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BROCAS

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Zanco Recto

Lista 2001 Brocas Longitud Normal Uso General Acero Alta Velocidad

CARACTERISTICAS

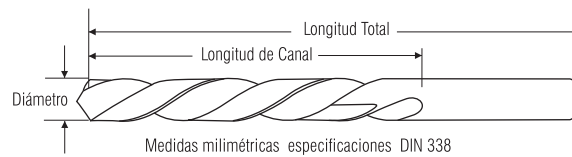
ESPECIFICACIONES ANSI	A.A.V
DIN 338	ACABADO OXIDO AL VAPOR
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ZANCO	118°

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ACERO AL BAJO CARBÓN
FUNDICIÓN
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ALEACIÓN DE COBRE



Lista 2001 Acabado Oxido al Carbón



Fracc.	Diámetro		Long. Canal		Long. Total		Acabado óxido al vapor
	Núm.	Milimétrica	Pulg.	mm	Pulg.	mm	
1/64"	80		.125	3.18	.750	19.05	C01012
			.188	4.76	.750	19.05	C01016
	78		.188	4.76	.875	22.23	C01018
	77		.188	4.76	.875	22.23	C01021
	76		.188	4.76	.875	22.23	C01024
	75		.250	6.35	1.000	25.40	C01025
	74		.250	6.35	1.000	25.40	C01027
	73		.313	7.94	1.125	28.58	C01029
	72		.313	7.94	1.125	28.58	C01030
	71		.375	9.53	1.125	31.75	C01032
70		.375	9.53	1.125	31.75	C01034	
69		.500	12.70	1.375	34.93	C01035	
1/32"	68		.500	12.70	1.375	34.93	C01037
			.500	12.70	1.375	34.93	C01038
	67		.500	12.70	1.375	34.93	C01040
	66		.500	12.70	1.375	34.93	C01041
	65		.625	15.88	1.500	38.10	C01043
	64		.625	15.88	1.500	38.10	C01045
	63		.625	15.88	1.500	38.10	C01046
	62		.625	15.88	1.500	38.10	C01048
	61		.688	17.48	1.500	38.10	C01049
		1.00	.472	12.00	1.339	34.00	C01050
60		.688	17.48	1.625	41.28	C01051	
59		.688	17.48	1.625	41.28	C01052	
58		.688	17.48	1.625	41.28	C01054	
57		.750	19.05	1.750	44.45	C01055	
	1.10	.551	14.00	1.417	36.00	C01056	
	1.15	.551	14.00	1.417	36.00	C01057	
3/64	56		.750	19.05	1.750	44.45	C01058
			.750	19.05	1.750	44.45	C01059

BROCAS

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Zanco Recto

Lista 2001 Brocas Longitud Normal Uso General Acero Alta Velocidad (continuación)

BROCAS

Fracc.	Diámetro		Long. Canal		Long. Total		Acabado óxido al vapor
	Núm.	Milimétrica	Pulg.	mm	Pulg.	mm	
		1.20	.630	16.00	1.496	38.00	C01060
		1.25	.630	16.00	1.496	38.00	C01061
		1.30	.630	16.00	1.496	38.00	C01062
	55		.875	22.23	1.875	47.63	C01063
		1.35	.709	18.00	1.575	40.00	C01064
	54		.875	22.23	1.875	47.63	C01065
		1.40	.709	18.00	1.575	40.00	C01066
		1.45	.709	18.00	1.575	40.00	C01067
		1.50	.709	18.00	1.575	40.00	C01068
	53		.875	22.23	1.875	47.63	C01069
		1.55	.787	20.00	1.693	43.00	C01070
	1/16"		.875	22.23	1.875	47.63	C01071
		1.60	.787	20.00	1.693	43.00	C01072
	54		.875	22.23	1.875	47.63	C01073
		1.65	.787	20.00	1.693	43.00	C01074
		1.70	.787	20.00	1.693	43.00	C01075
	51		1.000	25.40	2.000	50.80	C01076
		1.75	.866	22.00	1.811	46.00	C01077
	50		1.000	25.40	2.000	50.80	C01078
		1.80	.866	22.00	1.811	46.00	C01079
		1.85	.866	22.00	1.811	46.00	C01080
	49		1.000	25.40	2.000	50.80	C01081
		1.90	.866	22.00	1.811	46.00	C01082
	48		1.000	25.40	2.000	50.80	C01083
		1.95	.945	24.00	1.929	49.00	C01084
	5/64"		1.000	25.40	2.000	50.80	C01085
			1.000	25.40	2.000	50.80	C01086
	47		.945	24.00	1.929	49.00	C01087
		2.00	.945	24.00	1.929	49.00	C01088
		2.05	.945	24.00	1.929	49.00	C01088
	46		1.125	28.58	2.125	53.98	C01089
	45		1.125	28.58	2.125	53.98	C01090
		2.10	.945	24.00	1.929	49.00	C01091
		2.15	1.063	27.00	2.087	53.00	C01092
	44		1.125	28.58	2.125	53.98	C01093
		2.20	1.063	27.00	2.087	53.00	C01094
		2.25	1.063	27.00	2.087	53.00	C01095
	43		1.250	31.75	2.250	57.15	C01096
		2.30	1.063	27.00	2.087	53.00	C01097
		2.35	1.063	27.00	2.087	53.00	C01098
	42		1.250	31.75	2.250	57.15	C01099
	3/32"		1.250	31.75	2.250	57.15	C01100
		2.40	1.181	30.00	2.244	57.00	C01101
	41		1.375	34.93	2.375	60.33	C01102
		2.45	1.181	30.00	2.244	57.00	C01103
	40		1.375	34.93	2.375	60.33	C01104
		2.50	1.181	30.00	2.244	57.00	C01105
	39		1.375	34.93	2.375	60.33	C01106
	38		1.438	36.53	2.500	63.50	C01107
		2.60	1.181	30.00	2.244	57.00	C01108
	37		1.438	36.53	2.500	63.50	C01109
		2.70	1.299	33.00	2.402	61.00	C01110
	36		1.438	36.53	2.500	63.50	C01111
		2.75	1.438	36.53	2.500	63.50	C01112
	7/64		1.500	38.10	2.625	66.68	C01113

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Zanco Recto**Lista 2001 Brocas Longitud Normal Uso General Acero Alta Velocidad (continuación)**

Fracc.	Diámetro		Long. Canal		Long. Total		Acabado óxido al vapor
	Núm.	Milimétrica	Pulg.	mm	Pulg.	mm	
	35	2.80	1.500	38.10	2.625	66.68	C01114
			1.299	38.10	2.402	61.00	C01115
	34		1.500	38.10	2.625	66.68	C01116
			1.500	38.10	2.625	66.68	C01117
	32	2.90	1.299	33.00	2.402	61.00	C01118
			1.625	41.28	2.750	68.85	C01119
	31	3.00	1.299	33.00	2.402	61.00	C01120
			1.625	41.28	2.750	69.85	C01121
1/8"		3.10	1.417	36.00	2.559	65.00	C01122
			1.625	41.28	2.750	69.85	C01123
			1.457	37.00	2.598	66.00	C01124
			1.457	37.00	2.598	66.00	C01125
	30	3.30	1.625	41.28	2.750	69.85	C01126
			1.496	38.00	2.638	67.00	C01127
	29	3.40	1.535	39.00	2.756	70.00	C01128
			1.750	44.45	2.875	73.00	C01129
	28	3.50	1.535	39.00	2.756	70.00	C01130
			1.750	44.45	2.875	73.03	C01131
9/64"		3.60	1.750	44.45	2.875	73.03	C01132
			1.535	39.00	2.756	70.00	C01133
	27	3.70	1.875	47.63	3.000	76.20	C01134
			1.535	39.00	2.756	70.20	C01135
	26	3.75	1.875	47.63	3.000	76.20	C01136
			1.535	39.00	2.756	70.20	C01137
	25	3.80	1.875	47.63	3.000	76.20	C01138
			1.693	43.00	2.953	75.00	C01139
	24	3.90	2.000	50.80	3.125	79.38	C01140
			1.693	43.00	2.953	75.00	C01141
5/32"	23		2.000	50.80	3.125	79.38	C01142
			2.000	50.80	3.125	79.38	C01143
	22	4.00	2.000	50.80	3.125	79.38	C01144
			1.693	43.00	2.953	75.00	C01145
	21		2.125	53.98	3.250	82.55	C01146
			2.125	53.98	3.250	82.55	C01147
	19	4.10	1.693	43.00	2.953	75.00	C01148
			1.693	43.00	2.953	75.00	C01149
	18	4.25	2.125	53.98	3.250	82.55	C01150
			1.850	47.00	3.150	80.00	C01151
	17	4.30	1.850	47.00	3.150	80.00	C01152
			2.125	53.98	3.250	82.55	C01153
11/64		4.40	2.125	53.98	3.250	82.55	C01154
			2.188	55.58	3.375	85.73	C01155
	16	4.50	1.850	47.00	3.150	80.00	C01156
			2.188	55.58	3.375	85.73	C01157
	15	4.60	1.850	47.00	3.150	80.00	C01158
			2.188	55.58	3.375	85.73	C01159
	14	4.70	1.850	47.00	3.150	80.00	C01160
			2.188	55.58	3.375	85.73	C01161
	13	4.75	2.313	58.75	3.350	88.90	C01162
			1.850	47.00	3.150	80.00	C01163
3/16"		4.80	1.850	47.00	3.150	80.00	C01164
			2.313	58.75	3.500	88.90	C01165
	12	4.80	2.313	58.75	3.500	88.90	C01166
			2.047	52.00	3.386	86.00	C01167

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Zanco Recto

Lista 2001 Brocas Longitud Normal Uso General Acero Alta Velocidad (continuación)

BROCAS

Fracc.	Diámetro		Pulg.	Long. Canal		Pulg.	Long. Total		Acabado óxido al vapor
	Núm.	Milimétrica		Alfabética	mm		mm		
	11	4.90		2.313	58.75	3.500	88.90	C01168	
				2.047	52.00	3.386	86.00	C01169	
	10			2.438	61.93	3.635	92.08	C01170	
				2.438	61.93	3.625	92.08	C01171	
	8	5.00		2.047	52.00	3.386	86.00	C01172	
				2.438	61.93	3.625	92.08	C01173	
	7	5.10		2.047	52.00	3.386	86.00	C01174	
				2.438	61.93	3.625	92.08	C01175	
13/64"	6			2.438	52.00	3.625	92.08	C01176	
				2.500	61.93	3.750	95.25	C01177	
	5	5.20		2.047	61.93	3.386	95.00	C01178	
				2.500	63.50	3.750	95.25	C01179	
		5.25		2.047	61.93	3.386	95.00	C01180	
				2.244	57.00	3.661	93.00	C01181	
	4	5.40		2.500	63.50	3.750	95.25	C01182	
				2.244	57.00	3.661	93.00	C01183	
	3	5.50		2.500	63.50	3.750	95.25	C01184	
				2.244	57.00	3.661	93.00	C01185	
7/32"		5.60		2.500	63.50	3.750	95.25	C01186	
				2.244	57.00	3.661	93.00	C01187	
	2	5.70		2.625	66.68	3.875	98.43	C01188	
				2.244	57.00	3.661	93.00	C01189	
	1	5.75		2.244	57.00	3.661	93.00	C01190	
				2.625	66.68	3.875	98.43	C01191	
		5.80		2.244	57.00	3.661	93.00	C01192	
				2.244	57.00	3.661	93.00	C01193	
15/64"			A	2.625	66.68	3.875	98.43	C01194	
				2.625	66.68	3.875	98.43	C01195	
		6.00		2.244	57.00	3.661	93.00	C01196	
			B	2.750	69.85	4.000	101.60	C01197	
		6.10		2.480	63.00	3.976	101.00	C01198	
			C	2.750	69.85	4.000	101.60	C01199	
		6.20		2.480	63.00	3.976	101.00	C01200	
			D	2.750	69.85	4.000	101.60	C01201	
		6.25		2.480	63.00	3.976	101.00	C01202	
				2.480	63.00	3.976	101.00	C01203	
1/4"		6.30		2.750	69.85	4.000	101.60	C01204	
			E	2.480	63.00	3.976	101.00	C01206	
		6.40		2.480	63.00	3.976	101.00	C01207	
				2.480	63.00	3.976	101.00	C01208	
		6.50	F	2.875	73.03	4.125	104.78	C01208	
				2.480	63.00	3.976	101.00	C01209	
		6.60		2.480	63.00	3.976	101.00	C01209	
			G	2.875	73.03	4.125	104.78	C01210	
		6.70		2.480	63.00	3.976	101.00	C01211	
				2.875	73.03	4.125	104.78	C01212	
17/64"		6.75		2.480	63.00	3.976	101.00	C01213	
				2.875	73.03	4.125	104.78	C01214	
		6.80		2.717	69.00	4.291	109.00	C01215	
				2.717	69.00	4.291	109.00	C01216	
		6.90		2.717	69.00	4.291	109.00	C01216	
				2.717	69.00	4.291	109.00	C01217	
		7.00		2.875	73.03	4.125	104.78	C01217	
			I	2.717	69.00	4.291	109.00	C01218	
		7.10		2.717	69.00	4.291	109.00	C01218	
			J	2.875	73.03	4.125	104.78	C01219	
		7.20		2.717	69.00	4.291	109.00	C01219	
			K	2.938	74.63	4.250	107.95	C01221	
				2.717	69.00	4.291	109.00	C01222	

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Zanco Recto**Lista 2001 Brocas Longitud Normal Uso General Acero Alta Velocidad (continuación)**

Fracc.	Diámetro		Long. Canal		Long. Total		Acabado óxido al vapor
	Milimétrica	Alfabética	Pulg.	mm	Pulg.	mm	
9/32"	7.25		2.717	69.00	4.291	109.00	C01223
	7.30		2.717	69.00	4.291	109.00	C01224
		L	2.938	74.63	4.250	107.95	C01225
			2.938	74.63	4.250	107.95	C01226
19/64"	7.40		2.717	69.00	4.291	109.00	C01227
		M	3.063	77.80	4.375	111.13	C01228
	7.50		2.717	69.00	4.291	109.00	C01229
			3.063	77.80	4.375	111.13	C01230
5/16"	7.60		3.063	77.80	4.375	111.13	C01231
		N	3.063	77.80	4.375	111.13	C01232
	7.70		2.953	75.00	4.606	117.00	C01233
	7.75		2.953	75.00	4.375	111.13	C01234
21/64"	7.80		2.953	75.00	4.606	117.00	C01235
	7.90		2.953	75.00	4.606	117.00	C01236
	8.00		3.188	80.98	4.500	114.30	C01237
			2.953	75.00	4.606	117.00	C01238
21/64"	8.10		3.188	80.98	4.500	114.30	C01239
		O	2.953	75.00	4.606	117.00	C01240
	8.20		2.953	75.00	4.606	117.00	C01241
		P	3.313	84.15	4.625	117.40	C01242
11/32"	8.25		3.313	84.15	4.625	117.40	C01243
	8.30		3.313	84.15	4.625	117.40	C01244
	8.40		3.313	84.15	4.625	117.40	C01245
			2.953	75.00	4.606	114.40	C01246
23/64"	8.50		3.438	87.33	4.750	120.65	C01247
		Q	2.953	75.00	4.606	117.00	C01248
	8.60		3.438	87.33	4.606	117.00	C01249
			3.438	87.33	4.750	120.65	C01250
11/32"	8.70		3.189	81.00	4.921	125.00	C01251
		R	3.438	87.33	4.750	120.65	C01252
	8.75		3.189	81.00	4.750	120.65	C01253
	8.80		3.189	81.00	4.921	125.00	C01254
23/64"	8.90		3.500	88.00	4.875	123.83	C01255
		S	3.189	81.00	4.875	123.83	C01256
	9.00		3.189	81.00	4.921	125.00	C01257
		T	3.500	88.90	4.875	123.83	C01258
23/64"	9.10		3.500	88.90	4.875	123.83	C01259
			3.500	88.90	4.875	123.83	C01260
	9.20		3.189	88.90	4.921	125.00	C01261
	9.25		3.189	81.00	4.921	125.00	C01262
3/8"	9.30		3.189	81.00	4.921	125.00	C01263
		U	3.625	92.08	5.000	127.00	C01264
	9.40		3.189	81.00	4.921	125.00	C01265
	9.50		3.189	81.00	4.921	125.00	C01266
25/64"			3.625	92.08	5.000	127.00	C01267
		V	3.625	92.08	5.000	127.00	C01268
	9.60		3.425	87.00	5.236	133.00	C01269
	9.70		3.425	87.00	5.236	133.00	C01270
25/64"	9.75		3.425	87.00	5.236	133.00	C01271
	9.80		3.425	87.00	5.236	133.00	C01272
	9.90		3.750	95.25	5.125	130.18	C01273
		W	3.750	95.25	5.125	130.18	C01274
25/64"			3.750	95.25	5.125	130.18	C01275
	10.00		3.425	87.00	5.236	133.00	C01276

Continúa en la siguiente página

Zanco Recto

Lista 2001 Brocas Longitud Normal Uso General Acero Alta Velocidad (continuación)

BROCAS

Frac.	Diámetro		Long. Canal		Long. Total		Acabado óxido al vapor
	Milimétrica	Alfabética	Pulg.	mm	Pulg.	mm	
	10.20	X	3.750	95.25	5.125	130.18	C01277
			3.425	87.00	5.236	133.00	C01278
13/32"	10.30	Y	3.875	98.43	5.250	133.35	C01279
			3.875	98.43	5.236	133.00	C01280
		Z	3.875	98.43	5.250	133.35	C01281
			3.875	98.43	5.250	133.35	C01282
27/64"	10.50		3.425	87.00	5.236	133.00	C01283
			3.938	100.03	5.375	136.53	C01284
7/16"	10.80		3.701	94.00	5.591	142.00	C01285
			3.701	94.00	5.591	142.00	C01286
			4.063	103.20	5.500	139.70	C01287
29/64"	11.20		3.701	94.00	5.591	142.00	C01288
			3.701	94.00	5.591	142.00	C01289
			4.188	106.38	5.625	142.88	C01290
15/32"	11.80		3.701	94.00	5.750	146.05	C01291
			4.313	109.55	5.750	146.05	C01292
31/64"	12.00		3.976	101.00	5.945	151.00	C01293
			3.976	101.00	5.945	151.00	C01294
			4.375	111.13	5.875	149.23	C01295
1/2"	12.50		3.976	101.00	5.945	151.00	C01296
			4.500	114.30	6.000	152.40	C01297
33/64"	13.00		3.976	101.00	5.945	151.00	C01299
			4.813	122.25	6.625	168.28	C01300
17/32"			4.813	122.25	6.625	168.28	C01302
			4.253	108.00	6.266	160.00	C01303
35/64"	13.50		4.813	122.25	6.625	168.28	C01305
			4.252	108.00	6.299	160.00	C01306
9/16"	14.00		4.813	122.25	6.625	168.28	C01308
			4.488	114.00	6.654	169.00	C01309
37/64"	14.50		4.813	122.25	6.625	168.28	C01310
			4.488	114.00	6.654	139.00	C01312
19/32"	15.00		5.188	131.78	7.125	180.98	C01313
			5.188	131.78	7.125	180.98	C01315
39/64"	15.50		4.724	120.00	7.008	178.00	C01316
			5.188	131.78	7.125	180.98	C01318
5/8"	16.00		5.188	131.78	7.125	180.98	C01318
			4.724	120.00	7.008	178.00	C01319
41/64"	16.50		5.188	131.00	7.125	180.98	C01321
			4.724	120.00	7.244	184.00	C01322
21/32"	17.00		5.188	131.00	7.125	180.98	C01323
			4.724	120.00	7.244	184.00	C01325
43/64"	17.50		5.625	142.88	7.625	193.68	C01326
			5.625	142.88	7.625	193.68	C01328
11/16"			5.118	130.00	7.520	191.00	C01329

Juegos

Medidas	No. de Pzas.	Código
Jgo. de 1/16 a 1/2 x x64avos	29	C00888
Jgo. de 1mm. a 13mm. por 5mm.	25	C00943
Jgo. de 13 piezas	13	2001-5



Zanco Recto

Lista 2001G Brocas Longitud Normal Uso General Acero Alta Velocidad al Vanadio (HSS-E) CLE-MAX

CARACTERISTICAS

ESPECIFICACIONES ANSI	A.A.V
DIN 338	ACABADO OXIDO AL VAPOR
USO GENERAL	38°
ZANCO	118°

APLICACIONES

ACERO AL BAJO CARBON
FUNDICIÓN
ALUMINIO
ALEACIÓN DE COBRE



Lista 2001G Acabado Oxido al Vapor



Diámetro		Long. Canal		Long. Total		Acabado óxido al vapor
Fracc.	Milimétrica	Pulg.	mm.	Pulg.	mm.	
	1.00	.472	12.00	1.339	34.00	C71200
	1.10	.551	14.00	1.417	36.00	C71202
3/64	1.40	.750	19.05	1.750	44.45	C71003
	1.45	.709	18.00	1.575	40.00	C71208
	1.55	.787	20.00	1.693	43.00	C71209
1/16	1.60	.875	22.23	1.875	47.63	C71211
	1.65	.787	20.00	1.693	43.00	C71004
	1.65	.787	20.00	1.693	43.00	C71212
	1.80	.866	22.00	1.811	46.00	C71213
5/64	2.00	1.000	25.40	2.000	50.80	C71216
	2.25	.945	24.00	1.929	49.00	C71005
	2.30	1.063	27.00	2.087	53.00	C71220
	2.30	1.063	27.00	2.087	53.00	C71225
3/32	2.40	1.250	28.58	2.250	57.15	C71226
	2.40	1.181	30.00	2.244	57.00	C71006
7/64	3.00	1.500	38.10	2.625	66.68	C71228
	3.00	1.299	33.00	2.402	61.00	C71007
1/8	3.50	1.625	41.28	2.750	69.85	C71235
	3.50	1.535	39.00	2.756	70.00	C71008
9/64	4.00	1.750	44.45	2.875	73.03	C71240
5/32	4.00	2.000	50.80	3.125	79.38	C71009
	4.00	1.693	43.00	2.953	75.00	C71010
11/64	4.50	2.125	53.98	3.250	82.55	C71245
	4.50	1.850	47.00	3.150	80.00	C71011
	4.60	1.850	47.00	3.150	80.00	C71250
3/16	5.00	2.313	58.75	3.500	88.90	C71251
	5.00	2.047	52.00	3.386	86.00	C71012
13/64	5.50	2.438	61.93	3.625	92.08	C71255
	5.50	2.244	57.00	3.661	93.00	C71013
7/32	5.70	2.500	63.50	3.750	95.25	C71260
	5.70	2.244	57.00	3.661	93.00	C71014
15/64		2.500	63.50	3.750	95.25	C71262
1/4		2.625	66.68	3.875	98.43	C71015
		2.750	69.85	4.000	101.60	C71016
17/64	6.40	2.480	63.00	3.976	101.00	C71269
		2.875	73.03	4.125	104.78	C71017

BROCAS



Continúa en la siguiente página

Zanco Recto

Lista 2001G Brocas Longitud Normal Uso General Acero Alta Velocidad al Vanadio (HSS-E) CLE-MAX (continuación)

BROCAS

Diámetro		Long. Canal		Long. Total		Acabado óxido al vapor
Fracc.	Milimétrica	Pulg.	mm.	Pulg.	mm.	
9/32	7.00	2.717	69.00	4.291	109.00	C71275
		2.938	74.63	4.250	107.95	C71018
19/64	7.40	2.717	69.00	4.291	109.00	C71279
		3.063	77.80	4.375	111.13	C71019
5/16	7.70	2.953	75.00	4.606	117.00	C71282
		3.188	80.98	4.500	114.30	C71020
21/64	8.00	2.953	75.00	4.606	117.00	C71285
		2.953	75.00	4.606	117.00	C71286
11/32	8.50	3.313	84.15	4.625	117.48	C71021
		2.953	75.00	4.606	117.00	C71290
23/64	8.70	3.189	81.00	4.921	125.00	C71292
		3.438	87.33	4.750	120.65	C71022
3/8	9.00	3.189	81.00	4.921	125.00	C71295
		3.500	88.90	4.875	123.83	C71023
25/64	9.50	3.189	81.00	4.921	125.00	C71300
		3.625	92.08	5.000	127.00	C71024
13/32	10.00	3.750	95.25	5.125	130.18	C71025
		3.425	87.00	5.236	133.00	C71305
27/64	10.50	3.875	95.25	5.250	133.35	C71026
		3.425	87.00	5.236	133.00	C71308
7/16	11.50	3.938	100.03	5.375	136.53	C71027
		4.063	103.20	5.500	139.70	C71028
29/64	12.00	3.701	94.00	5.591	142.00	C71312
		4.188	106.38	5.625	142.88	C71029
15/32	12.20	4.313	109.55	5.750	146.05	C71030
		3.976	101.00	5.945	151.00	C71314
31/64	12.50	3.976	101.00	5.945	151.00	C71315
		4.375	111.13	5.875	149.23	C71031
1/2		3.976	101.00	5.945	151.00	C71316
33/64		4.500	114.30	6.000	152.40	C71032
17/32		4.813	122.25	6.625	168.28	C71033
35/64		4.813	122.25	6.625	168.28	C71034
9/16		4.813	122.25	6.625	168.28	C71035
37/64		4.813	122.25	6.625	168.28	C71036
19/32		4.813	122.25	6.625	168.28	C71037
39/64	15.50	5.188	131.78	7.125	180.98	C71038
		5.188	131.78	7.125	180.98	C71039
5/8		4.724	120.00	7.008	178.00	C71329
41/64		5.188	131.78	7.125	180.98	C71040
21/32		5.188	131.78	7.125	180.98	C71041
43/64	17.00	5.188	131.78	7.125	180.98	C71042
		4.724	120.00	7.244	184.00	C71335
11/16	17.50	5.625	142.88	7.625	193.68	C71043
		5.625	142.88	7.625	193.68	C71044
		5.188	130.00	7.520	191.00	C71337

Juegos

Medidas	No. de Piezas.	Acabado	Código
Brocas Fracc. de 1/16 a 1/2, Alfabéticas de la A a la Z, Numéricas del No. 1 al No. 60	115	Brillante	C01330

Zanco Recto

Lista 8000 Brocas COTTER PIN-TOP

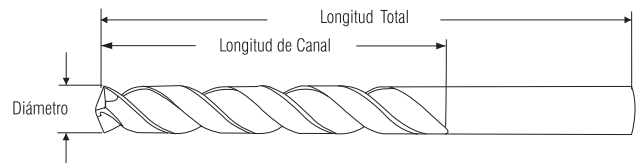
CARACTERISTICAS



APLICACIONES



Lista 8000 Broca hss zanco recto con recubrimiento TiN



Fracc.	Diámetro		Long. Canal		Long. Total		Recubrimiento TiN
	Milimétrica	Pulg.	mm.	Pulg.	mm.		
	1.00	0.472	12	1.339	34	C80100	
	1.50	0.709	18	1.575	40	C80150	
	2.00	0.945	24	1.929	49	C80200	
	2.10	0.945	24	1.929	49	C80210	
	2.20	1.063	27	2.087	53	C80220	
	2.30	1.063	27	2.087	53	C80230	
3/32	--	1.181	30	2.244	57	C80002	
	2.40	1.181	30	2.244	57	C80240	
	2.50	1.181	30	2.244	57	C80250	
	2.60	1.181	30	2.244	57	C80260	
	2.70	1.30	33	2.402	61	C80270	
7/64	--	1.30	33	2.402	61	C80003	
	2.80	1.30	33	2.402	61	C80280	
	2.90	1.30	33	2.402	61	C80290	
	3.00	1.30	33	2.402	61	C80300	
	3.10	1.417	36	2.559	65	C80310	
1/8	--	1.417	36	2.559	65	C80004	
	3.20	1.417	36	2.559	65	C80320	
	3.30	1.417	36	2.559	65	C80330	
	3.40	1.535	39	2.756	70	C80340	
	3.50	1.535	39	2.756	70	C80350	
9/64	--	1.535	39	2.756	70	C80005	
	3.60	1.535	39	2.756	70	C80360	
	3.70	1.535	39	2.756	70	C80370	
	3.80	1.693	43	2.953	75	C80380	
	3.90	1.693	43	2.953	75	C80390	
5/32	--	1.693	43	2.953	75	C80006	
	4.00	1.693	43	2.953	75	C80400	
	4.10	1.693	43	2.953	75	C80410	
	4.20	1.693	43	2.953	75	C80420	
	4.30	1.850	47	3.150	80	C80430	
11/64	--	1.850	47	3.150	80	C80007	
	4.40	1.850	47	3.150	80	C80440	
	4.50	1.850	47	3.150	80	C80450	
	4.60	1.850	47	3.150	80	C80460	
	4.70	1.850	47	3.150	80	C80470	
3/16	--	2.047	52	3.386	86	C80008	
	4.80	2.047	52	3.386	86	C80480	

Fracc.	Diámetro		Long. Canal		Long. Total		Recubrimiento TiN
	Milimétrica	Pulg.	mm.	Pulg.	mm.		
	4.90	2.047	52	3.386	86	C80490	
	5.00	2.047	52	3.386	86	C80500	
13/64	5.10	2.047	52	3.386	86	C80510	
	--	2.047	52	3.386	86	C80009	
	5.20	2.047	52	3.386	86	C80520	
	5.30	2.047	52	3.386	86	C80530	
	5.40	2.244	57	3.361	93	C80540	
	5.50	2.244	57	3.361	93	C80550	
7/32	--	2.244	57	3.361	93	C80010	
	5.60	2.244	57	3.361	93	C80560	
	5.70	2.244	57	3.391	93	C80570	
	5.80	2.244	57	3.391	93	C80580	
	5.90	2.244	57	3.391	93	C80590	
	6.00	2.244	57	3.391	93	C80600	
	6.10	2.480	63	3.976	101	C80610	
	6.20	2.480	63	3.976	101	C80620	
1/4	6.30	2.480	63	3.976	101	C80630	
	--	2.480	63	3.976	101	C80012	
	6.40	2.480	63	3.976	101	C80640	
	6.50	2.480	63	3.976	101	C80650	
	6.60	2.480	63	3.976	101	C80660	
	6.70	2.480	63	3.976	101	C80670	
	6.80	2.717	69	4.291	109	C80680	
	6.90	2.717	69	4.291	109	C80690	
	7.00	2.717	69	4.291	109	C80700	
	7.10	2.717	69	4.291	109	C80710	
9/32	--	2.717	69	4.291	109	C80014	
	7.20	2.717	69	4.291	109	C80720	
	7.30	2.717	69	4.291	109	C80730	
	7.40	2.717	69	4.291	109	C80740	
	7.50	2.717	69	4.606	109	C80750	
	7.60	2.953	75	4.606	117	C80760	
	7.70	2.953	75	4.606	117	C80770	
	7.80	2.953	75	4.606	117	C80780	
	7.90	2.953	75	4.606	117	C80790	
5/16	--	2.953	75	4.606	117	C80016	
	8.00	2.953	75	4.606	117	C80800	
	8.10	2.953	75	4.606	117	C80810	

Continúa en la siguiente página

Zanco Recto

Lista 8000 Brocas COTTER PIN-TOP

BROCAS

Fracc.	Diámetro		Long. Canal		Long. Total		Recubrimiento TiN
	Milimétrica		Pulg.	mm.	Pulg.	mm.	
	8.20		2.953	75	4.606	117	C80820
	8.30		2.953	75	4.606	117	C80830
	8.40		2.953	75	4.606	117	C80840
	8.50		2.953	75	4.606	117	C80850
	8.60		3.189	81	4.921	125	C80860
	8.70		3.189	81	4.921	125	C80870
11/32	--		3.189	81	4.921	125	C80018
	8.80		3.189	81	4.921	125	C80880
	8.90		3.189	81	4.921	125	C80890
	9.00		3.189	81	4.921	125	C80900
	9.10		3.189	81	4.921	125	C80910
	9.20		3.189	81	4.921	125	C80920
	9.30		3.189	81	4.921	125	C80930
	9.40		3.189	81	4.921	125	C80940
	9.50		3.189	81	4.921	125	C80950
3/8	---		3.425	87	5.236	133	C80020
	9.60		3.425	87	5.236	133	C80960
	9.70		3.425	87	5.236	133	C80970
	9.80		3.425	87	5.236	133	C80980
	9.90		3.425	87	5.236	133	C80990
	10.00		3.425	87	5.236	133	C81000
	10.10		3.425	87	5.236	133	C81010
	10.20		3.425	87	5.236	133	C81020
	10.30		3.425	87	5.236	133	C81030
	10.50		3.425	87	5.236	133	C81050
	10.60		3.425	87	5.236	133	C81060
	10.80		3.701	94	5.591	142	C81080
	11.00		3.701	94	5.591	142	C81100
	11.10		3.701	94	5.591	142	C81110
7/16	---		3.701	94	5.591	142	C80024
	11.20		3.701	94	5.591	142	C81120
	11.50		3.701	94	5.591	142	C81150
	12.00		3.976	101	5.945	151	C81200
	12.10		3.976	101	5.945	151	C81210
	12.30		3.976	101	5.945	151	C81230
	12.50		3.976	101	5.945	151	C81250
1/2	---		3.976	101	5.945	151	C80032
	13.00		3.976	101	5.945	151	C81300

Broca de Acero Alta Velocidad con gran estabilidad para todas las aplicaciones estándar.

De fabricación Alemana

La reducción Split-Point en la punta permite un excelente auto-centrado y reduce el esfuerzo de torsión. El recubrimiento TiN permite incrementar la velocidad de corte así como el rendimiento de la broca en una gran variedad de materiales, además del hierro fundido, hierro maleable, hierro sinterizado, níquel, grafito.

Zanco Reducido a 1/2"

Lista 936 Brocas Fraccionales Zanco Reducido a 1/2" Uso General Acero Alta Velocidad

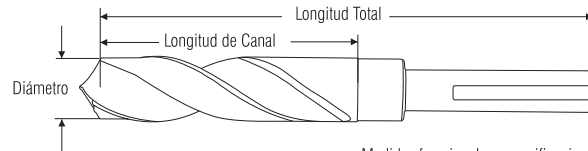
CARACTERÍSTICAS



APLICACIONES



Lista 936 Acabado Óxido al Vapor Zanco Reducido a 1/2"



Medidas fraccionales especificaciones ANSI

Diámetro Fracc.	Long. Canal		Long. Total		Acabado óxido al vapor
	Pulg.	mm	Pulg.	mm	
1/2	3-1/8	79.38	6	152.40	C11159
33/64	3-1/8	79.38	6	152.40	C11162
17/32	3-1/8	79.38	6	152.40	C11164
35/64	3-1/8	79.38	6	152.40	C11167
9/16	3-1/8	79.38	6	152.40	C11170
37/64	3-1/8	79.38	6	152.40	C11172
19/32	3-1/8	79.38	6	152.40	C11175
39/64	3-1/8	79.38	6	152.40	C11177
5/8	3-1/8	79.38	6	152.40	C11180
41/64	3-1/8	79.38	6	152.40	C11183
21/32	3-1/8	79.38	6	152.40	C11185
43/64	3-1/8	79.38	6	152.40	C11188
11/16	3-1/8	79.38	6	152.40	C11190
45/64	3-1/8	79.38	6	152.40	C11192
23/32	3-1/8	79.38	6	152.40	C11194
47/64	3-1/8	79.38	6	152.40	C11196
3/4	3-1/8	79.38	6	152.40	C11198
49/64	3	79.38	6	152.40	C11199
25/32	3	76.19	6	152.40	C11201
13/16	3	76.19	6	152.40	C11205
27/32	3	76.19	6	152.40	C11208
7/8	3	76.19	6	152.40	C11212
29/32	3	76.19	6	152.40	C11216
15/16	3	76.19	6	152.40	C11219
31/32	3	76.19	6	152.40	C11223
1	3	76.19	6	152.40	C11226
1-1/16	3	76.19	6	152.40	C11233
1-1/8	3	76.19	6	152.40	C11241
1-3/16	3	76.19	6	152.40	C11248
1-1/4	3	76.19	6	152.40	C11255

BROCAS

Zanco Reducido a 1/2"

Lista 936 Brocas Milimétricas Zanco Reducido a 1/2" Uso General Acero Alta Velocidad

BROCAS

CARACTERÍSTICAS

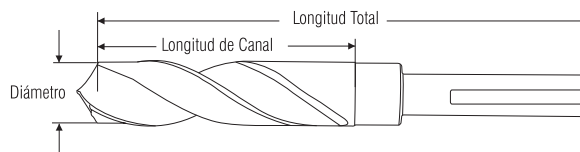
ESPECIFICACIONES ANSI	A.A.V.
USO GENERAL	ACABADO ÓXIDO AL VAPOR
ZANCO	38°
	118°

APLICACIONES

ACERO AL CARBÓN
ACERO ALEADO
FUNDICIÓN



Lista 936 Acabado Óxido al Vapor Zanco Reducido a 1/2"



Diámetro		Long. Canal		Long. Total		Acabado óxido al vapor
mm.	Decimal	Pulg.	mm	Pulg.	mm	
12.5	.4921	3-1/8	79.38	6	152.4	C113125
13.0	.5118	3-1/8	79.38	6	152.4	C113130
13.5	.5315	3-1/8	79.38	6	152.4	C113135
14.0	.5512	3-1/8	79.38	6	152.4	C113140
14.5	.5709	3-1/8	79.38	6	152.4	C113145
15.0	.5906	3-1/8	79.38	6	152.4	C113150
15.5	.6102	3-1/8	79.38	6	152.4	C113155
16.0	.6299	3-1/8	79.38	6	152.4	C113160
16.5	.6496	3-1/8	79.38	6	152.4	C113165
17.0	.6693	3-1/8	79.38	6	152.4	C113170
17.5	.6890	3-1/8	79.38	6	152.4	C113175
18.0	.7087	3-1/8	79.38	6	152.4	C113180
18.5	.7283	3-1/8	79.38	6	152.4	C113185
19.0	.7480	3-1/8	79.38	6	152.4	C113190
19.5	.7677	3	73.5	6	152.4	C113195
20.0	.7874	3	73.5	6	152.4	C113200
20.5	.8071	3	73.5	6	152.4	C113205
21.0	.8268	3	73.5	6	152.4	C113210
21.5	.8465	3	73.5	6	152.4	C113215
22.0	.8661	3	73.5	6	152.4	C113220
22.5	.8858	3	73.5	6	152.4	C113225
23.0	.9055	3	73.5	6	152.4	C113230
23.5	.9252	3	73.5	6	152.4	C113235
24.0	.9449	3	73.5	6	152.4	C113240
24.5	.9646	3	73.5	6	152.4	C113245
25.0	.9843	3	73.5	6	152.4	C113250

Diámetro		Long. Canal		Long. Total		Acabado óxido al vapor
mm.	Decimal	Pulg.	mm	Pulg.	mm	
25.5	1.0039	3	73.5	6	152.4	C113255
26.0	1.0236	3	73.5	6	152.4	C113260
26.5	1.0433	3	73.5	6	152.4	C113265
27.0	1.0630	3	73.5	6	152.4	C113270
27.5	1.0837	3	73.5	6	152.4	C113275
28.0	1.1024	3	73.5	6	152.4	C113280
28.5	1.1220	3	73.5	6	152.4	C113285
29.0	1.1417	3	73.5	6	152.4	C113290
29.5	1.1614	3	73.5	6	152.4	C113295
30.0	1.1811	3	73.5	6	152.4	C113300
30.5	1.2008	3	73.5	6	152.4	C113305
31.0	1.2205	3	73.5	6	152.4	C113310
31.5	1.2402	3	73.5	6	152.4	C113315
32.0	1.2598	3	73.5	6	152.4	C113320
32.5	1.2795	3	73.5	6	152.4	C113325
33.0	1.2992	3	73.5	6	152.4	C113330
33.5	1.3189	3	73.5	6	152.4	C113335
34.0	1.3386	3	73.5	6	152.4	C113340
34.5	1.3583	3	73.5	6	152.4	C113345
35.0	1.3780	3	73.5	6	152.4	C113350
35.5	1.3976	3	73.5	6	152.4	C113355
36.0	1.4173	3	73.5	6	152.4	C113360
36.5	1.4370	3	73.5	6	152.4	C113365
37.0	1.4567	3	73.5	6	152.4	C113370
37.5	1.4764	3	73.5	6	152.4	C113375
38.0	1.4961	3	73.5	6	152.4	C113380

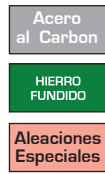
Zanco Recto

Lista 2727 Broca Longitud Normal Acero Alta Velocidad Punta de Carburo

CARACTERISTICAS



APLICACIONES



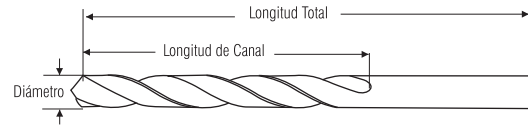
Usar condiciones de maquinado para Carburo Sólido



Cuerpo y zanco en HSS con construcción para trabajo pesado



Lista 2727 Acabado Brillante

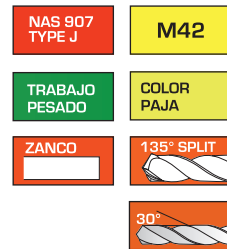


Diámetro Fracc.	Long. Canal Pulgs.	mm.	Long. Total Pulgs.	mm.	Acabado Brillante
1/8	1.625	41.28	2.750	69.85	C48655
5/32	2.000	50.80	3.125	79.38	C48675
3/16	2.313	58.74	3.500	88.90	C48697
7/32	2.500	63.50	3.750	95.25	C48718
1/4- E	2.750	69.85	4.000	101.60	C48736

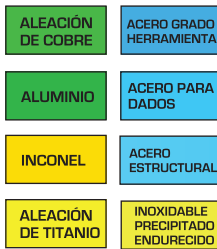
Diámetro Fracc.	Long. Canal Pulgs.	mm.	Long. Total Pulgs.	mm.	Acabado Brillante
5/16	3.188	80.96	4.500	114.30	C48769
3/8	3.625	92.08	5.000	127.00	C48799
7/16	4.063	103.19	5.500	139.70	C48818
1/2	4.500	114.30	6.000	152.40	C48828

Lista 2213 Brocas Longitud Normal Acero Alta Velocidad al Cobalto

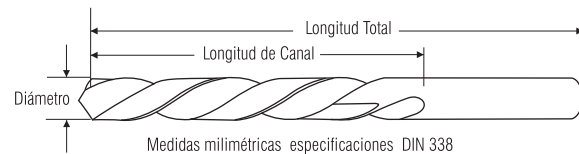
CARACTERISTICAS



APLICACIONES



Lista 2213 Color Paja



Fraccional	Diámetro		Long. Canal		Long. Total		Acabado Color Paja
	Númerica	mm.	Pulg.	mm	Pulg.	mm	
1/64			.188	4.761	.750	19.05	C70000
1/32			.500	12.70	1.375	34.93	C70001
3/64			.750	19.05	1.750	44.45	C70002
1/16			.875	22.23	1.875	47.63	C70003
5/64			1.000	25.40	2.000	50.80	C70004
3/32			1.125	28.58	2.250	57.15	C70005
	37		1.438	36.51	2.250	63.50	C70170
	36		1.438	36.51	2.500	63.50	C70169
7/64			1.500	38.10	2.625	66.68	C70006
1/8			1.625	41.28	2.750	68.85	C70007
		3.4	1.535	39.00	2.760	70.00	C70081
9/64			1.750	44.45	2.875	73.03	C70008
5/32			2.000	50.80	3.125	79.38	C70009
	20		2.125	53.98	3.250	82.55	C70153

Continúa en la siguiente página

Zanco Recto

Lista 2213 Brocas Longitud Normal Acero Alta Velocidad al Cobalto (continuación)

BROCAS

Fraccinal	Diámetro		Long. Canal		Long. Total		Acabado Color Paja
	Numérica	Alfabética	Pulg.	mm.	Pulg.	mm.	
11/64	16		2.125	53.98	3.250	82.55	C70010
			2.188	55.56	3.375	85.73	C70149
			1.850	47.00	3.150	80.50	C70092
3/16	8		2.313	58.74	3.500	88.90	C70011
			2.438	61.91	3.625	92.08	C70141
			2.438	61.91	3.625	92.08	C70012
7/32			2.500	63.50	3.750	95.25	C70013
15/64			2.625	66.68	3.875	98.43	C70014
			2.750	69.85	4.000	101.60	C70035
1/4		D	2.750	69.85	4.000	101.60	C70015
		E	2.750	69.85	4.000	101.60	C70015
		6.7	2.480	63.00	3.980	101.00	C70113
17/64			2.875	73.03	4.125	104.78	C70016
9/32			2.938	74.61	4.250	107.95	C70017
19/64			3.063	77.79	4.375	111.13	C70018
5/16			3.188	80.96	4.500	114.30	C70019
21/64			3.313	84.14	4.625	117.48	C70020
23/64			3.500	88.90	4.875	123.83	C70022
		U	3.625	92.08	5.000	127.00	C70051
3/8			3.625	92.08	5.000	127.00	C70023
25/64			3.750	95.25	5.125	130.18	C70024
		Y	3.875	98.43	5.250	5.250	C70055
13/32			3.875	98.43	5.250	5.250	C70025
27/64			3.938	100.01	5.375	136.53	C70026
7/16			4.063	103.19	5.000	127.00	C70027
29/64			4.188	106.36	5.625	142.88	C70028
15/32			4.313	109.54	5.750	146.05	C70029
31/64			4.375	111.12	5.875	149.23	C70030
1/2			4.500	114.30	6.000	152.40	C70031
			13.0	3.976	101.00	5.900	151.00

Juegos

No. de Piezas	No. Lista	Acabado	Rango de Medidas	EDP
29	2213	oxido de paja	1/16" a 1/2" x 1/64"	C70365
26	2213	oxido de paja	de la letra A a la letra Z	C00986
60	2213	oxido de paja	calibre #1 a calibre #60	C70366
115	2213	oxido de paja	1/16" a 1/2" x 1/64" de la "A" a la "Z" y de calibre #1 a calibre #60	C70367

Serie Corta

Lista 2120 Brocas Serie Corta Uso General Acero Alta Velocidad

BROCAS

CARACTERÍSTICAS

ESPECIFICACIONES ANSI	A.A.V.
USO GENERAL	118°
ZANCO	30°
BRILLANTE	

APLICACIONES

ACEROS ALEADOS	ALUMINIO
ACERO AL CARBÓN	ALEACIONES DE COBRE
HIERRO FUNDIDO	LATÓN



Lista 2120 Brillante



Diámetro de Broca		Long. Canal		Long. Total		Acabado Brillante	Diámetro de Broca		Long. Canal		Long. Total		Acabado Brillante
Fracc.	Alfabéticas	Pulg.	mm	Pulg.	mm		Fracc.	Alfabéticas	Pulg.	mm	Pulg.	mm	
9/64		.9383	23.81	1.938	49.21	C04437	25/32		3.125	82.55	5.125	130.18	C04643
3/16		.2500	28.58	2.188	55.56	C04470	13/16		3.125	85.73	5.250	133.35	C04647
1/4	E	3.375	34.93	2.500	63.50	C04509	53/64		3.250	88.90	5.375	136.53	C04649
17/64		3.500	36.51	2.625	66.68	C04575	55/64		3.500	88.90	5.500	139.70	C04652
5/16		1.125	41.28	2.813	71.44	C04542	7/8		3.500	88.90	5.500	139.70	C04654
21/64		1.375	42.86	3.000	76.20	C04550	57/64		3.625	92.08	5.625	142.88	C04656
3/8		1.438	46.04	3.125	79.38	C04572	29/32		3.625	92.08	5.625	142.88	C04658
29/64		1.625	53.98	3.563	90.49	C04594	15/16		3.750	95.25	5.750	146.05	C04661
1/2		1.688	57.15	3.750	95.25	C04601	61/64		3.875	98.43	5.875	149.23	C04663
37/64		1.813	66.68	4.125	104.78	C04614	31/32		3.875	98.43	5.875	149.23	C04665
5/8		2.125	69.85	4.250	107.95	C04622	63/64		4.000	101.60	6.000	152.40	C04667
41/64		2.250	73.03	4.500	114.30	C04625	1		4.000	101.60	6.000	152.40	C04668
11/16		2.625	73.03	4.625	117.48	C04632	1-1/16*		4.000	101.60	6.250	158.70	C04675
45/64		2.750	76.20	4.750	120.65	C04634	1-1/8*		4.000	101.60	6.375	161.93	C04683
23/32		2.875	76.20	4.750	120.65	C04636	1-1/4*		4.375	111.13	6.750	171.45	C04697
47/64		2.875	79.38	5.000	127.00	C04638	1-9/16*		4.875	123.83	7.750	196.85	C04733
3/4		3.000	79.38	5.000	127.00	C04640							
49/64		3.000	82.55	5.125	130.18	C04641							

* Desde 1" hasta 1-1/4" tienen 1" en el zanco.
 Desde 1-5/16" hasta 1-1/2" tienen 1-1/4" en el zanco.
 Desde 1-9/16" hasta 1-3/4" tienen 1-1/2" en el zanco.



Ventajas del uso de Brocas de Flautas Cortas

- Ofrece mayor rigidez
- Mantiene una mayor precisión al perforar



Zanco Largo

Lista 2510 Brocas Serie Larga Uso General Acero Alta Velocidad

BROCAS

CARACTERISTICAS

ESPECIFICACIONES ANSI	A.A.V.
DIN 340	ACABADO OXIDO AL VAPOR
USO GENERAL	38°
ZANCO	118°

APLICACIONES

ACERO AL CARBON
ACERO ALEADO
FUNDICIÓN



Lista 2510 Acabado Óxido al Vapor



Diámetro		Long. Canal	Long. Total		Acabado Óxido al Vapor		
Fraccional	Numéricas		Milimétrica	Pulg.		mm	
		1.0	1-19/64	33.00	2-1/4	56.00	C08592
	60		1-1/8	28.58	2-1/4	57.15	C08593
	59		1-1/8	28.58	2-1/4	57.15	C08594
	58		1-1/8	28.58	2-1/4	57.15	C08596
	57		1-1/8	28.58	2-1/4	57.15	C08597
	56		1-1/8	28.58	2-1/4	57.15	C08600
3/64		1.25	1-1/8	28.58	2-1/4	57.15	C08601
			1-39/64	41.00	2-35/64	65.00	C08603
	55		1-3/4	44.45	3	76.20	C08605
	54		1-3/4	44.45	3	76.20	C08607
	53		1-3/4	44.45	3	76.20	C08611
		1.55	1-23/32	45.00	2-49/64	70.00	C08612
1/16			1-3/4	44.45	3	76.20	C08613
	52		2	50.80	3-3/4	95.25	C08615
	51		2	50.80	3-3/4	95.25	C08618
	50		2	50.80	3-3/4	95.25	C08620
	49		2	50.80	3-3/4	95.25	C08623
	48		2	50.80	3-3/4	95.25	C08625
5/64			2	50.80	3-3/4	95.25	C08627
	47		2-1/4	57.15	4-1/4	107.95	C08628
		2.0	2-1/4	56.00	3-11/32	85.00	C08629
	46		2-1/4	57.15	4-1/4	107.95	C08631
	45		2-1/4	57.15	4-1/4	107.95	C08632
	44		2-1/4	57.15	4-1/4	107.95	C08635
	43		2-1/4	57.15	4-1/4	107.95	C08638
		2.35	3-21/64	59.00	3-35/64	90.00	C08640
	42		2-1/4	57.15	4-1/4	107.95	C08641
3/32			2-1/4	57.15	4-1/4	107.95	C08642
		2.4	2-7/16	62.00	3-3/4	95.25	C08643
	41		2-1/2	63.50	4-5/8	117.48	C08644
	40		2-1/2	63.50	4-5/8	117.48	C08646
	39		2-1/2	63.50	4-5/8	117.48	C08648
	38		2-1/2	63.50	4-5/8	117.48	C08649
	37		2-1/2	63.50	4-5/8	117.48	C08651

Continúa en la siguiente página



Zanco Largo

Lista 2510 Brocas Serie Larga Uso General Acero Alta Velocidad (continuación)

Fraccional	Diámetro		Long.Canal		Long.Total		Acabado Óxido al Vapor
	Numéricas	Milimétrica	Pulg.	mm	Pulg.	mm	
7/64	36		2-1/2	63.50	4-5/8	117.48	C08653
			2-1/2	63.50	4-5/8	117.48	C08655
	35	2.8	2-3/4	69.85	5-1/8	130.18	C08656
			2-39/64	66.00	3-15/16	100.00	C08578
	34		2-3/4	69.85	5-1/8	130.18	C08658
			2-3/4	69.85	5-1/8	130.18	C08659
	32	3.0	2-3/4	69.85	5-1/8	130.18	C08661
			2-39/64	66.00	5-1/8	130.18	C08662
1/8	31		2-3/4	69.85	5-1/8	130.18	C08663
			2-3/4	69.85	5-1/8	130.18	C08665
	30	3.2	2-3/4	69.00	4-11/64	106.00	C08666
			3	76.20	5-3/8	136.53	C08668
	29	3.3	2-3/4	69.00	4-11/64	106.00	C08669
			3	76.20	5-3/8	136.53	C08671
	28	3.5	2-7/8	73.00	4-13/32	112.00	C08582
			3	76.20	5-3/8	136.53	C08673
9/64	27		3	76.20	5-3/8	136.53	C08674
			3	76.20	5-3/8	136.53	C08676
	26		3	76.20	5-3/8	136.53	C08678
			3	76.20	5-3/8	136.53	C08680
	24		3	76.20	5-3/8	136.53	C08682
			3	76.20	5-3/8	136.53	C08684
5/32	23		3	76.20	5-3/8	136.53	C08685
			3	76.20	5-3/8	136.53	C08688
	22	4.0	3-3/8	85.73	5-3/4	146.05	C08686
			3-1/16	78.00	4-11/16	119.00	C08687
	21		3-3/8	85.73	5-3/4	146.05	C08688
			3-3/8	85.73	5-3/4	146.05	C08689
	20	4.2	3-1/16	78.00	4-11/16	119.00	C08587
			3-3/8	85.73	5-3/4	146.05	C08692
11/64	19		3-3/8	85.73	5-3/4	146.05	C08692
			3-3/8	85.73	5-3/4	146.05	C08695
	18		3-3/8	85.73	5-3/4	146.05	C08696
			3-3/8	85.73	5-3/4	146.05	C08697
	17		3-3/8	85.73	5-3/4	146.05	C08699
			3-3/8	85.73	5-3/4	146.05	C08701
	16		3-3/8	85.73	5-3/4	146.05	C08703
			3-3/8	85.73	5-3/4	146.05	C08704
3/16	15		3-3/8	85.73	5-3/4	146.05	C08707
			3-3/8	85.73	5-3/4	146.05	C08707
	14		3-3/8	85.73	5-3/4	146.05	C08707
			3-3/8	85.73	5-3/4	146.05	C08708
	13		3-3/8	85.73	5-3/4	146.05	C08710
			3-3/8	85.73	5-3/4	146.05	C08712
	12	5.0	3-3/8	85.73	5-3/4	146.05	C08713
			3.625	92.08	6	152.40	C08714
	11		3.625	92.08	6	152.40	C08715
			3.625	92.08	6	152.40	C08717
13/64	10		3.625	92.08	6	152.40	C08718
			3.625	92.08	6	152.40	C08719
	9		3.625	92.08	6	152.40	C08721
			3.625	92.08	6	152.40	C08724
	8		3.625	92.08	6	152.40	C08726
			3.625	92.08	6	152.40	C08728
7/32	7		3.625	92.08	6	152.40	C08730
			3.625	92.08	6	152.40	C08733
	6		3.625	92.08	6	152.40	C08730
			3.625	92.08	6	152.40	C08733
	5		3-3/4	95.25	6-1/8	155.58	C08730
			3-3/4	95.25	6-1/8	155.58	C08733
	4		3-3/4	95.25	6-1/8	155.58	C08730
			3-3/4	95.25	6-1/8	155.58	C08733
	3		3-3/4	95.25	6-1/8	155.58	C08730
			3-3/4	95.25	6-1/8	155.58	C08733
	2		3-3/4	95.25	6-1/8	155.58	C08730
			3-3/4	95.25	6-1/8	155.58	C08733
	1		3-3/4	95.25	6-1/8	155.58	C08730
			3-3/4	95.25	6-1/8	155.58	C08733

Continúa en la siguiente página

Zanco Largo

Lista 2510 Brocas Serie Larga Uso General Acero Alta Velocidad (continuación)

BROCAS

Fraccional	Diámetro		Long.Canal		Long.Total		Acabado óxido al vapor
	Alfabética	Milimétrica	Pulg.	mm	Pulg.	mm	
		5.8	3-37/64	90.88	5-15/32	139.00	C08608
		5.9	3-37/64	90.88	5-15/32	139.00	C08735
15/64			3-3/4	95.25	6-1/8	155.58	C08737
		6.0	3-37/64	90.88	5-15/32	139.00	C08738
	D		3-3/4	95.25	6-1/8	155.58	C08743
		6.3	3-13/16	96.84	5-53/64	148.00	C08745
1/4	E		3-3/4	95.25	6-1/8	155.58	C08746
		6.5	3-13/16	96.84	5-53/64	148.00	C08749
	F		3-7/8	98.43	6-1/4	158.75	C08750
17/64			3-7/8	98.43	6-1/4	158.75	C08752
		6.8	4-1/64	102.00	6-9/64	156.00	C08755
	I		3-7/8	98.43	6-1/4	158.75	C08757
		7.0	4-1/64	102.00	6-9/64	156.00	C08758
	J		3-7/8	98.43	6-1/4	158.75	C08759
9/32			3-7/8	98.43	6-1/4	158.75	C08766
		7.5	4-1/64	102.00	6-9/64	156.00	C08609
19/64			4	101.60	6-3/8	161.93	C08770
	N		4	101.60	6-3/8	161.93	C08772
5/16			4	101.60	6-3/8	161.93	C08777
		8.0	4-19/64	109.14	6-1/2	165.10	C08778
	O		4-1/8	104.78	6-1/2	165.10	C08779
	P		4-1/8	104.78	6-1/2	165.10	C08782
21/64			4-1/8	104.78	6-1/2	165.10	C08785
	Q		4-1/8	104.78	6-1/2	165.10	C08787
		8.5	4-19/64	109.14	6-1/2	165.10	C08788
	R		4-1/8	104.78	6-1/2	165.10	C08790
11/32			4-1/8	104.78	6-1/2	165.10	C08792
		9.0	4-17/32	115.00	6-57/64	175.00	C08797
23/64			4-1/4	107.95	6-3/4	171.45	C08800
3/8			4-1/4	107.95	6-3/4	171.45	C08807
	V		4-3/8	111.13	7	177.80	C08808
25/64			4-3/8	111.13	7	177.80	C08815
		10.0	4-49/64	120.80	7-1/4	184.00	C08816
		10.2	4-49/64	120.80	7-1/4	184.00	C08818
13/32			4-3/8	111.13	7	177.80	C08821
		10.5	4-49/64	120.80	7-1/4	184.15	C08823
27/64			4-5/8	117.48	7-1/4	184.15	C08824
		11.0	5-1/32	128.00	7-11/16	195.26	C08826
7/16			4-5/8	117.48	7-1/4	184.15	C08827
		11.2	5-1/32	128.00	7-11/16	195.26	C08828
29/64			4-3/4	120.65	7-1/2	190.50	C08830
15/32			4-3/4	120.65	7-1/2	190.50	C08832
		12.0	5-9/32	134.15	8-1/16	204.79	C08833
31/64			4-3/4	120.65	7-3/4	196.85	C08835
		12.5	5-9/32	134.00	8-1/16	204.79	C08610
1/2			4-3/4	120.65	7-3/4	196.85	C08837
		13.0	5-9/32	134.00	8-1/16	204.79	C08839
33/64			4-3/4	120.65	8	203.20	C08840
17/32			4-3/4	120.65	8	203.20	C08842
35/64			4-7/8	123.83	8-1/4	209.55	C08845
		14.0	5-35/64	140.89	8-27/64	213.92	C08846
9/16			4-7/8	123.83	8-1/4	209.55	C08848

Continúa en la siguiente página



Zanco Largo

Lista 2510 Brocas Serie Larga Uso General Acero Alta Velocidad (continuación)

BROCAS

Diámetro		Long.Canal		Long.Total		Acabado óxido al vapor
Fraccional	Milimétrica	Pulg.	mm	Pulg.	mm	
37/64	15.0	4-7/8	123.83	8-3/4	222.25	C08850
		5-21/32	144.00	8-21/32	220.00	C08852
19/32	16.0	4-7/8	123.83	8-3/4	222.25	C08853
39/64		4-7/8	123.83	8-3/4	225.25	C08855
5/8	17.0	4-7/8	123.83	8-3/4	225.25	C08858
		5-7/8	149.00	8-15/16	227.00	C08859
41/64	18.0	5-1/8	130.18	9	228.60	C08861
21/32		5-1/8	130.18	9	228.60	C08863
43/64	19.0	5-7/8	149.00	9-1/4	235.00	C08865
		5-3/8	136.53	9-1/4	234.95	C08866
11/16	20.0	5-3/8	136.53	9-1/4	234.95	C08868
45/64		5-5/8	142.88	9-1/2	241.30	C08870
23/32	21.0	5-5/8	143.00	9-1/2	241.00	C08871
		5-5/8	142.88	9-1/2	241.00	C08872
47/64	22.0	5-7/8	149.23	9-3/4	247.65	C08874
3/4		5-7/8	149.23	9-3/4	247.65	C08876
49/64	23.0	6	152.40	9-7/8	250.83	C08877
25/32		6	152.40	9-7/8	250.83	C08879
51/64	24.0	6-9/64	156.00	10	254.00	C08880
		6-1/8	155.58	10	254.00	C08881
13/16	25.0	6-1/8	155.58	10	254.00	C08883
53/64		6-1/8	155.58	10	254.00	C08885
27/32	26.0	6-1/8	155.58	10	254.00	C08886
55/64		6-1/8	155.58	10	254.00	C08888
7/8	27.0	6-1/8	155.58	10	254.00	C08890
57/64		6-1/8	155.58	10	254.00	C08892
29/32	28.0	6-1/8	155.58	10	254.00	C08894
59/64		6-1/8	155.58	10-3/4	273.05	C08895
15/16	29.0	6-1/8	155.58	10-3/4	273.05	C08897
61/64		6-3/8	161.93	11	279.40	C08899
31/32	30.0	6-3/8	161.93	11	279.40	C08901
63/64		6-3/8	161.93	11	279.40	C08903
1	31.0	6-3/8	161.93	11	279.40	C08904
1-1/64		6-1/2	165.10	11-1/8	282.58	C08906
1-1/32	32.0	6-1/2	165.10	11-1/8	282.58	C08908
1-3/64		6-5/8	168.28	11-1/4	285.75	C08910
1-1/16	33.0	6-5/8	168.28	11-1/4	285.75	C08911
1-1/8		7-1/8	180.98	11-3/4	298.45	C08919
1-1/4	7-7/8	200.03	12-1/2	317.50	C08933	

Lista 2510 Juego

No. de Piezas	Acabado	Rango	Código
29	Óxido al Carbón	1-16" a 1/2" x 1/64	C00888

Zanco Recto Automotriz

Lista 2520 Brocas Zanco Automotriz Uso General Acero Alta Velocidad

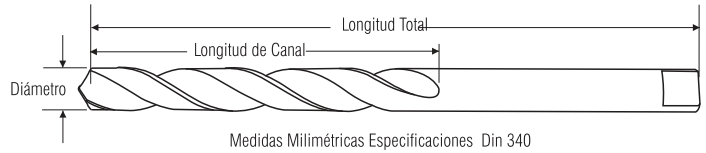
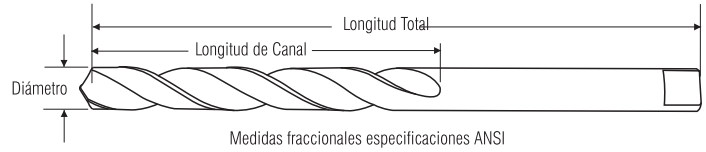
BROCAS

CARACTERÍSTICAS

ESPECIFICACIONES ANSI	A.A.V.
DIN 340	ACABADO OXIDAL VAPOR
USO GENERAL	38°
ZANCO	118°

APLICACIONES

ACERO AL CARBÓN
ACERO ALEADO
FUNDICIÓN



Diámetro Fracc.	Pulg.	Long. Canal mm	Pulg.	Long. Total mm	Acabado óxido al vapor
1/8	2-3/4	69.85	5-1/8	130.18	C08423
5/32	3	76.20	5-3/8	136.53	C08435
3/16	3-3/8	85.73	5-3/4	146.05	C08447
13/64	3-5/8	92.08	6	152.40	C08452
7/32	3-5/8	92.08	6	152.40	C08458
15/64	3-3/4	95.25	6-1/8	155.58	C08464
1/4	3-3/4	95.25	6-1/8	155.58	C08470
17/64	3-7/8	98.43	6-1/4	158.75	C08475
9/32	3-7/8	98.43	6-1/4	158.75	C08484
5/16	4	101.60	6-3/8	161.93	C08493
11/32	4-1/8	104.78	6-1/2	165.10	C08504
3/8	1-1/4	107.95	6-3/4	171.45	C08516
25/64	4-3/8	111.13	7	177.80	C08522
13/32	4-3/8	111.13	7	177.80	C08525
27/64	4-5/8	117.48	7-1/4	184.15	C08527
7/16	4-5/8	117.48	7-1/4	184.15	C08530
15/32	4-3/4	120.65	7-1/2	190.50	C08535
1/2	4-3/4	120.65	7-3/4	196.85	C08540
9/16	4-7/8	123.83	8-1/4	209.55	C08551
37/64	4-7/8	123.83	8-3/4	222.25	C08553
19/32	4-7/8	123.83	8-3/4	222.25	C08556
39/64	4-7/8	123.83	8-3/4	222.25	C08558

Extra Larga

Lista 950 E Brocas Extra Larga Uso General Acero Alta Velocidad

CARACTERÍSTICAS

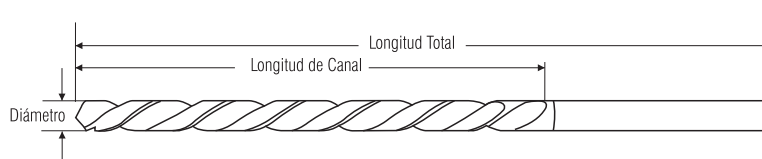
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USO GENERAL	ACABADO ÓXIDO AL VAPOR
ZANCO	118°
	30°

APLICACIONES

ACERO AL CARBÓN
ACERO GRADO HERRAMIENTA
FUNDICIÓN



Lista 950 E Acabado Óxido al Vapor



Medidas fraccionales especificaciones ANSI

Diámetro Fraccional	Long. Canal		Long. Total		Acabado óxido al vapor
	Pulg.	mm	Pulg.	mm	
3/32	5-1/2	139.70	8	203.20	C09655
7/64	5-1/2	139.70	8	203.20	C09656
1/8	5-1/2	139.70	8	203.20	C09657
1/8	7-1/2	190.50	10	254.00	C09707
1/8	9	228.60	12	304.80	C09736
9/64	5-1/2	139.70	8	203.20	C09658
5/32	5-1/2	139.70	8	203.20	C09659
5/32	7-1/2	190.50	10	254.00	C09709
5/32	9	228.60	12	304.80	C09738
11/64	5-1/2	139.70	8	203.20	C09660
3/16	5-1/2	139.70	8	203.20	C09661
3/16	7-1/2	190.50	10	254.00	C09711
3/16	9	228.60	12	304.80	C09740
13/64	5-1/2	139.70	8	203.20	C09662
7/32	5-1/2	139.70	8	203.20	C09663
7/32	7-1/2	190.50	10	254.00	C09713
7/32	9	228.60	12	304.80	C09742
15/64	5-1/2	139.70	8	203.20	C09664
15/64	7-1/2	190.50	10	254.00	C09714
1/4	5-1/2	139.70	8	203.20	C09665
1/4	7-1/2	190.50	10	254.00	C09715
1/4	9	228.60	12	304.80	C09744
1/4	14	355.60	18	457.20	C09831
17/64	5-1/2	139.70	8	203.20	C09666
9/32	5-1/2	139.70	8	203.20	C09667
9/32	9	228.60	12	304.80	C09746
9/32	14	355.60	18	457.20	C09833
19/64	5-1/2	139.70	8	203.20	C09668
5/16	5-1/2	139.70	8	203.20	C09669
5/16	7-1/2	190.50	10	254.00	C09719
5-16	9	228.60	12	304.80	C09748
5/16	14	355.60	18	457.20	C09835
21/64	5-1/2	139.70	8	203.20	C09670
11/32	5-1/2	139.70	8	203.20	C09671
11/32	7-1/2	190.50	10	254.00	C09721

Diámetro Fraccional	Long. Canal		Long. Total		Acabado óxido al vapor
	Pulg.	mm	Pulg.	mm	
11/32	9	228.60	12	304.80	C09750
11/32	14	355.60	18	457.20	C09837
23/64	5-1/2	139.70	8	203.20	C09672
3/8	5-1/2	139.70	8	203.20	C09673
3/8	7-1/2	190.50	10	254.00	C09723
3/8	9	228.60	12	304.80	C09752
3/8	14	355.60	18	457.20	C09839
25/64	5-1/2	139.70	8	203.20	C09674
13/32	5-1/2	139.70	8	203.20	C09675
13/32	7-1/2	190.50	10	254.00	C09725
13/32	14	355.60	18	457.20	C09841
27/64	5-1/2	139.70	8	203.20	C09676
7/16	5-1/2	139.70	8	203.20	C09677
7/16	7-1/2	190.50	10	254.00	C09727
7/16	9	228.60	12	304.80	C09756
7/16	14	355.60	18	457.20	C09843
29/64	5-1/2	139.70	8	203.20	C09678
15/32	5-1/2	139.70	8	203.20	C09679
15/32	7-1/2	190.50	10	254.00	C09729
15/32	9	228.60	12	304.80	C09758
15/32	14	355.60	18	457.20	C09845
31/64	5-1/2	139.70	8	203.20	C09680
1/2	5-1/2	139.70	8	203.20	C09681
1/2	7-1/2	190.50	10	254.00	C09731
1/2	9	228.60	12	304.80	C09760
1/2	14	355.60	18	457.20	C09847
17/32	7-1/2	190.50	10	254.00	C09733
17/32	9	228.60	12	304.80	C09762
9/16	7-1/2	190.50	10	254.00	C09735
9/16	9	228.60	12	304.80	C09764
5/8	9	228.60	12	304.80	C09768
21/32	9	228.60	12	304.80	C09770
11/16	9	228.60	12	304.80	C09772
23/32	9	228.60	12	304.80	C09774
3/4	9	228.60	12	304.80	C09776

BROCAS



Zanco Cónico

Lista 2410 Brocas Zanco Cónico Uso General Acero Alta Velocidad

BROCAS

CARACTERÍSTICAS

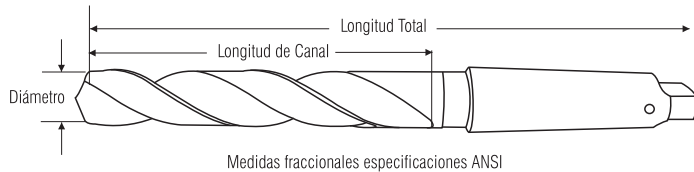
ESPECIFICACIONES ANSI	A.A.V.
USO GENERAL	38
ZANCO	118
ACABADO ÓXIDO AL VAPOR	

APLICACIONES

ACERO AL CARBÓN
ACERO SIN ALEACIÓN
FUNDICIÓN



Lista 2410 Acabado Óxido al Vapor



Diámetro Fraccional	Long. Canal Pulgs.	mm	Long. Total Pulgs.	mm	Cono Morse	Acabado óxido al vapor
1/8	1-7/8	47.63	5-1/8	130.18	1	C12040
5/32	2-1/8	53.98	5-3/8	136.53	1	C12052
11/64	2-1/2	63.50	5-3/4	146.05	1	C12058
3/16	2-1/2	63.50	5-3/4	146.05	1	C12064
13/64	2-3/4	69.85	6	152.40	1	C12069
7/32	2-3/4	69.85	6	152.40	1	C12075
15/64	2-7/8	73.03	6-1/8	155.58	1	C12082
1/4	2-7/8	73.03	6-1/8	155.58	1	C12091
17/64	3	76.20	6-1/4	158.75	1	C12099
9/32	3	76.20	6-1/4	158.75	1	C12113
19/64	3-1/8	79.38	6-3/8	161.93	1	C12117
5/16	3-1/8	79.38	6-3/8	161.93	1	C12124
21/64	3-1/4	82.55	6-1/2	165.10	1	C12132
11/32	3-1/4	82.55	6-1/2	165.10	1	C12139
23/64	3-1/2	88.90	6-3/4	171.45	1	C12147
3/8	3-1/2	88.90	6-3/4	171.45	1	C12154
25/64	3-5/8	92.08	7	177.80	1	C12162
13/32	3-5/8	92.08	7	177.80	1	C12167
27/64	3-7/8	98.43	7-1/4	184.15	1	C12170
7/16	3-7/8	98.43	7-1/4	184.15	1	C12173
29/64	4-1/8	104.78	7-1/2	190.50	1	C12176
15/32	4-1/8	104.78	7-1/2	190.50	1	C12178
31/64	4-3/8	111.13	8-1/4	209.55	2	C12181
1/2	4-3/8	111.13	8-1/4	209.55	2	C12183
33/64	4-5/8	117.48	8-1/2	215.90	2	C12186
17/32	4-5/8	117.48	8-1/2	215.90	2	C12188
35/64	4-7/8	123.83	8-3/4	222.25	2	C12191
9/16	4-7/8	123.83	8-3/4	222.25	2	C12194
37/64	4-7/8	123.83	8-3/4	222.25	2	C12196
19/32	4-7/8	123.83	8-3/4	222.25	2	C12199
39/64	4-7/8	123.83	8-3/4	222.25	2	C12201
5/8	4-7/8	123.83	8-3/4	222.25	2	C12204
41/64	5-1/8	130.18	9	228.60	2	C12207
21/32	5-1/8	130.18	9	228.60	2	C12209
43/64	5-3/8	136.53	9-1/4	234.95	2	C12212
11/16	5-3/8	136.53	9-1/4	234.95	2	C12214
45/64	5-5/8	142.88	9-1/2	241.30	2	C12216
23/32	5-5/8	142.88	9-1/2	241.30	2	C12218

Continúa en la siguiente página



Zanco Cónico

Lista 2410 Brocas Zanco Cónico Uso General Acero Alta Velocidad (continuación)

Diámetro Fraccional	Long. Canal		Long. Total		Cono Morse	Acabado óxido al vapor
	Pulg.	mm	Pulg.	mm		
47/64	5-7/8	149.23	9-3/4	247.65	2	C12220
3/4	5-7/8	149.23	9-3/4	247.65	2	C12222
49/64	6	152.40	9-7/8	250.83	2	C12223
25/32	6	152.40	9-7/8	250.83	2	C12225
51/64	6-1/8	155.58	10-3/4	273.05	3	C12227
13/16	6-1/8	155.58	10-3/4	273.05	3	C12229
53/64	6-1/8	155.58	10-3/4	273.05	3	C12231
27/32	6-1/8	155.58	10-3/4	273.05	3	C12232
55/64	6-1/8	155.58	10-3/4	273.05	3	C12234
7/8	6-1/8	155.58	10-3/4	273.05	3	C12236
57/64	6-1/8	155.58	10-3/4	273.05	3	C12238
29/32	6-1/8	155.58	10-3/4	273.05	3	C12240
59/64	6-1/8	155.58	10-3/4	273.05	3	C12241
15/16	6-1/8	155.58	10-3/4	273.05	3	C12243
61/64	6-3/8	161.93	11	279.40	3	C12245
31/32	6-3/8	161.93	11	279.40	3	C12247
63/64	6-3/8	161.93	11	279.40	3	C12249
1	6-3/8	161.93	11	279.40	3	C12250
1	6-3/8	161.93	12	304.80	4	C12684
1-1/64	6-1/2	165.10	11-1/8	282.58	3	C12252
1-1/32	6-1/2	165.10	11-1/8	282.58	3	C12254
1-3/64	6-5/8	168.28	11-1/4	285.75	3	C12256
1-1/16	6-5/8	168.28	11-1/4	285.75	3	C12257
1-5/64	6-7/8	174.63	12-1/2	317.50	4	C12259
1-3/32	6-7/8	174.63	12-1/2	317.50	4	C12261
1-7/64	7-1/8	180.98	12-3/4	323.85	4	C12263
1-1/8	7-1/8	180.98	12-3/4	323.85	4	C12265
1-9/64	7-1/4	184.15	12-7/8	327.03	4	C12266
1-5/32	7-1/4	184.15	12-7/8	327.03	4	C12268
1-11/64	7-3/8	187.33	13	330.20	4	C12270
1-3/16	7-3/8	187.33	13	330.20	4	C12272
1-13/64	7-1/2	191.50	13-1/8	333.38	4	C12274
1-7/32	7-1/2	190.50	13-1/8	333.38	4	C12275
1-15/64	7-7/8	200.03	13-1/2	342.90	4	C12277
1-1/4	7-7/8	200.03	13-1/2	342.90	4	C12279
1-17/64	8-1/2	215.90	14-1/8	358.78	4	C12281
1-9/32	8-1/2	215.90	14-1/8	358.78	4	C12283
1-19/64	8-5/8	219.08	14-1/4	361.95	4	C12284
1-5/16	8-5/8	219.08	14-1/4	361.95	4	C12286
1-21/64	8-3/4	222.25	14-3/8	365.13	4	C12288
1-11/32	8-3/4	222.25	14-3/8	365.13	4	C12290
1-23/64	8-7/8	225.43	14-1/2	368.30	4	C12292
1-3/8	8-7/8	225.43	14-1/2	368.30	4	C12293
1-25/64	9	228.60	14-5/8	371.48	4	C12295
1-13/32	9	228.60	14-5/8	371.48	4	C12297
1-27/64	9-1/8	231.78	14-3/4	374.65	4	C12299
1-7/16	9-1/8	231.78	14-3/4	374.65	4	C12301
1-29/64	9-1/4	234.95	14-7/8	377.83	4	C12302
1-15/32	9-1/4	234.95	14-7/8	377.83	4	C12304
1-31/64	9-1/4	234.95	14-7/8	377.83	4	C12306
1-1/2	9-3/8	238.15	15	381.00	4	C12308
1-33/64	9-3/8	238.15	15	381.00	4	C12310
1-17/32	9-3/8	238.15	15	381.00	5	C12311
1-35/64	9-3/8	238.15	15	381.00	5	C12313
1-9/16	9-5/8	244.48	16-5/8	422.28	5	C12315
1-37/64	9-5/8	244.48	16-5/8	422.28	5	C12317
1-19/32	9-5/8	244.48	16-5/8	422.28	5	C12318

Continúa en la siguiente página

Zanco Cónico

Lista 2410 Brocas Zanco Cónico Uso General Acero Alta Velocidad (continuación)

BROCAS

Diámetro Fraccional	Long. Canal		Long. Total		Cono Morse	Acabado óxido al vapor
	Pulg.	mm	Pulg.	mm		
1-39/64	9-5/8	244.48	16-5/8	422.28	5	C12319
1-5/8	10	254.00	17	431.80	5	C12322
1-41/64	10	254.00	17	431.80	5	C12324
1-21/32	10	254.00	17	431.80	5	C12326
1-43/64	10	254.00	17	431.80	5	C12328
1-11/16	10-1/8	257.18	17-1/8	434.98	5	C12329
1-45/64	10-1/8	257.18	17-1/8	434.98	5	C12331
1-23/32	10-1/8	257.18	17-1/8	434.98	5	C12333
1-47/64	10-1/8	257.18	17-1/8	434.98	5	C12335
1-3/4	10-1/8	257.18	17-1/8	434.98	5	C12336
1-25/32	10-1/8	257.18	17-1/8	434.98	5	C12340
1-13/16	10-1/8	257.18	17-1/8	434.98	5	C12344
1-27/32	10-1/8	257.18	17-1/8	434.98	5	C12347
1-7/8	10-3/8	263.53	17-3/8	441.33	5	C12351
1-29/32	10-3/8	263.53	17-3/8	441.33	5	C12354
1-15/16	10-3/8	263.53	17-3/8	441.33	5	C12358
1-31/32	10-3/8	263.53	17-3/8	441.33	5	C12362
2	10-3/8	263.53	17-3/8	441.33	5	C12365
2-1/32	10-3/8	263.53	17-3/8	441.33	5	C12368
2-1/16	10-3/8	263.53	17-3/8	441.33	5	C12371
2-3/32	10-3/8	263.53	17-3/8	441.33	5	C12374
2-1/8	10-3/8	263.53	17-3/8	441.33	5	C12376
2-5/32	10-3/8	263.53	17-3/8	441.33	5	C12379
2-3/16	10-1/4	257.18	17-3/8	441.33	5	C12382
2-7/32	10-1/4	257.18	17-3/8	441.33	5	C12385
2-1/4	10-1/4	257.18	17-3/8	441.33	5	C12388
2-5/16	10-1/4	257.18	17-3/8	441.33	5	C12393
2-3/8	11-1/4	285.75	18-3/4	476.25	5	C12399
2-7/16	11-1/4	285.75	18-3/4	476.25	5	C12404
2-1/2	11-1/4	285.75	18-3/4	476.25	5	C12410
2-9/16	11-1/4	285.75	18-3/4	476.25	5	C12416
2-5/8	11-1/4	285.75	18-3/4	476.25	5	C12421
2-11/16	11-1/4	285.75	18-3/4	476.25	5	C12427
2-3/4	11-1/4	285.75	18-3/4	476.25	5	C12432
2-7/8	11-1/4	285.75	18-3/4	476.25	5	C12444
2-15/16	11-1/4	285.75	18-3/4	476.25	5	C12449
3	11-1/4	285.75	18-3/4	476.25	5	C12455
3-1/8	14-3/4	374.65	24-1/2	622.30	6	C12460
3-1/4	15-5/8	396.88	25-1/2	647.70	6	C12462
3-3/8	15-1/2	393.70	25-1/2	647.70	6	C12465
3-1/2	16-3/8	415.93	26-1/2	673.10	6	C12468

Lista 2410 M Broca Zanco Cónico A. A. V.

CARACTERÍSTICAS

ESPECIFICACIONES ANSI	A.A.V.
USO GENERAL	38
ZANCO	118
ACABADO ÓXIDO AL VAPOR	

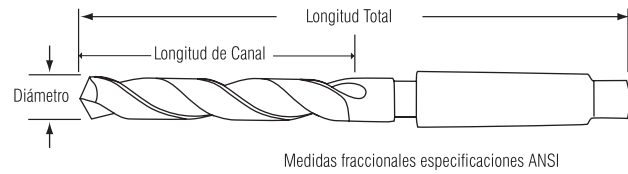
APLICACIONES

ACERO AL CARBÓN
ACERO SIN ALEACIÓN
FUNDICIÓN

Alta dureza para la vida extendida del desgaste en condiciones de alta temperatura



Lista xxx Broca Zanco Cónico



Medidas fraccionales especificaciones ANSI

Diámetro Fraccional	Long. Canal mm	Long. Total mm	Cono Morse	CÓDIGO
10.00	92	178	1	C120100
10.50	98	184	1	C120105
11.00	98	184	1	C120110
12.00	111	210	2	C120120
12.50	111	210	2	C120125
13.00	117	216	2	C120130
14.00	124	222	2	C120140
15.00	124	222	2	C120150
16.00	130	229	2	C120160
17.00	137	235	2	C120170
18.00	143	241	2	C120180
19.00	149	248	2	C120190
19.50	152	251	2	C120195
20.00	156	273	3	C120200
22.00	156	273	3	C120220
24.00	162	279	3	C120240
25.00	162	279	3	C120250
25.50	165	283	3	C120255
26.00	165	283	3	C120260
26.50	168	286	3	C120265
28.00	181	324	4	C120280
28.50	181	324	4	C120285
29.00	184	327	4	C120290
29.50	187	330	4	C120295
30.00	187	330	4	C120300
32.00	216	359	4	C120320
34.00	222	365	4	C120340
35.00	229	371	4	C120350
36.00	232	375	4	C120360
38.00	238	381	4	C120380
40.00	251	429	5	C120400
42.00	257	435	5	C120420
44.00	257	435	5	C120440
45.00	257	435	5	C120450
46.00	257	435	5	C120460
48.00	264	441	5	C120480
50.00	264	441	5	C120500
52.00	260	441	5	C120520
54.00	260	441	5	C120540
55.00	260	441	5	C120550
56.00	257	441	5	C120560
58.00	257	441	5	C120580
60.00	257	441	5	C120600

Zanco Cónico

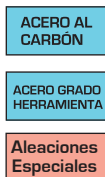
Lista 2440 Broca Zanco Cónico Cobalto Fraccional

BROCAS

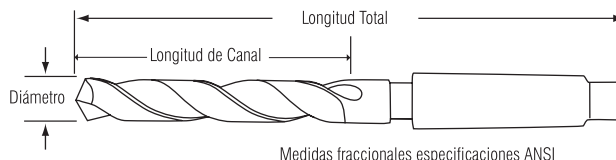
CARACTERÍSTICAS



APLICACIONES



Lista 2440 Broca Zanco Cónico Cobalto



Alta dureza para la vida extendida del desgaste en condiciones de alta temperatura

Diámetro Fraccional	Long. Canal		Long. Total		Cono Morse	CÓDIGO
	Pulg.	mm	Pulg.	mm		
1/4	2-7/8	73.03	6-1/8	155.58	1	C12705
5/16	3-1/8	79.38	6-3/8	161.93	1	C12728
11/32	3-1/4	82.55	6-1/2	165.10	1	C12739
3/8	3-1/2	88.90	6-3/4	171.45	1	C12751
13/32	3-5/8	92.08	7	177.80	1	C12760
7/16	3-7/8	98.43	7-1/4	184.15	1	C12765
15/32	4-1/8	104.78	7-1/2	190.50	1	C12770
1/2	4-3/8	111.13	8-1/4	209.55	2	C12775
17/32	4-5/8	117.48	8-1/2	215.90	2	C12780
9/16	4-7/8	123.83	8-3/4	222.25	2	C12786
19/32	4-7/8	123.83	8-3/4	222.25	2	C12791
5/8	4-7/8	123.83	8-3/4	222.25	2	C12796
21/32	5-1/8	130.18	9	228.60	3	C12801
11/16	5-3/8	136.53	9-1/4	234.95	3	C12806
23/32	5-5/8	142.88	9-1/2	241.30	3	C12810
3/4	5-7/8	149.23	9-3/4	247.65	3	C12814
25/32	6	152.40	9-7/8	250.83	3	C12817
13/16	6-1/8	155.58	10-3/4	273.05	3	C12821
7/8	6-1/8	155.58	10-3/4	273.05	3	C12828
15/16	6-1/8	155.58	10-3/4	273.05	3	C12835
1	6-3/8	161.93	11	279.40	3	C12842

Avellanadores

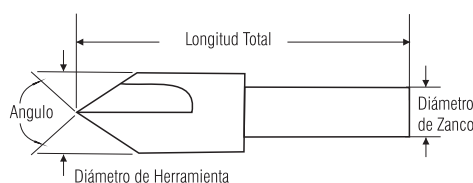
Lista 610 Avellanador Acero Alta Velocidad de Cuatro Canales

CARACTERISTICAS

ESPECIFICACIONES ANSI	A.A.V.
USO GENERAL	ACABADO OXIDO AL VAPOR
ZANCO	

APLICACIONES

ACERO ALEADO GRADO HERRAMIENTA
HIERRO FUNDIDO



Lista 610 Acabado Óxido al Vapor

Diám. Fracc.	Diám. de Zanco Pulgs.	Diám. de Zanco mm	Longitud Total Pulgs.	Longitud Total mm	Ángulo de 60°	Ángulo de 82°	Ángulo de 90°
1/4	3/16	4.76	1-7/16	36.51	C46198	C46199	C46200
3/8	1/4	6.35	1-21/32	42.07	C46204	C46205	C46206
1/2	3/8	9.53	1-27/32	46.83	C46210	C46211	C46212
5/8	3/8	9.53	2-3/32	53.18	C46216	C46217	C46218
3/4	1/2	12.70	2-13/32	61.12	C46222	C46223	C46224

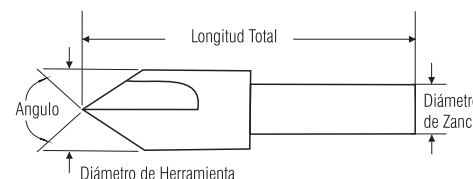
Lista 1001, 1003 Avellanador de Uno y Tres Canales Acero Alta Velocidad

CARACTERISTICAS

ESPECIFICACIONES ANSI	HSS SUBSTRATO
USO GENERAL	ACABADO OXIDO AL VAPOR
ZANCO	

APLICACIONES

ACERO ALEADO GRADO HERRAMIENTA
HIERRO FUNDIDO



Lista 1001 Un Canal



Lista 1003 Tres Canales

Lista 1001, Avellanador de Un Canal

Diám. Fracc.	Diám. de Zanco Pulgs.	Diám. de Zanco mm	Longitud Total Pulgs.	Longitud Total mm	Ángulo de 60°	Ángulo de 82°	Ángulo de 90°	Ángulo de 120°
1/4	3/16	4.76	1-1/2	38.10	C46101	C46102	C46103	C46106
3/8	1/4	6.35	1-3/4	44.45	C46107	C46108	C46109	C46112
1/2	1/4	6.35	2	50.80	C46113	C46114	C46115	C46118
5/8	3/8	9.53	2-1/4	57.15	C46119	C46120	C46121	C46123
3/4	3/8	9.53	2-5/8	66.68	C46124	C46125	C46126	C46129
1	1/2	12.70	3-1/8	79.38	C46130	C46131	C46132	C46135
1-1/4	1/2	12.70	3-31/32	100.81	C46136	C46137	C46138	-
1-1/2	1/2	12.70	4-5/16	109.54	C46141	C46139	C46140	-
2	1/2	12.70	5	127.00	C46142	C46143	-	-

Lista 1001, Avellanador de Tres Canales

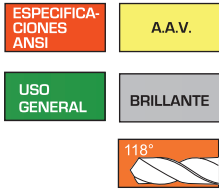
Diám. Fracc.	Diám. de Zanco Pulgs.	Diám. de Zanco mm	Longitud Total Pulgs.	Longitud Total mm	Ángulo de 60°	Ángulo de 82°	Ángulo de 90°	Ángulo de 120°
1/4	3/16	4.76	1-1/2	38.10	C46150	C46151	C46152	C46155
3/8	1/4	6.35	1-3/4	44.45	C46156	C46157	C46158	C46161
1/2	1/4	6.35	2	50.80	C46162	C46163	C46164	C46167
5/8	3/8	9.53	2-1/4	57.15	C46168	C46169	C46170	C46173
3/4	1/2	12.70	2-5/8	66.68	C46174	C46175	C46176	C46179
1	1/2	12.70	3-1/8	79.38	C46180	C46181	C46182	C46185
1-1/4	1/2	12.70	3-31/32	100.81	C46186	C46187	C46188	-
1-1/2	3/4	19.05	4-5/16	109.54	C46189	C46190	C46191	-
2	3/4	19.05	5	127.00	-	-	C46192	-

Broca para Centros

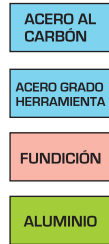
Lista 996, 998 Brocas para Centros Acero Alta Velocidad Tipo Plana y Tipo Campana

BROCAS

CARACTERISTICAS



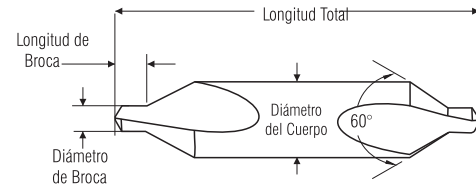
APLICACIONES



Lista 998 Tipo Plana

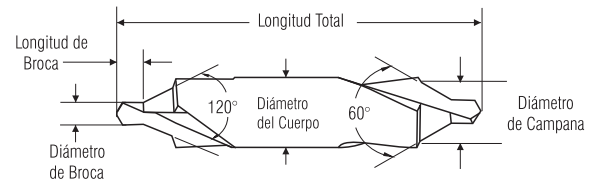


Lista 996 Tipo Campana



Lista 998 Plana

Medida Núm.	Diam. de Broca Pulgs.	Diám. del Cuerpo Pulgs.	mm	Long. de Broca Pulgs.	mm	Long. Total Pulgs.	mm	EDP Brillante
#00	.025	3/32	2.38	.030	0.76	1-1/8	28.58	C46261
#0	1/32	3/32	2.38	.038	0.97	1-1/8	28.58	C46262
#1	3/64	1/8	3.18	3/64	1.19	1-1/4	31.75	C46263
#2	5/64	3/16	4.76	1/16	1.98	1-7/8	47.63	C46264
#3	7/64	1/4	6.35	3/32	2.78	2	50.80	C46265
#4	1/8	5/16	7.94	7/64	3.18	2-1/8	53.98	C46266
#5	3/8	7/16	11.11	5/32	4.76	2-3/4	69.85	C46267
#6	7/32	1/2	12.70	3/16	5.56	3	76.20	C46268
#7	1/4	5/8	15.88	7/32	6.35	3-1/4	82.55	C46269
#8	5/16	3/4	19.05	1/4	7.94	3-1/2	88.90	C46270



Lista 996 Tipo Campana

Medida Núm.	Diam. de Broca Pulgs.	Diám. del Cuerpo Pulgs.	mm	Long. de Broca Pulgs.	mm	Long. Total Pulgs.	mm	Diám. Campana Pulgs.	mm	EDP Brillante
#11	3/64	1/8	3.18	3/64	1.19	1-1/4	31.75	.100	2.54	C46272
#12	1/16	3/16	4.76	1/16	1.59	1-7/8	47.63	.150	3.81	C46273
#13	3/32	1/4	6.35	3/32	2.38	2	50.80	.200	5.08	C46274
#14	7/64	5/16	7.94	7/64	2.78	2-1/8	53.98	.250	6.35	C46275
#15	5/32	7/16	11.11	5/32	3.97	2-3/4	69.85	.350	8.89	C46276
#16	3/16	1/2	12.70	3/16	4.76	3	76.20	.400	10.16	C46277
#17	7/32	5/8	15.88	7/32	5.56	3-1/4	82.55	.500	12.70	C46278
#18	1/4	3/4	19.05	1/4	6.35	3-1/2	88.90	.600	15.24	C46279