ISO	IN2005 46Y125ISR6RA190	IN2005 1.250	M08	.250" Cyl.	0.197	3	0.760	2.5
MTEC0312C071.5ISO	IN2005 46Y150ISR7RA180	IN2005 1.500	M10	.375" Cyl.	0.276	3	0.680	2.5
MTEC0312C091.5ISO	IN2005 46Y150ISR7RA250	IN2005 1.500	M10	.375" Cyl.	0.276	3	0.980	2.5
MTEC0375D091.5ISO	IN2005 47Y150ISR8RA230	IN2005 1.500	-	.375" Cyl.	0.375	4	0.860	3
MTEC0312C081.75ISO	IN2005 46Y175ISR7RA200	IN2005 1.750	M12	.312" Cyl.	0.313	3	0.790	2.5
MTEC0312C111.75ISO	IN2005 46Y175ISR7RA290	IN2005 1.750	M12	.312" Cyl.	0.313	3	1.140	2.5
MTEC0375C112.0ISO	IN2005 46Y200ISR8RA280	IN2005 2.000	M16	.375" Cyl.	0.375	3	1.060	3
MTEC0375C152.0ISO	IN2005 46Y200ISR8RA390	IN2005 2.000	M16	.375" Cyl.	0.375	3	1.540	4
MTEC0500D112.0ISO	IN2005 47Y200ISS4RA280	IN2005 2.000	-	.500" Cyl.	0.472	4	1.060	3.5
MTEC0750F162.0ISO	IN2005 48Y200ISS7RA410	IN2005 2.000	-	.750" Cyl.	0.750	6	1.610	4
MTEC0625D132.5ISO	IN2005 47Y250ISS6RA330	IN2005 2.500	M20	.625" Cyl.	0.551	4	1.330	4
MTEC0625D192.5ISO	IN2005 47Y250ISS6RA480	IN2005 2.500	M20	.625" Cyl.	0.551	4	1.920	4
MTEC0625C163.0ISO	IN2005 46Y300ISS6RA410	IN2005 3.000	M24	.625" Cyl.	0.625	3	1.590	4
MTEC0625C233.0ISO	IN2005 46Y300ISS6RA580	IN2005 3.000	M24	.625" Cyl.	0.625	3	2.310	4.5
MTEC0750D173.0ISO	IN2005 47Y300ISS7RA430	IN2005 3.000	M28	.750" Cyl.	0.750	4	1.710	4

RAPID THREAD SERIES MTEC_NPT, MTECB_NPT

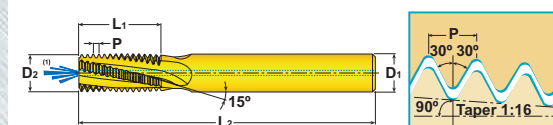
SOLID CARBIDE THREAD MILLS - FOR EXTERNAL OR INTERNAL NPT THREAD



NEW Item Description	OLD Item Description	P Pitch (mm)	Thread Size	Shank Style/Size	D2 Thread	No. of Flutes	L1 Extension Length	L2 Overall Length	Coolant Through
MTEC0250C0427NPT	IN2005 46Y-27NTR6RA100	IN2005 27	1/8	.250" Cyl.	0.250	3	0.390	2.5	N
MTECB0312C0427NPT	IN2005 46Y-27NTR7RB110	IN2005 27	1/8	.250" Cyl.	0.250	3	0.430	2.5	Y
MTEC0312C0618NPT	IN2005 46Y-18NTR7RA150	IN2005 18	1/4-3/8	.312" Cyl.	0.312	3	0.580	2.5	N
MTEC0500D0814NPT	IN2005 47Y-14NTS4RA200	IN2005 14	1/2-3/4	.500" Cyl.	0.500	4	0.820	3.5	N
MTECB0625D0814NPT	IN2005 47Y-14NTS6RB230	IN2005 14	1/2-3/4	.500" Cyl.	0.500	4	0.890	4	Y
MTEC0625D1111.5NPT	IN2005 47Y-11NTS6RA280	IN2005 12	1-2	.625" Cyl.	0.625	4	1.090	4	N
MTECB0750D1111.5NPT	IN2005 47Y-11NTS7RB300	IN2005 12	1-2	.625" Cyl.	0.625	4	1.170	4	Y
MTEC0750D168NPT	IN2005 47Y-08NTS7RA410	IN2005 08	>=2-1/2	.750" Cyl.	0.750	4	1.560	4	N

RAPID THREAD SERIES MTEC_NPTF, MTECB_NPTF

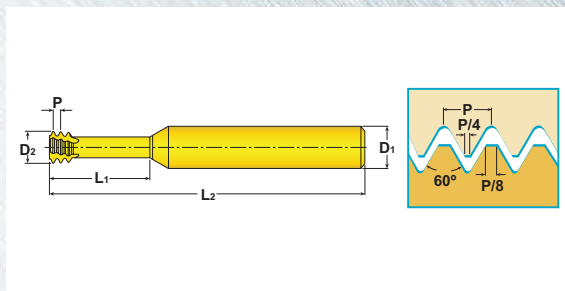
SOLID CARBIDE THREAD MILLS - FOR EXTERNAL OR INTERNAL NPTF THREAD



NEW Item Description	OLD Item Description	P Pitch (mm)	Thread Size	Shank Style/Size	D2 Thread	No. of Flutes	L1 Extension Length	L2 Overall Length	Coolant Through
MTEC0250C0427NPTF	IN2005 46Y-27NFR6RA100	IN2005 27	1/8	.250" Cyl.	0.250	3	0.390	2.5	N
MTECB0312C0427NPTF	IN2005 46Y-27NFR7RB110	IN2005 27	1/8	.250" Cyl.	0.250	3	0.430	2.5	Y
MTEC0312C0618NPTF	IN2005 46Y-18NFR7RA150	IN2005 18	1/4-3/8	.312" Cyl.	0.312	3	0.580	2.5	N
MTEC0500D0814NPTF	IN2005 47Y-14NFS4RA210	IN2005 14	1/2-3/4	.500" Cyl.	0.500	4	0.820	3.5	N
MTECB0625D0814NPTF	IN2005 47Y-14NFS6RB230	IN2005 14	1/2-3/4	.500" Cyl.	0.500	4	0.890	4	Y
MTEC0625D1111.5NPTF	IN2005 47Y-11NFS6RA280	IN2005 12	1-2	.625" Cyl.	0.625	4	1.090	4	N
MTECB0750D1111.5NPTF	IN2005 47Y-11NFS7RB300	IN2005 12	1-2	.625" Cyl.	0.625	4	1.170	4	Y
MTEC0750D168NPTF	IN2005 47Y-08NFS7RA400	IN2005 08	>=2-1/2	.750" Cyl.	0.750	4	1.560	4	N

RAPID THREAD SERIES MTECS_UN

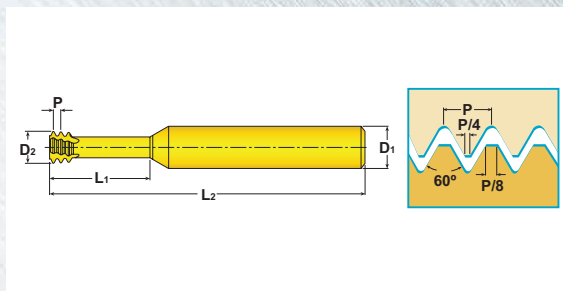
SOLID CARBIDE THREAD MILLS - SMALL DIAMETER, SHORT, UN PROFILE, 2XD AND 3XD



NEW Item Description	OLD Item Description	P Pitch (TPI)	UNC	UNF	Shank Style/Size	D2 Thread	No. of Flutes	L1 Extension Length	L2 Overall Length
MTECS0250C1680UN IN2005	46Y-80UNR6RM040 IN2005	80	-	0	.250" Cyl.	0.045	3	0.160	2.5
MTECS0250C1572UN IN2005	46Y-72UNR6RM040 IN2005	72	-	1	.250" Cyl.	0.057	3	0.150	2.5
MTECS0250C1564UN IN2005	46Y-64UNR6RM040 IN2005	64	1	2	.250" Cyl.	0.055	3	0.150	2.5
MTECS0250C1756UN IN2005	46Y-56UNR6RM040 IN2005	56	2	3	.250" Cyl.	0.065	3	0.170	2.5
MTECS0250C2048UN IN2005	46Y-48UNR6RM050 IN2005	48	3	4	.250" Cyl.	0.075	3	0.200	2.5
MTECS0250C2540UN IN2005	46Y-40UNR6RM060 IN2005	40	4	-	.250" Cyl.	0.083	3	0.250	2.5
MTECS0250C2840UN IN2005	46Y-40UNR6RM070 IN2005	40	5	6	.250" Cyl.	0.096	3	0.280	2.5
MTECS0250C3840UN IN2005	46Y-40UNR6RM100 IN2005	40	5	6	.250" Cyl.	0.096	3	0.380	2.5
MTECS0250C3536UN IN2005	46Y-36UNR6RM090 IN2005	36	-	8	.250" Cyl.	0.130	3	0.350	2.5
MTECS0250C2832UN IN2005	46Y-32UNR6RM070 IN2005	32	6	-	.250" Cyl.	0.100	3	0.280	2.5
MTECS0250C3732UN IN2005	46Y-32UNR6RM090 IN2005	32	8	-	.250" Cyl.	0.126	3	0.370	2.5
MTECS0250C4132UN IN2005	46Y-32UNR6RM100 IN2005	32	-	10	.250" Cyl.	0.146	3	0.410	2.5
MTECS0250C4932UN IN2005	46Y-32UNR6RM120 IN2005	32	8	-	.312" Cyl.	0.126	3	0.490	2.5
MTECS0250C5932UN IN2005	46Y-32UNR6RM150 IN2005	32	-	10	.312" Cyl.	0.146	3	0.590	2.5
MTECS0250C4328UN IN2005	46Y-28UNR6RM110 IN2005	28	-	12	.250" Cyl.	0.165	3	0.430	2.5
MTECS0250C5728UN IN2005	46Y-28UNR6RM140 IN2005	28	-	1/4	.250" Cyl.	0.197	3	0.570	2.5
MTECS0250C7528UN IN2005	46Y-28UNR6RM180 IN2005	28	-	1/4	.375" Cyl.	0.197	3	0.750	2.5
MTECS0250C4224UN IN2005	46Y-24UNR6RM110 IN2005	24	10, 12	-	.250" Cyl.	0.138	3	0.420	2.5
MTECS0312C6724UN IN2005	46Y-24UNR7RM170 IN2005	24	-	5/16	.250" Cyl.	0.260	3	0.670	2.5
MTECS0312C9424UN IN2005	46Y-24UNR7RM160 IN2005	24	-	5/16	.500" Cyl.	0.260	3	0.940	2.5
MTECS0250C5520UN IN2005	46Y-20UNR6RM140 IN2005	20	1/4	-	.250" Cyl.	0.187	3	0.550	2.5
MTECS0250C7520UN IN2005	46Y-20UNR6RM190 IN2005	20	1/4	-	.500" Cyl.	0.187	3	0.750	2.5
MTECS0250C6718UN IN2005	46Y-18UNR6RM170 IN2005	18	5/16	-	.250" Cyl.	0.236	3	0.670	2.5
MTECS0250C9118UN IN2005	46Y-18UNR6RM230 IN2005	18	5/16	-	.625" Cyl.	0.236	3	0.910	2.5
MTECS0312C8716UN IN2005	46Y-16UNR7RM220 IN2005	16	3/8	-	.250" Cyl.	0.264	3	0.870	2.5
MTECS0312C9814UN IN2005	46Y-14UNR7RM250 IN2005	14	7/16	-	.250" Cyl.	0.303	3	0.980	2.5
MTECS0375C1013UN IN2005	46Y-13UNR8RM270 IN2005	13	1/2	-	.250" Cyl.	0.362	3	1.080	3
MTECS0500C1212UN IN2005	46Y-12UNS4RM310 IN2005	12	9/16	-	.250" Cyl.	0.413	3	1.240	3.5
MTECS0500C1311UN IN2005	46Y-11UNS4RM350 IN2005	11	5/8	-	.250" Cyl.	0.449	3	1.360	3.5
MTECS0625D1610UN IN2005	47Y-10UNS6RM410 IN2005	10	3/4	-	.312" Cyl.	0.567	4	1.630	4

RAPID THREAD SERIES MTECS_ISO

SOLID CARBIDE THREAD MILLS - SMALL DIAMETER, SHORT, ISO PROFILE, 2XD AND 3XD



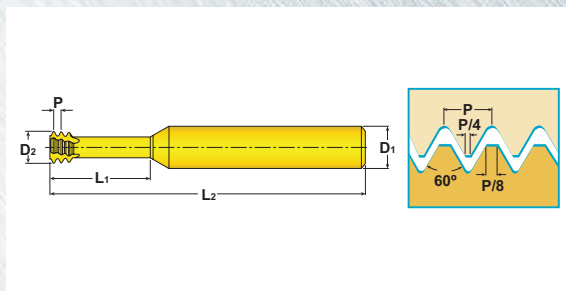
NEW Item Description	OLD Item Description	P Pitch (mm)	Thread Size	Shank Style/Size	D2 Thread	No. of Flutes	L1 Extension Length	L2 Overall Length
MTECS0250C180.4ISO IN2005	46Y040ISR6RM050 IN2005	0.400	M02	.250" Cyl.	0.061	3	0.180	2.5
MTECS0250C200.45ISO IN2005	46Y045ISR6RM050 IN2005	0.450	M02.2	.250" Cyl.	0.065	3	0.200	2.5
MTECS0250C220.45ISO IN2005	46Y045ISR6RM060 IN2005	0.450	M02.5	.250" Cyl.	0.077	3	0.220	2.5
MTECS0250C300.45ISO IN2005	46Y045ISR6RM080 IN2005	0.450	M02.5	.250" Cyl.	0.077	3	0.300	2.5
MTECS0250C260.5ISO IN2005	46Y050ISR6RM070 IN2005	0.500	M03	.250" Cyl.	0.093	3	0.260	2.5
MTECS0250C370.5ISO IN2005	46Y050ISR6RM090 IN2005	0.500	M03	.250" Cyl.	0.093	3	0.370	2.5
MTECS0250C300.6ISO IN2005	46Y060ISR6RM080 IN2005	0.600	M03.5	.250" Cyl.	0.108	3	0.300	2.5
MTECS0250C350.7ISO IN2005	46Y070ISR6RM090 IN2005	0.700	M04	.250" Cyl.	0.122	3	0.350	2.5
MTECS0250C490.7ISO IN2005	46Y070ISR6RM120 IN2005	0.700	M04	.250" Cyl.	0.122	3	0.490	2.5
MTECS0250C490.8ISO IN2005	46Y080ISR6RM120 IN2005	0.800	M05	.250" Cyl.	0.150	3	0.490	2.5
MTECS0250C630.8ISO IN2005	46Y080ISR6RM160 IN2005	0.800	M05	.250" Cyl.	0.150	3	0.630	2.5
MTECS0250C551.0ISO IN2005	46Y100ISR6RM140 IN2005	1.000	M06	.250" Cyl.	0.183	3	0.550	2.5
MTECS0250C791.0ISO IN2005	46Y100ISR6RM200 IN2005	1.000	M06	.250" Cyl.	0.183	3	0.790	2.5
MTECS0250C711.25ISO IN2005	46Y125ISR6RM180 IN2005	1.250	M08	.250" Cyl.	0.234	3	0.710	2.5
MTECS0250C941.25ISO IN2005	46Y125ISR6RM240 IN2005	1.250	M08	.250" Cyl.	0.234	3	0.940	2.5
MTECS0312C911.5ISO IN2005	46Y150ISR7RM230 IN2005	1.500	M10	.312" Cyl.	0.307	3	0.910	2.5
MTECS0375C101.75ISO IN2005	46Y175ISR8RM260 IN2005	1.750	M12	.375" Cyl.	0.354	3	1.020	3
MTECS0500D132.0ISO IN2005	47Y200ISS4RM350 IN2005	2.000	M16	.500" Cyl.	0.465	4	1.380	3.5
MTECS0625E162.5ISO IN2005	47Y250ISS6RM430 IN2005	2.500	M20	.625" Cyl.	0.591	5	1.690	4

RAPID THREAD SERIES MTECSH_UN

SOLID CARBIDE THREAD MILLS - SMALL DIAMETER, SHORT, LEFT-HAND, UN PROFILE, 2XD AND 3XD



Int. Thread



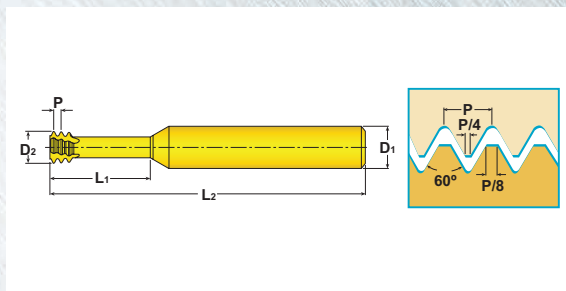
NEW Item Description	OLD Item Description	P Pitch (TPI)	UNC	UNF	Shank Style/Size	D2 Thread	No. of Flutes	L1 Extension Length	L2 Overall Length
MTECSH0250C1572UN IN2006	46Y-72UNR6LM040 IN2006	72	-	1	.250" Cyl.	0.057	3	0.150	2.5
MTECSH0250C1564UN IN2006	46Y-64UNR6LM040 IN2006	64	1	2	.250" Cyl.	0.055	3	0.150	2.5
MTECSH0250C1756UN IN2006	46Y-56UNR6LM040 IN2006	56	2	3	.250" Cyl.	0.065	3	0.170	2.5
MTECSH0250C2048UN IN2006	46Y-48UNR6LM050 IN2006	48	3	4	.250" Cyl.	0.075	3	0.200	2.5
MTECSH0250C2540UN IN2006	46Y-40UNR6LM060 IN2006	40	4	-	.250" Cyl.	0.083	3	0.250	2.5
MTECSH0250C2840UN IN2006	46Y-40UNR6LM070 IN2006	40	5	6	.250" Cyl.	0.096	3	0.280	2.5
MTECSH0250C3840UN IN2006	46Y-40UNR6LM100 IN2006	40	5	6	.250" Cyl.	0.096	3	0.380	2.5
MTECSH0250C3536UN IN2006	46Y-36UNR6LM090 IN2006	36	-	8	.250" Cyl.	0.130	3	0.350	2.5
MTECSH0250C2832UN IN2006	46Y-32UNR6LM070 IN2006	32	6	-	.250" Cyl.	0.100	3	0.280	2.5
MTECSH0250C3732UN IN2006	46Y-32UNR6LM090 IN2006	32	8	-	.250" Cyl.	0.126	3	0.370	2.5
MTECSH0250C4132UN IN2006	46Y-32UNR6LM100 IN2006	32	-	10	.250" Cyl.	0.146	3	0.410	2.5
MTECSH0250C4932UN IN2006	46Y-32UNR6LM120 IN2006	32	8	-	.312" Cyl.	0.126	3	0.490	2.5
MTECSH0250C5932UN IN2006	46Y-32UNR6LM150 IN2006	32	-	10	.250" Cyl.	0.146	3	0.590	2.5
MTECSH0250C4328UN IN2006	46Y-28UNR6LM110 IN2006	28	-	12	.250" Cyl.	0.165	3	0.430	2.5
MTECSH0250C5728UN IN2006	46Y-28UNR6LM140 IN2006	28	-	1/4	.250" Cyl.	0.197	3	0.570	2.5
MTECSH0250C7528UN IN2006	46Y-28UNR6LM190 IN2006	28	-	1/4	.250" Cyl.	0.197	3	0.750	2.5
MTECSH0250C4224UN IN2006	46Y-24UNR6LM110 IN2006	24	10, 12	-	.250" Cyl.	0.138	3	0.420	2.5
MTECSH0312C6724UN IN2006	46Y-24UNR7LM170 IN2006	24	-	5/16	.250" Cyl.	0.260	3	0.670	2.5
MTECSH0312C9424UN IN2006	46Y-24UNR7LM240 IN2006	24	-	5/16	.312" Cyl.	0.260	3	0.940	2.5
MTECSH0250C5520UN IN2006	46Y-20UNR6LM140 IN2006	20	1/4	-	.250" Cyl.	0.187	3	0.550	2.5
MTECSH0250C7520UN IN2006	46Y-20UNR6LM190 IN2006	20	1/4	-	.312" Cyl.	0.187	3	0.750	2.5
MTECSH0250C6718UN IN2006	46Y-18UNR6LM170 IN2006	18	5/16	-	.250" Cyl.	0.236	3	0.670	2.5
MTECSH0250C9118UN IN2006	46Y-18UNR6LM230 IN2006	18	5/16	-	.375" Cyl.	0.236	3	0.910	2.5
MTECSH0312C8716UN IN2006	46Y-16UNR7LM220 IN2006	16	3/8	-	.250" Cyl.	0.264	3	0.870	2.5
MTECSH0312C9814UN IN2006	46Y-14UNR7LM250 IN2006	14	7/16	-	.250" Cyl.	0.303	3	0.980	2.5
MTECSH0375C1013UN IN2006	46Y-13UNR8LM270 IN2006	13	1/2	-	.250" Cyl.	0.362	3	1.080	3

RAPID THREAD SERIES MTECSH_ISO

SOLID CARBIDE THREAD MILLS - SMALL DIAMETER, SHORT, LEFT-HAND, ISO PROFILE, 2XD AND 3XD



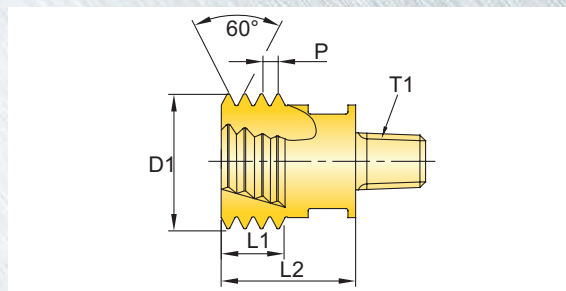
Int. Thread



NEW Item Description	OLD Item Description	P Pitch (mm)	Thread Size	Shank Style/Size	D2 Thread	No. of Flutes	L1 Extension Length	L2 Overall Length
MTECSH0250C180.4ISO IN2006	46Y040ISR6LM050 IN2006	0.400	M02	.250" Cyl.	0.061	3	0.180	2.5
MTECSH0250C220.45ISO IN2006	46Y045ISR6LM050 IN2006	0.450	M02.2	.250" Cyl.	0.065	3	0.200	2.5
MTECSH0250C300.45ISO IN2006	46Y045ISR6LM060 IN2006	0.450	M02.5	.250" Cyl.	0.077	3	0.220	2.5
MTECSH0250C260.5ISO IN2006	46Y045ISR6LM080 IN2006	0.450	M02.5	.250" Cyl.	0.077	3	0.300	2.5
MTECSH0250C370.5ISO IN2006	46Y050ISR6LM070 IN2006	0.500	M03	.250" Cyl.	0.093	3	0.260	2.5
MTECSH0250C300.6ISO IN2006	46Y050ISR6LM090 IN2006	0.500	M03	.250" Cyl.	0.093	3	0.370	2.5
MTECSH0250C350.7ISO IN2006	46Y060ISR6LM080 IN2006	0.600	M03.5	.250" Cyl.	0.108	3	0.300	2.5
MTECSH0250C490.7ISO IN2006	46Y070ISR6LM090 IN2006	0.700	M04	.250" Cyl.	0.122	3	0.350	2.5
MTECSH0250C490.8ISO IN2006	46Y070ISR6LM120 IN2006	0.700	M04	.250" Cyl.	0.122	3	0.490	2.5
MTECSH0250C630.8ISO IN2006	46Y080ISR6LM120 IN2006	0.800	M05	.250" Cyl.	0.150	3	0.490	2.5
MTECSH0250C551.0ISO IN2006	46Y080ISR6LM160 IN2006	0.800	M05	.250" Cyl.	0.150	3	0.630	2.5
MTECHS0250C551.0ISO IN2006	46Y100ISR6LM140 IN2006	1.000	M06	.250" Cyl.	0.183	3	0.550	2.5
MTECSH0250C791.0ISO IN2006	46Y100ISR6LM200 IN2006	1.000	M06	.250" Cyl.	0.183	3	0.790	2.5
MTECSH0250C711.25ISO IN2006	46Y125ISR6LM180 IN2006	1.250	M08	.250" Cyl.	0.234	3	0.710	2.5
MTECSH0250C941.25ISO IN2006	46Y125ISR6LM240 IN2006	1.250	M08	.250" Cyl.	0.234	3	0.940	2.5
MTECSH0312C911.5ISO IN2006	46Y150ISR7LM230 IN2006	1.500	M10	.312" Cyl.	0.307	3	0.910	2.5
MTECSH0375C101.75ISO IN2006	46Y175ISR8LM260 IN2006	1.750	M12	.375" Cyl.	0.354	3	1.020	3

RAPID THREAD SERIES 47Y_UN_RA (CHIP-SURFER STYLE)

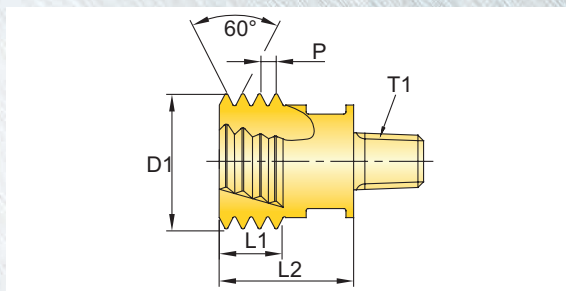
SOLID CARBIDE THREAD MILLING TIP - INTERNAL THREAD MILLS FOR UN THREAD



Item Description		P Pitch (TPI)	UNC	UNF	UNEF	Eff. Flutes	D1 Nominal Diameter	L1 Length of Cut	T1 Thread Size	L2 Extension Length
47Y-24UNTQRA13	IN2005	24	-	-	9/16 & 5/8	4	0.394	0.252	T05	0.526
47Y-20UNTQRA13	IN2005	20	-	1/2	-	4	0.394	0.252	T05	0.526
47Y-18UNTQRA13	IN2005	18	-	9/16 & 5/8	1-1/8 & 1-5/8	4	0.394	0.220	T05	0.526
47Y-16UNT6RA17	IN2005	16	-	3/4	-	4	0.472	0.315	T06	0.671
47Y-14UNT8RA21	IN2005	14	-	7/8	-	5	0.630	0.500	T08	0.821
47Y-12UNT8RA21	IN2005	12	-	1 & 1-1/2	-	5	0.630	0.500	T08	0.821
47Y-10UNT8RA21	IN2005	10	3/4	-	-	4	0.602	0.500	T08	0.821
47Y-09UNT8RA21	IN2005	09	7/8	-	-	3	0.630	0.445	T08	0.821

HARDWARE			
		Wrench	Optional Torque Wrench
47Y-24UNTQRA13	IN2005	WS-0043	DT-60-06
47Y-20UNTQRA13	IN2005	WS-0043	DT-60-06
47Y-18UNTQRA13	IN2005	WS-0043	DT-60-06
47Y-16UNT6RA17	IN2005	WS-0029	DT-90-08
47Y-14UNT8RA21	IN2005	WS-0030	DT-130-10
47Y-12UNT8RA21	IN2005	WS-0030	DT-130-10
47Y-10UNT8RA21	IN2005	WS-0030	DT-130-10
47Y-09UNT8RA21	IN2005	WS-0030	DT-130-10

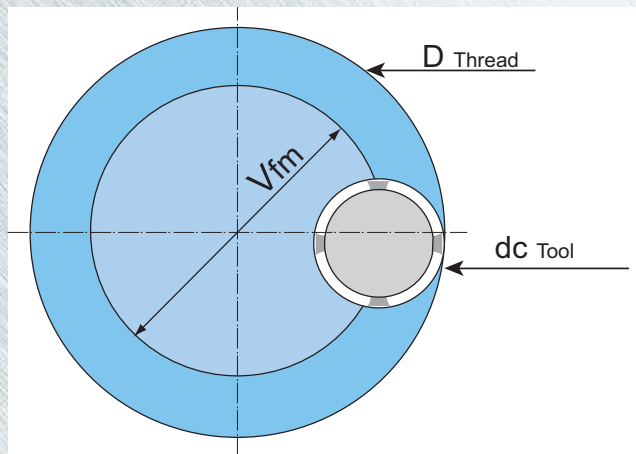
SOLID CARBIDE THREAD MILLING TIP - INTERNAL THREAD MILLS FOR ISO THREAD



Item Description		P Pitch (mm)	M Course	M Fine	D1 Nom. Dia.	No. of Effective	L1	L2	T1 Thread Size
47Y075ISTQRA13	IN2005	0.750	-	0>=12	0.394	4	0.236	0.526	T05
47Y100ISTQRA13	IN2005	1.000	-	0>=12	0.394	4	0.236	0.526	T05
47Y150ISTQRA13	IN2005	1.500	-	0>=14	0.394	4	0.236	0.526	T05
47Y150IST6RA17	IN2005	1.500	-	0>=16	0.472	4	0.295	0.671	T06
48Y150IST8RA21	IN2005	1.500	-	0>=20	0.630	6	0.472	0.821	T08
47Y200IST6RA17	IN2005	2.000	M16	0>=17	0.472	4	0.315	0.671	T06
47Y200IST8RA21	IN2005	2.000	-	0>=19	0.630	5	0.472	0.821	T08
47Y250IST8RA20	IN2005	2.500	M20	0>=22	0.606	5	0.492	0.821	T08
47Y300IST8RA21	IN2005	3.000	M24	0>=25	0.630	3	0.472	0.821	T08

HARDWARE		 Wrench  Optional Torque Wrench	
47Y075ISTQRA13	IN2005	WS-0043	DT-60-06
47Y100ISTQRA13	IN2005	WS-0043	DT-60-06
47Y150ISTQRA13	IN2005	WS-0043	DT-60-06
47Y150IST6RA17	IN2005	WS-0029	DT-90-08
48Y150IST8RA21	IN2005	WS-0030	DT-130-10
47Y200IST6RA17	IN2005	WS-0029	DT-90-08
47Y200IST8RA21	IN2005	WS-0030	DT-130-10
47Y250IST8RA20	IN2005	WS-0030	DT-130-10
47Y300IST8RA21	IN2005	WS-0030	DT-130-10

MACHINING DATA FOR SOLID CARBIDE TOOLS



$$\text{Feed rate } V_{fm} = f_z \times \frac{(D-dc)}{D} \times n \times Z$$

f_z : feed per tooth

D : diameter of thread

dc : diameter of tool

V_{fm} : feed rate of centerway of tool

n : RPM

Z : no. of teeth

$f_z = 0.001 \text{ mm} - 0.005 \text{ mm}$

max. tool dia. < 2/3 thread size

Example:

M30 -> tool dia. : max. .750 mm

MACHINING DATA FOR SOLID CARBIDE TOOLS (MTEC, MTECB)

Main ISO-group	Workpiece Material	Remark	Tensile Strength	Hardness	Mat'l Group
P	I 0,25 % C	Annealed	420	125	1
	Unalloyed steel $\geq 0,25$ % C	Annealed	650	190	2
	Cast steel I 0,25 % C	Tempered	850	250	3
	Free cutting steel $\geq 0,55$ % C	Annealed	750	220	4
		Tempered	1000	300	5
	Steel medium tensile strength	Annealed	600	200	6
	and cast steel	Tempered	930	275	7
	(with less than 5 % C)	Tempered	1000	300	8
		Tempered	1200	350	9
	High-alloyed cast steel	Annealed	680	200	10
	Steel and tool steel	Tempered	1100	325	11
M	Stainless steel	Ferritic, martensitic	680	200	12
	and cast steel	Martensitic	820	240	13
		Austenitic	600	180	14
K	Nodular gray cast iron	Ferritic, pearlitic	-	180	15
	(GGG)	Pearlitic	-	260	16
	Gray cast iron	Ferritic	-	160	17
	(GG)	Pearlitic	-	250	18
	Malleable cast iron	Ferritic	-	130	19
	Malleable cast iron	Pearlitic	-	230	20
N	Aluminum-wrought alloy	Untreated	-	60	21
	Aluminum-wrought alloy	Forged, alloyed	-	100	22
	Aluminum cast alloy	Untreated	-	75	23
	Aluminum cast alloy	Forged, alloyed	-	90	24
	Aluminum cast alloy >12 % Si	High temp. resist.	-	130	25
	Copper alloys	Easy to machine	-	110	26
	CuZn-alloys (brass)		-	90	27
	Elektrolytic copper		-	100	28
	Duroplastics		-	90	29
	Graphite		-	-	30
	Ebonite		-	-	-
S	High temp. resisting alloys .	Fe-base, tempered	-	200	31
	Superalloys	Ni/Co-base, treated	-	280	32
	Superalloys	Ni/Co-base, tempered	-	250	33
	Superalloys	Ni/Co-base, treated	-	350	34
	Titanium, cast		-	320	35
	Titanium		400	-	36
	Titanium alloys	Alpha & beta alloy, treated	1050	-	37
H	Hardened steel	Hardened	-	55 HRC	38
	Hardened steel	Hardened	-	60 HRC	39
	Chill casting	Cast	400	-	40
	Cast iron	Hardened	-	55 HRC	41

MACHINING DATA FOR SOLID CARBIDE TOOLS (MTEC, MTECB)

Main ISO-group	Mat'l Group	IN 2005	Feed (in/tooth) - Cutting Diameter											
		(ft/min)	Ø 0.078	Ø 0.125	Ø 0.156	Ø 0.250	Ø 0.312	Ø 0.390	Ø 0.484	Ø 0.562	Ø 0.625	Ø 0.781	Ø 0.984	Ø 1.181
P	1	330-1085	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.006	0.007	0.008
	2	265-690	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.006	0.007	0.008
	3	215-600	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.006	0.007	0.008
	4	360-590	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.006	0.007
	5	315-525	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.006	0.007
	6	300-525	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003	0.003	0.004	0.004
	7	215-660	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003	0.003	0.004	0.004
	8	230-690	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003	0.003	0.004	0.004
	9	315-525	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003	0.003	0.004	0.004
	10	430-600	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003	0.003	0.004	0.004
	11	245-330	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003	0.003	0.004	0.004
M	12	360-600	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003	0.003	0.004	0.004
	13	230-510	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003	0.003	0.004	0.004
	14	280-330	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003	0.003	0.004	0.004
K	15	230-495	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.006	0.007	0.008
	16	360-500	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.006	0.007	0.008
	17	400-525	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.006	0.007	0.008
	18	245-525	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.006	0.007	0.008
	19	400-525	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.006	0.007	0.008
	20	360-500	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.006	0.007	0.008
N	21	525-985	0.001	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.006	0.007	0.008
	22	-	-	-	-	-	-	-	-	-	-	-	-	-
	23	-	-	-	-	-	-	-	-	-	-	-	-	-
	24	-	-	-	-	-	-	-	-	-	-	-	-	-
	25	-	-	-	-	-	-	-	-	-	-	-	-	-
	26	-	-	-	-	-	-	-	-	-	-	-	-	-
	27	-	-	-	-	-	-	-	-	-	-	-	-	-
	28	-	-	-	-	-	-	-	-	-	-	-	-	-
	29	-	-	-	-	-	-	-	-	-	-	-	-	-
	30	330-1315	0.002	0.002	0.003	0.004	0.004	0.004	0.005	0.005	0.006	0.007	0.009	0.010
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S	31	-	-	-	-	-	-	-	-	-	-	-	-	-
	32	-	-	-	-	-	-	-	-	-	-	-	-	-
	33	65-265	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002
	34	-	-	-	-	-	-	-	-	-	-	-	-	-
	35	-	-	-	-	-	-	-	-	-	-	-	-	-
	36	-	-	-	-	-	-	-	-	-	-	-	-	-
	37	65-265	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
H	38	180-215	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002
	39	150-180	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002
	40	300-345	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002
	41	180-215	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002

MACHINING DATA FOR SOLID CARBIDE TOOLS (MTECH, MTECSH)

ISO	Workpiece Material	Cutting Speed	Feed (in/tooth) - Cutting Diameter											
		(ft/min)	Ø0.062	Ø0.078	Ø0.125	Ø0.187	Ø0.250	Ø0.281	Ø0.312	Ø0.359	Ø0.390	Ø0.484	Ø0.562	Ø0.593
P	C15	200-400	0.002	0.002	0.003	0.004	0.004	0.005	0.006	0.006	0.006	0.007	0.007	0.007
	C45, 60	200-300	0.002	0.002	0.002	0.003	0.004	0.004	0.005	0.005	0.006	0.006	0.007	0.007
	Alloyed & treated steel	165-265	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.004	0.005	0.005	0.006
	Cast steel	230-300	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.004	0.005	0.005	0.006
M	Stainless steel	200-300	0.001	0.001	0.002	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.005
K	Cast iron	130-265	0.002	0.002	0.003	0.004	0.004	0.005	0.006	0.006	0.006	0.007	0.007	0.007
N	Aluminum, synthetics, duroplastics, thermoplastics	265-495	0.002	0.002	0.003	0.004	0.004	0.005	0.006	0.006	0.006	0.007	0.007	0.007
		165-660	0.004	0.004	0.005	0.006	0.006	0.007	0.007	0.007	0.007	0.007	0.008	0.008
S	Nickel & Titanium alloys	65-135	0.001	0.001	0.002	0.002	0.005	0.002	0.002	0.002	0.003	0.003	0.003	0.003