

Tablas de pesos y medidas (hierros, aceros y caños)

Perfiles laminados en caliente

- ▶ 1. Perfil ángulo de alas iguales.
- ▶ 2. Perfil Normal "U" - UPN.
- ▶ 3. Perfil Normal doble T - IPN.
- ▶ 4. Planchuelas de hierro.

Perfiles conformados en frío

- ▶ 5. Perfiles C.
- ▶ 6. Perfiles U.

Perfil ángulo de alas iguales

F = Sección

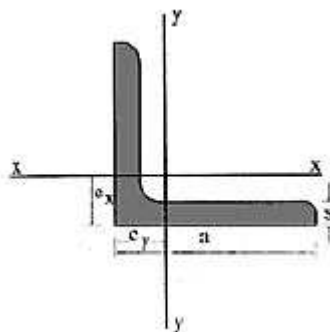
G = Peso

U = Superficie exterior por metro de perfil

J = Momento de inercia

W = Momento resistente

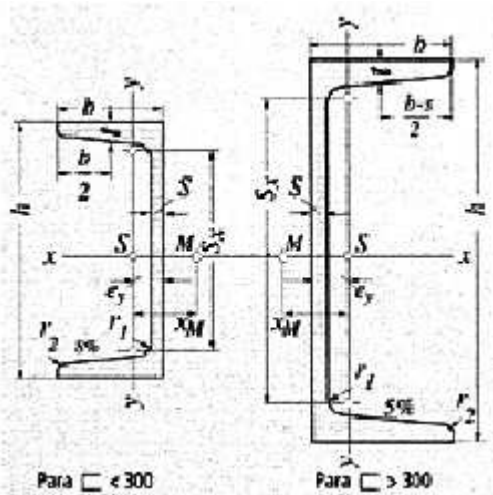
i = Radio de giro



Denominación	Dimensiones			Eje flexión x-x=y-y				
	a	b	ex=ey	F	G	Jx=Jy	Wx=Wy	ix=iy
	mm	mm	cm	cm ²	Kg./m	cm ⁴	cm ³	cm
5/8" x 1/8"	15.9	3.2	0.51	0.91	0.7	0.20	0.18	0.46
3/4" x 1/8"	19.1	3.2	0.58	1.11	0.9	0.37	0.28	0.58
7/8" x 1/8"	22.2	3.2	0.66	1.31	1.0	0.58	0.37	0.66
1" x 1/8"	25.4	3.2	0.75	1.51	1.2	0.91	0.51	0.77
1" x 3/16"	25.4	4.8	0.81	2.19	1.8	1.25	0.72	0.75
1" x 1/4"	25.4	6.4	0.86	2.83	2.2	1.66	0.98	0.73
1 1/4" x 1/8"	31.7	3.2	0.91	1.92	1.5	1.83	0.80	0.98
1 1/4" x 3/16"	31.7	4.8	0.97	2.80	2.2	2.54	1.16	0.96
1 1/4" x 1/4"	31.7	6.4	1.01	3.61	2.8	3.32	1.47	0.93
1 1/2" x 1/8"	38.1	3.2	1.07	2.32	1.8	3.25	1.18	1.18
1 1/2" x 3/16"	38.1	4.8	1.13	3.40	2.7	4.58	1.70	1.16
1 1/2" x 1/4"	38.1	6.4	1.18	4.44	3.4	5.78	2.19	1.14
1 3/4" x 1/8"	44.4	3.2	1.23	2.73	2.1	5.24	1.62	1.39
1 3/4" x 3/16"	44.4	4.8	1.29	4.00	3.1	7.45	2.36	1.36
2" x 1/8"	50.8	3.2	1.39	3.13	2.4	7.91	2.14	1.59
2" x 3/16"	50.8	4.8	1.45	4.61	3.6	11.33	3.12	1.57
2" x 1/4"	50.8	6.4	1.50	6.05	4.7	14.48	4.04	1.55
2 1/4" x 3/16"	57.1	4.8	1.60	5.21	4.1	16.23	3.93	1.78
2 1/4" x 1/4"	57.1	6.4	1.68	6.85	5.4	21.23	5.24	1.75
2 1/2" x 3/16"	63.5	4.8	1.76	5.82	4.6	22.77	4.96	1.98
2 1/2" x 1/4"	63.5	6.4	1.82	7.66	6.1	29.26	6.45	1.95
3" x 1/4"	76.2	6.4	2.14	9.27	7.3	51.60	9.46	2.36
3" x 5/16"	76.2	7.9	2.20	11.47	9.1	62.80	11.58	2.34
3" x 3/8"	76.2	9.5	2.26	13.60	10.7	73.20	13.65	2.32
3 1/2" x 1/4"	88.9	6.4	2.46	10.89	8.6	83.60	13.01	2.77
3 1/2" x 5/16"	88.9	7.9	2.51	13.49	10.7	101.90	15.99	2.74
3 1/2" x 3/8"	88.9	9.5	2.57	16.02	12.6	119.40	18.85	2.71
4" x 1/4"	101.6	6.4	2.76	12.51	9.8	124.80	18.02	3.17
4" x 5/16"	101.6	7.9	2.84	15.50	12.2	154.60	21.10	3.15
4" x 3/8"	101.6	9.5	2.90	18.44	14.6	181.30	24.90	3.12
4" x 1/2"	101.6	12.7	3.00	24.19	19.0	231.40	32.30	3.10

Perfil Normal "U" - UPN

- F = Sección
- G = Peso
- J = Momento de inercia
- U = Superficie exterior por metro de perfil
- W = Momento resistente
- i = Radio de giro
- S_x = Momento estático de media sección del perfil
- $s_x = J_x/S_x$ - Separación entre los centros de tracción y compresión
- X_m = Distancia del centro del esfuerzo cortante al eje y-y



Denominación	Dimensiones en mm								Eje flexión x-x			Eje flexión y-y			Distancia del eje y-y			
						F	G	U	J_x	W_x	i_x	J_y	W_y	i_y	S_x	s_x	e_y	X_m
						cm ²	Kg./m	m ² /m	cm ⁴	cm ³	cm	cm ⁴	cm ³	cm	cm ³	cm	cm	cm
30x15	30	15	4.0	4.5	2.0	2.21	1.74	0.103	2.53	1.69	1.07	0.38	0.39	0.42	-	-	0.52	0.74
30	30	33	5.0	7.0	3.5	5.44	4.27	0.174	6.39	4.26	1.08	5.33	2.68	0.99	-	-	1.31	2.22
40x20	40	20	5.0	5.5 - 5	2.5	3.66	2.78	0.142	7.58	3.79	1.44	1.14	0.86	0.56	-	-	0.67	1.01
40	40	35	5.0	7.0	3.5	6.21	4.87	0.199	14.1	7.1	1.50	6.68	3.08	1.04	-	-	1.33	2.32
50x25	50	25	5.0	6.0	3.0	4.92	3.86	0.181	16.8	6.7	1.85	2.49	1.48	0.71	-	-	0.81	1.34
50	50	38	5.0	7.0	3.5	7.12	5.59	0.232	26.4	10.6	1.92	9.12	3.75	1.13	-	-	1.37	2.47
60	60	30	6.0	6.0	3.0	4.46	5.07	0.215	31.6	10.5	2.21	4.51	2.16	0.84	-	-	0.91	1.50
65	65	42	5.5	7.5	4.0	9.03	7.09	0.273	57.5	17.7	2.52	14.1	5.07	1.25	-	-	1.42	2.60
80	80	45	6.0	8.0	4.0	11.00	8.64	0.312	106	26.5	3.10	19.4	6.36	1.33	15.9	6.65	1.45	2.67
100	100	50	6.0	8.5	4.5	13.50	10.60	0.372	206	41.2	3.91	29.3	8.49	1.47	24.5	8.42	1.55	2.93
120	120	55	7.0	9.0	4.5	17.00	13.40	0.434	364	60.7	4.62	43.2	11.1	1.59	36.3	10.0	1.60	3.03
140	140	60	7.0	10.0	5.0	20.40	16.00	0.489	605	86.4	5.45	62.7	14.8	1.75	51.4	11.8	1.75	3.37
160	160	65	7.5	10.5	5.5	24.00	18.80	0.546	925	116	6.21	85.3	18.3	1.89	68.8	13.3	1.84	3.56
180	180	70	8.0	11.0	5.5	28.00	22.00	0.611	1,35	150	6.95	114	22.4	2.02	89.6	15.1	1.92	3.75
200	200	75	8.5	11.5	6.0	32.20	25.30	0.661	1,91	191	7.70	148	27.0	2.14	114	16.8	2.01	3.94
220	220	80	9.0	12.5	6.5	37.40	29.40	0.718	2,69	245	8.48	197	33.6	2.30	146	18.5	2.14	4.20
240	240	85	9.5	13.0	6.5	42.30	33.20	0.775	3,6	300	9.22	248	39.6	2.42	179	20.1	2.23	4.39
260	260	90	10.0	14.0	7.0	48.30	37.90	0.834	4,82	371	9.99	317	47.7	2.56	221	21.8	2.36	4.66
280	280	95	10.0	15.0	7.5	53.30	41.80	0.890	6,28	448	10.90	399	57.2	2.74	266	23.6	2.53	5.02
300	300	100	10.0	16.0	8.0	58.80	46.20	0.950	8,03	535	11.70	495	67.8	2.90	316	25.4	2.70	5.41
320	320	100	14.0	17.5	8.75	75.80	59.50	0.982	10,87	679	12.10	597	80.6	2.81	413	26.3	2.60	4.82
350	350	100	14.0	16.0	8.0	77.30	60.60	1.047	12,84	734	12.90	570	75.0	2.72	459	28.6	2.40	4.45
380	380	102	13.5	16.0	8.0	80.40	63.10	1.110	15,76	829	14.00	615	78.7	2.77	507	31.1	2.38	4.58

Perfil Normal doble "T" - IPN

F = Sección

G = Peso

J = Momento de inercia

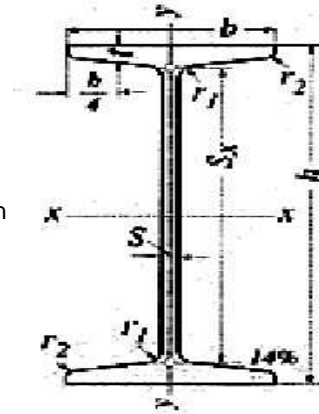
U = Superficie exterior por metro de perfil

W = Momento resistente

i = Radio de giro

Sx = Momento estático de media sección del perfil

sx = Jx/Sx - Separación entre los centros de tracción y compresión



Denominación	Dimensiones en mm								Eje flexión x-x			Eje flexión y-y				
						F	G	U	J _x	W _x	i _x	J _y	W _y	i _y =i ₁ min	S _x	s _x
	h	b	s=r1	t	r2	cm ²	Kg./m	m ² /m	cm ⁴	cm ³	cm	cm ⁴	cm ³	cm	cm ³	cm
80	80	42	3.9	5.9	2.3	7.57	5.94	0.304	77.8	19.5	3.20	6.29	3.00	0.91	11.4	6.84
100	100	50	4.5	6.8	2.7	10.60	8.34	0.370	171	34.2	4.01	12.2	4.88	1.07	19.9	8.57
120	120	58	5.1	7.7	3.1	14.20	11.10	0.439	328	54.7	4.81	22	7.41	1.23	31.8	10.30
140	140	66	5.7	8.6	3.4	18.20	14.30	0.502	573	81.9	5.61	35	10.70	1.40	47.4	12.00
160	160	74	6.3	9.5	3.8	22.80	17.90	0.575	935	117	6.40	55	14.80	1.55	68.0	13.70
180	180	82	6.9	10.4	4.1	27.90	21.90	0.640	1,45	161	7.20	81	19.80	1.71	93.4	15.50
200	200	90	7.5	11.3	4.5	33.40	26.20	0.709	2,14	214	8.00	117	26.00	1.87	125	17.20
220	220	98	8.1	12.2	4.9	39.50	31.10	0.775	3,06	278	8.80	162	33.10	2.02	162	18.90
240	240	106	8.7	13.1	5.2	46.10	36.20	0.844	4,25	354	9.59	221	41.70	2.20	206	20.60
260	260	113	9.4	14.1	5.6	53.30	41.90	0.906	5,74	442	10.40	288	51.00	2.32	257	22.30
280	280	119	10.1	15.2	6.1	61.00	47.90	0.966	7,59	542	11.10	364	61.20	2.45	316	24.00
300	300	125	10.8	16.2	6.5	69.00	54.20	1.030	9,8	653	11.90	451	72.20	2.56	381	25.70
320	320	131	11.5	17.3	6.9	77.70	61.00	1.090	12,51	782	12.70	555	84.70	2.67	457	27.40
340	340	137	12.2	18.3	7.3	86.70	68.00	1.150	15,7	923	13.50	674	98.40	2.80	540	29.10
360	360	143	13.0	19.5	7.8	97.00	76.10	1.210	19,61	1,09	14.20	818	114	2.90	638	30.70
380	380	149	13.7	20.5	8.2	107.00	84.00	1.270	24,01	1,26	15.00	975	131	3.02	741	32.40
400	400	155	14.4	21.6	8.6	118.00	92.40	1.330	29,21	1,46	15.70	1,16	149	3.13	857	34.10
425	425	163	15.3	23.0	9.2	132.00	104.00	1.410	36,97	1,74	16.70	1,44	176	3.30	1,02	36.20
450	450	170	16.2	24.3	9.7	147.00	115.00	1.480	45,85	2,04	17.70	1,73	203	3.43	1,2	38.30
475	475	178	17.1	25.6	10.3	163.00	128.00	1.550	56,48	2,38	18.60	2,09	235	3.60	1,4	40.40
500	500	185	18.0	27.0	10.8	179.00	141.00	1.630	68,74	2,75	19.60	2,48	268	3.72	1,62	42.40
550	550	200	19.0	30.0	11.9	212.00	166.00	1.800	99,18	3,61	21.60	3,49	349	4.02	2,12	46.80
600	600	215	21.6	32.4	13.0	254.00	199.00	1.920	139	4,63	23.40	4,67	434	4.30	2,73	50.90

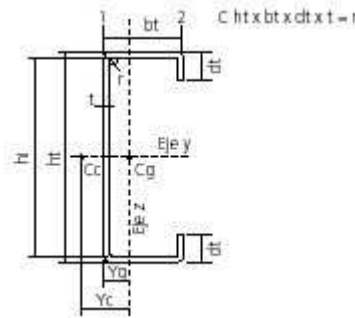
Planchuelas de hierro



Ancho "a"		Espesores "e"												
		Pulg.	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
		mm	3.18	4.76	6.35	7.94	9.53	12.70	15.88	19.05	25.40	31.75	38.10	50.80
Pulg.	mm	Peso por metro lineal (kg/m)												
1/2"	12.70	0.32	0.47	0.63										
5/8"	15.88	0.40	0.59	0.79										
3/4"	19.05	0.47	0.71	0.95	1.19									
7/8"	22.23	0.55	0.83	1.11	1.38									
1"	25.40	0.63	0.95	1.27	1.58	1.90	2.53							
1 1/4"	31.75	0.79	1.19	1.58	1.98	2.37	3.17							
1 1/2"	38.10	0.95	1.42	1.90	2.37	2.85	3.80	4.75	5.70	7.60				
1 3/4"	44.45	1.11	1.66	2.22	2.77	3.32	4.43	5.54	6.65					
2"	50.80	1.27	1.90	2.53	3.17	3.80	5.06	6.33	7.60	10.13	12.66	15.19		
2 1/4"	57.15	1.42	2.14	2.85	3.56	4.27	5.70	7.12	8.55	11.40	14.24	17.09		
2 1/2"	63.50	1.58	2.37	3.17	3.96	4.75	6.33	7.91	9.50	12.66	15.83	18.99		
2 3/4"	69.85	3.48	4.35	5.22	6.96	8.70	10.45	13.93	17.41	20.89				
3"	76.20	1.90	2.85	3.80	4.75	5.70	7.60	9.50	11.40	15.19	18.99	22.79		
3 1/4"	82.55	4.11	5.14	6.17	8.23	10.29	12.34	16.46	20.57	24.69				
3 1/2"	88.90	2.22	3.32	4.43	5.54	6.65	8.86	11.08	13.29	17.73	22.16	26.59		
4"	101.60	2.53	3.80	5.06	6.33	7.60	10.13	12.66	15.19	20.26	25.32	30.39	40.52	
4 1/4"	107.95	2.69	4.04	5.38	6.73	8.07	10.76	13.45	16.14	21.52	26.91	32.29		
4 1/2"	114.30	2.85	4.27	5.70	7.12	8.55	11.40	14.24	17.09	22.79	28.49	34.19		
4 3/4"	120.65	3.01	4.51	6.01	7.52	9.02	12.03	15.04	18.04	24.06				
5"	127.00	3.17	4.75	6.33	7.91	9.50	12.66	15.83	18.99	25.32	31.65	37.98		
6"	152.40	3.80	5.70	7.60	9.50	11.40	15.19	18.99	22.79	30.39				

Perfiles conformados en frío C

J = Momento de inercia
 W = Momento resistente
 i = Radio de giro



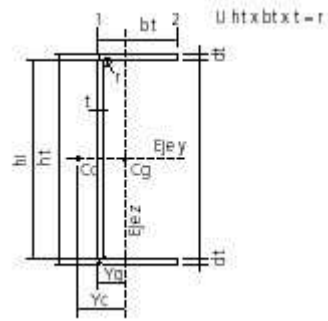
Designacion	Dimensiones						Area	Peso	Eje Y			Eje Z					
	ht	bt	dt	t	r	hi			a	g	J _y	W _y	i _y	J _z	W _{z1} borde1	W _{z2} borde2	i _z
	cm	cm	cm	cm	cm	cm			cm ²	kg/m	cm ⁴	cm ³	cm	cm ⁴	cm ³	cm ³	cm
C 80 x 40 x 15 x 1,6	8,00	4,00	1,50	0,16	0,16	7,68	2,872	2,254	29,031	7,258	3,18	6,6734	4,597	2,657	1,53		
C 80 x 40 x 15 x 2	8,00	4,00	1,50	0,20	0,20	7,60	3,537	2,776	35,246	8,811	3,16	8,070	5,517	3,181	1,51		
C 100 x 50 x 15 x 2	10,00	5,00	1,50	0,20	0,20	9,60	4,337	3,404	69,229	13,846	4,00	14,980	8,683	4,574	1,86		
C 120 x 50 x 15 x 2	12,00	5,00	1,50	0,20	0,20	11,60	4,737	3,718	105,802	17,634	4,73	15,948	10,043	4,674	1,83		
C 140 x 60 x 20 x 2	14,00	6,00	2,00	0,20	0,20	13,60	5,737	4,503	176,409	25,201	5,55	29,346	14,754	7,316	2,26		
C 140 x 60 x 20 x 2,5	14,00	6,00	2,00	0,25	0,25	13,50	7,089	5,565	215,617	30,802	5,52	35,408	17,828	8,821	2,23		
C 160 x 60 x 20 x 2	16,00	6,00	2,00	0,20	0,20	15,60	6,137	4,817	240,949	30,119	6,27	30,681	16,443	7,421	2,24		
C 160 x 60 x 20 x 2,5	16,00	6,00	2,00	0,25	0,25	15,50	7,589	5,957	294,932	36,867	6,23	37,025	19,869	8,951	2,21		
C 180 x 70 x 25 x 2	18,00	7,00	2,50	0,20	0,20	17,60	7,137	5,602	358,563	39,840	7,09	50,556	22,357	10,669	2,66		
C 180 x 70 x 25 x 2,5	18,00	7,00	2,50	0,25	0,25	17,50	8,839	6,938	440,204	48,912	7,06	61,373	27,168	12,945	2,64		
C 180 x 70 x 25 x 3,2	18,00	7,00	2,50	0,32	0,32	17,36	11,166	8,765	549,239	61,027	7,01	75,347	33,403	15,882	2,60		
C 200 x 70 x 25 x 2	20,00	7,00	2,50	0,20	0,20	19,60	7,537	5,916	458,870	45,887	7,80	52,325	24,375	10,781	2,63		
C 200 x 70 x 25 x 2,5	20,00	7,00	2,50	0,25	0,25	19,50	9,339	7,331	563,874	56,387	7,77	63,528	29,620	13,084	2,61		
C 200 x 70 x 25 x 3,2	20,00	7,00	2,50	0,32	0,32	19,36	11,806	9,268	704,478	70,448	7,72	78,006	36,416	16,057	2,57		

Perfiles conformados en frío U

J = Momento de inercia

W = Momento resistente

i = Radio de giro



Designación	Dimensiones						Area	Peso	Eje Y			Eje Z					
	ht	bt	dt	t	r	hi			a	g	J _y	W _y	i _y	J _z	W _{z1} borde1	W _{z2} borde2	i _z
	cm	cm	cm	cm	cm	cm			cm ²	kg/m	cm ⁴	cm ³	cm	cm ⁴	cm ³	cm ³	cm
U 83,2 x 40 x 1,6	8,32	4,00	0,00	0,16	0,16	8,00	2,527	1,984	27,566	6,626	3,30	4,031	3,826	1,368	1,26		
U 84 x 40 x 2	8,40	4,00	0,00	0,20	0,20	8,00	3,148	2,471	34,525	8,220	3,31	4,965	4,654	1,693	1,26		
U 105 x 50 x 2,5	10,50	5,00	0,00	0,25	0,25	10,00	4,919	3,862	84,290	16,055	4,14	12,123	9,089	3,307	1,57		
U 125 x 50 x 2,5	12,50	5,00	0,00	0,25	0,25	12,00	5,419	4,254	126,657	20,265	4,83	12,786	10,461	3,384	1,54		
U 146,4 x 60 x 3,2	14,64	6,00	0,00	0,32	0,32	14,00	8,188	6,428	262,999	35,929	5,67	27,918	18,685	6,196	1,85		
U 166,4 x 60 x 3,2	16,64	6,00	0,00	0,32	0,32	16,00	8,828	6,930	355,820	42,767	6,35	28,975	20,734	6,295	1,81		
U 186,4 x 70 x 3,2	18,64	7,00	0,00	0,32	0,32	18,00	10,108	7,935	519,997	55,794	7,17	46,066	28,052	8,598	2,13		
U 206,4 x 70 x 3,2	20,64	7,00	0,00	0,32	0,32	20,00	10,748	8,437	661,775	64,125	7,85	47,388	30,496	8,701	2,10		

Fuente: <http://www.nghelectricidad.com.ar/Tablapesosmedidashierracercan.htm>