

DISCOS DE CORTE



BLUE-MASTER[®]
by *celesa*

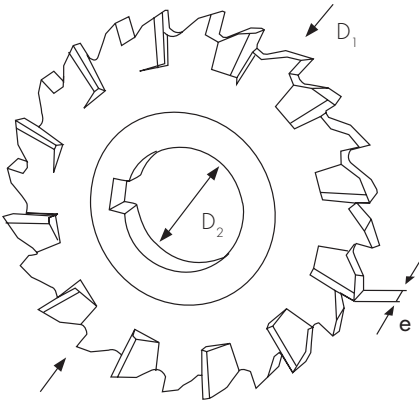
CUTTING TECHNOLOGIES

FRESA PARA RANURAR HSSCo DE 3 CORTES CON DIENTE CRUZADO



Ref. FF56

HSSCo
DIN
885A



FF56				
D1 mm	e mm	D2 mm	Z	€
50	4,0	16	12	101,45
50	5,0	16	12	101,45
50	6,0	16	12	117,56
50	8,0	16	12	114,49
50	10,0	16	12	126,07
63	1,6	22	16	217,28
63	2,0	22	16	192,37
63	2,5	22	16	196,38
63	3,0	22	16	201,77
63	4,0	22	12	117,06
63	5,0	22	12	117,06
63	6,0	22	12	120,37
63	8,0	22	12	131,17
63	10,0	22	12	141,14
63	12,0	22	12	150,70
63	14,0	22	12	162,32
63	16,0	22	12	170,86
63	18,0	22	12	204,13
80	1,6	27	20	217,17
80	2,0	27	20	210,94
80	2,5	27	20	214,46
80	3,0	27	20	210,20
80	4,0	27	20	251,47
80	5,0	27	14	159,03
80	6,0	27	14	162,78
80	8,0	27	14	171,79
80	10,0	27	14	183,85
80	12,0	27	14	196,80
80	14,0	27	14	210,44
80	16,0	27	14	215,30
80	18,0	27	14	230,95
80	20,0	27	14	253,94

FF56				
D1 mm	e mm	D2 mm	Z	€
100	1,6	32	24	259,79
100	2,0	32	24	258,38
100	2,5	32	24	258,13
100	3,0	32	24	250,62
100	4,0	32	24	270,19
100	5,0	32	24	286,43
100	6,0	32	16	223,55
100	8,0	32	16	228,26
100	10,0	32	16	236,64
100	12,0	32	16	254,87
100	14,0	32	16	280,60
100	16,0	32	16	294,31
100	18,0	32	16	324,42
100	20,0	32	16	324,42
100	22,0	32	16	363,66
100	25,0	32	16	395,59
125	1,6	32	16	328,54
125	2,0	32	16	316,00
125	2,5	32	16	323,86
125	3,0	32	16	331,74
125	4,0	32	16	355,40
125	5,0	32	16	380,43
125	6,0	32	16	389,83
125	8,0	32	18	352,58
125	10,0	32	18	361,78
125	12,0	32	18	375,49
125	14,0	32	18	407,77
125	16,0	32	18	432,99
125	18,0	32	18	457,99
125	20,0	32	18	487,28
125	22,0	32	18	554,84
125	25,0	32	18	560,21
125	28,0	32	18	612,31

FF56				
D1 mm	e mm	D2 mm	Z	€
160	2,0	40	30	528,80
160	2,5	40	30	509,08
160	3,0	40	30	518,86
160	4,0	40	30	548,26
160	5,0	40	30	580,59
160	6,0	40	30	623,39
160	8,0	40	30	711,53
160	10,0	40	22	584,40
160	12,0	40	22	584,40
160	14,0	40	22	581,54
160	16,0	40	22	636,44
160	18,0	40	22	670,62
160	20,0	40	22	688,38
160	22,0	40	22	756,64
160	25,0	40	22	819,87
160	28,0	40	22	901,24
160	32,0	40	22	963,61
200	12,0	40	24	891,45
200	14,0	40	24	900,17
200	16,0	40	24	927,38
200	18,0	40	24	973,03
200	20,0	40	24	1.040,66
200	22,0	40	24	1.044,09
200	25,0	40	24	1.211,11
200	28,0	40	24	1.249,39
200	32,0	40	24	1.558,18

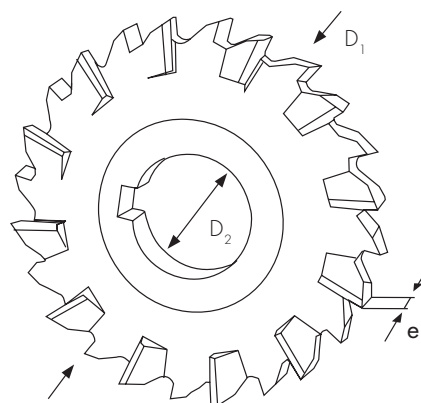
FRESA PARA RANURAR HSSCo DE 3 CORTES CON DIENTE RECTO



Ref. FF59

HSSCo

DIN
885B



FF59				
D1 mm	e mm	D2 mm	Z	€
50	4	16	16	101,13
50	5	16	16	101,13
50	6	16	16	117,21
50	8	16	16	114,15
50	10	16	16	125,70
63	4	22	18	117,82
63	5	22	18	117,82
63	6	22	18	119,38
63	8	22	18	129,79
63	10	22	18	139,66
63	12	22	18	149,59
63	14	22	18	161,10
63	16	22	18	170,40
63	18	22	18	203,52
80	5	27	20	158,48
80	6	27	20	162,66
80	8	27	20	171,65
80	10	27	20	183,24
80	12	27	20	196,19
80	14	27	20	209,81
80	16	27	20	215,26
80	18	27	20	230,91
80	20	27	20	253,89

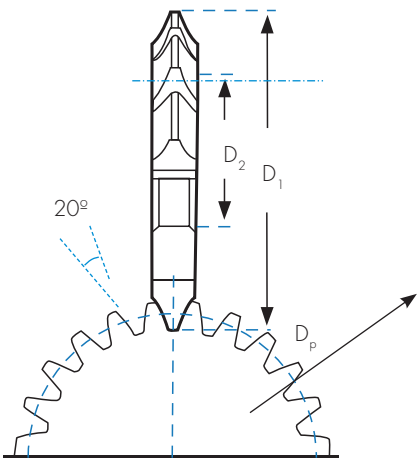
FF59				
D1 mm	e mm	D2 mm	Z	€
100	6	32	22	221,28
100	8	32	22	227,56
100	10	32	22	235,88
100	12	32	22	254,04
100	14	32	22	279,69
100	16	32	22	296,32
100	18	32	22	324,36
100	20	32	22	324,36
100	22	32	22	362,57
100	25	32	22	396,62
125	8	32	24	352,37
125	10	32	24	361,56
125	12	32	24	375,27
125	14	32	24	407,54
125	16	32	24	428,46
125	18	32	24	457,85
125	20	32	24	487,14
125	22	32	24	554,69
125	25	32	24	560,07
125	28	32	24	612,12

FF59				
D1 mm	e mm	D2 mm	Z	€
160	10	40	28	584,23
160	12	40	28	584,23
160	14	40	28	581,38
160	16	40	28	636,25
160	18	40	28	670,43
160	20	40	28	688,19
160	22	40	28	756,42
160	25	40	28	819,64
160	28	40	28	900,98
160	32	40	28	963,33
200	12	40	30	891,19
200	14	40	30	899,92
200	16	40	30	927,13
200	18	40	30	972,76
200	20	40	30	1.040,37
200	22	40	30	1.043,80
200	25	40	30	1.210,78
200	28	40	30	1.249,05
200	32	40	30	1.557,76

FRESA DE MÓDULO PARA TALLADO DE ENGRANAJES

HSS

Ref. 99RFM



NÚMERO DE FRESA / DIENTES A TALLAR

Nº1	Nº2	Nº3	Nº4	Nº5	Nº6	Nº7	Nº8	Set
12-13	14-16	17-20	21-25	26-34	35-54	55-134	135-∞	12-∞

Mód. = $\frac{\varnothing_{Est}}{(Z+2)}$

NOTA: El precio depende del módulo, independientemente del nº de dientes a tallar.

			99RFM
MÓDULO FRESA	D1 mm	D2 mm	€
0,50	40	16	126,50
0,70	40	16	126,50
0,75	40	16	126,50
0,80	40	16	126,50
1,00	50	16	126,50
1,25	50	16	126,50
1,50	56	22	129,90
1,75	56	22	129,90
2,00	63	22	129,90
2,25	63	22	152,24
2,50	63	22	152,24
2,75	71	27	152,24
3,00	71	27	152,24
3,25	71	27	200,90
3,50	80	27	200,90
3,75	80	27	200,90
4,00	80	27	200,90
4,50	90	32	275,36
5,00	90	32	275,36
6,00	100	32	348,66
7,00	100	32	348,66

FRESAS CILÍNDRICAS, FRONTALES CON CHAVETERO TRANSVERSAL HSSCo

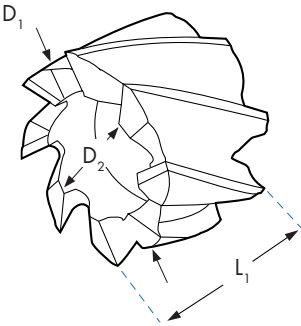
Ref. FF87

HSSCo

DIN
1880



ACABADO



Ref. FF88

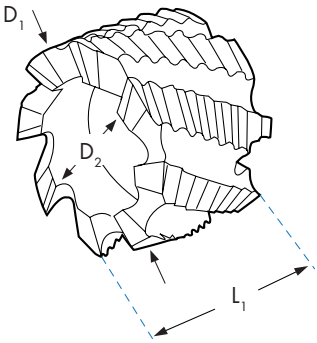
HSSCo

DIN
1880



NR

DESABASTE



FF87				
D1 mm	D2 mm	L1 mm	Z	€
40	16	32	8	133,41
50	22	36	8	183,56
63	27	40	8	250,82
80	27	45	10	355,01
100	32	50	12	571,53
125	40	56	14	917,83
160	50	63	16	1.640,35

FF88				
D1 mm	D2 mm	L1 mm	Z	€
40	16	32	6	193,22
50	22	36	6	239,94
63	27	40	8	317,91
80	27	45	8	467,27
100	32	50	10	770,93
125	40	56	12	1.307,90
160	50	63	14	2.269,40

FRESAS CILÍNDRICAS, FRONTALES CON CHAVETERO TRANSVERSAL HSSCo



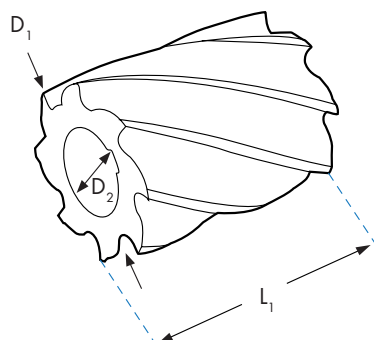
Ref. FF89

HSSCo

**DIN
884**



CILÍNDRICA PARA PLANEAR



FF89					
D1 mm	D2 mm	L1 mm	Z	€	
50	22	63	8	167,15*	
50	22	80	8	249,17*	
63	27	50	8	219,34*	
63	27	70	8	266,86*	
80	32	63	8	369,69*	
100	40	70	10	575,17*	

*Hasta fin de existencias

FRESAS CILÍNDRICAS, FRONTALES PARA PLANEAR CON MANGO

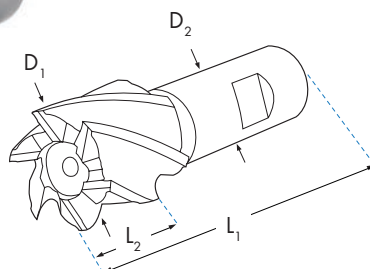


Ref. FMF87

**HSSCo
8%**



ACABADO



FMF87					
D1 mm	L2 mm	L1 mm	D2 mm	Z	€
30	30	90	20	6	194,48
35	30	90	20	6	223,19
40	32	95	25	8	278,17

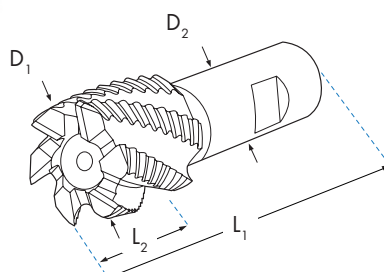


Ref. FMF88

**HSSCo
8%**



DESBASTE



FMF88					
D1 mm	L2 mm	L1 mm	D2 mm	Z	€
30	30	90	20	6	224,83
35	30	90	20	6	288,03
40	32	95	25	8	352,84

FRESAS ANGULARES ISÓSCELES HSSCo

Ref. FF77

HSSCo

DIN 847

45°

Ref. FF78

HSSCo

DIN 847

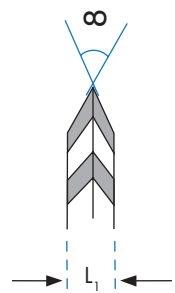
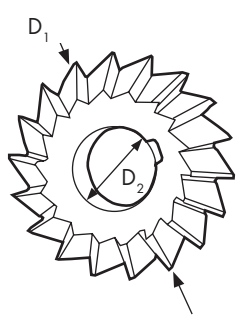
60°

Ref. FF79

HSSCo

DIN 847

90°



FF77						FF78						FF79					
D1 mm	D2 mm	L1 mm	∞	Z	€	D1 mm	D2 mm	L1 mm	∞	Z	€	D1 mm	D2 mm	L1 mm	∞	Z	€
50	16	8	45°	20	178,09	50	16	10	60°	18	181,59	50	16	14	90°	16	181,59
63	22	10	45°	22	211,83	63	22	14	60°	20	215,99	63	22	20	90°	18	215,99
80	27	12	45°	24	295,76	80	27	18	60°	22	301,55	80	27	22	90°	20	301,55
100	32	18	45°	26	369,75	100	32	25	60°	24	377,00	100	32	32	90°	22	377,00

FRESAS ANGULARES FRONTALES HSSCo

Ref. FF91

HSSCo

DIN 842

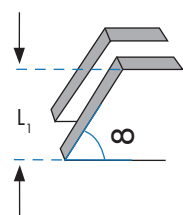
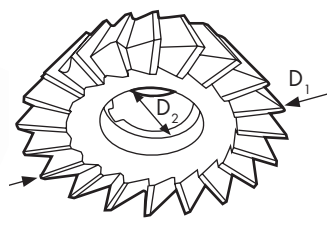
50°

Ref. FF90

HSSCo

DIN 842

60°



FF91						FF90					
D1 mm	D2 mm	L1 mm	∞	Z	€	D1 mm	D2 mm	L1 mm	∞	Z	€
40	10	13	50°	14	140,82	40	10	13	60°	14	138,08
50	13	16	50°	16	173,65	50	13	16	60°	16	170,28
63	16	20	50°	18	219,51	63	16	20	60°	18	215,25
80	22	25	50°	20	316,26	80	22	25	60°	20	310,13
100	27	32	50°	22	458,70	100	27	32	60°	22	449,78
125	32	40	50°	24	757,47	125	32	40	60°	24	742,79
160	40	50	50°	30	1.325,02	160	40	50	60°	30	1.299,30