

THREADING

Standard of Depth of Cut (Internal Threading)

INTERNAL (RADIAL INFEEED)

ISO Metric

(mm)

Pitch (mm)	Total Cutting Depth	Number of Passes														Insert Type			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	G-class ground inserts		M-class inserts with 3-D chip breakers	
0.5	0.29	0.09	0.07	0.07	0.06											MMT11R050ISO	MMT16R050ISO	—	—
0.75	0.43	0.15	0.13	0.09	0.06											MMT11R075ISO	MMT16R075ISO	—	—
1.0	0.58	0.17	0.15	0.11	0.09	0.06										MMT11R100ISO	MMT16R100ISO	MMT11R100ISO-S	MMT16R100ISO-S
1.25	0.72	0.18	0.16	0.12	0.11	0.09	0.06									MMT11R125ISO	MMT16R125ISO	MMT11R125ISO-S	MMT16R125ISO-S
1.5	0.87	0.21	0.20	0.16	0.13	0.11	0.06									MMT11R150ISO	MMT16R150ISO	MMT11R150ISO-S	MMT16R150ISO-S
1.75	1.01	0.21	0.20	0.15	0.12	0.10	0.09	0.08	0.06							MMT11R175ISO	MMT16R175ISO	—	MMT16R175ISO-S
2.0	1.15	0.24	0.22	0.18	0.14	0.12	0.10	0.09	0.06							MMT11R200ISO	MMT16R200ISO	—	MMT16R200ISO-S
2.5	1.44	0.25	0.24	0.21	0.15	0.13	0.12	0.10	0.09	0.09	0.06					—	MMT16R250ISO	—	MMT16R250ISO-S
3.0	1.73	0.26	0.25	0.22	0.17	0.14	0.13	0.12	0.11	0.10	0.09	0.08	0.06			—	MMT16R300ISO	—	MMT16R300ISO-S
3.5	2.02	0.32	0.30	0.23	0.19	0.17	0.15	0.14	0.13	0.12	0.11	0.10	0.06			—	MMT22R350ISO	—	—
4.0	2.31	0.33	0.31	0.24	0.22	0.18	0.15	0.14	0.13	0.12	0.12	0.11	0.10	0.10	0.06	—	MMT22R400ISO	—	—
4.5	2.60	0.36	0.33	0.28	0.24	0.21	0.19	0.16	0.15	0.14	0.13	0.12	0.12	0.11	0.06	—	MMT22R450ISO	—	—
5.0	2.89	0.41	0.38	0.32	0.27	0.24	0.21	0.18	0.16	0.15	0.14	0.13	0.12	0.12	0.06	—	MMT22R500ISO	—	—

American UN

(inch)

Pitch (thread/inch)	Total Cutting Depth	Number of Passes														Insert Type			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	G-class ground inserts		M-class inserts with 3-D chip breakers	
32	.018	.006	.006	.004	.002											MMT11R320UN	MMT16R320UN	—	—
28	.020	.006	.005	.004	.003	.002										MMT11R280UN	MMT16R280UN	—	—
24	.024	.007	.006	.005	.004	.002										MMT11R240UN	MMT16R240UN	—	—
20	.029	.007	.006	.005	.005	.004	.002									MMT11R200UN	MMT16R200UN	—	—
18	.032	.008	.007	.006	.005	.004	.002									MMT11R180UN	MMT16R180UN	—	—
16	.036	.008	.007	.006	.005	.004	.004	.002								MMT11R160UN	MMT16R160UN	MMT16R160UN-S	—
14	.041	.008	.007	.006	.005	.005	.004	.004	.002							MMT11R140UN	MMT16R140UN	MMT16R140UN-S	—
13	.044	.009	.007	.006	.006	.005	.005	.004	.002							—	MMT16R130UN	—	—
12	.048	.009	.009	.007	.006	.005	.005	.005	.002							—	MMT16R120UN	MMT16R120UN-S	—
11	.052	.009	.009	.008	.006	.005	.005	.004	.004	.002						—	MMT16R110UN	—	—
10	.058	.010	.009	.008	.006	.005	.005	.005	.004	.004	.002					—	MMT16R100UN	—	—
9	.064	.012	.009	.008	.007	.006	.006	.005	.005	.004	.002					—	MMT16R090UN	—	—
8	.072	.012	.010	.008	.007	.006	.006	.006	.005	.005	.005	.002				—	MMT16R080UN	—	—
7	.082	.014	.012	.009	.008	.007	.007	.006	.006	.006	.005	.002				—	MMT22R070UN	—	—
6	.096	.016	.013	.010	.009	.007	.007	.006	.006	.006	.005	.005	.004	.002		—	MMT22R060UN	—	—
5	.115	.016	.014	.012	.010	.009	.008	.008	.007	.007	.006	.006	.005	.005	.002	—	MMT22R050UN	—	—

Whitworth for BSW, BSP

(inch)

Pitch (thread/inch)	Total Cutting Depth	Number of Passes														Insert Type			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	G-class ground inserts		M-class inserts with 3-D chip breakers	
28	.023	.007	.006	.004	.004	.002										—	MMT16R280W	—	—
26	.025	.007	.006	.005	.005	.002										—	MMT16R260W	—	—
20	.032	.008	.007	.006	.005	.004	.002									—	MMT16R200W	—	—
19	.034	.008	.007	.006	.006	.005	.002									MMT11R190W	MMT16R190W	MMT16R190W-S	—
18	.035	.010	.007	.006	.005	.005	.002									—	MMT16R180W	—	—
16	.040	.008	.007	.006	.005	.004	.004	.004	.002							—	MMT16R160W	—	—
14	.046	.009	.008	.007	.006	.005	.005	.004	.002							MMT11R140W	MMT16R140W	MMT16R140W-S	—
12	.054	.011	.010	.008	.006	.006	.006	.005	.002							—	MMT16R120W	MMT16R120W-S	—
11	.058	.011	.009	.008	.007	.006	.006	.005	.004	.002						—	MMT16R110W	—	—
10	.064	.011	.010	.008	.007	.006	.006	.005	.005	.004	.002					—	MMT16R100W	—	—
9	.071	.011	.010	.008	.007	.006	.006	.006	.005	.005	.005	.002				—	MMT16R090W	—	—
8	.080	.012	.011	.009	.007	.007	.006	.006	.006	.005	.005	.004	.002			—	MMT16R080W	—	—
7	.091	.013	.013	.010	.009	.008	.007	.007	.006	.006	.006	.004	.002			—	MMT22R070W	—	—
6	.107	.014	.013	.011	.009	.008	.008	.007	.007	.006	.006	.006	.005	.005	.002	—	MMT22R060W	—	—
5	.128	.017	.016	.014	.011	.010	.009	.009	.008	.007	.007	.007	.006	.005	.002	—	MMT22R050W	—	—

- (Note)
- Set the finishing allowance on a diameter at approx. .004 inch when using a full form insert.
 - Please note the cutting depth and the number of passes when a nose radius of a partial or semi-full form insert or of an internal threading insert is small to prevent damage to the insert nose.
 - Please set the cutting depth sufficiently deep enough on materials such as hardened steel or austenitic stainless steel to help prevent premature wear and chipping caused by the outer layer of the material.

BSPT

(inch)

Pitch (thread/ inch)	Total Cutting Depth	Number of Passes														Insert Type				
		1	2	3	4	5	6	7	8	9								G-class ground inserts	M-class inserts with 3-D chip breakers	
19	.034	.009	.007	.006	.005	.005	.002											MMT11IR190BSPT	MMT16IR190BSPT	MMT16IR190BSPT-S
14	.046	.009	.008	.007	.006	.005	.005	.004	.002									MMT11IR140BSPT	MMT16IR140BSPT	MMT16IR140BSPT-S
11	.058	.010	.009	.008	.007	.006	.006	.005	.005	.002								—	MMT16IR110BSPT	MMT16IR110BSPT-S

Round DIN 405

(inch)

Pitch (thread/ inch)	Total Cutting Depth	Number of Passes														Insert Type				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14				G-class ground inserts	
10	.050	.009	.008	.008	.007	.006	.005	.005	.002											MMT16IR100RD
8	.063	.009	.008	.008	.007	.007	.006	.006	.005	.002										MMT16IR080RD
6	.083	.010	.010	.009	.009	.008	.007	.007	.006	.006	.005	.004	.002							MMT16IR060RD
4	.125	.013	.013	.013	.012	.011	.010	.009	.009	.008	.007	.007	.006	.005	.002					MMT22IR040RD

ISO Trapezoidal 30°

(mm)

Pitch (mm)	Total Cutting Depth	Number of Passes														Insert Type				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14				G-class ground inserts	
1.5	0.90	0.23	0.21	0.16	0.13	0.11	0.06													MMT16IR150TR
2	1.25	0.29	0.26	0.21	0.17	0.14	0.12	0.06												MMT16IR200TR
3	1.75	0.32	0.31	0.24	0.19	0.18	0.17	0.15	0.13	0.06										MMT16IR300TR
4	2.25	0.33	0.32	0.24	0.22	0.21	0.17	0.16	0.15	0.14	0.13	0.12	0.06							MMT22IR400TR
5	2.75	0.35	0.32	0.26	0.24	0.22	0.21	0.19	0.19	0.17	0.15	0.14	0.13	0.12	0.06					MMT22IR500TR

American ACME

(inch)

Pitch (thread/ inch)	Total Cutting Depth	Number of Passes														Insert Type				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14				G-class ground inserts	
12	.047	.011	.009	.008	.007	.006	.004	.002												MMT16IR120ACME
10	.060	.011	.010	.008	.007	.006	.006	.005	.005	.002										MMT16IR100ACME
8	.072	.012	.010	.009	.007	.006	.006	.006	.005	.005	.004	.002								MMT16IR080ACME
6	.093	.013	.012	.011	.009	.008	.007	.006	.006	.005	.005	.005	.004	.002						MMT22IR060ACME
5	.110	.014	.013	.012	.010	.009	.008	.007	.007	.006	.006	.006	.005	.005	.002					MMT22IR050ACME

API Buttress Casing

(inch)

Pitch (thread/ inch)	Total Cutting Depth	Number of Passes														Insert Type				
		1	2	3	4	5	6	7	8	9	10	11								G-class ground inserts
5	.061	.010	.009	.007	.006	.005	.005	.005	.004	.004	.004	.002								MMT22IR050APBU

API Round Casing & Tubing

(inch)

Pitch (thread/ inch)	Total Cutting Depth	Number of Passes														Insert Type				
		1	2	3	4	5	6	7	8	9	10	11	12							G-class ground inserts
10	.056	.010	.009	.006	.006	.005	.005	.005	.004	.004	.002									MMT16IR100APRD
8	.071	.010	.009	.007	.006	.006	.006	.005	.005	.005	.005	.005	.002							MMT16IR080APRD

- (Note)
- Set the finishing allowance on a diameter at approx. .004 inch when using a full form insert.
 - Please note the cutting depth and the number of passes when a nose radius of a partial or semi-full form insert or of an internal threading insert is small to prevent damage to the insert nose.
 - Please set the cutting depth sufficiently deep enough on materials such as hardened steel or austenitic stainless steel to help prevent premature wear and chipping caused by the outer layer of the material.

THREADING

Standard of Depth of Cut (Internal Threading)

INTERNAL (RADIAL INFEED)

American NPT

(inch)

Pitch (thread/ inch)	Total Cutting Depth	Number of Passes															Insert Type
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	G-class ground inserts
27	.026	.006	.005	.005	.004	.004	.002										MMT16IR270NPT
18	.040	.008	.006	.006	.005	.005	.004	.004	.002								MMT16IR180NPT
14	.052	.009	.007	.006	.006	.005	.005	.004	.004	.004	.002						MMT16IR140NPT
11.5	.065	.009	.007	.007	.006	.006	.005	.005	.005	.005	.004	.004	.002				MMT16IR115NPT
8	.095	.013	.011	.009	.008	.007	.006	.006	.006	.005	.005	.005	.004	.004	.004	.002	MMT16IR080NPT

American NPTF

(inch)

Pitch (thread/ inch)	Total Cutting Depth	Number of Passes															Insert Type
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	G-class ground inserts
14	.053	.009	.008	.006	.006	.005	.005	.004	.004	.004	.002						MMT16IR140NPTF
11.5	.064	.009	.009	.007	.006	.005	.005	.005	.004	.004	.004	.004	.002				MMT16IR115NPTF
8	.094	.013	.011	.009	.007	.007	.006	.006	.006	.005	.005	.005	.004	.004	.004	.002	MMT16IR080NPTF

- (Note)
- Set the finishing allowance on a diameter at approx. .004 inch when using a full form insert.
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 - Please set the cutting depth sufficiently deep enough on materials such as hardened steel or austenitic stainless steel to help prevent premature wear and chipping caused by the outer layer of the material.