















Ferrero®

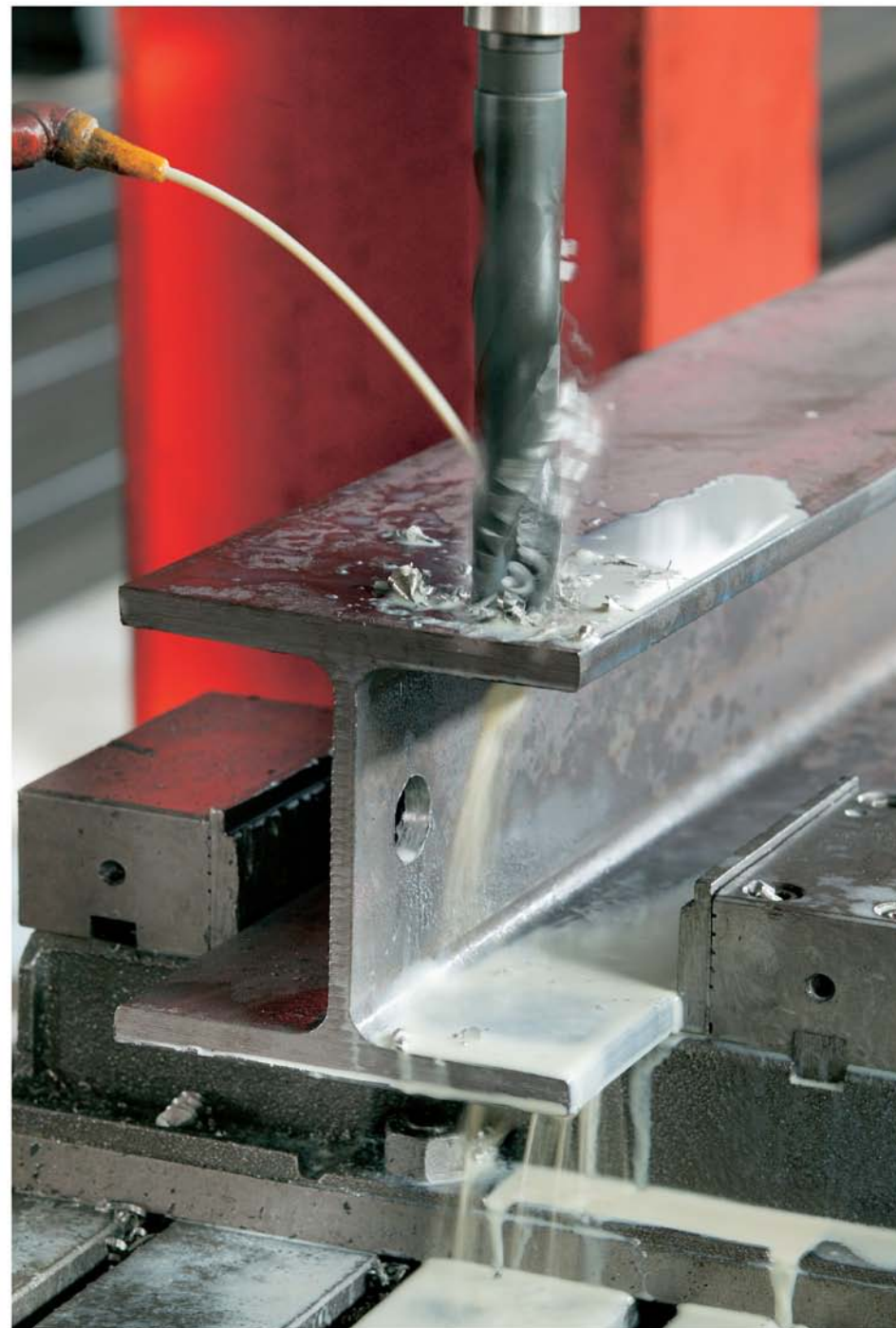
Steel Line

A complete range of raw and prepared steel materials

metal fabrication division

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Note: the comma implies a decimal point
EX. 0,154 = 0.154



• Welder Approval according to UNI EN 287-1:2012.
CERTIFICATION BODY RINA.

ROUNDS AND SQUARES



ROUNDS
UNI 6012

SQUARES
UNI 6013



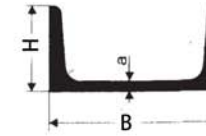
Diameter or side mm	Weight kg/m	
	Round	Squares
5	0,154	0,196
6	0,222	0,283
7	0,302	0,385
8	0,395	0,502
9	0,499	0,636
10	0,617	0,785
11	0,746	0,950
12	0,888	1,130
13	1,042	1,327
14	1,208	1,540
15	1,387	1,766
16	1,578	2,010
17	1,728	2,270
18	2,000	2,543
19	2,230	2,834
20	2,466	3,140
21	2,720	3,462
22	2,984	3,800
23	3,261	4,153
24	3,551	4,522
25	3,853	4,908
26	4,170	5,307
27	4,495	5,723
28	4,834	6,154
29	5,185	6,602

Diameter or side mm	Weight kg/m	
	Round	Squares
30	5,550	7,070
32	6,313	8,040
33	6,710	—
34	7,130	9,075
35	7,550	9,620
36	7,990	10,174
37	8,440	—
38	8,903	11,335
39	9,380	—
40	9,865	12,600
42	10,876	13,847
43	11,400	—
45	12,500	15,900
46	13,046	16,611
47	13,600	—
48	14,205	18,086
50	15,414	19,625
52	16,671	21,226
53	17,300	22,100
55	18,700	23,700
56	19,335	24,618
58	20,740	26,407
60	22,195	28,300
63	24,500	31,200
65	26,000	33,200

Diameter or side mm	Weight kg/m	
	Round	Squares
68	28,509	36,300
70	30,210	38,500
73	32,900	41,800
75	34,700	44,200
78	37,510	47,800
80	39,500	50,240
83	42,500	—
85	44,500	56,716
88	47,700	—
90	49,940	63,600
93	53,300	—
95	55,643	70,900
100	61,700	78,500
105	68,000	84,546
110	74,601	95,000
115	81,537	104,000
120	88,800	113,040
125	96,334	123,000
130	104,195	133,000
140	120,842	154,000
150	138,722	177,000
160	158,000	201,000
170	178,180	227,000
180	200,000	254,340
200	246,616	314,000

IRON CHANNEL - U

NORMAL PROFILES



Dimensions		Thickness Core	Moment strength	WT/ml
B	H			
30	33	5	4,3	4,27
40	35	5	7,1	4,87
50	38	5	10,5	5,59
65	42	5,5	17,7	7,09
80	45	6	25,5	8,64
100	50	6	41,1	10,60
120	55	7	50,7	13,35
140	60	7	86,4	16,01
160	65	7,5	115	18,84
180	70	8	150	21,98
200	75	8,5	191	25,28
220	80	9	245	29,36
240	85	9,5	300	33,21
260	90	10	371	37,92
280	95	10	448	41,84
300	100	10	535	46,16

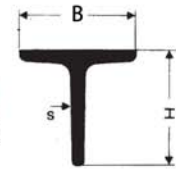
IRON CHANNEL - U

SPECIAL DIMENSIONS

Dimensions		Thickness Core	WT/ml
B	H		
25	12	4	1,30
30	15	5	1,98
35	17	5,5	2,52
40	20	6	3,23
50	25	6	4,15
60	30	6,5	5,45

T IRON

ROUNDED EDGES



SIDES		Thickness mm.	WT/ml
B	H		
45	45	5,3	3,37
50	50	6	4,44
60	60	7	6,28
70	70	8	8,32
80	80	9	10,70
90	90	10	13,40
100	100	11	16,40

NON-ROUNDED EDGES

SIDES		Thickness mm.	WT/ml
B	H		
15	15	3	0,32
20	20	4	1,13
25	25	4,5	1,61
30	30	5	2,16
30	30	5,5	2,35
35	35	5,5	2,79
35	35	6	3,01
40	40	6	3,48
40	40	6,5	3,75
45	45	6,5	4,26
45	45	7	4,56
50	50	7	5,11
60	60	7	6,21
60	60	8	7,03
70	70	9	9,26
80	80	10	11,75
90	90	10	13,03
100	100	11	16,30



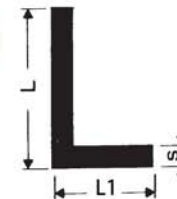


ANGLE Rounded Edges



Dimensions LxL1xS mm	Weight Kg/m	Dimensions LxL1xS mm	Weight Kg/m	Dimensions LxL1xS mm	Weight Kg/m	Dimensions LxL1xS mm	Weight Kg/m
25 x 15 x 3	0,96	60 x 30 x 6	3,95	80 x 60 x 10	10,20	120 x 80 x 12	17,80
30 x 20 x 4	1,45	60 x 30 x 7	4,59	80 x 60 x 12	12,20	130 x 65 x 8	11,90
30 x 20 x 5	1,77	60 x 40 x 5	3,76	100 x 50 x 8	8,99	130 x 65 x 10	14,60
35 x 20 x 4	1,61	60 x 40 x 6	4,46	100 x 50 x 10	11,10	130 x 65 x 12	17,30
35 x 20 x 5	1,97	60 x 40 x 7	5,14	100 x 65 x 7	8,77	150 x 100 x 10	19,30
40 x 20 x 4	1,77	70 x 50 x 6	5,44	100 x 65 x 8	9,95	150 x 100 x 12	22,60
40 x 20 x 5	2,17	70 x 50 x 7	6,28	100 x 65 x 9	11,10	150 x 100 x 12	21,59
40 x 25 x 4	1,92	70 x 50 x 8	7,10	100 x 65 x 10	12,30	150 x 100 x 14	26,10
40 x 25 x 5	2,36	70 x 50 x 10	8,71	100 x 65 x 11	13,40	200 x 90 x 12	26,30
45 x 30 x 4	2,25	75 x 50 x 6	5,65	110 x 65 x 8	11,20	200 x 90 x 15	32,50
45 x 30 x 5	2,77	75 x 50 x 7	6,53	110 x 75 x 10	13,80	200 x 100 x 10	23,00
45 x 30 x 6	3,27	80 x 40 x 6	5,41	120 x 60 x 8	10,90	200 x 100 x 12	27,30
50 x 30 x 5	2,96	80 x 40 x 8	7,07	120 x 60 x 10	13,40	200 x 100 x 14	31,64
50 x 30 x 6	3,51	80 x 60 x 7	7,35	120 x 80 x 8	12,20	200 x 100 x 16	35,90
60 x 30 x 5	3,37	80 x 60 x 8	8,33	120 x 80 x 10	15,00	200 x 100 x 18	40,00

ANGLE Non-rounded Edges



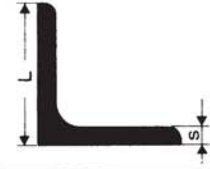
Dimensions LxL1xS mm	Weight Kg/m	Dimensions LxL1xS mm	Weight Kg/m
20 x 12 x 4	0,879	30 x 17,5 x 5	1,67
25 x 15 x 4,5	1,250	35 x 20 x 5,5	2,14

Dimensions LxL1xS mm	Weight Kg/m	Dimensions LxL1xS mm	Weight Kg/m
40 x 22 x 6	2,64	50 x 30 x 6	3,49
45 x 30 x 6,5	3,50	50 x 30 x 7	4,01

**AVAILABLE IN
ROUNDS
DRAWN
MACHINED and
HARDENED**

Iron ANGLE

Rounded Edges



DIMENSIONS	THICKNESS								PER METER LENGTHS							
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	20
	WEIGHT															
15 x 15	0,65	0,83														
20 x 20	0,88	1,14														
25 x 25	1,12	1,45	1,79													
30 x 30	1,40	1,78	2,17	2,57												
35 x 35	1,63	2,10	2,61	3,04	3,47											
40 x 40	1,88	2,42	3,00	3,52	4,04	4,55										
45 x 45		2,80	3,38	3,99	4,60	5,18										
50 x 50		3,13	3,77	4,46	5,15	5,81										
55 x 55			4,18	4,95	5,71	6,46										
60 x 60			4,56	5,42	6,26	7,09		8,69								
65 x 65			5,00	5,95	6,83	7,73		9,48								
70 x 70			5,37	6,38	7,38	8,36	9,34	10,34								
75 x 75				7,00	8,00	9,03	10,00	11,07								
80 x 80						9,66	10,75	11,85	12,95	14,05	15,45	16,90				
90 x 90						10,90	12,17	13,42	14,68	15,89	17,11	18,31	19,52	20,70		
100 x 100						12,30	13,70	15,10	16,45	17,80	19,20	20,60	21,95	23,30		
110 x 110								16,60	18,15	19,70	21,20	22,80	24,30	25,80		
120 x 120									19,90	21,72	23,30	25,10	26,60	28,45		
130 x 130						14,70	16,40	18,30	21,80	23,60	25,50	27,20	29,10	30,90	34,45	
140 x 140										26,63	27,50	29,45	31,40	33,35	37,22	
150 x 150										27,00	29,38	31,60	33,75	35,90	40,10	
160 x 160												33,85	36,10	38,35	42,85	
180 x 180												38,40	41,00	43,65	48,53	53,70
200 x 200												42,90	48,57	48,67	54,45	59,90

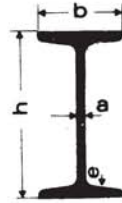
FLAT BAR - WIDE FLAT BAR



Width mm.	FLAT BAR																
	Thickness mm.													WEIGHT Kg / m.			
	3	4	5	6	7	8	10	12	15	20	25	30	35		40	50	60
10	0,236	0,314	0,392	0,471	0,550	0,628											
12	0,283	0,377	0,471	0,565	0,659	0,754	0,942										
15	0,353	0,471	0,589	0,706	0,824	0,942	1,18	1,41									
16	0,377	0,502	0,628	0,754	0,879	1,00	1,26	1,51									
20	0,471	0,628	0,785	0,942	1,10	1,26	1,57	1,88	2,36								
25	0,589	0,785	0,981	1,18	1,37	1,57	1,96	2,36	2,94	3,93							
30	0,707	0,942	1,18	1,41	1,65	1,88	2,36	2,83	3,53	4,71	5,89						
35	0,824	1,10	1,37	1,65	1,92	2,20	2,75	3,30	4,12	5,50	6,87	8,24					
40	0,942	1,26	1,57	1,88	2,20	2,51	3,14	3,77	4,71	6,28	7,85	9,42	10,99				
45	1,06	1,41	1,77	2,12	2,47	2,83	3,53	4,24	5,30	7,06	8,83	10,60	12,36	14,13			
50	1,18	1,57	1,96	2,36	2,75	3,14	3,92	4,71	5,89	7,85	9,81	11,78	13,74	15,70			
55	1,30	1,73	2,16	2,59	3,02	3,45	4,32	5,18	6,48	8,64	10,80	12,95	15,11	17,27			
60	1,41	1,88	2,36	2,83	3,30	3,77	4,71	5,65	7,06	9,42	11,78	14,13	16,49	18,84	23,60		
65	1,53	2,04	2,55	3,06	3,57	4,08	5,10	6,12	7,65	10,21	12,76	15,31	17,86	20,41	25,50		
70	1,65	2,20	2,75	3,30	3,85	4,40	5,50	6,59	8,24	11,00	13,74	16,49	19,23	21,98	27,50	33,00	
80	1,88	2,51	3,14	3,77	4,40	5,02	6,28	7,54	9,42	12,56	15,70	18,84	21,98	25,12	31,40	37,70	
90	2,12	2,83	3,53	4,24	4,95	5,65	7,06	8,48	10,60	14,13	17,66	21,20	24,73	28,80	35,30	42,40	
100	2,36	3,14	3,92	4,71	5,50	6,28	7,85	9,42	11,78	15,70	19,63	23,55	27,48	31,40	39,20	47,10	
110	2,59	3,45	4,32	5,18	6,04	6,91	8,64	10,36	12,95	17,27	21,59	25,91	30,22	34,54	43,20	51,80	
120	2,83	3,77	4,71	5,65	6,59	7,54	9,42	11,30	14,13	18,84	23,55	28,26	32,97	37,68	47,10	56,50	
130	3,06	4,08	5,10	6,12	7,14	8,16	10,21	12,25	15,31	20,41	25,51	30,62	35,72	40,82	51,00	61,20	
140	3,30	4,40	5,50	6,59	7,69	8,79	11,00	13,19	16,49	21,98	27,48	32,97	38,47	43,96	55,00	65,90	
150	3,53	4,71	5,89	7,06	8,24	9,42	11,78	14,13	17,66	23,55	29,44	35,33	41,21	47,10	58,90	70,60	

Width mm.	WIDE FLAT BAR											
	Thickness mm.										WEIGHT Kg / m.	
	6	8	10	12	15	20	25	30	35	40		50
160	7,54	10,05	12,56	15,07	18,84	25,12	31,40	37,70	44,00	50,20	62,80	75,36
180	8,48	11,30	14,13	16,96	21,20	28,26	35,30	42,40	49,50	56,50	70,65	84,78
200	9,42	12,56	15,70	18,84	23,55	31,40	39,20	47,10	55,00	62,80	78,50	94,20
220	10,36	13,82	17,30	20,70	25,90	34,50	43,20	51,80	60,40	69,10	86,40	103,60
250	11,77	15,70	19,60	23,60	29,40	39,20	49,10	58,90	68,70	78,50	98,12	117,80
280	—	—	22,00	26,40	33,00	44,00	55,00	65,90	76,90	87,90	110,00	131,80
300	—	—	23,60	28,30	35,30	47,10	58,90	70,60	82,40	94,20	117,75	141,30
320	—	—	25,10	30,10	37,70	50,20	62,80	75,40	87,90	100,00	—	—
350	—	—	—	33,00	41,20	55,00	68,70	82,40	—	—	—	—
380	—	—	—	—	44,70	60,00	76,40	89,50	—	—	—	—
400	—	—	—	—	47,20	62,80	78,50	94,20	—	—	—	—





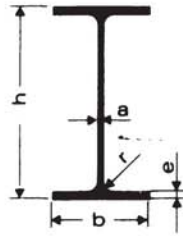
LOAD IN Kg UNIFORMLY DISTRIBUTED
FOR STEEL WITH LOAD SAFETY
K = 16 Kg/mm²

CROSS-SECTION INP	DIMENSIONS						STATIC PARAMETERS, SECTION MODULUS Wx cm ³
	Weight Kg./m	A cm ²	h mm	b mm	a mm	e mm	
80	5,94	7,57	80	42	3,9	5,9	19,4
100	8,34	10,6	100	50	4,5	6,8	34,1
120	11,1	14,2	120	58	5,1	7,7	54,5
140	14,3	18,2	140	66	5,7	8,6	81,8
160	17,9	22,8	160	74	6,3	9,5	117
180	21,9	27,9	180	82	6,9	10,4	161
200	26,2	33,4	200	90	7,5	11,3	214
220	31	39,5	220	98	8,1	12,2	278
240	36,2	46,1	240	106	8,7	13,1	353
260	41,9	53,3	260	113	9,4	14,1	441
280	47,9	61	280	119	10,1	15,2	541
300	54,2	69	300	125	10,8	16,2	652
320	61	77,7	320	131	11,5	17,3	781
360	76,1	97	360	143	13	19,5	1087
400	92,5	118	400	155	14,4	21,6	1461
450	115	147	450	170	16,2	24,3	2035
500	141	179	500	185	18	27	2746
600	199	254	600	215	21,6	32,4	4626

DISTANCE BETWEEN SUPPORTS IN METERS								
2,00	3,00	4,00	5,00	6,00	7,00	8,00	9,00	10,00
1229	810	597	467					
2165	1430	1058	831	677				
3465	2232	1700	1340	1096	919			
5207	3447	2560	2022	1659	1395	1194	1035	
7452	4938	3672	2906	2389	2014	1729	1503	1319
10260	6804	5064	4012	3303	2791	2401	2093	1842
13644	9052	6743	5347	4408	3730	3214	2808	2477
17730	11768	8772	6962	5745	4866	4200	3675	3248
22520	14953	11151	8856	7313	6201	5358	4695	4156
28140	18690	13944	11080	9157	7770	6721	5895	5226
34528	22939	17120	13610	11254	9557	8273	7263	6446
41620	27656	20648	16421	13584	11544	10000	8786	7803
49862	33140	24748	19689	16295	13854	12008	10558	9387
69416	46150	34480	27447	22733	19344	16784	14774	13152
93319	62059	46382	36940	30613	26068	22636	19946	17775
130010	86481	64660	51521	42723	36406	31640	27907	24898
175462	116740	87308	69592	57735	49225	42808	37785	33738
295666	196779	147236	117430	97494	83196	72424	64000	57222



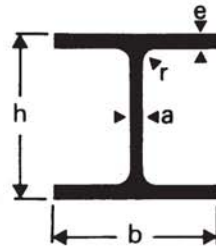
WIDE FLANGE BEAMS - IPE



LOAD IN Kg UNIFORMLY DISTRIBUTED
FOR STEEL WITH LOAD SAFETY
K = 16 Kg/mm²

CROSS-SECTION IPE	DIMENSIONS						STATIC PARAMETERS, SECTION MODULUS Wx cm ³
	Weight Kg./m	A cm ²	h mm	b mm	a mm	e mm	
80	6	7,5	80	46	3,8	5,2	20
100	8,1	10,3	100	55	4,1	5,7	34,2
120	10,4	13,2	120	64	4,4	6,3	53
140	12,9	16,4	140	73	4,7	6,9	77,3
160	15,8	20,1	160	82	5	7,4	109
180	18,8	23,9	180	91	5,3	8	146
200	22,4	28,5	200	100	5,6	8,5	194
220	26,2	33,4	220	110	5,9	9,2	252
240	30,7	39,1	240	120	6,2	9,8	324
270	36,1	45,9	270	135	6,6	10,2	429
300	42,2	53,8	300	150	7,1	10,7	557
330	49,1	62,6	330	160	7,5	11,5	713
360	57,1	72,7	360	170	8	12,7	904
400	66,3	84,5	400	180	8,6	13,5	1160
450	77,6	98,8	450	190	9,4	14,6	1500
500	90,7	116	500	200	10,2	16	1930
550	106	134	550	210	11,1	17,2	2440
600	122	156	600	220	12	19	3070

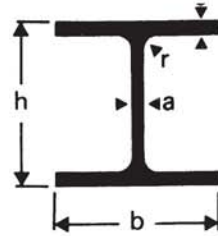
DISTANCE BETWEEN SUPPORTS IN METERS										
2,00	3,00	4,00	5,00	6,00	7,00	8,00	9,00	10,00	11,00	12,00
1268	835	616	482							
2172	1435	1062	835	681						
3371	2230	1654	1305	1068	896					
4921	3259	2422	1914	1571	1323	1133				
6944	4603	3425	2711	2230	1882	1617	1408			
9306	6173	4597	3643	3002	2538	2185	1907	1681	1492	
12371	8210	6118	4854	4004	3390	2925	2557	2259	2011	1800
16075	10673	7959	6320	5219	4424	3822	3348	2963	2644	2373
20675	13732	10246	8141	6728	5709	4939	4332	3840	3432	3087
27384	18195	13583	10802	8935	7592	6575	5776	5130	4595	4143
35563	23638	17655	14048	11629	9889	8574	7542	6707	6017	5435
45534	30274	22620	18007	14916	12694	11016	9698	8635	7756	7016
57742	38399	28700	22857	18942	16130	14007	12343	11000	9891	8957
74107	49294	36855	29364	24350	20747	18029	15901	14185	12769	11577
95845	63767	47689	38012	31534	26885	23379	20635	18424	16601	15069
123338	82074	61397	48954	40629	34656	30154	26632	23797	21460	19498
155948	103788	77656	61934	51417	43875	38192	33748	30172	27225	24754
196236	130620	97752	77982	64761	55283	48144	42564	38075	34381	31282



LOAD IN Kg UNIFORMLY DISTRIBUTED
FOR STEEL WITH LOAD SAFETY
K = 16 Kg/mm²

CROSS-SECTION HEA	DIMENSIONS						STATIC PARAMETERS, SECTION MODULUS Wx cm ³
	Weight Kg./m	A cm ²	h mm	b mm	a mm	e mm	
100	16,7	21,2	96	100	5	8	73
120	19,9	25,3	114	120	5	8	106
140	24,7	31,4	133	140	5,5	8,5	155
160	30,4	38,8	152	160	6	9	220
180	35,5	45,3	171	180	6	9,5	294
200	42,3	53,3	190	200	6,5	10	389
220	50,5	64,3	210	220	7	11	515
240	60,3	76,8	230	240	7,5	12	675
260	68,2	86,8	250	260	7,5	12,5	836
280	76,4	97,3	270	280	8	13	1010
300	88,3	112,5	290	300	8,5	14	1260
320	97,6	124,4	310	300	9	15,5	1480
340	105	133,5	330	300	9,5	16,5	1680
360	112	142,5	350	300	10	17,5	1890
400	125	159	390	300	11	19	2310
450	140	178	440	300	11,5	21	2900
500	155	197,5	490	300	12	23	3550
550	166	211,8	540	300	12,5	24	4150
600	178	226,5	590	300	13	25	4790

DISTANCE BETWEEN SUPPORTS IN METERS										
2	3	4	5	6	7	8	9	10	11	12
4638	3064	2269	1785	1457						
6744	4463	3312	2614	2142	1800					
9870	6539	4861	3844	3158	2661	2282				
14019	9295	6918	5480	4511	3810	3276	2855	2512		
18744	12437	9265	7348	6059	5127	4419	3861	3408	3030	
24810	16470	12278	9746	8044	6815	5885	5151	4556	4061	3641
32858	21821	16277	12931	10683	9063	7835	6869	6087	5437	4887
43078	28618	21358	16978	14037	11920	10317	9057	8036	7191	6476
53366	35464	26478	21060	17425	14809	12830	11275	10018	8977	8098
64485	42863	32013	25473	21087	17933	15548	13676	12163	10912	9856
80461	53493	39965	31813	26349	22421	19453	17125	15244	13690	12380
94522	62852	46368	37400	30987	26379	22898	20170	17967	16147	14615
107310	71363	53338	42481	35209	29984	26039	22947	20453	18393	16659
120732	80301	60034	47822	39646	33775	29343	25871	23071	20750	18815
147586	98182	73418	58509	48528	41364	35959	31790	28317	25567	23139
185315	123310	92237	73538	61025	52047	45278	39983	35719	32204	29252
226884	150997	112977	90102	74801	63827	55558	49092	43888	39603	36005
265261	176564	132132	105407	87535	74721	65070	57525	51458	46463	42273
306196	203834	152564	121731	101116	86340	75214	66520	59530	53778	48956

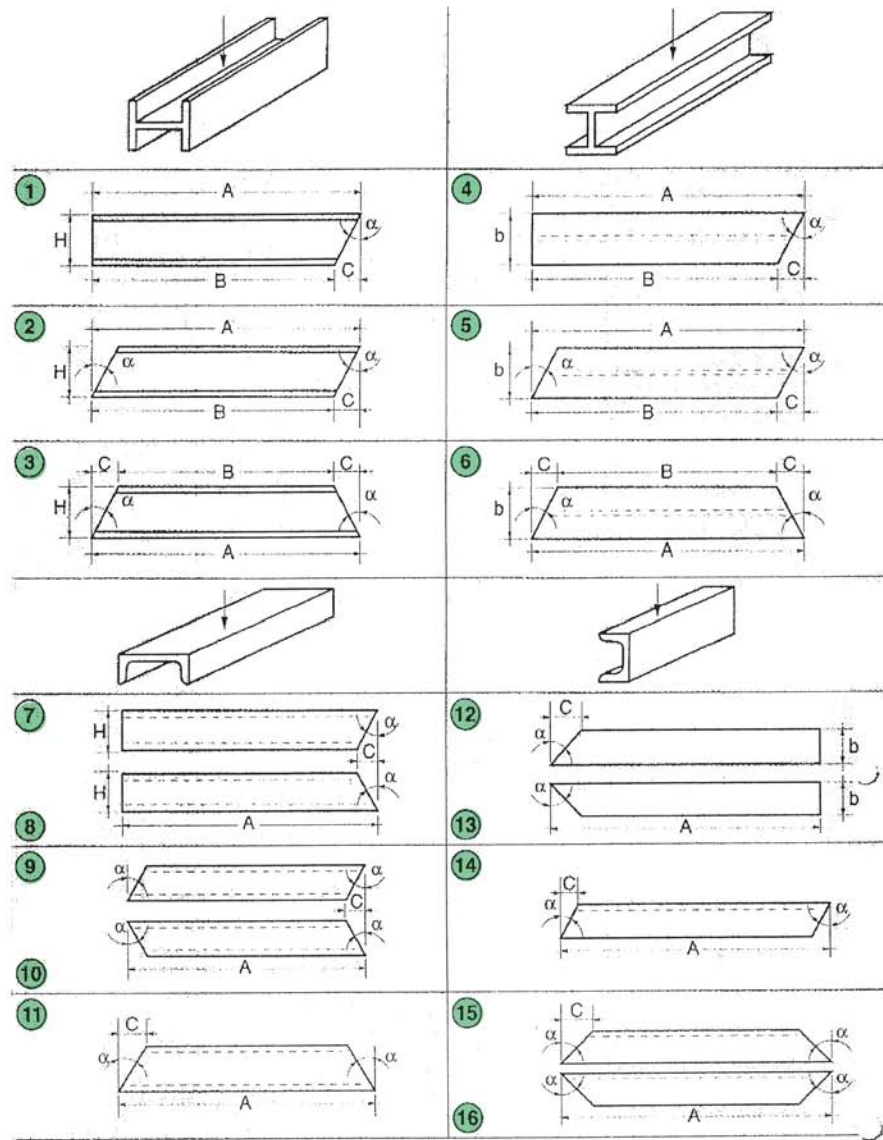


LOAD IN Kg UNIFORMLY DISTRIBUTED
FOR STEEL WITH LOAD SAFETY
K = 16 Kg/mm²

CROSS-SECTION HEB	DIMENSIONS						STATIC PARAMETERS, SECTION MODULUS Wx cm ³
	Weight Kg./m	A cm ²	h mm	b mm	a mm	e mm	
100	20,4	26	100	100	6	10	90
120	26,7	34	120	120	6,5	11	144
140	33,7	43	140	140	7	12	216
160	42,6	54,3	160	160	8	13	311
180	51,2	65,3	180	180	8,5	14	426
200	61,3	78,1	200	200	9	15	570
220	71,5	91	220	220	9,5	16	736
240	83,2	106	240	240	10	17	938
260	93	118,4	260	260	10	17,5	1150
280	103	131,4	280	280	10,5	18	1380
300	117	149,5	300	300	11	19	1680
320	127	161,3	320	300	11,5	20,5	1930
340	134	170,9	340	300	12	21,5	2160
360	142	180,6	360	300	10,5	22,5	2400
400	155	197,8	400	300	13,5	24	2880
450	171	218	450	300	14	26	3550
500	187	238,6	500	300	14,5	28	4290
550	199	254,1	550	300	15	29	4970
600	212	270	600	300	15,5	30	5700

DISTANCE BETWEEN SUPPORTS IN METERS										
2	3	4	5	6	7	8	9	10	11	12
5719	3778	2798	2202	1797	1502					
9162	6063	4501	3553	2911	2446	2090				
13576	9114	6777	5361	4405	3713	3186	2785			
19818	13141	9781	7748	6379	5383	4635	4039	3554		
27161	18022	13427	10649	8780	7431	6406	5597	4940	4393	
36353	24135	17994	14285	11792	9993	8629	7554	6683	5958	5344
46960	31187	23265	18483	15272	12957	11203	9823	8705	7777	6992
59864	39770	29682	23596	19511	16569	14342	12591	11174	10000	9006
73412	48786	36427	28974	23974	20377	17655	15518	13789	12358	11150
88111	58569	43747	34812	28821	24512	21255	18700	16633	14924	13483
107283	71327	53290	42422	35137	29900	25943	22839	20333	18281	16515
123263	81963	61250	48771	40410	34401	29863	26305	23433	21060	19062
137968	91755	68582	54624	45274	38558	33487	29513	26307	23659	21431
153312	101971	76130	60728	50346	42890	37283	32854	29300	26364	23895
184005	122412	91568	72951	60508	51575	44838	39641	35313	31962	28859
226852	150949	112913	90022	74705	63715	55430	49948	43728	39427	35813
274179	182747	136528	108886	90395	77134	67142	59328	53040	47861	43514
317674	211451	158240	126334	104830	89484	77925	68891	61624	55642	50624
364367	242558	181547	144856	120325	102742	89501	79252	70838	63993	58254

TABLE OF ANGLED CUTS



CUTTING REQUIREMENTS
 LENGTH
 H CROSS-SECTIONAL LENGTH

A = 1 + 20 mt.
 H = 80 + 1500 mm.

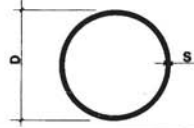
CUTTING REQUIREMENTS ($\alpha < 45^\circ$)
 LENGTH
 H CROSS-SECTIONAL LENGTH
 I HEIGHT

A = 1 + 20 mt.
 H = 80 + 600 mm.
 H = 100 + 300 mm.

SOME EXAMPLES
 OF OUR WORK
 THAT WE CAN PROVIDE:
 ANGLED CUTS
 BORING - ZINC COATING
 PAINTED AND ALL
 TYPES OF SURFACE TREATMENTS

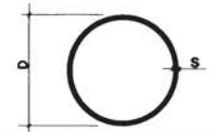


WELDED ROUND PIPE FROM
HOT ROLLED SHEET



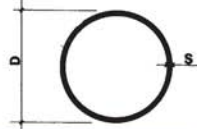
Diameter mm	THICKNESS							
	1,5	2	2,5	3	4	5	6	7
14	0,49							
16	0,54	0,69						
16,75	0,56	0,73						
18	0,61	0,79						
20	0,68	0,89						
22	0,76	0,99						
25	0,87	1,13						
28	0,98	1,28	1,57					
30	1,05	1,38	1,70	2,00				
32	1,13	1,48	1,82	2,15				
35	1,24	1,63	2,00	2,37				
38	1,35	1,78	2,20	2,59	3,38			
40	1,42	1,88	2,31	2,74	3,55			
42	1,50	1,97	2,44	2,89	3,75			
45	1,61	2,12	2,62	3,11	4,05			
48	1,72	2,27	2,80	3,33	4,38			
50	1,79	2,37	2,93	3,48	4,54			
52	1,87	2,47	3,05	3,63	4,74			
55	1,98	2,61	3,21	3,85	5,03			
57	2,05	2,71	3,36	4,00	5,23			
60	2,16	2,86	3,55	4,22	5,52			
65	2,35	3,11	3,85	4,59	6,02			
70	2,53	3,35	4,16	4,96	6,51	8,02		
76	2,76	3,65	4,53	5,40	7,10	8,76		
80	2,90	3,85	4,78	5,70	7,50	9,26	10,95	
83	3,01	4,00	5,92	7,80	9,63	11,40		

WELDED ROUND PIPE FROM
HOT ROLLED SHEET



Diameter mm	THICKNESS							
	2	2,5	3	4	5	6	7	8
89	4,29	5,33	6,36	8,38	10,36	12,29	14,17	15,99
102	4,93	6,13	7,32	9,67	11,96	14,37	16,41	
108	5,23	6,50	7,77	10,26	12,70	15,09	17,44	
114,3	5,52	6,87	8,21	10,85	13,44	15,99	18,49	20,93
121	5,87	7,31	8,73	11,45	14,31	17,02	19,69	
127		7,68	9,17	12,13	15,04	17,90	20,74	23,50
133		8,05	9,62	12,73	15,78	18,79	21,77	24,68
139,7		8,46	10,11	13,39	16,61	19,78	22,93	26,00
152			11,02	14,60	18,13	21,60	25,00	28,44
159			11,54	15,29	18,99	22,64	26,24	29,82
168,3			12,21	16,18	20,10	23,97	27,79	31,57
177,8			12,94	17,16	21,33	25,45	29,52	35,54
193,7			13,98	18,55	23,06	27,52	31,94	36,30
219			15,98	21,21	26,39	31,06	36,59	41,61
244,5				23,75	29,57	35,33	41,05	46,71
273				26,54	33,05	39,55	45,97	52,34
323,9				31,56	39,32	46,30	54,70	62,32
339,7				33,15	41,32	49,44	57,50	65,52
355,6				34,72	43,28	51,79	60,25	68,66
406,4				39,74	49,55	59,32	69,03	78,70
457,2					55,83	66,84	77,81	88,73
508					62,10	74,37	86,59	98,77

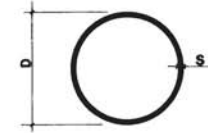
**FABRICATION PIPE
BLACK AND ZINC COATED (GALVANIZED)**



diameter inches (in.)	diameter mm (millimeter)	thickness mm	weight black pipe kg/m	weight galvanized kg/m
3/8	16,75	2	0,74	0,81
1/2	21,25	2,00	0,95	1,18
3/4	26,75	2,35	1,41	1,51
1	33,48	2,65	2,01	2,12
1 1/4	42,25	2,65	2,58	2,71
1 1/2	48,25	2,90	3,25	3,32
2	60	2,90	4,11	4,28
2 1/2	76	3,25	5,80	6,04
3	89	3,25	6,86	7,14
3 1/2	102	3,65	8,74	9,10
4	114,30	3,65	9,89	10,3
4 1/2	127	4,00	12,20	
5	139,70	4,00	13,50	
5 1/2	152	4,50	16,36	
6	168	4,50	18,20	
8	219	4,5	23,7	

ROUND GAS PIPES S/S (Seamless)

**FITTED AND THREADED STEEL SERIES NORM
UNI 3824 BLACK AND GALVANIZED**



diameter inches (in.)	diameter mm (millimeter)	thickness mm	Weight Kg/ml (Kilogram per meter linear)
1/8	10,00	1,80	0,372
1/4	13,25	2,00	0,577
3/8	16,75	2,00	0,753
1/2	21,25	2,35	1,110
3/4	26,75	2,35	1,420
1	33,48	2,90	2,230
1 1/4	42,25	2,90	2,870
1 1/2	48,25	2,90	3,300
2	60,00	3,25	4,630
2 1/2	76,00	3,25	5,930
3	89,00	3,65	7,820
3 1/2	102,00	3,65	8,950
4	114,30	4,05	11,300
5	139,07	4,85	16,700
6	168,00	4,85	19,800

WELDED ROUND GAS TUBING and F.M.

**STEEL - ELECTRIC WELDED - THREADED AND FITTED
BLACK AND GALVANIZED**

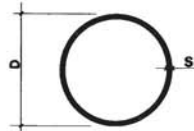
diameter inches (in.)	diameter mm (millimeter)	thickness mm	Weight Kg/ml (Kilogram per meter linear)
1/8	10,00	1,80	0,364
1/4	13,25	1,80	0,521
3/8	16,75	1,80	0,680
1/2	21,25	2,00	0,961
3/4	26,75	2,35	1,420
1	33,48	2,65	2,030
1 1/4	42,25	2,65	2,610
1 1/2	48,25	2,90	3,290
2	60,00	2,90	4,180
2 1/2	76,00	3,25	5,400
3	89,00	3,25	6,310

NOTE: The welded tubes and F.M. are individually fluid pressure tested at 60 kg/cm²

ROUND PIPE GS.

FOR MECHANICAL APPLICATIONS

WEIGHT Kg/m

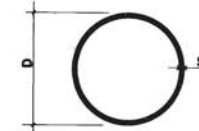


Dimensions mm	Weight kg/m													
	Thickness mm													
	6,3	7,1	8	8,8	10	11	12,5	14,2	16	17,5	20	22	25	28
33,7	4,26	4,66	5,05											
38	4,93	5,41	5,91	6,34										
42,4	5,61	6,18	6,79	7,29	7,99									
44,5	5,94	6,55	7,20	7,75	8,51	9,09	9,85							
48,3	6,53	7,21	7,95	8,57	9,45	10,1	11							
51	6,94	7,69	8,48	9,16	10,1	10,9	11,9	12,8						
54	7,41	8,21	9,08	9,81	10,9	11,7	12,8	13,9						
57	7,88	8,74	9,67	10,5	11,6	12,5	13,7	15,0						
60,3	8,39	9,32	10,3	11,2	12,4	13,4	14,7	16,1						
63,5	8,89	9,88	10,9	11,9	13,2	14,2	15,7	17,3	18,7					
67	9,43	10,5	11,6	12,6	14,1	15,2	16,8	18,5	20,1	21,4				
70	9,90	11,0	12,2	13,3	14,8	16,0	17,7	19,5	21,3	22,7	25,0			
76,1	10,8	12,1	13,4	14,6	16,3	17,7	19,6	21,7	23,7	25,3	27,7			
82,5	11,8	13,2	14,7	16,0	17,9	19,4	21,6	23,9	26,2	28,1	30,8	33,0		
88,9	12,8	14,3	16,0	17,4	19,5	21,1	23,6	26,2	28,8	30,8	34,0	36,5	39,4	
95	13,8	15,4	17,2	18,7	21,0	22,8	25,4	28,3	31,2	33,4	37,0	39,9	43,2	
101,6	14,8	16,5	18,5	20,1	22,6	24,6	27,5	30,6	33,8	36,3	40,2	43,5	47,2	
108	15,8	17,7	19,7	21,5	24,2	26,3	29,4	32,8	36,3	39,1	43,4	47,0	51,2	55,2
114,3	16,8	18,8	21,0	22,9	25,7	28,0	31,4	35,1	38,8	41,8	46,5	50,4	55,1	59,6
121	17,8	19,9	22,3	24,3	27,4	29,8	33,4	37,4	41,4	44,7	49,8	54,1	59,2	64,2
127	18,8	21,0	23,5	25,7	28,9	31,5	35,3	39,5	43,8	47,3	52,8	57,4	62,9	68,4
133	19,7	22,0	24,7	27,0	30,3	33,1	37,1	41,6	46,2	49,8	55,7	60,7	66,6	72,5
139,7	20,7	23,2	26,0	28,4	32,0	34,9	39,2	43,9	48,8	52,7	59,0	64,3	70,7	77,1
146	21,7	24,3	27,2	29,8	33,5	36,6	41,2	46,2	51,3	55,5	62,1	67,8	74,6	81,5
152,4	22,7	25,4	28,5	31,2	35,1	38,4	43,1	48,4	53,8	58,2	65,3	71,3	78,5	85,9
159	23,7	26,6	29,8	32,6	36,7	40,1	45,2	50,7	56,4	61,1	68,6	74,9	82,6	90,5
168,3	25,2	28,2	31,6	34,6	39,0	42,7	48,0	54,0	60,1	65,1	73,1	80,0	88,3	96,9
177,8	26,6	29,9	33,5	36,7	41,4	45,2	51,0	57,3	63,8	69,2	77,8	85,2	94,2	103
193,7	29,1	32,7	36,6	40,1	45,3	49,6	55,9	62,9	70,1	76,0	85,7	93,9	104	114
203	30,6	34,3	38,5	42,0	47,6	52,1	58,7	66,1	73,8	80,1	90,3	99,0	110	121
219,1	33,1	37,1	41,6	45,6	51,6	56,5	63,7	71,8	80,1	87,0	98,2	108	120	132
229	34,6	38,9	43,6	47,8	53,8	59,1	66,7	75,2	84,0	91,3	103	113	126	139
244,5	37,0	41,6	46,7	51,2	60,2	63,3	71,5	80,6	90,2	98,0	111	122	135	149
254	38,5	43,2	48,5	53,2	64,9	65,9	74,4	84,0	93,9	102	115	127	141	156
273	41,4	46,6	52,3	57,3	71,1	71,1	80,3	90,6	101	110	125	137	153	169
298,5		55,5	57,3	62,9	77,4	78,0	88,2	99,6	111	121	137	151	169	187
323,9			62,3	68,4	85,2	84,9	96,0	108	121	132	150	165	184	204
355,6			68,6	75,3	88,3	93,5	106	120	134	146	166	183	204	226
368				78,0	97,8	96,8	110	124	139	151	172	189	211	235
406,4				86,3	101	107	121	137	154	168	191	210	235	261
419				89,0	110	111	125	142	159	173	197	217	243	270
457					121	137	155	174	190	216	238	266	296	
508					135	153	173	194	212	241	266	298	331	
559						168	191	214	234	266	294	329	367	
610							184	209	234	256	291	322	361	402
660														

ROUND PIPE GS.

FOR MECHANICAL APPLICATIONS

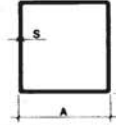
WEIGHT Kg/m



Dimensions mm	Weight kg/m												
	Thickness mm												
	30	32	35	36	40	42	45	50	52	55	60	62	65
108	57,7												
114,3	62,4												
121	67,3	70,2	74,2										
127	71,8	75,0	79,4										
133	76,2	79,7	84,6	86,0	91,7				97,6				
139,7	81,2	85,0	90,4	92,1	98,4				105				
146	85,8	90,0	95,8	97,7	105				112	118			
152,4	90,6	95,0	101	103	111				119,1	126,2		137	
159	95,4	100	107	109	117				126,4	134,3		146	
168,3	102	108	115	117	127								
177,8	109	115	123	126	136								
193,7	121	128	137	140	152								
203	128	135	145	148	161								
219,1	140	148	159	163	177								
229	147	155	167	171	186								
244,5	159	168	181	185	202								
254	166	175	189	194	211								
273	180	190	205	210	230	239	253	275					
298,5	199	210	227	233	255	266	281	306	316	330	353	362	374
323,9	217	230	249	256	280	292	310	338	349	365	390	400	415
355,6	241	255	277	284	311	325	345	377	389	408	437	449	466
368	250	265	287	295	324	338	358	392	405	425	456	468	486
406,4	278	295	321	329	361	377	401	439	454	477	513	527	547
419	288	305	331	340	374	390	415	455	471	494	531	546	567
457	316	335	364	374	411	430	457	502	519	545	587	604	628
508	354	376	408	419	462	483	514	565	585	614	663	682	710
559	391	416	452	464	512	535	570	628	650	684	738	760	792
610	429	456	496	510	562	588	627	691	716	753	814	838	874
660	466	496	539	554	612	640	683	752	780	821	888	914	954

**SQUARE WIRE-WELDED TUBING
HOT ROLLED AND STRUCTURAL**

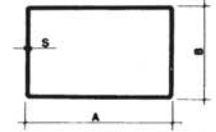
WEIGHT Kg/m



A mm	THICKNESS								
	1,5	2	3	4	5	6	7	8	10
10 x 10	0,34								
12 x 12	0,43								
15 x 15	0,57	0,70							
18 x 18	0,71	0,90							
20 x 20	0,81	1,02	1,36						
25 x 25	1,05	1,34	1,83						
30 x 30	1,28	1,65	2,30	2,84					
35 x 35	1,52	1,96	2,77	3,46					
40 x 40	1,75	2,28	3,24	4,09	4,83				
42 x 42	1,85	2,41	3,43	4,34	5,14				
45 x 45	1,99	2,60	3,71	4,72	5,61				
50 x 50	2,22	2,91	4,19	5,35	6,40				
60 x 60	2,69	3,54	5,13	6,51	7,97	10,34			
65 x 65	2,93	3,85	5,60	7,24	8,75	10,15			
70 x 70		4,16	6,07	7,86	9,54	11,10			
80 x 80		4,79	7,02	9,12	11,11	12,99	14,74	16,38	
90 x 90		5,42	7,96	10,38	12,68	14,87	16,94	18,89	
100 x 100		6,07	8,90	11,64	14,26	16,76	19,14	21,41	24,89
110 x 110			9,84	12,89	15,83	18,64	21,34	23,93	28,03
120 x 120			10,79	14,15	17,40	20,53	23,54	26,44	31,17
140 x 140			12,72	16,76	20,52	24,28	27,91	31,43	37,45
150 x 150			13,62	17,92	22,11	26,19	30,14	33,98	40,59
160 x 160			14,61	19,27	23,66	28,04	32,31	34,46	43,73
175 x 175			15,98	21,07	26,04	30,90	35,65	40,27	48,44
200 x 200				24,29	29,94	35,58	41,10	46,51	56,29
220 x 220				26,73	33,12	39,39	45,55	51,59	62,57
250 x 250				30,57	37,79	45,00	52,09	59,07	71,99
260 x 260				31,76	39,41	46,94	54,35	61,61	75,13
300 x 300					45,64	54,42	63,08	71,63	87,69
325 x 325					39,93	49,62	59,20	68,66	95,54

**RECTANGULAR WELDED TUBING
HOT ROLLED AND STRUCTURAL**

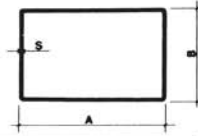
WEIGHT Kg/m



A x B mm	THICKNESS							
	1,5	2	2,5	3	4	5	6	7
15 x 10	0,52							
20 x 10	0,64	0,81						
20 x 15	0,75	0,97						
25 x 10	0,75	0,97						
25 x 15	0,87	1,13						
25 x 20	0,99	1,29	1,57	1,83				
30 x 10	0,87	1,13						
30 x 15	0,99	1,29	1,44	1,65				
30 x 20	1,11	1,44	1,77	2,07				
30 x 25	1,22	1,60	1,96	2,31				
35 x 10	0,99	1,29						
35 x 15	1,11	1,44	1,77	2,07				
35 x 20	1,22	1,60	1,96	2,31				
35 x 25	1,34	1,76	2,16	2,54				
40 x 10	1,11	1,44						
40 x 15	1,22	1,60	1,84	2,13				
40 x 20	1,34	1,76	2,16	2,54				
40 x 25	1,46	1,91	2,35	2,78				
40 x 30	1,58	2,07	2,55	3,01				
45 x 10	1,22	1,52						
45 x 15	1,34	1,76						
45 x 20	1,46	1,91	2,23	2,78				
45 x 25	1,58	2,07	2,42	3,01				
50 x 10	1,34	1,76						
50 x 15	1,46	1,92						

**RECTANGULAR WELDED TUBING
HOT ROLLED AND STRUCTURAL**

WEIGHT Kg/m

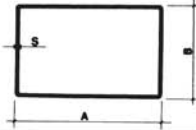


A x B mm	THICKNESS							
	1,5	2	3	4	5	6	7	8
50 x 20	1,58	2,07	3,01					
50 x 25	1,77	2,23	3,25					
50 x 30	1,81	2,39	3,49	4,52				
50 x 40	2,05	2,70	3,96	5,15				
60 x 10	1,58	2,07						
60 x 15	1,77	2,23						
60 x 20	1,81	2,39	3,30					
60 x 25	1,87	2,43	3,58					
60 x 30	1,99	2,59	3,71	4,72				
60 x 40	2,22	2,91	4,19	5,35	6,39			
60 x 50	2,46	3,22	4,66	5,98	8,02			
70 x 20	1,99	2,59	3,71					
70 x 25	2,10	2,75	3,95					
70 x 30	2,22	2,91	4,19	5,35				
70 x 40	2,46	3,22	4,66	5,98				
70 x 50	2,69	3,53	5,13	6,61	7,97	9,21	10,34	
80 x 15	2,10	2,75						
80 x 20	2,22	2,91	4,19					
80 x 25	2,34	3,06	4,42					
80 x 30	2,46	3,33	4,56	5,98				
80 x 40	2,69	3,53	5,40	6,60	7,96	9,21	10,34	
80 x 50	2,93	3,85	5,60	7,24				
80 x 60		4,16	6,07	7,86	9,54	11,10	12,54	13,86
90 x 30		3,56	5,19	6,71				
90 x 40		3,85	5,60	7,24				
90 x 50		4,16	6,07	7,86				



**RECTANGULAR WELDED TUBING
HOT ROLLED AND STRUCTURAL**

WEIGHT Kg/m



A x B mm	THICKNESS							
	2	3	4	5	6	7	8	10
90 x 60	4,48	6,54	8,49					
100 x 20	3,57	5,13						
100 x 30	3,85	5,60	7,24					
100 x 40	4,16	6,07	7,86	9,54	11,10	12,54	13,86	
100 x 50	4,48	6,54	8,49	10,32	12,04	13,64	15,12	
100 x 60	4,79	7,02	9,11	11,10	12,98	14,74	16,38	
100 x 70	5,11	7,49	9,75	11,90	13,93			
100 x 80	5,42	7,96	10,38	12,58	14,87	16,94		
110 x 50	4,79	7,02	9,12	11,11	12,98			
120 x 30	4,50	6,60	8,59					
120 x 40	4,79	7,02	9,12	11,11	12,98	14,74	16,38	
120 x 60	5,41	7,96	10,37	12,67	14,37	16,94	18,89	
120 x 80	6,05	8,90	11,63	14,24	16,76	19,14	21,41	
130 x 50	5,42	7,96	10,38	12,68	14,87			
140 x 60	6,05	8,90	11,64	14,25	16,76	19,14	21,41	
140 x 70	6,36	9,37	12,27	15,04	17,70			
140 x 80	6,68	9,84	12,89	15,83	18,64	21,32		
150 x 50	6,05	8,90	11,64	14,25	16,76	19,14	21,41	
150 x 100		11,26	14,77	18,17	21,47	24,90	27,67	32,80
160 x 60		10,06	13,32	16,53	19,69	22,80		
160 x 80		10,79	14,14	17,38	20,53	23,80	26,41	
180 x 60		10,79	14,15	17,40	20,53	23,54	26,44	
180 x 80		11,73	15,41	18,97	22,42	25,74	28,95	
200 x 100		13,62	17,91	22,09	26,19	30,48	33,95	41,59
200 x 150		16,02	21,15	26,02	30,87	35,61	40,23	48,44
250 x 100		15,98	21,07	26,04	30,90	35,65	40,27	48,44
300 x 100			24,29	29,94	35,58	41,10	46,51	56,29
300 x 150			27,36	33,90	40,34	46,65	52,85	64,20
300 x 200			30,57	37,79	45,00	52,09	59,07	
400 x 200			45,64	54,42	63,08	71,93		
400 x 250			39,89	49,57	59,13	68,58	77,91	

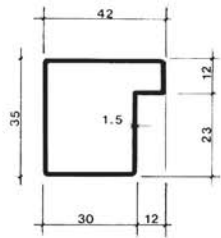
SQUARE AND RECTANGULAR TUBING

DIMENSIONS		THICKNESS															
		2	3	4	5	6	7	8	10	12	14	16	20				
20x20	1,13																
25x25	1,47	1,95	2,64	3,14													
30x30	1,58	2,36	2,94	3,93	4,52												
35x35	1,99	2,83	3,57	4,71	5,46												
40x40	2,31	3,30	4,80	5,33	6,41	7,25	8,04										
45x45	2,62	3,77	4,83	6,28	7,35	8,35	9,29										
50x50	2,93	4,25	5,45	6,39	8,28	9,45	10,5	12,5									
60x60	3,55	5,19	6,71	7,96	9,20	11,55	13,06	15,7									
70x70	4,19	6,13	7,97	9,53	11,09	12,53	15,57	18,8	21,9								
80x80	4,82	7,07	9,22	11,10	12,97	14,74	16,36	22	25,8								
90x90	5,45	8,01	10,48	12,67	14,86	16,92	18,87	25,1	28,4								
100x100	5,07	8,96	11,73	14,24	16,74	19,12	21,39	24,89	33,2	40,4							
110x110	9,90	12,59	15,81	18,62	21,32	23,90	31,4	36,3									
120x120	10,84	14,25	17,38	20,51	23,52	26,41	31,19	40,7									
130x130	11,96	15,82	19,82	23,36	27,03	30,8	37,7	44,5									
140x140	12,97	17,19	21,36	25,49	29,56	33,58	40,8	48,2	53,6	59,2							
150x150	13,57	18,01	22,09	26,16	30,31	34,1	41,5	48,5	56,5	62,1							
160x160	14,51	19,40	23,78	28,04	32,31	36,46	44,7	54,7	60,9	67,2							
175x175	16,02	21,15	26,02	30,87	35,61	40,23	48,44										
180x180		21,79	26,85	31,81	36,70	41,48	50,95	59,8	69,9	77,2							
200x200		24,29	29,94	35,58	41,10	46,5	57,20	67,35	78,8	87,3							
220x220		25,81	33,08	39,35	45,50	51,53	62,57	74,9	87,7	97,3							
250x250		30,57	37,79	45,10	52,09	59,24	72,93	86,18	101,7	117							
260x260		31,83	39,39	46,88	54,29	61,58	75,13	90	106								
300x300		45,64	54,52	63,21	71,80	80,50	105,02	124,3	142								
325x325		49,57	59,13	68,58	77,91	87,54											
350x350			63,9	75,7	87,106	128	147,9	167									
400x400				86,9	122	142	167,5	192	227								

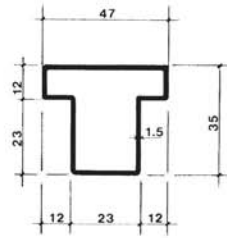
DIMENSIONS		THICKNESS															
		2	3	4	5	6	7	8	10	12	14	16					
40x30	1,99	2,83	3,57	4,71	5,46												
50x30	2,31	3,30	4,20	4,82	6,41												
60x30	2,62	3,77	4,83	6,28	7,35	8,35	9,29										
70x30	2,93	4,25	5,45	6,39	8,29	9,45	10,6										
80x30	3,25	4,72	6,08	7,85	9,23	10,6	11,8										
90x30	3,56	5,19	6,71	7,96	9,20	11,5	13,1	15,7									
100x30	3,85	5,60	7,34	8,75	11,1	12,7	14,3	17,3									

DIMENSIONS		THICKNESS															
		2	3	4	5	6	7	8	10	12	14	16					
80x60	4,19	6,13	7,97	9,53	11,09	12,53	15,57	18,8									
90x30	3,56	5,19	6,71														
40	3,85	5,60	7,34														
50	4,19	6,13	7,97	9,53	11,09	12,53	15,57	18,8									
60	4,30	6,60	8,59														
100x30	3,85	5,60	7,34	9,42	11,1	12,7	14,3	17,3									
40	4,19	6,13	7,97	9,53	11,09	12,53	15,57	18,8									
50	4,50	6,60	8,59	10,38	12,03	13,83	16,83	20,4									
60	4,82	7,07	9,22	11,10	12,97	14,72	16,99	22									
70	5,13	7,54	9,85	13,91	14,9	17,1	19,3	25,6									
80	5,45	8,01	10,48	12,67	14,86	16,92	20,40	25,1	29,4								
90	5,67	8,67	11,43	14,15	16,77	19,34	21,9	26,7	31,3								
110x50	4,82	7,07	9,22	11,10	12,97	14,72											
60	7,72	10,17	12,56	13,91	17,14	19,3	23,6										
70	8,07	10,8	13,34	15,82	18,24	20,4	25,1										
80	8,67	11,43	14,13	16,77	19,34	21,9	26,7	31,3									
120x30	4,50	6,60	8,90														
40	4,82	7,07	9,22	11,10	12,97	16,04	18,1	22									
50	7,72	10,17	12,56	14,88	17,14	19,3	23,6										
60	5,45	8,01	10,48	12,67	14,86	16,92	20,40	25,1									
70	8,67	11,43	14,13	16,77	19,34	21,85	26,7										
80	6,07	8,96	11,73	14,24	16,74	19,12	21,39	26,3	32,4								
100	10,63	12,99	15,81	18,62	21,32	23,9	31,4	36,9									
130x50	5,45	8,01	10,48	12,67	14,86												
50	5,83	8,67	11,46														
140x40	5,45	8,01	10,48	12,67	15,82	18,24	20,40	25,1									
50	5,83	10,81	11,46														
80	5,07	6,96	11,73	14,24	16,74	19,12	23,1	28,3									
70	9,43	12,36	15,03	17,68	20,22	24,4	29,9	34,4									
80	9,90	12,99	15,81	18,62	21,32	23,9	31,4	36,4									
90	10,55	13,94	17,27	20,53	23,74	26,9	33	38,6									
150x30	5,50	8,20	10,46														
40	5,83	8,67	11,46														
50	6,07	8,96	11,73	14,24	16,74	20,44	23,10	28,3									
60	9,61	12,66	15,7	18,65	21,54	24,4	29,8										
75		16,2	19,0	23	27	32											
80	5,45	8,01															
100	11,21	14,87	18,17	21,45	24,82	27,67	36,1	42,6									
160x50	9,43	12,36	15,03	17,68													
90	10,1	13,3	16,5	19,6	22,6	25,6	31,4										
80	10,64	14,25	17,38	20,51	23,52	26,41	34,5	40,7									
90	11,49	15,2	18,17	21	24,62	27,5	36,1	42,6									
120							31,8										

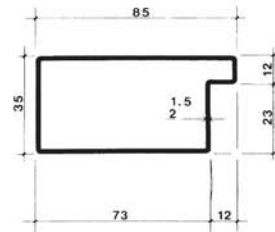
2A kg. ml. 1,76



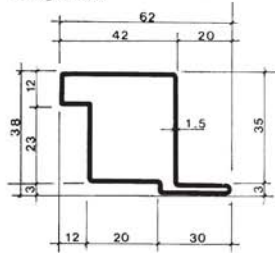
2B kg. ml. 1,88



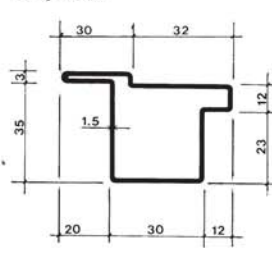
2D SP, 1.5 = kg. ml. 2,78
SP, 2 = kg. ml. 3,66



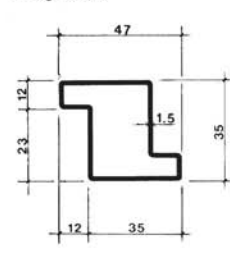
2N kg. ml. 2,30



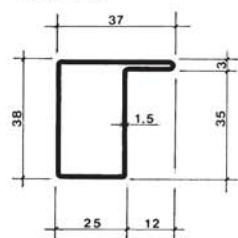
2T kg. ml. 2,30



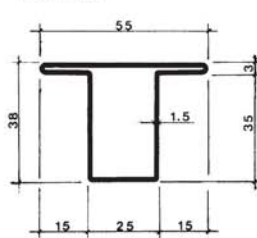
2Z kg. ml. 1,88



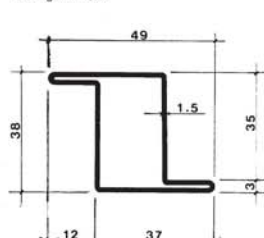
1A kg. ml. 1,72



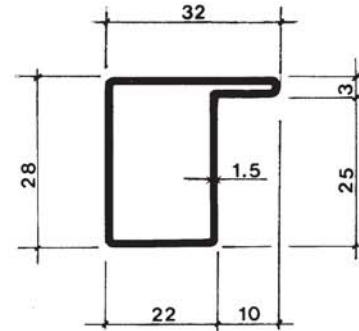
1B kg. ml. 2,10



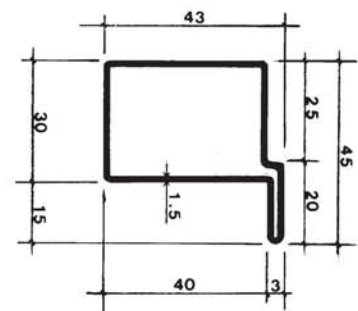
1C kg. ml. 1,99



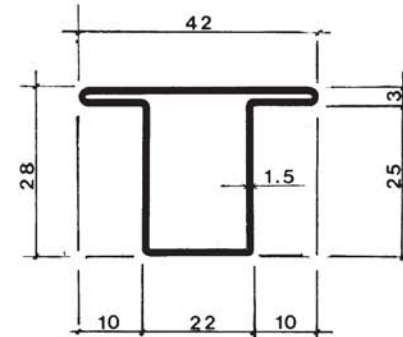
11A kg. ml. 1,34



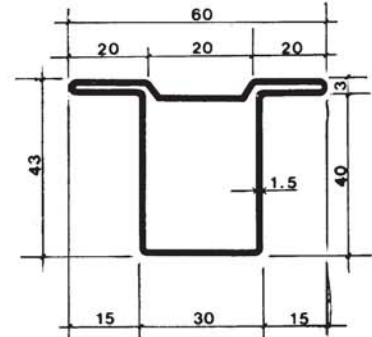
15A kg. ml. 2,04



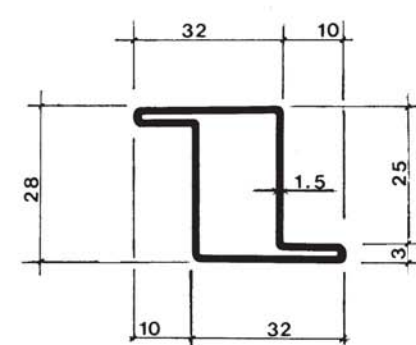
11B kg. ml. 1,57



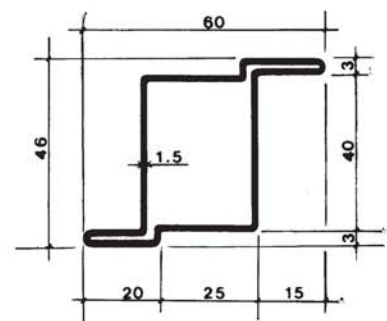
15T kg. ml. 2,45



11C kg. ml. 1,57

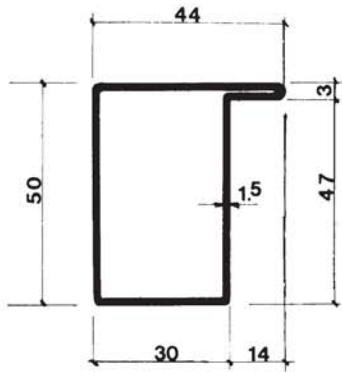


15Z kg. ml. 2,45

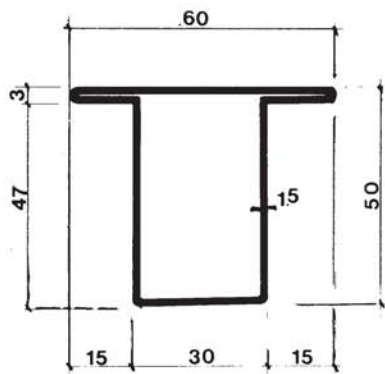


TUBING FOR DOORS/GATES Thickness 1.5 mm

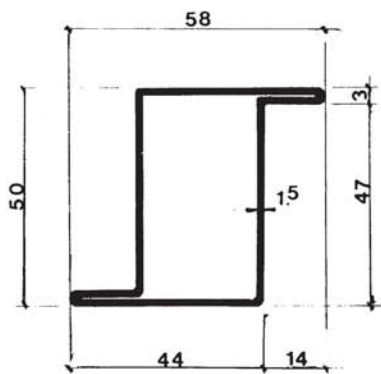
SF1 B kg. ml. 2,15



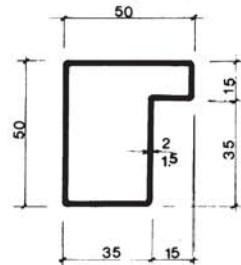
SF2 B kg. ml. 2,52



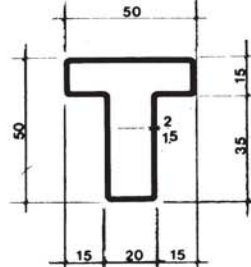
SF3 B kg. ml. 2,52



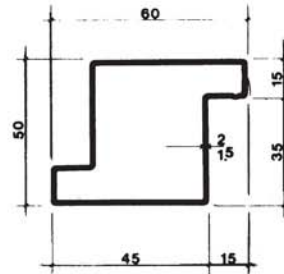
16A SP. 1.5 = kg. ml. 2,33
SP. 2 = kg. ml. 3,08



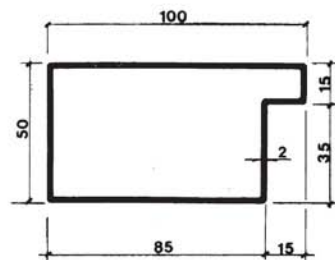
16B SP. 1.5 = kg. ml. 2,33
SP. 2 = kg. ml. 3,08



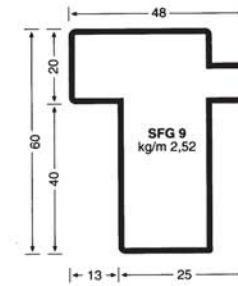
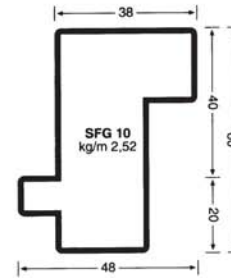
16Z SP. 1.5 = kg. ml. 2,56
SP. 2 = kg. ml. 3,39



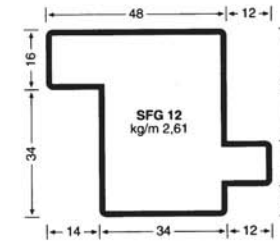
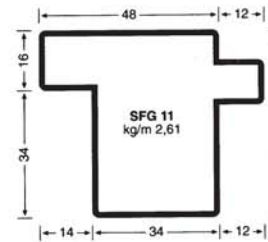
16 D kg. ml. 4,65



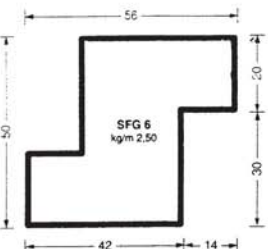
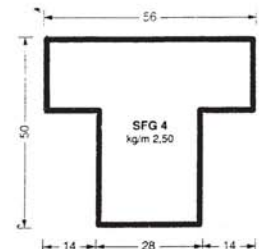
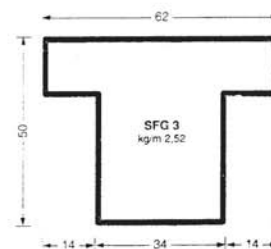
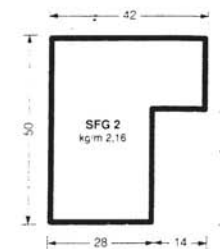
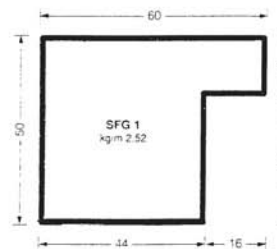
TUBING FOR DOORS/GATES Thickness 1.5 mm



FURTHER RANGE IS AVAILABLE THAT IS NOT SHOWN IN THE CATALOGUE IN PICKLED AND/OR GALVANIZED



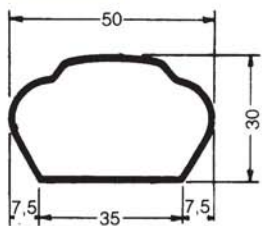
COIL DRAWN PICKLED a/o GALVANIZED FINISH



**SOME EXAMPLES
OF OUR WORK
THAT WE CAN PROVIDE**

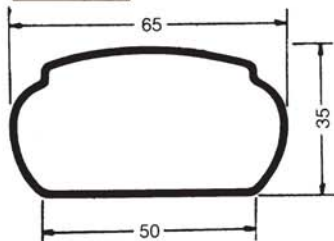


MT 5



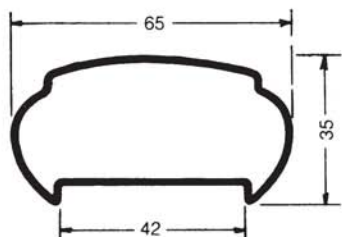
15/10 = kg/ml 1,65

MT 6



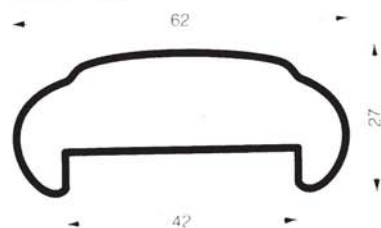
15/10 = kg/ml 2,15

MT 7



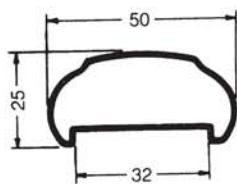
15/10 = kg/ml 2,15

MT 8

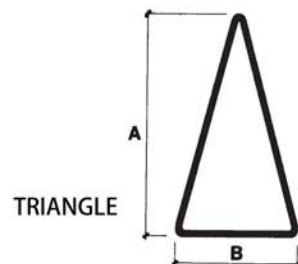


15/10 = kg/ml 1,87

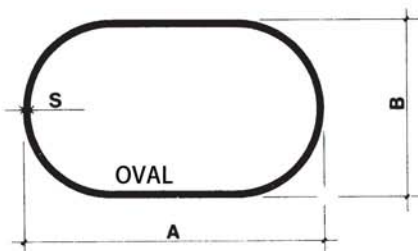
MT 9



15/10 = kg/ml 1,60



A	30	40
B	15	22
1,5	0,87	1,24
2	1,13	1,63



A	30	40	50	50
B	15	20	10	25
1,5	0,87	1,11	1,29	1,54
2	1,13	1,50		1,93

ANGLE WITH EQUAL SIDES

COLD DRAWN

WEIGHT Kg/m



Dimensions mm	THICKNESS						
	1,5	2	2,5	3	4	5	6
20 x 20	0,43	0,56	0,69	0,84			
25 x 25	0,55	0,72	0,90	1,03			
30 x 30	0,67	0,88	1,10	1,25			
35 x 35	0,82	1,03	1,30	1,53			
40 x 40	0,94	1,20	1,45	1,75			
45 x 45		1,35	1,69	2,00	2,63		
50 x 50		1,51	1,87	2,20	2,95	3,65	
60 x 60			2,27	2,70	3,50	4,40	5,22
70 x 70				3,15	4,15	5,22	6,68
80 x 80				3,65	4,76	6,75	7,96
90 x 90				4,12	5,46	6,80	8,10
100 x 100				4,60	6,00	7,45	8,85

ANGLE WITH UNEQUAL SIDES

WEIGHT Kg/m



Dimensions mm	THICKNESS						
	1,5	2	2,5	3	4	5	
30 x 15	0,50	0,66	0,83	0,99			
30 x 20	0,56	0,75	0,93	1,10			
40 x 20	0,68	0,94	1,14	1,34			
40 x 25		0,99	1,22	1,46			
40 x 30		1,06	1,32	1,56			
50 x 20		1,06	1,32	1,56			
50 x 25		1,14	1,42	1,70			
50 x 30		1,22	1,52	1,81			
60 x 30		1,46	1,72	2,04			
60 x 40		1,53	1,90	2,25	2,94		
80 x 40			2,30	2,73	3,58		
100 x 40				3,21	4,22	5,27	
100 x 50				3,45	4,54	5,60	
100 x 60				3,69	4,86	6,00	

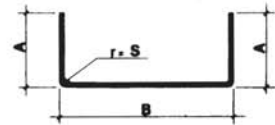


CHANNEL "U" Profiles with equal sides

WEIGHT Kg/m

CHANNEL "U" Profiles with equal sides
WEIGHT Kg/m

DIMENSIONS A x B x A mm	THICKNESS						
	1,5	2	2,5	3	4	5	6
10 x 20 x 10	0,41	0,54					
20 x 30 x 20	0,77	1,00	1,22	1,43			
20 x 40 x 20	0,89	1,16	1,42	1,67			
30 x 50 x 30	1,25	1,64	2,04	2,43	3,18		
30 x 60 x 30		1,87	2,20	2,61	3,39	4,12	
40 x 60 x 40		2,10	2,60	3,08	4,01	4,90	
40 x 80 x 40		2,41	3,00	3,58	4,73	5,84	
50 x 80 x 50		2,73	3,38	4,02	5,27	6,47	
40 x 90 x 40		2,57	3,20	3,80	4,96	6,08	
30 x 100 x 30		2,41	3,00	3,58	4,73	5,84	
40 x 100 x 40		2,73	3,38	4,02	5,27	6,47	
50 x 100 x 50		3,04	3,77	4,50	5,90	7,26	8,57
60 x 100 x 60		3,36	4,17	4,96	6,53	8,04	9,51
50 x 120 x 50				4,96	6,53	8,04	9,51
60 x 120 x 60				5,44	7,15	8,83	10,45
60 x 140 x 60				5,91	7,78	9,61	11,40
50 x 150 x 50				5,67	7,47	9,22	10,93
65 x 160 x 65				6,55	8,61	10,00	12,80
80 x 180 x 80				7,79	10,30	12,75	15,16
100 x 200 x 100				9,14	12,07	14,93	17,73
100 x 220 x 100				9,60	12,70	15,72	18,70
100 x 250 x 100				10,30	13,60	16,90	20,00
100 x 300 x 100					15,20	18,85	22,42
100 x 350 x 100					16,89	21,00	25,00
100 x 400 x 100					18,46	22,96	27,40

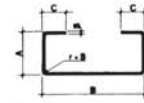


CHANNEL "U" Profiles with equal sides

WEIGHT Kg/m

CHANNEL "U" Profiles with equal sides
WEIGHT Kg/m

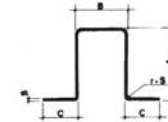
DIMENSIONS A x B x A mm	THICKNESS						
	1,5	2	2,5	3	3,5	4	5
20 x 20 x 20	0,65	0,85					
25 x 25 x 25	0,83	1,07					
30 x 30 x 30	1,00	1,31	1,61	1,89			
35 x 35 x 35	1,20	1,56	1,92	2,25			
40 x 40 x 40		1,79	2,21	2,61	2,98	3,35	
45 x 45 x 45		2,02	2,52	2,96	3,40	3,82	
50 x 50 x 50		2,26	2,79	3,32	3,80	4,29	
60 x 60 x 60				4,09	4,42	5,02	5,24
70 x 70 x 70				4,80	5,50	6,30	
80 x 80 x 80				5,48	6,33	7,22	



CHANNEL "C" Profiles symmetric

WEIGHT Kg/m

DIMENSIONS C x A x B mm	THICKNESS			
	1,5	2	2,5	3
10 x 20 x 40	1,09	1,35		
10 x 30 x 30	1,22	1,60	1,96	2,38
15 x 40 x 40	1,63	2,23	2,75	3,25
20 x 40 x 60		2,58	3,15	3,69
20 x 40 x 80		2,90	3,60	4,16
25 x 50 x 100		3,68	4,52	5,33



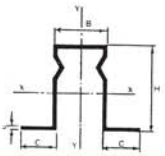
CHANNEL "OMEGA" Profiles symmetric

WEIGHT Kg/m

DIMENSIONS C x A x B mm	THICKNESS				
	1,5	2	2,5	3	4
30 x 50 x 30	2,13	2,78	3,40	3,98	
25 x 60 x 40	2,38	3,10	3,80	4,46	
30 x 80 x 40		3,90	4,80	5,66	
30 x 100 x 50		4,70	5,80	6,84	
30 x 120 x 60		5,50	6,80	8,06	10,50
40 x 150 x 80		7,10	8,80	10,49	13,70

A FURTHER RANGE IS AVAILABLE FOR YOUR PROJECT THAT IS NOT SHOWN IN THE CATALOGUE. AVAILABLE IN BLACK SHEET METAL, PICKLED, GALVANIZED. ALL PRODUCED TO STANDARD MEASURES ALSO DRILLED HOLES OR SLOTTED (with tolerances ± 1 mm).

IT IS POSSIBLE TO HAVE CUSTOM BRAKE ORDERS UP TO A LENGTH OF 14 METRES.



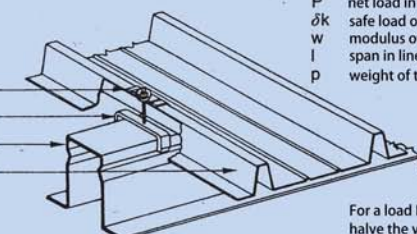
PURLIN GORGES INDENTED

Type	Dimensions mm.				F cm ²	G Kg/ml	Vy cm	Vy ¹ cm	Sheeting X-X			Sheeting Y-Y		
	B	H	C	S					Jx cm ⁴	Wx cm ³	lx cm	Jy cm	Wy cm ³	ly cm
GB 10	35	50	30	2	3,44	2,70	2,24	2,76	12,42	4,50	1,82	15,55	3,57	2,04
					2,5	4,20	3,30	2,25	2,74	14,73	5,36	1,79	18,75	4,36
GB 11	35	60	30	2	4,04	3,18	2,68	3,31	20,37	6,14	2,21	18,57	4,08	2,11
					2,5	5,00	3,93	2,67	3,32	24,38	7,33	2,18	22,40	4,97
GB 12	50	75	30	2	4,64	3,65	3,41	4,08	35,36	8,64	2,72	20,20	4,44	2,06
					2,5	5,75	4,52	3,38	4,11	42,14	10,23	2,68	24,39	5,42
GB 13	40	100	26,5	2,5	6,87	5,40	4,81	5,18	85,76	16,53	3,46	29,44	6,69	2,02
					3	8,10	6,36	4,83	5,17	98,73	19,10	3,40	34,21	7,86
GB 14	60	100	30	2,5	7,50	5,30	5,05	4,95	101,98	20,20	3,60	69,01	12,00	2,96
					3	8,94	7,02	5,05	4,94	119,01	23,54	3,57	80,79	14,17
GB 15	60	100	42	2,5	8,10	6,36	4,70	5,30	115,50	21,81	3,70	93,28	13,42	3,32
					3	9,66	7,58	4,70	5,30	135,06	25,47	3,67	109,45	15,86
GB 16	60	105	42	2,5	8,35	6,56	4,94	5,55	130,13	23,44	3,87	95,35	13,71	3,31
					3	9,66	7,82	4,94	5,55	152,37	27,44	3,83	111,89	16,21
GB 17	60	120	35	2,5	8,75	6,87	5,61	6,39	168,14	26,31	4,30	71,35	11,41	2,80
					3	10,44	8,20	5,58	6,41	197,04	30,71	4,26	83,54	13,47
GB 18	60	120	30	2,5	8,50	6,68	6,03	5,97	161,03	26,70	4,24	77,29	13,44	2,93
					3	10,14	7,96	6,07	5,92	185,35	30,52	4,20	90,55	15,88

PURLIN GORGES INDENTED

Type	Dimensions mm.				F cm ²	G Kg/m	Vy cm	Vy ¹ cm	Sheeting X-X			Sheeting Y-Y		
	B	H	C	S					Jx cm ⁴	Wx cm ³	lx cm	Jy cm	Wy cm ³	ly cm
GB 19	80	120	40	2,5	9,50	7,46	6,08	5,91	195,27	32,07	4,45	162,02	20,90	4,08
					3	11,34	8,91	6,06	5,93	229,66	37,86	4,42	190,72	24,76
GB 20	80	150	43,5	2,5	11,17	8,78	7,46	7,53	344,94	45,74	5,46	194,12	23,96	4,09
					3	13,35	10,48	7,46	7,53	406,38	53,90	5,43	228,82	28,42
GB 21	82	150	42,5	2,5	11,17	8,78	7,52	7,47	344,85	45,82	5,46	198,12	24,45	4,13
					3	13,35	10,48	7,52	7,47	406,50	54,02	5,42	235,56	29,96
				3,5	15,50	12,18	7,52	7,47	465,39	61,84	5,40	269,72	33,74	4,11

PURLIN LOAD CAPACITY (easy to install)



P net load in kg (total on all the beam)
 δk safe load of 1400 kg cm²
 w modulus of strength in cm³
 l span in linear meters
 p weight of the beam in kg/ml

$$P = \frac{8 \delta k w}{l} - p l$$

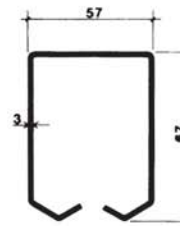
For a load P concentrated in the middle
halve the values of the table.

MAXIMUM LOADS IN KG IN ACCORDANCE OF SPAN IN METERS

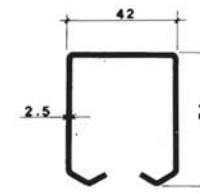
Type	Thickness	Section cm ²	Weight Kg/ml	Maximum loads in Kg in accordance of span in meters											
				1	1,5	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	6,0	
GB 10	2	3,44	2,70	500	332	246	195	160	135	115	100				
	2,5	4,20	3,30	597	395	294	232	190	160	137	118	103			
GB 11	2	4,04	3,18	685	454	337	267	220	185	160	138	121	107	96	
	2,5	5,00	3,93	817	540	402	318	260	220	190	165	145	128	113	
GB 12	2	4,64	3,65	964	640	476	378	311	264	228	198	175	156	140	
	2,5	5,75	4,52	1140	757	564	447	368	311	268	234	206	183	164	
GB 13	2,5	6,87	5,40	1846	1226	915	727	600	510	441	387	343	307	276	
	3	8,10	6,36	2133	1416	1057	840	694	589	510	447	396	354	318	
GB 14	2,5	7,50	5,90	2256	1500	1120	890	736	625	542	476	423	379	342	
	3	8,94	7,02	2630	1747	1304	1037	858	728	631	554	492	440	397	
GB 15	2,5	8,10	6,36	2436	1619	1208	961	795	675	585	514	456	409	369	
	3	9,66	7,58	2845	1890	1411	1122	928	788	683	600	532	477	430	
GB 16	2,5	8,35	6,56	2618	1740	1300	1033	855	727	630	554	492	441	398	
	3	9,96	7,82	3065	2037	1521	1210	1000	850	737	648	575	516	465	
GB 17	2,5	8,75	6,87	2940	1954	1460	1161	961	818	710	624	555	498	450	
	3	10,44	8,20	3431	2280	1703	1355	1122	954	827	727	647	580	524	
GB 18	2,5	8,50	6,68	2984	1983	1482	1180	976	831	720	634	564	507	458	
	3	10,14	7,96	3410	2266	1693	1347	1115	948	822	723	644	577	522	
GB 19	2,5	9,50	7,46	3584	2386	1781	1418	1175	1000	868	764	681	612	554	
	3	11,34	8,91	4231	2813	2102	1674	1386	1180	1025	902	803	771	653	
GB 20	2,5	11,17	8,78	5114	3402	2544	2027	1681	1433	1245	1099	980	883	801	
	3	13,35	10,48	6026	4008	2997	2388	1980	1688	1467	1294	1155	1040	943	
GB 21	2,5	11,17	8,78	5123	3408	2548	2030	1684	1435	1248	1100	982	884	802	
	3	13,35	10,48	6040	4018	3004	2394	1985	1692	1470	1297	1158	1042	945	
	3,5	15,50	12,18	6914	4599	3438	2740	2272	1936	1682	1484	1324	1193	1081	

MONORAIL

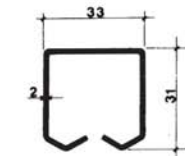
TYPE A (large)
Weight kg/m 5.00



TYPE B (medium)
Weight kg/m 3.20

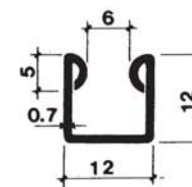


TYPE C (small)
Weight kg/m 1.72

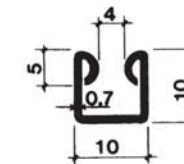


GLASS MOULDING to PUSH ON

Weight kg/m 0.23

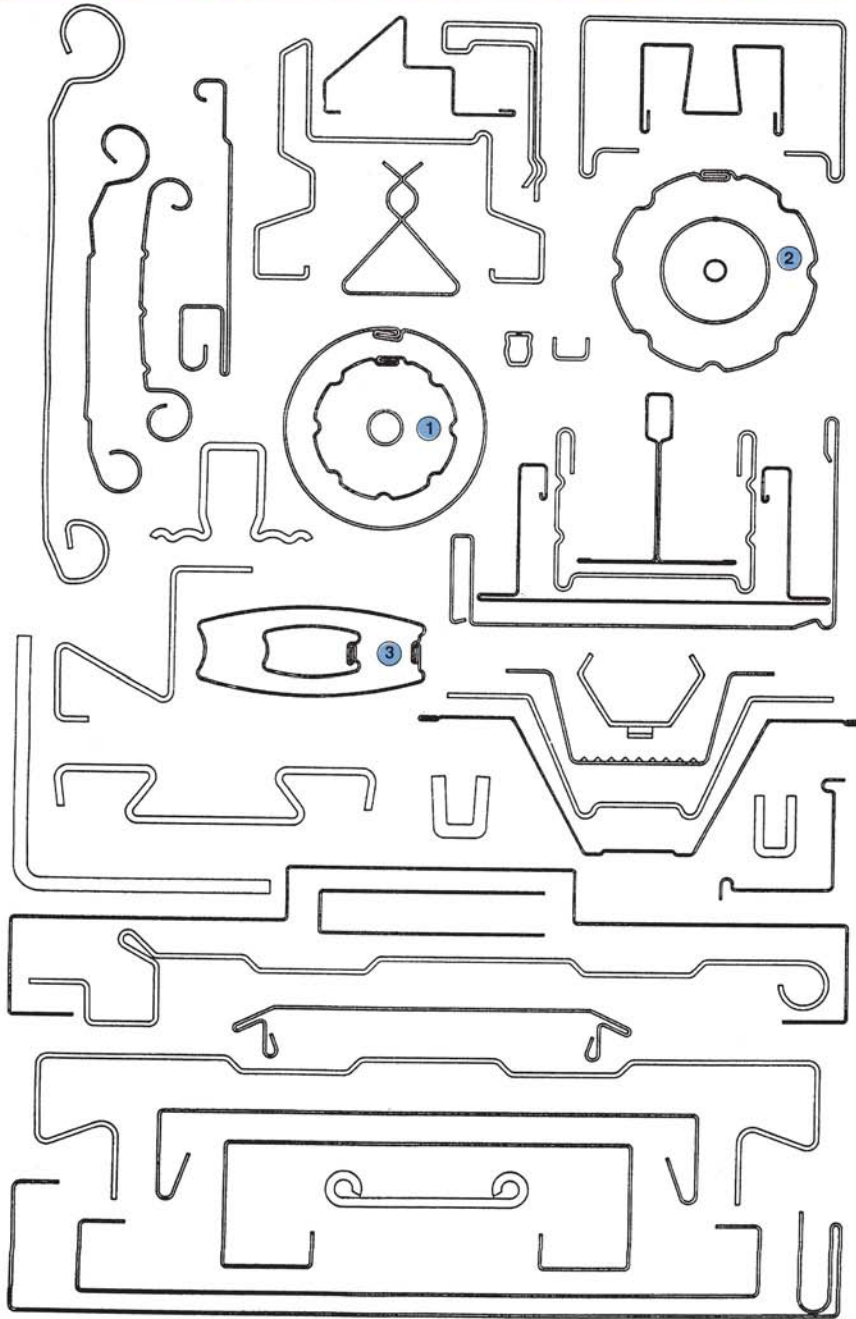


Weight kg/m 0.20



Note: Available in our warehouse inventory, monorail rollers and self-tapping screws for the above sections

EXAMPLES OF CROSS-SECTIONAL PROFILES THAT ARE MADE UPON REQUEST



EXAMPLES OF HOLES AND ZINC PLATING



**THE PLATES ARE MADE IN COMMERCIAL SIZES AND SHEARED TO SIZE.
 TYPES S235 - S275 - S355 IN THE VARIOUS GRADES.
 ALSO AVAILABLE ASFORM - CORTEN - T1**



**WE SUPPLY PLATE, SHAPED AND PLASMA AND LASER FLANGE CUT TO
 A THICKNESS FROM 8 mm TO 300 mm.**

BLACK, PICKLED AND GALVANIZED SHEET

Thickness mm.	Weight mq	2.000 x 1.000	2.500 x 1.250	3.000 x 1.500	6.000 x 1.500	6.000 x 1.800	6.000 x 2.000	7.000 x 2.000
0,5	3,9	7,8						
0,6	4,7	9,4	14,7					
0,7	5,5	11						
0,8	6,2	12,6	19,7	28,3				
1	7,8	15,7	24,5	35				
1,2	9,4	18,8	29,5	42				
1,5	12,2	24,4	38,2	54,9				
1,8	14,1	28,2	44,2	64				
2	16,4	32,8	51,25	73,8				
2,5	19,6	39,3	61	88	176,4			
3	23,6	47,1	73	106	212	255		
4	31,4	62,8	98	141	283	339	377	440
5	39,3	78,5	123	176	352	424	472	550
6	47,1	94,2	147	212	424	509	565	660
7	55	110	172	247	494	594	660	770
8	62,8	126	196	282	564	678	754	880
9	70,6	141	221	318	636	762	847	990
10	78,5	157	245	353	706	848	942	1100
12	94,2	188	294	424	848	1017	1130	1320
15	118	236	368	530	1060	1274	1416	1650
18	141	282	442	636	1272	1523	1692	1980
20	157	314	490	706	1412	1696	1884	2200
25	196	392	613	882	1764	2127	2352	2750
30	236	472	736	1060	2120	2549	2832	3300
40	314	628						
50	393	786						
60	471	942						

MESH SHEET

Thickness mm.	Weight mq	Dimensions		
		2000 x 1000	2500 x 1250	3000 x 1500
3	28,6	57	89	128
4	36,5	73	114	164
5	44,3	89	138	199
6	52,1	104	163	234
8	67,8	136	212	305
10	83,6	167	261	376
12	99,1	198	309	445

EMBOSSED SHEET

Thickness mm.	Weight mq	Dimensions		
		2000 x 1000	2500 x 1250	3000 x 1500
3	26,05	52,1	81,1	117
4	33,95	67,9	106	153
5	41,75	83,5	130,1	187,6

(The thickness is measured not from embossed pattern)

PERFORATED SHEET

SHEET DIMENSION: 1000 X 2000

Thickness mm.	HOLE DIAMETER											
	1	1,5	2	2,5	3	4	5	6	8	10	12	15
0,8	*	*	*	*	*	*	*	*				
1,0	*	*	*	*	*	*	*	*	*			
1,5			*	*	*	*	*	*	*	*		
2,0					*	*	*	*	*	*	*	
3,0						*	*	*	*	*	*	*
4,0							*	*	*	*	*	*
5,0								*	*	*	*	*

Analysis indicative of the most common types of stainless steel (INOX)

Standards	Analysis indicative %										
	WEEK-STOFF MATERIAL	AFNOR	C MAX	CR	NI	MO	MN MAX	P MAX	S MAX	SI	ALTRI
304	X5 CR NI 18-10	Z6 CN 18-09	0,08	18÷20	8÷10,5		2	0,045	0,030	1	
304L	X2 CR NI 18-11	Z2 CN 18-10	0,03	18÷20	8÷12		2	0,045	0,030	1	
321	X6 CR NI TI 18-11	Z6 CNT 18-11	0,08	17÷19	9÷12		2	0,045	0,030	1	Ti = 5 x C min
316	X5 CR NI MO 17-13	Z6 CND 17-11	0,06	16÷18,5	10,5÷13,5	2÷2,5	2	0,045	0,030	1	
316L	X2 CR NI MO 17-12	Z2 CND 17-12	0,03	16÷18,5	11÷14	2÷2,5	2	0,045	0,030	1	
316TI	X6 CR NI MO TI 17-12	Z8 CNDT 17-12	0,08	16÷18,5	10,5÷13,5	2÷2,5	2	0,045	0,030	1	Ti = 5 x C min
316SL	X2 CR NI MO 17-13	Z2 CND 17-13	0,03	16÷18,5	11,5÷15	2,5÷3	2	0,045	0,030	1	
310S	X6 CR NI 25-20	Z12 CN 25-20	0,08	24÷26	19÷22		2	0,045	0,030	1,50	
430	X8 CR 17	Z8 C 17	0,12	16÷18			1	0,040	0,030	1	
430TI	X6 CR TI 17		0,08	16÷18	0,5		1	0,040	0,030	1	Ti = 5 x C min 0,8 max
409	X6 CR TI 12	Z6 CT 12	0,08	10÷11,5			1	0,045	0,045	1	Ti = 6 x C min 0,75 max

STAINLESS STEEL PLATE

WEIGHT Kg/meter



Thickness in mm.	Width in mm.																				
	10	15	20	25	30	35	40	45	50	60	70	80	90	100	110	120	130	140	150	160	180
3	0.236	0.354	0.472	0.590	0.708	0.826	0.944	1.062	1.180	1.417	1.653	1.888	2.125	2.361							
4	0.315	0.472	0.630	0.787	0.944	1.102	1.259	1.417	1.574	1.889	2.203	2.518	2.833	3.148							
5	0.394	0.590	0.787	0.984	1.180	1.375	1.574	1.771	1.968	2.361	2.755	3.148	3.542	3.935	4.329	4.722	5.116	5.509	5.902	6.296	7.083
6		0.708	0.944	1.181	1.417	1.653	1.888	2.215	2.361	2.833	3.307	3.778	4.250	4.722	5.295	5.666	6.139	6.611	7.083	7.555	8.500
8		0.944	1.259	1.574	1.889	2.204	2.518	2.833	3.148	3.778	4.407	5.037	5.666	6.296	6.925	7.555	8.185	8.816	9.444	10.070	11.330
10		1.181	1.574	1.968	2.361	2.755	3.148	3.542	3.935	4.722	5.509	6.296	7.083	7.870	8.657	9.444	10.230	11.020	11.810	12.590	14.170
12			1.889	2.361	2.833	3.305	3.778	4.250	4.723	5.666	6.611	7.555	8.500	9.444	10.390	11.330	12.280	13.220	14.170	15.110	17.000
15			2,361	2.951	3.541	4.132	4.722	5.312	5.903	7.082	8.264	9.444	10.630	11.800	12.990	14.170	15.350	16.520	17.710	18.880	21.250
20				3.933	4.722	5.509	6.296	7.083	7.870	9.444	11.020	12.590	14.170	15.740	17.310	18.830	20.460	22.040	23.610	25.180	28.330
25					5.902	6.886	7.870	8.855	9.838	11.810	13.770	15.740	17.710	19.670	21.640	23.610	25.580	27.550	29.510	31.480	35.420
30							9.444	10.630	11.810	14.170	16.520	18.880	21.250	23.610	25.970	28.330	30.690	33.050	35.420	37.780	42.500
40									15.740	18.870	22.040	25.180	28.330	31.480	34.630	37.780	40.920	44.070	47.220	50.370	56.670
50												31.480	35.410	39.350	43.280	47.220	51.150	55.090	59.020	62.960	70.830
60													37.780	42.500	47.220	51.940	56.660	61.390	66.110	70.830	85.000



ROUNDS
UNI 6012

SQUARES
UNI 6013



STAINLESS STEEL ROUNDS AND SQUARES

WEIGHT Kg/meter

Cross-section Diameter	●	■	Cross-section Diameter	●	■
6	0,22		35	7,57	9,61
7	0,30		40	9,87	12,56
8	0,39	0,50	45	12,50	15,90
9	0,50	0,64	50	15,41	19,63
10	0,62	0,79	55	18,65	23,48
11	0,75		60	22,20	28,26
12	0,89	1,13	65	26,05	33,16
14	1,21	1,54	70	30,21	38,47
15	1,39	1,77	75	34,68	44,13
16	1,58	2,01	80	39,46	50,24
18	2,00	2,54	90	49,95	
20	2,47	3,14	100	61,65	
22	2,98		110	74,60	
24	3,55		120	88,78	
25	3,85	4,91	130	104,20	
28	4,83		140	120,84	
30	5,55	7,07	150	138,7	

Rolled Angle STAINLESS STEEL

WEIGHT Kg/meter

DIMENSIONS	THICKNESS						
	3	4	5	6	7	8	10
20 x 20	0,87	1,14					
25 x 25	1,11	1,45					
30 x 30	1,36	1,78	2,17				
35 x 35		2,09					
40 x 40		2,49	3,00				
50 x 50			3,77	4,46			
60 x 60				5,42			
70 x 70					6,38		
80 x 80						9,66	11,85
100 x 100							15,40

ROUND STAINLESS STEEL TUBING

WEIGHT Kg/meter



Diameter mm	THICKNESS							
	1.0	1.2	1.5	2.0	2.5	3.0	4.0	5.0
10	0,225	0,264	0,319					
12	0,275	0,325	0,394	0,500				
14	0,326	0,385	0,470	0,601				
15	0,351	0,415	0,507	0,651				
16	0,376	0,445	0,545	0,701				
17,2	0,406	0,481	0,590	0,761	0,921			
18	0,426	0,505	0,620	0,801				
19,05	0,452	0,536	0,659	0,854				
20	0,476	0,565	0,695	0,901				
21,3	0,508	0,604	0,744	0,967	1,177			
22	0,526	0,625	0,770	1,002				
23	0,551	0,655	0,808	1,051				
25	0,601	0,715	0,883	1,152	1,409			
26,9	0,649	0,772	0,954	1,247	1,527	1,795		
28	0,676	0,805	0,995	1,302	1,596	1,878		
30	0,728	0,865	1,070	1,402	1,722	2,028		
32	0,776	0,925	1,146	1,502	1,847	2,178		
33,7	0,819	0,977	1,209	1,588	1,953	2,306		
34	0,826	0,985	1,221	1,602	1,971	2,328		
35	0,851	1,016	1,258	1,653	2,035	2,404		
38,1	0,929	1,109	1,375	1,808	2,229	2,637		
40	0,977	1,166	1,446	1,903	2,348	2,779		
42,4	1,037	1,238	1,536	2,023	2,498	2,960	3,847	
44,5	1,089	1,301	1,615	2,128	2,629	3,117		
45	1,102	1,316	1,634	2,153	2,661	3,155		
48,3	1,184	1,415	1,758	2,319	2,867	3,403	4,438	

ROUND STAINLESS STEEL TUBING

WEIGHT Kg/meter



Diameter mm	THICKNESS							
	1.0	1.2	1.5	2.0	2.5	3.0	4.0	5.0
50	1,227	1,466	1,822	2,404	2,974	3,531	4,607	
50,8	1,247	1,490	1,852	2,444		3,591		
51	1,252	1,496	1,859	2,454	3,036	3,606		
52	1,277	1,526	1,897	2,504	3,099	3,681		
54	1,327	1,587	1,972	2,604	3,224	3,831		
57			2,085	2,754	3,412	4,057	5,309	
60,3	1,485	1,776	2,209	2,920	3,618	4,304	5,640	
63,5	1,565		2,329	3,080	3,819	4,545	5,960	
70	1,728	2,067	2,573	3,405	4,226	5,033	6,611	
76,1	1,881	2,251	2,802	3,711	4,607	5,491	7,222	
80	1,978	2,368	2,948	3,906	4,852	5,784	7,613	
88,9			3,283	4,352	5,409	6,453	8,504	
101,6			3,760	4,988	6,204	7,407	9,776	12,094
104			3,850	5,108	6,354	7,587	10,016	12,395
114,3			4,237	5,624	6,999	8,361	11,048	13,684
129			4,789	6,360	7,919	9,465	12,520	15,525
139,7			5,191	6,896	8,589	10,269	13,592	16,864
154			5,728	7,612	9,484	11,343	15,024	18,655
168,3			6,245	8,328	10,379	12,417	16,456	20,445
193,7			7,219	9,600	11,969	14,325	19,000	23,625
203			7,568	10,066	12,551	15,024	19,932	24,790
204			7,606	10,116	12,614	15,099	20,032	24,915
219,1			8,173	10,872	13,559	16,233	21,544	26,805
273				13,573	16,935	20,285	26,946	
323,9				16,123	20,122	24,109	32,045	39,931
355,6				17,711		26,491	35,221	43,901

SQUARE STAINLESS STEEL TUBING

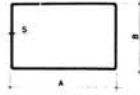
WEIGHT Kg/meter



Diameter mm	THICKNESS							
	1.0	1.2	1.5	2.0	2.5	3.0	4.0	5.0
10 × 10	0,294							
12 × 12	0,358							
15 × 15	0,453	0,538	0,661					
16 × 16	0,485	0,576	0,709	0,920				
18 × 18	0,549	0,653	0,805					
20 × 20	0,613	0,729	0,900	1,175				
25 × 25	0,772	0,921	1,140	1,494	1,846	2,179		
30 × 30	0,932	1,112	1,379	1,813	2,222	2,645		
35 × 35	1,091	1,303	1,618	2,132	2,629	3,118		
40 × 40	1,251	1,495	1,857	2,451	3,036	3,602	4,708	
45 × 45	1,410	1,686	2,097	2,770	3,433	4,081	5,309	
50 × 50	1,570	1,878	2,336	3,089	3,818	4,559	5,960	
60 × 60			2,814	3,727	4,607	5,516	7,222	
80 × 80			3,771	5,003	6,203	7,430	9,807	12,095
100 × 100			4,728	6,279	7,918	9,343	12,358	15,322
120 × 120				7,555		11,257	14,910	18,512
150 × 150				9,469		14,129	18,738	23,297
175 × 175				11,064		16,521	21,928	27,285

RECTANGULAR STAINLESS STEEL TUBING

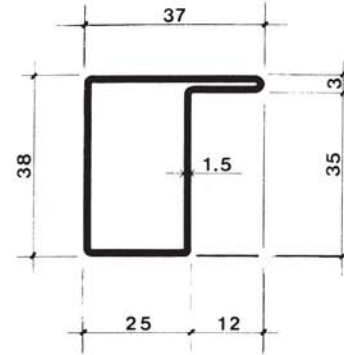
WEIGHT Kg/meter



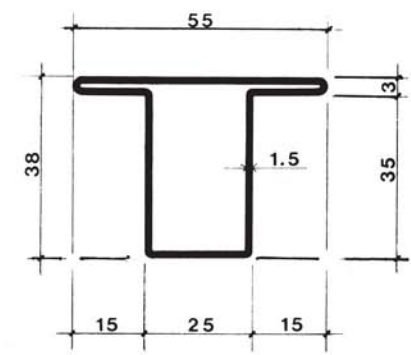
Diameter mm	THICKNESS							
	1.0	1.2	1.5	2.0	2.5	3.0	4.0	5.0
20 x 10	0,453	0,538	0,661					
20 x 15	0,533	0,634	0,781					
25 x 15	0,613	0,729	0,900	1,175				
30 x 10	0,613	0,729	0,900					
30 x 15	0,693	0,825	1,020	1,335				
30 x 20	0,772	0,921	1,140	1,494				
35 x 15	0,772	0,921	1,140					
35 x 20	0,852	1,017	1,259	1,654				
40 x 15	0,852	1,017	1,259	1,654				
40 x 20	0,926	1,112	1,379	1,813				
40 x 30	1,091	1,303	1,618	2,132				
50 x 20	1,091	1,303	1,618	2,132				
50 x 25		1,399	1,738	2,292				
50 x 30	1,251	1,495	1,857	2,451				
60 x 20		1,495	1,857	2,451				
60 x 30		1,686	2,097	2,770		4,081		
60 x 40		1,878	2,336	3,089		4,559	5,960	
70 x 20		1,686	2,097	2,770				
80 x 40		2,261	2,814	3,727	4,600	5,516	7,222	
80 x 60			3,293	4,365	5,408	6,473	8,504	
100 x 40			3,293	4,365	5,408	6,473	8,504	
100 x 50			3,532	4,684	5,790	6,952	9,115	
100 x 60			3,771	5,003		7,430	9,807	
100 x 80				5,642		8,387	11,083	13,728
120 x 60				5,642		8,387	11,083	13,728
120 x 80				6,279		9,343	12,358	15,322
150 x 50				6,279		9,343	12,358	15,322
200 x 100				9,469		14,129	18,738	23,297
200 x 150				11,064		16,521	21,928	27,285
250 x 100				11,064		16,521	21,928	27,285

Various Cross-sectional Profiles in Stainless Steel

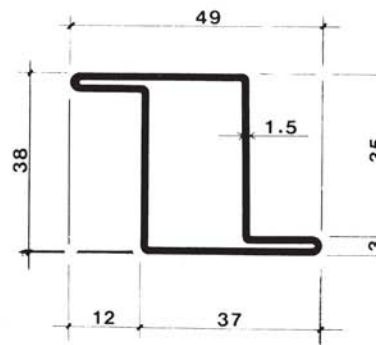
WEIGHT per meter 1,74 Kg.



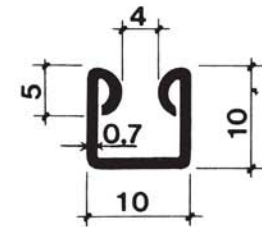
WEIGHT per meter 2,20 Kg.



WEIGHT per meter 1,97 Kg.



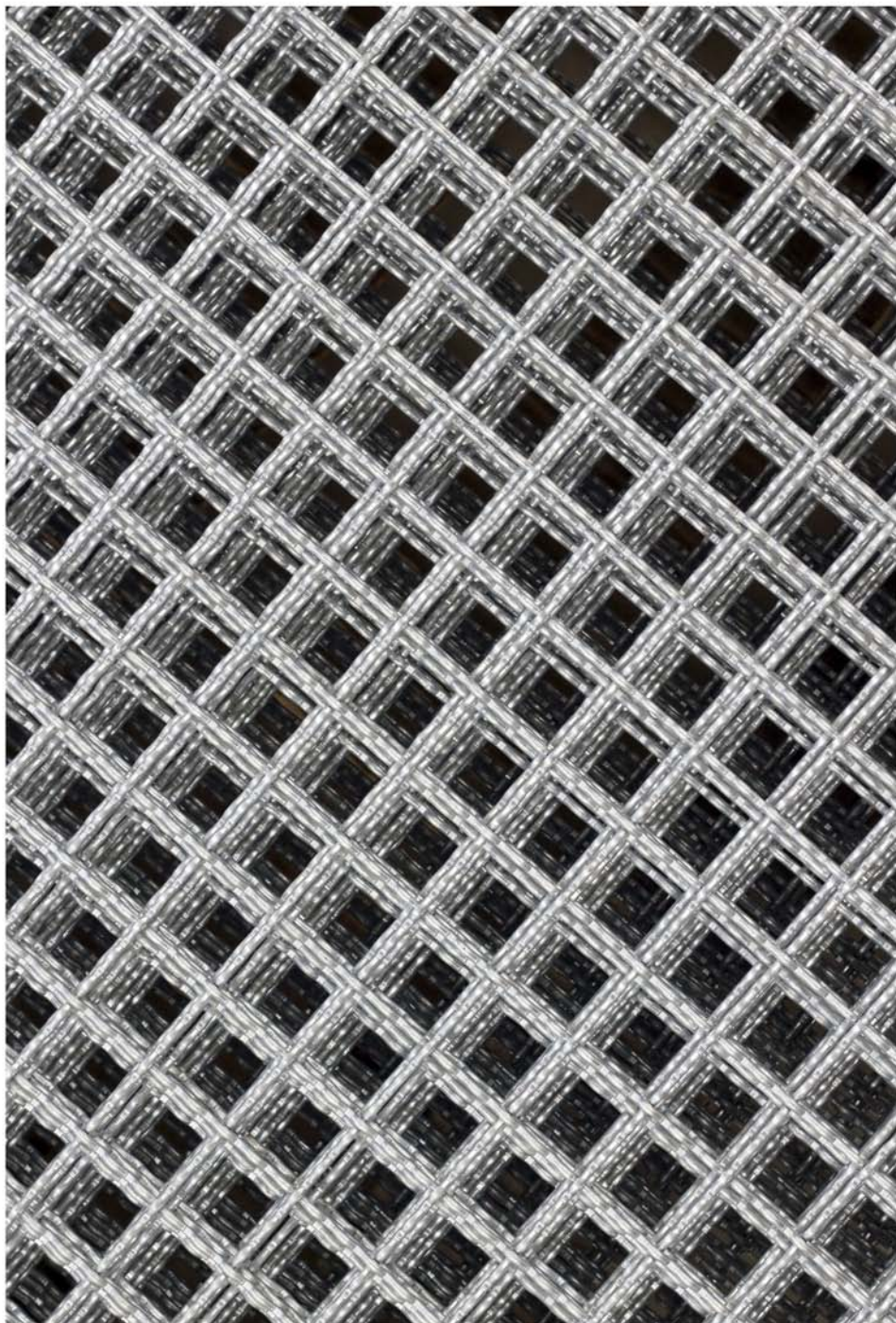
WEIGHT per meter 0,20 Kg.



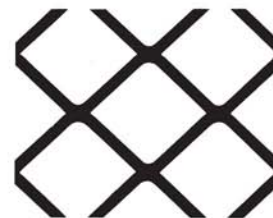
STAINLESS STEEL SHEETING

Thickness in mm.	Weight Kg/m ²	DIMENSIONS		
		1000 × 2000	1250 × 2500	1500 × 3000
0,5	4	8	—	—
0,6	4,8	9,6	—	—
0,8	6,4	12,8	20	—
1	8	16	25	36
1,2	9,6	19,2	30	43,2
1,5	12	24	37,5	54
2	16	32	50	72
2,5	20	40	62,5	90
3	24	48	75	108
4	32	64	100	144
5	40	80	125	180
6	48	96	150	216
8	64	128	200	288
10	80	160	250	360
12	96	192	300	432

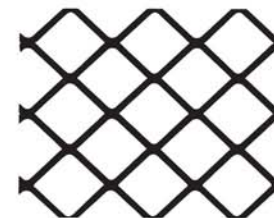




SQUARE MESH



SQ 30



SQ 18



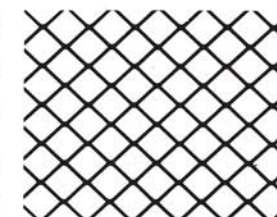
SQ 16



SQ 14



SQ 12



SQ 10

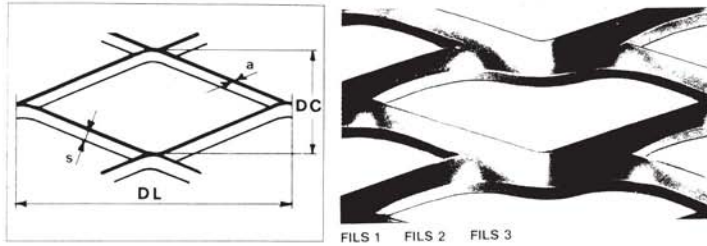
Commercial Code	Step s/mm	Thickness S/mm	Weight Kg/m ²	Total max. coil width
SQ 100	6	3	3,7	1500
	6	4	4,9	1500
SQ 90	5	3	3,6	1500
	6	4	5,8	1500
SQ 80	5	3	4,3	1500
	6	4	6,3	1500
SQ 70	5	3	4,2	1500
	6	4	6,7	1500
SQ 60	4,5	2,5	3,7	1500
	4,5	3	4,4	1500
SQ 50	4	2,5	4,3	1500
	4	3	5,1	1500
SQ 40	3	2	3,3	1500
	3	2,5	4,3	1500
SQ 30	1	1	0,65	1000
	1,5	1,5	1,50	1000
	2	2	2,50	1000
SQ 18	1	1	0,90	1000
	1,5	1	1,60	1000
	1,5	1,5	2,40	1000
SQ 16	1	1	1	1000
	1,5	1	1,70	1000
	1,5	1,5	2,50	1000
SQ 14	0,80	0,80	1,10	1000
	1	1	1,50	1000
	1,5	1,5	3,70	1000
SQ 12	0,80	0,80	1,20	1000
	1,50	1	2,60	1000
	1,50	1,50	3,85	1000
SQ 10	0,60	0,60	0,75	1000
	0,80	0,80	1,35	1000
	1	1	2	1000

Grill mesh

Conventional styling

Mesh size

s = thickness
a = width
DL = diagonal long
DC = diagonal short



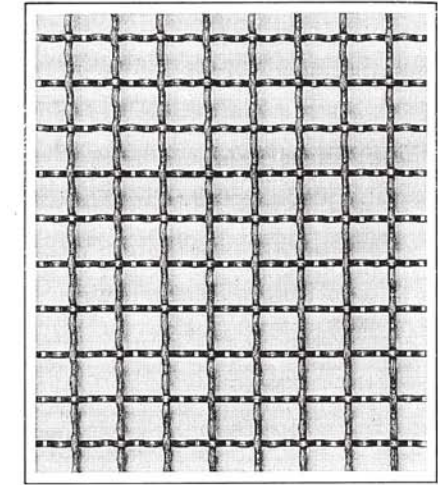
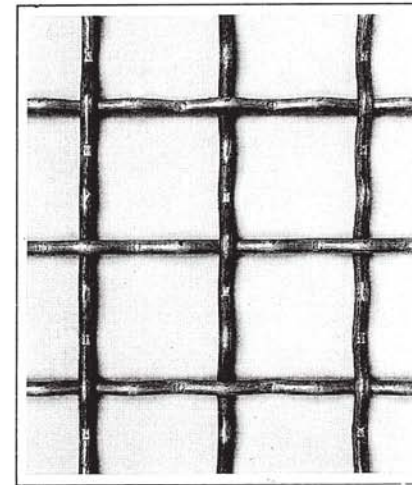
Commercial Code	Conventional styling			Weight per m ² - Kg.	Maximum dimensions of the rolls or sheets in mm.	
	DL mm.	a-1/10 mm	S-1/10 mm		Width in the direction DL	Length in the direction DC
FILS-1S	110	70	40	21	1000 1250 1500	2600
FILS-21S	44	40	30	20	1000 1250 1500	2000
FILS-22S	44	40	40	26	1000 1250 1500	2000
FILS-15S	43	40	30	21	1000 1250 1500	2000
FILS-16S	43	40	40	26	1000 1250 1500	2000
FILS-1	110	70	40	17	2000	2600 circa
FILS-2	110	80	40	19	2000	2400 circa
FILS-3	110	70	50	22	1500	2600 circa
FILS-6	90	70	40	21	2000	2350 circa
FILS-7	90	80	40	23	2000	2200 circa
FILS-8	90	70	50	25	1500	2350 circa
FILS-4	60	70	40	23	1500	2000 circa
FILS-5	60	70	30	18	2000	2000 circa



Commercial Code	Conventional styling			Weight per m ² - Kg.	Maximum dimensions of the rolls or sheets in mm.	
	DL mm.	a-1/10 mm	S-1/10 mm		Width in the direction DL	Length in the direction DC
FILS-15	43	40	30	17	2000	2000
FILS-16	43	40	40	23	1500	
FILS-20	44	30	30	13,8	2000	2500
FILS-21	44	40	30	17,5	2000	
FILS-22	44	40	40	24	1500	2100
FILS-9	125	120	40	17	1000 1250 1500	2600
E3	44	40	30	11	1000 1250 1500	3000
E4	44	40	40	14	1500	
SP 2-A	110	95	40	15		
SP 5-A	110	95	50	18,5	1500	3000
SP 2	110	95	40	14		
SP 5	110	95	50	17	1500	3600

Can provide wide range of grills - manholes - fencing with frames and sub-frames

WAVY MESH



Weight Table kg/m² of woven mesh

MESH SIZE	Ø diameter in mm.												
	1,5	2	2,2	2,4	2,7	3	3,5	4	4,5	5	6	7	8
8 x 8	3,000												
10 x 10	2,900	4,500											
12 x 12		3,600	4,300										
15 x 15			3,800	4,600									
20 x 20			3,100	3,600	4,500	5,600							
25 x 25					4,000	4,800	5,600	6,600					
30 x 30						3,700	4,800	6,300	8,100	9,000			
40 x 40							3,900	5,300	6,100	7,400			
45 x 45								4,900	5,900	7,100			
50 x 50								4,750	5,500	6,900	8,800		
55 x 55								4,100	4,900	6,300	8,400		
60 x 60										5,100	7,400		
75 x 75										4,500	6,400		
80 x 80											6,100		
100 x 100												4,300	6,000 9,800

The weights listed above are approximate and not binding. Measures in bold are fencing of normal production and are stocked in the warehouse in the following heights (in mm.): 1000, 1200, 1500, 2000, or in panels of mm. 1000 x 2000. On request we can provide the fencing in heights up to mt. 3.

On request, we can supply in different diameters and mesh patterns.

GALVANIZED GRATE

PLATES FROM approx. 6000 X 1000 mm

MESH SIZE	GRATING	APPROXIMATE WEIGHT KG. PER M ²
34 x 38	25 x 2	15,6
34 x 38	30 x 3	25
25 x 24	25 x 2	20,5
15 x 76	25 x 2	30,5
34 x 76	25 x 2	14
25 x 76	25 x 2	17,5
25 x 76	40 x 3	41,1

NOTE: These gratings can also be supplied unfinished.

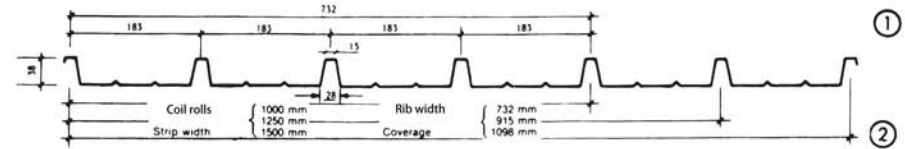
STANDARD PANELS

MATERIAL HOT DIPPED GALVANIZED

TYPE	MESH SIZE mm	PROFILE mm	DIMENSIONS mm	WEIGHT kg. Each	NOTE
STANDARD PANELS	25 x 76	≠ 25 x 2	400 x 1000	8,3	for pedestrians traffic
	25 x 76	≠ 25 x 2	500 x 1000	12,0	for pedestrians traffic
	25 x 76	≠ 25 x 2	700 x 1000	13,9	for pedestrians traffic
	25 x 76	≠ 25 x 2	800 x 1000	15,8	for pedestrians traffic
	25 x 76	≠ 25 x 2	900 x 1000	17,6	for pedestrians traffic
	25 x 76	≠ 25 x 2	1000 x 1000	19,5	for pedestrians traffic
	15 x 76	≠ 25 x 2	1000 x 407	13,0	for doormat entrance

We can provide a wide range of racks and panels for your project.

EGB 401/D PANEL



STATIC CHARACTERISTICS

Thickness	0,6	0,7	0,8	1,0	
Weight kg/ m ²	6,42	7,49	8,57	10,72	
Weight kg/ m	1000	4,71	5,49	6,28	7,85
	1250	5,88	6,86	7,85	9,81
	1500	7,06	8,24	9,42	11,77
J cm ² /m	13,79	16,04	18,31	22,83	
W cm ² /m	4,75	5,55	6,36	7,98	

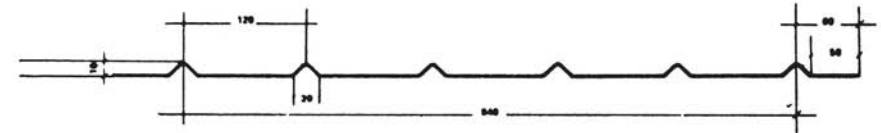
The values shown in bold keep a calculation of <math><1/200 I</math>.

When not specified, the color coating is done on side 1.

MAX LOAD IN UNIFORM DISTRIBUTION kg/m²(overload + weight) / $\delta = 1400$ kg/cm²

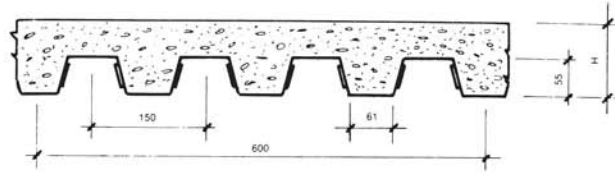
EGB 4/80 - D PANEL

PARTITION WALLS, CEILINGS AND LININGS



STATIC CHARACTERISTICS

	Weight kg/ m			
Thickness	0,6	0,7	0,8	1,0
Weight kg/ m	4,71	5,49	6,28	7,85
Weight kg/ m ²	4,60	6,53	7,47	9,34



STATIC CHARACTERISTICS

Thickness	0,7	0,8	1,0	1,2	1,5
Weight kg/ m ²	9,15	10,46	13,08	15,70	19,62
Weight kg/ m	5,49	6,28	7,85	9,42	11,77
J cm ² /m	50,05	59,15	77,63	96,48	122,52
W cm ² /m	15,38	18,52	25,00	31,81	41,22

METAL SHEETING
FOR COLLABORATING
PLATES AND SHELLS

USEFUL OVERLOAD UNIFORM DISTRIBUTION in kg/m²

Foam steel panel cm	Weight foam steel panel kg/m ²	Thickness mm	USEFUL OVERLOAD UNIFORM DISTRIBUTION in kg/m ²															
			2000	1500	1200	1000	800	700	600	500	450	400	350	300	250	200	150	
9	165	0,7	1,00	1,40	1,70	2,00	2,10	2,20	2,30	2,45	2,50	2,60	2,70	2,80	2,90	3,00	3,15	
		0,8	1,00	1,40	1,70	2,00	2,25	2,40	2,50	2,60	2,70	2,80	2,90	3,00	3,10	3,20	3,40	
		1,0	1,00	1,40	1,70	2,00	2,50	2,60	2,70	2,90	3,00	3,10	3,20	3,30	3,40	3,50	3,60	3,80
		1,2	1,00	1,40	1,70	2,00	2,60	2,85	3,00	3,15	3,30	3,40	3,50	3,60	3,80	3,90	4,10	
10	190	0,7	1,10	1,50	1,90	2,00	2,20	2,25	2,35	2,50	2,55	2,60	2,70	2,80	2,85	2,95	3,05	
		0,8	1,10	1,50	1,90	2,15	2,30	2,40	2,50	2,65	2,70	2,80	2,85	2,95	3,05	3,15	3,30	
		1,0	1,10	1,50	1,90	2,25	2,60	2,70	2,80	2,95	3,00	3,10	3,20	3,30	3,40	3,50	3,65	
		1,2	1,10	1,50	1,90	2,25	2,80	2,90	3,05	3,20	3,30	3,40	3,50	3,60	3,70	3,85	4,00	
11	215	0,7	1,25	1,65	2,00	2,10	2,20	2,30	2,40	2,50	2,55	2,60	2,65	2,70	2,80	2,90	3,00	
		0,8	1,25	1,65	2,10	2,20	2,40	2,45	2,55	2,65	2,70	2,75	2,85	2,90	3,00	3,10	3,15	
		1,0	1,25	1,65	2,10	2,45	2,60	2,70	2,80	2,95	3,00	3,10	3,15	3,25	3,35	3,45	3,55	
		1,2	1,25	1,65	2,10	2,50	2,85	3,00	3,10	3,20	3,30	3,35	3,45	3,55	3,65	3,75	3,85	
12	240	0,7	1,35	1,80	2,00	2,10	2,25	2,30	2,40	2,50	2,55	2,60	2,65	2,70	2,75	2,80	2,85	
		0,8	1,35	1,80	2,10	2,25	2,35	2,45	2,55	2,65	2,70	2,75	2,80	2,85	2,90	2,95	3,00	
		1,0	1,35	1,80	2,25	2,50	2,65	2,75	2,85	2,95	3,00	3,05	3,15	3,20	3,25	3,30	3,40	
		1,2	1,35	1,80	2,25	2,70	2,90	3,00	3,10	3,20	3,25	3,35	3,40	3,50	3,55	3,65	3,75	

EQUIVALENCIES BETWEEN REGULATIONS

EQUIVALENCIES BETWEEN REGULATIONS
ON THE DESIGNATION OF STEEL FOR STRUCTURAL APPLICATIONS

Current designation	Previous designations or equivalent	MINIMUM MECHANICAL FEATURES (for thicknesses less than or equal to 16 mm)		OPTIONS upon request				
		R _e [N/mm ²]	R _m [N/mm ²]	A %	Kv [J -20C]	TO PEARLY GALVANISE	RESILIENCE	HEAT TREATED
UNI EN 10025:2005	UNI EN 10025-93	Fe 33	185	18	-	H	5	
	S185	Fe 320	320					
	-	Fe 34 A						
	-	Fe 34 B						
	-	Fe 34 C						
	S235JR	Fe 360 B	235	24				
	S235J0	Fe 360 C	235	24				
	S235J2	Fe 360 D	235	24				
	S275JR	Fe 430 B	275	27				
	S275J0	Fe 430 C	275	27				
	S275J2	Fe 430 D	275	27				
	UNI EN 10149-2	UNI EN 10149-2	Fe 510 B	355	20		H	5
S355JR		Fe 510 C	355	20		H	5	
S355J0		Fe 510 D	355	20		H	5	
S355J2		Fe 510 E	355	20		H	5	
S690QL		Fe 690	690	14				
-		T1 - Nextra M70 - Domex 690 XP - secondo UNI EN 10137	690	770				
-		Trade Equivalent Products						
-		AS-Form 420, Soldur 420,						
S420MC		OSIE 420 TM	420	480	16		H	5
S600MC		OSIE 600 TM	600	650	11		H	7
S700MC		OSIE 700 TM	700	750	10		H	7
-		Raex 900 QC	900	950	8			
UNI EN 10083-1	Similar Products							
	BR10 - 38NCD4 - 38NiCrMo4, 38NiCrMo3							
	Trade Equivalent Products							
36CrNiMo4 *		900	1100	10			sl	
UNI EN 288/3 *								
StE 51 *	STB1 A - 18 MCV	560	790	16			sl	

Key:
Rm: Resistance to breakage
Re: Torsion strength
A: Minimum percentage of elongation at breakage
Kv: Resilience at -20. C
* Comparable

NOTE
1) The quality provided in Fe 34, Fe 34 B, 34 C and equivalents are no longer available and must be respectively using the specifications S235JR, S235J0 and S235J2G3.
2) For the hollow profiles, after the identification code of the materials, there is a letter "H" (e.g. S355J2G3 H) (ref. standard EN 10210).
3) The materials must be suitable for welding. They must therefore have a value of less than 0.51 carbon equivalent (CEV <0.51).
4) The materials must be suitable for hot dip galvanizing. They must therefore have a level of silicon lower than 0.03 or greater than 0.20% (Si <0.03% or Si > 0.20%).



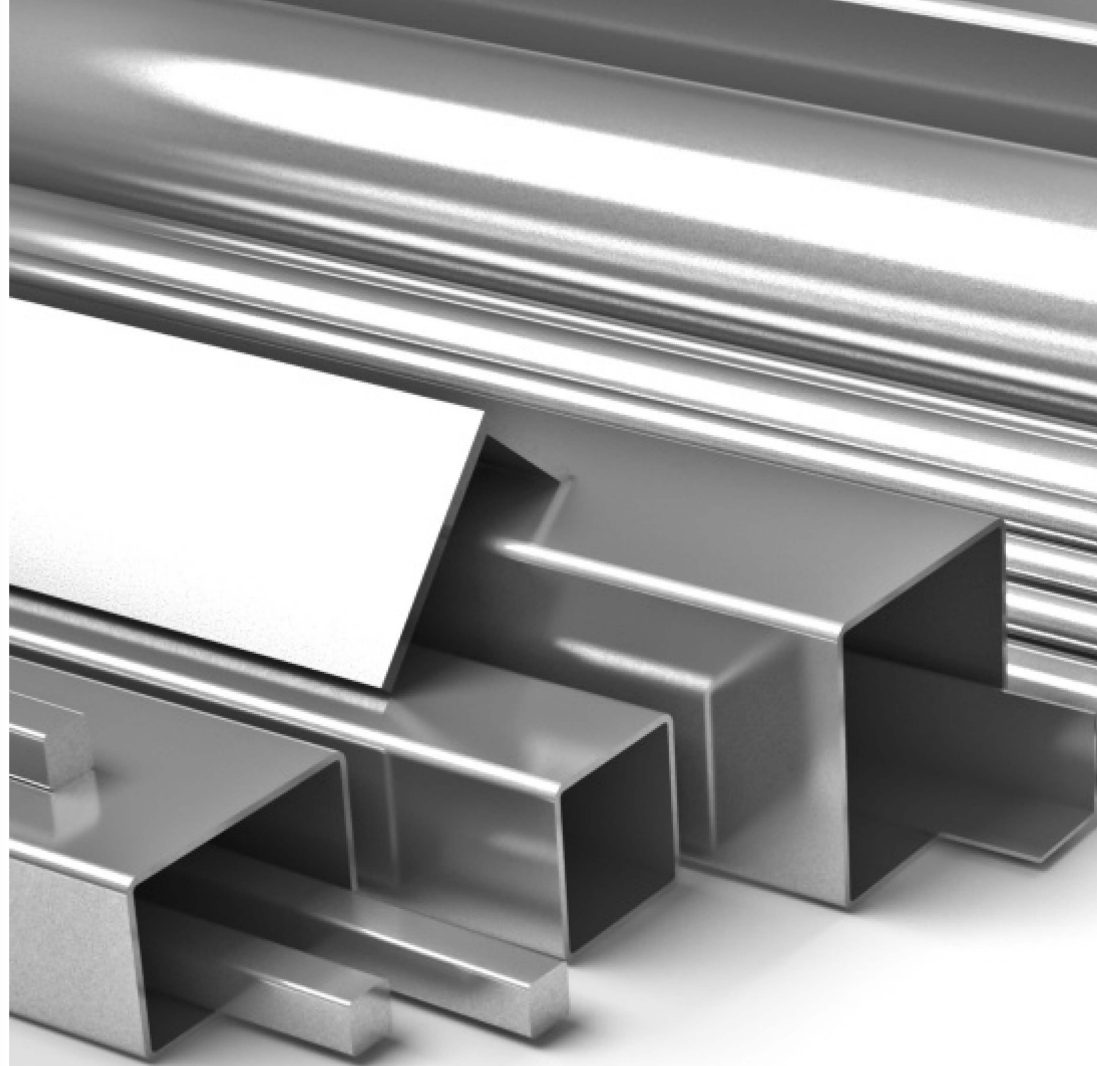
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