

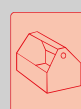
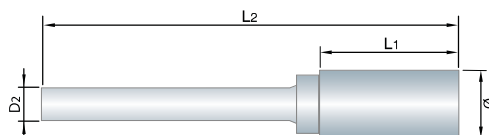
Unità : mm

				T1001	T1004	T1007
Ø	D2	L1	L2			
1.5	3	6	50	T100101550	T100401550	-
3.0	6	12.7	60	T100103060	T100403060	-
3.0	3	14	38	T100103038	T100403038	-
3.0	3	14	50	T100103050	T100403050	-
4.0	3	12.7	38	T100104038	T100404038	-
4.0	6	16	50	T100104050	T100404050	-
5.0	3	12.7	38	T100105038	T100405038	-
6.0	6	16	50	T10010605A	T10040605A	-
6.0	6	19	50	-	-	T100706050
6.0	6	25	50	T100106050	T100406050	-
6.3	3	12.7	50	T100106350	T100406350	-
8.0	6	19	63	T100108063	T100408063	-
9.5	6	19	63	T100109563	T100409563	T100709563
9.5	6	25	69	T100109569	T100409569	-
12.7	6	25	69	T100112769	T100412769	T100712769
16.0	6	25	69	T100116069	T100416069	-
19.0	6	25	69	T100119069	T100419069	-
25.0	6	25	69	T100125069	T100425069	-

LIMA ROTATIVA CILINDRICA CON TAGLIO FRONTALE (FORMA B)

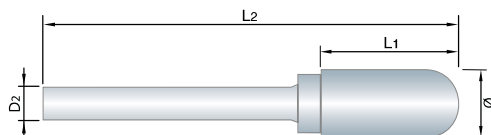


ROTARY BURR CYLINDER SHAPE WITH END CUT (FORM B)



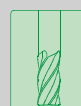
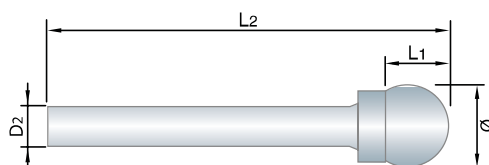
Unità : mm

				T1010	T1013	T1016
Ø	D2	L1	L2			
1.5	3	6	50	T101001550	T101301550	-
2.5	3	11	38	T101002538	T101302538	-
3.0	3	14	38	T101003038	T101303038	-
3.0	3	14	50	T101003050	T101303050	-
3.0	6	12.7	60	T101003060	T101303060	-
4.0	6	16	50	T101004050	T101304050	-
5.0	6	16	50	T101005050	T101305050	-
6.0	6	16	50	T101006050	T101306050	-
6.0	6	25	50	T10100605A	T10130605A	-
6.3	3	4.7	43	T101006343	T101306343	-
8.0	6	19	63	T101008063	T101308063	-
9.5	6	19	63	T101009563	T101309563	T101609563
9.5	6	25	69	T101009569	T101309569	-
11.0	6	25	69	T101011069	T101311069	-
12.7	6	25	69	T101012769	T101312769	T101612769
16.0	6	25	69	T101016069	T101316069	-
19.0	6	25	69	T101019069	T101319069	-



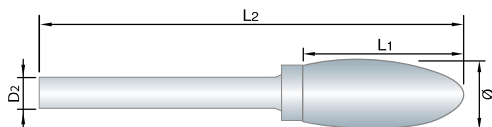
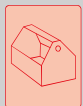
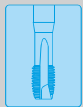
Unità : mm

				T1019	T1022	T1025
Ø	D2	L1	L2			
3.0	3	14	38	T101903038	T102203038	-
3.0	3	14	50	T101903050	T102203050	-
3.0	3	14	75	T101903075	T102203075	-
4.0	3	12.7	38	T101904038	T102204038	-
5.0	6	16	50	T101905050	T102205050	-
6.0	6	16	50	T101906050	T102206050	-
6.0	6	19	50	-	-	T102506050
6.0	6	25	50	T10190605A	T10220605A	-
6.3	3	12.7	50	T101906350	T102206350	-
8.0	6	19	63	T101908063	T102208063	-
9.5	6	19	63	T101909563	T102209563	-
9.5	6	25	69	T101909569	T102209569	-
11.0	6	25	69	T101911069	T102211069	-
12.7	6	25	69	T101912769	T102212769	T102512769
16.0	6	25	69	T101916069	T102216069	-
19.0	6	25	69	T101919069	T102219069	-



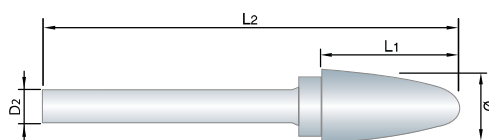
Unità : mm

				T1028	T1031	T1034
Ø	D2	L1	L2			
2.5	3	2.3	38	T102802538	T103102538	-
3.0	3	2.8	38	T102803038	T103103038	-
3.0	3	2.8	50	T102803050	T103103050	-
3.0	3	2.8	75	T102803075	T103103075	-
3.0	6	2.8	50	T10280305A	T10310305A	-
5.0	3	4	38	T102805038	T103105038	-
5.0	6	4	50	T102805050	T103105050	-
6.0	6	5	50	T102806050	T103106050	-
6.3	3	5	44	T102806344	T103106344	-
8.0	6	6.4	50	T102808050	T103108050	-
9.5	6	8	52	T102809552	T103109552	T103409552
11.0	6	9.5	54	T102811054	T103111054	-
12.7	6	11	55	T102812755	T103112755	T103412755
16.0	6	14	58	T102816058	T103116058	-
19.0	6	16	62	T102819062	T103119062	-



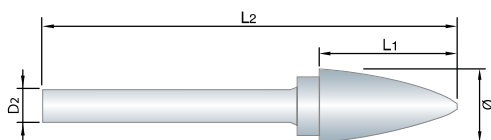
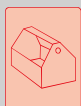
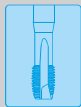
Unità : mm

				T1037	T1040	T1043
Ø	D2	L1	L2			
3.0	3	5.5	50	T103703050	T104003050	-
5.0	3	7.1	38	T103705038	T104005038	-
6.0	6	9.5	50	T103706050	T104006050	-
6.3	3	9.5	47	T103706347	T104006347	-
9.5	6	16	60	T103709560	T104009560	-
12.7	6	22	66	T103712766	T104012766	T104312766
16.0	6	25	69	T103716069	T104016069	T104316069



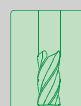
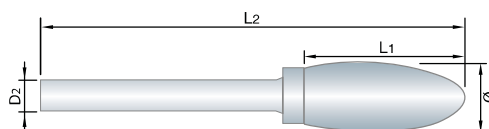
Unità : mm

				T1046	T1049	T1052
Ø	D2	L1	L2			
3.0	3	12.7	38	T104603038	T104903038	-
3.0	3	12.7	50	T104603050	T104903050	-
3.0	3	12.7	75	T104603075	T104903075	-
3.0	6	12.7	56	T104603056	T104903056	-
5.0	3	12.7	38	T104605038	T104905038	-
6.0	6	16	50	T104606050	T104906050	-
6.0	6	19	50	-	-	T105206050
6.3	3	12.7	50	T104606350	T104906350	-
9.5	6	19	63	T104609563	T104909563	T105209563
11.0	6	25	69	T104611069	T104911069	-
12.7	6	19	63	T104612763	T104912763	-
12.7	6	25	69	T104612769	T104912769	T105212769
16.0	6	25	69	T104616069	T104916069	T105216069
19.0	6	32	76	-	-	T105219076



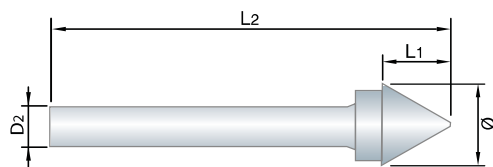
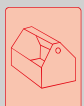
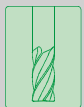
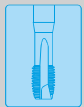
Unità : mm

				T1055	T1058
Ø	D2	L1	L2		
3.0	3	6	38	T105503038	T105803038
3.0	3	9.5	38	T10550303A	T10580303A
3.0	3	12.7	38	T10550303B	T10580303B
3.0	3	12.7	50	T105503050	T105803050
5.0	3	12.7	38	T105505038	T105805038
6.0	6	16	50	T105506050	T105806050
6.3	3	12.7	50	T105506350	T105806350
8.0	6	19	63	T105508063	T105808063
9.5	6	19	63	T105509563	T105809563
12.7	6	19	63	T105512763	T105812763
12.7	6	25	69	T105512769	T105812769



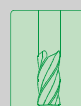
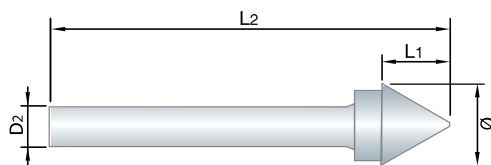
Unità : mm

				T1061	T1064
Ø	D2	L1	L2		
3.0	3	6.3	50	T106103050	T106403050
3.0	3	6.3	75	T106103075	T106403075
5.0	3	9.5	38	T106105038	T106405038
8.0	6	19	63	T106108063	T106408063
12.7	6	32	76	T106112776	T106412776
16.0	6	36	80	T106116080	T106416080



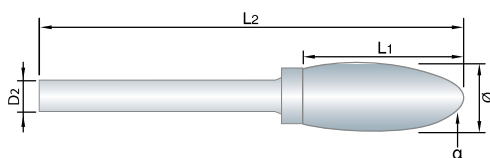
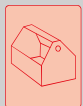
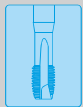
Unità : mm

				T1067	T1070
Ø	D2	L1	L2		
3.0	3	2.5	38	T106703038	T107003038
6.0	6	4	50	T106706050	T107006050
12.7	6	11	58	T106712758	T107012758
16.0	6	13.5	61	T106716061	T107016061



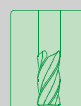
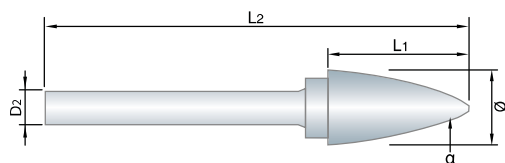
Unità : mm

				T1073	T1076
Ø	D2	L1	L2		
3.0	3	1.5	38	T107303038	T107603038
6.0	6	3	50	T107306050	T107606050
9.5	6	4.7	52	T107309552	T107609552
12.7	6	6.3	54	T107312754	T107612754
16.0	6	8	57	T107316057	T107616057
19.0	6	9.5	58	T107319058	T107619058



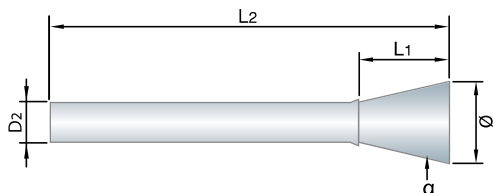
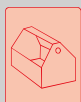
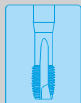
Unità : mm

					T1079	T1082	T1085
Ø	D2	L1	L2	α			
3.0	3	9.5	38	8°	T107903038	T108203038	-
3.0	3	12.7	38	8°	T10790303A	T10820303A	-
3.0	3	12.7	50	8°	T107903050	T108203050	-
5.0	3	12.7	38	14°	T107905038	T108205038	-
6.0	6	16	50	14°	T107906050	T108206050	-
8.0	6	22	69	14°	T107908069	T108208069	-
9.5	6	27	74	14°	T107909574	T108209574	-
12.7	6	28	76	14°	T107912776	T108212776	T108512776
16.0	6	30	77	14°	T107916077	T108216077	T108516077



Unità : mm

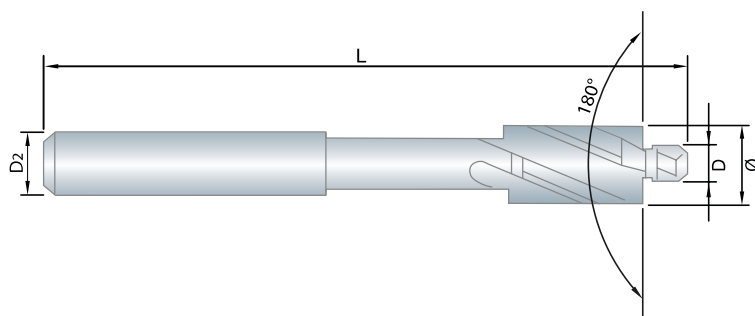
					T1088	T1091
Ø	D2	L1	L2	α		
3.0	3	8.9	38	12°	T108803038	T109103038
3.0	3	11	38	14°	T10880303A	T10910303A
3.0	3	11	50	14°	T108803050	T109103050
3.0	3	11	75	14°	T108803075	T109103075
3.0	3	16	38	7°	T10880303B	T10910303B
5.0	3	12.7	38	16°	T108805038	T109105038
6.0	6	12.7	50	22°	T108806050	T109106050
6.0	6	19	50	14°	T10880605A	T10910605A
6.0	6	25	50	10°	T10880605B	T10910605B
6.3	3	12.7	53	22°	T108806353	T109106353
9.5	6	16	63	28°	T108809563	T109109563
12.7	6	22	69	28°	T108812769	T109112769
16.0	6	25	73	31°	T108816073	T109116073



Unità : mm

					T1094	T1097
Ø	D2	L1	L2	α		
3.0	3	4	38	10°	T109403038	T109703038
5.0	3	6.3	38	10°	T109405038	T109705038
6.0	6	8	50	10°	T109406050	T109706050
6.3	3	6	44	10°	T109406344	T109706344
9.5	6	9.5	53	13°	T109409553	T109709553
12.7	6	12.7	57	28°	T109412757	T109712757

**LAMATORE A 3 TAGLIENTI IN HSS-E
PER SEDI DI VITI A TESTA CILINDRICA A 180°**
HSS-E 3 FLUTE COUNTERBORE FOR 180° CAPSCREW



T3001

INF. TEC. PAG.
D39

373

HSS-E

Z 3

STANDARD

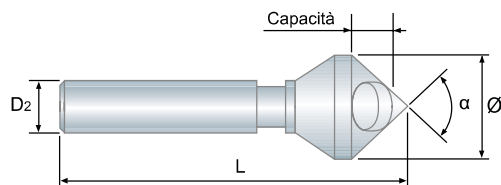
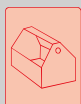
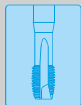
Unità : mm

Ø	D	D2	D Vite	L	✓	P1 P2 P3 P4 N1
6.0	3.4	5	M3	71		T30010340
8.0	4.5	5	M4	71		T30010450
10.0	5.5	8	M5	80		T30010550
11.0	6.6	8	M6	80		T30010660
15.0	9.0	12.5	M8	100		T30010900
18.0	11.0	12.5	M10	100		T30011100
20.0	14.0	12.5	M12	100		T30011400

PRECISO

Unità : mm

Ø	D	D2	D Vite	L	T3001
6.0	3.2	5	M3	71	T30010320
8.0	4.3	5	M4	71	T30010430
10.0	5.3	8	M5	80	T30010530
11.0	6.4	8	M6	80	T30010640
15.0	8.4	12.5	M8	100	T30010840
18.0	10.5	12.5	M10	100	T30011050
20.0	13.0	12.5	M12	100	T30011300

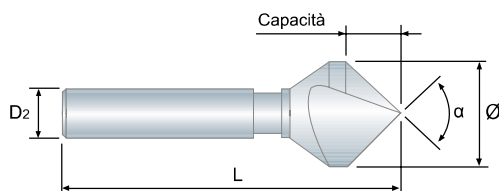

T3004

 INF. TEC. PAG.
D36

**HSS
Co8**
Foro
90°

Unità : mm

Ø	D2	L	α	Capacità Min - Max	✓	P1 P2 P3 M1 K1 N1 N3
10.0	6	45	90°	2 - 5		T30041000
15.0	8	55	90°	6 - 14		T30041500
20.0	10	65	90°	8 - 18		T30042000
25.0	12	78	90°	10 - 23		T30042500
30.0	12	88	90°	12 - 28		T30043000



T3007

INF. TEC. PAG.
D36

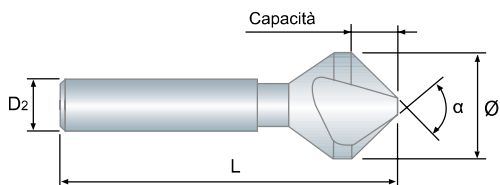
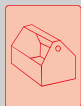
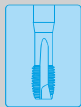
**HSS
Co8**

Z 1

90°

Unità : mm

Ø	D2	L	α	Capacità Min - Max	✓	P1 P2 P3 M1 K1 N1 N3
10.0	6	45	90°	1 - 10		T30071000
15.0	8	55	90°	2 - 15		T30071500
20.0	10	65	90°	2 - 20		T30072000
25.0	12	78	90°	3 - 25		T30072500
30.0	12	88	90°	3 - 30		T30073000



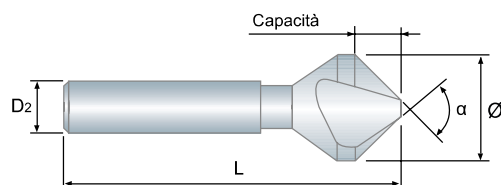
T4001	T3010
INF. TEC. PAG. D37	INF. TEC. PAG. D37
335 C	335 C
HSS	HSS Co8
Z 3	Z 3
90°	90°

Unità : mm

Ø	D2	L	α	Capacità Min - Max	✓	P1 P2 P3 M1 K1 N1 N3	P1 P2 P3 M1 K1 N1 N3
6.3	5	45	90°	1.5 - 6.3		T40010630	T30100630
8.3	6	50	90°	2 - 8.3		T40010830	T30100830
10.0	6	50	90°	2.5 - 10		T40011000	T30101000
10.4	6	50	90°	2.5 - 10.4		T40011040	T30101040
12.4	8	56	90°	2.8 - 12.4		T40011240	T30101240
15.0	10	60	90°	3.2 - 15		T40011500	T30101500
16.5	10	60	90°	3.2 - 16.5		T40011650	T30101650
20.5	10	63	90°	3.5 - 20.5		T40012050	T30102050
25.0	10	67	90°	3.8 - 25		T40012500	T30102500
30.0	12	71	90°	4.2 - 30		T40013000	T30103000
31.0	12	71	90°	4.2 - 31		T40013100	T30103100

SVASATORE A TRE TAGLIENTI - HSS Co8 (90°) RIVESTIMENTO TiCN

HSSCO8 THREE FLUTE COUNTERSINK (90°)
TiCN COATING



T3013

INF. TEC. PAG.
D37

335 C

**HSS
Co8**

TiCN

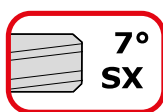
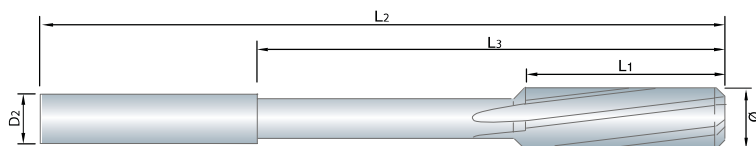
Z 3

90°

Unità : mm

$\emptyset$	D2	L	α	Capacità Min - Max	✓	P1 P2 P3 M1 K1 N1 N3
6.3	5	45	90°	1.5 - 6.3		T30130630
8.3	6	50	90°	2.0 - 8.3		T30130830
10.0	6	50	90°	2.5 - 10		T30131000
12.4	8	56	90°	2.8 - 12.4		T30131240
15.0	10	60	90°	3.2 - 15		T30131500
20.5	10	63	90°	3.5 - 20.5		T30132050
25.0	10	67	90°	3.8 - 25		T30132500
30.0	12	71	90°	4.2 - 30		T30133000

ALESATORE ATTACCO CILINDRICO HSS-E ELICA SINISTRA HSS-E STRAIGHT SHANK CHUCKING REAMER LH SPIRAL FLUTES



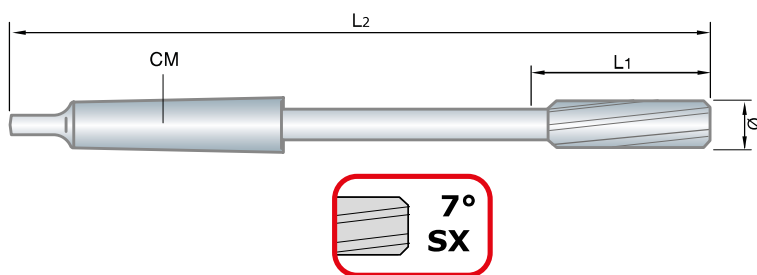
T3016
INF. TEC. PAG. D37
212
H7
HSS-E
h8
T-DX
E-SX
15/45°
DIN 1420

Unità : mm

Ø	D2	L1	L3	L2	Z	✓ P1 P2 P3 P4 M1 K1 N1 N3
2.0	2	11	-	49	4	T30160200
2.5	2.5	14	-	57	4	T30160250
3.0	3	15	-	61	6	T30160300
4.0	4	19	42	75	6	T30160400
5.0	5	23	51	86	6	T30160500
6.0	5.6	26	56	93	6	T30160600
8.0	8	33	74	117	6	T30160800
10.0	10	38	86	133	6	T30161000
12.0	10	44	104	151	6	T30161200
14.0	12.5	47	108	160	8	T30161400
15.0	12.5	50	110	162	8	T30161500
16.0	12.5	52	118	170	8	T30161600
18.0	14	56	128	182	8	T30161800
20.0	16	60	135	195	8	T30162000

ALESATORE ATTACCO CM HSS-E ELICA SINISTRA

HSS-E MORSE TAPER SHANK CHUCKING REAMER
LH SPIRAL FLUTES



T3019

INF. TEC. PAG.
D37

208

H7

HSS-E

CM

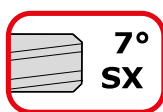
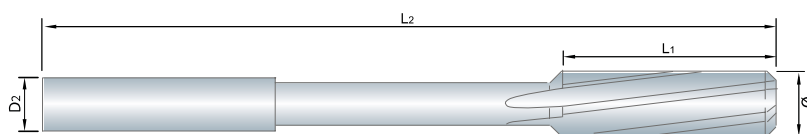
T-DX

E-SX

45°

Unità : mm

Ø	CM	L1	L2	Z	P1 P2 P3 P4 M1 K1 N1 N3
10.0	1	38	168	6	T30191000
12.0	1	44	182	6	T30191200
14.0	1	47	189	8	T30191400
15.0	2	50	204	8	T30191500
16.0	2	52	210	8	T30191600
18.0	2	56	219	8	T30191800
20.0	2	60	228	8	T30192000
22.0	2	64	237	8	T30192200
24.0	3	68	268	8	T30192400
25.0	3	68	268	8	T30192500
26.0	3	70	273	8	T30192600
28.0	3	71	277	10	T30192800
30.0	3	73	281	10	T30193000
32.0	4	77	317	10	T30193200
34.0	4	78	321	10	T30193400
35.0	4	78	321	10	T30193500

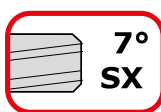
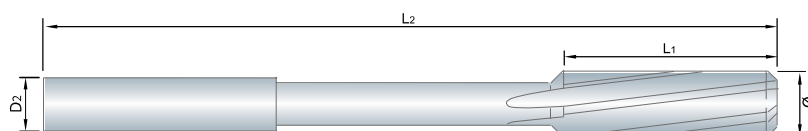

T3022

 INF. TEC. PAG.
D37

H7
HSS-E
h6
T-DX
E-SX
15/45°
**DIN
1420**

Unità : mm

Ø	D2	L1	L2	✓	P1 P2 P3 P4 M1 K1 N1 N3
2.0	2	11	49		T30220200
2.01	2	11	49		T30220201
2.02	2	11	49		T30220202
2.03	2	11	49		T30220203
2.1	2	11	49		T30220210
2.2	3	12	53		T30220220
2.3	3	12	53		T30220230
2.4	3	14	57		T30220240
2.47	3	14	57		T30220247
2.48	3	14	57		T30220248
2.49	3	14	57		T30220249
2.5	3	14	57		T30220250
2.51	3	14	57		T30220251
2.52	3	14	57		T30220252
2.53	3	14	57		T30220253
2.6	3	14	57		T30220260
2.7	3	15	61		T30220270
2.8	3	15	61		T30220280
2.9	3	15	61		T30220290
2.97	3	15	61		T30220297
2.98	3	15	61		T30220298
2.99	3	15	61		T30220299
3.0	3	15	61		T30220300
3.01	4	16	65		T30220301
3.02	4	16	65		T30220302
3.03	4	16	65		T30220303
3.1	4	16	65		T30220310
3.2	4	16	65		T30220320
3.3	4	16	65		T30220330
3.4	4	18	70		T30220340
3.5	4	18	70		T30220350
3.6	4	18	70		T30220360
3.7	4	18	70		T30220370



T3022

INF. TEC. PAG.
D37

H7

HSS-E

h6

T-DX

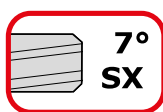
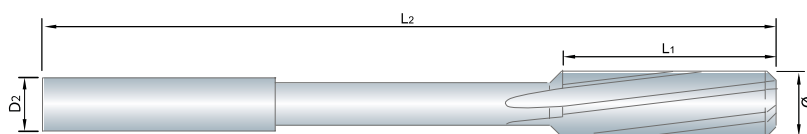
E-SX

15/45°

DIN
1420

Unità : mm

Ø	D2	L1	L2	✓	P1 P2 P3 P4 M1 K1 N1 N3
3.8	4	19	75		T30220380
3.9	4	19	75		T30220390
3.97	4	19	75		T30220397
3.98	4	19	75		T30220398
3.99	4	19	75		T30220399
4.0	4	19	75		T30220400
4.01	4	19	75		T30220401
4.02	4	19	75		T30220402
4.03	4	19	75		T30220403
4.1	4	19	75		T30220410
4.2	4	19	75		T30220420
4.3	5	21	80		T30220430
4.4	5	21	80		T30220440
4.5	5	21	80		T30220450
4.6	5	21	80		T30220460
4.7	5	21	80		T30220470
4.8	5	23	86		T30220480
4.9	5	23	86		T30220490
4.97	5	23	86		T30220497
4.98	5	23	86		T30220498
4.99	5	23	86		T30220499
5.0	5	23	86		T30220500
5.01	5	23	86		T30220501
5.02	5	23	86		T30220502
5.03	5	23	86		T30220503
5.1	5	23	86		T30220510
5.2	5	23	86		T30220520
5.3	5	23	86		T30220530
5.4	6	26	93		T30220540
5.5	6	26	93		T30220550
5.6	6	26	93		T30220560
5.7	6	26	93		T30220570
5.8	6	26	93		T30220580

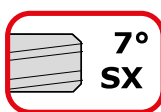
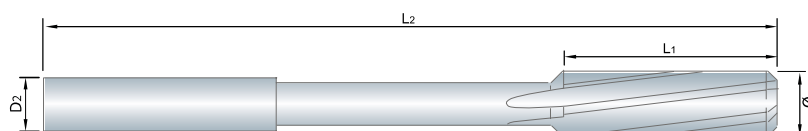

T3022

 INF. TEC. PAG.
D37

H7
HSS-E
h6
T-DX
E-SX
15/45°
**DIN
1420**

Unità : mm

Ø	D2	L1	L2	✓	P1 P2 P3 P4 M1 K1 N1 N3
5.9	6	26	93		T30220590
5.97	6	26	93		T30220597
5.98	6	26	93		T30220598
5.99	6	26	93		T30220599
6.0	6	26	93		T30220600
6.01	6	28	101		T30220601
6.02	6	28	101		T30220602
6.03	6	28	101		T30220603
6.1	6	28	101		T30220610
6.2	6	28	101		T30220620
6.3	6	28	101		T30220630
6.4	6	28	101		T30220640
6.5	6	28	101		T30220650
6.6	6	28	101		T30220660
6.7	6	28	101		T30220670
6.8	8	31	109		T30220680
6.9	8	31	109		T30220690
7.0	8	31	109		T30220700
7.1	8	31	109		T30220710
7.2	8	31	109		T30220720
7.3	8	31	109		T30220730
7.4	8	31	109		T30220740
7.5	8	31	109		T30220750
7.6	8	33	117		T30220760
7.7	8	33	117		T30220770
7.8	8	33	117		T30220780
7.9	8	33	117		T30220790
7.97	8	33	117		T30220797
7.98	8	33	117		T30220798
7.99	8	33	117		T30220799
8.0	8	33	117		T30220800
8.01	8	33	117		T30220801
8.02	8	33	117		T30220802



T3022

INF. TEC. PAG.
D37

H7

HSS-E

h6

T-DX

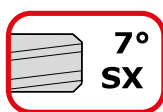
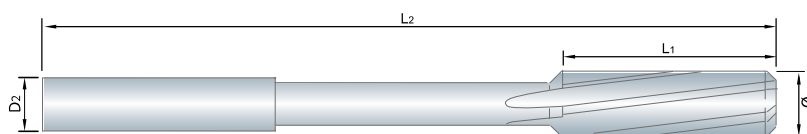
E-SX

15/45°

DIN
1420

Unità : mm

Ø	D2	L1	L2	✓	P1 P2 P3 P4 M1 K1 N1 N3
8.03	8	33	117		T30220803
8.1	8	33	117		T30220810
8.2	8	33	117		T30220820
8.3	8	33	117		T30220830
8.4	8	33	117		T30220840
8.5	8	33	117		T30220850
8.6	10	36	125		T30220860
8.7	10	36	125		T30220870
8.8	10	36	125		T30220880
8.9	10	36	125		T30220890
9.0	10	36	125		T30220900
9.01	10	36	125		T30220901
9.02	10	36	125		T30220902
9.03	10	36	125		T30220903
9.1	10	36	125		T30220910
9.2	10	36	125		T30220920
9.3	10	36	125		T30220930
9.4	10	36	125		T30220940
9.5	10	36	125		T30220950
9.6	10	38	133		T30220960
9.7	10	38	133		T30220970
9.8	10	38	133		T30220980
9.9	10	38	133		T30220990
9.97	10	38	133		T30220997
9.98	10	38	133		T30220998
9.99	10	38	133		T30220999
10.0	10	38	133		T30221000
10.01	10	38	133		T30221001
10.02	10	38	133		T30221002
10.03	10	38	133		T30221003
11.0	10	41	142		T30221100
11.97	10	41	151		T30221197
11.98	10	41	151		T30221198


T3022

 INF. TEC. PAG.
D37

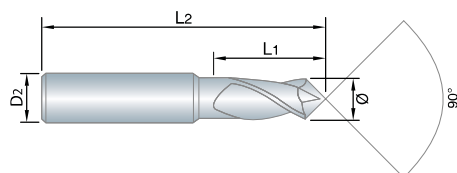
H7
HSS-E
h6
T-DX
E-SX
15/45°
**DIN
1420**

Unità : mm

Ø	D2	L1	L2	✓	P1 P2 P3 P4 M1 K1 N1 N3
11.99	10	41	151		T30221199
12.0	10	44	151		T30221200
12.01	10	44	151		T30221201
12.02	10	44	151		T30221202
12.03	10	44	151		T30221203
13.0	10	44	151		T30221300
14.0	14	47	160		T30221400
15.0	14	50	162		T30221500
16.0	14	52	170		T30221600
17.0	14	54	175		T30221700
18.0	14	56	182		T30221800
19.0	16	58	189		T30221900
20.0	16	60	195		T30222000

**FRESA 2 TAGLIENTI MD A 90°
(PER SMUSSATURA - FORATURA)**

CARBIDE 2 FLUTE 90° END MILLS



Unità : mm

Ø	D2	L1	L2	
3.0	4	6	50	T11000300
4.0	5	8	50	T11000400
5.0	6	10	50	T11000500
6.0	8	12	60	T11000600
8.0	10	16	70	T11000800
10.0	12	18	70	T11001000
12.0	12	20	70	T11001200
16.0	16	26	80	T11001600
20.0	20	32	100	T11002000

T1100

INF. TEC. PAG.
D40



MD

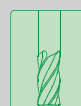
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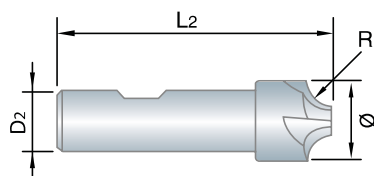
30°



**P1 P2 P3
P4 P5**

M1 K1 N1





T3025

INF. TEC. PAG.
D40

6518



HSS
Co8

Z 4

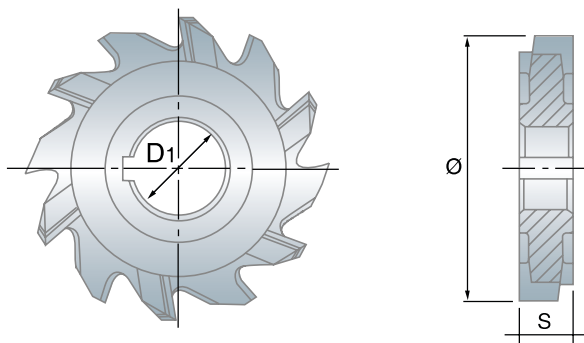


P1 P2 P3 P4

P5 N1

Unità : mm

Ø	D2	L2	R	
8.0	10	60	R1.0	T30250800
9.0	10	60	R1.5	T30250900
10.0	10	60	R2.0	T30251000
11.0	10	60	R2.5	T30251100
12.0	12	60	R3.0	T30251200
13.0	12	60	R3.5	T30251300
14.0	12	60	R4.0	T30251400
15.0	12	60	R4.5	T30251500
16.0	12	60	R5.0	T30251600
19.0	16	67	R5.5	T30251900
20.0	16	67	R6.0	T30252000
21.0	16	71	R6.5	T30252100
22.0	16	71	R7.0	T30252200
23.0	16	71	R7.5	T30252300
24.0	16	71	R8.0	T30252400
25.0	25	85	R8.5	T30252500
26.0	25	85	R9.0	T30252600
27.0	25	85	R9.5	T30252700
28.0	25	85	R10.0	T30252800
31.0	25	90	R10.5	T30253100
32.0	25	90	R11.0	T30253200
34.0	25	90	R12.0	T30253400
41.0	25	100	R12.5	T30254100
42.0	25	100	R13.0	T30254200
44.0	25	100	R14.0	T30254400
46.0	25	100	R15.0	T30254600
48.0	25	100	R16.0	T30254800
52.0	32	112	R18.0	T30255200
56.0	32	112	R20.0	T30255600



T3028

INF. TEC. PAG.
D38

885-A

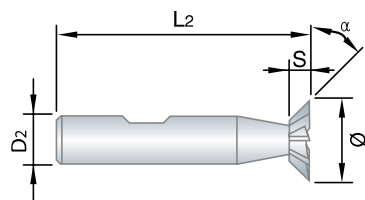
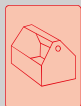
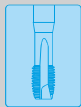
HSS-E

P1 P2 P3 P4

P5 N1

Unità : mm

Ø	S	D1	Z	
50.0	4	16	14	T302805004
50.0	5	16	14	T302805005
50.0	6	16	14	T302805006
50.0	7	16	14	T302805007
50.0	8	16	14	T302805008
50.0	10	16	14	T302805010
63.0	3	22	16	T302806303
63.0	4	22	16	T302806304
63.0	5	22	16	T302806305
63.0	6	22	16	T302806306
63.0	8	22	16	T302806308
63.0	10	22	16	T302806310
63.0	12	22	16	T302806312
80.0	3	22	18	T302808003
80.0	4	22	18	T302808004
80.0	5	22	18	T302808005
80.0	6	22	18	T302808006
80.0	7	22	18	T302808007
80.0	8	22	18	T302808008
80.0	10	22	18	T302808010
80.0	12	22	18	T302808012
80.0	14	22	18	T302808014
100.0	3	27	20	T302810003
100.0	4	27	20	T302810004
100.0	5	27	20	T302810005
100.0	6	27	20	T302810006
100.0	8	27	20	T302810008
100.0	10	27	20	T302810010
125.0	5	32	22	T302812505
125.0	6	32	22	T302812506
125.0	8	32	22	T302812508
125.0	10	32	22	T302812510
125.0	12	32	22	T302812512
160.0	6	32	26	T302816006
160.0	8	32	26	T302816008
160.0	10	32	26	T302816010


T3031

 INF. TEC. PAG.
D38

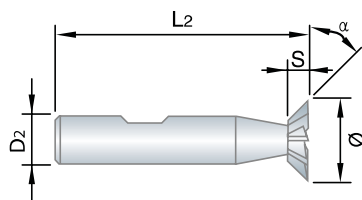
1833
HSS-E

 ✓ P1 P2
✓ P3 P4

✓ P5 N1

Unità : mm

Ø	S	α	D2	L2	Z	
16.0	4	45°	12	60	6	T30311600
20.0	5	45°	12	63	6	T30312000
22.0	6	45°	12	67	6	T30312200
25.0	6.3	45°	16	67	8	T30312500
28.0	7.5	45°	16	67	8	T30312800
32.0	8	45°	16	71	10	T30313200
38.0	10	45°	16	80	12	T30313800



T3034

INF. TEC. PAG.
D38

1833

HSS-E

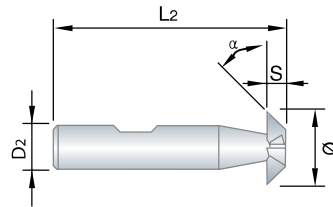
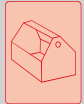
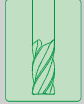
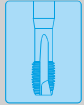


**P1 P2
P3 P4**

P5 N1

Unità : mm

Ø	S	α	D2	L2	Z	
16.0	6.3	60°	12	60	6	T30341600
20.0	8	60°	12	63	6	T30342000
22.0	9	60°	12	67	6	T30342200
25.0	10	60°	16	67	8	T30342500
28.0	11	60°	16	67	8	T30342800
32.0	12.5	60°	16	71	10	T30343200
38.0	16	60°	16	80	12	T30343800
40.0	13	60°	25	85	12	T30344000
50.0	16	60°	25	100	16	T30345000



T3037

INF. TEC. PAG.
D38

1833

HSS-E

0°



**P1 P2
P3 P4**

P5 N1

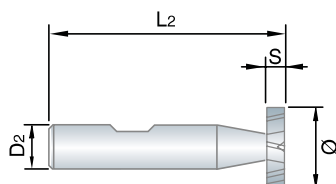
Unità : mm

$\emptyset$	S	α	D2	L2	Z	
16.0	4	45°	12	60	6	T30371600
20.0	5	45°	12	63	6	T30372000
22.0	6	45°	12	67	6	T30372200
25.0	6.3	45°	16	67	8	T30372500
28.0	7.5	45°	16	67	8	T30372800
32.0	8	45°	16	71	10	T30373200
38.0	10	45°	16	80	12	T30373800

FRESA HSS-E PER CHIAVETTE WOODRUFF TIPO "B", "D", "F"



HSS-E WOODRUFF KEYSEAT CUTTER TYPE "B", "D", "F" END MILL



T3040

INF. TEC. PAG.
D39

850

HSS-E

10-12°

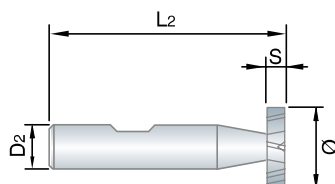


P1 P2 P3 P4

P5 N1

Unità : mm

Ø	S	D2	L2	Z	
10.5	2	6	50	8	T304010502
10.5	2.5	6	50	8	T304010525
10.5	3	6	50	8	T304010503
13.5	2	10	56	8	T304013502
13.5	2.5	10	56	8	T304013525
13.5	3	10	56	8	T304013503
13.5	4	10	56	8	T304013504
16.5	2.5	10	56	8	T304016525
16.5	3	10	56	8	T304016503
16.5	4	10	56	8	T304016504
16.5	5	10	56	8	T304016505
19.5	3	10	56	8	T304019503
19.5	4	10	63	8	T304019504
19.5	5	10	63	8	T304019505
19.5	6	10	63	8	T304019506
22.5	4	10	63	10	T304022504
22.5	5	10	63	10	T304022505
22.5	6	10	63	10	T304022506
22.5	8	10	63	10	T304022508
25.5	5	10	63	10	T304025505
25.5	6	10	63	10	T304025506
25.5	7	10	63	10	T304025507
25.5	8	10	63	10	T304025508
28.5	5	10	63	10	T304028505
28.5	6	10	63	10	T304028506
28.5	7	10	63	10	T304028507
28.5	8	10	63	10	T304028508
28.5	10	12	71	10	T304028510


T3040

 INF. TEC. PAG.
D39

850
HSS-E
10-12°

P1 P2 P3 P4

P5 N1

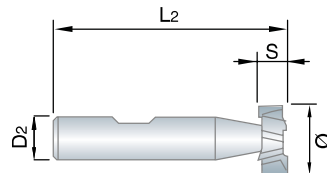
Unità : mm

Ø	S	D2	L2	Z	
32.5	5	12	71	12	T304032505
32.5	6	12	71	12	T304032506
32.5	7	12	71	12	T304032507
32.5	8	12	71	12	T304032508
32.5	10	12	71	12	T304032510
38.5	7	12	71	12	T304038507
38.5	8	12	71	12	T304038508
38.5	9	12	71	12	T304038509
38.5	10	12	71	12	T304038510
45.5	10	12	71	14	T304045510

FRESA HSS-E PER SCANALATURE A T DENTI ALTERNATI



HSS-E T-SLOT CUTTER TYPE "AA", "AB", "AD" END MILL



T3043

INF. TEC. PAG.
D39

851

HSS-E

10°

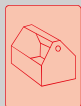
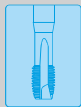


**P1 P2
P3 P4**

P5 N1

Unità : mm

Ø	S	D2	D3	L2	Z	
12.5	6	10	5	57	6	T30431250
16.0	8	10	6.5	62	6	T30431600
18.0	8	12	8	70	6	T30431800
19.0	9	12	8	71	6	T30431900
21.0	9	12	10	74	6	T30432100
22.0	10	12	10	75	6	T30432200
25.0	11	16	12	82	6	T30432500
28.0	12	16	13	83	6	T30432800
32.0	14	16	15	90	8	T30433200
36.0	16	25	17	103	8	T30433600
40.0	18	25	19	108	8	T30434000


T3004

DESCRIZIONE MATERIALI	Vc	fn		
		Ø ≤10	Ø ≤20	Ø ≤30
Acciaio < 500 N/mm ²	35 - 40	0,20	0,22	0,24
Acciaio < 750 N/mm ²	20 - 30	0,14	0,17	0,20
Acciaio < 900 N/mm ²	15 - 20	0,11	0,12	0,14
Acciaio < 1100 N/mm ²	12 - 15	0,10	0,12	0,15
Acciaio < 1500 N/mm ²				
INOX < 800 N/mm ²	12 - 15	0,10	0,12	0,15
INOX > 800 N/mm ²	6 - 8	0,07	0,08	0,09
Ghisa	20 - 40	0,15	0,24	0,28
Leghe Alluminio < 10% Si	50 - 60	0,22	0,25	0,27
Leghe Alluminio > 10% Si				
Materiali non ferrosi	50 - 100	0,50	0,60	0,65

T3007

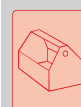
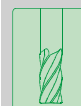
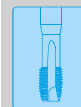
DESCRIZIONE MATERIALI	Vc	fn		
		Ø ≤10	Ø ≤20	Ø ≤30
Acciaio < 500 N/mm ²	35 - 40	0,20	0,22	0,24
Acciaio < 750 N/mm ²	20 - 30	0,14	0,17	0,20
Acciaio < 900 N/mm ²	15 - 20	0,11	0,12	0,14
Acciaio < 1100 N/mm ²	12 - 15	0,10	0,12	0,15
Acciaio < 1500 N/mm ²				
INOX < 800 N/mm ²	12 - 15	0,10	0,12	0,15
INOX > 800 N/mm ²	6 - 8	0,07	0,08	0,09
Ghisa	20 - 40	0,15	0,24	0,28
Leghe Alluminio < 10% Si	50 - 60	0,22	0,25	0,27
Leghe Alluminio > 10% Si				
Materiali non ferrosi	50 - 100	0,50	0,60	0,65

T3010 - T3013 - T4001

DESCRIZIONE MATERIALI	Vc	fn		
		Ø ≤ 10	Ø ≤ 20	Ø ≤ 30
Acciaio < 500 N/mm ²	17 - 22	0,30	0,32	0,36
Acciaio < 750 N/mm ²	10 - 15	0,28	0,30	0,31
Acciaio < 900 N/mm ²	8 - 12	0,24	0,26	0,28
Acciaio < 1100 N/mm ²	6 - 8	0,20	0,20	0,22
Acciaio < 1500 N/mm ²				
INOX < 800 N/mm ²	6 - 8	0,20	0,20	0,22
INOX > 800 N/mm ²	4 - 6	0,08	0,09	0,10
Ghisa	15 - 25	0,13	0,19	0,24
Leghe Alluminio < 10% Si	35 - 45	0,27	0,30	0,35
Leghe Alluminio > 10% Si				
Materiali non ferrosi	35 - 70	0,40	0,45	0,50

T3016 - T3019 - T3022

DESCRIZIONE MATERIALI	Vc	fn					
		Ø ≤ 4	Ø ≤ 8	Ø ≤ 13	Ø ≤ 20	Ø ≤ 30	Ø > 30
Acciaio < 500 N/mm ²	12 - 16	0,05 - 0,15	0,10 - 0,20	0,15 - 0,25	0,20 - 0,30	0,25 - 0,40	0,35 - 0,50
Acciaio < 750 N/mm ²	10 - 12	0,05 - 0,15	0,10 - 0,20	0,15 - 0,25	0,20 - 0,30	0,25 - 0,40	0,35 - 0,50
Acciaio < 900 N/mm ²	6 - 8	0,05 - 0,10	0,08 - 0,16	0,10 - 0,20	0,15 - 0,25	0,20 - 0,30	0,30 - 0,40
INOX < 800 N/mm ²	4 - 6	0,03 - 0,08	0,06 - 0,10	0,08 - 0,15	0,10 - 0,20	0,15 - 0,25	0,20 - 0,30
INOX > 800 N/mm ²							
Ghisa	10 - 12	0,05 - 0,10	0,08 - 0,16	0,10 - 0,20	0,15 - 0,25	0,20 - 0,30	0,30 - 0,40
Leghe Alluminio < 10% Si	16 - 20	0,10 - 0,20	0,15 - 0,25	0,20 - 0,30	0,25 - 0,40	0,35 - 0,50	0,40 - 0,60
Leghe Alluminio > 10% Si							
Materiali non ferrosi	8 - 12	0,10 - 0,20	0,20 - 0,30	0,30 - 0,40	0,40 - 0,50	0,50 - 0,60	0,60 - 0,80



T3028

MATERIALI	UNITÀ	Ø(mm)						
		50,00	63,00	80,00	100,00	125,00	160,00	200,00
Acciai < 500 N/mm ²	n (giri/min)	160	125	100	80	63	50	40
	Vf (mm/min)	130	160	145	130	100	105	95
Acciai < 750 N/mm ²	n (giri/min)	115	90	70	60	45	37	31
	Vf (mm/min)	85	75	69	60	54	48	45
Acciai < 1100 N/mm ²	n (giri/min)	95	75	60	47	38	30	25
	Vf (mm/min)	58	51	48	41	38	34	31
Acciai < 1500 N/mm ²	n (giri/min)	76	60	47	38	30	23	19
	Vf (mm/min)	42	38	34	30	26	24	22
Leghe di Alluminio	n (giri/min)	630	500	400	320	250	200	160
	Vf (giri/min)	200	250	250	200	200	150	150

T3031 - T3034

MATERIALI	UNITÀ	Ø(mm)						
		16,00	20,00	25,00	32,00	40,00	50,00	63,00
Acciai < 500 N/mm ²	n (giri/min)	615	500	380	300	250	190	150
	Vf (mm/min)	110	110	80	125	130	90	75
Acciai < 750 N/mm ²	n (giri/min)	305	255	190	155	125	100	80
	Vf (mm/min)	57	55	47	64	64	42	40
Acciai < 1100 N/mm ²	n (giri/min)	215	180	135	100	90	75	60
	Vf (mm/min)	40	38	30	40	45	36	32
Acciai < 1500 N/mm ²	n (giri/min)	160	125	100	80	60	50	40
	Vf (mm/min)	20	15	16	16	16	16	15
Leghe di Alluminio	n (giri/min)	1850	1350	1150	920	765	550	450
	Vf (giri/min)	336	324	270	375	387	265	240

T3037

MATERIALI	UNITÀ	Ø(mm)			
		16,00	20,00	25,00	32,00
Acciai < 500 N/mm ²	n (giri/min)	615	500	380	300
	Vf (mm/min)	110	110	80	125
Acciai < 750 N/mm ²	n (giri/min)	305	255	190	155
	Vf (mm/min)	57	55	47	64
Acciai < 1100 N/mm ²	n (giri/min)	215	180	135	100
	Vf (mm/min)	40	38	30	40
Acciai < 1500 N/mm ²	n (giri/min)	160	125	100	80
	Vf (mm/min)	20	15	16	16
Leghe di Alluminio	n (giri/min)	1850	1350	1150	920
	Vf (giri/min)	336	324	270	375

T3040

MATERIALI	UNITÀ	Ø(mm)							
		10,50	13,50	16,50	19,50	22,50	28,50	32,50	45,50
Acciai < 500 N/mm ²	n (giri/min)	900	700	570	480	420	330	290	210
	Vf (mm/min)	72	56	114	134	168	165	209	206
Acciai < 750 N/mm ²	n (giri/min)	600	470	380	320	280	220	190	130
	Vf (mm/min)	48	38	76	90	112	110	137	127
Acciai < 1100 N/mm ²	n (giri/min)	480	370	300	260	220	180	155	110
	Vf (mm/min)	38	30	60	73	88	90	112	108
Acciai < 1500 N/mm ²	n (giri/min)	300	230	190	160	140	110	90	70
	Vf (mm/min)	24	18	38	45	56	55	65	69
Leghe di Alluminio	n (giri/min)	3000	2300	1900	1600	1400	1100	900	700
	Vf (giri/min)	240	184	380	448	560	550	648	686

T3043

MATERIALI	UNITÀ	Ø(mm)										
		12,50	16,00	18,00	19,00	21,00	22,00	25,00	28,00	32,00	50,00	63,00
Acciai < 500 N/mm ²	n (giri/min)	770	600	550	500	470	440	390	345	310	270	240
	Vf (mm/min)	38	45	47	50	52	55	65	75	90	80	70
Acciai < 750 N/mm ²	n (giri/min)	380	300	270	250	230	220	190	170	150	135	120
	Vf (mm/min)	16	19	20	20	22	25	30	38	42	40	38
Acciai < 1100 N/mm ²	n (giri/min)	270	210	195	180	160	150	135	120	100	90	85
	Vf (mm/min)	8	9	12	15	16	17	18	20	20	20	20
Leghe di Alluminio	n (giri/min)	2350	1830	1680	1540	1430	1330	1170	1040	910	800	730
	Vf (giri/min)	110	140	150	160	165	170	180	210	250	230	210

T3001

MATERIALI	UNITÀ	Ø(mm)							
		6,00	6,50	8,00	10,00	11,00	15,00	18,00	20,00
Leghe di Alluminio	n (giri/min)	2100	2100	1700	1200	1100	840	670	550
Acciai < 500 N/mm ²	n (giri/min)	590	590	470	380	300	240	190	160
Acciai < 900 N/mm ²	n (giri/min)	480	480	380	320	240	195	160	125
Acciai < 1100 N/mm ²	n (giri/min)	380	380	300	260	190	155	120	95
Acciai < 1500 N/mm ²	n (giri/min)	320	320	250	170	160	130	80	70

T1100

MATERIALI	UNITÀ	Ø(mm)								
		3,00	4,00	5,00	6,00	8,00	10,00	12,00	16,00	20,00
Acciai < 750 N/mm ²	n (giri/min)	5900	4800	3800	3000	2300	2000	1760	1300	1100
	Vf (mm/min)	95	95	100	110	115	120	130	140	140
Acciai < 900 N/mm ²	n (giri/min)	3900	3200	2500	2000	1540	1300	1100	900	700
	Vf (mm/min)	65	65	65	70	75	80	90	90	90
Acciai < 1100 N/mm ²	n (giri/min)	3300	2800	2200	1800	1300	1200	1000	770	600
	Vf (mm/min)	50	50	55	60	65	65	70	70	70
Acciai Temprati > 45 HRC	n (giri/min)	2400	2000	1760	1400	1100	1000	840	660	440
	Vf (mm/min)	40	40	45	50	55	55	60	60	60
Leghe di Alluminio	n (giri/min)	14000	12000	9500	7700	5800	5100	4400	3300	2640
	Vf (giri/min)	230	240	250	300	350	380	400	330	340

T3025

MATERIALI	UNITÀ	Ø(mm)											
		8,00	9,00	10,00	11,00	12,00	14,00	16,00	20,00	24,00	28,00	34,00	48,00
		R 1	R 1,5	R 2	R 2,5	R 3	R 4	R 5	R 6	R 8	R 10	R 12	R 16
Leghe di Alluminio	n (giri/min)	3500	2800	2800	2400	2400	2000	1600	1400	1200	950	800	600
	Vf (giri/min)	245	230	220	220	210	200	200	190	180	170	160	140
Acciai < 500 N/mm ²	n (giri/min)	800	630	630	530	530	450	350	310	260	210	180	130
	Vf (mm/min)	55	55	50	45	45	45	40	40	40	35	35	30
Acciai < 750 N/mm ²	n (giri/min)	600	470	470	390	390	330	260	230	190	155	130	95
	Vf (mm/min)	35	30	30	30	30	30	30	30	30	25	25	20
Acciai < 1100 N/mm ²	n (giri/min)	480	380	380	315	315	270	210	185	155	125	105	75
	Vf (mm/min)	35	35	30	30	30	25	25	25	25	25	20	15