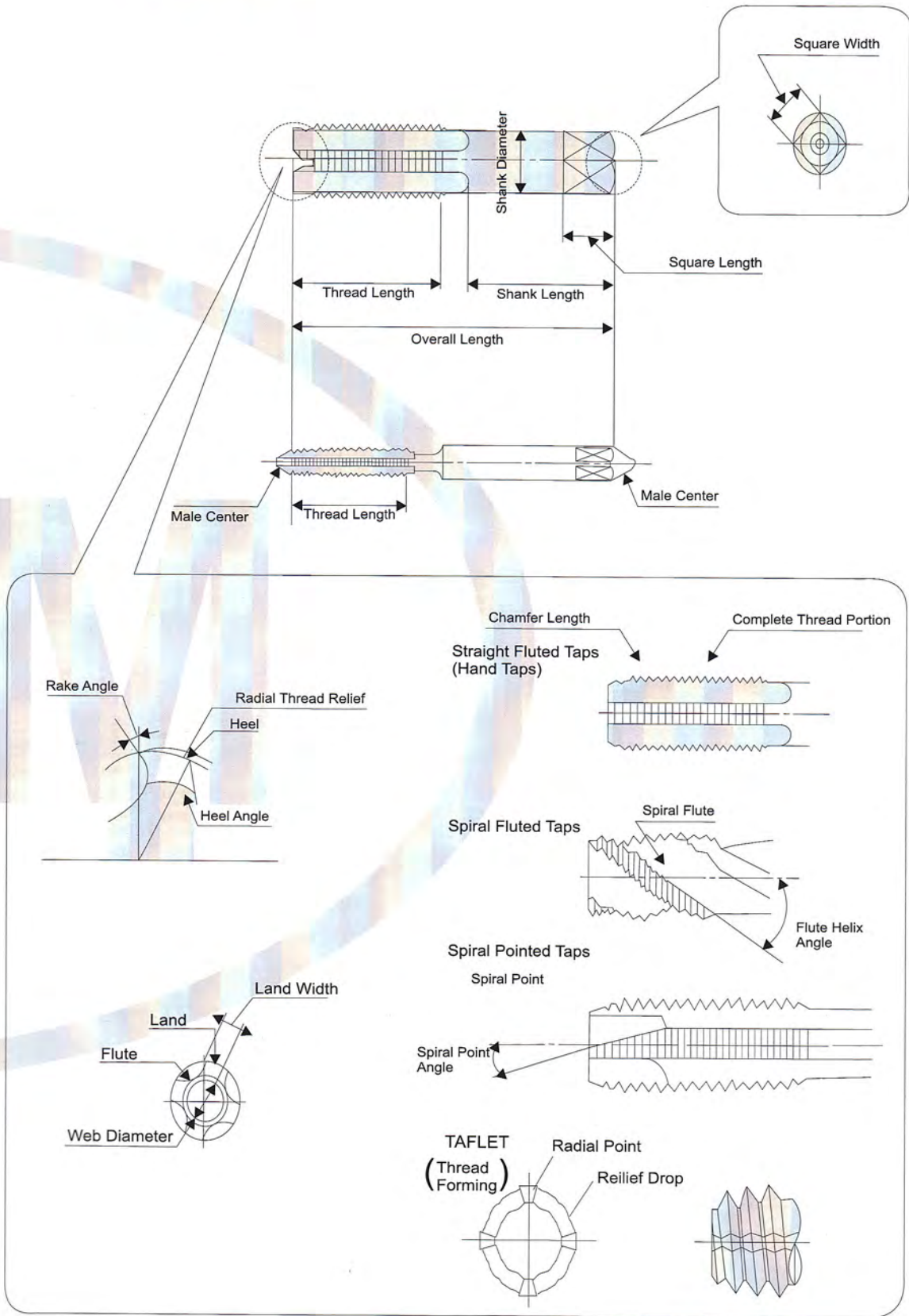


Información Técnica





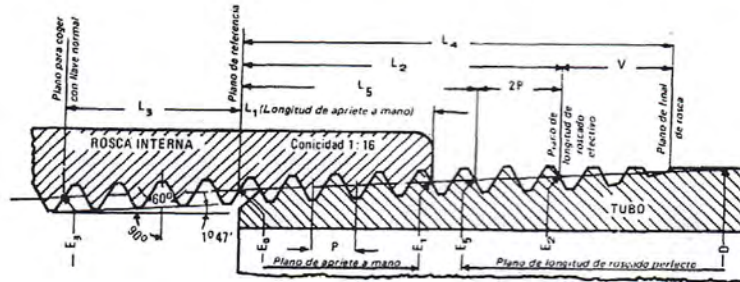


SIMBOLOS PARA IDENTIFICAR LAS ROSCAS

ACME-G	Rosca Acme (Acme-G) de utilización y ángulo 29°
ACME-STUB	Rosca Acme (Truncada) y ángulo 29°
ANPT	Rosca Aeronáutica del Ejército y Marina para tubo
API	Rosca del Instituto Americano del Petróleo para tubo
BA	Rosca Inglesa Asociación Estándar
BSC	Rosca Estándar para Bicicleta
BSP "R"	Rosca Inglesa Estndar para tubo cilíndrico
BSPT "KR"	Rosca Inglesa Estándar para tubo cónico
BSW	Rosca Inglesa Estándar Whitworth serie normal
BSF	Rosca Inglesa Estándar serie fina
ISO	Rosca Métrica y Unificada perfil estándar
M	Rosa Métrica serie normal
N	Rosca Nacional Americana para 8, 12, 16 hilos/1"
N Butt	Tosca Nacional Americana ess) diente de sierra
NC	Rosca Nacional Americana, serie normal
NF	Rosca Nacional Americana, serie fina
NEF	Rosca Nacional Americana, serie extra fina
NGO	Rosca Nacional Americana para salida de gases
NH	Rosca Nacional Americana para acoplamiento de tuboflexibles
NPS	Rosca Nacional Americanas para tubo cilíndrico
NPSC	Rosca Nacional Americana para los acoplamiento de tubos
NPSF	Rosca Nacional Americana sellado en seco tubo cilíndrico
NPSH	Rosca Nacional Americana para acoplamiento de tubos flexibles
NPSL	Rosca Nacional Americana para tuercas de tubo
NPSM	Rosca Nacional Americana para uniones mecánicas
NPT	Rosca Nacional Americana para tubo cónico
NPTF	Rosca Nacional Americana sellado en seco tubo cónico
NPTR	Rosca Estándar Americana tubo cónico de uso en ferrocarril
NS	Rosca Especial Americana
Pg.	Rosca para tubo blindado
Tr.	Rosca Trapezoidal y ángulo 30°
UN	Rosca Unificada Americana
UNC	Rosca Unificada Nacional Americana, serie normal
UNF	Rosca Unificada Nacional Americana, serie fina
UNEF	Rosca Unificada Nacional Americana, serie extra fina
UNS	Rosca Unificada Nacional Americana serie especial

ROSCA CÓNICA PARA TUBO NPT ASA B 2.2

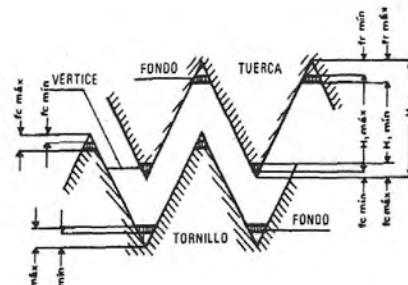
VALORES TEÓRICOS PARA ROSCA NPT
LA ROSCA NPTF (Dryseal) Corresponde a la norma ASA B 2.2



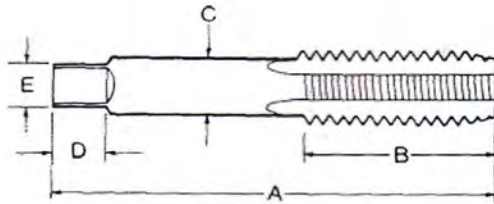
ROSCA O-PASO	O TUBO D mm.	O Paso Eo mm.	Apriete a mano		Rosca Efectiva Exterior		Apriete a Mano Rosca Interna		Rosca Imperfecta	Rosca Externa	Rosca Perfecta Nominal Rosca Externa	
			Longitud L1 mm.	O Paso E1 mm.	Longitud L2 mm.	O Paso E2 mm.	Longitud E3 mm.	O Paso E3 mm.	Longitud V mm.	Longitud total L4 mm.	Longitud L5 mm.	O Paso E5 mm.
1/16 -27	7,937	8,888	4,054	7,142	6,632	7,302	2,822	6,712	3,264	9,896	4,750	7,185
1/8 -27	10,287	9,238	4,102	9,489	8,703	9,652	2,822	9,057	3,264	9,987	4,821	9,534
1/4 -18	13,716	12,128	5,786	12,487	10,206	12,763	4,234	11,861	4,897	15,103	7,384	12,587
3/8 -18	17,145	15,545	6,096	15,926	10,358	18,193	4,234	15,281	4,897	16,255	7,536	16,016
1/2 -14	21,336	19,264	8,128	19,772	13,556	20,111	5,443	16,924	6,294	19,850	9,929	19,885
3/4 -14	28,670	24,579	8,811	25,117	13,861	25,445	5,443	24,239	6,294	20,155	10,234	25,219
1" - 11/12	33,401	30,826	10,160	31,461	17,343	31,910	6,627	30,412	7,633	25,006	12,926	31,534
1" 1/4 - 11/12	42,164	39,551	10,668	40,218	17,953	40,673	6,627	39,137	7,633	25,616	13,538	40,397
1" 1/2 - 11/12	48,260	45,621	10,688	46,287	18,377	46,769	6,627	45,206	7,633	26,040	13,960	46,493
2" - 11/12	60,325	57,633	11,074	58,325	19,215	58,834	6,627	57,219	7,633	26,878	14,798	58,558
2" 1/2 - 8	73,025	69,076	17,323	70,159	28,882	70,882	6,350	68,679	11,016	38,908	22,542	70,485
3" - 8	88,900	84,852	19,458	86,068	30,480	86,757	6,350	84,455	11,016	41,498	24,130	86,360
3" 1/2 - 8	101,600	97,472	20,853	98,776	31,750	99,457	6,350	97,076	11,016	42,766	25,400	99,06
4" - 8	114,300	110,093	21,438	111,433	33,020	112,157	6,350	109,696	11,016	44,036	26,670	111,760
5" - 8	141,300	136,925	23,800	138,412	35,720	139,157	6,350	136,528	11,016	46,736	29,370	138,760
8" - 8	168,275	163,731	24,333	165,252	38,417	168,132	6,350	163,334	11,016	49,433	32,067	165,735
8" - 8	219,075	214,213	27,000	215,900	43,497	215,932	6,350	213,816	11,016	54,613	37,147	216,535
10" - 8	273,050	267,851	30,734	269,772	48,895	270,907	6,350	267,454	11,016	59,911	42,545	270,510
12" - 8	323,850	318,333	34,544	320,492	53,975	321,707	6,350	317,837	11,016	64,990	47,625	321,310

TRUNCATURA PARA NPT Y NPTF

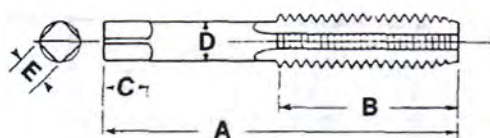
Paso hilos / 1"	Altura H mm.	Truncatura	NPT		NPTF	
			Min. Mm.	Max. Mm.	Min. Mm.	Max. Mm.
27	0.8148	Vertice te	0.030	0.091	0.030	0.089
		Fondo fr		0.091		0.132
18	1.2220	Vertice fe	0.046	0.124	0.046	0.109
		Fondo fr		0.124		0.155
14	1.5712	Vertice fe	0.061	0.142	0.061	0.109
		Fondo fr		0.142		0.155
11 1/2	1.9129	Vertice fe	0.074	0.160	0.074	0.132
		Fondo fr		0.160		0.198
8	2.7496	Vertice fe	0.104	0.198	0.104	0.175
		Fondo fr		0.198		0.241



DIMENSIONES GENERALES



Medida Nominal		ELEMENTOS									
		Largo Total		Largo de Rosca		Largo de Cuadro		Diámetro de Vástago		Tamaño de Cuadro	
mm.	Pulgada	mm.	A Pulgada	mm.	B Pulgada	mm.	C Pulgada	mm.	Pulgada	mm.	Pulgada
41.3	1 5/8	169.9	6 11/16	57.15	2 1/4	28.6	1 1/8	33.15	1.305	24.87	0.979
44.5	1 3/4	177.8	7 5/16	57.15	2 1/4	31.8	1 1/4	36.32	1.43	27.23	1.072
47.6	1 7/8	185.7	7 5/8	63.5	2 1/2	31.8	1 1/4	38.58	1.519	28.93	1.139
50.8	2	193.7	7	63.5	2 1/2	34.9	1 3/8	41.76	1.644	31.32	1.233
54	2 1/8	203.2	8 1/4	63.5	2 1/2	34.9	1 3/8	44.93	1.769	33.71	1.327
57.2	2 1/4	209.6	8 1/2	63.5	2 1/2	36.5	1 7/16	48.11	1.894	36.07	1.42
60.3	2 3/8	215.9	8 3/4	71.44	2 13/16	36.5	1 7/16	51.28	2.019	38.46	1.514
63.5	2 1/2	222.3	8 3/4	71.44	2 13/16	38.1	1 1/2	53.34	2.1	40.01	1.575
66.7	2 5/8	222.3	8 1/4	71.44	2 13/16	38.1	1 1/2	56.52	2.225	42.39	1.669
69.9	2 3/4	235	9 1/4	71.44	2 13/16	39.7	1 9/16	59.69	2.35	44.75	1.762
73	2 7/8	235	9 3/4	71.44	2 13/16	39.7	1 9/16	62.87	2.475	47.14	1.856
76.2	3	247.7	9 3/4	82.55	3 1/4	41.3	1 5/8	64.59	2.543	48.44	1.907
79.4	3 1/8	247.7	9	82.55	3 1/4	41.3	1 5/8	67.77	2.668	50.83	2.001
82.6	3 1/4	254	10	82.55	3 1/4	44.5	1 3/4	70.94	2.793	53.21	2.095
85.7	3 3/8	254	10 1/4	82.55	3 1/4	44.5	1 3/4	73.23	2.883	54.91	2.162
88.9	3 1/2	260.4	10 1/4	88.9	3 1/2	50.8	2	76.4	3.008	57.30	2.256
92.1	3 5/8	260.4	10 1/2	88.9	3 1/2	50.8	2	79.58	3.133	59.69	2.35
95.3	3 3/4	266.7	10 1/2	95.25	3 3/4	54	2 1/8	81.71	3.217	54.43	2.413
98.4	3 7/8	266.7	10 3/4	95.25	3 3/4	54	2 1/8	84.89	3.342	63.65	2.506
101.6	4	273.1	10	101.6	4	57.2	2 1/4	88.06	3.467	66.04	2.6

DIMENSIONES GENERALES


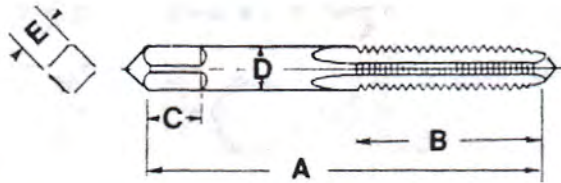
CUANDO NO SE ESPECIFIQUE OTRA COSA, los machuelos en tamaños desde 27 mm (1 1/16) hasta 38.1 mm (1-1/2") de diámetro y con pasos incluyendo a 14 hilos x 25.4 mm (1") o más finos y en tamaños sobre 38.1 mm (1-1/2") con 10 hilos x 25.4" mm (1") se harán con dimensiones de esta tabla 303.

Los machuelos en tamaños de 27 mm (1-1/16") y mayores cuyo diámetro nominal sea mayor 25 mm (.010) que el estándar se fabricarán con dimensiones generales correspondientes al diámetro próximo mayor

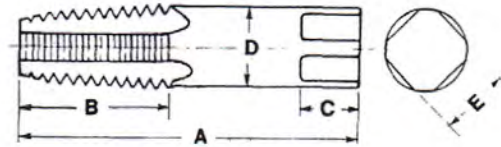
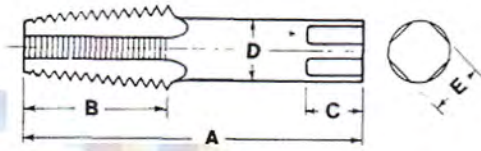
Medida Nominal		ELEMENTOS									
		Largo Total A		Largo de Rosca B		Largo de Cuadro C		Diámetro de Vastago D		Tamaño de Cuadro E	
mm.	Pulgada	mm.	Pulgada	mm.	Pulgada	mm.	Pulgada	mm.	Pulgada	mm.	Pulgada
27	1 1/16	101.6	4	31.8	1 1/4	22.2	7/8	22.76	0.896	17.07	0.672
28.6	1 1/8	101.6	4	31.8	1 1/4	22.2	7/8	22.76	0.896	17.07	0.672
30.2	1 3/16	101.6	4	31.8	1 1/4	25.4	1	25.93	1.021	19.46	0.766
31.8	1 1/4	101.6	4	31.8	1 1/4	25.4	1	25.93	1.021	19.46	0.766
33.3	1 5/16	101.6	4	31.8	1 1/4	25.4	1	28.14	1.108	21.11	0.831
34.9	1 3/8	101.6	4	31.8	1 1/4	25.4	1	28.14	1.108	21.11	0.831
36.5	1 7/16	101.6	4	31.8	1 1/4	25.4	1	31.32	1.233	23.5	0.925
38.1	1 1/2	101.6	4	31.8	1 1/4	25.4	1	31.32	1.233	23.5	0.925
41.3	1 5/8	127	5	39.7	1 9/16	28.6	1 1/8	33.15	1.305	24.87	0.979
44.5	1 3/4	127	5	39.7	1 9/16	31.8	1 1/4	36.37	1.43	27.23	1.072
47.6	1 7/8	127	5	39.7	1 9/16	31.8	1 1/4	38.58	1.519	28.93	1.139
50.8	2	127	5	39.7	1 9/16	34.9	1 3/8	41.76	1.644	31.32	1.233
54	2 1/8	133.4	5 1/4	39.7	1 9/16	34.9	1 3/8	44.93	1.769	33.71	1.327
57.2	2 1/4	133.4	5 1/4	39.7	1 9/16	36.5	1 7/16	48.11	1.894	36.07	1.42
60.3	2 3/8	133.4	5 1/4	39.7	1 9/16	36.5	1 7/16	51.28	2.019	38.46	1.514
63.5	2 1/2	133.4	5 1/4	39.7	1 9/16	38.1	1 1/2	53.34	2.1	40.01	1.575
66.7	2 5/8	139.7	5 1/2	39.7	1 9/16	38.1	1 1/2	53.34	2.1	40.01	1.575
69.9	2 3/4	139.7	5 1/2	39.7	1 9/16	38.1	1 1/2	53.34	2.1	40.01	1.575
73	2 7/8	139.7	5 1/2	39.7	1 9/16	38.1	1 1/2	53.34	2.1	40.01	1.575
76.2	3	139.7	5 1/2	39.7	1 9/16	38.1	1 1/2	53.34	2.1	40.01	1.575
79.4	3 1/8	146.1	5 3/4	39.7	1 9/16	38.1	1 1/2	53.34	2.1	40.01	1.575
82.6	3 1/4	146.1	5 3/4	39.7	1 9/16	38.1	1 1/2	53.34	2.1	40.01	1.575
85.7	3 3/8	146.1	5 3/4	39.7	1 9/16	38.1	1 1/2	53.34	2.1	40.01	1.575
88.9	3 1/2	146.1	5 3/4	39.7	1 9/16	38.1	1 1/2	53.34	2.1	40.01	1.575
92.1	3 5/8	152.4	6	39.7	1 9/16	44.5	1 3/4	53.34	2.1	40.01	1.575
95.3	3 3/4	153.4	6	39.7	1 9/16	44.5	1 3/4	53.34	2.1	40.01	1.575
98.4	3 7/8	152.4	6	39.7	1 9/16	44.5	1 3/4	53.34	2.1	40.01	1.575
101.6	4	152.4	6	39.7	1 9/16	44.5	1 3/4	53.34	2.1	40.01	1.575

TOLERANCIAS DE ESTA TABLA, VER TOLERANCIAS DE LA TABLA 302.

DIMENSIONES GENERALES



MEDIDA NOMINAL	ELEMENTOS									
	Largo Total A		Largo de Rosca B		Largo de Cuadro C		Diámetro de Vastago D		Tamaño de Cuadro E	
	mm.	Pulgada	mm.	Pulgada	mm.	Pulgada	mm.	Pulgada	mm.	Pulgada
0	41.3	1 5/8	7.9	5/16	4.8	3/16	3.58	0.141	2.79	0.11
1	42.9	1 11/16	9.5	3/8	4.8	3/16	3.58	0.141	2.79	0.11
2	44.4	1 3/4	9.5	3/8	4.8	3/16	3.58	0.141	2.79	0.11
3	46	1 13/16	9.5	3/8	4.8	3/16	3.58	0.141	2.79	0.11
4	47.6	1 7/8	12.7	1/2	4.8	3/16	3.58	0.141	2.79	0.11
5	49.2	1 15/16	14.3	9/16	4.8	3/16	3.58	.141'	2.79	0.11
6	50.8	2	14.3	9/16	4.8	3/16	3.58	0.141	2.79	0.11
7	54	2 1/8	15.9	5/8	6.4	1/4	4.27	0.168	3.33	0.131
8	54	2 1/8	15.9	5/8	6.4	1/4	4.27	0.168	3.33	0.131
9	60.3	2 3/8	16.7	21/32	6.4	1/4	4.93	0.194	3.86	0.152
10	60.3	2 3/8	16.7	21/32	6.4	1/4	4.93	0.194	3.86	0.152
12	60.3	2 3/8	16.7	21/32	7.1	9/32	5.59	0.22	4.19	0.165
14	63.5	2 1/2	18.3	23/32	7.9	5/16	6.48	0.255	4.85	0.191

DIMENSIONES GENERALES


Medida Nominal		ELEMENTOS									
		Largo Total A		Largo de Rosca B		Largo de Cuadro C		Diámetro de Vastago D		Tamaño de Cuadro E	
mm.	Pulgada	mm.	Pulgada	mm.	Pulgada	mm.	Pulgada	mm.	Pulgada	mm.	Pulgada
1.6	1/16	54.0	2 1/8	17.5	11/16	9.5	3/8	7.94	0.3125	5.94	0.234
3.2	1/8	54.0	2 1/8	19.1	3/4	9.5	3/8	7.94	0.3125	5.94	0.234
3.2	1/8	54.0	2 1/8	19.1	3/4	9.5	3/8	11.11	0.4375	8.33	0.328
6.3	1/4	61.9	2 7/16	27.0	1 1/16	11.1	7/16	14.29	0.5625	10.69	0.421
9.5	3/8	65.1	2 9/16	27.0	1 1/16	12.7	1/2	17.78	0.7000	13.49	0.531
12.7	1/2	79.4	3 1/8	34.9	1 3/8	15.9	5/8	17.46	0.6875	13.08	0.515
15.9	5/8	81.0	3 3/16	34.9	1 3/8	15.9	5/8	20.64	0.8125	15.09	0.594
19	3/4	82.0	3 1/4	34.9	1 3/8	17.5	11/16	23.02	0.9063	17.25	0.679
22.2	7/8	88.9	3 1/2	39.7	1 9/16	19.1	3/4	27.78	1.0937	20.62	0.812
25.4	1	95.3	3 3/4	44.5	1 3/4	20.6	13/16	28.58	1.1250	21.41	0.843
31.8	1 1/4	101.6	4	44.5	1 3/4	23.8	15/16	33.34	1.3125	24.99	0.984
38.1	1 1/2	108.0	4 1/4	44.5	1 3/4	25.4	1	38.1	1.5000	28.58	1.125
50.8	2	114.3	4 1/2	44.5	1 3/4	28.6	1 1/8	47.63	1.8750	35.71	1.406
63.5	2 1/2	139.7	5 1/2	65.1	2 9/16	31.8	1 1/4	57.15	2.2500	42.85	1.687
76.2	3	152.4	6	66.7	2 5/8	34.9	1 3/8	66.68	2.6250	49.99	1.968
88.9	3 1/2	165.1	6 1/2	68.3	2 11/16	38.1	1 1/2	71.44	2.8125	53.54	2.108
101.6	4	171.5	6 3/4	69.9	2 3/4	41.3	1 5/8	76.2	3.0000	57.15	2.25



**MEDIDAS DE BROCA RECOMENDADAS PARA MACHUELAR
PROBABLES PORCENTAJES DE ROSCA COMPLETA
USANDO BROCAS DE EXISTENCIA NORMAL
PRODUCIDAS AL MACHUELAR**

Medida Nominal del Mach.	Medida de la Broca	Equivalente decimal de la Broca	Porcentaje Teorico %	Prob. Diám. del Barreno	Porcentaje Real %	Medida Nominal del Mach.	Medida de la Broca	Equivalente decimal de la Broca	Porcentaje Teorico %	Prob. Diám. del Barreno	Porcentaje Real %
0-80	56	0.0465	83	0.048	74	6-32	37	0.104	84	0.1063	78
	3/64	0.0469	81	0.0484	71		36	0.1065	78	0.1091	71
1-64	54	0.055	89	0.0565	81		7/64	0.1094	70	0.1120	64
	53	0.0595	67	0.061	59		35	0.11	69	0.1126	63
1-72	53	0.0595	75	0.061	67		34	0.111	67	0.1136	60
	1/16	0.0625	58	0.064	50		33	0.113	62	0.1156	55
2-56	51	0.067	82	0.0687	74	6-40	34	0.111	83	0.1136	75
	50	0.07	69	0.0717	62		33	0.113	77	0.1156	69
	49	0.073	56	0.0747	49		32	0.116	68	0.1186	60
2-64	50	0.07	79	0.0717	70	8-32	29	0.136	69	0.1389	62
	49	0.073	64	0.0747	56		28	0.1405	58	0.1434	51
3-48	48	0.076	85	0.0779	78	8-36	29	0.136	78	0.1389	70
	1/64	0.0781	77	0.08	70		28	0.1405	68	0.1434	57
	47	0.0785	76	0.0804	69		9/64	0.1406	68	0.1435	57
	46	0.081	67	0.0829	60	10-24	27	0.144	85	0.1472	79
	45	0.082	63	0.0839	56		26	0.147	79	0.1502	74
3-56	46	0.081	78	0.0829	69		25	0.1495	75	0.1527	69
	45	0.082	73	0.0839	65		24	0.152	70	0.1552	64
	44	0.086	56	0.0879	48		23	0.154	67	0.1572	61
4-40	44	0.086	80	0.088	74		5/32	0.1563	62	0.1595	56
	43	0.089	71	0.091	65		22	0.157	61	0.1602	55
	42	0.0935	57	0.0955	51	10-32	5/32	0.1563	83	0.1595	75
	3/32	0.0938	56	0.0958	50		22	0.157	81	0.1602	73
4-48	42	0.0935	68	0.0955	61		21	0.159	76	0.1622	68
	3/32	0.0938	68	0.0958	60		20	0.161	71	0.1642	64
	41	0.096	59	0.098	52		19	0.166	59	0.1692	51
5-40	40	0.098	83	0.1003	76	12-24	11/64	0.1719	82	0.1754	75
	39	0.0995	79	0.1018	71		17	0.173	79	0.1765	73
	38	0.1015	72	0.1038	65		16	0.177	72	0.1805	66
	37	0.104	65	0.1063	58		15	0.18	67	0.1835	60
5-44	38	0.1015	79	0.1038	72		14	0.182	63	0.1855	56
	37	0.104	71	0.1063	63	12-28	16	0.177	84	0.1805	77
	36	0.1065	63	0.1088	55		15	0.18	78	0.1835	70
							14	0.182	73	0.1855	66
							13	0.185	67	0.1885	59
							3/16	0.1875	61	0.191	54



MEDIDAS DE BROCA RECOMENDADAS PARA MACHUELAR
 PROBABLES PORCENTAJES DE ROSCA COMPLETA
 PRODUCIDAS AL MACHUELAR
 USANDO BROCAS DE EXISTENCIA NORMAL

Medida Nominal del Machuelo		Medida de la Broca	Equivalente decimal	Porcentaje teórico %	Probable Diámetro	Porcentaje Real %	Medida Nominal del Machuelo		Medida de la Broca	Equivalente decimal	Porcentaje teórico	Probable Diámetro del Barreno	Porcentaje Real %
mm.	Pulgada						mm.	Pulgada					
6.3	1/4 -20	9	0.196	83	0.1993	77	15.8	5/8-18	9/16	0.5625	87	0.5674	80
		8	0.199	79	0.2028	73			37/64	0.5781	65	0.5831	58
		7	0.201	75	0.2048	70	19	3/4-10	41/64	0.6406	84	0.6456	80
		13/64	0.2031	72	0.2069	66			21/32	0.6563	72	0.6613	68
		6	0.204	71	0.2078	65	19	3/4-16	11/16	0.6875	77	0.6925	71
		5	0.2055	69	0.2093	63	22.2	7/8-9	49/64	0.7656	76	0.7708	72
6.3	1/4-28	4	0.209	63	0.2128	57			25/32	0.7812	65	0.7864	61
		3	0.213	80	0.2168	72	22.2	7/8-14	51/64	0.9769	84	0.8021	79
		7/32	0.2188	67	0.2226	59			13/16	0.8125	67	0.8177	62
7.9	5/16-18	2	0.221	63	0.2248	55	25.4	1" -8	55/64	0.8594	87	0.8653	83
		F	0.257	77	0.2608	72			7/8	0.875	77	0.8809	73
		G	0.261	71	0.2651	66			57/64	0.8906	67	0.8965	64
		17/64	0.2656	65	0.2697	69			29/32	0.9063	58	0.9122	54
7.9	5/16-24	H	0.266	64	0.2701	59	25.4	1" -12	29/32	0.9063	87	0.9123	81
		H	0.266	86	0.2701	78			59/64	0.9219	72	0.9279	67
		I	0.272	75	0.2761	67			15/16	0.9375	58	0.9435	52
9.5	3/8-16	J	0.277	66	0.2811	58	25.4	1" -14	59/64	0.9219	84	0.9279	78
		5/16	0.3125	77	0.3169	72			15/16	0.9375	67	0.9435	61
		O	0.316	73	0.3204	68	23.5	1 1/8-7	31/32	0.9688	84	0.975	81
9.5	3/8 -24	P	0.323	64	0.3274	59			63/64	0.9844	76	0.9911	72
		21/64	0.3281	87	0.3325	79			1"	1	67	1.007	64
		Q	0.332	79	0.3364	71			1 1/64	1.0156	59	1.0226	55
11.1	7/16-14	R	0.339	67	0.3434	58	28.5	1 1/8-12	1 1/32	1.0313	87	1.0384	80
		T	0.358	86	0.3626	81			3/64	1.0469	72	1.0541	66
		23/64 U	.3594 .3680	84 75	.3640 .3726	79 70	31.7	1 1/4-7	3/32 7/64	1.0938 1.1094	84 76		
		3/8	0.375	67	0.3796	62			1/8	1.125	67		
		V	0.377	65	0.3816	60	31.7	1 1/4-12	5/32	1.1563	87		
		11.1	7/16 20	W	0.386	79	0.3906	72			11/64	1.1719	72
12.7	1/2-13	25/64	0.3906	72	0.3952	65	34.9	1 3/8-6	1 3/16	1.1875	87		
		X	0.397	62	0.4016	55			13/64	1.2031	79		
		27/64	0.4219	78	0.4266	73			7/32	1.2188	72		
		7/16	0.4375	63	0.4422	58			15/64	1.2344	65		
12.7	1/2 -20	29/64	0.4531	72	0.4578	65	34.9	1 3/8-12	9/32	1.2813	87		
		14.2	9/16-12	15/32	0.4688	87	0.4736	82		19/64	1.2969	72	
14.2	9/16-18	31/64	0.4844	72	0.4892	68	38.1	1 1/2-6	5/16	1.3125	87		
		1/2	0.5	87	0.5048	80			21/64	1.3281	79		
		33/64	0.5156	65	0.5204	58			11/32	1.3438	72		
		15.8	5/8-11	17/32	0.5313	79	0.5362	75		23/64	1.3594	65	
		35/64	0.5469	66	0.5518	62	38.1	1 1/2-12	13/32	1.4063	87		
									27/64	1.4219	72		

Recomendamos Rimas



MEDIDAS DE BROCA RECOMENDADAS PARA MACHUELAR
ROSCA MÉTRICA Y DE TUBERÍA

Rosca Diam. paso	Diam. Broca	Equivalencia en pulgadas	Porcentaje teórico de Rosca	Rosca Diam. paso	Diam. Broca	Equivalencia en pulgadas	Porcentaje teórico de Rosca	Rosca Diam. paso	Diam. Broca	Equivalencia en pulgadas	Porcentaje teórico de Rosca
M1.6x.35	1.25mm	0.0492	77		1	0.272	67	M22x1.5	20.5mm	0.8071	77
	1.3mm	0.0512	66	M8x1	7mm	0.2756	77		13/16	0.8125	70
	#55	0.052	61		J	0.277	74	M24x3	21mm	0.8268	77
M1.8x.35	1.45mm	0.0571	77	M10x1.5	8.5mm	0.3346	77		27/32	0.8438	66
	1.5mm	0.0591	66		R	0.339	71	M24x2	22mm	0.8661	77
	#53	0.0595	64	M10x1.25	8.75mm	0.3445	77		7/8	0.875	68
M2x.4	1.6mm	0.063	77		S	0.348	71	M27x3	24mm	0.9449	77
	#52	0.0635	74	M12x1.75	13/32	0.4062	74		61/64	0.9531	72
M2.2x.45	1.75mm	0.0689	77		Z	0.413	66	M27x2	25mm	0.9843	77
	#50	0.07	72	M12x1.25	26/64	0.4219	79		63/64	0.9844	77
M2.5x.45	2.05mm	0.0807	77		11mm	0.4331	62	M30x3.5	26.5mm	1.0433	77
	#45	0.082	71	M14x2	12mm	0.4724	77		1-1/16	1.0625	66
M3x.5	2.5mm	0.0984	77		31/64	0.4844	65	M30x2	28mm	1.1024	77
	#39	0.995	73	M14x1.5	12.5mm	0.4921	77		1-7/64	1.1094	70
M3.5X.6	2.9mm	0.1142	77		1/2	0.5	67	M33x3.5	29.5mm	1.1614	77
	#32	0.116	71	M16x2	14mm	0.5512	77		1-11/64	1.1719	71
M4x.7	3.3mm	0.1299	77		9/16	0.5625	66	M33x2	31mm	1.2205	77
	3.4mm	0.1339	66	M16x1.5	14.5mm	0.5709	77		1-15/64	1.2344	63
	#29	0.136	60		37/64	0.5781	68	M36x4	32mm	1.2598	77
M4.5x.75	3.75mm	0.1476	77	M18x2.5	15.5mm	0.6102	77		1-17/64	1.2656	74
	#25	0.1495	72		5/8	0.625	65	M36x3	1-19/64	1.2969	78
M5X.8	4.2mm	0.1654	77	M18x1.5	16.5mm	0.6496	77		33mm	1.2992	77
	#18	0.1695	67		21/32	0.6562	68		1-5/16	1.3125	68
M6x1	5mm	0.1969	77	M20x2.5	17.5mm	0.689	77	M39x4	1-3/8	1.375	78
	#8	0.199	73		45/64	0.7031	66		35mm	1.378	77
M7x1	6mm	0.2362	77	M20x1.5	18.5mm	0.7283	77		1-25/64	1.3906	71
	B	0.238	74		47/64	0.7344	69	M39x3	36mm	1.4173	77
M8x1.25	6.75mm	0.2657	77	M22x2.5	19.5mm	0.7677	77		1-27/64	1.4219	74
	6.8mm	0.2677	74		25/32	0.7812	66				

PARA TUBERÍA ESTÁNDAR AMERICANA

Rosca	NPT		NPTF		NPS	
	Broca	Equivalencia a Decimal	Broca	Equivalencia a Decimal	Broca	Equivalencia a Decimal
1/16-27	D	0.246	D	0.246	1/4	0.25
1/8-27	0	0.332	R	0.339	11/32	0.3438
1/4-18	7/16	0.4375	7/16	0.4375	7/16	0.4375
3/8-18	9/16	0.5625	37/64	0.5781	37/64	0.5781
1/2-14	45/64	0.7031	45/64	0.7031	23/32	0.7188
3/4-14	29/32	0.9062	59/64	0.9219	59/64	0.9219
1 -11 1/2	1-9/64	1.1406	1-5/32	1.1562	1-5/32	1.1562
1 1/4-11 1/2	1-31/64	1.4844	1-1/2	1.5	1-1/2	1.5
1 1/2-11 1/2	1-47/64	1.7344	1-47/64	1.7344	1-3/4	1.75
2-11 1/2	2-13/64	2.2031	2-7/32	2.2188	2-7/32	2.2188
2 1/2-8	2-5/8	2.625	2-41/64	2.6406	2-21/32	2.6562
3-8			3-17/64	3.2656		

*PARA MACHUELAR SIN RIMAR

MACHUELOS PARA ROSCA AMERICANA
**RECOMENDACIONES SOBRE EL AFILADO DE MACHUELOS
FABRICADOS CON ACERO ALTA VELOCIDAD
Y REFRIGERANTES USADOS AL MACHUELAR**

USAR ESTA INFORMACIÓN COMO UNA GUIA
PARA UNA HORA DE TRABAJO CONTINUO EN CORTE

MATERIAL A ROSCAR	V M/min		Angulo de Corte
Aceros sin alear hasta 70 kg/mm ²	16	A	12° 18°
Aceros sin alear de más de 70 kg/mm ² Acero aleado hasta 100 kg/mm ²	10	A	10°
Aceros aleados de más de 100 kg/mm ²	5	A	8°
Aceros resistentes a la oxidación y a los ácidos	6	A	8°
Aceros refractarios.	4	A	8°
Hierro fundido 220 HB	10	A	5°
Hierro fundido 240- 300 HB	8	A	0°
Acero fundido Fundición maleable	10	A	10°
Cobre no aleado	16	A	12° 18°
Cobre electrolítico.	12	B	10°
Latón quebradizo MS 58	25	B	2°
Latón tenaz MS 63.	16	A	10°
Bronce blando	12	A	2° 6°
Bronce duro	5	B	4° 10°
Aleaciones de aluminio viruta larga	20	A	15° 20°
Aleaciones Aluminio- Silicio hasta 11 % silicio.	16	A	12° 18°
Aleaciones Aluminio- silicio a partir de 11% silicio.	10	A	10°
Aleaciones de magnesio	25	B	2° 10°
Aleaciones de zinc	20	A	15° 20°
Plásticos blandos	12	C	12° 18°
Plásticos con componentes orgánicos o inorgánicos (bakelita)	6	C	2°

- A ACEITE SOLUBLE
B ACEITE DE CORTE SULFURADO
C AIRE COMPRIMIDO