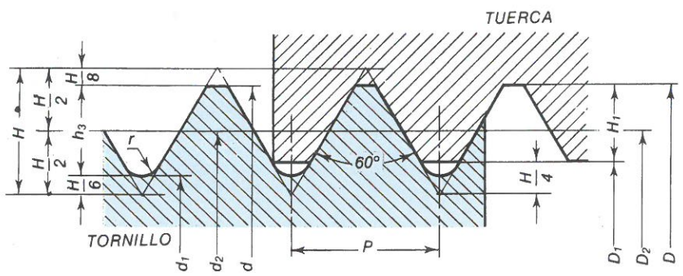
MA ROSCA METRICA ISO NORMAL
Perfil teórico - DIN 13 (1977)

MA ISO METRIC THREAD
Theorical profile - DIN 13 (1977)



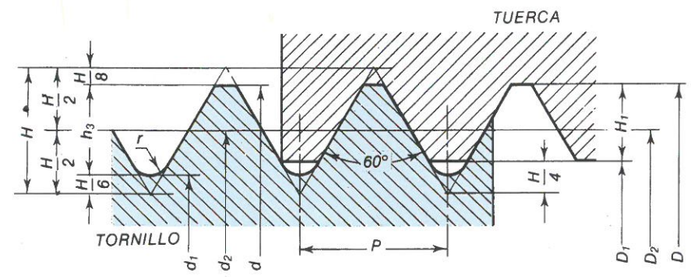
$D_1 = d - 2\,H_1$
$d_2 = D_2 = d - 0{,}64953\,P$
$d_1 = d - 1{,}22687\,P$
$H = 0{,}86603\,P$
$H_1 = 0{,}54127\,P$
$h_3 = 0{,}61343\,P$
$r = \frac{H}{6} = 0{,}14434\,P$

Rosca *Thread*	Paso *Pitch*	Ø Medio *Ø Pitch*	Ø Núcleo *Ø Minor*	
d = D	P mm	$d_2 = D_2$ mm	d_1 mm	D_1 mm
M 3	0,5	2,675	2,387	2,459
M 4	0,7	3,545	3,141	3,242
M 5	0,8	4,480	4,019	4,134
M 6	1	5,350	4,773	4,917
M 8	1,25	7,188	6,466	6,647
M 10	1,5	9,026	8,160	8,376
M 12	1,75	10,863	9,853	10,106
M 14	2	12,701	11,546	11,835
M 16	2	14,701	13,546	13,835
M 18	2,5	16,376	14,933	15,294
M 20	2,5	18,376	16,933	17,294
M 22	2,5	20,376	18,933	19,294
M 24	3	22,051	20,319	20,752

Rosca *Thread*	Paso *Pitch*	Ø Medio *Ø Pitch*	Ø Núcleo *Ø Minor*	
d = D	P mm	$d_2 = D_2$ mm	d_1 mm	D_1 mm
M 27	3	25,051	23,319	23,752
M 30	3,5	27,727	25,706	26,211
M 33	3,5	30,727	28,706	29,211
M 36	4	33,402	31,093	31,670
M 39	4	36,402	34,093	34,670
M 42	4,5	39,077	36,479	37,129
M 45	4,5	42,077	39,479	40,129
M 48	5	44,752	41,866	42,587
M 52	5	48,752	45,866	46,587
M 56	5,5	52,428	49,252	50,046
M 60	5,5	56,428	53,252	54,046
M 64	6	60,103	56,639	57,505
M 68	6	64,103	60,639	61,505

MF ROSCA METRICA ISO FINA
Perfil teórico - DIN 13 (1977)

MF ISO METRIC FINE THREAD
Theorical profile - DIN 13 (1977)



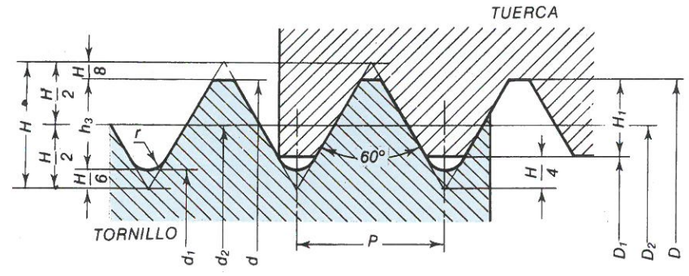
$D_1 = d - 2\,H_1$
$d_2 = D_2 = d - 0{,}64953\,P$
$d_1 = d - 1{,}22687\,P$
$H = 0{,}86603\,P$
$H_1 = 0{,}54127\,P$
$h_3 = 0{,}61343\,P$
$r = \frac{H}{6} = 0{,}14434\,P$

Rosca *Thread*	Paso *Pitch*	Ø Medio *Ø Pitch*	Ø Núcleo *Ø Minor*	
d = D	P mm	$d_2 = D_2$ mm	d_1 mm	D_1 mm
M 3	0,35	2,773	2,571	2,621
M 4	0,50	3,675	3,387	3,459
M 5	0,50	4,675	4,387	4,459
M 6	0,75	5,513	5,080	5,188
M 8	1	7,350	6,773	6,917
M 10	1	9,350	8,773	8,917
M 12	1,5	11,026	10,160	10,376
M 14	1,5	13,026	12,160	12,376
M 16	1,5	15,026	14,160	14,376
M 18	1,5	17,026	16,160	16,376
M 20	1,5	19,026	18,160	18,376
M 22	1,5	21,026	20,160	20,376
M 24	2	22,701	21,546	21,835

Rosca *Thread*	Paso *Pitch*	Ø Medio *Ø Pitch*	Ø Núcleo *Ø Minor*	
d = D	P mm	$d_2 = D_2$ mm	d_1 mm	D_1 mm
M 27	2	25,701	24,546	24,835
M 30	2	28,701	27,546	27,835
M 33	2	31,701	30,546	30,835
M 36	3	34,051	32,319	32,752
M 39	3	37,051	35,319	35,752
M 40	1,5	39,026	38,160	38,376
M 42	3	40,051	38,319	38,752
M 48	3	46,051	44,319	44,752
M 50	1,5	49,026	48,160	48,376
M 56	4	53,402	51,093	51,670
M 64	4	61,402	59,093	59,670
M 72	4	69,402	67,093	67,670
M 80	4	77,402	75,093	75,670

UNC ROSCA UNIFICADA AMERICANA-SERIE NORMAL
Perfil teórica - ASA B1.1 (1960)

UNC AMERICAN STANDARD THREAD
Therical profile - ASA B1.1 (1960)



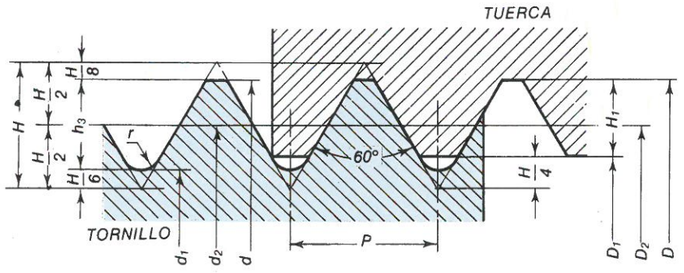
$D_1 = d - 2\,H_1$
$d_2 = D_2 = d - 0{,}64953\,P$
$d_1 = d - 1{,}22687\,P$
$H = 0{,}86603\,P$
$H_1 = 0{,}54127\,P$
$h_3 = 0{,}61343\,P$
$r = \frac{H}{6} = 0{,}14434\,P$

Rosca *Thread*	Ø Exterior *Ø Major*	Ø Medio *Ø Pitch*	Ø Núcleo *Ø Minor*	
	d = D mm	$d_2 = D_2$ mm	d_1 mm	D_1 mm
UNC No. 4-40	2,845	2,433	2,065	2,156
UNC No. 5-40	3,175	2,764	2,395	2,487
UNC No. 6-32	3,505	2,990	2,532	2,647
UNC No. 8-32	4,166	3,650	3,193	3,307
UNC No. 10-24	4,826	4,138	3,528	3,680
UNC No. 12-24	5,486	4,798	4,188	4,341
UNC 1/4-20	6,350	5,524	4,793	4,976
UNC 5/16-18	7,938	7,021	6,205	6,411
UNC 3/8-16	9,525	8,494	7,577	7,805
UNC 7/16-14	11,112	9,934	8,887	9,149
UNC 1/2-13	12,700	11,430	10,302	10,584
UNC 9/16-12	14,288	12,913	11,692	11,996
UNC 5/8-11	15,875	14,376	13,043	13,376
UNC 3/4-10	19,050	17,399	15,933	16,299
UNC 7/8-9	22,225	20,391	18,763	19,169

Rosca *Thread*	Ø Exterior *Ø Major*	Ø Medio *Ø Pitch*	Ø Núcleo *Ø Minor*	
	d = D mm	$d_2 = D_2$ mm	d_1 mm	D_1 mm
UNC 1 -8	25,400	23,338	21,504	21,963
UNC 1 1/8-7	28,575	26,218	24,122	24,648
UNC 1 1/4-7	31,750	29,393	27,297	27,823
UNC 1 3/8-6	34,925	32,174	29,731	30,343
UNC 1 1/2-6	38,100	35,349	32,906	33,518
UNC 1 3/4-5	44,450	41,151	38,217	38,951
UNC 2 -4 1/2	50,800	47,135	43,876	44,689
UNC 2 1/4-4 1/2	57,150	53,485	50,226	51,039
UNC 2 1/2-4	63,500	59,375	55,710	56,627
UNC 2 3/4-4	69,850	65,725	62,060	62,977
UNC 3 -4	76,200	72,075	68,410	69,327
UNC 3 1/4-4	82,550	78,425	74,760	75,677
UNC 3 1/2-4	88,900	84,775	81,110	82,027
UNC 3 3/4-4	95,250	91,125	87,460	88,377
UNC 4 -4	101,600	97,475	93,810	94,727

UNF ROSCA UNIFICADA AMERICANA-SERIE FINA
Perfil teórica - ASA B1.1 (1960)

UNF AMERICAN STANDARD FINE THREAD
Theorical profile - ASA B1.1 (1960)



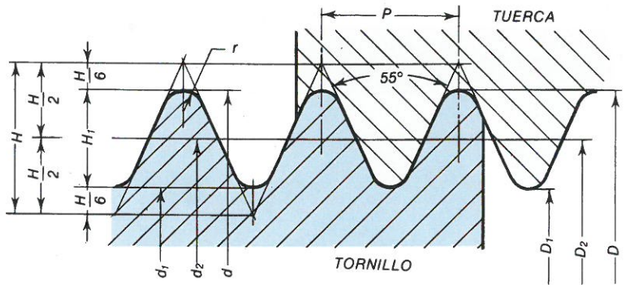
$D_1 = d - 2\,H_1$
$d_2 = D_2 = d - 0{,}64953\,P$
$d_1 = d - 1{,}22687\,P$
$H = 0{,}86603\,P$
$H_1 = 0{,}54127\,P$
$h_3 = 0{,}61343\,P$
$r = \frac{H}{6} = 0{,}14434\,P$

Rosca *Thread*	Ø Exterior *Ø Major*	Ø Medio *Ø Pitch*	Ø Núcleo *Ø Minor*	
	d = D mm	$d_2 = D_2$ mm	d_1 mm	D_1 mm
UNF No. 6-40	3,505	3,094	2,725	2,817
UNF No. 8-36	4,166	3,708	3,299	3,401
UNF No. 10-32	4,826	4,310	3,853	3,967
UNF No. 12-28	5,486	4,897	4,374	4,503
UNF 1/4-28	6,350	5,761	5,237	5,367
UNF 5/16-24	7,938	7,249	6,640	6,792
UNF 3/8-24	9,525	8,837	8,227	8,379
UNF 7/16-20	11,112	10,287	9,555	9,738
UNF 1/2-20	12,700	11,874	11,143	11,326

Rosca *Thread*	Ø Exterior *Ø Major*	Ø Medio *Ø Pitch*	Ø Núcleo *Ø Minor*	
	d = D mm	$d_2 = D_2$ mm	d_1 mm	D_1 mm
UNF 9/16-18	14,288	13,371	12,555	12,761
UNF 5/8-18	15,875	14,958	14,143	14,348
UNF 3/4-16	19,050	18,019	17,102	17,330
UNF 7/8-14	22,225	21,046	20,000	20,262
UNF 1 -12	25,400	24,026	22,804	23,109
UNF 1 1/8-12	28,575	27,201	25,979	26,284
UNF 1 1/4-12	31,750	30,376	29,154	29,459
UNF 1 3/8-12	34,925	33,551	32,329	32,634
UNF 1 1/2-12	38,100	36,726	35,504	35,809

BSW ROSCA WHITWORTH NORMAL
Perfil teórico - DIN 11 (BS-84)

BSW *WHITWORTH THREAD*
Theorical profile - DIN 11 (BS-84)



$$p = \frac{25,4}{N}$$

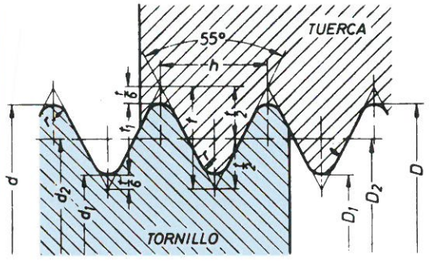
$r = 0,13733\ P$
$H = 0,9605\ P$
$H_1 = 0,64033\ P$
$d_2 = d - H_1$
$d_1 = d - 2H_1$

Rosca *Thread*	Paso *Pitch* N h/1"	Paso *Pitch* mm	Ø Exterior *Ø Major* d = D mm	Ø Medio *Ø Pitch* $d_2 = D_2$ mm	Ø Núcleo *Ø Minor* $d_1 = D_1$ mm
W 1/8	40	0,635	3,175	2,768	2,362
W 5/32	32	0,793	3,969	3,461	2,952
W 3/16	24	1,058	4,762	4,084	3,407
W 7/32	24	1,058	5,556	4,878	4,201
W 1/4	20	1,270	6,350	5,537	4,724
W 5/16	18	1,411	7,938	7,034	6,131
W 3/8	16	1,588	9,525	8,509	7,492
W 7/16	14	1,814	11,113	9,951	8,789
W 1/2	12	2,117	12,700	11,345	9,990
W 9/16	12	2,117	14,288	12,933	11,578
W 5/8	11	2,309	15,876	14,397	12,918
W 11/16	11	2,309	17,463	15,984	14,506
W 3/4	10	2,540	19,051	17,424	15,798
W 7/8	9	2,822	22,226	20,419	18,611
W 1	8	3,175	25,401	23,368	21,335
W 1 1/8	7	3,629	28,576	26,253	23,929
W 1 1/4	7	3,629	31,751	29,428	27,104
W 1 3/8	6	4,233	34,926	32,215	29,505
W 1 1/2	6	4,233	38,101	35,391	32,680
W 1 5/8	5	5,080	41,277	38,024	34,771

Rosca *Thread*	Paso *Pitch* N h/1"	Paso *Pitch* mm	Ø Exterior *Ø Major* d = D mm	Ø Medio *Ø Pitch* $d_2 = D_2$ mm	Ø Núcleo *Ø Minor* $d_1 = D_1$ mm
W 1 3/4	5	5,080	44,452	41,199	37,946
W 1 7/8	4 1/2	5,645	47,627	44,012	40,398
W 2	4 1/2	5,645	50,802	47,187	43,573
W 2 1/4	4	6,350	57,152	53,086	49,020
W 2 1/2	4	6,350	63,502	59,436	55,370
W 2 3/4	3 1/2	7,257	69,853	65,205	60,558
W 3	3 1/2	7,257	76,203	71,556	66,909
W 3 1/4	3 1/4	7,815	82,553	77,548	72,544
W 3 1/2	3 1/4	7,815	88,903	83,899	78,894
W 3 3/4	3	8,466	95,254	89,832	84,410
W 4	3	8,466	101,604	96,182	90,760
W 4 1/4	2 7/8	8,834	107,954	102,297	96,639
W 4 1/2	2 7/8	8,834	114,304	108,647	102,990
W 4 3/4	2 3/4	9,236	120,655	114,740	108,825
W 5	2 3/4	9,236	127,005	121,090	115,176
W 5 1/4	2 5/8	9,676	133,355	127,159	120,963
W 5 1/2	2 5/8	9,676	139,705	133,509	127,313
W 5 3/4	2 1/2	10,160	146,055	139,954	133,043
W 6	2 1/2	10,160	152,406	145,900	139,394

BSF ROSCA WHITWORTH FINA
Perfil teórico - DIN 11 (BS-84)

BSF *WHITWORTH FINE THREAD*
Theorical profile - DIN 11 (BS-84)



$$h = \frac{25,40095}{N}$$

$r = 0,13733h$
$t = 0,9605h$
$t_1 = 0,64033h$

Rosca *Thread*	Paso *Pitch* N h/1"	Paso *Pitch* mm	Ø Exterior *Ø Major* d = D Pulgadas	Ø Exterior *Ø Major* d = D mm	Ø Medio *Ø Pitch* $d_2 = D_2$ mm	Ø Núcleo *Ø Minor* $d_1 = D_1$ mm
BSF 3/16	32	0,794	0,1875	4,763	4,255	3,747
BSF 7/32	28	0,907	0,2188	5,556	4,975	4,394
BSF 1/4	26	0,977	0,2500	6,350	5,725	5,100
BSF 9/32	26	0,977	0,2812	7,142	6,518	5,893
BSF 5/16	22	1,156	0,3125	7,938	7,199	6,459
BSF 3/8	20	1,270	0,3750	9,525	8,712	7,899
BSF 7/16	18	1,411	0,4375	11,113	10,209	9,304
BSF 1/2	16	1,588	0,5000	12,700	11,684	10,668
BSF 9/16	16	1,588	0,5625	14,288	13,272	12,256
BSF 5/8	14	1,814	0,6250	15,875	14,712	13,549
BSF 11/16	14	1,814	0,6875	17,463	16,300	15,137
BSF 3/4	12	2,117	0,7500	19,050	17,693	16,336
BSF 13/16	12	2,117	0,8125	20,638	19,281	17,924
BSF 7/8	11	2,309	0,8750	22,225	20,747	19,269
BSF 1	10	2,540	1,0000	25,400	23,774	22,148
BSF 1 1/8	9	2,822	1,1250	28,575	26,769	24,963

Rosca *Thread*	Paso *Pitch* N h/1"	Paso *Pitch* mm	Ø Exterior *Ø Major* d = D Pulgadas	Ø Exterior *Ø Major* d = D mm	Ø Medio *Ø Pitch* $d_2 = D_2$ mm	Ø Núcleo *Ø Minor* $d_1 = D_1$ mm
BSF 1 1/4	9	2,822	1,2500	31,750	29,944	28,138
BSF 1 3/8	8	3,175	1,3750	34,925	32,893	30,861
BSF 1 1/2	8	3,175	1,5000	38,100	36,068	34,036
BSF 1 5/8	8	3,175	1,6750	41,275	39,243	37,211
BSF 1 3/4	7	3,629	1,7500	44,450	42,126	39,802
BSF 2	7	3,629	2,0000	50,800	48,476	46,152
BSF 2 1/4	6	4,234	2,2500	57,150	54,440	51,730
BSF 2 1/2	6	4,234	2,5000	63,500	60,790	58,080
BSF 2 3/4	6	4,234	2,7500	69,850	67,140	64,430
BSF 3	5	5,080	3,0000	76,200	72,946	69,692
BSF 3 1/4	5	5,080	3,2500	82,550	79,296	76,042
BSF 3 1/2	4 1/2	5,645	3,5000	88,900	85,285	81,670
BSF 3 3/4	4 1/2	5,645	3,7500	95,250	91,635	88,020
BSF 4	4 1/2	5,645	4,0000	101,600	97,985	94,370
BSF 4 1/4	4	6,350	4,2500	107,950	103,886	99,822

R ROSCA DE TUBO WHITWORTH CILINDRICA
Exterior - Medidas límite

R *CYLINDRICAL TUBE WHITWORTH THREAD*
External - Limit sizes

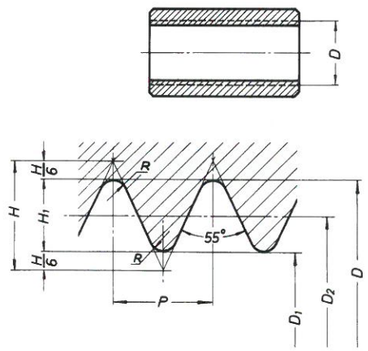
Rosca exterior *External thread* Rosca	d Ø Exterior *Ext. Ø* Máx. mm	d Ø Exterior *Ext. Ø* Mín. mm	d_2 Ø Medio *Pitch Ø* Máx. mm	d_2 Ø Medio *Pitch Ø* Mín. (m) mm	d_2 Ø Medio *Pitch Ø* Mín. (g) mm	d_1 Ø Núcleo *Minor Ø* Máx. mm	d_1 Ø Núcleo *Minor Ø* Mín. (m) mm	d_1 Ø Núcleo *Minor Ø* Mín. (g) mm
R 1/8	9,728	9,514	9,147	9,040	8,933	8,566	8,432	8,298
R 1/4	13,157	12,907	12,301	12,176	12,051	11,445	11,289	11,133
R 3/8	16,662	16,412	15,806	15,681	14,556	14,950	14,794	14,638
R 1/2	20,955	20,671	19,793	19,651	18,509	18,631	18,453	18,276
(R 5/8)	22,911	22,627	21,749	21,607	21,465	20,587	20,409	20,232
R 3/4	26,441	26,157	25,279	25,137	24,995	24,117	23,939	23,762
(R 7/8)	30,201	29,917	29,039	28,897	28,755	27,877	27,699	27,522
R 1	33,249	32,889	31,770	31,590	31,410	30,291	30,066	28,941
(R 1 1/8)	37,897	37,537	36,418	36,238	36,058	34,939	34,714	34,489
R 1 1/4	41,910	41,550	40,431	40,251	40,071	38,952	38,727	38,502
(R 1 3/8)	44,323	43,963	42,844	42,664	42,484	41,365	41,140	40,915
(R 1 1/2)	47,803	47,443	46,324	46,144	45,964	44,845	44,620	44,395
(R 1 1/4)	53,746	53,386	52,267	52,087	51,907	50,788	50,563	50,338

Rosca exterior *External thread* Rosca	d Ø Exterior *Ext. Ø* Máx. mm	d Ø Exterior *Ext. Ø* Mín. mm	d_2 Ø Medio *Pitch Ø* Máx. mm	d_2 Ø Medio *Pitch Ø* Mín. (m) mm	d_2 Ø Medio *Pitch Ø* Mín. (g) mm	d_1 Ø Núcleo *Minor Ø* Máx. mm	d_1 Ø Núcleo *Minor Ø* Mín. (m) mm	d_1 Ø Núcleo *Minor Ø* Mín. (g) mm
R 2	59,614	59,254	58,135	57,955	57,775	56,656	56,431	56,206
(R 2 1/4)	65,710	65,276	64,231	64,014	63,797	62,752	62,481	62,210
R 2 1/2	75,184	74,750	73,705	73,488	73,271	72,226	71,955	71,684
(R 2 3/4)	81,534	81,100	80,055	79,838	79,621	78,576	78,305	78,034
R 3	87,884	87,450	86,405	86,188	85,971	84,926	84,655	84,384
(R 3 1/4)	93,980	93,546	92,501	92,284	92,067	91,022	90,751	90,480
R 3 1/2	100,330	99,896	98,851	98,634	98,417	97,372	97,101	96,830
(R 3 3/4)	103,680	106,246	105,201	104,984	104,767	103,722	103,451	103,180
(R 4)	113,030	112,596	111,551	111,334	111,117	110,072	109,801	109,530
(R 4 1/2)	125,730	125,296	124,251	124,034	123,817	122,772	122,501	122,230
R 5	138,430	137,996	136,951	136,734	136,517	135,472	135,201	134,930
(R 5 1/2)	151,130	150,696	149,651	149,434	149,217	148,172	147,901	147,630
R 6	163,830	163,396	162,351	162,134	161,917	160,872	160,601	160,330

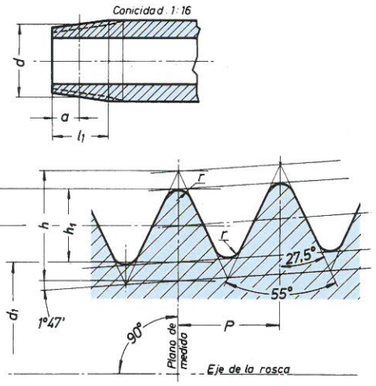
R ROSCA WHITWORTH
Para tubos roscados y manguitos

R *WHITWORT THREAD*
For threaded tubes and pipe couplings

Rosca interior cónica o cilíndrica



Rosca exterior cónica



$$P = \frac{25,4}{N}$$

$H = 0,960491\ P$
$H_1 = 0,640327\ P$
$R = 0,137329\ P$

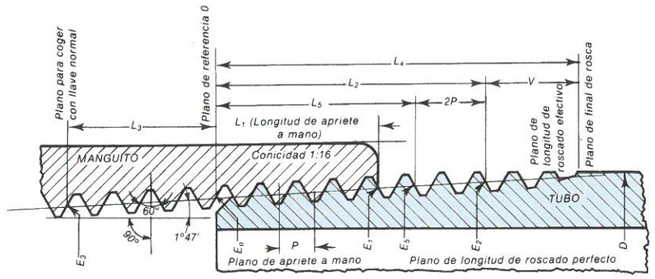
$$P = \frac{25,4}{N}$$

$h = 0,960237\ P$
$h_1 = 0,640327\ P$
$r = 0,137278\ P$

Rosca *Thread*	Ø Nominal del tubo *Ø of tube* mm	Dist. plano de medida *Control size* a mm	Ø Exterior *Major Ø* $d = D$ mm	Ø Medio *Pitch Ø* $d_2 = D_2$ mm	Ø Núcleo *Minor Ø* $d_1 = D_1$ mm	Paso *Pitch* mm	Paso *Pitch* N h/1"	Radio *Radius* r = R mm	Altura *Height* $h_1 = H_1$ mm	Longitud *Length* L_1 mm
R 1/16	3	4,0	7,723	7,142	6,561	0,907	28	0,125	0,581	6,5
R 1/8	6	4,0	9,728	9,147	8,566	0,907	28	0,125	0,581	6,5
R 1/4	8	6,0	13,157	12,301	11,445	1,337	19	0,184	0,856	9,7
R 3/8	10	6,4	16,662	15,806	14,950	1,337	19	0,184	0,856	10,1
R 1/2	15	8,2	20,955	19,793	18,631	1,814	14	0,249	1,162	13,2
R 3/4	20	9,5	26,441	25,279	24,117	1,814	14	0,249	1,162	14,5
R 1	25	10,4	33,249	31,770	30,291	2,309	11	0,317	1,479	16,8
R 1 1/4	32	12,7	41,910	40,431	38,952	2,309	11	0,317	1,479	19,1
R 1 1/2	40	12,7	47,803	46,324	44,845	2,309	11	0,317	1,479	19,1
R 2	50	15,9	59,614	58,135	56,656	2,309	11	0,317	1,479	23,4
R 1 1/2	65	17,5	75,184	73,705	72,226	2,309	11	0,317	1,479	26,7
R 3	80	20,6	87,884	86,405	84,926	2,309	11	0,317	1,479	29,8
R 4	100	25,4	113,030	111,551	110,072	2,309	11	0,317	1,479	35,8
R 5	125	28,6	138,430	136,951	135,472	2,309	11	0,317	1,479	40,1
R 6	150	28,6	163,830	162,351	160,872	2,309	11	0,317	1,479	40,1

NPT-NPTF ROSCA CONICA AMERICANA PARA TUBO
NPT-ASA B2.1 (1960)
NPTF-ASA B2.2 (1960)

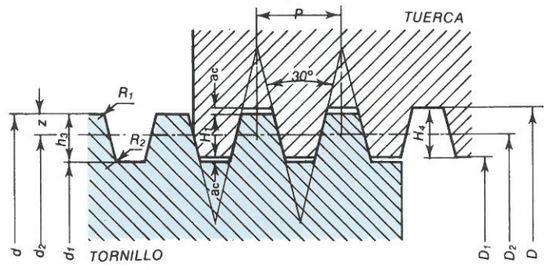
NPT-NPTF *AMERICAN STANDARD TAPER PIPE THREAD*
NPT-ASA B2.1 (1960)
NPTF-ASA B2.2 (1960)



Rosca *Thread*	Paso h/1" *Pitch T.P.I*	Ø Tubo *Tube Ø* D	Ø Medio *Pitch Ø* E_0	Apriete a mano *Manual control*		Rosca efectiva exterior *Exterior thread*		Rosca exterior *Exterior thread*	Rosca exterior nominalmente perfecta *Perfect exterior thread*	
				L_1	E_1 Ø MEDIO	L_2	E_2 Ø MEDIO	L_4	L_5	E_5 Ø MEDIO
1/16	27	7,937	6,888	4,064	7,142	6,632	7,302	9,896	4,750	7,185
1/8	27	10,287	9,238	4,102	9,489	6,703	9,652	9,967	4,821	9,534
1/4	18	13,716	12,126	5,786	12,487	10,206	12,763	15,103	7,384	12,587
3/8	18	17,145	15,545	6,096	15,926	10,358	16,192	15,255	7,536	16,016
1/2	14	21,336	19,264	8,128	19,772	13,556	20,111	19,850	9,929	19,885
3/4	14	26,670	24,579	8,611	25,117	13,861	25,445	20,155	10,234	25,219
1	11 1/2	33,401	30,826	10,160	31,461	17,343	31,910	25,006	12,926	31,634
1 1/4	11 1/2	42,164	39,551	10,668	40,218	17,953	40,673	25,616	13,536	40,397
1 1/2	11 1/2	48,260	45,621	10,668	46,287	18,377	46,769	26,040	13,960	46,493
2	11 1/2	60,325	57,633	11,074	58,325	19,215	58,834	26,878	14,798	58,558
2 1/2	8	73,025	69,076	17,323	70,159	28,892	70,882	39,908	22,542	70,485
3	8	88,900	84,852	19,456	86,068	30,480	86,757	41,496	24,130	86,360
3 1/2	8	101,600	97,472	20,853	98,776	31,750	99,457	42,766	25,400	99,060
4	8	114,300	110,093	21,438	111,433	33,020	112,157	44,036	26,670	111,760
5	8	141,300	136,925	23,800	138,412	35,720	139,157	46,736	29,370	138,760
6	8	168,275	163,731	24,333	165,252	38,417	166,132	49,433	32,067	165,735
8	8	219,075	214,213	27,000	215,900	43,497	216,932	54,513	37,147	216,535
10	8	273,050	267,851	30,734	269,772	48,895	270,907	59,911	42,545	270,510
12	8	323,850	318,333	34,544	320,492	53,975	321,707	64,990	47,625	321,310

Tr ROSCA TRAPEZOIDAL METRICA ISO
Perfil teórico - DIN 103 (1971)

Tr *ACME ISO METRIC THREAD*
Theorical profile - DIN 103 (1971)



$D = d + 2\,a_c$
$d_1 = d - 2\,h_3$
$d_2 = D_2 = d - 2z = d - 0{,}5\,P$
$R_1 =$ máx. $0{,}5\,a_c$
$R_2 =$ máx. a_c

$D_1 = d - 2\,H_1 = d - P$
$H_1 = 0{,}5\,P$
$H_4 = H_1 + a_c = 0{,}5\,P + a_c$
$h_3 = H_1 + a_c = 0{,}5\,P + a_c$
$Z = 0{,}25\,P = \frac{H_1}{2}$

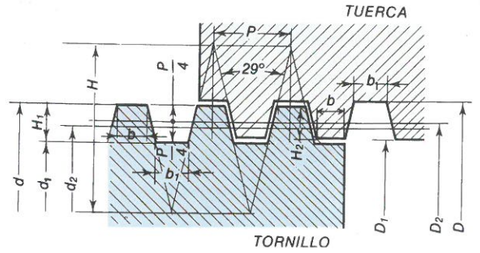
P	1,5	2÷5	6÷12	14÷20
a_c	0,15	0,25	0,5	1

Rosca *Thread*		Paso *Pitch*	Ø Medio *Pitch Ø*	Ø Exterior *Major Ø*	Ø Núcleo *Minor Ø*	
Serie 1	Serie 2	P mm	$d_2 = D_2$ mm	D mm	d_1 mm	D_1 mm
Tr 8		1,5	7,250	8,300	6,200	6,500
Tr 10		1,5	9,250	10,300	8,200	8,500
		2	9,000	10,500	7,500	8,000
Tr 12		2	11,000	12,500	9,500	10,000
		3	10,500	12,500	8,500	9,000
	Tr 14	2	13,000	14,500	11,500	12,000

Rosca *Thread*		Paso *Pitch*	Ø Medio *Pitch Ø*	Ø Exterior *Major Ø*	Ø Núcleo *Minor Ø*	
Serie 1	Serie 2	P mm	$d_2 = D_2$ mm	D mm	d_1 mm	D_1 mm
	Tr 14	3	12,500	14,500	10,500	11,000
Tr 16		2	15,000	16,500	13,500	14,000
		4	14,000	16,500	11,500	12,000
	Tr 18	2	17,000	18,500	15,500	16,000
		4	16,000	18,500	13,500	14,000
Tr 20		2	19,000	20,500	17,500	18,000

ROSCA TRAPEZOIDAL AMERICANA
ACME-G (Aplicación general) ASA B1.5 (1955)

ACME THREAD
ACME-G (General purpose) ASA B1.5 (1955)

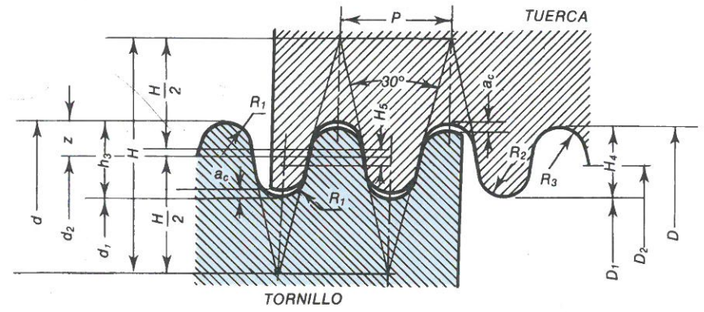


$H = 1{,}93336\,P$
$H_1 = 0{,}5\,P + 0{,}127$ (N≥12 h/1´´)
$H_1 = 0{,}5\,P + 0{,}254$ (N≤10 h/1´´)
$H_2 = 0{,}5\,P$
$b = 0{,}37069\,P$
$b_1 = b - 0{,}066$ (N≥12 h/1´´)
$b_1 = b - 0{,}132$ (N≤10 h/1´´)
$D_2 = D - 0{,}5\,P$
$d_2 = d - 0{,}5\,P$

Paso h/1" *Pitch T.P.I*	Paso mm *Pitch mm*	H_2 mm	H_1 mm	b mm	b_1 mm	Paso h/1" *Pitch T.P.I*	Paso mm *Pitch mm*	H_2 mm	H_1 mm	b mm	b_1 mm
16	1,588	0,796	0,923	0,589	0,523	4	6,350	3,175	3,429	2,355	2,222
14	1,814	0,907	1,034	0,673	0,607	3	8,466	4,233	4,488	3,137	3,005
12	2,117	1,059	1,186	0,785	0,719	2 1/2	10,160	5,080	5,334	3,767	3,635
10	2,540	1,270	1,524	0,942	0,810	2	12,700	6,350	6,604	4,707	4,575
8	3,175	1,588	1,841	1,176	1,044	1 1/2	16,933	8,467	8,721	6,276	6,144
6	4,234	2,117	2,370	1,570	1,438	1 1/3	19,050	9,525	9,779	7,061	6,929
5	5,080	2,540	2,794	1,882	1,750	1	25,400	12,700	12,954	9,416	9,284

Rd ROSCA REDONDA
DIN 405 (1975)

Rd *ROUND THREAD*
DIN 405 (1975)



$H_4 = h_3 = 0{,}5\,P$
$H_5 = 0{,}0835\,P$
$Z = 0{,}25\,P = \frac{h_3}{2}$

$D = d + 2a_c = d + 0{,}1\,P$
$D_1 = D - 2\,H_4 = D - P = d - 0{,}9\,P$
$d_1 = d - 2\,h_3 = d - P$
$d_2 = D_2 = d - 2\,z = d - 0{,}5\,P$
$a_c = 0{,}05\,P$
$R_1 = 0{,}23851\,P$
$R_2 = 0{,}25597\,P$
$R_3 = 0{,}22105\,P$

Paso h/1" *Pitch T.P.I*	Paso mm *Pitch mm*	H = 1,866 P mm	H/2 mm	$H_4 - h_3$ mm	H_5 mm	R_1 mm	R_2 mm	R_3 mm
10	2,540	4,740	2,370	1,270	0,212	0,606	0,650	0,561
8	3,175	5,925	2,962	1,588	0,265	0,757	0,813	0,702
6	4,233	7,899	3,949	2,117	0,353	1,010	1,084	0,936
4	6,350	11,849	5,925	3,175	0,530	1,515	1,625	1,404

Rosca *Thread*	Paso *Pitch*	Ø Medio *Pitch Ø*	Ø Exterior *Major Ø*	Ø Núcleo *Minor Ø*	
d mm	h/1"	$d_2 = D_2$ mm	D mm	d_1 mm	D_1 mm
8	10	6,730	8,254	5,460	5,714
9	10	7,730	9,254	6,460	6,714
10	10	8,730	10,254	7,460	7,714
11	10	9,730	11,254	8,460	8,714
12	10	10,730	12,254	9,460	9,714
14	8	12,412	14,316	10,825	11,142
16	8	14,412	16,318	12,825	13,142
18	8	16,412	18,318	14,825	15,142
20	8	18,412	20,318	16,825	17,142
22	8	20,412	22,318	18,825	19,142
24	8	22,412	24,318	20,825	21,142
26	8	24,412	26,318	22,825	23,142
28	8	26,412	28,318	24,825	25,142
30	8	28,412	30,318	26,825	27,142
32	8	30,412	32,318	28,825	29,142
34	8	32,412	34,318	30,825	31,142
36	8	34,412	36,318	32,825	33,142
38	8	36,412	38,318	34,825	35,142

Rosca *Thread*	Paso *Pitch*	Ø Medio *Pitch Ø*	Ø Exterior *Major Ø*	Ø Núcleo *Minor Ø*	
d mm	h/1"	$d_2 = D_2$ mm	D mm	d_1 mm	D_1 mm
40	6	37,883	40,423	35,767	36,190
42	6	39,883	42,423	37,767	38,190
44	6	41,883	44,423	39,767	40,190
46	6	43,883	46,423	41,767	42,190
48	6	45,883	48,423	43,767	44,190
50	6	47,888	50,423	45,767	46,190
52	6	49,883	52,423	47,767	48,190
55	6	52,883	55,423	50,767	51,190
58	6	55,883	58,423	53,767	54,190
60	6	57,883	60,423	55,767	56,190
62	6	59,883	62,423	57,767	58,190
65	6	62,883	65,423	60,767	61,190
68	6	65,883	68,423	63,767	64,190
70	6	67,883	70,423	65,767	66,190
72	6	69,883	72,423	67,767	68,190
75	6	72,883	75,423	70,767	71,190
78	6	75,883	78,423	73,767	74,190
80	6	77,883	80,423	75,767	76,190