

Application



Material

Steel
850 - 1100 N/mm²

M	D1 [mm]	P [mm]	z	v _c [m/min]	f _z [mm]	n [mm ⁻¹]	v _{fc} [mm/min]	v _f [mm/min]
M 1.6	1.00	0.35	3	30	0.0015	9550	17	45
M 2	1.30	0.40	3	30	0.0020	7345	16	45
M 2.5	1.50	0.45	3	30	0.0025	6365	20	50
M 3	2.10	0.50	3	30	0.0035	4545	15	50
M 4	2.60	0.70	3	30	0.0065	3675	25	70
M 5	3.60	0.80	3	30	0.0090	2655	20	70
M 6	4.00	1.00	3	30	0.0100	2385	23	70
M 8	5.00	1.25	3	30	0.0125	1910	26	70
M 10	5.90	1.50	5	30	0.0150	1620	49	120

Steel
850 - 1100 N/mm²

M 12	7.90	1.75	5	30	0.0200	1210	41	120
M 16	9.90	2.00	5	30	0.0250	965	46	120

Steel
1100 - 1300 N/mm²

M 1.6	1.00	0.35	3	20	0.0015	6365	11	30
M 2	1.30	0.40	3	20	0.0020	4895	11	30
M 2.5	1.50	0.45	3	20	0.0025	4245	12	30
M 3	2.10	0.50	3	20	0.0035	3030	9	30
M 4	2.60	0.70	3	20	0.0065	2450	18	50
M 5	3.60	0.80	3	20	0.0090	1770	14	50
M 6	4.00	1.00	3	20	0.0100	1590	17	50
M 8	5.00	1.25	3	20	0.0125	1275	19	50
M 10	5.90	1.50	5	20	0.0150	1080	33	80

Steel
1100 - 1300 N/mm²

M 12	7.90	1.75	5	20	0.0200	805	27	80
M 16	9.90	2.00	5	20	0.0250	645	31	80

Material

Wrought aluminium
alloys Si < 6%

M	D1 [mm]	P [mm]	z	v _c [m/min]	f _z [mm]	n [mm ⁻¹]	v _{fc} [mm/min]	v _f [mm/min]
M 1.6	1.00	0.35	3	60	0.0015	19100	32	85
M 2	1.30	0.40	3	60	0.0020	14690	32	90
M 2.5	1.50	0.45	3	60	0.0025	12735	38	95
M 3	2.10	0.50	3	60	0.0035	9095	29	95
M 4	2.60	0.70	3	60	0.0065	7345	51	145
M 5	3.60	0.80	3	60	0.0090	5305	41	145
M 6	4.00	1.00	3	60	0.0100	4775	48	145
M 8	5.00	1.25	3	60	0.0125	3820	54	145
M 10	5.90	1.50	5	60	0.0150	3235	100	245

Wrought aluminium
alloys Si < 6%

M 12	7.90	1.75	5	60	0.0200	2420	82	240
M 16	9.90	2.00	5	60	0.0250	1930	92	240

Cast iron
GG(G)

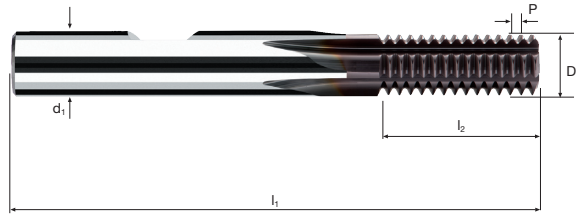
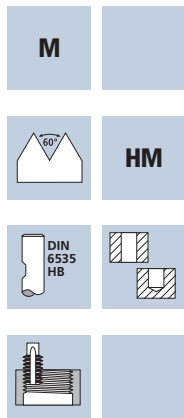
M 1.6	1.00	0.35	3	50	0.0015	15915	26	70
M 2	1.30	0.40	3	50	0.0020	12245	26	75
M 2.5	1.50	0.45	3	50	0.0025	10610	32	80
M 3	2.10	0.50	3	50	0.0035	7580	24	80
M 4	2.60	0.70	3	50	0.0065	6120	42	120
M 5	3.60	0.80	3	50	0.0090	4420	34	120
M 6	4.00	1.00	3	50	0.0100	3980	40	120
M 8	5.00	1.25	3	50	0.0125	3185	45	120
M 10	5.90	1.50	5	50	0.0150	2700	84	205

Cast iron
GG(G)

M 12	7.90	1.75	5	50	0.0200	2015	68	200
M 16	9.90	2.00	5	50	0.0250	1610	76	200

Thread milling cutters

1.5xd



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless	Ti Titanium	Aluminium GG(G)
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Example: Order-N°.									UNICUT-4X	
									EU2010	
∅ Code	d	P	l ₁	l ₂	d ₁ h ₆	D ₁	R _k 6H			
.022*	M 1.6	0.35	38	2.4	3	1.0	0.483	3		●
.034*	M 2	0.40	38	3.2	3	1.3	0.630	3		●
.040*	M 2.5	0.45	38	3.6	3	1.5	0.728	3		●
.044*	M 3	0.50	38	4.5	3	2.1	1.025	3		●
.058*	M 4	0.70	38	6.3	3	2.6	1.265	3		●
.084*	M 5	0.80	42	8.0	4	3.6	1.760	3		●
.088	M 6	1.00	57	9.0	6	4.0	1.950	3		●
.160	M 8	1.25	57	12.5	6	5.0	2.438	3		●
.174	M10	1.50	57	15.0	6	5.9	2.875	5		●
.240	M12	1.75	63	19.2	8	7.9	3.863	5		●
.246	M16	2.00	72	24.0	10	9.9	4.850	5		●
* without clamping flat only										

TM

Application



Material

Steel
< 850 N/mm²

G	D1 [mm]	P (TPI)	z	v _c [m/min]	f _z [mm]	n [min ⁻¹]	v _{fc} d/D1 3/2	v _{fc} d/D1 2/1	v _{fc} d/D1 3/1	v _{fc} d/D1 4/1	v _{fc} d/D1 > 5/1	V _f [mm/min]
G1/16-G1/8	5.90	28	5	30	0.0150	1620	40	60	80	90	96	120
G1/4 -G3/8	7.90	19	5	30	0.0200	1210	40	60	80	90	96	120
G1/2 -G7/8	11.90	14	5	30	0.0300	800	40	60	80	90	96	120
G1 -G3	15.90	11	5	30	0.0400	600	40	60	80	90	96	120

Steel
850 - 1100 N/mm²

G1/16-G1/8	5.90	28	5	20	0.0150	1080	27	40	53	60	64	80
G1/4 -G3/8	7.90	19	5	20	0.0200	805	27	40	53	60	64	80
G1/2 -G7/8	11.90	14	5	20	0.0300	535	27	40	53	60	64	80
G1 -G3	15.90	11	5	20	0.0400	400	27	40	53	60	64	80

Stainless steel
[Cr-Ni/1.4301]

G1/16-G1/8	5.90	28	5	25	0.0100	1350	23	35	47	53	56	70
G1/4 -G3/8	7.90	19	5	25	0.0130	1005	22	33	43	49	52	65
G1/2 -G7/8	11.90	14	5	25	0.0200	670	22	33	43	49	52	65
G1 -G3	15.90	11	5	25	0.0265	500	22	33	43	49	52	65

Cast iron
GG(G)

G1/16-G1/8	5.90	28	5	50	0.0150	2700	68	103	137	154	164	205
G1/4 -G3/8	7.90	19	5	50	0.0200	2015	67	100	133	150	160	200
G1/2 -G7/8	11.90	14	5	50	0.0300	1335	67	100	133	150	160	200
G1 -G3	15.90	11	5	50	0.0400	1000	67	100	133	150	160	200

Material

Wrought aluminium
alloys Si < 6%

G	D1 [mm]	P (TPI)	z	v _c [m/min]	f _z [mm]	n [min ⁻¹]	v _{fc} d/D1 3/2	v _{fc} d/D1 2/1	v _{fc} d/D1 3/1	v _{fc} d/D1 4/1	v _{fc} d/D1 > 5/1	V _f [mm/min]
G1/16-G1/8	5.90	28	5	60	0.0150	3235	82	123	163	184	196	245
G1/4 -G3/8	7.90	19	5	60	0.0200	2420	80	120	160	180	192	240
G1/2 -G7/8	11.90	14	5	60	0.0300	1605	80	120	160	180	192	240
G1 -G3	15.90	11	5	60	0.0400	1200	80	120	160	180	192	240

Cast aluminium

G1/16-G1/8	5.90	28	5	80	0.0150	4315	108	163	217	244	260	325
G1/4 -G3/8	7.90	19	5	80	0.0200	3225	108	163	217	244	260	325
G1/2 -G7/8	11.90	14	5	80	0.0300	2140	107	160	213	240	256	320
G1 -G3	15.90	11	5	80	0.0400	1600	107	160	213	240	256	320

Unalloyed copper

G1/16-G1/8	5.90	28	5	70	0.0150	3775	95	143	190	214	228	285
G1/4 -G3/8	7.90	19	5	70	0.0200	2820	93	140	187	210	224	280
G1/2 -G7/8	11.90	14	5	70	0.0300	1870	93	140	187	210	224	280
G1 -G3	15.90	11	5	70	0.0400	1400	93	140	187	210	224	280

Thermoplastics

G1/16-G1/8	5.90	28	5	100	0.0150	5395	135	203	270	304	324	405
G1/4 -G3/8	7.90	19	5	100	0.0200	4030	135	203	270	304	324	405
G1/2 -G7/8	11.90	14	5	100	0.0300	2675	133	200	267	300	320	400
G1 -G3	15.90	11	5	100	0.0400	2000	133	200	267	300	320	400

Application



Material

Steel
< 850 N/mm²

UNC	UNF	D1 [mm]	P (TPI)	z	v _c [m/min]	f _z [mm]	n [min ⁻¹]	V _{fc} d/D1 3/2	V _{fc} d/D1 2/1	V _{fc} d/D1 3/1	V _{fc} d/D1 4/1	V _{fc} d/D1 > 5/1	V _f [mm/min]
2	3	1.50	56	3	30	0.0025	6365	17	25	33	38	40	50
3	4	1.50	48	3	30	0.0025	6365	17	25	33	38	40	50
4-5	6	2.10	40	3	30	0.0035	4545	17	25	33	38	40	50
8	10	3.00	32	3	30	0.0050	3185	17	25	33	38	40	50
12	5/16-3/8	4.00	24	3	30	0.0065	2385	15	23	30	34	36	45
1/4	7/16-1/2	4.00	20	3	30	0.0065	2385	15	23	30	34	36	45
5/16	9/16-5/8	5.00	18	3	30	0.0085	1910	17	25	33	38	40	50
3/8	3/4	5.90	16	5	30	0.0100	1620	27	40	53	60	64	80
7/16	7/8	7.90	14	5	30	0.0130	1210	27	40	53	60	64	80

Steel
< 850 N/mm²

1/2		7.90	13	5	30	0.0130	1210	27	40	53	60	64	80
9/16	1- 1 1/2	9.90	12	5	30	0.0165	965	27	40	53	60	64	80
5/8		9.90	11	5	30	0.0165	965	27	40	53	60	64	80

Steel
850 - 1100 N/mm²

2	3	1.50	56	3	20	0.0025	4245	10	15	20	23	24	30
3	4	1.50	48	3	20	0.0025	4245	10	15	20	23	24	30
4-5	6	2.10	40	3	20	0.0035	3030	10	15	20	23	24	30
8	10	3.00	32	3	20	0.0050	2120	10	15	20	23	24	30
12	5/16-3/8	4.00	24	3	20	0.0065	1590	10	15	20	23	24	30
1/4	7/16-1/2	4.00	20	3	20	0.0065	1590	10	15	20	23	24	30
5/16	9/16-5/8	5.00	18	3	20	0.0085	1275	12	18	23	26	28	35
3/8	3/4	5.90	16	5	20	0.0100	1080	18	28	37	41	44	55
7/16	7/8	7.90	14	5	20	0.0130	805	17	25	33	38	40	50

Steel
850 - 1100 N/mm²

1/2		7.90	13	5	20	0.0130	805	17	25	33	38	40	50
9/16	1- 1 1/2	9.90	12	5	20	0.0165	645	18	28	37	41	44	55
5/8		9.90	11	5	20	0.0165	645	18	28	37	41	44	55

Material

Wrought aluminium
alloys Si < 6%

UNC	UNF	D1 [mm]	P (TPI)	z	v _c [m/min]	f _z [mm]	n [min ⁻¹]	V _{fc} d/D1 3/2	V _{fc} d/D1 2/1	V _{fc} d/D1 3/1	V _{fc} d/D1 4/1	V _{fc} d/D1 > 5/1	V _f [mm/min]
2	3	1.50	56	3	50	0.0025	10610	27	40	53	60	64	80
3	4	1.50	48	3	50	0.0025	10610	27	40	53	60	64	80
4-5	6	2.10	40	3	50	0.0035	7580	27	40	53	60	64	80
8	10	3.00	32	3	50	0.0050	5305	27	40	53	60	64	80
12	5/16-3/8	4.00	24	3	50	0.0065	3980	27	40	53	60	64	80
1/4	7/16-1/2	4.00	20	3	50	0.0065	3980	27	40	53	60	64	80
5/16	9/16-5/8	5.00	18	3	50	0.0085	3185	27	40	53	60	64	80
3/8	3/4	5.90	16	5	50	0.0100	2700	45	68	90	101	108	135
7/16	7/8	7.90	14	5	50	0.0130	2015	43	65	87	98	104	130

Wrought aluminium
alloys Si < 6%

1/2		7.90	13	5	50	0.0130	2015	43	65	87	98	104	130
9/16	1- 1 1/2	9.90	12	5	50	0.0165	1610	45	68	90	101	108	135
5/8		9.90	11	5	50	0.0165	1610	45	68	90	101	108	135

Cast iron
GG(G)

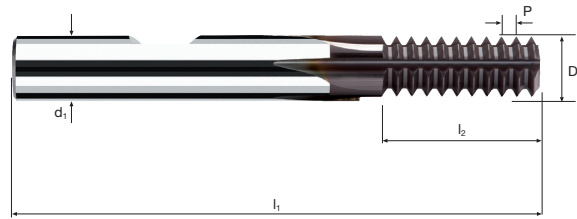
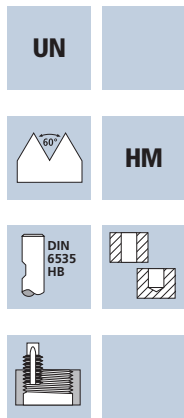
2	3	1.50	56	3	40	0.0025	8490	22	33	43	49	52	65
3	4	1.50	48	3	40	0.0025	8490	22	33	43	49	52	65
4-5	6	2.10	40	3	40	0.0035	6065	22	33	43	49	52	65
8	10	3.00	32	3	40	0.0050	4245	22	33	43	49	52	65
12	5/16-3/8	4.00	24	3	40	0.0065	3185	20	30	40	45	48	60
1/4	7/16-1/2	4.00	20	3	40	0.0065	3185	20	30	40	45	48	60
5/16	9/16-5/8	5.00	18	3	40	0.0085	2545	22	33	43	49	52	65
3/8	3/4	5.90	16	5	40	0.0100	2160	37	55	73	83	88	110
7/16	7/8	7.90	14	5	40	0.0130	1610	35	53	70	79	84	105

Cast iron
GG(G)

1/2		7.90	12	5	40	0.0130	1610	35	53	70	79	84	105
9/16	1- 1 1/2	9.90	12	5	40	0.0165	1285	35	53	70	79	84	105
5/8		9.90	11	5	40	0.0165	1285	35	53	70	79	84	105

Thread milling cutters

1.5xd



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless	Ti Titanium	Aluminium GG(G)
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Example: Order-N°.		Article-N°.		ø-Code						UNICUT-4X
		EU2110		.750						EU2110
Ø Code	UNC	UNF	P(TPI)	l ₁	l ₂	d ₁ h ₆	D ₁			
.750*		Nr. 2	64	38	3.1	3	1.5	3		●
.751*	Nr. 2	Nr. 3	56	38	3.1	3	1.5	3		●
.752*	Nr. 3	Nr. 4	48	38	3.7	3	1.5	3		●
.753*		Nr. 5	44	38	4.6	3	2.1	3		●
.754*	Nr. 4 - 5	Nr. 6	40	38	4.4	3	2.1	3		●
.755*		Nr. 8	36	42	6.3	4	3.0	3		●
.756*	Nr. 8	Nr. 10	32	42	6.3	4	3.0	3		●
.759*		Nr. 12 - 1/4	28	42	8.1	4	3.6	3		●
.761	Nr. 12	5/16 - 3/8	24	57	8.4	6	4.0	3		●
.762	1/4	7/16 - 1/2	20	57	10.1	6	4.0	3		●
.764	5/16	9/16 - 5/8	18	57	12.7	6	5.0	3		●
.766	3/8	3/4	16	57	14.2	6	5.9	5		●
.769	7/16	7/8	14	63	16.3	8	7.9	5		●
.770	1/2		13	63	19.5	8	7.9	5		●
.771	9/16	1" - 1 1/2	12	72	23.2	10	9.9	5		●
.773	5/8		11	72	23.0	10	9.9	5		●
* without clamping flat only										

TM

Application



Material

Steel
< 850 N/mm²

NPT NPTF	D1 [mm]	P (TPI)	z	v _c [m/min]	f _z [mm]	n [min ⁻¹]	V _{fc} d/D1 3/2	V _{fc} d/D1 2/1	V _{fc} d/D1 3/1	V _{fc} d/D1 4/1	V _{fc} d/D1 > 5/1	V _f [mm/min]	
1/16	- 1/8	5.90	27	5	30	0.0100	1620	27	40	53	60	64	80
1/4	- 3/8	7.90	18	5	30	0.0130	1210	27	40	53	60	64	80
1/2	- 3/4	11.90	14	5	30	0.0200	800	27	40	53	60	64	80
1	- 2	15.90	12	6	30	0.0265	600	32	48	63	71	76	95

Steel
850 - 1100 N/mm²

1/16	- 1/8	5.90	27	5	20	0.0100	1080	18	28	37	41	44	55
1/4	- 3/8	7.90	18	5	20	0.0130	805	17	25	33	38	40	50
1/2	- 3/4	11.90	14	5	20	0.0200	535	18	28	37	41	44	55
1	- 2	15.90	12	6	20	0.0265	400	22	33	43	49	52	65

Stainless steel
[Cr-Ni/1.4301]

1/16	- 1/8	5.90	27	5	15	0.0100	810	13	20	27	30	32	40
1/4	- 3/8	7.90	18	5	15	0.0130	605	13	20	27	30	32	40
1/2	- 3/4	11.90	14	5	15	0.0200	400	13	20	27	30	32	40
1	- 2	15.90	12	6	15	0.0265	300	17	25	33	38	40	50

Cast iron
GG(G)

1/16	- 1/8	5.90	27	5	40	0.0100	2160	37	55	73	83	88	110
1/4	- 3/8	7.90	18	5	40	0.0130	1610	35	53	70	79	84	105
1/2	- 3/4	11.90	14	5	40	0.0200	1070	35	53	70	79	84	105
1	- 2	15.90	12	6	40	0.0265	800	42	63	83	94	100	125

Material

Wrought aluminium
alloys Si < 6%

NPT NPTF	D1 [mm]	P (TPI)	z	v _c [m/min]	f _z [mm]	n [min ⁻¹]	V _{fc} d/D1 3/2	V _{fc} d/D1 2/1	V _{fc} d/D1 3/1	V _{fc} d/D1 4/1	V _{fc} d/D1 > 5/1	V _f [mm/min]	
1/16	- 1/8	5.90	27	5	50	0.0100	2700	45	68	90	101	108	135
1/4	- 3/8	7.90	18	5	50	0.0130	2015	43	65	87	98	104	130
1/2	- 3/4	11.90	14	5	50	0.0200	1335	45	68	90	101	108	135
1	- 2	15.90	12	6	50	0.0265	1000	53	80	107	120	128	160

Cast aluminium

1/16	- 1/8	5.90	27	5	60	0.0100	3235	53	80	107	120	128	160
1/4	- 3/8	7.90	18	5	60	0.0130	2420	52	78	103	116	124	155
1/2	- 3/4	11.90	14	5	60	0.0200	1605	53	80	107	120	128	160
1	- 2	15.90	12	6	60	0.0265	1200	63	95	127	143	152	190

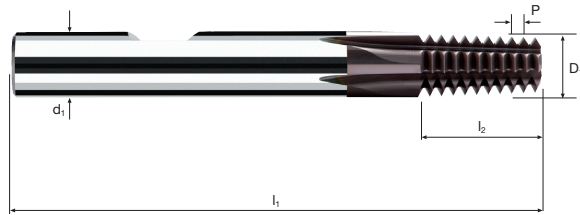
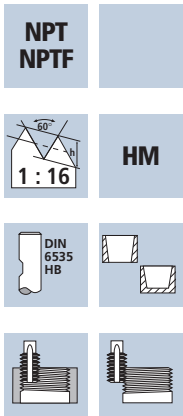
Unalloyed copper

1/16	- 1/8	5.90	27	5	70	0.0100	3775	63	95	127	143	152	190
1/4	- 3/8	7.90	18	5	70	0.0130	2820	62	93	123	139	148	185
1/2	- 3/4	11.90	14	5	70	0.0200	1870	62	93	123	139	148	185
1	- 2	15.90	12	6	70	0.0265	1400	75	113	150	169	180	225

Thermoplastics

1/16	- 1/8	5.90	27	5	90	0.0100	4855	82	123	163	184	196	245
1/4	- 3/8	7.90	18	5	90	0.0130	3625	78	118	157	176	188	235
1/2	- 3/4	11.90	14	5	90	0.0200	2405	80	120	160	180	192	240
1	- 2	15.90	12	6	90	0.0265	1800	95	143	190	214	228	285

Thread milling cutters



Rm < 850	Rm 850-1100	Rm 1100-1300				Inox Stainless	Ti Titanium	Aluminium GG(G)
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Example: Order-N°.		Article-N°.	α-Code							UNICUT-4X
Order-N°.		EU2200	.840							EU2200
Ø Code		d	P(TPI)	l ₁	l ₂	d ₁ h ₆	D ₁			
.840	NPT	1/16 - 1/8	27	57	9.4	6	5.9	5	●	
.842	NPT	1/4 - 3/8	18	63	14.1	8	7.9	5	●	
.844	NPT	1/2 - 3/4	14	83	19.9	12	11.9	5	●	
.846	NPT	1" - 2"	11.5	92	26.5	16	15.9	6	●	

Example: Order-N°.		Article-N°.	α-Code							UNICUT-4X
Order-N°.		EU2210	.840							EU2210
Ø Code		d	P(TPI)	l ₁	l ₂	d ₁ h ₆	D ₁			
.840	NPTF	1/16 - 1/8	27	57	9.4	6	5.9	5	●	
.842	NPTF	1/4 - 3/8	18	63	14.1	8	7.9	5	●	
.844	NPTF	1/2 - 3/4	14	83	19.9	12	11.9	5	●	
.846	NPTF	1" - 2"	11.5	92	26.5	16	15.9	6	●	

TM