



FRESAS HSS

FRESAS 2 LABIOS - MANGO WELDON






Referencia	5030011 5030016 5048011			5031211 5031216		5048091
Tipo	SERIE CORTA	SERIE CORTA	PUNTA BOLA SERIE CORTA	SERIE LARGA		PUNTA BOLA SERIE LARGA
Calidad	HSS-Co	HSS-Co	HSS-Co	HSS-Co	HSS-Co	HSS-Co
Acabado	BRILLANTE	TiCN	BRILLANTE	BRILLANTE	TiCN	BRILLANTE
DIN	327	327	844	844	844	844
Ángulo						
Aplicación	≤1100 N/mm ²	≤1400 N/mm ²	≤1100 N/mm ²	≤1100 N/mm ²	≤1400 N/mm ²	≤1100 N/mm ²

Ø mm	Mango	Long. Corte	Long. Total	€	€	€	Long. Corte	Long. Total	€	€	Long. Corte	Long. Total	€
2,0	6	4	48	12,10	17,90	-	-	-	-	-	-	-	-
2,5	6	5	49	12,10	17,90	-	-	-	-	-	-	-	-
3,0	6	5	49	11,10	17,90	21,90	9	60	13,27	21,00	8	56	20,91
3,5	6	6	50	12,10	17,90	-	-	-	18,57	-	-	-	-
4,0	6	7	51	11,10	17,90	21,90	13	67	16,44	21,00	11	63	20,91
4,5	6	7	51	12,10	17,90	-	-	-	-	-	-	-	-
5,0	6	8	52	11,10	17,90	21,90	13	71	16,44	21,00	13	68	20,91
5,5	6	8	52	12,10	17,90	-	-	-	-	-	-	-	-
6,0	6	8	52	10,80	17,90	21,39	16	75	16,24	21,00	13	68	20,91
6,5	10	10	60	14,73	19,11	-	-	-	-	-	-	-	-
7,0	10	10	60	15,33	24,63	29,56	16	75	23,01	27,72	-	-	-
7,5	10	10	60	15,33	20,58	-	-	-	-	-	-	-	-
8,0	10	11	61	15,33	24,63	28,25	20	80	22,39	27,72	19	88	26,84
8,5	10	11	61	17,86	27,14	-	-	-	-	-	-	-	-
9,0	10	11	61	16,34	27,14	28,95	-	-	26,30	-	-	-	-
9,5	10	11	61	17,86	27,14	-	-	-	-	-	-	-	-
10,0	10	13	63	15,94	27,14	28,95	22	80	23,21	30,23	22	95	26,84
11,0	12	13	70	20,48	28,50	-	-	-	28,95	-	-	-	71,17
12,0	12	16	73	20,28	34,30	31,78	25	100	27,65	38,60	26	110	35,24
13,0	12	16	73	22,37	43,19	39,84	-	-	39,49	-	26	110	-
14,0	12	16	73	22,37	43,19	38,34	28	100	31,27	47,93	26	110	40,71
15,0	12	16	73	26,02	47,48	42,36	-	-	38,34	72,31	26	110	45,86
16,0	16	19	79	27,52	49,19	41,36	32	116	38,34	54,77	32	123	47,66
17,0	16	19	79	35,31	60,00	49,42	-	-	-	-	-	-	-
18,0	16	19	79	33,80	60,00	49,43	35	118	47,41	67,08	32	123	58,85
19,0	16	19	79	41,86	67,87	-	-	-	-	-	-	-	55,59
20,0	20	22	88	40,50	67,87	51,81	38	125	84,68	101,79	38	141	68,23
22,0	20	22	88	44,98	76,50	85,74	40	140	97,84	193,78	38	141	76,06
24,0	25	22	102	64,67	99,63	85,74	-	-	97,84	213,14	-	-	84,72
25,0	25	26	102	64,67	99,63	78,69	45	160	87,76	213,14	45	166	103,57
26,0	25	26	102	86,01	-	85,30	-	-	-	-	-	-	98,53
28,0	25	26	102	93,51	-	98,21	-	-	-	-	-	-	121,04
30,0	25	26	102	108,96	158,41	-	-	-	-	-	-	-	128,54
32,0	32	32	112	122,83	-	-	-	-	-	-	-	-	-
34,0	32	32	112	150,52	-	-	-	-	-	-	-	-	-
36,0	32	32	112	159,97	-	-	-	-	-	-	-	-	-
38,0	40	38	130	175,63	-	-	-	-	-	-	-	-	-
40,0	40	38	130	186,34	-	-	-	-	-	-	-	-	-

FRESAS HSS

FRESAS 3 LABIOS - MANGO WELDON



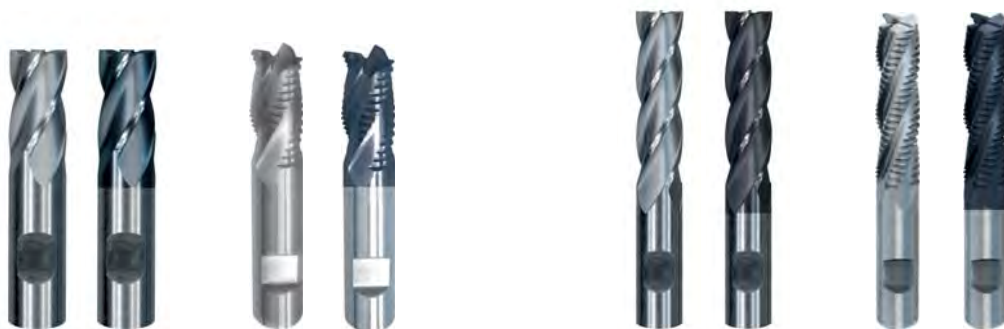
Referencia	5036011	5036016	5061632
Tipo	SERIE CORTA		SERIE LARGA
Calidad	HSS-Co	HSS-Co	HSS-Co
Acabado	BRILLANTE	TiCN	BRILLANTE
DIN	844	844	844
Ángulo			
Aplicación	INOX	INOX	INOX

Ø mm	Mango	Long. Corte	Long. Total	€	€	Long. Corte	Long. Total	€
1,5	6	7	51	-	-	-	-	-
2,0	6	7	51	13,27	-	-	-	-
2,5	6	8	52	13,27	-	-	-	-
3,0	6	8	52	13,27	21,00	12	56	17,33
3,5	6	10	54	14,42	-	-	-	-
4,0	6	11	55	13,27	-	19	63	-
4,5	6	11	55	14,42	-	-	-	-
5,0	6	13	57	13,27	21,00	24	68	-
5,5	6	13	57	14,42	-	-	-	-
6,0	6	13	57	13,27	21,00	24	68	-
6,5	10	16	66	20,78	-	-	-	-
7,0	10	16	66	-	-	30	80	24,28
7,5	10	16	66	-	-	-	-	-
8,0	10	19	69	18,57	27,72	38	88	-
8,5	10	19	69	-	-	-	-	-
9,0	10	19	69	20,69	30,23	38	88	-
10,0	10	22	72	19,17	30,23	45	95	-
11,0	12	26	83	25,04	-	-	-	-
12,0	12	26	83	25,04	39,89	53	110	-
13,0	12	26	83	-	-	-	-	-
14,0	12	26	83	27,74	-	53	110	36,91
15,0	12	26	83	32,22	-	-	-	-
16,0	16	32	92	33,79	56,60	63	123	-
18,0	16	32	92	41,61	-	63	123	55,66
19,0	16	32	92	-	-	-	-	-
20,0	20	38	104	45,68	-	75	141	66,42
21,0	20	38	104	-	-	-	-	-
22,0	20	38	104	55,48	-	75	141	74,26
24,0	25	45	121	79,95	-	-	-	-
25,0	25	45	121	83,21	-	90	166	-
28,0	25	45	121	78,32	-	-	-	-
30,0	25	45	121	140,36	-	-	-	-



FRESAS HSS

FRESAS 4-6 LABIOS - MANGO WELDON






Referencia	5040011 5040016		5046081 5046088		5041011 5041016		5047081 5047088									
Tipo	SERIE CORTA				DESBASTE SERIE CORTA				SERIE LARGA				DESBASTE SERIE LARGA			
Calidad	HSS-Co		HSS-Co		HSS-Co		HSS-Co		HSS-Co		HSS-Co		HSS-Co		HSS-Co	
Acabado	BRILLANTE		TiCN		BRILLANTE		TiCN		BRILLANTE		TiCN		BRILLANTE		TiCN	
DIN	844		844		844		844		844		844		844		844	
Ángulo	30°		30°		30°		30°		30°		30°		30°		30°	
Aplicación	≤1100 N/mm²		≤1400 N/mm²		≤1100 N/mm²		≤1400 N/mm²		≤1100 N/mm²		≤1400 N/mm²		≤1100 N/mm²		≤1400 N/mm²	

Ø mm	Mango	Long. Corte	Long. Total	Nº Labios	€	€	Nº Labios	€	€	Long. Corte	Long. Total	Nº Labios	€	€	Nº Labios	€	€
2,0	6	7	51	4	14,22	21,00	-	-	-	-	-	-	-	-	-	-	-
3,0	6	8	52	4	13,27	21,00	-	-	-	12	56	4	19,58	25,67	-	-	-
3,5	6	10	54	4	14,22	21,00	-	-	-	15	59	4	17,25	-	-	-	-
4,0	6	11	55	4	13,27	21,00	-	-	-	19	63	4	19,58	25,67	-	-	-
4,5	6	11	55	4	14,22	21,00	-	-	-	19	63	4	-	-	-	-	-
5,0	6	13	57	4	13,27	21,00	-	-	-	24	68	4	19,58	25,67	-	-	-
5,5	6	13	57	4	14,22	21,00	-	-	-	-	-	-	-	-	-	-	-
6,0	6	13	57	4	13,27	21,00	3	28,52	38,92	24	68	4	19,07	25,67	3	36,91	48,76
6,5	10	16	57	4	18,76	27,72	-	-	-	-	-	-	-	-	-	-	-
7,0	10	16	66	4	17,96	27,72	3	30,31	42,24	30	80	4	24,22	35,07	3	39,83	53,40
8,0	10	19	69	4	17,96	27,72	3	30,31	42,24	38	88	4	24,22	35,07	3	39,83	53,40
8,5	10	19	69	4	22,90	30,23	-	-	-	-	-	-	-	-	-	-	-
9,0	10	19	69	4	21,40	30,23	3	33,09	44,74	38	88	4	24,22	37,58	3	39,83	55,91
9,5	10	19	69	4	-	-	-	-	-	-	-	-	-	-	-	-	-
10,0	10	22	72	4	19,88	30,23	4	30,31	44,74	45	95	4	25,42	37,58	4	39,83	55,91
11,0	12	22	79	4	25,04	39,89	4	35,01	50,18	53	110	4	-	-	4	46,10	64,62
12,0	12	26	83	4	25,04	39,89	4	33,80	50,18	53	110	4	34,01	50,42	4	46,10	64,62
13,0	12	26	83	4	25,73	-	4	42,86	67,25	53	110	4	-	60,92	4	64,32	92,45
14,0	12	26	83	4	25,04	46,33	4	42,86	67,25	53	110	4	38,71	62,39	4	64,32	92,45
15,0	12	26	83	-	28,25	52,89	4	46,10	71,04	53	110	4	44,98	-	4	67,35	92,45
16,0	16	32	92	4	33,79	56,60	4	48,09	73,40	63	123	4	47,42	72,61	4	67,35	96,00
17,0	16	32	92	4	-	69,17	4	50,57	79,70	63	123	4	50,78	79,94	4	76,50	110,13
18,0	16	32	92	4	41,61	69,17	4	51,87	81,21	63	123	4	51,45	79,94	4	76,50	110,13
19,0	16	32	92	4	-	73,95	4	58,22	88,68	63	123	4	-	98,29	4	84,33	119,33
20,0	20	38	104	4	45,68	73,99	4	58,16	88,61	75	141	4	69,79	102,27	4	84,33	119,33
22,0	20	38	104	6	55,60	88,98	5	73,63	110,09	75	166	6	90,79	110,89	5	116,33	160,29
24,0	25	45	121	6	74,52	111,20	5	88,83	128,02	90	166	6	106,49	148,75	5	128,54	174,64
25,0	25	45	121	6	79,84	117,45	5	88,83	128,02	90	166	6	106,49	148,75	5	128,54	174,64
26,0	25	45	121	6	98,89	146,59	6	99,55	147,36	-	-	-	99,87	237,90	6	140,85	195,86
28,0	25	45	121	6	120,14	171,54	6	113,44	162,58	90	166	6	136,37	190,60	6	168,34	228,14
30,0	25	45	121	6	129,53	182,57	6	131,79	185,20	90	166	6	151,68	208,57	6	195,97	260,59
32,0	32	53	133	6	140,36	195,29	6	143,45	198,92	100	170	6	166,02	225,41	6	208,28	275,04
35,0	32	53	133	-	-	-	6	208,07	-	-	-	-	-	-	6	-	-
36,0	32	53	133	6	186,04	-	6	202,78	-	-	-	-	-	-	6	-	-
38,0	32	63	155	-	-	-	6	221,94	-	-	-	-	-	-	6	-	-
40,0	32	63	155	6	229,52	-	6	257,90	-	-	-	-	-	-	6	-	-
50,0	50	75	177	-	-	-	6	-	-	-	-	-	-	-	-	-	-

FRESAS HSS

FRESAS ESPECIALES - MANGO WELDON



Referencia	612721	5048711	612731
Tipo	WOODRUFF	CÓNCAVA	COLA MILANO
Calidad	HSS-Co	HSS-Co	HSS-Co
Acabado	BRILLANTE	BRILLANTE	BRILLANTE
DIN	850	6518	6518
Ángulo	 0°	 30°	 0°
Aplicación	≤1100 N/mm²	≤1100 N/mm²	≤1100 N/mm²

Ø mm	Mango	Long. Corte	Long. Total	Nº labios	€	Ø mm	R	Mango	Long. Total	€	Ø mm	Mango	Long. Total	Nº labios	Long. Corte	Angulo	€
10,5	6	2,0	50	6	-	8,0	1,0	10	60	50,66	16	12	60	6	6,3	60°	-
10,5	6	2,5	50	6	27,59	9,0	1,5	10	60	-	20	12	63	8	6	45°	-
10,5	6	3,0	50	6	-	10,0	2,0	10	60	50,66	20	12	63	8	8	60°	-
13,5	10	2,0	56	10	-	11,0	2,5	10	60	52,66	22	12	67	8	6	45°	60,72
13,5	10	2,5	56	10	31,96	12,0	3,0	12	60	58,32	22	12	67	8	9	60°	-
13,5	10	3,0	56	10	31,96	13,0	3,5	12	60	-	25	12	67	10	6,3	45°	62,25
13,5	10	4,0	56	10	-	14,0	4,0	12	60	62,09	25	12	67	10	10	60°	-
16,5	10	2,5	56	10	-	15,0	4,5	12	60	-	28	16	80	10	7,5	45°	-
16,5	10	3,0	56	10	-	16,0	5,0	12	60	67,49	28	16	80	10	11	60°	-
16,5	10	4,0	56	10	-	19,0	5,5	16	67	-	32	16	71	12	8	45°	75,98
16,5	10	5,0	56	10	-	20,0	6,0	16	67	73,90	32	16	71	12	12,5	60°	-
19,5	10	3,0	56	10	-	21,0	6,5	16	71	-	38	16	80	14	10	45°	112,08
19,5	10	4,0	56	10	-	22,0	7,0	16	71	-	38	16	80	14	16	60°	-
19,5	10	5,0	63	10	-	23,0	7,5	16	71	-	-	-	-	-	-	-	-
22,5	10	4,0	63	10	-	24,0	8,0	16	71	97,19	-	-	-	-	-	-	-
22,5	10	5,0	63	10	-	25,0	8,5	25	85	-	-	-	-	-	-	-	-
22,5	10	6,0	63	10	-	26,0	9,0	25	85	-	-	-	-	-	-	-	-
25,5	10	5,0	63	10	-	27,0	9,5	25	85	-	-	-	-	-	-	-	-
25,5	10	6,0	63	10	-	28,0	10,0	25	85	125,42	-	-	-	-	-	-	-
25,5	10	7,0	63	10	60,22	31,0	10,5	25	90	-	-	-	-	-	-	-	-
25,5	10	8,0	63	10	-	32,0	11,0	25	90	-	-	-	-	-	-	-	-
28,5	10	5,0	63	10	-	34,0	12,0	25	90	176,17	-	-	-	-	-	-	-
28,5	10	6,0	63	10	-	41,0	12,5	25	100	-	-	-	-	-	-	-	-
28,5	10	7,0	63	10	-	42,0	13,0	25	100	-	-	-	-	-	-	-	-
28,5	10	8,0	63	10	-	44,0	14,0	25	100	211,38	-	-	-	-	-	-	-
32,5	12	5,0	71	12	-	46,0	15,0	25	100	-	-	-	-	-	-	-	-
32,5	12	6,0	71	12	-	48,0	16,0	25	100	307,85	-	-	-	-	-	-	-
32,5	12	8,0	71	12	-	52,0	18,0	32	112	-	-	-	-	-	-	-	-
38,5	12	7,0	71	12	-	56,0	20,0	32	112	-	-	-	-	-	-	-	-
38,5	12	8,0	71	12	-	-	-	-	-	-	-	-	-	-	-	-	-
38,5	12	9,0	71	12	-	-	-	-	-	-	-	-	-	-	-	-	-
38,5	12	10,0	71	12	-	-	-	-	-	-	-	-	-	-	-	-	-
45,5	12	10,0	71	12	-	-	-	-	-	-	-	-	-	-	-	-	-



ESCARIADORES

ESCARIADORES DE MANO



Referencia	5073060	5075040	5075090
Tipo	DE MANO CILÍNDRICO	DE MANO CÓNICO	DE MANO AJUSTABLES
Calidad	HSS	HSS	HSS
Espiral	A IZQUIERDAS	RECTO	
Corte	A DERECHAS	A DERECHAS	A DERECHAS
Tolerancia	H7	H7	H7
Forma	FORMA B	FORMA B	FORMA B

Ø Mm	Long. Corte	Long. Total	Ø Amarre	Nº Labios	€	Ø Nominal	Ø Punta	Ø Mango	Long. Corte	Long. Total	Ø Amarre	Nº Labios	€	Símb.	Gama	Long. Corte	Long. Total	Ø Amarre	€
1,5	21	44	1,12	4	35,89	1,5	1,4	2,14	37	57	1,80	4	40,70	0	8-9	34	115	4,00	111,72
1,6	21	44	1,25	4	-	2,0	1,9	2,86	48	68	2,24	4	29,80	1	9-10	34	115	4,50	115,56
1,8	23	47	1,60	4	-	2,5	2,4	3,36	48	68	2,80	4	30,33	2	10-11	34	115	4,50	118,44
2,0	25	50	1,60	4	29,21	3,0	2,9	4,06	58	80	3,15	4	30,95	3	11-12	35	125	5,00	120,34
2,2	27	54	1,80	4	-	4,0	3,9	5,26	68	93	4,00	4	34,71	4	12-13,5	41	135	5,50	144,35
2,5	29	58	2,00	4	26,31	5,0	4,9	6,36	73	100	5,00	4	37,31	5	13,5-15,5	50	146	6,30	146,27
2,8	31	62	2,24	4	-	6,0	5,9	8,00	105	135	6,30	6	41,94	6	15,5-18	60	166	7,90	157,30
3,0	31	62	2,24	4	22,72	8,0	7,9	10,80	145	180	8,00	6	53,21	7	18-21	65	178	9,80	167,87
3,2	33	66	2,80	4	-	10,0	9,9	13,40	175	215	10,00	6	70,67	8	21-24	76	195	11,20	198,02
3,5	35	71	2,80	4	35,06	12,0	11,8	16,00	210	255	11,20	8	89,36	9	24-27,5	82	218	12,50	217,21
4,0	38	76	3,15	6	19,13	13,0	12,9	16,74	210	255	12,50	8	96,36	10	27,5-31,5	86	245	13,90	251,74
4,5	41	81	3,55	6	22,20	14,0	13,9	17,74	210	255	12,50	8	129,53	11	31,5-37	98	280	17,90	304,52
5,0	44	87	4,00	6	21,61	16,0	15,8	20,40	230	280	14,00	8	157,58	12	37-45	108	325	19,90	443,09
5,5	44	87	4,50	6	23,22	20,0	19,8	24,80	250	310	18,00	8	216,86						
6,0	47	93	4,50	6	22,23														
6,5	50	100	5,00	6	24,18														
7,0	50	100	5,60	6	23,22														
7,5	54	107	6,30	6	39,13														
8,0	58	115	6,30	6	25,83														
8,5	58	115	7,10	6	-														
9,0	62	124	7,10	6	29,87														
9,5	62	124	8,00	6	49,55														
10,0	66	133	8,00	6	29,68														
10,5	66	133	8,00	6	-														

ESCARIADORES

ESCARIADORES DE MANO



Referencia	5073060
Tipo	DE MANO CILÍNDRICO
Calidad	HSS
Espiral	A IZQUIERDAS
Corte	A DERECHAS
Tolerancia	H7
Forma	FORMA B

Ø Mm	Long. Corte	Long. Total	Ø Amarre	Nº Labios	€
11,0	66	133	9,00	6	34,71
11,5	71	142	9,00	6	52,59
12,0	71	142	10,00	6	33,50
12,5	76	152	10,00	6	57,54
13,0	76	152	10,00	6	46,14
13,5	81	163	11,20	6	68,36
14,0	81	163	11,20	8	50,23
14,5	81	163	11,20	8	-
15,0	81	163	11,20	8	52,56
15,5	81	163	12,50	8	-
16,0	87	175	12,50	8	54,89
16,5	87	175	12,50	8	-
17,0	87	175	12,50	8	58,40
17,5	87	175	14,00	8	69,41
18,0	93	188	14,00	8	64,24
19,0	93	188	16,00	8	70,08
19,5	93	188	16,00	8	-
20,0	100	201	16,00	8	68,92
21,0	100	201	16,00	8	82,93
22,0	100	201	18,00	8	78,26
23,0	107	215	18,00	8	91,12
24,0	115	231	20,00	8	95,99
25,0	115	231	20,00	8	108,17
26,0	115	231	20,00	10	113,89

Ø Mm	Long. Corte	Long. Total	Ø Amarre	Nº Labios	€
27,0	115	231	22,40	10	133,16
28,0	124	247	22,40	10	128,48
29,0	124	247	22,40	10	147,16
30,0	124	247	25,00	10	141,17
31,0	124	247	25,00	10	165,85
32,0	133	265	25,00	10	151,95
33,0	133	265	25,00	10	189,21
34,0	133	265	28,00	10	179,87
35,0	133	265	28,00	10	190,22
36,0	142	284	28,00	10	196,23
37,0	142	284	28,00	10	288,48
38,0	142	284	31,50	10	228,92
39,0	152	305	31,50	10	226,13
40,0	152	305	31,50	10	246,45
41,0	152	305	31,50	10	-
42,0	152	305	31,50	12	311,06
43,0	152	305	35,50	12	327,81
44,0	152	305	35,50	12	-
45,0	163	326	35,50	12	-
46,0	163	326	35,50	12	-
47,0	163	326	35,50	12	378,04
48,0	163	326	40,00	12	401,96
49,0	174	347	40,00	12	449,07
50,0	174	347	40,00	12	-



ESCARIADORES

ESCARIADORES DE MÁQUINA



Referencia	5075211	5075221	5075121
Tipo	DE MÁQUINA CILÍNDRICOS	DE MÁQUINA CILÍNDRICOS	DE MÁQUINA CÓNICOS
Calidad	HSS-Co	HSS-Co	HSS-Co
Espiral	A IZQUIERDAS	HÉLICE RÁPIDA A IZQUIERDAS	HÉLICE RÁPIDA A IZQUIERDAS
Corte	A DERECHAS	A DERECHAS	A DERECHAS
Tolerancia	H7	H7	H7
Forma	FORMA B Y D	FORMA E	FORMA C

Ø Mm	Long. Corte	Long. Total	Ø Amarre	€	€	Ø Mm	Long. Corte	Long. Total	CMS	Nº Labios	€
2,0	11	49	2,00	30,38	33,77	3,0	°	113	1	4	-
2,5	14	57	2,50	30,38	30,46	4,0	19	124	1	4	-
3,0	15	61	3,00	21,04	26,05	4,5	23	133	1	4	-
3,5	18	70	3,50	20,41	28,97	5,0	23	133	1	4	56,91
4,0	19	75	4,00	20,86	24,91	5,5	26	138	1	4	60,81
4,5	21	80	4,50	21,60	29,26	6,0	26	138	1	4	56,91
5,0	23		5,00	21,40	27,94	6,5	28	144	1	4	61,58
5,5	26		5,60	26,49	29,48	7,0	31	150	1	4	62,32
6,0	26		5,60	22,69	27,90	7,5	31	150	1	4	68,83
7,0	31		7,10	25,07	30,67	8,0	33	156	1	4	61,98
8,0	33		8,00	25,90	31,58	8,5	33	156	1	4	65,08
9,0	36		9,00	30,16	40,54	9,0	36	162	1	4	62,58
10,0	38		10,00	30,78	38,60	9,5	36	162	1	4	-
11,0	41		10,00	43,39	49,29	10,0	38	168	1	4	51,29
12,0	44		10,00	45,05	46,74	10,5	38	168	1	4	74,45
13,0	44		10,00	50,58	65,03	11,0	41	175	1	4	58,42
14,0	47		12,50	51,86	60,98	11,5	41	175	1	4	76,13
15,0	50		12,50	56,20	61,98	12,0	44	182	1	4	54,84
16,0	52		12,50	66,02	65,03	12,5	44	182	1	4	-
17,0	54		14,00	53,96	97,52	13,0	44	182	1	4	63,01
18,0	56		14,00	67,58	89,39	14,0	47	189	1	4	63,01
19,0	58		16,00	79,23	101,59	15,0	50	204	2	4	68,58
20,0	60		16,00	117,46	97,52	16,0	52	210	2	6	68,58
						17,0	54	214	2	6	74,18
						18,0	56	219	2	6	74,18
						19,0	58	223	2	6	83,33
						20,0	60	228	2	6	77,24
						21,0	62	232	2	6	94,66
						22,0	64	237	2	6	95,36
						23,0	66	241	2	6	109,56
						24,0	68	268	3	6	111,78
						25,0	68	268	3	6	113,80
						26,0	70	273	3	6	117,47
						27,0	71	277	3	6	136,94
						28,0	71	277	3	6	135,83
						29,0	73	281	3	6	152,87
						30,0	73	281	3	6	144,62
						31,0	75	285	3	6	192,71
						32,0	77	317	4	6	196,58