



# PRONTUARIO GENERALE

## DIMENSIONI E PESI TEORICI



**PROFILATI FERRO - TUBI - LAMIERE - TRAVI - TUBOLARI  
SAGOMATI OSSITAGLIO LAMIERE - LAMIERE E PROFILATI INOX**

ACCIAIO DI USO E DA COSTRUZIONE .....	6-7
PIATTI - LARGHI PIATTI .....	8
FERRO A T .....	9
ANGOLARI A SPIGOLI TONDI .....	10
ELLE A SPIGOLI VIVI - TONDI .....	11
TONDI - QUADRI .....	12
FERRO U SERIE SPECIALE - SERIE NORMALE .....	13
TRAVE INP SERIE NORMALE - TRAVE IPE .....	14
TRAVI INP SOLLECITATE A FLESSIONE .....	15
TRAVI IPE SOLLECITATE A FLESSIONE .....	16
TRAVE IPE SOLLECITATE A COMPRESSIONE .....	16
ROTAIA .....	17
TRAVI HE .....	18-19
TRAVI HE SOLLECITATE A FLESSIONE .....	20
TRAVI HE SOLLECITATE A COMPRESSIONE .....	21
SCHEMA TAGLIO TRAVI E FERRI U .....	22
Ø C.A. RETI FILO VARIE .....	23
LAMIERE (da treno, nere, decapate, lucide, zincate) .....	24
LAMIERE STRIATE - BUGNATE .....	25
LAMIERE GRECATE PER SOLAI - COPERTURE E PARETI .....	26
LAMIERE GRECATE PER SOLAI - ZINCATE ONDULATE .....	27
PANNELLI COIBENTATI PER COPERTURA .....	28
PANNELLI COIBENTATI PER PARETI .....	29
RETI ELETTROSALDATE .....	30-31
LAMIERE FORATE - RETI ONDULATE A MAGLIA QUADRA .....	32
LAMIERE ACCIAIO INOSSIDABILE .....	33
GRIGLIATO - MODULI DA RECINZIONE .....	34
GRADINI ZINCATI - PANNELLI ZINCATI BORDATI .....	35
PIANEROTTOLI E GRADINI .....	36
RETI STRIATE ROMBOIDALI - PEDONABILI .....	37-38-39-40
TUBI TONDI SALDATI .....	41
TUBI CARPENTERIA - TUBOLARI QUADRI .....	42
TUBOLARI RETTANGOLARI .....	43-44
TUBOLARI PER SERRAMENTI .....	49-50-51-52
TUBOLARI PER PORTONI .....	76-77
CORRIMANO - OVALE - TRIANGOLO .....	53
TUBI MOBILIO (a freddo da nastro lucido) .....	54
TUBI RETTANGOLARI (a freddo da nastro lucido) .....	55
TUBO QUADRO - OVALE - SEMIOVALE (a freddo da nastro lucido) .....	56
TUBOLARI QUADRI E RETTANGOLARI ACCIAIO INOX .....	57
TUBI TONDI SALDATI ACCIAIO INOX .....	58
PIATTI E ANGOLARI ACCIAIO INOX .....	59
TONDI E QUADRI ACCIAIO INOX .....	60
ANGOLARI A LATI DISEGUALI - ANGOLARI A LATI UGUALI .....	61
U AD ALI UGUALI .....	62
U A LATI UGUALI .....	63
PRODUZIONE NORMALE - MONOROTAIE FERMAVETRO A SCATTO LUCIDO E ZINCATO .....	63
PROFILATI A "C" .....	64
OMEGA SIMMETRICI .....	65
ARCARECCIO TIPO FIAT A GOLE RIENTRATE .....	65
TUBI ACQUA - GAS .....	68
TUBI S.S. LISCI COMMERCIALI .....	69
TUBI MECCANICI .....	70-71
TUBI ANSI B 3610 E API .....	72-73
PROFILATI CAVI QUADRATI .....	45-46
PROFILATI CAVI RETTANGOLARI .....	47-48
PROFILATI PER PANNELLI POLIURETANICI .....	66
GUIDE ROWING A PAVIMENTO .....	67
CURVE A SALDARE .....	74
PROFILI PERSIANE BLINDATE .....	75
ELEMENTI FERRO FORGIATO/BATTUTO .....	78-79-80

## CORRISPONDENZA TRA GLI ACCIAI NORMALIZZATI UNI ISO E CECA (LA CORRISPONDENZA CON GLI ACCIAI DIN AFNOR E BS È DATA A TITOLO INDICATIVO)

EN 10025 1995	EN 10025 1992	UNI 7070/72	UNI 7070/82	ISO 630 ISO 1052	EU 25	DIN 17100	NF A 35-501	BS 4360	ASTM
S 185	FE310	FE33 FE37 A	FE320 FE330 A FE330 B FE330 C FE330 D	FE 310	FE 310 FE360 A	St 33	A 33-2 A 33-2		
S235 JR	FE360 B	FE37 B	FE360 B	FE360 B	FE360 B	St 37-2	E24-2		A283 C
S235JRG1	FE360 BFU								
S235JGR2	FE360 BFN								
S235JO	FE360 C	FE37 C	FE360 C	FE360 B	FE360 B	St 37-3	E24-3		
S235J2G3	FE360 D1	FE37 D	FE360 D	FE 360 C	FE360 C	St 37-3	E24-4		
S235J2G4	FE360 D2								
		FE42 A						40 A	
		FE42 B	FE410 B					40 B	A283 D
		FE42 C	FE410 C					40 C	
		FE42 D	FE410 D					40 D	A131 D
		FE44 A		FE430 A	FE430 A			43A,A1	
S275JR	FE430 B	FE44 B	FE430 B	FE430 B	FE430 B	St 44-2	E28-2	43 B	
S275JO	FE430 C	FE44 C	FE430 C	FE 430 C	FE430 C	St 44-3	E28-3	43 C	
S275J2G3	FE430 D1	FE44 D	FE430 D	FE430 D	FE430 D	St 44-3	E28-4	43 D	
S275J2G4	FE430 D2							43 E	
								50 A	
S355JR	FE510 B	FE52 B	FE510 B	FE510 B	FE510 B		E36-2	50 B	
S355JO	FE510 C	FE52 C	FE510 C	FE510 C	FE510 C	St 52-3	E36-3	50 C	A242-2
	FE510 DD	FE52 D	FE510 D	FE510 D	FE510 D	St 52-3	E36-4	50 D	A572 gr. 50
S355J2G3	FE510 D1		FE510 DD		FE510 DD			50 D1	A633 gr. C. D.
S355J2G4	FE510 D2								
S355K2G3	FE510 DD1								
S355K2G4	FE510 DD2								
			FE490	FE490	FE490	St 50	A 50		
			FE590	FE590	FE590	St 60	A 60		
			FE690	FE690	FE690	St 70	A 70		
									55 C,E,F
									WR 50 A,A1,B,B1,C,C1,D,D1

## ACCIAI PER CALDAIE E RECIPIENTI A PRESSIONE

UNI 5869	AFNOR	DIN	BS	EURONORM	ASTM ASME
Fe 360 -1 KW	A 37 CPA 36-205		23 B-161/1501	Fe 37-1 KW/28	A 285-C A515-55
Fe 360 -2 KW		HW1755		Fe 37-2 KW/28	
Fe 360 -1 KG			23 A-161/1501	Fe 37-1 KP/28	
Fe 360 -2 KG	A 37 APA 36-205	ASt 35/17135		Fe 37-2 KP/28	A 442-55
Fe 410 -1 KW	A 42 CPA 36-205		26 B-161/1501	Fe 42-1 KW/28	A 515-60
Fe 410 -2 KW		HW17155		Fe 42-2 KW/28	A 516 gr. 60
Fe 410 -1 KG			26 A-161/1501	Fe 42-1 KP/28	
Fe 410-2 KG	A 42 APA 36-205	ASt 41/17135		Fe 42-2 KP/28	A 442-60
Fe 460 -1 KW	A 48 CPA 36-205	HWSEL 1.0445		Fe 47-1 KW/28	A515-65
Fe 460 -2 KW				Fe 47-2 KW/28	A 516 gr. 65
Fe 460 -1 KG				Fe 47-1 KP/28	
Fe 460 -2 KG	A 48 APA 36-205	ASt 45/17135		Fe 47-2 KP/28	
Fe 510 -1 KW	A 52 CPA 36-205	614/24	Fe 52-1 KW/28 32 B-221/1501	A 515/70	A 299
Fe 510 -2 KW				Fe 52-2 KW/28	A 516 gr. 70
Fe 510 -1 KG			32 A-221/1501	Fe 52-1 KP/28	
Fe 510-2 KG	A 52 APA 36-205	ASt 52/17135		Fe 52-2 KP/28	

# ACCIAIO DI USO GENERALE E DA COSTRUZIONE

## CARATTERISTICHE MECCANICHE E COMPOSIZIONE CHIMICA EN 10025 EX UNI 7070-72

ACCIAIO	PROVA DI TRAZIONE									PROVA di PEGAMENTO	PROVA di RESILIENZA * °		
	CARICO UNITARIO di ROTTURA R N/mm <sup>2</sup>	CARICO UNITARIO di SNERVAMENTO R <sub>0,2</sub> min. per spessori in mm.					ALLUNGAMENTO A min. per spessori in mm.			DIAMETRO del MANDRINO D	RESILIENZA KV PER TEMPERATURE di		
		FINO A 16 N/mm <sup>2</sup>	OLTRE 16 FINO A 40 N/mm <sup>2</sup>	OLTRE 40 FINO A 63 N/mm <sup>2</sup>	OLTRE 63 FINO A 80 N/mm <sup>2</sup>	OLTRE 80 FINO A 100 N/mm <sup>2</sup>	FINO A 40 %	OLTRE 40 FINO A 63 %	OLTRE 63 FINO A 100 %		PER α = 180°	+ 20 °C J	0 °C J
Fe 320	320 a 510	-	-	-	-	-	18	-	-	3 a	-	-	-
Fe 360 B	360 a 490	235	225	215	205	205	28	27	26	a	27	-	-
Fe 360 C											-	27	-
Fe 360 D											-	-	27
Fe 430 B											27	-	-
Fe 430 C	430 a 560	275	265	255	245	235	24	23	22	2 a	-	27	-
Fe 430 D											-	-	27
Fe 510 B											-	-	-
Fe 510 C											27	-	-
Fe 510 D	510 a 650	355	345	335	325	315	22	21	20	2,5 a	-	27	-
Fe 490	490 a 630	295	285	275	-	-	20	19	18	-	-	-	-
Fe 590	590 a 730	335	325	315	-	-	16	15	14	-	-	-	-
Fe 690	690 a 840	365	355	345	-	-	11	10	9	-	-	-	-

\* I valori indicati nel prospetto per la prova di resilienza su provetta con intaglio a V si riferiscono alla media aritmetica dei risultati ottenuti su tre provette prelevate lato a lato sul medesimo saggio, salvo eventuali prove complementari (vedere 7.6.3). Il valore singolo di ciascuna prova non deve in alcun caso essere minore del 70% del valore prescritto.

\*\* La prova di resilienza viene effettuata su prodotti aventi spessore uguale o maggiore di 10 mm. Previo accordo all'ordinazione, la prova di resilienza può essere effettuata anche per i prodotti aventi spessore da 5 fino a 10 mm, in tal caso la media dei risultati ottenuti su tre provette prelevate lato a lato sul medesimo saggio, salvo eventuali prove complementari (vedere 7.6.3), non deve essere minore di  $\frac{0,07}{2} J$  dove  $J$  è la sezione a fondo intaglio della provetta, espressa in centimetri quadrati. Anche in questo caso il valore singolo di ciascuna prova non deve essere minore del 70% del valore prescritto. Per spessori minori di 5 mm devono essere presi accordi all'ordinazione, con prelievo delle provette secondo UNI 4713.

\*\*\* Per spessori fino a 40 mm; per spessori oltre 40 fino a 100 mm, l'intervallo del carico unitario di rottura è 490 a 630 N/mm<sup>2</sup>.

ACCIAIO	GRADO di DISSODAZIONE (vedere 4.2.1)	COMPOSIZIONE CHIMICA PERCENTUALE							
		ANALISI di COLATA				ANALISI sul PRODOTTO			
		C max.	N max.	P max.	S max.	C max.	N max.	P max.	S max.
Fe 320	-	-	-	0,055	0,055	-	-	0,070	0,070
(Fe 330 B) *	FU	0,17	0,007 **	0,045	0,045	0,22	0,009 **	0,060	0,060
(vedere 4.2.2)	FN	0,17	-	0,045	0,045	0,21	-	0,055	0,055
(Fe 330 C) *	FN	0,15	-	0,040	0,045	0,18	-	0,045	0,050
(Fe 330 D) *	FF *	0,15	-	0,040	0,040	0,17	-	0,045	0,045
Fe 360 B	FU	0,19	0,007 **	0,045	0,045	0,24	0,009 **	0,060	0,060
(vedere 4.2.2)	FN	0,19	-	0,045	0,045	0,23	-	0,055	0,055
Fe 360 C	FN	0,17	-	0,040	0,045	0,20	-	0,045	0,050
Fe 360 D	FF *	0,17	-	0,040	0,040	0,19	-	0,045	0,045
(Fe 410 B) *	FN	0,20	-	0,045	0,045	0,24	-	0,055	0,055
(Fe 410 C) *	FN	0,18	-	0,040	0,045	0,21	-	0,045	0,050
(Fe 410 D) *	FF *	0,18	-	0,040	0,040	0,20	-	0,045	0,045
Fe 430 B	FN	0,21	-	0,045	0,045	0,25	-	0,055	0,055
Fe 430 C	FN	0,19	-	0,040	0,045	0,22	-	0,045	0,050
Fe 430 D	FF *	0,19	-	0,040	0,040	0,21	-	0,045	0,045
Fe 510 B **	FN	0,22	-	0,045	0,045	0,26	-	0,055	0,055
Fe 510 C **	FN	0,20 *	-	0,040	0,045	0,22	-	0,045	0,050
Fe 510 D **	FF **	0,20 *	-	0,040	0,040	0,22	-	0,045	0,045
Fe 510 DD **	FF **	0,20 *	-	0,040	0,040	0,22	-	0,045	0,045
Fe 490	-	-	-	0,050	0,050	-	-	0,060	0,060
Fe 590	-	-	-	0,050	0,050	-	-	0,060	0,060
Fe 690	-	-	-	0,045	0,050	-	-	0,055	0,060

\* Qualità che non figurano nell'EURONORM 25. Esse sono previste soltanto per un periodo transitorio e possono essere fornite, se convenuto all'ordinazione, solo per i nastri.

\*\* Nel caso di acciai elaborati al forno elettrico è ammesso un superamento del valore massimo indicato, e precisamente 0,001% di N per ogni 0,005% di P solo al valore massimo; in questo caso il tenore di N non deve superare lo 0,012% all'analisi di colata.

\*\*\* Per il grado di dissodazione FF (acciai di grado D e DD) è prevista l'aggiunta di elementi destinati a fissare l'azoto, per esempio un tenore di Al solubile minimo di 0,015% su colata (corrispondente di regola a 0,018% minimo di Al totale).

\*\*\*\* Per gli acciai del tipo Fe 510 vale anche la limitazione: Mn < 1,60% e Si < 0,55% su colata (Mn < 1,70% e Si < 0,60% su prodotto). Tuttavia è ammesso un superamento del tenore di Mn fino a 1,70% sulla colata e 1,80% sul prodotto con una riduzione contemporaneamente dello 0,01 % di C per ogni aumento dello 0,05 % di Mn.

\*\*\*\*\* Su richiesta all'ordinazione il tenore di Si può essere limitato a 0,35% su analisi di colata (0,40% su prodotto).

\*\*\*\*\* Per i prodotti del grado qualitativo C aventi spessore maggiore di 16 mm e per i prodotti di grado qualitativo D e DD aventi spessore maggiore di 30 mm è ammesso un tenore massimo di C dello 0,22% nell'analisi di colata e dello 0,24% nell'analisi su prodotto.



# PIATTI

UNI 6014 - 74 - EU 58

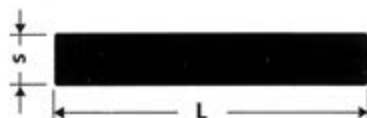


L mm	s mm																
	3	4	5	6	7	8	10	12	15	18	20	25	30	35	40	50	60
peso kg/m																	
10	0.236	0.314	0.393	0.471													
12	0.283	0.377	0.471	0.565		0.754											
14	0.330	0.440	0.550	0.659		0.879											
15	0.351	0.468	0.585	0.702		0.936	1.17										
16	0.377	0.502	0.628	0.754		1.00	1.26										
18	0.424	0.565	0.707	0.848		1.13	1.41										
20	0.471	0.628	0.785	0.942	1.10	1.26	1.57	1.88	2.36								
22	0.518	0.691	0.864	1.04	1.21	1.38	1.73	2.07	2.59								
25	0.589	0.785	0.981	1.18	1.37	1.57	1.96	2.36	2.94								
30	0.707	0.942	1.18	1.41	1.64	1.88	2.36	2.83	3.53	4.24	4.71						
35	0.824*	1.10	1.37	1.65	1.92	2.20	2.75	3.30	4.12	4.94	5.50	6.87					
40	0.942*	1.26	1.57	1.88	2.19	2.51	3.14	3.77	4.71	5.65	6.28	7.85	9.42				
45	1.06*	1.41	1.77	2.12	2.47	2.83	3.53	4.24	5.30	6.36	7.07	8.83	10.60*				
50	1.18*	1.57	1.96	2.36	2.75	3.14	3.93	4.71	5.89	7.06	7.85	9.81	11.80	13.74*	15.70*		
55		1.73	2.16	2.59		3.45	4.32	5.18	6.48	7.77	8.64	10.80	13.00				
60	1.41*	1.88	2.36	2.83	3.30	3.77	4.71	5.65	7.07	8.48	9.42	11.80	14.10		18.80	23.60	
65		2.04	2.55	3.06		4.08	5.10	6.12	7.65	9.18	10.20	12.80	15.30		20.40		
70	1.65*	2.20	2.75	3.30	3.85	4.40	5.50	6.59	8.24	9.89	11.00	13.70	16.50*		22.00	27.50	33.00
75		2.36	2.94	3.53		4.71	5.89	7.07	8.83	10.60	11.80	14.70	17.70		23.60	29.40	
80	1.88*	2.51	3.14	3.77		5.02	6.28	7.54	9.42	11.30	12.60	15.70	18.80		25.10	31.40	37.70
90	2.12*	2.83	3.53	4.24		5.65	7.07	8.48	10.60	12.72	14.10	17.70	21.20		28.30	35.30	42.40
100	2.35*	3.14*	3.93	4.71		6.28	7.85	9.42	11.80	14.13	15.70	19.60	23.60		31.40	39.25	47.10
110				5.18		6.91	8.64	10.40	13.00		17.30	21.60	25.90		34.50	43.20	51.80
120	2.82	3.77	4.71	5.65		7.54	9.42	11.30	14.10		18.80	23.60	28.30		37.70	47.10	56.50
130				6.12		8.16	10.20	12.20	15.30		20.40	25.50	30.60		40.80	51.00	61.20
140	3.30	4.40	5.50	6.59		8.79	11.00	13.20	16.50		22.00	27.50	33.00		44.00	55.00	66.00
150	3.53	4.71*	5.89*	7.06*		9.42	11.80	14.10	17.70		23.60	29.40	35.30		47.10	58.90	70.60

\* non unificato

# LARGHI PIATTI

UNI 6557 - EU 91

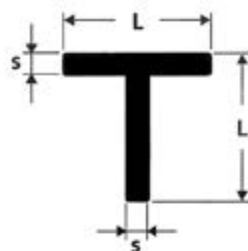


L mm	s mm																
	3	4	5	6	7	8	10	12	15	18	20	25	30	35	40	50	60
peso kg/m																	
160			6.28	7.54		10.00	12.60	15.10	18.80		25.10	31.40	37.70	44.00	50.20	62.80	75.40
170			6.67	8.01		10.70	13.30	16.00	20.00		26.70	33.40	40.30	46.70	53.40	66.70	80.10
180			7.07	8.48		11.30	14.10	17.00	21.20		28.30	35.30	42.20	49.50	56.50	70.70	84.80
200			7.85	9.42		12.58	15.70	18.30	23.60		31.40	39.20	47.10	55.00	62.80	78.50	94.20
220			8.64	10.34		13.80	17.30	20.70	25.90		34.50	43.20	51.80	60.40	69.10	86.40	103.60
250			9.81	11.75		15.72	19.60	23.60	29.40		39.30	49.10	58.90	68.70	78.50	98.12	117.80
300			11.77	14.13		18.86	23.60	28.30	35.30		47.10	58.90	70.65	82.42	94.20	117.75	141.30

## FERRO A T SPIGOLI VIVI

UNI 5681 - 73

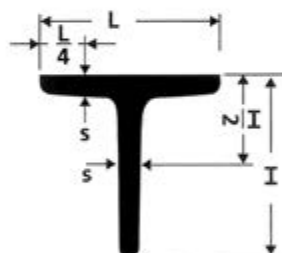
L mm mm	s mm											
	4	4.5	5	5.5	6	6.5	7	8	9	10	11	
peso kg/m												
20	1.13											
25		1.61										
30			2.16									
35				2.78								
40					3.49							
45						4.26						
50							5.11					
60								7.03				
70									9.26			
80										11.90		
100											16.30	



## FERRO A T SPIGOLI TONDI

UNI 5785-EU55

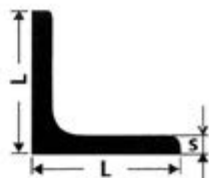
L mm	H mm	s mm					
		5.5	7	8	9	11	13
peso kg/m							
	30	3.65					
60	60		6.23				
70	70			8.23			
80	80				10.70		
100	100					16.40	
120	120						23.20



non unificato produzione non corrente

# ANGOLARI A SPIGOLI TONDI

UNI 5783-50 56

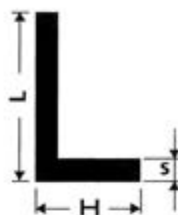


L mm	s mm																			
	3	4	5	6	6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
peso kg/m																				
15	0.63																			
20	0.88	1.14																		
25	1.12	1.46	1.78																	
30	1.36	1.78	2.18	2.58																
35	1.60	2.09	2.57	3.04																
40	1.84	2.42	2.97	3.52																
45	2.09	2.74	3.38	4.00		4.60														
50	2.35	3.06	3.77	4.47		5.15	5.82	6.17												
55		3.35	4.16	4.95		5.70	6.46													
60		3.70	4.57	5.42		6.24	7.09		8.69											
65		4.02	4.96	5.91		6.83	7.73													
70		4.35	5.37	6.38		7.38	8.36	9.34	10.30	11.20										
75		4.72	5.78	6.87		7.94	9.03		11.10		13.10									
80		5.02	6.04	7.34		8.49	9.63		11.90		14.00									
90			6.87	8.20		9.58	10.90	12.20	13.40	14.70	15.90			19.50						
100			7.65	9.22		10.80	12.20	13.60	15.10	16.40	17.80		20.60		24.20					
110				11.20		13.00	13.50		16.60		19.70		22.80							
120				11.20		13.00	14.75		18.20	19.90	21.60	23.30	25.00	26.60			31.50			
130					12.90	13.90	15.95	17.85	19.80	21.60	23.60		27.20		30.90					
140													27.50		31.40		35.30			
150												27.3		31.60	33.80	35.90		40.10		
160														36.20		40.70		45.10		
180																43.50		48.60		53.70
200																48.50		54.30		59.90

## ELLE A SPIGOLI VIVI

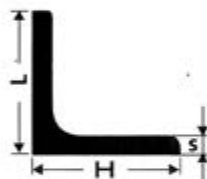
UNI 6762 - 70

L mm	H mm	s mm						
		4	4.5	5	5.5	6	6.5	7
		peso kg/m						
20	12	0.88						
25	15		1.25					
30	17.5			1.67				
35	20				2.14			
40	22					2.64		
45	30						3.50	
50	30					3.49		4.01



## ELLE A SPIGOLI TONDI

UNI 5784 - EU 57



L mm	H mm	s mm													
		4	5	6	7	8	9	10	11	12	14	15	16		
		peso kg/m													
30	20	1.46	1.78												
35	20	1.61	1.97												
40	20	1.77	2.17												
	25	1.93	2.37												
45	30	2.25	2.76	3.27											
50	30		2.96	3.51											
	40		3.37	3.99	4.59										
60	40		3.76	4.46	5.14										
	50			5.65	6.53		8.22								
80	40			5.41	6.25	7.07									
	60			6.37	7.36	8.34		10.20							
100	50			6.85		8.99		11.10							
	65				8.77		11.10	12.30	13.40						
110	75					11.12		13.73							
	60					10.90		13.40							
120	80					12.20		15.00		17.80	20.50				
130	65					11.80		14.60		17.30					
150	100							19.30		22.60	26.10				
160	80							16.40		21.60	25.00				
	90									26.30		32.50			
200	100									27.30	31.60			35.90	





## TONDI

UNI 6012 - EU 60

## QUADRI

UNI 6013 - EU 59



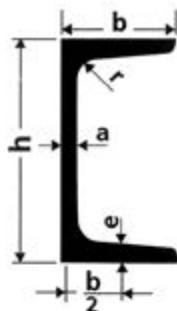
D mm	peso kg/m
5	0.154
6	0.222
7	0.302
8	0.395
9	0.499
10	0.617
11	0.746
12	0.888
13	1.04
14	1.21
15	1.39
16	1.58
17	1.78
18	2.00
19	2.23
20	2.47
21	2.72
22	2.96
23	3.26
24	3.55
25	3.85
26	4.17
27	4.49
28	4.83
30	5.55
34	7.13
35	7.55
36	7.99
37	8.44
38	8.90
40	9.86
42	10.90
45	12.50
48	14.20
50	15.40
52	16.70

D mm	peso kg/m
53	17.30
55	18.70
58	20.70
60	22.20
63	24.50
65	26.00
68	28.50
70	30.20
73	32.90
75	34.70
78	37.50
80	39.50
83	42.50
85	44.50
88	47.70
90	49.90
95	55.60
100	61.60
110	74.60
120	88.80
125	96.30
130	104
135	112
140	121
145	130
150	139
155	148
160	158
170	178
180	200
190	223
200	247
220	289
230	326.19
240	355.16
250	385.38

L mm	peso kg/m
5	0.196
6	0.283
7	0.385
8	0.502
9	0.636
10	0.785
11	0.950
12	1.13
13	1.33
14	1.54
15	1.77
16	2.01
18	2.54
19	2.83
20	3.14
22	3.80
25	4.91
26	5.31
28	6.15
30	7.07
32	8.04
35	9.62
38	11.3
40	12.6
45	15.9
50	19.6
55	23.7
60	28.3
65	33.2
70	38.5
80	50.2
90	63.6
100	76.5
110	95.0
120	113
130	133
140	154
150	177

## FERRO $\sqsubset$ SERIE SPECIALE

UNI 5786 - EU 54

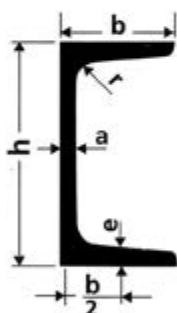


h	b	a	e	r	sezione	peso	momenti di inerzia		moduli di resistenza		raggi di inerzia	
							Jx	Jy	Wx	Wy	ix	iy
mm	mm	mm	mm	mm	cm <sup>2</sup>	kg/m	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm	cm
<b>*25</b>	<b>12</b>	4	4	4	1.68	1.32						
<b>30</b>	<b>15</b>	4	4.5	4.5	2.21	1.74	2.53	0.38	1.69	0.39	1.07	0.42
<b>30</b>	<b>33</b>	5	7	7	5.44	4.27	6.39	5.33	4.26	2.68	1.08	0.99
<b>*35</b>	<b>17</b>	5	5.5	5.5	3.27	2.56						
<b>40</b>	<b>20</b>	5	5.5	5	3.66	2.87	7.58	1.14	3.79	0.86	1.44	0.56
<b>40</b>	<b>35</b>	5	7	7	6.21	4.87	14.10	6.68	7.05	3.08	1.50	1.04
<b>50</b>	<b>25</b>	5	6	6	4.92	3.86	16.80	2.49	6.73	1.48	1.85	0.71
<b>50</b>	<b>38</b>	5	7	7	7.12	5.59	26.40	9.12	10.60	3.75	1.92	1.13
<b>60</b>	<b>30</b>	6	6	6	6.46	5.07	31.60	4.51	10.50	2.16	2.21	0.84
<b>65</b>	<b>42</b>	5.5	7.5	7.5	9.03	7.09	57.50	14.10	10.70	5.03	2.52	1.25

\* non unificato

## FERRO $\sqsubset$ SERIE NORMALE

UNI 5680 - 73 / UNI 7210 - 73



h	b	a	e	r	sezione	peso	momenti di inerzia		moduli di resistenza		raggi di inerzia	
							Jx	Jy	Wx	Wy	ix	iy
mm	mm	mm	mm	mm	cm <sup>2</sup>	kg/m	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm	cm
<b>80</b>	45	6	8	8	11.0	<b>8.65</b>	106	19.4	26.5	6.35	3.10	1.33
<b>100</b>	50	6	8.5	8.5	13.5	<b>10.6</b>	205	29.1	41.1	8.45	3.91	1.47
<b>120</b>	55	7	9	9	17.0	<b>13.3</b>	364	43.1	60.7	11.1	4.63	1.59
<b>140</b>	60	7	10	10	20.4	<b>16.0</b>	605	62.5	86.4	14.7	5.45	1.75
<b>160</b>	65	7.5	10.5	10.5	24.0	<b>18.9</b>	925	85.1	116	18.2	6.21	1.88
<b>180</b>	70	8	11	11	28.0	<b>22.0</b>	1354	114	150	22.4	6.96	2.01
<b>200</b>	75	8.5	11.5	11.5	32.2	<b>25.3</b>	1911	148	191	26.9	7.71	2.14
<b>220</b>	80	9	12.5	12.5	37.4	<b>29.4</b>	2691	196	245	33.5	8.48	2.29
<b>240</b>	85	9.5	13	13	42.3	<b>33.2</b>	3599	247	300	39.5	9.22	2.42
<b>260</b>	90	10	14	14	48.3	<b>37.9</b>	4824	317	371	47.8	10.0	2.56
<b>280</b>	95	10	15	15	53.4	<b>41.9</b>	6276	398	448	57.2	10.8	2.73
<b>300</b>	100	10	16	16	58.8	<b>46.1</b>	8028	493	535	67.6	11.7	2.90

## TRAVE I NP SERIE NORMALE



### UNI 5679 - 73 / UNI 7210 - 73

su richiesta le travi IPN si forniscono tagliate a misura

h	b	a	e	r	sezione	peso	momenti di inerzia		moduli di resistenza		raggi di inerzia	
							Jx	Jy	Wx	Wy	ix	iy
mm	mm	mm	mm	mm	cm <sup>2</sup>	kg/m	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm	cm
80	42	3.9	5.9	3.9	7.57	5.94	77.7	6.28	19.4	2.99	3.20	0.91
100	50	4.5	6.8	4.5	10.6	8.34	170	12.1	34.1	4.86	4.00	1.07
120	58	5.1	7.7	5.1	14.2	11.1	327	21.4	54.5	7.38	4.80	1.23
140	66	5.7	8.6	5.7	18.2	14.3	572	35.1	81.8	10.6	5.60	1.39
160	74	6.3	9.5	6.3	22.8	17.9	934	54.6	117	14.8	6.40	1.55
180	82	6.9	10.4	6.9	27.9	21.9	1444	81.2	161	19.8	7.20	1.71
200	90	7.5	11.3	7.5	33.4	26.2	2138	116	214	25.9	8.00	1.87
220	98	8.1	12.2	8.1	39.5	31.0	3055	162	278	33.1	8.79	2.03
240	106	8.7	13.1	8.7	46.1	36.2	4239	220	353	41.5	9.59	2.19
260	113	9.4	14.1	9.4	53.3	41.9	5735	287	441	50.9	10.4	2.32
280	119	10.1	15.2	10.1	61.0	47.9	7575	363	541	61.0	11.1	2.44
300	125	10.8	16.2	10.8	69.0	54.2	9785	450	652	71.9	11.9	2.55
320	131	11.5	17.3	11.5	77.7	61.0	12490	554	781	84.6	12.7	2.67
340	137	12.2	18.3	12.2	86.7	68.4	15670	674	923	98.4	13.5	2.8
360	143	13	19.5	13	97.0	76.1	19580	816	1087	114	14.2	2.90
400	155	14.4	21.6	14.4	118	92.5	29210	1158	1461	149	15.7	3.13
450	170	16.2	24.3	16.2	147	115	45790	1722	2035	203	17.7	3.42
500	185	18	27	18	179	141	68650	2474	2746	268	19.6	3.71
600	215	21.6	32.4	21.6	254	199	138800	4679	4626	435	23.4	4.29

## TRAVE I PE

### UNI 5398

su richiesta le travi IPE si forniscono tagliate a misura



h	b	a	e	r	sezione	peso	momenti di inerzia		moduli di resistenza		raggi di inerzia	
							Jx	Jy	Wx	Wy	ix	iy
mm	mm	mm	mm	mm	cm <sup>2</sup>	kg/m	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm	cm
80	46	3.8	5.2	5	7.5	6.0	80.1	8.49	20.0	3.69	3.24	1.05
100	55	4.1	5.7	7	10.3	8.1	171	15.9	34.2	5.79	4.07	1.24
120	64	4.4	6.3	7	13.2	10.4	318	27.7	53	8.65	4.90	1.45
140	73	4.7	6.9	7	16.4	12.9	541	44.9	77.3	12.3	5.74	1.65
160	82	5.0	7.4	9	20.1	15.8	869	68.3	109	16.7	6.58	1.84
180	91	5.3	8.0	9	23.9	18.8	1320	101	146	22.2	7.42	2.05
200	100	5.6	8.5	12	28.5	22.4	1940	142	194	28.5	8.26	2.24
220	110	5.9	9.2	12	33.4	26.2	2770	205	252	37.3	9.11	2.48
240	120	6.2	9.8	15	39.1	30.7	3890	284	324	47.3	9.97	2.69
270	135	6.6	10.2	15	45.9	36.1	5790	420	429	62.2	11.2	3.02
300	150	7.1	10.7	15	53.8	42.2	8360	604	557	80.5	12.5	3.35
330	160	7.5	11.5	18	62.6	49.1	11770	788	713	98.5	13.7	3.55
360	170	8.0	12.7	18	72.7	57.1	16270	1040	904	123	15.0	3.79
400	180	8.6	13.5	21	84.5	66.3	23130	1320	1160	146	16.5	3.95
450	190	9.4	14.6	21	98.8	77.6	33740	1680	1500	176	18.5	4.12
500	200	10.2	16.0	21	116	90.7	48200	2140	1930	214	20.4	4.31
550	210	11.1	17.2	24	134	106	67120	2670	2440	254	22.3	4.45

## TRAVE INP SOLLECITATE A FLESSIONE

CARICO TOTALE IN KG UNIFORMEMENTE DISTRIBUITO  
ACCIAIO CON CARICO DI SICUREZZA OK = 16 KG / MM<sup>2</sup>

mm	carichi massimi in kg riferiti a distanze degli appoggi di m:											
	2	2.5	3	3.5	4	4.5	5	6	7	8	9	10
80	1410	1122	930	791								
100	2166	1725	1430	1218								
120	3466	2682	2292	1954	1700							
140	5202	4147	3441	2934	2552	2254	2012					
160	7452	5945	4938	4216	3672	3247	2906					
180	10260	8188	6803	5811	5064	4480	4012	3304				
200	13644	10892	9050	7734	6743	5968	5326	4408	3731			
220	17730	14156	11766	10057	8772	7766	6962	5744	4868			
240		17984	14950	12782	11151	9876	8856	7312	6203	5338		
260		20951	17320	14710	12780	11340	9990	8185	6660	5726		
280			22640	19235	16751	14840	13500	10827	9110	7618		
300			27651	23654	20647	18299	16420	13582	11546	9998	8783	
320			29780	25425	22100	19575	17607	14466	12273	10615	9200	8135
340			37652	32470	28115	25050	22690	18511	17369	13609	11950	10666
360			46143	39486	34480	30572	27447	22729	19348	16783	14772	13153
380			54212	46314	40089	36124	31906	26691	22823	19815	17300	15457
400			62049	53105	46382	41135	36940	30608	26075	22636	19943	17776
425				63712	55485	49270	44429	36837	31050	27118	23511	20348
450				74018	64660	57358	51521	42717	36415	31640	27903	24898
475					76545	67288	60436	50230	42990	37106	32316	28999
500					87308	77462	69593	57726	49237	42808	37779	33739
550					114472	101625	91279	75749	64645	56240	49670	44394
600						130668	117431	97479	83217	72424	63991	57223

INP  
IPE



## TRAVI IPE SOLLECITATE A FLESSIONE

CARICO TOTALE IN KG UNIFORMEMENTE DISTRIBUITO  
ACCIAIO CON CARICO DI SICUREZZA  $\bar{\sigma} = 16 \text{ KG} / \text{MM}^2$

mm	carichi massimi in kg riferiti a distanze degli appoggi di m:											
	2	2.5	3	3.5	4	4.5	5	6	7	8	9	10
80	1268	1009	835	710	620	560	450	350				
100	2173	1731	1435	1222	1062	936	835	750	670	580		
120	3371	2688	2230	1902	1654	1461	1305	1068	896	750		
140	4921	3925	3259	2782	2482	2141	1914	1572	1323	1134	983	
160	6944	5541	4603	3931	3425	3029	2711	2230	1882	1618	1408	1237
180	9306	7428	6173	5274	4597	4068	3644	3002	2538	2186	1907	1681
200	12371	9877	8210	7016	6118	5417	4854	4004	3391	2925	2557	2259
220		12837	10673	9124	7959	7050	6320	5219	4425	3822	3348	2964
240		16518	13732	11742	10265	9078	8141	6728	5710	4938	4332	3840
270		21274	18196	15563	13584	12040	10802	8935	7592	6575	5776	5130
300			23630	20222	17555	15654	14048	11629	9890	8574	7542	6708
330			30214	25903	22620	20060	18007	14916	12694	11015	9698	8635
360				32861	28700	25457	22857	18943	16130	14007	12343	11000
400					36855	32697	29364	24349	20747	18030	15091	14185
450						42317	38012	31534	26885	23379	20635	18424
500							48954	40629	34656	30154	26632	23797
550								51417	43875	38192	33748	30172
600								64761	55283	48144	42564	38076

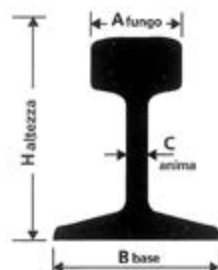
## TRAVE IPE SOLLECITATE A COMPRESIONE

PILASTRI  
ACCIAIO CON CARICO DI SICUREZZA  $\bar{\sigma} = 16 \text{ KG} / \text{MM}^2$

mm	carichi massimi in kg riferiti a distanze degli appoggi di m:											
	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	8
80	3574	2272	1583	1166								
100	6618	4291	2953	2177	1671							
120	10057	7489	5201	3784	2937	2323	1884					
140	14183	11359	8437	6116	4702	3727	3023	2503				
160	18917	15611	12711	9403	7210	5695	4614	3810	3203	2732		
180	24050	20670	17225	13755	10563	8367	6768	5607	4709	4021	3466	
200	30000	26205	22463	19079	15099	11875	9702	7985	6745	5728	4924	3781
220		32987	28886	24855	21461	17183	13916	11517	9698	8259	7059	5419
240		40623	35954	31595	27681	23696	19190	15878	13310	11353	9790	7483
270		50301	45614	41258	36537	32495	28355	23167	19689	16690	14513	11110
300		61049	56631	51855	46782	42403	38088	33756	28503	24454	20944	16000
330			68136	62600	57234	51896	46586	41907	36688	31596	27217	20780
360			81342	75532	69652	63912	58452	52396	47477	41841	36236	27498
400			95886	89536	83456	76384	70051	63474	58528	53019	45581	34666
450				106093	99421	92444	85448	78646	71207	65593	57904	44280
500				128000	120519	111807	104269	96165	88380	80346	73359	56932
550					141052	132345	122514	112842	105615	96576	88962	70065
600					167516	156981	147692	137142	128000	117183	108995	89784

## ROTAIA

### TIPO DECAUVILLE NORMA DIN 5901



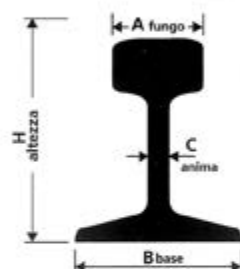
FORATURA DELLE ESTREMITÀ DELLE ROTAIE

sigla	misure principali				momento d'inerzia $J_x \text{ cm}^4$	modulo di resistenza $W_x \text{ cm}^3$	resistenza alla trazione $\text{Kg/mm}^2$	peso $\text{Kg/m}$	foratura				
	H	A	B	C					d	h	X	Y	Z
S10	70	32	58	6	85,7	24,4	55	10	16	30	75	35	5
S14	80	38	70	9	154	36,9	55	14	16	35,8	90	35	5
S18	93	43	82	10	278	58,1	55	18,3	20	41,4	90	35	5
S20	100	44	82	10	346	66,8	55	19,8	20	44,6	90	35	5



## ROTAIA

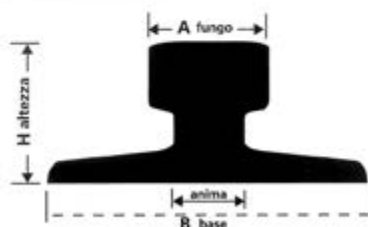
### TIPO VIGNOLA NORMA UNI 3141



sigla	misure principali				momento d'inerzia $J_x \text{ cm}^4$	modulo di resistenza $W_x \text{ cm}^3$	resistenza alla trazione $\text{Kg/mm}^2$	peso $\text{Kg/m}$	foratura				
	H	A	B	C					d	h	K	X	Y
25	115	50	90	10	550	85	70	25,21	28	50	65	52	110
27	120	50	95	11	680	96	70	27,34	28	52	68	52	110
36 UNI 3141	130	60	100	14	1018	154	70	36,188	29	57	73	52	150
46 UNI 3141	145	65	135	14	1682	220	70	46,786	29	62,5	82,5	52	110
50 UNI 3141	148	67	135	14	1844	242	70	49,850	29	62,5	85,5	47	165
60 UNI 3141	172	72	150	16,5	3055	335,5	70	60,340	29	76,3	95,7	47	165

## ROTAIA

### TIPO BURBACK NORMA DIN 536

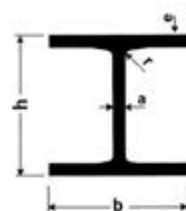


profilo	sigla	misure principali				momento d'inerzia $J_x \text{ cm}^4$	modulo di resistenza $W_x \text{ cm}^3$	resistenza alla trazione $\text{Kg/mm}^2$	peso $\text{Kg/m}$
		H	A	B	C				
1	A45	55	45	125	24	90	27	70	22,1
2	A55	65	55	150	31	178	45,6	70	31,8
3	A65	75	65	175	38	319	71,4	70	43,1
4	A75	85	75	200	45	531	105,4	70	56,2
5	A100	95	100	200	60	858	162,2	70	74,3
6	A120	105	120	220	72	1361	235,1	70	100

# TRAVI HE

UNI 5397

- (\*) A = serie leggera  
 B = serie normale  
 M = serie rinforzata

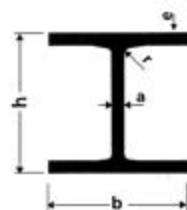


designazione abbreviata (*)	sezione cm <sup>2</sup>	dimensioni						caratteristiche riferite asse neutro			
		h mm	b mm	a mm	e mm	r mm	peso kg/m	ly cm <sup>4</sup>	Ix Vx cm <sup>3</sup>	ly cm <sup>4</sup>	Iy Vy cm <sup>3</sup>
HE 100 A	21.2	96	100	5	8	12	16.7	349	73	134	27
100 B	26.0	100	100	6	10	12	20.4	450	90	167	33
100 M	53.2	120	106	12	20	12	41.8	1143	190	399	75
HE 120 A	25.3	114	120	5	8	12	19.9	606	106	231	38
120 B	34.0	120	120	6.5	11	12	26.7	864	144	318	53
120 M	66.4	140	126	12.5	21	12	52.1	2018	288	703	112
HE 140 A	31.4	133	140	5.5	8.5	12	24.7	1033	155	389	56
140 B	43.0	140	140	7	12	12	33.7	1509	216	550	79
140 M	80.6	160	146	13	22	12	63.2	3291	411	1144	157
HE 160 A	38.8	152	160	6	9	15	30.4	1673	220	616	77
160 B	54.3	160	160	8	13	15	42.6	2492	311	889	111
160 M	97.1	180	166	14	23	15	76.2	5098	566	1759	212
HE 180 A	45.3	171	180	6	9.5	15	35.5	2510	294	925	103
180 B	65.3	180	180	8.5	14	15	51.2	3831	426	1363	151
180 M	113.3	200	186	14.5	24	15	88.9	7483	748	2580	277
HE 200 A	53.3	190	200	6.5	10	18	42.3	3692	389	1336	134
200 B	78.1	200	200	9	15	18	61.3	5696	570	2003	200
200 M	131.3	220	206	15	25	18	103	10642	967	3651	354
HE 220 A	64.3	210	220	7	11	18	50.5	5410	515	1955	178
220 B	91.0	220	220	9.5	16	18	71.5	8091	736	2843	258
220 M	149.4	240	226	15.5	26	18	117	14605	1220	5012	444
HE 240 A	76.8	230	240	7.5	12	21	60.3	7763	675	2769	231
240 B	106.0	240	240	10	17	21	83.2	11259	938	3923	327
240 M	199.6	270	248	18	32	21	157	24289	1800	8153	657
HE 260 A	86.8	250	260	7.5	12.5	24	68.2	10455	836	3668	282
260 B	118.4	260	260	10	17.5	24	93.0	14919	1150	5135	395
260 M	219.6	290	268	18	32.5	24	172	31307	2160	10449	780
HE 280 A	97.3	270	280	8	13	24	76.4	13673	1010	4763	340
280 B	131.4	280	280	10.5	18	24	103	19270	1380	6595	471
280 M	240.2	310	288	18.5	33	24	189	39547	2550	13163	914

# TRAVI HE

UNI 5397

- (\*) A = serie leggera  
 B = serie normale  
 M = serie rinforzata



designazione abbreviata (*)	sezione cm <sup>2</sup>	dimensioni						caratteristiche riferite asse neutro			
		h mm	b mm	a mm	e mm	r mm	peso kg/m	ly cm <sup>4</sup>	ix Vx cm <sup>2</sup>	ly cm <sup>4</sup>	ly Vy cm <sup>2</sup>
HE 300 A	112.5	290	300	8.5	14	27	88.3	18263	1260	6310	421
300 B	149.5	300	300	11	19	27	117	25166	1680	8563	571
300 M	303.1	340	310	21	39	27	238	59201	3480	19403	1250
HE 320 A	124.4	310	300	9	15.5	27	97.6	22928	1480	6985	466
320 B	161.3	320	300	11.5	20.5	27	127	30823	1930	9239	616
320 M	312.0	359	309	21	40	27	245	68135	3800	19709	1280
HE 340 A	133.5	330	300	9.5	16.5	27	105	27693	1680	7436	496
340 B	170.9	340	300	12	21.5	27	134	36656	2160	9690	646
340 M	315.8	377	309	21	40	27	248	76372	4050	19711	1280
HE 360 A	142.8	350	300	10	17.5	27	112	33090	1890	7887	526
360 B	180.6	360	300	12.5	22.5	27	142	43193	2400	10141	676
360 M	318.8	395	308	21	40	27	250	84867	4300	19522	1270
HE 400 A	159.0	390	300	11	19	27	125	45069	2310	8564	571
400 B	197.8	400	300	13.5	24	27	155	57680	2880	10819	721
400 M	325.8	432	307	21	40	27	256	104119	4820	19335	1260
HE 450 A	178.0	440	300	11.5	21	27	140	63722	2900	9465	631
450 B	218.0	450	300	14	26	27	171	79887	3550	11721	781
450 M	335.4	478	307	21	40	27	263	131484	5500	19339	1260
HE 500 A	197.5	490	300	12	23	27	155	86975	3550	10367	691
500 B	238.6	500	300	14.5	28	27	187	107176	4290	12624	842
500 M	344.3	524	306	21	40	27	270	161929	6180	19155	1250
HE 550 A	211.8	540	300	12.5	24	27	166	111932	4150	10819	721
550 B	254.1	550	300	15	29	27	199	136691	4970	13077	872
550 M	354.4	572	306	21	40	27	278	197984	6920	19158	1250
HE 600 A	226.5	590	300	13	25	27	178	141208	4790	11271	751
600 B	270.0	600	300	15.5	30	27	212	171041	5700	13530	902
600 M	363.7	620	305	21	40	27	285	237447	7660	18975	1240

HE



# TRAVI HE SOLLECITATE A FLESSIONE

mm	carichi massimi in kg riferiti a distanze degli appoggi di m:												
	2	2.5	3	3.5	4	4.5	5	6	7	8	9	10	
100	A	4638	3695	3064	2611	2269	2001	1785	1457	1218	1034		
	B	5719	4557	3779	3220	2798	2469	2202	1798	1503	1277		
	M	12076	9623	7981	6802	5913	5216	4655	3803	3182	2706		
120	A	6744	5377	4463	3807	3324	2926	2614	2142	1799	1537	1328	
	B	9163	7306	6064	5173	4501	4083	3553	2912	2446	2090	1808	
	M	18328	14615	12132	10350	9007	7957	7112	5831	4802	4191	3627	
140	A	9881	7882	6546	5588	4866	4302	3848	3162	2664	2285	1984	1739
	B	13757	10973	9115	7781	6777	5992	5361	4406	3714	3186	2769	2428
	M	26178	20885	17346	14810	12899	11406	10206	8389	7073	6070	5276	4629
160	A	14079	11188	9295	7939	6918	6121	5480	4510	3810	3277	2855	2512
	B	19819	15817	13141	11225	9782	8655	7749	6379	5389	4635	4039	3555
	M	36592	28804	23934	20444	17817	15756	14117	11624	9822	8451	7368	6487
180	A	18745	14964	12438	10635	9266	8212	7295	6059	5128	4420	3862	3408
	B	27162	21683	18022	15387	13427	11887	10650	8781	7431	6406	5598	4941
	M	47694	38075	31648	27044	23580	20876	18704	15424	13055	11257	9838	8685
200	A	24811	19811	16470	14077	12278	10874	9746	8044	6815	5884	5150	4554
	B	36357	29031	24136	20625	17995	15929	14286	11792	9994	8630	7555	6683
	M	61677	49252	40950	35004	30532	27042	24240	20011	16961	14648	12826	11348
220	A	32859	26242	21822	18658	16278	14422	12932	10684	9064	7836	6870	6087
	B	46961	37504	31188	26666	23266	20613	18484	15272	12958	11204	9824	8706
	M	77846	62172	51702	44208	38572	34176	30647	25325	21490	18584	16298	14446
240	A	43079	34409	28619	24475	21359	18928	16979	14038	11921	10318	9057	8037
	B	59866	47818	39772	34013	29683	26306	23630	19511	16570	14342	12591	11174
	M	114886	91768	76329	65279	56972	50494	45295	37458	31815	27544	24187	21470
260	A	53578	42633	35465	30335	26479	23743	21061	17425	14809	12830	11276	10109
	B	73414	58648	48787	41732	36428	32293	28975	23975	20378	17656	15519	13790
	M	137896	110162	91644	78392	68432	60666	54436	45048	38293	33184	29172	25928
280	A	64487	51521	42864	36670	32014	28385	25474	21088	17933	15549	13677	12164
	B	88114	70398	58571	50108	43748	38790	34813	28822	24513	21256	18700	16634
	M	162822	130088	108233	92596	80844	71683	64335	53266	45306	39288	34566	30750
300	A	80463	64291	53495	45771	39967	35443	31815	26350	22422	19454	17125	15245
	B	10786	85724	71329	61031	53292	47260	42423	35138	29901	25944	22840	20334
	M	222244	177581	147766	126436	110398	97917	87898	72805	61968	53776	47351	42164
320	A	94525	75532	62854	53784	46969	41659	37400	30988	26380	22899	20170	17968
	B	123266	98498		70138	61252	54326	48773	40411	34402	29864	26306	23434
	M	242860	193948	81966	138114	120620	106986	96055	79596	67771	58840	51839	46190
340	A				61073	53340	47314	42483	35210	29985	26040	22948	20454
	B			161398	78525	68584	60387	54586	45276	38559	33488	29514	26308
	M			71365	147246	128608	114084	102440	84912	72321	62816	55368	49360
360	A			91758	68728	60032	53256	47824	39648	33770	29344	25872	23072
	B			172056	87275	76232	67628	60730	50348	42892	37264	32855	29300
	M			80304	156382	136600	121186	108830	90233	76879	66800	58906	52540
400	A			101974	84043	73420	65144	58511	48530	41365	35960	31728	28318
	B			182716	104783	91540	81222	72953	60510	51578	44840	39565	35314
	M			98185	175378	153216	135950	122112	101291	86345	75072	66247	59136
450	A			122415		92240	81859	73540	61027	52049	45280	39984	35720
	B			204885		112916	100208	90025	74707	63771	55432	48950	43730
	M			174949		155261	139485	115755	98730	85896	75855	67770	
500	A			112980		100280	90105	74803	63829	55560	49094	43890	
	B					136532	121141	108889	90398	77137	67144	59330	53042
	M					196680	174572	156858	130220	111116	96720	85463	76404
600	A					152568	135448	121734	101119	86343	75216	66522	59532
	B					181552	161179	144860	120328	102745	89504	79159	70840
	M					243980	216602	194671	161703	138074	120820	106577	95198

acciaio con carico di sicurezza  $s = 16 \text{ kg/mm}^2$  - carico totale in kg uniformemente distribuito

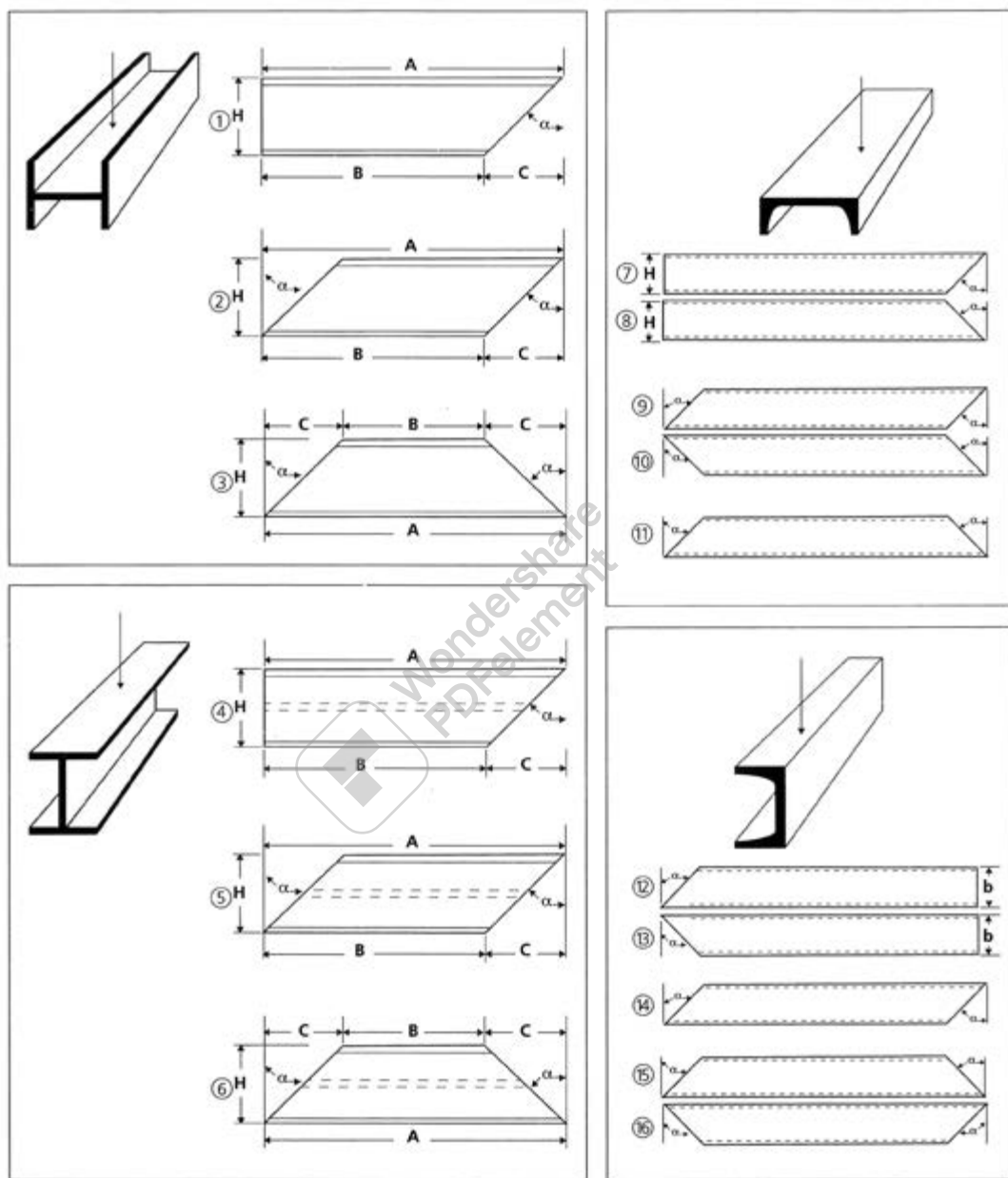
# TRAVI HE SOLLECITATE A COMPRESSIONE

pilastri acciaio con carico di sicurezza  $s = 16 \text{ kg/mm}^2$

mm	carichi massimi in kg riferiti alle lunghezze dei pilastri in m:														
	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	8			
100	A	23555	21068	18434	15924	13732	11084	9093	7521	6304					
	B	29090	26000	22857	19809	16979	13774	11304	9327	7834					
	M	61237	55633	49777	44109	38342	33380	26851	22166	18873					
120	A	29985	27726	25142	22741	20139	17911	15629	12769	10852	9200				
	B	40296	37517	34000	30734	27336	24285	21501	17770	15027	12680				
	M	79879	74816	68987	62863	56812	50590	44827	39494	33096	28105				
140	A	38646	36405	33718	31304	28384	26031	23367	21020	18402	15651	13469			
	B	53333	50218	46802	43270	39540	35833	32300	29029	26060	22122	19005			
	M	100750	95525	89555	83740	77221	70086	64159	58090	52636	45730	39558			
160	A	49269	46676	44028	41112	38559	35474	32333	29561	26874	24537	21333			
	B	68952	65323	61617	57920	54300	49931	46459	42174	38442	35170	30808			
	M	124288	119507	113401	106410	100232	93029	85834	79671	72260	66393	60925			
180	A	58926	56186	53688	51042	48000	45019	42385	39178	36059	33095	30582	24404		
	B	84943	81625	77392	73577	69653	65300	61099	56782	52502	48147	44649	35903		
	M	148590	141625	136300	130417	123319	116954	109204	101842	94416	88000	80928	68666		
200	A	71140	68317	65709	62832	59777	56631	53465	50339	46782	43474	40413	34850		
	B	103272	99174	96123	91882	87384	82754	78100	73505	68659	64082	59504	51850		
	M	175066	168064	161600	154470	148990	140990	135585	126554	118689	112342	104517	90943		
220	A	86453	82967	80375	76776	74014	70591	67241	63900	60517	56522	53305	46342		
	B	122352	118378	113750	109473	105507	101111	95789	91000	86153	81796	75883	67096		
	M	202576	195934	180220	182473	175764	168338	160429	152254	144000	136599	129210	113828		
240	A	105025	100721	97523	94523	90352	87148	84164	80313	76322	72282	67889	61134		
	B	144957	139016	134603	130461	124629	120283	116164	111578	106000	100353	95280	85226		
	M	257310	266133	255488	249500	240120	233109	223328	214335	206038	197135	186760	166333		
260	A	119724	115733	112000	108500	104421	102117	97802	94476	90181	86260	82177	74267		
	B	163310	157866	152774	148000	142436	139294	134354	128870	123816	118400	112094	102400		
	M	305530	295260	288000	276661	270276	260266	252776	244000	234240	226683	216888	197393		
280	A	135373	130823	127606	123555	119753	116179	112811	108867	104483	101090	96695	87954		
	B	182817	176670	172327	166857	161723	158075	152459	148056	143020	137411	131400	120137		
	M	384320	325694	317619	307456	300250	288962	282589	272567	265048	254516	247948	226070		
300	A		153846	148760	144000	140625	157404	132352	129496	125000	120000	116883	106508		
	B		203897	197157	192387	186375	182106	176711	171625	166825	160107	154909	142850		
	M		418068	407529	394276	384888	375937	364631	356588	343943	334455	323306	301217		
320	A			164495	159232	155500	151938	146352	143194	138222	132683	129246	117775		
	B			213289	208129	201625	197007	191170	185669	179272	173208	167584	154538		
	M			419495	405835	396190	384000	375438	367058	354042	344275	330596	310062		
340	A			176528	170880	166875	163053	157058	151489	148333	142400	137806	126390		
	B			225983	218752	213625	208732	201058	196719	187287	183516	177558	163736		
	M			421066	410796	401015	288676	379909	368817	358354	346082	334622	311901		
360	A				182784	178500	174412	168000	162042	157572	152320	147406	135195		
	B				231168	225750	220580	212470	207884	200666	192640	187636	170982		
	M				414699	401637	392369	380656	372321	359211	349369	335578	303139		
400	A				203520	198750	191278	187058	180425	175448	168476	162038	149647		
	B				253184	247250	237954	232705	224453	218262	209589	204180	186164		
	M				420387	410456	400984	389014	377739	364531	354612	340705	314024		
450	A					222550	214135	209411	201985	195068	188609	181401	166549		
	B					272500	262255	256470	247375	240551	230993	222165	205119		
	M					419250	409648	397511	386071	375272	360161	348467	321341		
500	A						244961	237593	232352	224113	216438	207894	198742	184795	
	B						295937	287037	280705	270751	261479	251157	243159	223251	
	M						430575	420519	405058	390695	382255	367253	355406	325964	
600	A							278769	270447	262608	253426	243221	235324	225093	207085
	B							392384	322388	315328	304225	243877	282352	270000	246857
	M							451100	437533	424759	412709	398575	382842	365987	334436

He

## SCHEMA DI TAGLIO TRAVI E FERRI AD "U"



campo dimensionale d'applicazione	tagli dritti		tagli inclinati ( $\alpha \leq 45^\circ$ )	
	lunghezza	$A = 1 + 20 \text{ mt.}$	lunghezza	$A = 1 + 20 \text{ mt.}$
larghezza profilo	$H = 80 + 1000 \text{ mm}$	larghezza profilo	$H = 80 + 1000 \text{ mm}$	
		altezza	$H = 100 + 300 \text{ mm}$	

## TONDO PER C.A.

UNI 6407 - 69

diametro mm	sezione mm	peso kg/m
6	28.3	0.222
8	50.3	0.395
10	78.5	0.617
12	113	0.888
14	154	1.210

diametro mm	sezione mm	peso kg/m
16	201	1.580
18	254	2.000
20	314	2.470
22	380	2.980
24	452	3.550

## FILO BOBINATO

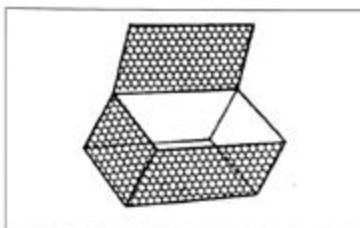
### RETE ELETTRORALDATA PER C.A.

maglia mm	filo Ø mm	peso kg/mq	pannelli m 2.25x4 peso kg
100 x 100	4	1.98	17.9
	5	3.10	27.9
	6	4.44	40.0
	8	7.9	71.1
150 x 150	5	2.02	18.2
	6	3.1	27.9
	8	5.4	48.6
200 x 200	4	1.00	9.00
	5	1.54	13.9
	6	2.22	20.00
	8	4.00	36.00
	10	6.2	56.00

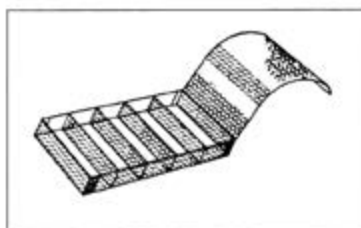
ø C.A.  
RETI

## RETE ZINCATA TRIPLA TORSIONE PARAMASSI

GABBIONE A SCATOLA



GABBIONE A MATERASSO





# LAMIERE

**DA TRENO**  
da 8 a 150 mm.  
UNI 7070

**NERE**  
da 1.5 a 12 mm.  
UNI 7070

**DECAPATE**  
da 1.5 a 6 mm.  
UNI 5867

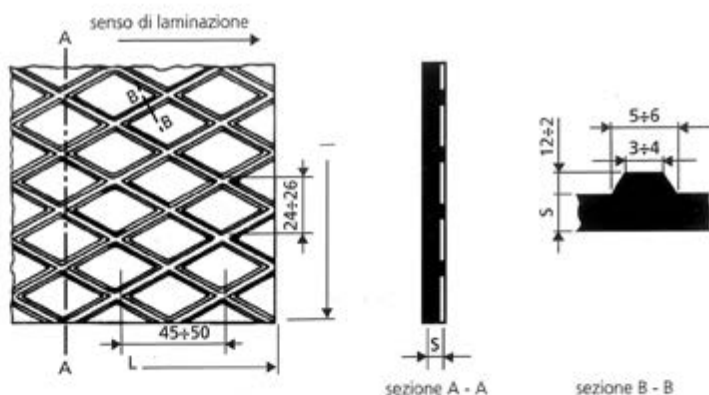
**LUCIDE**  
da 0.6 a 3 mm.  
UNI 5866

**ZINCATE**  
da 0.6 a 3 mm.  
UNI 5753

spessore mm	peso kg/m <sup>2</sup>	1000 x 2000	1250 x 2500	1500 x 3000	1500 x 6000	1800 x 6000	2000 x 5000	2000 x 6000
		peso in Kg						
0.3	2.36	4.72						
0.35	2.75	5.51						
0.4	3.14	6.28						
0.45	3.53	7.06						
0.5	3.93	7.86						
0.6	4.71	9.42	14.7					
0.8	6.28	12.6	19.7	28.3				
1	7.85	15.7	24.5	35				
1.2	9.42	18.8	29.5	42				
1.5	11.8	23.6	36.7	53				
1.8	14.1	28.2	44.2	64				
2	15.7	31.4	49	71				
2.5	19.6	39.3	61	88	176.4			
3	23.6	47.1	73	106	212.4	254.8	234	280
3.5	27.5	55	85.9	123.6	247.3		274.8	329.7
4	31.4	62.8	98	141	282.6	339.12	314	376.8
5	39.2	78.5	123	176	352.8	423.3	393	472
6	47.1	94.2	147	212	423.9	508.6	471	566
7	55	110	172	247	495	594	550	660
8	62.8	126	196	282	565.2	678.2	628	754
9	70.6	141	221	318	635.4	762.4	706	848
10	78.5	157	245	353	706.5	847.8	785	942
12	94.2	188	294	424			942	1131
15	117.8	236	368	530			1180	1416
18	141.3	282	442	636			1413	1696
20	157	314	490	706			1570	1884
25	196.2	392	613	833			1960	2352
30	235.5	472	736	1060			2360	2832
35	274.8	550					2750	3300
40	314	628					3140	3768
45	353.2	708					3532	4238
50	392.5	786					3930	4716
55	431.8	864					4318	5182
60	471	942					4710	5652
65	510.2	1020					5102	6123
70	549.5	1100					5500	6600
75	588.8	1178						
80	628	1256						
85	667.2	1335						
90	706.5	1414						
95	745.8	1492						
100	785	1570						

# LAMIERE STRIATE

UNI 3151



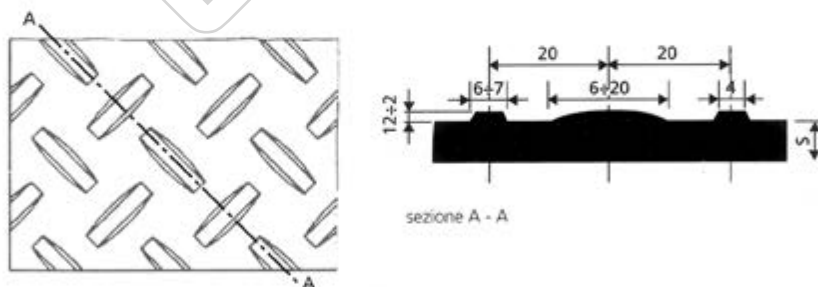
spessore mm	peso kg/m <sup>2</sup>	dimensioni in mm				
		1000 x 2000	1000 x 3000	1250 x 2500	1500 x 3000	1500 x 6000
		peso in kg				
* 2.5	22.2	45		69	100	
3	28.6	57.2	85.8	89.4	128.7	257.4
4	36.5	73	109.5	114	164.3	328.5
5	44.3	88.6	132.9	138.5	199.4	398.7
6	52.1	104.2	156.3	163	234.5	486.9
8	67.8	135.6	203.4	211.9	305.1	610.2
10	83.6	167.2	250.8	261.2	376.2	752.4
12	99.1	198.2	297.3	309.7	446	891.9

\* non unificato

LAMIERE  
PANNELLI  
RETI  
GRIGLIATI  
FORATE

# LAMIERE BUGNATE

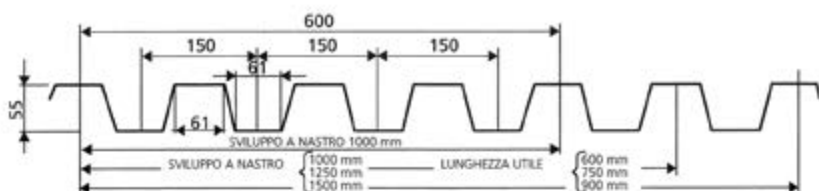
UNI 4630



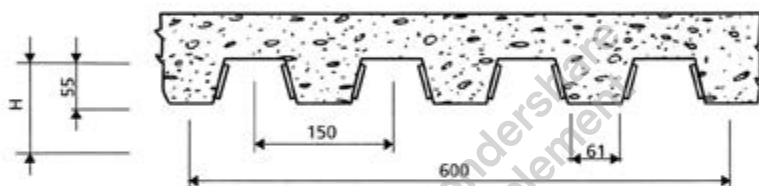
spessore mm	peso kg/m <sup>2</sup>	dimensioni in mm		
		2000 x 1000	2500 x 1250	3000 x 1500
		peso in kg		
3	26.05	52.1	81.1	117
4	33.95	67.9	106	153
5	41.75	83.5	130.1	187.6
6	49.60	99.2	154	223
8	65.30	130.6	204	284
10	81.10	162.2	250	365

## LAMIERE GRECATE PER SOLAI

### TIPO EGB 210/D



caratteristiche statiche							
spessore mm		0.6	0.7	0.8	1.0	1.2	1.5
peso kg/m <sup>2</sup>		7.85	9.15	10.46	13.08	15.70	19.62
peso kg/m lineare	1000	4.71	5.49	6.28	7.85	9.42	11.77
	1250	5.88	6.86	7.85	9.81	11.77	14.17
	1500	7.06	8.24	9.42	11.77	14.13	17.66
J cm <sup>4</sup> /m		41.76	51.16	59.89	78.23	96.83	122.74
W cm <sup>3</sup> /m		14.37	18.06	21.59	27.66	33.31	41.31

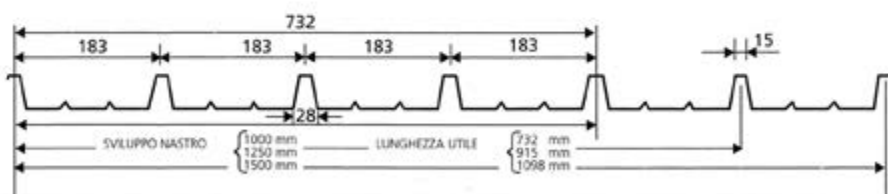


TIPO ESB 210/D  
CON SOLETTA  
COLLABORANTE

caratteristiche statiche					
spessore mm	0.7	0.8	1.0	1.2	1.5
peso kg/m <sup>2</sup>	9.15	10.46	13.08	15.70	19.62
peso kg/m lineare	5.49	6.28	7.85	9.42	11.77
J cm <sup>4</sup> /m	50.05	59.15	77.63	96.48	122.52
W cm <sup>3</sup> /m	15.38	18.52	25.00	31.81	41.22

## LAMIERE GRECATE PER COPERTURE E PARETI

### TIPO EGB 401

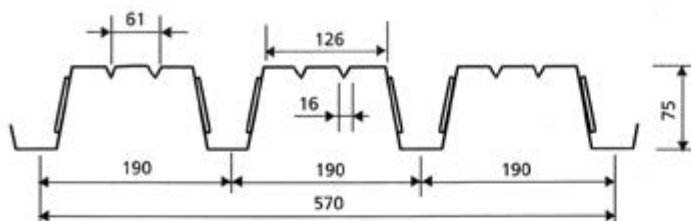


caratteristiche statiche					
spessore mm		0.6	0.7	0.8	1.0
peso kg/m <sup>2</sup>		6.42	7.49	8.57	10.72
peso kg/m lineare	1000	4.71	5.49	6.28	7.85
	1250	5.88	6.86	7.85	9.81
	1500	7.06	8.24	9.42	11.77
J cm <sup>4</sup> /m		13.79	16.04	18.31	22.83
W cm <sup>3</sup> /m		4.75	5.55	6.36	7.98

# LAMIERE GRECATE PER SOLAI - COLLABORANTE

TIPO EGB 1200/D

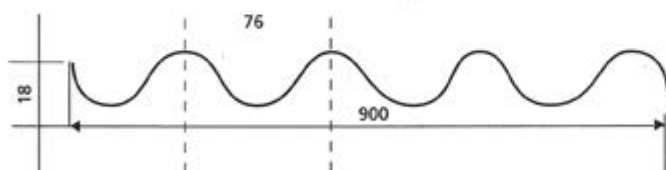
CON SOLETTA COLLABORANTE



caratteristiche statiche						
spessore mm	0.6	0.7	0.8	1.0	1.2	1.5
peso kg/m <sup>2</sup>	8.26	9.64	11.00	13.75	16.50	20.65
peso kg/m lineare	4.71	5.49	6.28	7.85	9.42	11.77
Jx/m ridotto cm <sup>4</sup> /m	83.3	100.6	117.30	148.5	179.1	222.30
Wx sup. cm <sup>3</sup> /m	29.5	37.1	44.1	57.5	70.2	87.2
Wx inf. cm <sup>3</sup> /m	17.8	21.0	24.2	30.2	36.2	44.9

LAMIERE  
PANNELLI  
RETI  
GRIGLIATI  
FORATE

# LAMIERE ZINCATE ONDULATE



spessore mm	0.25	0.30	0.40	0.50	0.60	0.80	1.00
peso kg/m <sup>2</sup>	2.14	2.73	3.52	4.30	5.10	6.65	8.25

# PANNELLI COIBENTATI PER COPERTURA



## coefficiente di trasmissione termica K

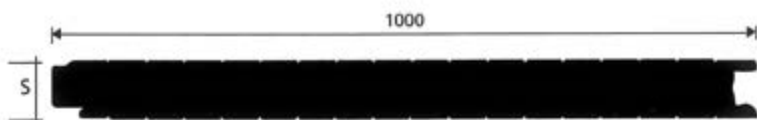
spessore pannello mm	30	40	50	60	80	100
Kcal/h·m <sup>2</sup> ·°C	0.55	0.44	0.37	0.31	0.24	0.20
W/m <sup>2</sup> ·°C	0.64	0.51	0.42	0.36	0.28	0.23

carico massimo in daN/mq per freccia 1/200 della luce

tipo di rivestimento esterno	tipo di rivestimento interno	S, mm	t, spessore rivest. mm	peso rivest. daN/mq	peso pannello daN/mq	LUCE LIBERA IN m														
						2.00	2.50	3.00	3.50	4.00	4.50	2.00	2.50	3.00	3.50	4.00	4.50			
ACCIAIO	ACCIAIO	30	0.4 + 0.4	7.00	8.38	186	127	66					259	174	125	93	72			
			0.5 + 0.4	7.94	9.32	214	147	78					299	206	148	111	86	61		
			0.6 + 0.4	8.88	10.26	253	175	96					252	181	137	103	72			
		40	0.4 + 0.4	7.00	8.77	227	160	94					278	190	139	106	83	67		
			0.5 + 0.4	7.94	9.71	257	183	108	60					316	223	163	125	98	79	
			0.6 + 0.4	8.88	10.65	300	213	127	73					272	198	151	119	96		
	50	0.4 + 0.4	7.00	9.16	269	195	127	74					295	206	152	118	93	76		
		0.5 + 0.4	7.94	10.1	303	220	142	84					332	240	178	137	109	89		
		0.6 + 0.4	8.88	11.04	348	254	163	99					290	214	165	132	108			
	60	0.4 + 0.4	7.00	9.55	314	231	163	100	60					309	221	165	129	103	84	
		0.5 + 0.4	7.94	10.49	350	259	180	112	69					347	256	192	149	120	99	
		0.6 + 0.4	8.88	11.43	296	202	127	80					305	229	179	144	118			
80	0.4 + 0.4	7.00	10.34	306	237	160	105	69					334	248	189	149	121	100		
	0.5 + 0.4	7.94	11.28	340	263	174	116	77					286	217	172	140	116			
	0.6 + 0.4	8.88	12.22	288	192	129	87					331	258	204	166	138				
100	0.4 + 0.4	7.00	11.12	301	228	158	110					274	210	168	137	115				
	0.5 + 0.4	7.94	12.06	336	244	170	119					314	241	192	158	132				
	0.6 + 0.4	8.88	13.00	264	186	131					284	226	186	156						
						1.50	2.00	2.50	3.00	3.50	4.00	4.50	2.00	2.50	3.00	3.50	4.00			
ALLUMINIO	ACCIAIO	30	0.6 + 0.4	5.20	6.58	264	160	75					222	150	108	80				
		40	0.6 + 0.4	5.20	6.97	323	210	110					245	169	124	94	74			
		50	0.6 + 0.4	5.20	7.36	256	151	82					266	186	138	107	85			
		60	0.6 + 0.4	5.20	7.75	304	195	113	64					286	202	152	118	95		
ALLUMINIO	ALLUMINIO	30	0.6 + 0.6	3.65	5.03	250	122					218	146	105	67					
		40	0.6 + 0.6	3.65	5.42	306	170	76					240	165	120	91	63			
		50	0.6 + 0.6	3.65	5.81	223	109					261	182	134	103	81				
		60	0.6 + 0.6	3.65	6.21	282	146	76					281	198	148	115	91			
RAME	ACCIAIO	30	0.5 + 0.4	8.58	9.96	185	116	78					276	164	109	77	57	43		
		40	0.5 + 0.4	8.58	10.35	221	145	100	72					293	178	121	88	66	51	
		50	0.5 + 0.4	8.58	10.74	259	175	124	91	60					310	192	132	97	74	58
		60	0.5 + 0.4	8.58	11.13	298	206	149	111	84					325	205	143	106	82	65

1 da N/mq = 1.02 kg/mq

# PANNELLI COIBENTATI PER PARETI



## coefficiente di trasmissione termica K

spessore pannello mm	40	50	60	80	100	120
Kcal/h·m <sup>2</sup> ·°C	0.49	0.40	0.34	0.26	0.21	0.17
W/m <sup>2</sup> ·°C	0.57	0.47	0.38	0.30	0.24	0.20

carico massimo in daN/mq per freccia 1/200 della luce

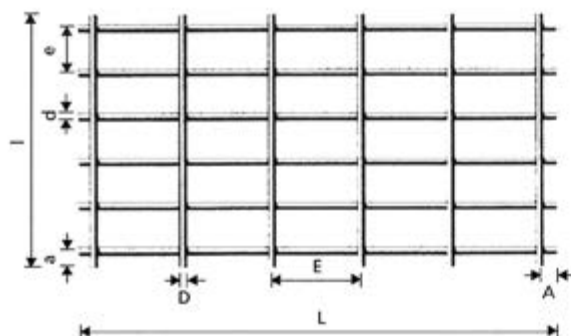
tipo di rivestimento	S, mm	t. spessore rivest. mm	peso rivest. daN/mq	peso pannello daN/mq	LUCE LIBERA IN m											
					2.00	2.50	3.00	3.50	4.00	4.50	2.00	2.50	3.00	3.50	4.00	4.50
ACCIAIO	35	0.5 + 0.5	8.46	9.75	125	107	74	134	132	92	67					
		0.6 + 0.6	10.17	11.45	138	118	82	148	145	101	74					
	40	0.5 + 0.5	8.46	9.93	169	144	100	57	179	133	123	90	69			
		0.6 + 0.6	10.17	11.64	184	133	109	66	196	145	134	99	76			
	50	0.5 + 0.5	8.46	10.29	218	158	132	80	226	167	128	118	91	72		
		0.6 + 0.6	10.17	12.00	246	179	149	89	254	188	144	133	102	81		
	60	0.5 + 0.5	8.46	10.67	249	181	152	106	66	235	173	133	122	113	89	
		0.6 + 0.6	10.17	12.37	275	200	157	115	72	261	193	148	136	125	99	
	80	0.5 + 0.5	8.46	11.40	293	213	160	122	115	74	257	189	146	131	119	111
		0.6 + 0.6	10.17	13.11	329	239	176	132	120	78	289	213	164	126	103	100
	100	0.5 + 0.5	8.46	12.14	346	251	185	139	125	114	278	205	158	121	107	102
		0.6 + 0.6	10.17	13.84	382	282	207	156	124	118	311	229	176	136	115	105
120	0.5 + 0.5	8.46	12.87	386	286	210	158	126	120	309	228	175	135	117	107	
	0.6 + 0.6	10.17	14.58	419	319	235	176	141	122	342	257	197	148	121	109	
					<b>1.50</b>	<b>2.00</b>	<b>2.50</b>	<b>3.00</b>	<b>3.50</b>	<b>4.00</b>	<b>1.50</b>	<b>2.00</b>	<b>2.50</b>	<b>3.00</b>	<b>3.50</b>	<b>4.00</b>
ALLUMINIO	40	0.6 + 0.6	5.20	6.58	152	104				186	131	84				
	50	0.6 + 0.6	5.20	6.58	204	140	63			247	156	111	77			
	60	0.6 + 0.6	5.20	6.58	252	161	79			307	194	138	96	70		
	80	0.6 + 0.6	5.20	6.58	307	196	139	72	60	368	233	157	121	89	68	
	100	0.6 + 0.6	5.20	6.58	357	228	154	121	70	415	263	177	130	112	86	
	120	0.6 + 0.6	5.20	6.58	395	252	170	147	108	66	472	299	202	148	136	104

1 da N/mq = 1,02 kg/mq

LAMIERE  
PANNELLI  
RETI  
GRIGLIATI  
FORATE



## RETI ELETTROSALDATE



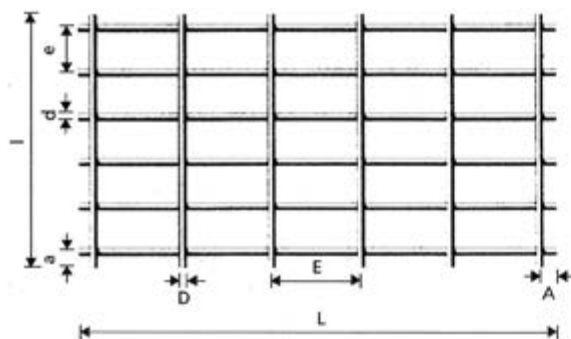
### PANNELLI TIPO SERRURIER

finitura	maglia mm	diametro mm	dimensioni mm	peso kg (teorici)	art.
grezza	40 x 40	4	1600 x 2000	15.0	0700
grezza	50 x 50	4	1600 x 2000	12.3	0013
grezza	50 x 50	4	1600 x 5000	31.5	0029
grezza	50 x 50	4	2000 x 2500	19.7	0215
grezza	100 x 50	4	2000 x 2500	14.7	0152
grezza	100 x 50	6	1000 x 2000	13.3	0018
grezza	100 x 50	6	1600 x 2000	21.3	0014
grezza	100 x 100	6	1600 x 2000	14.2	0028
zinc.	50 x 50	4	1600 x 2000	7.8	0113
zinc.	50 x 50	4	1600 x 2000	12.6	0030
zinc.	50 x 50	4	1600 x 5000	31.5	0015
zinc.	50 x 50	4	2000 x 2500	19.7	0216
zinc.	100 x 50	4	2000 x 2500	14.7	0155
zinc.	100 x 50	6	1600 x 2000	21.3	0034

### INFORMAZIONI TECNICHE

D - Ø dei fili trasversali  
 d - Ø dei fili longitudinali  
 E - maglia longitudinale  
 e - maglia trasversale

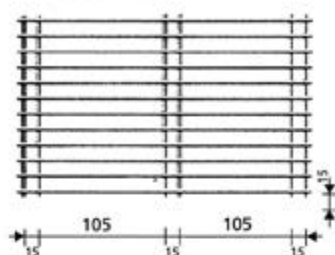
A - sporgenza longitudinale  
 a - sporgenza trasversale  
 L - dimensione longitudinale  
 l - dimensione trasversale



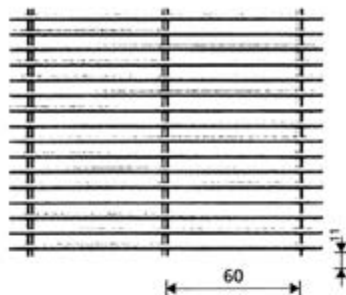
su richiesta produciamo reti con fili, maglie e dimensioni diverse dagli standard illustrati fino alle dimensioni max 2000 x 6000 mm.

# RETI ELETTROSALDATE

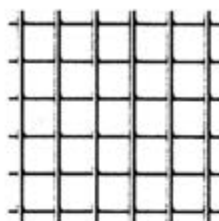
RETE TEC 15 + 105



RT 60x 11



MAGLIA QUADRA



## PANNELLI STANDARD ITALIA

finitura	maglia mm	diametro mm	dimensioni mm	peso kg (cadauno)	art.
grezza	25 x 25	3	1225 x 2000	10.8	0114
grezza	30 x 30	3	1000 x 2000	7.3	0092
grezza	30 x 30	3	1200 x 2400	10.6	0093
grezza	30 x 30	3	1600 x 2400	13.9	0625
grezza	40 x 40	4	1200 x 2400	14.1	0115
grezza	40 x 40	4	1600 x 2400	19.0	0626
grezza	50 x 50	3	1000 x 2000	4.4	0042
grezza	50 x 50	3	1200 x 2400	6.4	0049
grezza	50 x 50	3	1600 x 2000	7.0	0792
grezza	50 x 50	3	1600 x 2000	10.6	0793
grezza	50 x 50	4	1000 x 2000	7.6	0094
grezza	50 x 50	4	1200 x 2400	11.3	0005
grezza	50 x 50	4	1600 x 2000	12.6	0013
grezza	50 x 50	4	1600 x 3000	18.0	0794
grezza	50 x 50	4	1600 x 5000	31.5	0029
grezza	50 x 50	4	2000 x 2500	19.7	0215
grezza	50 x 50	5	1200 x 2400	17.7	0047
grezza	50 x 50	5	1600 x 2000	19.7	0795
grezza	50 x 50	5	1600 x 3000	29.6	0796
grezza	50 x 50	5	2000 x 2500	30.8	0797
grezza	50 X 30	4	1200 x 2400	14.5	0158
grezza	100 x 100	4	1200 x 2400	5.6	0393
grezza	100 x 100	5	1200 x 2400	8.8	0229
grezza	100 x 100	6	1200 x 2400	12.7	0230
zinc.	50 x 50	4	1000 x 2000	7.8	0113
inox	50 x 50	4	1200 x 2400	11.4	0083
inox	40 X 40	3	1000 x 2000	9.5	0073

LAMIERE  
PANNELLI  
RETI  
GRIGLIATI  
FORATE

## PANNELLI ANTINFORTUNISTICA

finitura	maglia mm	diametro mm	dimensioni mm	peso kg (cadauno)	art.
grezza	TEC	3	1240 x 2400	13.4	0008
grezza	TEC ROV	3	1000 x 2000	9.0	0006
inox	TEC	3	1240 x 2400	13.5	0290
grezza	60 x 11 (RT)	3	1200 x 2400	16.6	0226

tutti i pannelli sono grezzi.  
per forniture di pannelli zincati o inox solo su richiesta.

## LAMIERE FORATE

si possono fornire lamiere con fori  $\varnothing$  0.5 sino a  $\varnothing$  100 mm formato 1000 x 2000 mm spessore da 1 a 10 mm in ferr, acciaio inox



### FORI TONDI

foro $\varnothing$ mm	passo mm	spessore mm					
2	3.2	1	1.5				
3	5.0	1	1.5	2	3		
4	7.0	1	1.5	2	3		
5	8.0	1	1.5	2	3		
6	9.0	1	1.5	2	3		
8	12.0	1	1.5	2	3	4	
10	15.0	1	1.5	2	3	4	5 6
15	22.0	1	1.5	2	3		

### FORI QUADRI

foro $\varnothing$ mm	passo mm	spessore mm					
5 x 5	7.0	1	1.5				
8 x 8	10.0		1.5				
7 x 8	15.0		1.5				
10 x 10	12.0		1.5				
10 x 10	15.0		1.5				

## RETI ONDULATE A MAGLIA QUADRA

DIM. FOGLI 1000 x 2000  
DIM. ROTOLI 1000 x 25 mt.



maglia mm	peso approssimativo kg/m <sup>2</sup>																										
	filo mm	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27			
8 x 8	1	1.1	1.2	1.3	1.4	1.5	1.6	1.8	2	2.2	2.4	2.7	3	3.4	3.9	4.4	4.9	5.4	5.9	6.4	7	7.6	8.2				
10 x 10			1.87	2.19	2.55	2.92			4.50																		
12 x 12				1.80	2.25	2.70	3.10	4.00	4.50																		
15 x 15						1.97	2.25	2.84	3.50	4.25	5.00	6.40															
20 x 20								2.13	2.62	3.18	3.77	5.27	5.95														
25 x 25									1.72	2.15	2.57	3.05	3.86	4.80	6.10	8.50	10.3										
30 x 30										1.67	2.13	2.53	3.21	3.97	5.10	6.55	8.55	10.6									
35 x 35												2.18	2.67	3.48	4.40	5.78	7.38	9.10	11.0								
40 x 40													1.92	2.43	3.00	3.86	5.10	6.46	8.11	9.74	10.7	12.3					
50 x 50														1.70	1.92	2.43	3.10	4.12	5.23	6.49	7.90	8.90	10.5	12.5			
60 x 60															2.04	2.62	3.45	4.44	5.43	6.66	7.90	9.30	11.1	13.1	15.3		
80 x 80																1.62	2.21	3.00	3.37	4.67	5.10	6.10	7.20	8.60	10.1	11.9	
100 x 100																	1.83	2.33	2.88	3.50	4.18	4.92	5.88	6.94	8.10		

altre altezze a richiesta

# LAMIERE DI ACCIAIO INOSSIDABILE

spessore mm	peso kg/m <sup>2</sup>
0.3	2.36
0.35	2.75
0.4	3.14
0.45	3.53
0.5	3.93
0.6	4.71
0.8	6.28
1	7.85
1.2	9.42
1.5	11.8
1.8	14.1
2	15.7
2.5	19.6
3	23.6
3.5	27.5
4	31.4
5	39.2
6	47.1
7	55
8	62.8
9	70.6
10	78.5
12	94.2
15	117.8
18	141.3
20	157
25	196.2
30	235.5
35	274.8
40	314
45	353.2
50	392.5
55	431.8
60	471
65	510.2
70	549.5
75	588.8
80	628
85	667.2
90	706.5
95	745.8
100	785

## equivalenze standard

SS	2352	2333	2332	2337	2348	2353	2347	2343	2350
AISI	304 L	304	304	321	316 L	316 L	316	316	316 Ti
DIN	X2CrNi18 9	X5CrNi18 9	X5CrNi18 9	X10CrNi11	X2CrNi18 9	X5CrNi18 9	X5CrNi18 9	X5CrNi18 9	X10CrNi18 9
W Nr.	1.4306	1.4301	1.4301	1.4541	1.4404	1.4435	1.4401	1.4436	1.4571
BS	304S 12	304S 16	302S 17	321S 12	(316S 12)	316S 12	(316S 16)	316S 16	(320S 17)
ANFOR	Z2CrNi18 10	Z6CrNi18 9	Z6CrNi18 9	Z6CrNi18 11	Z2CrNi18 11	Z2CrNi18 11	Z6CrNi18 11	Z6CrNi18 11	Z80NDT

## analisi

	C max	Cr	Ni	Mo	Ti
%	0.03	18	10	-	-
%	18	9	8.5	-	-
%	9.5	11.5	12.5	11	12
%	2.2	2.2	2.7	2.2	2.7
%	6 x C	-	-	-	-

## proprietà meccaniche

	min	N/mm <sup>2</sup>
RP 0.2	190	210
RP 10	270	240
Rm	460 - 640	490 - 690
A	45	45
diurezza brinell	190	200

## proprietà fisiche

modulo di elasticità	N/mm <sup>2</sup>
coefficiente di dilatazione termica 20 - 100 °C / °C	
conduttività termica	W/m °C
calore specifico	J/kg °C
resistività	mWm
densità	g/cm <sup>3</sup>
temperatura di solidatura in aria	°C

## caratteristiche di saldabilità

saldabilità	molto buona
-------------	-------------

## trattamento termico

temperatura di ricottura	°C
--------------------------	----

0.03	0.05	0.07	0.08	0.03	0.03	0.05	0.05	0.05	0.08
18	18	18	18	17	17	17	17	17	17
10	9	8.5	9.5	11.5	12.5	11	12	12	11.5
-	-	-	-	2.2	2.7	2.2	2.2	2.7	2.3
-	-	-	6 x C	-	-	-	-	-	6 x C

190	210	210	210	210	210	220	220	220	220
270	240	240	240	240	240	250	250	250	250
460 - 640	490 - 690	490 - 690	490 - 690	490 - 690	490 - 690	490 - 690	490 - 690	490 - 690	490 - 690
45	45	45	40	45	45	45	45	45	40
190	200	200	210	200	200	200	200	200	210

2 x 10 <sup>8</sup>	2 x 10 <sup>8</sup>	2 x 10 <sup>8</sup>	2 x 10 <sup>8</sup>	2 x 10 <sup>8</sup>	2 x 10 <sup>8</sup>	2 x 10 <sup>8</sup>	2 x 10 <sup>8</sup>	2 x 10 <sup>8</sup>	2 x 10 <sup>8</sup>
17 x 10 <sup>8</sup>	17 x 10 <sup>8</sup>	17 x 10 <sup>8</sup>	17 x 10 <sup>8</sup>	16.5 x 10 <sup>8</sup>	16.5 x 10 <sup>8</sup>	16.5 x 10 <sup>8</sup>	16.5 x 10 <sup>8</sup>	16.5 x 10 <sup>8</sup>	16.5 x 10 <sup>8</sup>
15	15	15	15	13.5	13.5	13.5	13.5	13.5	13.5
440	440	440	440	440	440	440	440	440	440
700	700	700	700	750	750	750	750	750	750
7.9	7.9	7.9	7.9	8.0	8.0	8.0	8.0	8.0	8.0
850	850	850	850	850	850	850	850	850	850

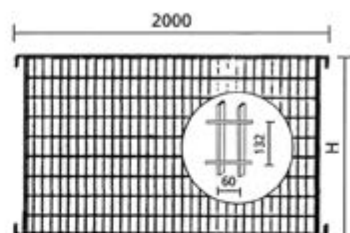
molto buona	molto buona	molto buona	molto buona	molto buona	molto buona	molto buona	molto buona	molto buona	molto buona
-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------

1050	1050	1050	1050	1050	1050	1050	1050	1050	1050
------	------	------	------	------	------	------	------	------	------

LAMIERE  
PANNELLI  
RETI  
GRIGLIATI  
FORATE

## MODULI RECINZIONE ZINCATI

BORDATI CON PIATTO 25 x 6



altezza (mm)	interasse (mm)	peso (kg/cad.)		
		maglia 60 x 132 25 x 2	maglia 60 x 132 25 x 3	maglia 60 x 65 25 x 3
930	2000	21.5	28.2	30.6
1200	2000	26.0	34.7	37.8
1330	2000	28.3	37.9	41.3
1460	2000	30.6	41.2	44.9
1720	2000	32.5	44.7	48.9

## PIANTANA ZINCATA

INN PIATTO 60 x 8

ALTEZZA mm 1200 per pannello da H mm 930  
 ALTEZZA mm 1500 per pannello da H mm 1200  
 ALTEZZA mm 1600 per pannello da H mm 1330  
 ALTEZZA mm 1800 per pannello da H mm 1460  
 ALTEZZA mm 2000 per pannello da H mm 1720

PESO (kg/cad.) 4.8  
 PESO (kg/cad.) 6.0  
 PESO (kg/cad.) 6.4  
 PESO (kg/cad.) 7.2  
 PESO (kg/cad.) 7.6

## BULLONI CON DADO

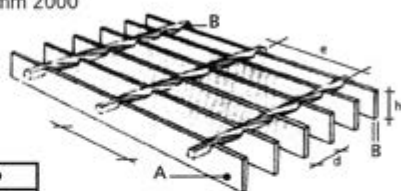
TESTA ESAGONALE ZINCATA  
 TESTA ESAGONALE INOX  
 ANTIFURTO INOX

MISURA mm 8 x 30  
 MISURA mm 8 x 30  
 MISURA mm 8 x 30

## ANGOLARI ZINCATI CON ZANCHE

MISURA mm 30 x 30 x 5  
 MISURA mm 35 x 35 x 5

LUNGHEZZA mm 2000  
 LUNGHEZZA mm 2000



## GRIGLIATO

maglia	piatto	formato	grezzo	zincato
15 x 76	25 x 2	1000 x 6100	28.1	29.4
25 x 76	25 x 2	1000 x 6100	17.1	19
	25 x 3		25.8	27.3
	30 x 3		30.6	32.4
	40 x 3		40.3	42.6
	50 x 4		67	71
60 x 4	78.8	88		
25 x 25	25 x 2	1000 x 6100	20	22.6
34 x 38	25 x 2	1000 x 6100	15.2	16.3
	25 x 3		21.1	23.4
	30 x 3		24.6	27.2
34 x 76	26 x 2	1000 x 6100	13.5	14.5
	25 x 3		20.1	21.3
	30 x 3		23	25
60 x 132	25 x 2	1870 x 6100	8	
	25 x 3		11.4	

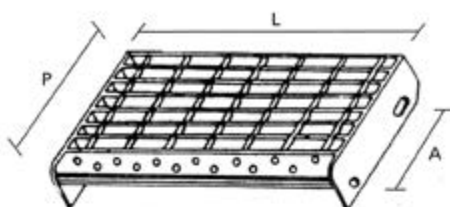
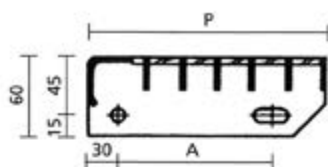
A = PIATTO PORTANTE  
 h = mm 20 + 70  
 s = mm 2 + 5

B = TRASVERSALE  
 tondo  $\varnothing$  3 + 6 mm  
 tondo brumato  $\varnothing$  3 + 6 mm  
 quadro ritorto  $\varnothing$  4 + 6 mm

MAGLIA d x e  
 d = interasse piatti portanti  
 mm 15/22/25/30/34/60  
 e multipli  
 e = interasse trasversali  
 variabile con continuità  
 da 25 a 500 mm  
 — = senso portante

## GRADINI ZINCATI

COMPLETI DI FLANGIA FORATA E ROMPIVISUALE



asola 12 x 25

foro Ø 12

flange piatto 60 x 3  
con foro ovale

lunghezza L (mm)	pedana P (mm)	foratura A (mm)	grigliato (maglia)	peso zinc. (kg/cod.)
600	205	115	25 x 76 25 x 2	3.4
700	255	180	25 x 76 25 x 2	
800	255	180	25 x 76 25 x 2	5.2
1000	305	180	25 x 76 25 x 2	7.4
1200	330	180	15 x 76 25 x 2	13.1
1200	330	180	15 x 76 30 x 2	15.4

## PANNELLI ZINCATI BORDATI

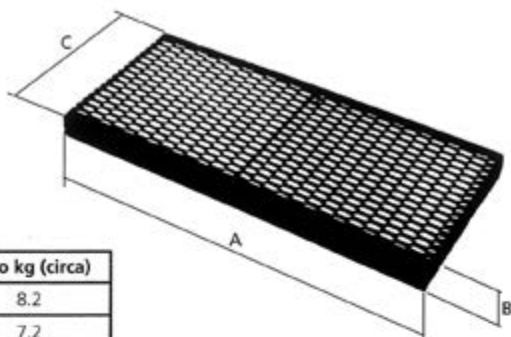


LAMIERE  
PANNELLI  
RETI  
GRIGLIATI  
FORATE

PORTATA (tipo)	dimensioni (mm)	peso (kg/cad.)	grigliato (maglia)
AUTOVETTURA	150 X 1000	3.8	25 x 76 25 x 2
AUTOVETTURA	200 X 1000	4.7	25 x 76 25 x 2
AUTOVETTURA	250 X 1000	5.7	25 x 76 25 x 2
AUTOVETTURA	300 X 1000	6.7	25 x 76 25 x 2
AUTOVETTURA	400 X 1000	8.6	25 x 76 25 x 2
AUTOVETTURA	500 X 1000	10.5	25 x 76 25 x 2
AUTOVETTURA	600 X 1000	12.5	25 x 76 25 x 2
PEDONALE	700 X 1000	14.4	25 x 76 25 x 2
PEDONALE	800 X 1000	16.3	25 x 76 25 x 2
PEDONALE	900 X 1000	18.2	25 x 76 25 x 2
PEDONALE	1000 X 1000	20.2	25 x 76 25 x 2
AUTOVETTURA	225 X 225	1.3	25 x 76 25 x 2
AUTOVETTURA	325 X 325	2.6	25 x 76 25 x 2
AUTOVETTURA	425 X 425	4.1	25 x 76 25 x 2
AUTOVETTURA	525 X 525	6.2	25 x 76 25 x 2
AUTOTRENO	250 X 1000	12.5	25 x 76 40 x 3
AUTOTRENO	350 X 1000	27.3	25 x 76 50 x 4
AUTOTRENO	450 X 1000	34.4	25 x 76 50 x 4
AUTOTRENO	550 X 1000	41.5	25 x 76 50 x 4



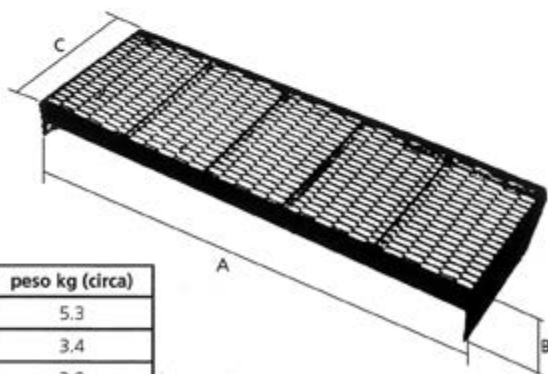
## PIANEROTTOLI E GRADINI FINITI PRONTI PER L'IMPIEGO MODELLO INDUSTRIA



dimensioni più comuni (in mm)

A	B	C	peso kg (circa)
1000	40	250	8.2
900	40	250	7.2
800	40	250	6.2
700	40	250	6.3
600	40	250	4.8
500	40	250	4.3

## MODELLO GALAXI zincati a fuoco - da montare mediante bulloni



dimensioni più comuni (in mm)

A	B	C	peso kg (circa)
1000	70	250	5.3
800	70	250	3.4
700	70	200	2.9
600	70	200	2.4
500	70	200	2.2

# RETI STIRATE ROMBOIDALI RETI STIRATE SPIANATE ROMBOIDALI

indicazione commerciale	designazione convenzionale		peso per m <sup>2</sup>		dimensioni max. dei rotoli o fogli mm	
	DL mm	a - 1/10 mm	S - 1/10 mm	- kg	larghezza nel senso DL	lunghezza nel senso DC
9	200	45	30	2.9	1000	
8	200	60	30	3.9	1250	12000
13	200	50	50	5.1	1500	10000
					2000	11000
					2500	
44	200	45	30	3.6	1000	
45	200	60	30	4.7	1250	9000
48	200	50	50	6.7	1500	7000
					2000	8000
					2500	
24	110	30	30	3.6	1000	
21	110	45	30	5	1250	10000
24/A	110	60	30	6.5	1500	6500
					2000	5000
					2500	
3	60	30	10	1.95	1000	
					1250	8000
					1500	
					2000	5000
					2500	
4	60	30	15	3	1000	
20	60	30	20	4.2	1250	8000
					1500	
					2000	5000
					2500	
19	60	30	30	6.3	1000	6000
22	60	45	30	8.8	1250	4500
40	60	60	30	12	1500	3000
27	43	25	15	3.8	1000	
41	43	50	30	15	1250	6500
					1500	3200
					1000	
2	43	25	10	2.75	1250	5400
					1500	
					2000	3400
					2500	
17	43	25	15	4.2	1000	
28	43	25	20	5.5	1250	5400
					1500	
					2000	3400
					2500	
36	28	20	6	1.5	1000	3000
					1250	4000
29	28	20	10	2.5	1000	3000
					1250	4000
31	28	20	15	3.5	1000	
					1250	5000
<b>RETI STIRATE SPIANATE ROMBOIDALI</b>						
S/3	60	30	10	1.8	1000	5000
S/4	60	30	15	2.8	1250	6000
S/20	60	30	20	3.9	1500	6000
					2000	
S/27	43	25	15	3.6	1000	7000
					1250	
					1000	6000
S/2	43	25	10	2.5	1250	7500
					1500	3600
S/17	43	25	15	3.9	1000	6000
					1250	
S/28	43	25	20	5.3	1500	6000

LAMIERE  
PANNELLI  
RETI  
GRIGLIATI  
FORATE

### designazione convenzionale

è costituita da tre cifre che indicano:

I cifra = diagonale lunga (mm)

II cifra = larghezza (1/10 mm)

III cifra = spessore (1/10 mm)

esempio:

90-70-40

maglia avente DL + 90 mm

larghezza a = 7 mm

spessore s = 4 mm

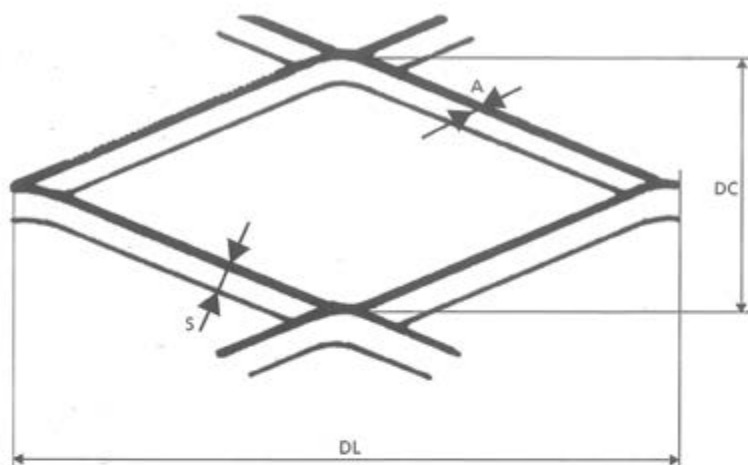
### dimensioni maglia

s = spessore

a = larghezza ( o avanzamento)

DL = diagonale lunga

DC = diagonale corta



2-17-28 (10 x 43 mm)



36-29-31 (14 x 28 mm)



3-4-20-19-22-40 (20 x 60 mm)



53-54-S2D (20 x 60 mm)



S27 (17 x 43 mm)



S2/S17-S28 (10 x 43 mm)

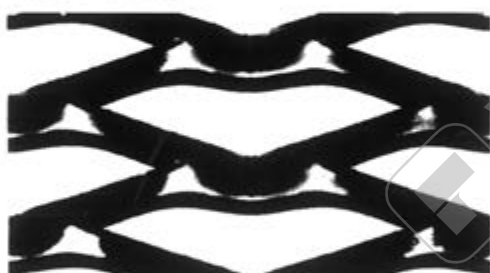
## RETI STIRATE PEDONABILI



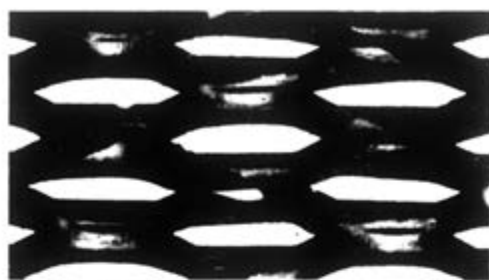
FILS 15



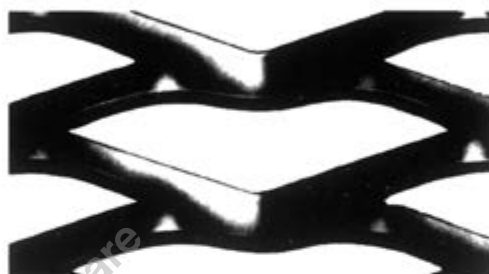
FILS 155 FILS 165



FILS 6 FILS 7 FILS 8



FILS 215 FILS 225



FILS 1 FILS 2 FILS 3

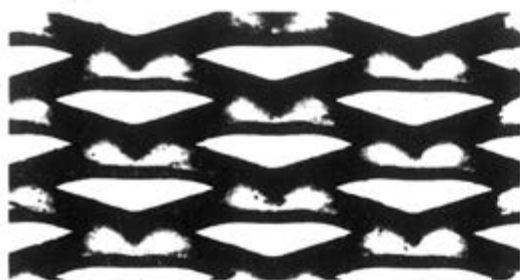


FILS 4 FILS 5

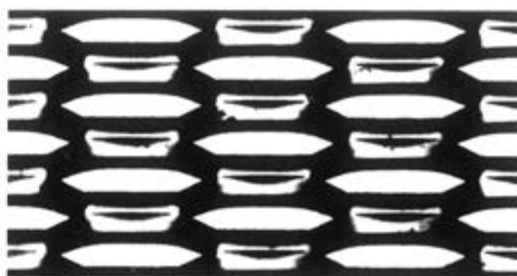
LAMIERE  
PANNELLI  
RETI  
GRIGLIATI  
FORATE

indicazione commerciale	designazione convenzionale		peso per m <sup>2</sup>		dimensioni max. dei rotoli o fogli mm	
	DL mm	a - 1/10 mm	S - 1/10 mm	- kg	larghezza nel senso DL	lunghezza nel senso DC
FILS - 15	110	70	40	21	1000 1250 1500	2600
FILS - 215	44	40	30	20	1000 1250 1500	
FILS - 225	44	40	40	26	1000 1250 1500	
FILS - 155	43	40	30	21	1000 1250 1500	2000
FILS - 165	43	40	40	26	1000 1250 1500	
FILS - 1	110	70	40	17	2000	
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

## RETI STIRATE PEDONABILI



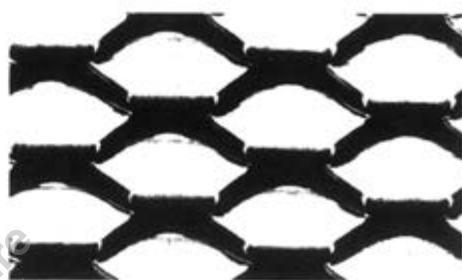
FILS 15 - 16



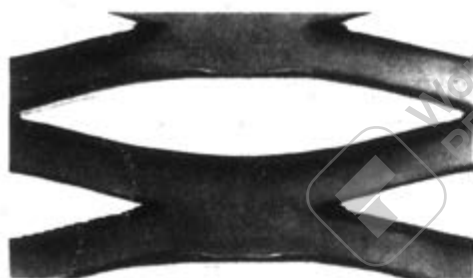
FILS 20 - 21 - 22



FILS 9



FILS E3 - E4



SP 2 - A SP 5 - A



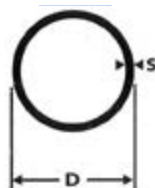
SP 2 - SP 5

indicazione commerciale	designazione convenzionale			peso per m <sup>2</sup> - kg	dimensioni max. dei rotoli o fogli mm	
	DL mm	a - 1/10 mm	S - 1/10 mm		larghezza nel senso DL	lunghezza nel senso DC
FILS - 15	43	40	30	17	2000	2000
FILS - 16	43	40	40	23	1500	
FILS - 20	44	30	30	13.8	1000	2500
FILS - 21	44	40	30	20	1000	2000
FILS - 22	44	40	40	24	1500	
FILS - 9	125	120	40	17	1000 1250 1500	2600
E 3	44	40	30	11	1000 1250 1500	
E 4	44	40	40	14	1500	3000
SP 2 - A	110	95	40	15	1500	
SP 5 - A	110	95	50	18.5		3000
SP 2	110	95	40	14	1500	3600
SP 5	110	95	50	17		



# TUBI TONDI SALDATI

EN 10219 - 2: 1997

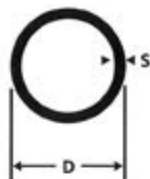


Ø mm	spessore mm						
	1.2	1.5	2	3	4	5	6
	peso kg/m						
14	0.38	0.46					
15	0.41	0.50					
16	0.44	0.54	0.69				
18	0.50	0.61	0.79				
19	0.53	0.65	0.84				
20	0.56	0.70	0.91				
22	0.62	0.77	1.01				
25	0.70	0.88	1.14				
26	0.73	0.91	1.18				
28	0.79	0.98	1.28				
30	0.85	1.05	1.38	2.00			
32		1.13	1.48	2.15			
35		1.24	1.63	2.37			
38		1.35	1.78	2.59	3.38		
40		1.42	1.87	2.74	3.55		
42		1.50	1.97	2.88	3.75		
45		1.61	2.12	3.11	4.05		
48		1.71	2.26	3.30	4.58		
50		1.79	2.36	3.46	4.54		
54		1.94	2.56	3.37	5.03		
57		2.05	2.70	3.97	5.23		
60		2.10	2.86	4.22	5.52	6.82	
63		2.26	3.00	4.41	5.82		
70		2.53	3.35	4.96	6.51	8.02	
76		2.74	3.63	5.37	7.10	8.76	
80		2.90	3.85	5.70	7.50	9.26	
89			4.27	6.32	8.33	10.36	12.29
102			4.90	7.32	9.70	11.96	14.37
108			5.27	7.88	10.46	12.70	15.54
114			5.58	8.25	10.89	13.44	15.99
121			5.87	8.65	11.44	14.31	17.02
127				9.12	12.16	15.04	17.90
133				9.62	12.71	15.78	18.79
139.7				10.15	13.43	16.61	19.78
152				11.05	14.60	18.13	21.60
159				11.55	15.31	18.99	22.64
168				12.22	16.29	20.10	23.97
177.8				12.94	17.16	21.33	25.45
193.7				13.98	18.55	23.06	27.52
219				15.98	21.21	26.39	31.06
244.5					23.75	29.57	35.33
273					26.54	33.05	39.55
323					31.56	39.92	46.30
355.6					34.72	43.28	51.79
406.4					39.74	49.55	59.32

TUBI  
TUBOLARI  
SALDATI E  
STRUTTURALI

# TUBI CARPENTERIA

## EN 10219 - 2: 1997



### \* TUBI CARPENTERIA ZINCATI

Ø "D" pollici	Ø "D" mm	spess. "D" mm	peso kg/m
3/8 *	16.7	1.8	0.68
1/2 *	21.2	2	0.95
3/4 *	26.7	2.5	1.49
1' *	33.5	2.65	2.02
1 1/4 *	42.2	2.8	2.87
1 1/2 *	48.2	3	3.31

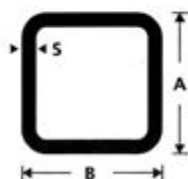
\* tubi disponibili anche zincati

Ø "D" pollici	Ø "D" mm	spess. "S" mm	peso kg/m
2' *	60	3	4.19
2 1/2	76	3	5.36
3'	89	3	6.32
3 1/2	102	3	7.32
4'	114.3	3.2	8.21
5'	139.7		
6'	168.3		
7'	197		
8'	219.1		
10'	273		
12'	323		

\* tubi disponibili anche zincati

# TUBOLARI QUADRATI

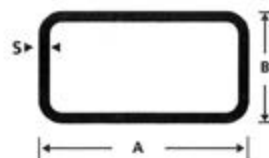
## EN 10219 - 2: 1997



dimensione "A x B" mm	spessore mm									
	1.5	2	3	4	5	6	7	8	9	10
	peso kg/m									
10 x 10	0.40									
12 x 12	0.50									
15 x 15	0.64	0.88								
20 x 20	0.87	1.13	1.60							
25 x 25	1.11	1.44	2.07							
30 x 30	1.34	1.76	2.54	3.27						
35 x 35	1.58	2.07	3.01							
40 x 40	1.81	2.39	3.48	4.09						
45 x 45	2.05	2.70	3.96	4.72	5.61					
50 x 50	2.28	3.01	4.43	5.83	6.40					
60 x 60	2.75	3.64	5.37	7.03	7.97	10.34				
70 x 70	3.23	4.27	6.31	8.33	9.54	11.10	12.53			
80 x 80		4.90	7.25	9.55	11.11	12.99	14.72	16.36		21.20
90 x 90		5.50	8.20	10.80	12.68	14.87	16.92			
100 x 100		6.15	9.14	12.06	14.26	16.76	19.12	21.39	22.99	24.89
110 x 110			9.84	12.89	15.83	18.64	21.32	23.90	25.81	28.03
120 x 120			11.00	14.54	17.40	20.53	23.52	26.41	28.64	31.17
140 x 140			12.72	16.76	20.52	24.28	27.91	31.43	34.29	37.45
150 x 150			13.82	18.35	22.11	26.19	30.11	33.95	37.12	40.59
160 x 160			14.61	19.27	23.66	28.04	32.31	36.46	39.94	43.73
175 x 175			16.02	21.15	26.02	30.87	35.61	40.23	44.18	48.44
180 x 180				21.78	26.80	31.81	36.70	41.48	45.60	50.01
200 x 200				24.29	29.94	35.58	41.10	46.51	51.25	56.29
220 x 220				26.81	33.09	39.35	45.50	51.53	56.90	62.57
250 x 250				30.57	37.79	45.00	52.09	59.07	65.38	71.99
260 x 260				31.83	39.36	46.88	54.29	61.58	68.20	75.13
300 x 300					45.64	54.42	63.08	71.63	79.51	87.69
325 x 325					49.57	59.13	68.58	77.91	86.57	95.54

# TUBOLARI RETTANGOLARI

EN 10219 - 2: 1997

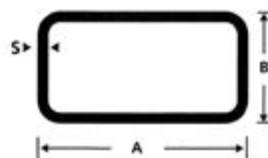


dimensione "A x B" mm	spessore						
	1.5	2	3	4	5	6	7
	peso kg/m						
15 x 10	0.52						
20 x 10	0.64	0.81					
20 x 15	0.75	0.97					
25 x 10	0.75	0.97					
25 x 15	0.87	1.13					
25 x 20	0.99	1.29					
30 x 10	0.87	1.13					
30 x 15	0.99	1.29	1.65				
30 x 20	1.11	1.44	2.07				
35 x 10	0.99	1.29					
35 x 15	1.11	1.44	2.07				
35 x 20	1.22	1.60	2.31				
40 x 10	1.11	1.44					
40 x 15	1.22	1.60	2.31				
40 x 20	1.34	1.76	2.54				
40 x 25	1.46	1.91	2.78				
40 x 30	1.58	2.07	3.01				
45 x 10	1.22	1.60	2.31				
45 x 15	1.34	1.76	2.54				
45 x 20	1.46	1.91	2.78				
45 x 30	1.69	2.23	3.25				
50 x 10	1.34	1.76	2.54				
50 x 15	1.46	1.92	2.78				
50 x 20	1.58	2.07	3.01				
50 x 25	1.69	2.23	3.25				
50 x 30	1.81	2.39	3.48	4.52			
50 x 40	2.05	2.70	3.95	5.15			
60 x 10	1.58	2.07	3.01				
60 x 15	1.69	2.23	3.25				
60 x 20	1.81	2.39	3.48				
60 x 25	1.93	2.54	3.74				
60 x 30	2.05	2.70	3.95	4.72			
60 x 40	2.28	3.01	4.43	5.35	7.01		
60 x 50	2.52	3.33	4.90	5.98	8.02		
70 x 20	2.05	2.70	3.95	5.23			
70 x 25	2.17	2.86	4.19				
70 x 30	2.28	3.01	4.43	5.35			
70 x 40	2.52	3.33	4.90	5.98			

TUBI  
TUBOLARI  
SALDATI E  
STRUTTURALI

# TUBOLARI RETTANGOLARI

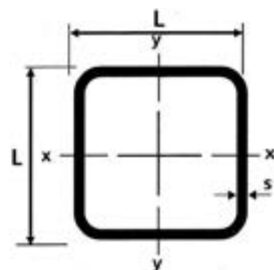
EN 10219 - 2: 1997



dimensione "A x B" mm	spessore									
	1.5	2	3	4	5	6	7	8	9	10
	peso kg/m									
70 x 50	2.76	3.64	5.37	7.05	7.97	9.21	10.34			
80 x 15	2.16	2.86								
80 x 20	2.28	3.01	4.43							
80 x 30	2.52	3.33	4.90	5.98						
80 x 40	2.76	3.64	5.37	7.05	7.97	9.21	10.34			
80 x 50	2.99	3.96	5.84	7.66	8.75					
80 x 60	3.23	4.27	6.31	7.86	9.54	11.10	12.54	15.57		
90 x 30	2.76	3.64	5.37	7.10						
90 x 40	2.99	3.96	5.84	7.66						
90 x 50	3.23	4.27	6.31	7.86	9.53	11.09	13.85	15.57		
100 x 20	2.76	3.64	5.37							
100 x 30	3.00	3.95	5.84	7.66						
100 x 40	3.22	4.27	6.31	7.86	9.54	11.10	12.54			
100 x 50	3.46	4.58	6.78	8.92	11.40	12.04	13.64	16.83		
100 x 60		4.90	7.25	9.55	11.77	12.98	14.74	18.09		
100 x 70		5.21	7.72	10.17	12.56	13.93				
100 x 80		5.53	8.19	10.80	13.35	14.87	16.94			
110 x 50		4.90	7.25	9.55	11.77	12.98	14.74			
120 x 30		4.59	6.81	9.55	11.77	12.98	14.74			
120 x 40		4.90	7.25	9.55	11.77	12.98	14.74			
120 x 50		5.36	7.77	10.26	12.30	15.10				
120 x 60		5.53	8.19	10.80	13.35	14.87	16.94			
120 x 80		6.15	9.14	12.06	14.91	16.76	19.14	21.39		
130 x 50		5.50	8.20	10.80	13.35	14.87				
140 x 50		5.84	8.67	11.43						
140 x 60		6.15	9.14	12.06	14.91	16.76	19.14			
140 x 70		6.47	9.61	12.27	15.04	17.70				
140 x 80			10.11	13.39	16.53	19.69	21.32	23.90		
150 x 30		5.45	8.01	10.48						
150 x 40		5.87	8.73	11.43	15.04	17.70				
150 x 50		6.07	9.14	12.06	14.91	16.76	19.14	23.10		
150 x 100			11.49	15.20	18.84	21.47	24.90	27.67		35.70
160 x 80			11.02	14.57	18.05	20.53	23.80	26.41		
180 x 60			11.02	14.57	18.05	20.53	23.80			
180 x 80			11.78	15.50	18.95	22.39	25.71	28.92		
200 x 100			13.67	18.01	22.09	26.16	30.11	33.95	37.12	40.59
200 x 150			16.02	21.16	26.01	30.90	35.65	40.23	44.78	48.44
250 x 100			16.02	21.16	26.01	30.90	35.65	40.23	44.18	48.44
250 x 150				24.29	29.94	35.58	41.10	46.51	51.25	56.29
300 x 150				27.43	33.87	40.29	46.60	52.79		
300 x 200				30.57	37.75	45.00	52.09	59.07		72.93
400 x 200					45.64	54.42	63.08	71.63		88.63
400 x 250					49.57	59.13	68.58	77.91		

# PROFILATI CAVI QUADRATI

## FORMATI A CALDO



dimensioni L x L mm	spessore s mm	massa lineica M kg/m	area della sezione A cm <sup>2</sup>	momento di inerzia I cm <sup>4</sup>	raggio di inerzia r cm	modulo di resistenza		momento di inerzia di torsione J cm <sup>4</sup>	costante di torsione C cm <sup>3</sup>	superficie esterna lineica m <sup>2</sup> /m
						elastico W cm <sup>3</sup>	plastico S cm <sup>3</sup>			
40x 40	2,5	2,92	3,72	8,67	1,53	4,33	5,21	13,6	6,23	0,155
	3,0	3,45	4,40	10,0	1,51	4,98	6,07	15,7	7,11	0,154
	3,2	3,66	4,66	10,4	1,50	5,22	6,40	16,5	7,43	0,153
	4,0	4,46	5,68	12,1	1,46	6,07	7,61	19,5	8,56	0,151
	5,0	5,40	6,88	13,8	1,42	6,92	8,92	22,6	9,65	0,149
50x 50	2,5	3,71	4,72	17,7	1,94	7,07	8,38	27,4	10,2	0,195
	3,0	4,39	5,60	20,5	1,91	8,20	9,83	32,0	11,8	0,194
	3,2	4,66	5,94	21,6	1,91	8,62	10,4	33,8	12,4	0,193
	4,0	5,72	7,28	25,5	1,87	10,2	12,5	40,4	14,5	0,191
	5,0	6,97	8,88	29,6	1,83	11,9	14,9	47,6	16,7	0,189
	6,0	8,15	10,4	33,0	1,78	13,2	17,0	53,7	18,5	0,187
	6,3	8,49	10,8	33,9	1,77	13,6	17,5	55,3	18,9	0,186
60x 60	3,0	5,34	6,80	36,6	2,32	12,2	14,5	56,9	17,7	0,234
	3,2	5,67	7,22	38,7	2,31	12,9	15,3	60,1	18,6	0,233
	4,0	6,97	8,88	46,1	2,28	15,4	18,6	72,4	22,1	0,231
	5,0	8,54	10,9	54,4	2,24	18,1	22,3	86,3	25,8	0,229
	6,0	10,0	12,8	61,5	2,19	20,5	25,7	98,6	28,9	0,227
	6,3	10,5	13,3	63,4	2,18	21,1	26,6	102	29,7	0,226
	8,0	12,8	16,3	72,4	2,11	24,1	31,4	119	33,5	0,223
70 x 70	3,0	6,28	8,00	59,6	2,73	17,0	20,0	92,1	24,8	0,274
	3,6	7,46	9,50	69,5	2,70	19,9	23,6	108	28,7	0,272
	5,0	10,1	12,9	90,1	2,64	25,7	31,2	142	36,8	0,269
	6,0	11,9	15,2	103	2,60	29,4	36,2	163	41,7	0,267
	6,3	12,5	15,9	106	2,59	30,4	37,6	169	43,0	0,266
	8,0	15,3	19,5	123	2,51	35,3	45,0	200	49,4	0,263
80x 80	3,0	7,22	9,20	90,6	3,14	22,7	26,5	139	33,1	0,314
	3,6	8,59	10,9	106	3,11	26,5	31,3	164	38,5	0,312
	5,0	11,7	14,9	139	3,05	34,7	41,7	217	49,8	0,309
	6,0	13,8	17,6	159	3,01	39,8	48,6	251	56,9	0,307
	6,3	14,4	18,4	165	3,00	41,3	50,5	261	58,8	0,306
	8,0	17,8	22,7	194	2,92	48,6	60,9	312	68,5	0,303
90x 90	3,6	9,72	12,4	154	3,52	34,1	40,0	237	49,7	0,352
	5,0	13,3	16,9	202	3,46	45,0	53,6	315	64,9	0,349
	6,0	15,7	20,0	234	3,42	51,9	62,7	367	74,4	0,347
	6,3	16,4	20,9	242	3,41	53,9	65,3	381	77,1	0,346
	8,0	20,4	25,9	288	3,33	64,0	79,2	459	90,7	0,343
100x100	4,0	12,0	15,3	234	3,91	46,8	54,9	361	68,2	0,391
	5,0	14,8	18,9	283	3,87	56,6	67,1	439	81,9	0,389
	6,0	17,6	22,4	328	3,83	65,6	78,6	512	94,4	0,387
	6,3	18,4	23,4	341	3,81	68,2	82,0	533	97,9	0,386
	8,0	22,9	29,1	408	3,74	81,5	99,9	646	116	0,383
	10,0	27,9	35,5	474	3,65	94,9	119	761	134	0,379

TUBI  
TUBOLARI  
SALDATI E  
STRUTTURALI



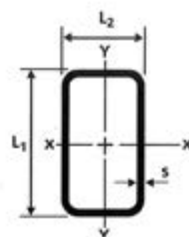
L S KG/M

(segue)

120x120	5,0	18,0	22,9	503	4,69	83,8	98,4	775	122	0,469
	6,0	21,3	27,2	586	4,64	97,7	116	910	141	0,467
	6,3	22,3	28,5	610	4,63	102	121	949	147	0,466
	8,0	27,9	35,5	738	4,56	123	149	1159	176	0,463
	10,0	34,2	43,5	870	4,47	145	178	1381	206	0,459
12,5	41,6	53,0	1009	4,36	168	212	1624	237	0,453	
140x140	5,0	20,9	26,6	801	5,49	114	134	1258	170	0,543
	6,0	24,8	31,6	935	5,44	134	158	1482	198	0,539
	6,3	26,0	33,1	974	5,42	139	165	1547	206	0,538
	8,0	32,4	41,3	1178	5,34	168	202	1899	248	0,533
	10,0	39,6	50,5	1388	5,24	198	242	2276	292	0,526
12,5	49,5	63,0	1691	5,18	242	299	2695	342	0,533	
150x150	5,0	22,5	28,6	994	5,89	133	155	1557	197	0,583
	6,0	26,7	34,0	1163	5,85	155	182	1837	230	0,579
	6,3	28,0	35,6	1212	5,83	162	191	1918	239	0,587
	8,0	34,9	44,5	1471	5,75	196	234	2361	290	0,573
	10,0	42,8	54,5	1741	5,65	232	282	2840	342	0,566
	12,5	53,4	68,0	2125	5,59	283	348	3372	403	0,573
	16,0Δ	66,4	84,5	2500	5,44	333	421	4029	468	0,566
160x160	5,0	24,0	30,6	1217	6,30	152	177	1900	226	0,623
	6,0	26,7	34,0	1163	5,85	155	182	1837	230	0,579
	6,3	29,9	38,1	1486	6,24	186	218	2344	275	0,618
	8,0	37,4	47,7	1809	6,16	226	269	2893	334	0,613
	10,0	45,9	58,5	2150	6,06	269	325	3489	396	0,606
12,5	57,3	73,0	2627	6,00	328	402	4154	468	0,613	
180x180	5,0	27,2	34,6	1756	7,12	195	226	2730	290	0,703
	6,0	32,4	41,2	2052	7,07	299	267	3229	340	0,699
	6,3	33,9	43,2	2151	7,06	239	280	3376	354	0,698
	8,0	42,5	54,1	2633	6,98	293	346	4182	433	0,693
	10,0	52,2	66,5	3149	6,88	350	419	5069	517	0,686
	12,5	65,2	83,0	3856	6,82	428	519	6062	613	0,693
	16,0	81,4	104	4607	6,66	512	634	7339	725	0,686
200x200	5,0	30,3	38,6	2433	7,24	243	281	3770	362	0,783
	6,0	36,1	46,0	2865	7,89	286	333	4468	425	0,779
	6,3	37,8	48,2	2991	7,88	299	348	4673	444	0,778
	8,0	47,5	60,5	3676	7,80	368	432	5805	544	0,773
	10,0	58,5	74,5	4417	7,70	442	526	7062	653	0,766
	12,5	73,0	93,0	5419	7,63	542	651	8479	779	0,773
	16,0	91,5	117	6524	7,48	652	799	10330	929	0,766
250x250	6,0	45,5	58,0	5724	9,93	458	529	8859	681	0,979
	6,3	47,7	60,8	5984	9,92	479	554	9274	712	0,978
	8,0	60,0	76,5	7404	9,84	592	690	11580	879	0,973
	10,0	74,2	94,5	8974	9,74	718	845	14170	1063	0,966
	12,5	92,6	118	11047	9,68	884	1048	17139	1279	0,973
16,0	117	149	13476	9,53	1078	1298	21109	1548	0,966	
300x300	6,0	55,0	70,0	10041	11,97	669	770	15459	996	1,18
	6,3	57,6	73,4	10504	11,96	700	806	16192	1042	1,18
	8,0	72,6	92,5	13060	11,90	870	1008	20280	1293	1,17
	10,0	89,9	114	15910	11,80	1061	1238	24920	1573	1,17
	12,5	112	143	19634	11,7	1309	1538	30290	1905	1,17
	16,0	142	181	24157	11,6	1610	1916	37566	2327	1,17
350x350	8,0	85,2	108	21030	13,9	1202	1386	32500	1788	1,37
	10,0	106	134	25730	13,8	1470	1707	40050	2183	1,37
	12,5	132	168	31806	13,8	1817	2122	48870	2655	1,37
	16,0	167	213	39367	13,6	2250	2655	60901	3265	1,37
400x400	10,0	121	154	38930	15,9	1947	2251	60330	2894	1,57
	12,5	152	193	48187	15,8	2409	2800	73815	3530	1,57
	16,0	192	245	59905	15,7	2995	3514	92314	4363	1,57
	20,0	237	302	72395	15,5	3620	4292	112324	5240	1,56

# PROFILATI CAVI RETTANGOLARI

## FORMATI A CALDO



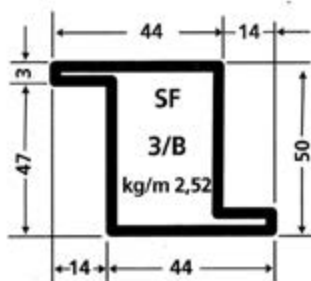
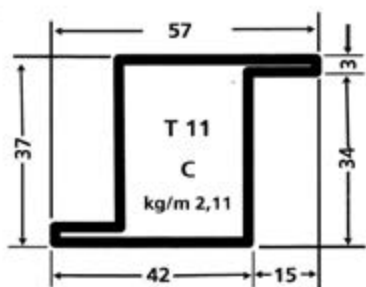
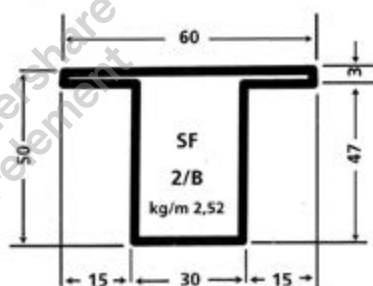
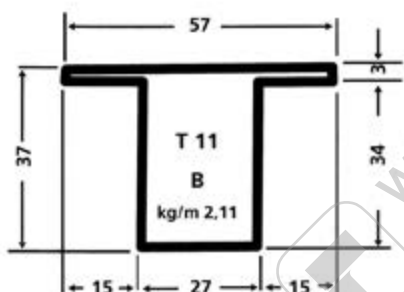
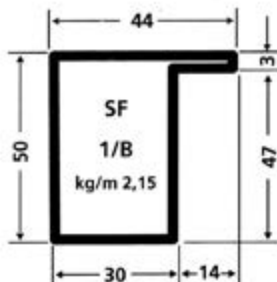
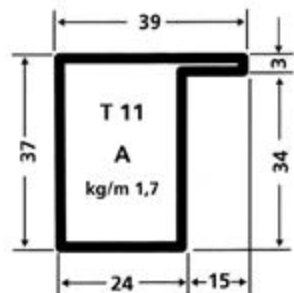
dimensioni	spessore	massa lineica	area della sezione	momento di inerzia				raggi di inerzia				modulo di resistenza				momento di inerzia di torsione	costante di torsione	superficie esterna lineica
												elastici		plastici				
				L x L mm	s mm	M kg/m	A cm <sup>2</sup>	I <sub>x</sub> cm <sup>4</sup>	I <sub>y</sub> cm <sup>4</sup>	r <sub>x</sub> cm	r <sub>y</sub> cm	W <sub>x</sub> cm <sup>3</sup>	W <sub>y</sub> cm <sup>3</sup>	S <sub>x</sub> cm <sup>3</sup>	S <sub>y</sub> cm <sup>3</sup>			
50x30	25	2.92	3.72	12.0	5.30	1.80	1.19	4.81	3.53	6.01	4.16	11.7	5.74	0.155				
	3.0	3.45	4.40	13.9	6.04	1.78	1.17	5.54	4.03	7.01	4.83	135	6.52	0.154				
	32	3.66	4.66	14.5	6.31	1.77	1.16	5.82	4.21	7.39	5.08	14.2	6.81	0.153				
	4.0	4.46	5.68	17.0	7.25	1.73	1.13	6.80	4.83	8.81	6.01	16.6	7.79	0.151				
	5.0	5.40	6.88	19.5	8.13	1.68	1.09	7.79	5.42	10.4	6.98	19.0	8.71	0.149				
60x40	25	3.71	4.72	23.1	12.2	2.21	1.61	7.71	6.10	9.43	7.09	25.0	9.74	0.195				
	3.0	4.39	5.60	26.9	14.1	2.19	1.59	8.96	7.04	11.1	8.29	29.2	11.2	0.194				
	3.2	4.66	5.94	28.3	14.8	2.18	1.58	9.44	7.39	11.7	8.75	30.8	11.8	0.193				
	4.0	5.72	7.28	33.6	17.3	2.15	1.54	11.2	8.67	14.1	10.5	36.6	13.7	0.191				
	5.0	6.97	8.88	39.2	20.0	2.10	1.50	13.1	10.0	16.8	12.4	43.0	15.8	0.189				
	6.0	8.15	10.39	43.9	22.1	2.06	1.46	14.6	11.0	19.2	14.1	48.3	17.3	0.187				
	6.3	8.49	10.82	45.1	22.6	2.04	1.45	15.0	11.3	1.93	14.6	49.7	17.7	0.186				
80x40	3.0	5.34	6.80	55.0	18.2	2.85	1.64	13.8	9.10	1.73	10.5	43.7	15.3	0.234				
	3.2	5.67	7.22	58.1	19.1	2.84	1.63	14.5	9.56	1.83	11.1	46.1	16.1	0.233				
	4.0	6.97	8.88	69.6	22.6	2.80	1.59	17.4	11.3	22.2	13.4	55.1	18.9	0.231				
	5.0	8.54	10.9	82.4	26.2	2.75	1.55	20.6	13.1	26.7	15.9	65.0	21.9	0.229				
	6.0	10.0	12.8	93.5	29.1	2.70	1.51	23.4	14.5	30.8	18.2	73.5	24.3	0.227				
	6.3	10.5	13.3	96.5	29.8	2.69	1.50	24.1	14.9	31.9	18.8	75.3	24.9	0.226				
	8.0	12.8	16.3	111	33.1	2.61	1.42	27.7	16.6	37.8	21.8	86.3	27.6	0.223				
90x50	3.0	6.28	8.00	85.4	33.8	3.27	2.05	19.0	13.5	23.4	15.5	76.4	22.4	0.274				
	3.6	7.46	9.50	99.8	39.1	3.24	2.03	22.2	15.6	27.6	18.1	89.3	25.9	0.272				
	5.0	10.1	12.9	130	50.0	3.18	1.97	28.9	20.0	36.6	23.9	116	32.9	0.269				
	6.0	11.9	15.2	149	56.4	3.13	1.93	33.1	22.6	42.5	27.5	133	37.0	0.267				
	6.3	12.5	15.9	154	58.1	3.12	1.91	34.2	23.3	44.2	28.5	138	38.2	0.266				
	8.0	15.3	19.5	180	66.3	3.04	1.84	40.0	26.5	53.0	33.7	161	43.4	0.263				
100x50	3.0	6.75	8.60	111	37.1	3.59	2.08	22.2	14.8	27.6	16.9	88.3	25.0	0.294				
	4.0	8.86	11.3	142	46.7	3.55	2.03	28.4	18.7	35.7	21.7	113	31.4	0.291				
	5.0	10.9	13.9	170	55.1	3.50	1.99	34.0	22.0	43.3	26.1	135	37.0	0.289				
	6.0	12.9	16.4	195	62.3	3.45	1.95	39.0	24.9	50.4	30.2	154	41.7	0.287				
	6.3	13.4	17.1	202	64.2	3.44	1.94	40.5	25.7	52.5	31.3	160	43.0	0.286				
	8.0	16.6	21.1	238	73.5	3.36	1.86	47.6	29.4	63.1	37.1	187	49.1	0.283				
100x60	3.0	7.22	9.20	125	56.2	3.69	2.47	25.0	18.7	30.5	21.3	121	30.1	0.314				
	3.6	8.59	10.9	147	65.4	3.66	2.45	29.3	21.8	36.0	25.1	142	35.6	0.312				
	5.0	11.7	14.9	192	84.7	3.60	2.39	38.5	28.2	48.1	33.3	187	45.9	0.309				
	6.0	13.8	17.6	222	96.6	3.55	2.34	44.4	32.2	56.1	38.6	216	52.2	0.307				
	6.3	14.4	18.4	230	100	3.54	2.33	46.0	33.3	58.4	40.2	224	53.9	0.306				
	8.0	17.8	22.7	272	116	3.46	2.26	54.4	38.7	70.5	48.1	266	62.4	0.303				
120x60	3.6	9.72	12.4	230	76.9	4.31	2.49	38.3	25.6	47.6	29.2	183	43.3	0.352				
	5.0	13.3	16.9	304	100	4.24	2.43	50.7	33.3	63.9	38.8	242	56.0	0.349				
	6.0	15.7	20.0	352	114	4.20	2.39	58.7	38.1	74.8	45.1	279	63.9	0.347				
	6.3	16.4	20.9	366	118	4.18	2.38	61.0	39.4	78.0	46.9	290	66.0	0.346				
	8.0	20.4	25.9	437	138	4.10	2.31	72.8	45.9	94.8	56.4	344	76.8	0.343				

TUBI  
TUBOLARI  
SALDATI E  
STRUTTURALI

L S KG/M  
(segue)

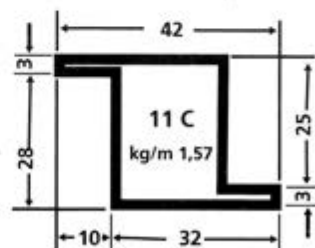
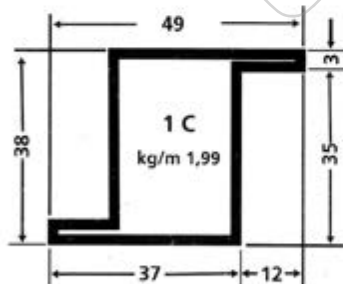
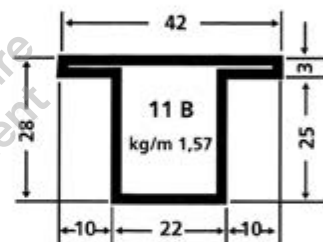
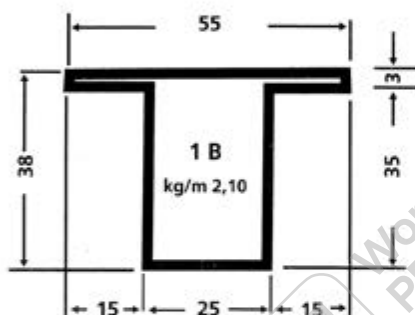
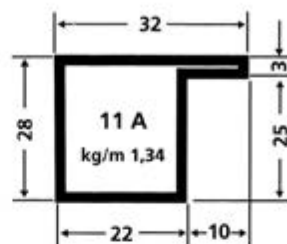
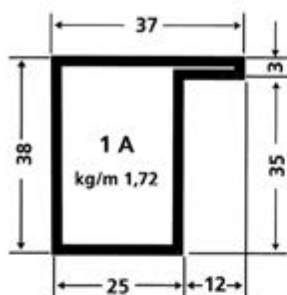
120x80	5.0	14.8	18.9	370	195	4.43	3.21	61.7	48.5	75.4	56.7	401	77.9	0.389
	6.0	17.6	22.4	430	225	4.38	3.17	71.7	56.3	88.5	66.3	467	89.7	0.387
	6.3	18.4	23.4	447	234	4.37	3.16	74.6	58.4	92.3	69.1	486	93.0	0.386
	8.0	22.9	29.1	537	278	4.29	3.09	89.5	69.4	113	83.9	586	110	0.383
	10.0	27.9	35.5	626	320	4.20	3.00	105	80.0	134	99.4	688	126	0.379
150x100	5.0	18.7	23.9	747	396	5.59	4.07	100	79.1	121	90.8	806	127	0.489
	6.0	22.3	28.4	873	461	5.55	-4.03	116	92.1	142	107	945	147	0.487
	6.3	23.3	29.7	910	479	5.53	4.02	121	95.9	148	111	985	153	0.486
	8.0	29.1	37.1	1106	577	5.46	3.94	147	115	183	137	1202	184	0.483
	10.0	35.7	45.5	1312	678	5.37	3.86	175	136	220	164	1431	215	0.479
160x80	12.5	43.6	55.5	1532	781	5.25	3.75	204	156	263	194	1680	246	0.473
	5.0	18.0	22.9	753	251	5.74	3.31	94.1	62.8	117	71.7	599	106	0.469
	6.0	21.3	27.2	880	291	5.69	3.27	110	72.8	138	84.1	700	123	0.467
	6.3	22.3	28.5	917	302	5.68	3.26	115	75.6	144	87.7	729	127	0.466
	8.0	27.9	35.5	1113	361	5.60	3.19	139	90.2	177	107	882	151	0.463
200x100	10.0	34.2	43.5	1318	419	5.50	3.10	165	105	213	127	1041	175	0.459
	12.5	41.6	53.0	1536	476	5.38	3.00	192	119	254	150	1206	199	0.453
	5.0	22.5	28.6	1482	502	7.20	4.19	148	100	184	113	1209	172	0.583
	6.0	26.7	34.0	1736	584	7.14	4.14	174	117	217	133	1420	200	0.579
	6.3	28.0	35.6	1809	607	7.13	4.13	181	121	226	139	1481	208	0.578
200x120	8.0	34.9	44.5	2200	729	7.03	4.05	220	146	279	170	1810	250	0.573
	10.0	43.6	54.5	2610	853	6.92	3.96	261	171	336	203	2157	293	0.566
	12.5	53.4	68.0	3218	1022	6.88	3.88	322	204	417	249	2541	342	0.573
	16.0	66.4	84.5	3808	1175	6.71	3.73	381	235	505	297	2988	393	0.566
	5.0	24.0	30.6	1673	758	7.39	4.97	167	125	203	143	1655	210	0.623
200x150	6.0	28.6	36.4	1962	885	7.34	4.93	196	147	240	168	1951	245	0.619
	6.3	29.9	38.1	2045	921	7.52	4.91	205	154	251	176	2037	255	0.618
	8.0	37.4	47.7	2495	1115	7.23	4.84	250	186	310	216	2504	309	0.613
	10.0	45.9	58.5	2971	1316	7.13	4.74	297	219	374	260	3008	365	0.606
	12.5	57.3	73.0	3658	1589	7.08	4.67	366	265	464	319	3567	429	0.613
250x150	5.0	30.3	38.6	3341	1520	9.30	6.27	267	203	323	227	3290	337	0.783
	6.0	36.1	46.0	3938	1785	9.25	6.23	315	238	382	269	3893	395	0.779
	6.3	37.8	48.2	4112	1862	9.24	6.22	329	248	400	281	4071	412	0.778
	8.0	47.5	60.5	5061	2278	9.15	6.14	405	304	497	348	5042	506	0.773
	10.0	58.5	74.5	6092	2723	9.04	6.05	487	363	605	422	6114	603	0.766
300x200	12.5	73.0	93.0	7518	3310	8.99	5.97	601	441	751	520	7317	717	0.773
	16.0	91.5	117	9089	3943	8.83	5.82	727	526	924	635	8863	851	0.766
	6.0	45.5	58.0	7447	3995	11.3	8.30	496	399	593	450	6130	661	0.979
	6.3	47.7	60.8	7786	4173	11.3	8.28	519	417	621	470	8509	680	0.978
	8.0	60.0	76.5	9646	5151	11.2	8.21	643	515	775	585	10610	839	0.973
400x200	10.0	74.2	94.5	11710	6223	11.1	8.12	780	622	948	716	12970	1013	0.966
	12.5	92.6	118	14465	7619	11.1	8.04	964	762	1179	866	15655	1217	0.973
	16.0	117	149	17698	9239	10.9	7.89	1180	924	1462	1094	19227	1469	0.966
	8.0	72.6	92.5	19440	6626	14.5	8.46	972	663	1197	740	15790	1134	1.17
	10.0	89.9	114	23720	8030	14.4	8.57	1186	803	1471	906	19340	1374	1.17
450x250	12.5	112	143	29410	9820	14.3	8.29	1471	982	1831	1120	23406	1657	1.17
	16.0	142	181	36299	11964	14.2	8.14	1815	1195	2285	1388	28836	2011	1.17
	8.0	85.2	108	29930	12090	16.6	10.6	1330	967	1615	1078	27180	1628	1.37
	10.0	106	134	36650	14740	16.5	10.5	1629	1179	1990	1325	33420	1934	1.37
	12.5	132	168	45470	18104	16.5	10.4	2021	1448	2478	1642	40669	2407	1.37
500x200	16.0	167	213	56421	22251	16.3	10.2	2508	1780	3103	2047	50478*	2948	1.37
	8.0	85.2	108	33858	8102	17.7	8.64	1354	810	1700	893	21194	1429	1.37
	10.0	108	134	41457	9837	17.5	8.55	1658	983	2093	1096	25966	1736	1.37
	12.5	132	168	51506	12020	17.5	8.46	2060	1202	2609	1354	31478	2097	1.37
	16.0	167	213	63925	14669	17.3	8.31	2557	1467	3267	1683	38828	2554	1.37
500x300	10.0	121	154	53460	24330	18.6	12.5	2139	1622	2563	1818	52650	2694	1.57
	12.5	152	193	66363	29972	18.5	12.5	2656	1998	3218	2257	64313	3282	1.57
	16.0	192	245	82673	37076	18.4	12.5	3307	2472	4042	2825	80223	4046	1.57
	20.0	237	302	100146	44547	18.2	12.1	4006	2970	4942	3442	97315	4845	1.56

# TUBOLARI PER SERRAMENTI



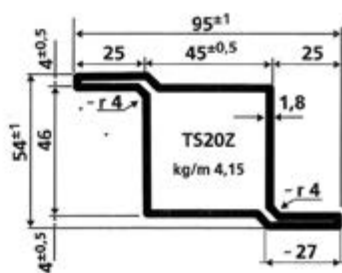
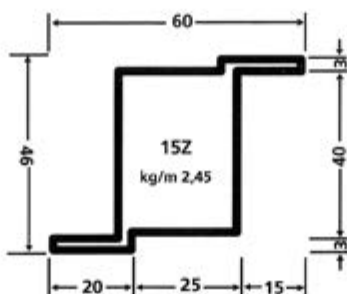
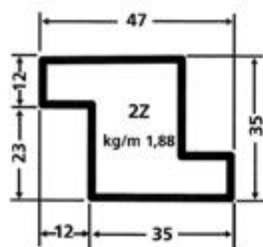
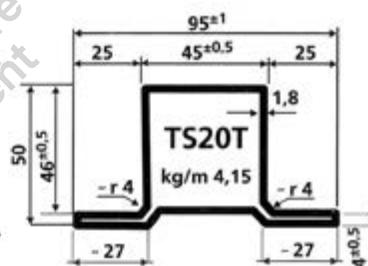
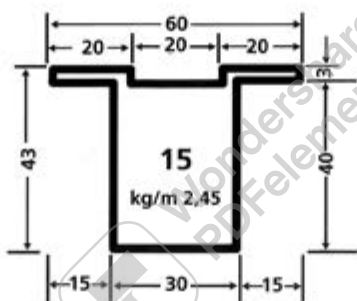
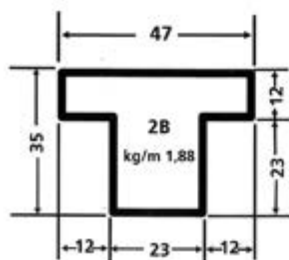
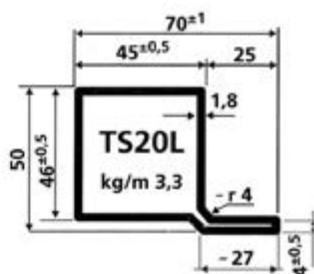
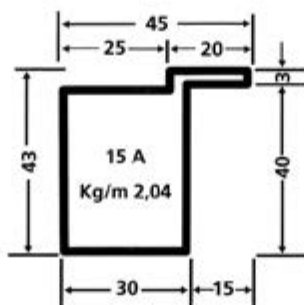
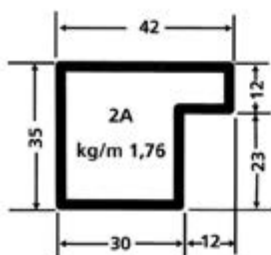
TUBOLARI  
PER  
SERRAMENTI

# TUBOLARI PER SERRAMENTI



1A - 1B - 1C  
SERIE DISPONIBILE ANCHE ZINCATI

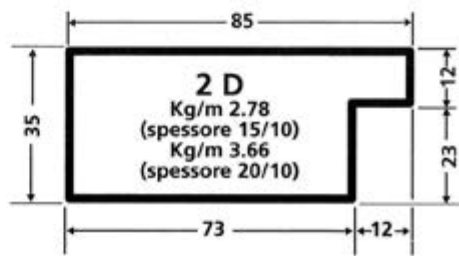
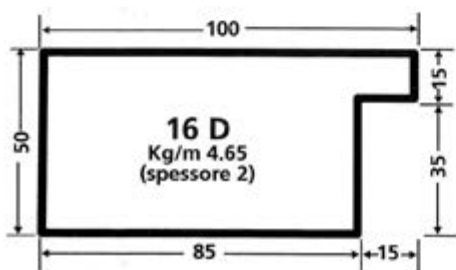
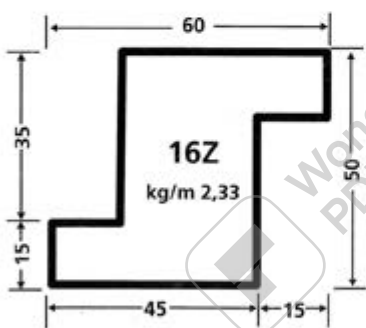
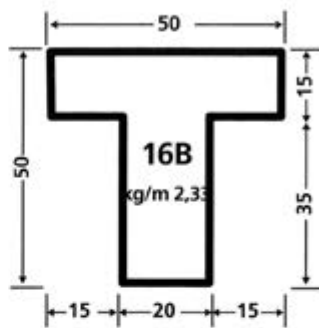
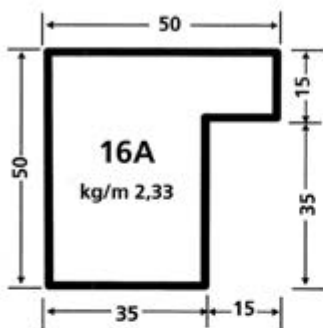
# TUBOLARI PER SERRAMENTI



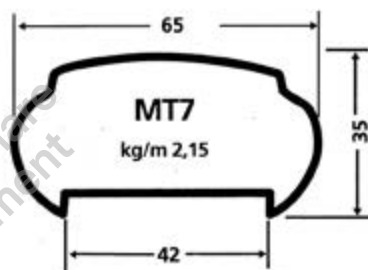
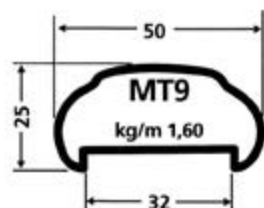
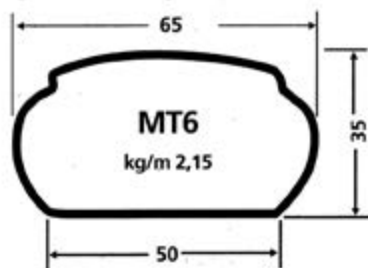
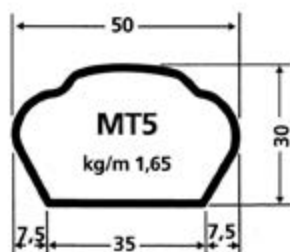
TUBOLARI  
PER  
SERRAMENTI



# TUBOLARI PER PORTONI

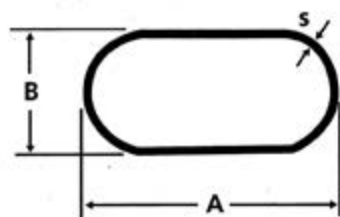


## CORRIMANO



## OVALE

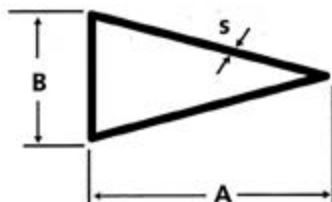
dimensioni "A x B" mm	spessore "S" mm	
	1.5	2
	peso in kg/mt	
30 x 15	0.86	1.13
40 x 20	1.12	1.47
50 x 25	1.50	1.95
60 x 30	1.79	2.37



TUBOLARI  
PER  
SERRAMENTI

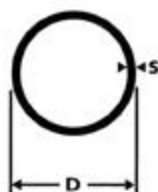
## TRIANGOLO

dimensioni "A x B" mm	spessore "S" mm	
	1.5	2
	peso in kg/mt	
30 x 15	0.86	1.13
40 x 20	1.24	1.63



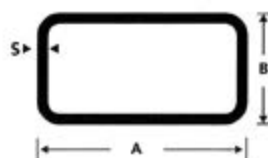
# TUBI MOBILIO

## A FREDDO DA NASTRO LUCIDO



peso kg/m	spessore mm									
	0.6	0.7	0.8	0.9	1	1.2	1.5	2	2.5	
8	0.110	0.126	0.142	0.158	1.173	0.201	0.240			
9	0.124	0.143	0.162	0.180	0.197	0.231	0.277			
9,5	0.132	0.152	0.172	0.191	0.210	0.246	0.296			
10	0.139	0.161	0.182	0.202	0.222	0.260	0.314			
11	0.154	0.178	0.201	0.224	0.247	0.290	0.351			
12	0.169	0.195	0.221	0.246	0.271	0.320	0.388			
13		0.212	0.241	0.269	0.296	0.349	0.425			
14	0.198	0.230	0.260	0.291	0.321	0.379	0.462	0.592		
15	0.213	0.247	0.280	0.313	0.345	0.408	0.499	0.641		
16	0.228	0.264	0.300	0.335	0.370	0.438	0.536	0.691		
17	0.243	0.281	0.320	0.357	0.395	0.468	0.573	0.740		
18	0.257	0.299	0.339	0.380	0.419	0.497	0.610	0.789		
19			0.359	0.402	0.444	0.527	0.647	0.838		
20	0.287	0.333	0.379	0.424	0.469	0.556	0.684	0.888		
21					0.493	0.586	0.721	0.937		
22	0.317	0.368	0.418	0.468	0.518	0.616	0.758	0.986	1.202	
22,2			0.422	0.473	0.523	0.622	0.766	0.996		
23,4					0.552	0.657	0.813	1.056		
24	0.346		0.458	0.513	0.567	0.675	0.832	1.085		
25		0.419	0.477	0.535	0.592	0.704	0.869	1.134	1.387	
25,4					0.602	0.716	0.884	1.154		
26		0.437	0.497	0.557	0.617	0.734	0.906	1.184		
27					0.641	0.764	0.943	1.233		
28		0.471	0.537	0.601	0.666	0.793	0.980	1.282	1.572	
28,6					0.681	0.811	1.003	1.312		
30		0.506	0.576	0.646	0.715	0.852	1.054	1.381	1.695	
31,7					0.757	0.903	1.117	1.465		
32		0.540	0.616	0.690	0.764	0.911	1.128	1.480	1.819	
33					0.789	0.941	1.165	1.529	1.880	
35		0.592	0.675	0.757	0.838	1.000	1.239	1.628	2.004	
38			0.734	0.823	0.912	1.089	1.350	1.776	2.189	
40				0.868	0.962	1.148	1.424	1.874	2.312	
41					0.986	1.179	1.461	1.924	2.374	
42					1.011	1.207	1.496	1.973	2.435	
43					1.036	1.237	1.535	2.022	2.497	
45					1.085	1.296	1.609	2.121	2.620	
48					1.160	1.380	1.720	2.270	2.800	
50				1.107	1.210	1.444	1.794	2.368	2.929	
60					1.455	1.740	2.164	2.860	3.540	

# TUBOLARI RETTANGOLARI A FREDDO DA NASTRO LUCIDO

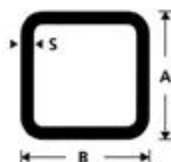


peso kg/mt	spessore mm								
	0.6	0.7	0.8	0.9	1	1.2	1.5	2	2.5
dimensioni D A x B									
10 x 7			0.201	0.224	0.247	0.290	0.351		
15 x 10			0.300	0.335	0.370	0.438	0.536		
18 x 5			0.260	0.291	0.321	0.379	0.462		
20 x 10			0.361	0.402	0.440	0.520	0.636	0.838	
20 x 15			0.422	0.453	0.525	0.615	0.760	0.986	
24 x 18			0.510	0.570	0.630	0.750	0.930		
25 x 10			0.422	0.453	0.525	0.615	0.760	0.986	
25 x 15			0.482	0.541	0.600	0.708	0.871	1.154	
25 x 20			0.550	0.620	0.680	0.810	1.000		
30 x 10			0.482	0.541	0.600	0.708	0.871		
30 x 15			0.551	0.612	0.675	0.803	0.990	1.310	
30 x 20			0.582	0.663	0.754	0.900	1.108	1.480	
30 x 25			0.685	0.765	0.850	1.010	1.255		
35 x 10			0.550	0.620	0.680	0.810	1.000		
35 x 11			0.576	0.646	0.715	0.852	1.054		
35 x 15			0.623	0.700	0.775	0.925	1.145		
35 x 20			0.680	0.765	0.845	1.010	1.250		
35 x 25			0.740	0.830	0.915	1.095	1.355		
35 x 30			0.813	0.912	1.011	1.207	1.498		
40 x 10					0.754	0.900	1.108	1.444	
40 x 11					0.789	0.941	1.165	1.529	
40 x 15					0.850	1.010	1.255	1.640	
40 x 20					0.910	1.085	1.342	1.760	
40 x 25					1.011	1.207	1.498	1.973	
40 x 30					1.068	1.274	1.578	2.072	
45 x 10					0.850	1.010	1.255	1.640	
45 x 11					0.855	1.020	1.265	1.660	
45 x 15					0.915	1.090	1.355	1.780	
45 x 20					1.011	1.207	1.498	1.973	
45 x 25					1.090	1.305	1.620	2.140	
45 x 30					1.160	1.380	1.720	2.270	
50 x 10					0.910	1.085	1.342	1.760	
50 x 11					0.924	1.100	1.359	1.779	
50 x 15					1.011	1.207	1.498	1.973	
50 x 20					1.068	1.274	1.578	2.072	
50 x 25					1.160	1.368	1.696	2.230	
50 x 30					1.210	1.440	1.790	2.370	
60 x 20					1.210	1.440	1.790	2.370	

TUBI  
MOBILIO

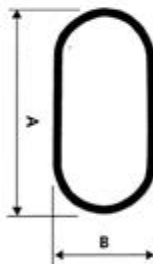
## TUBO QUADRO A FREDDO DA NASTRO LUCIDO

peso kg/mt	spessore mm							
	0.6	0.7	0.8	0.9	1	1.2	1.5	2
dimensioni A x B								
10 x 10			0.238	0.265	0.290	0.345	0.420	
12 x 12			0.290	0.321	0.350	0.412	0.536	
14 x 14			0.341	0.381	0.408	0.482	0.610	
15 x 15			0.362	0.402	0.440	0.520	0.636	
16 x 16			0.370	0.421	0.471	0.558	0.683	
18 x 18			0.441	0.482	0.534	0.633	0.777	
20 x 20			0.511	0.543	0.597	0.702	0.871	1.154
22 x 22			0.537	0.601	0.666	0.793	0.980	1.282
24 x 24			0.576	0.646	0.715	0.852	1.054	1.381
25 x 25			0.616	0.690	0.764	0.987	1.107	1.444
25.4 x 25.4					0.778	0.912	1.123	1.460
28 x 28					0.838	1.000	1.239	1.628
30 x 30					0.911	1.085	1.342	1.758
35 x 35					1.068	1.274	1.578	2.072
40 x 40					1.210	1.440	1.790	2.370



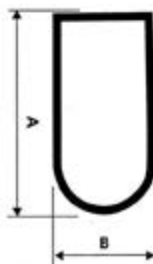
## TUBO OVALE A FREDDO DA NASTRO LUCIDO

peso kg/mt	spessore mm							
	0.6	0.7	0.8	0.9	1	1.2	1.5	2
dimensioni A x B								
20 x 10			0.340	0.382	0.423	0.504	0.615	
22.5 x 12.5					0.444	0.527	0.647	
25 x 10			0.361	0.403	0.441	0.532	0.651	
30 x 10			0.430	0.480	0.533	0.634	0.780	
33 x 10			0.475	0.532	0.590	0.700	0.865	1.130
25 x 15			0.428	0.470	0.520	0.620	0.760	
30 x 15			0.471	0.542	0.592	0.704	0.869	1.134
36 x 18					0.715	0.852	1.054	1.381
40 x 20					0.764	0.911	1.127	1.480
50 x 10						1.05	1.31	
50 x 25						1.177	1.458	1.925
60 x 20						1.296	1.609	2.121



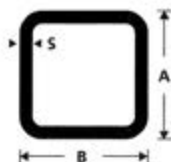
## TUBO SEMIOVALE A FREDDO DA NASTRO LUCIDO

peso kg/mt	spessore mm							
	0.6	0.7	0.8	0.9	1	1.2	1.5	2
dimensioni A x B								
30 x 15			0.507	0.568	0.629	0.749	0.925	1.208
30 x 20			0.620	0.700	0.770	0.920	1.140	1.500
40 x 20			0.675	0.757	0.838	1.000	1.239	1.628
40 x 25					0.912	1.089	1.350	1.776



## TUBOLARI QUADRI

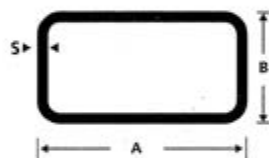
ACCIAIO INOX AISI 304



dimensioni mm	spessore mm				
	1,0	1,2	1,5	2,0	3,0
AxB	pesokg/m				
15x15	0.453	0.538	0.661		
20x20	0.610	0.724	0.890	1.159	
25x25	0.771	0.917	1.129	1.475	
30x30	0.931	1.108	1.371	1.795	2.643
35x35	1.081	1.302	1.612	2.115	3.124
40x40	1.251	1.494	1.852	2.434	3.562
45x45		1.687	2.090	2.756	4.040
50x50		1.882	2.332	3.078	4.533
60x60			2.815	3.724	5.494
80x80			3.798	5.040	7.484
100x100			4.819	6.400	9.525

## TUBOLARI RETTANGOLARI

ACCIAIO INOX AISI 304



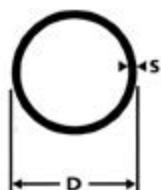
dimensioni mm	spessore mm				
	1,0	1,2	1,5	2,0	3,0
A x B	pesokg/m				
20 x 10	0.453	0.538	0.661		
25 x 15	0.610	0.724	0.890		
30 x 10	0.610	0.724	0.890		
30 x 15	0.689	0.820	1.010		
30 x 20	0.771	0.917	1.129	1.475	
35 x 15	0.771	0.917	1.129	1.475	
40 x 20	0.931	1.108	1.371	1.795	2.643
40 x 30	1.081	1.302	1.612	2.115	3.124
50 x 20	1.081	1.302	1.612	2.115	3.124
50 x 25	1.170	1.398	1.734	2.275	3.363
50 x 30		1.494	1.852	2.434	3.562
50 x 40		1.687	2.090	2.756	4.040
60 x 30		1.687	2.090	2.756	4.040
60 x 40		1.882	2.332	3.078	4.533
70 x 30		1.882	2.332	3.078	4.533
80 x 40			2.815	3.724	5.494
80 x 60			3.303	4.379	6.494
100 x 40			3.303	4.379	6.494
100 x 50			3.532	4.684	6.952
100 x 60			3.783	5.019	7.454

ACCIAIO  
INOX  
TUBI E  
PROFILI



# TUBI TONDI SALDATI

## ACCIAIO INOX AISI 304



diametro mm	spessore mm				
	1	1.2	1.5	2	3
Ø	pesokg/m				
10	0.225	0.325	0.394	0.500	
12	0.277	0.326	0.396		
14	0.327	0.387	0.472		
15	0.352	0.417	0.510		
16	0.378	0.447	0.548		
17.2	0.408	0.484	0.593	0.766	
18	0.428	0.508	0.623	0.806	
20	0.478	0.568	0.699	0.907	
21.3	0.512	0.608	0.748	0.973	
22	0.529	0.628	0.774	1.008	
25	0.604	0.719	0.888	1.159	
26.9	0.653	0.777	0.960	1.255	1.806
28	0.680	0.810	1.001	1.310	1.890
30	0.730	0.870	1.077	1.414	2.041
32	0.781	0.931	1.152	1.512	2.192
33	0.806	0.961	1.190	1.562	2.268
33.7	0.824	0.938	1.217	1.598	2.321
35	0.856	1.022	1.266	1.663	2.419
38	0.932	1.112	1.379	1.814	2.646
40	0.982	1.173	1.455	1.915	2.797
42	1.033	1.233	1.530	2.016	2.948
42.4	1.043	1.236	1.546	2.036	2.979
45	1.108	1.324	1.644	2.166	3.175
48.3	1.191	1.424	1.769	2.833	3.424
50	1.234	1.475	1.833	2.419	3.553
51	1.260	1.505	1.871	2.469	3.628
52	1.285	1.536	1.908	2.520	3.704
53		1.566	1.946	2.570	3.780
54		1.596	1.984	2.620	3.855
57		1.687	2.097	2.772	4.082
60.3		1.787	2.222	2.938	4.331
63.5		1.883	2.343	3.099	4.573
64		1.899	2.362	3.124	4.611
70		2.080	2.589	3.427	5.065
73		2.171	2.702	3.578	5.292
76.1		2.264	2.819	3.734	5.526
83			3.080	4.082	6.048
88.9			3.303	4.379	6.494
101.6			3.783	5.019	7.454
114.3			4.263	5.659	8.414
129			4.819	6.400	9.525
139.7			5.223	6.940	10.334
153			5.726	7.610	11.340
154			5.764	7.660	11.415
168.3			6.305	8.381	12.496
203			7.616	10.130	15.120
219.1			8.225	10.936	16.329
254			9.544	12.700	18.975
273			10.262	13.658	20.412
303			11.396	15.170	22.680
323.9				16.223	24.260
355.6					26.656

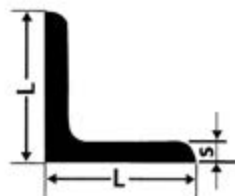
## PIATTI ACCIAIO INOX AISI 304



L mm	spessore mm																
	3	4	5	6	7	8	10	12	15	18	20	25	30	35	40	50	60
pesokg/m																	
10	0.236	0.314	0.393	0.471													
12	0.283	0.377	0.471	0.565		0.754											
14	0.330	0.440	0.550	0.359		0.879											
15	0.351	0.468	0.585	0.702		0.936	1.17										
16	0.377	0.502	0.628	0.754		1.00	1.26										
18	0.424	0.565	0.707	0.848		1.13	1.41										
20	0.471	0.628	0.785	0.942	1.10	1.26	1.57	1.88	2.36								
22	0.518	0.691	0.864	1.04	1.21	1.38	1.73	2.07	2.59								
25	0.589	0.785	0.981	1.18	1.37	1.57	1.96	2.36	2.94								
30	0.707	0.942	1.18	1.41	1.64	1.88	2.36	2.83	3.53	4.24	4.71						
35	0.824*	1.10	1.37	1.65	1.92	2.20	2.75	3.30	4.12	4.94	5.50	6.87					
40	0.942*	1.26	1.57	1.88	2.19	2.51	3.14	3.77	4.71	5.65	6.28	7.85	9.42				
45	1.06*	1.41	1.77	2.12	2.47	2.83	3.53	4.24	5.30	6.36	7.07	8.83	10.60*				
50	1.18*	1.57	1.96	2.36	2.75	3.14	3.93	4.71	5.89	7.06	7.85	9.81	11.80	13.74*	15.70*		
55		1.73	2.16	2.59		3.45	4.32	5.18	6.48	7.77	8.64	10.80	13.00				
60	1.41*	1.88	2.36	2.83	3.30	3.77	4.71	5.65	7.07	8.48	9.42	11.80	14.10		18.80	23.60	
65		2.04	2.55	3.06		4.08	5.10	6.12	7.65	9.18	10.20	12.80	15.30		20.40		
70	1.65*	2.20	2.75	3.30	3.85	4.40	5.50	6.59	8.24	9.89	11.00	13.70	16.50		22.00	27.50	33.00
75		2.36	2.94	3.53		4.71	5.89	7.07	8.83	10.60	11.80	14.70	17.70		23.60	29.40	
80	1.88*	2.51	3.14	3.77		5.02	6.28	7.54	9.42	11.30	12.60	15.70	18.80		25.10	31.40	37.70
90	2.12*	2.83	3.53	4.24		5.65	7.07	8.48	10.60	12.72	14.10	17.70	21.20		28.30	35.30	42.40
100	2.35*	3.14*	3.93	4.71		6.28	7.85	9.42	11.80	14.13	15.70	19.60	23.60		31.40	39.25	47.10

\* non unificato

## ANGOLARI A SPIGOLI TONDI ACCIAIO INOX AISI 304



L mm	spessore mm																		
	3	4	5	6	6.5	7	8	9	10	11	12	13	14	15	16	17	18	19	20
pesokg/m																			
15	0.63																		
20	0.88	1.14																	
25	1.12	1.46	1.78																
30	1.36	1.78	2.18	2.58															
35	1.60	2.09	2.57	3.04															
40	1.84	2.42	2.97	3.52															
45	2.09	2.74	3.38	4.00			4.60												
50	2.35	3.06	3.77	4.47		5.15	5.82	6.17											
55		3.35	4.16	4.95		5.70	6.46												
60		3.70	4.57	5.42		6.24	7.09		8.69										

ACCIAIO  
INOX  
TUBI E  
PROFILI

## TONDI



ACCIAIO INOX AISI 304

## QUADRI

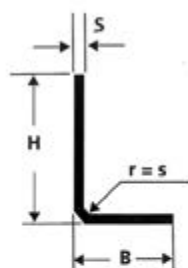


diametro mm D	peso kg/m
3	0.05
4	0.09
5	0.15
6	0.22
7	0.30
8	0.40
9	0.50
10	0.62
12	0.89
14	1.21
15	1.39
16	1.58
18	2.00
20	2.47
22	2.98
25	3.85
28	4.83
30	5.55
32	6.31
35	7.57
38	8.90
40	9.87
42	10.88
45	12.50
48	14.21
50	15.41
52	16.67
55	18.65
58	20.74
60	22.20

lato mm L	peso kg/m
8	0.50
10	0.79
12	1.13
14	1.54
15	1.77
18	2.54
20	3.14
25	4.91
30	7.77
35	9.61
40	12.56
45	15.90
50	19.63
55	23.18
60	26.26

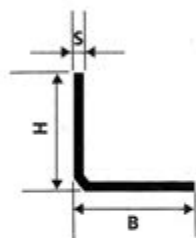
## ANGOLARI A LATI DISEGUALI

dimensioni	spessore mm							
	1.5	2	2.5	3	4	5	6	7
B x H	pesokg/m							
10 x 20	0,33							
12 x 25	0,42	0,55						
15 x 25	0,45	0,59						
15 x 30	0,51	0,66	0,83	0,99				
15 x 40		0,83	1,03	1,22				
20 x 25		0,66	0,83	0,99				
20 x 30		0,75	0,93	1,10				
20 x 35		0,83	1,03	1,22				
20 x 40		0,94	1,14	1,34				
20 x 45		0,99	1,22	1,46				
20 x 50		1,06	1,32	1,56				
20 x 60		1,22	1,52	1,81				
25 x 30		0,83	1,03	1,22				
25 x 40		0,99	1,22	1,46				
25 x 50		1,14	1,42	1,70				
30 x 40		1,06	1,32	1,56				
30 x 50		1,22	1,52	1,81				
30 x 60			1,72	2,04				
30 x 80				2,52	3,33			
40 x 60				2,28	3,01			
40 x 80				2,75	3,64			
40 x 100				3,22	4,27			



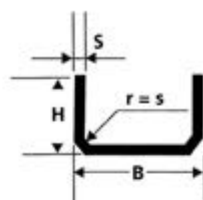
## ANGOLARI A LATI UGUALI

dimensioni	spessore mm							
	1.5	2	2.5	3	4	5	6	7
B x H	pesokg/m							
10 x 10	0.20							
15 x 15	0.31	0.40						
20 x 20	0.43	0.56	0.69					
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		1.03	1.30	1.53				
40 x 40		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	7.16	
90 x 90				4.12	5.46	6.80	8.10	
100 x 100				4.60	6.00	7.45	8.85	10.22
120 x 120					7.34	9.00	10.70	12.40
150 x 150						11.40	13.55	15.70



PL

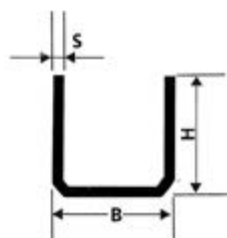
# "U" AD ALI UGUALI



dimensioni	spessore in mm		
	1.5	2	3
B x H	peso kg/ml		
8 x 10			
8 x 12			
8 x 15	0.39		
11 x 14	0.40		
15 x 10	0.35		
15 x 20	0.59	0.77	
20 x 10	0.41	0.54	
22 x 15	0.56	0.72	
22 x 18	0.64	0.84	
22 x 20	0.68	0.90	
22 x 30	0.91	1.19	
23 x 30	0.92	1.20	
24 x 30	0.93	1.22	1.76
24 x 35	1.05	1.38	2.00
25 x 12	0.52	0.68	
25 x 30	0.95	1.24	1.76
25 x 40	1.18	1.55	2.24
28 x 40	1.22	1.60	2.33
30 x 10	0.52		
30 x 15	0.64	0.85	
30 x 20	0.77	1.00	1.43
30 x 25	0.89	1.16	1.67

dimensioni	spessore in mm			
	2	3	4	5
B x H	peso kg/ml			
30 x 35	1.40	2.00		
30 x 40	1.64	2.43	3.18	
35 x 17	0.99			
35 x 20	1.08	1.53		
35 x 30	1.40	2.00		
35 x 40	1.71	2.50		
40 x 20	1.16	1.67		
40 x 30	1.47	2.14		
40 x 35	1.64	2.43	3.18	
50 x 20	1.33	1.96		
50 x 25	1.47	2.14		
50 x 30	1.64	2.43	3.18	
50 x 40	1.94	2.85	3.70	
55 x 30	1.71	2.50	3.23	
60 x 20	1.47	2.14		
60 x 30	1.87	2.61	3.39	4.12
60 x 40	2.10	3.08	4.01	4.90
65 x 50	2.41	3.58	4.73	5.84
70 x 30	1.94	2.85	3.70	
70 x 35	2.10	3.08	4.01	4.90
70 x 45	2.41	3.58	4.73	5.84
80 x 40	2.41	3.58	4.73	5.84
80 x 50	2.73	4.02	5.27	6.47
80 x 60	3.04	4.50	5.90	7.26
90 x 40	2.57	3.80	4.96	6.08
90 x 45	2.73	4.02	5.27	6.47
100 x 30	2.41	3.58	4.73	5.84
100 x 40	2.73	4.02	5.27	6.47
100 x 50	3.04	4.50	5.90	7.26
100 x 60	3.36	4.96	6.53	8.04
120 x 50		4.96	6.53	8.04
120 x 55		5.20	6.84	8.43
120 x 60		5.44	7.15	8.83
140 x 60		5.91	7.78	9.61
160 x 65		6.55	8.61	10.00

## "U" LATI UGUALI



dimensioni	spessore in mm									
	0.8	1	1.2	1.5	2	2.5	3	3.5	4	5
B x H	peso kg/m									
8 x 8	0.13	0.16	0.20							
10 x 10	0.17	0.21	0.24	0.29						
12 x 12	0.20	0.26	0.30	0.37						
15 x 15	0.26	0.32	0.38	0.47	0.60					
20 x 20	0.36	0.45	0.53	0.65	0.85					
22 x 22			0.59	0.72	0.94					
25 x 25			0.67	0.83	1.07	1.31	1.53			
26 x 26		0.58	0.69	0.85	1.10	1.35	1.60			
28 x 28			0.76	0.94	1.23	1.51	1.77			
30 x 30			0.81	1.00	1.31	1.61	1.89			
35 x 35				1.20	1.56	1.92	2.25			
40 x 40					1.82	2.21	2.61	2.98	3.35	
45 x 45					2.02	2.52	2.96	3.40	3.82	
50 x 50					2.26	2.79	3.32	3.80	4.29	5.24

## PRODUZIONE NORMALE MONOROTAIA NERA DECAPATA ZINCATA

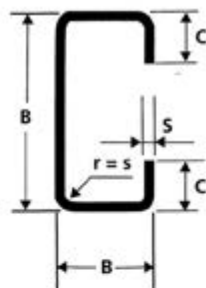
TIPO A	TIPO B	TIPO C
peso kg/ml 5.00	peso kg/ml 3.18	peso kg/ml 1.77

## PRODUZIONE NORMALE FERMAVETRO A SCATTO

LUCIDO - ZINCATO	LUCIDO - ZINCATO
peso kg/ml 0.20	peso kg/ml 0.23

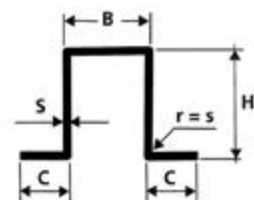


# PROFILATI A "C"



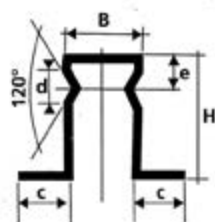
dimensioni			spessore in mm					
			1.5	2	2.5	3	3.5	
H	B	C	peso kg/ml					
25	15	7.5	0.74					
25	25	7.5	0.99					
30	15	7.5	0.81					
30	30	10	1.22	1.60	1.96	2.38		
30	40	10	1.46	1.92	2.36			
35	35	10	1.34	1.72	2.25	2.66		
40	20	10	1.11	1.33				
40	30	15	1.46	1.79				
40	40	10	1.58	2.07				
40	40	15	1.63	2.23	2.75	3.25		
40	50	15	1.87	2.54	3.14	3.44		
45	45	15	1.81	2.34	2.85	3.33		
50	30	15	1.58	2.07				
50	30	20	1.63	2.17	2.56	2.97		
50	40	15	1.81	2.39	2.75	3.21		
50	40	20		2.42	2.95	3.44		
50	50	15		2.58	3.14	3.68		
60	30	15		2.11	2.55	2.97		
60	40	20		2.58	3.15	3.69		
60	50	20		2.89	3.54	4.16		
60	60	20		3.21	3.93	4.63		
70	30	20		2.42	2.95	3.44		
70	40	12		2.50	3.03	3.54		
70	50	12		2.80	3.42	4.01		
80	40	20		2.89	3.59	4.16		
80	50	25		3.36	4.13	4.86	5.56	
80	60	15		3.36	4.13	4.86	5.56	
80	80	30		4.46	5.50	6.51	7.49	
100	50	25		3.68	4.52	5.33	6.10	
100	60	30				6.03	6.94	
100	70	35				6.74	7.76	
100	100	30				7.92	9.13	
120	30	12		2.96				
120	60	30		4.46	5.50	6.51	7.49	
130	60	30				6.74	7.75	
140	50	25				6.27	7.21	
140	70	35				7.68	8.87	
150	50	25				6.50	7.48	
150	70	35				7.93	9.14	
180	60	30				7.93	9.14	
200	50	25				7.68	8.87	

## OMEGA SIMMETRICI



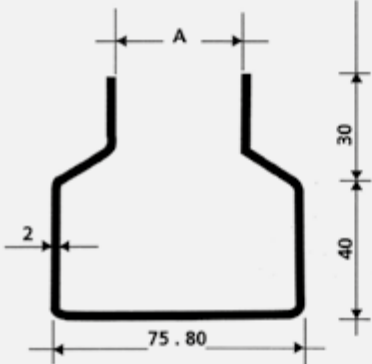
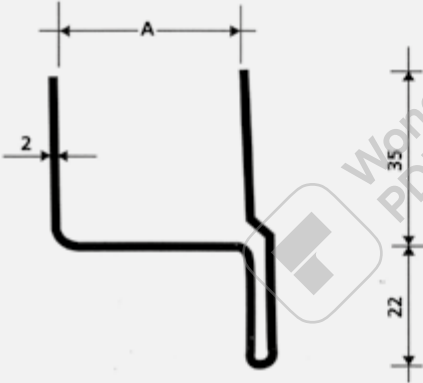
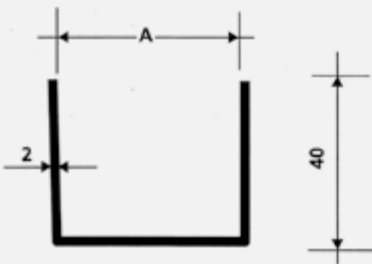
dimensioni			spessore in mm			
			1.5	2	2.5	3
B	H	C	peso kg/m			
30	50	20	1.93	2.54	3.14	
40	60	25		3.17	3.92	4.66
40	80	25		3.80	4.71	5.60
50	100	30		4.74	5.88	7.01
60	120	30			6.86	8.20
80	150	45				10.78

## ARCARECCIO TIPO FIAT A GOLE RIENTRATE

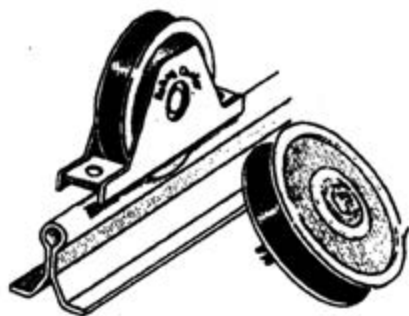


dimensioni mm					spessore in mm			
					2	2.5	3	3.5
H	B	c	e	d	peso kg/ml			
50	35	28	22	24	3.02	3.75		
60	35	30	19.5	17	3.30	4.11		
75	35	30	19.5	17	3.76	4.70		
100	40	26.5	35	34		5.12	6.70	
100	60	30	35	34		6.13	7.33	
100	60	42	35	34		6.60	7.89	
105	60	42	35	34		6.80	8.12	
120	50	40	35	34		7.10	8.50	
120	60	30	35	34		6.91	8.27	
120	80	40	35	34		7.69	9.21	
150	80	43.5	47	40		9.03	10.78	12.51
150	82	42.5	47	40		9.03	10.78	12.51

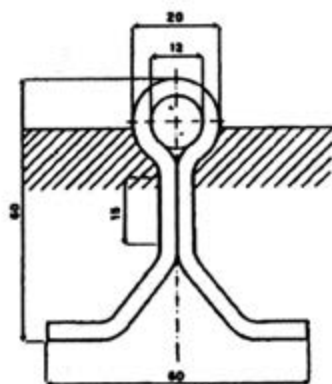
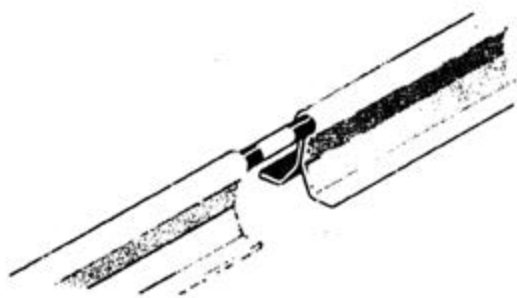
## PROFILI PER PANNELLI POLIURETANICI

	<p><b>SERIE DI PROFILATI ZINCATI PER PANNELLI POLIURETANICI</b></p> <p>A = 31 - 36 - 41</p> <p>PROFILO PER PORTONI PESO kg 3.6 ca. al mt.</p>
	<p>A = 31 - 36 - 41</p> <p>PROFILO BATTENTE PESO kg 2.5 ca. al mt.</p>
	<p>A = 31 - 36 - 41</p> <p>PROFILO PORTAPANNELLO PESO kg 1.8 ca. al mt.</p>

## GUIDA A PAVIMENTO

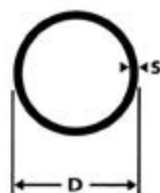


## TONDO GIUNZIONE



# TUBI ACQUA - GAS SALDATI E SENZA SALDATURA - SERIE NORMALE

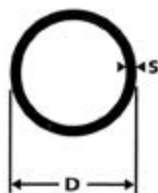
UNI 3824



design. gas	Ø "D" est. mm	spessore "S" mm	peso kg/m senza manicotto		peso kg/m con manicotto	
			grezzo	zincato	grezzo	zincato
1/8	10.2	1.8	0.369		0.372	
1/4	13.5	2.0	0.573		0.577	
3/8	17.2	2.0	0.747	0.812	0.753	0.82
1/2	21.3	2.35	1.10	1.18	1.11	1.20
3/4	26.9	2.35	1.41	1.51	1.42	1.52
1	33.7	2.9	2.21	2.35	2.23	2.37
1 <sup>1</sup> / <sub>4</sub>	42.4	2.9	2.84	3.02	2.87	3.05
1 <sup>1</sup> / <sub>2</sub>	48.3	2.9	3.26	3.45	3.30	3.50
2	60.3	3.25	4.56	4.83	4.63	4.90
2 <sup>1</sup> / <sub>2</sub>	76.1	3.25	5.81	6.15	5.93	6.28
3	88.9	3.65	7.65	8.03	7.82	8.20
3 <sup>1</sup> / <sub>2</sub>	101.6	3.65	8.77	9.20	8.95	9.38
4	114.3	4.05	11.00	11.50	11.30	11.80
5	139.7	4.85	16.20	16.90	16.70	17.51
6	165.1	4.85	19.20	20.14	19.80	20.77

# TUBI S.S. LISCI COMMERCIALE

UNI 7287



Ø esterno "D" mm	spessore "S" mm	peso kg/m
10.2	1.6	0.344
13.5	1.8	0.522
17.2	1.8	0.688
21.3	2.0	0.962
26.9	2.0	1.24
30.0	2.3	1.59
33.7	2.3	1.79
38.0	2.6	2.29
42.4	2.6	2.57
44.5	2.6	2.70
48.3	2.6	2.95
54.0	2.6	3.32
57.0	2.9	3.90
60.3	2.9	4.14
70.0	2.9	4.83
76.1	2.9	5.28
88.9	3.2	6.81

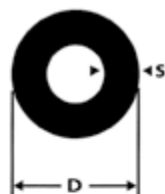
Ø esterno mm	spessore mm	peso kg/m
101.6	3.6	8.76
108.0	3.6	9.33
114.3	3.6	9.90
133.0	4.0	12.80
139.7	4.0	13.50
159.0	4.5	17.10
168.3	4.5	18.10
193.7	5.4	25.00
219.1	5.9	31.00
244.5	6.3	37.10
273.0	6.3	41.60
323.9	7.1	55.60
355.6	8.0	68.30
368.0	8.0	70.80
406.4	8.8	85.90
419.0	8.8	88.70



# TUBI MECCANICI

MATERIALE:

ACCIAI FE 510 SECONDO UNI 7729 E ST52.0 - SECONDO DIN 1629.3



diam. est. mm. D	S= spessore - mm													
	6.3	7.1	8	8.8	10	11	12.5	14.2	16	17.5	20	22.2	25	28
44.5	5.9	6.5	7.2	7.7	8.5									
48.3	6.5	7.2	7.9	8.6	9.4	10.1	11.0							
51	6.9	7.7	8.4	9.1	10.1	10.9	11.9	12.9						
54	7.4	8.2	9.0	9.8	10.9	11.7	12.9	13.9						
57	7.9	8.8	9.6	10.4	11.6	12.5	13.8	15.0						
60.3	8.4	9.3	10.3	11.1	12.4	13.4	14.8	16.2	17.4					
63.5	8.9	9.9	10.9	11.8	13.2	14.3	15.8	17.3	18.7					
67	9.4	10.5	11.6	12.6	14.1	15.2	16.8	18.5	20.1	21.4				
70	9.9	11.0	12.2	13.2	14.8	16.0	17.8	19.6	21.2	22.6	24.7			
73	10.4	11.6	12.8	13.9	15.5	16.9	18.8	20.6	22.4	23.9	26.1			
76.1	10.9	12.1	13.4	14.6	16.3	17.7	19.7	21.7	23.7	25.3	27.7			
82.5	11.9	13.2	14.6	15.9	17.9	19.5	21.7	24.0	26.2	28.0	30.8	33.0	35.4	
88.9	12.9	14.4	15.9	17.3	19.5	21.2	23.7	26.2	28.7	30.7	34.0	36.5	39.4	
95	13.8	15.4	17.2	18.9	21.0	23.1	25.4	28.3	31.2	33.4	37.0	39.9	43.0	
101.6	14.9	16.6	18.4	20.1	22.6	24.7	27.6	30.7	33.7	36.2	40.2	43.5	47.5	50.8
108	15.8	17.7	19.6	21.4	24.2	26.4	29.6	32.9	36.2	39.0	43.4	47.0	51.4	55.2
114.3	16.8	18.8	20.9	22.8	25.7	28.1	31.6	35.1	38.6	41.7	46.5	50.4	55.3	59.3
121	17.8	19.9	22.3	24.7	27.4	30.2	33.4	37.4	41.4	44.7	49.8	54.1	59.2	64.2
127	18.8	21.0	23.4	25.5	28.9	31.6	35.5	39.6	43.6	47.2	52.8	57.4	63.2	68.3
133	19.8	22.1	24.6	26.9	30.3	33.3	37.4	41.8	46.1	49.9	55.7	60.8	67.1	72.5
139.7	20.8	23.3	25.9	28.3	32.0	35.1	39.5	44.0	48.6	52.7	59.0	64.3	71.1	77.0
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	22.8	25.5	28.4	31.0	35.1	38.5	43.4	48.5	53.6	58.1	65.3	71.3	79.0	85.8
159	23.8	26.6	29.6	32.4	36.7	40.3	45.4	50.8	56.2	60.9	68.6	74.8	83.0	90.3
168.3	25.3	28.3	31.5	34.5	39.0	42.9	48.4	54.1	59.9	65.0	73.1	80.0	88.9	96.7
177.8	26.7	30.0	33.4	36.5	41.4	45.4	51.3	57.4	63.6	69.1	77.8	85.2	94.8	103
193.77	29.2	32.8	36.5	40.0	45.3	49.8	56.2	63.0	69.8	75.9	85.7	93.9	105	114
203	30.6	34.3	38.5	42.7	47.6	52.8	58.7	66.1	73.8	80.1	90.3	99.0	110	121
219.1	33.2	37.2	41.5	45.4	51.6	56.7	64.1	71.9	79.8	86.9	98.2	108	120	132
229	34.5	38.8	43.6	47.7	54.0	59.1	66.7	75.2	84.0	91.2	103	113	125	138
244.5	37.1	41.7	46.5	50.9	57.8	63.6	72.0	80.8	89.8	97.8	111	122	136	149
254	38.5	43.2	48.5	53.9	60.2	66.8	74.4	84.0	93.9	102	115	127	141	156
267	40.6	45.6	50.9	55.8	63.4	69.7	79.0	88.7	98.6	107	122	134	150	165
273	41.6	46.7	52.1	57.1	64.8	71.4	80.9	90.9	101	110	125	137	154	169
298.5		51.1	57.1	62.6	71.1	78.3	88.8	99.8	111	121	137	151	170	187
305		52.1	58.5	64.2	72.7	79.7	90.1	101	113	124	140	154	173	191
323.9		55.6	62.1	68.1	77.4	85.3	96.7	109	121	132	150	165	186	204
330				69.6	78.8	86.5	97.8	110	123	134	152	168	187	208
343				72.5	82.0	90.0	102	115	128	140	159	175	195	217
355.6				74.9	85.2	93.9	107	120	133	146	166	183	205	226
368				77.9	88.2	96.9	109	123	138	151	171	189	211	234
381				80.7	91.5	101	114	129	144	158	178	197	220	243
394				83.5	96.8	103	117	132	149	162	184	203	227	252
406.4				85.9	97.8	108	122	138	153	168	191	210	237	261
419				88.7	101	111	126	142	158	173	197	217	245	270
431.8					104	114	129	146	164	179	203	224	251	279
445					107	117	133	150	169	184	209	231	258	287
457.2					110	122	138	156	173	189	216	238	268	296
470						124	140	159	179	195	221	245	274	305
482.6						130	145	164	184	201	228	252	282	314
508						135	154	173	193	211	241	266	300	331
521							156	177	199	217	246	272	305	340
530							159	181	203	221	252	278	311	347
558.8							170	191	213	233	266	294	331	366
584.2							176	200	224	246	278	308	345	384
609.6							185	209	233	255	291	322	363	401
635							192	217	244	266	303	335	376	419
660.4							201	227	253	277	316	349	395	436

30	35	40	45	50	55	60	65	70	75	80	85	90	100
52,9													
57,7													
62,3	68,5	73,3											
67,3	74,2	79,9											
71,7	79,3	85,8											
76,3	84,5	91,7											
81,1	90,3	98,3	105										
85,8	95,8	104,4	112										
90,5	101	112	119										
95,3	106	119	127										
102	115	126	137	146									
109	123	136	147	158									
121	136	151	167	179									
128	144	161	178	191	201	212							
140	158	176	196	211	223	235							
147	167	186	204	220	236	250							
159	180	201	224	243	257	273							
166	188	211	235	255	270	287							
175	200	223	250	271	287	306							
180	205	229	256	275	296	315							
198	227	255	285	306	335	353							
203	232	261	288	314	338	362							
217	249	280	313	338	370	390	415	438					
221	254	285	316	345	372	399	425	449					
231	265	298	330	361	390	418	446	471					
241	276	311	349	377	413	437	466	493					
249	287	323	358	391	424	455	485	514					
259	298	336	372	407	441	474	506	537					
269	309	349	387	423	459	493	527	559					
278	320	361	406	439	483	513	547	581					
288	331	373	421	455	500	531	567	603					
298	343	387	430	471	512	551	588	625	660	668			
306	353	399	443	486	528	569	609	647	684	720			
316	364	411	464	502	553	587	628	668	707	744			
325	375	423	471	517	562	606	649	690	731	769			
335	386	437	486	533	580	625	669	712	754	794			
353	408	461	521	565	614	663	710	756	801	844	887	928	1006
363	419	474	527	580	631	681	731	778	825	870	914	957	1038
370	427	483	538	592	644	695	745	794	842	888	933	976	1060
391	451	511	570	628	693	738	792	844	895	945	994	1041	1132
410	474	537	598	659	718	776	832	888	942	995	1046	1096	1194
428	495	561	626	691	763	814	874	932	989	1046	1101	1154	1258
448	518	587	654	721	787	851	914	975	1035	1094	1152	1209	1319
466	539	611	683	752	832	888	954	1019	1082	1144	1205	1265	1381

TOLLERANZE A NORMA DIN 1629.3

SPESORE

- 1 + 15%
- 10%
- 2 + 12,5%
- 10%
- 3 + 9%
- 4 + 17,5%
- 12,5%
- 5 + 12,5%
- 6 + 10%
- 7 + 20%
- 15%
- 8 + 15%
- 12,5%
- 9 + 12,5%
- 10%

DIAMETRO ESTERNO:  
a 1% con un minimo di 0,5 mm

RETTILINEITÀ:  
"I tubi devono essere dritti a vista"  
approssimativamente equivalente all'1,5% dell'intera lunghezza. Tolleranze sull'ovalizzazione e sull'eccentricità sono ammesse nei limiti di quelle sul diametro esterno e sullo spessore.

TUBI SS  
BOLLITORI  
MECCANICI  
API

# TUBI SENZA SALDATURA E SALDATI

## DIMENSIONI SECONDO LE NORME ANSI B 36.10 E API

diametro		spessore mm	peso del tubo liscio kg/m	identificazione		
nomi-nale pollici	esterno mm			corri-spondente norme API	standard X strong XX strong	n. di scheda
1/8	10.3	1.73	0.375	5L	STD	40
		2.41	0.462	5L	XS	80
1/4	13.7	2.24	0.626	5L	STD	40
		3.02	0.804	5L	XS	80
3/8	17.1	2.31	0.849	5L	STD	40
		3.20	1.10	5L	XS	80
1/2	21.3	2.77	1.27	5L	STD	40
		3.73	1.62	5L	XS	80
		4.78	1.95			160
3/4	26.7	2.87	1.68	5L	STD	40
		3.91	2.19	5L	XS	80
		5.56	2.89			160
1	33.4	3.38	2.50	5L	STD	40
		4.55	3.23	5L	XS	80
		6.35	4.23			160
1 1/4	42.2	3.56	3.38	5L	STD	40
		4.85	4.47	5L	XS	80
		6.35	5.60			160
1 1/2	48.3	3.68	4.05	5L	STD	40
		5.08	5.41	5L	XS	80
		7.14	7.24			160
2	60.3	3.91	5.44	5LSLX	STD	40
		5.54	7.48	5LSLX	XS	80
		8.74	11.11	5LSLX	XXS	160
2 1/2	73.0	5.16	8.62	5LSLX	STD	40
		7.01	11.41	5LSLX	XS	80
		9.52	14.91	5LSLX	XXS	160
3	88.9	14.02	20.41	5LSLX	XXS	160
		5.49	11.29	5LSLX	STD	40
		7.62	15.27	5LSLX	XS	80
3 1/2	101.6	11.13	21.33	5LSLX	XXS	160
		15.24	27.67	5LSLX	XXS	160
		5.74	13.57	5LSLX	STD	40
4	114.3	8.08	18.63	5LSLX	XS	80
		6.02	16.07	5LSLX	STD	40
		8.56	22.31	5LSLX	XS	80
		11.13	28.30	5LSLX		120
		13.49	33.53	5LSLX		160
		17.12	41.02	5LSLX	XXS	

diametro		spessore mm	peso del tubo liscio kg/m	identificazione		
nomi-nale pollici	esterno mm			corri-spondente norme API	standard X strong XX strong	n. di scheda
5	141.3	6.55	21.78	5L	STD	40
		9.52	30.95	5L	XS	80
		12.70	40.28	5L		120
		15.88	49.09	5L		160
		19.05	57.42	5L	XXS	
6	168.3	7.11	28.26	5LSLX	STD	40
		10.97	42.56	5LSLX	XS	80
		14.27	54.20	5LSLX		120
		18.26	67.55	5LSLX		160
		21.95	79.18	5L	XXS	
8	219.1	6.35	33.31	5LSLX		20
		7.04	36.79	5LSLX		30
		8.18	42.53	5LSLX	STD	40
		10.31	53.09			60
		12.70	64.63	5LSLX	XS	80
10	273.0	6.35	41.77	5LSLX		20
		7.80	51.00	5LSLX		30
		9.27	60.29	5LSLX	STD	40
		12.70	81.54	5LSLX	XS	60
		15.09	95.97			80
12	323.8	18.26	114.74	5LSLX		100
		6.35	49.72	5LSLX		20
		8.35	65.20	5LSLX		30
		9.52	73.82	5LSLX	STD	40
		12.70	97.44	5LSLX	XS	60
14	355.6	14.27	108.96	5LSLX		60
		17.48	132.01	5LSLX		80
		5.33	46.07	5LX		10
		7.92	67.94	5LSLX		20
		9.52	81.28	5LSLX	STD	30
16	406.4	12.70	107.38	5LSLX	XS	60
		15.09	126.68			80
		19.05	158.08	5LSLX		100
		23.83	194.90			
		6.35	62.63	5LSLX		10
18	457.2	7.92	77.86	5LSLX		20
		9.52	93.21	5LSLX	STD	30
		12.70	123.29	5LSLX	XS	40
		16.66	160.12			60
		21.44	203.48			80
		6.35	70.59	5LSLX		10
		7.92	87.79	5LSLX		20
		9.52	105.14	5LSLX	STD	30
		11.13	122.36	5LSLX		40
		12.70	139.19	5LSLX	XS	60
		14.27	155.91	5LSLX		80
		19.05	205.80	5LSLX		
		23.83	254.59	5LSLX		

# TUBI SENZA SALDATURA E SALDATI

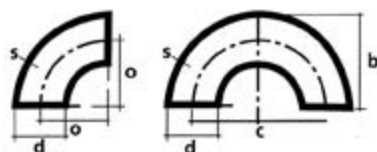
## DIMENSIONI SECONDO LE NORME ANSI B 36.10 E API

(continuazione)

diametro		spessore mm	peso del tubo liscio kg/m	identificazione		
nomi- nale pollici	esterno mm			corri- spon- dente norme API	standard  X strong XX strong	n. di sche- dula
20	508.0	6.35	78.54	5L5LX		10
		9.52	117.07	5L5LX	STD	20
		12.70	155.10	5L5LX	XS	30
		15.09	183.37			40
		20.62	247.85	5L5LX		60
		26.19	311.11			80
22	558.8	6.35	86.50	5L5LX		10
		9.52	129.01	5L5LX	STD	20
		12.70	171.01	5L5LX	XS	30
		22.22	294.04			60
24	609.6	6.35	94.45	5L5LX		10
		9.52	140.94	5L5LX	STD	20
		12.70	186.92	5L5LX	XS	30
		14.27	209.54	5L5LX		40
		17.48	255.14	5L5LX		60
		24.61	355.02			
26	660.4	7.92	127.50	5L5LX		10
		9.52	152.87	5L5LX	STD	20
		12.70	202.83	5L5LX	XS	30
28	711.2	7.92	137.42	5L5LX		10
		9.52	164.80	5L5LX	STD	20
		12.70	218.73	5L5LX	XS	30
		15.88	272.18	5L5LX		
30	762.0	7.92	147.36	5L5LX		10
		9.52	176.73	5L5LX	STD	20
		12.70	234.64	5L5LX	XS	30
		15.88	292.06	5L5LX		
32	812.8	7.92	157.28	5L5LX		10
		9.52	188.66	5L5LX	STD	20
		12.70	250.55	5L5LX	XS	30
		15.88	311.95	5L5LX		40
		17.48	342.70	5L5LX		
34	863.6	8.74	184.18	5LX		10
		9.52	200.59	5L5LX	STD	20
		12.70	266.46	5L5LX	XS	30
		15.88	331.83	5L5LX		40
		17.48	364.58	5L5LX		
36	914.4	7.92	177.13	5L5LX		10
		9.52	212.52	5L5LX	STD	20
		12.70	282.36	5L5LX	XS	30
		15.88	351.72	5L5LX		40
		19.05	420.58	5L5LX		

# CURVE A SALDARE S.S.

3D (3S)

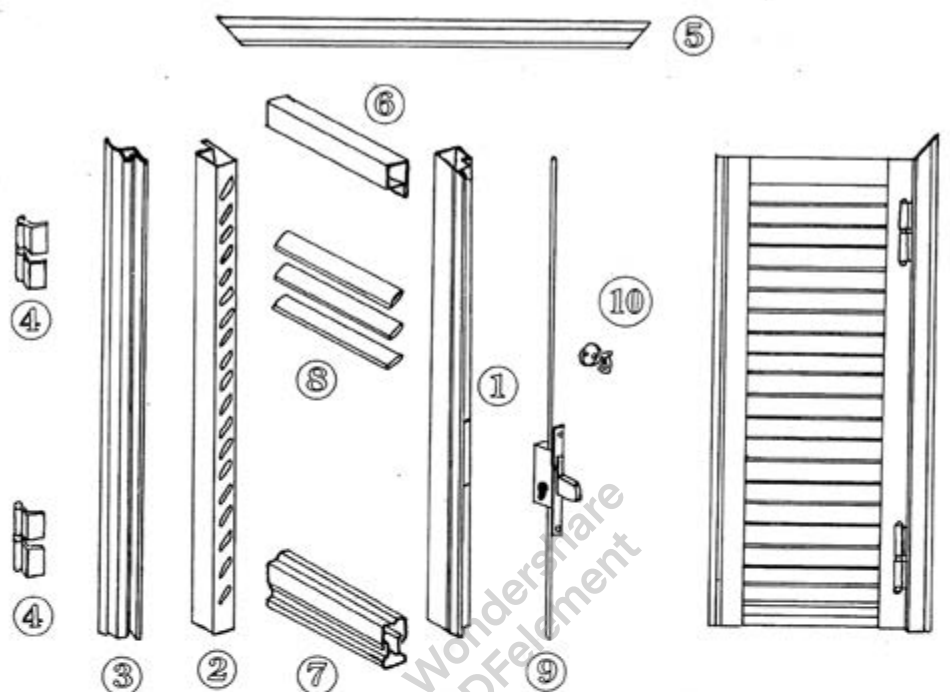


Ø esterno mm d	spessore mm S	raggio mm a	altezza mm b	scartamento mm c	PESO CURVA a 90° kg
17	2	20	28.5	40	0.02
21.3	2	27.5	38	55	0.04
25	2	27.5	40	55	0.05
26.9	2.3	28.5	42	57	0.07
30	2.6	33.5	48	67	0.09
31.8	2.6	35	51	70	0.11
33.7	2.6	38	55	76	0.12
35	2.6	45	63	90	0.16
38	2.6	45	64	90	0.16
42.4	2.6	47.5	69	95	0.19
44.5	2.6	51	73	102	0.22
48.3	2.6	57	81	114	0.27
51	2.6	63.5	88	127	0.31
54	2.6	72	99	144	0.42
57	2.9	72	100	144	0.44
60.3	2.9	76	106	152	0.49
63.5	2.9	82.5	114	165	0.57
70	2.9	92	127	184	0.70
76.1	2.9	95	133	190	0.79
82.5	3.2	107.7	149	215	1.07
88.9	3.2	114.5	159	229	1.22
101.6	3.6	133.5	184	267	1.83
108	3.6	142.5	196	285	2.08
114.3	3.6	152.5	210	305	2.37
133	4	181	247	362	3.64
139.7	4	190.5	260	381	4.04
159	4.5	216	294	432	5.80
168.3	4.5	228.5	313	457	6.50
193.7	5.4	270	367	540	10.6
219.1	5.9	305	415	610	14.9
244.5	6.3	340	462	680	19.8
267	6.3	378	511	756	24.1
273	6.3	381	517	762	24.9
323.9	7.1	457	619	914	40
355.6	8	533.5	711	1067	57.2
368	8	533.5	717	1067	59.2
406.4	8.8	609.5	813	1219	82.2
419	10	609.5	819	1219	96.9
457.2	10	686	914	1372	119
508	11	762	1008	1495	162
609.6	12.5	914	1219	1828	271

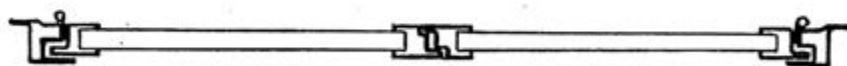


# PERSIANA

## SCHEMA PERSIANA A DUE ANTE



anta destra assemblata

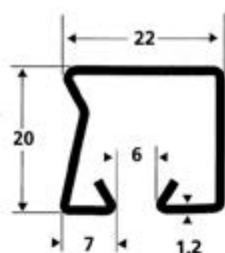


## SCHEMA DI PERSIANA A DUE ANTE TIPO "ROBUSTA"

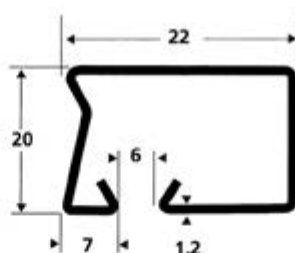
- |    |                             |     |                                 |
|----|-----------------------------|-----|---------------------------------|
| 1. | montante centrale asolato   | 6.  | traversa superiore anta         |
| 2. | montante laterale asolato   | 7.  | traversa inferiore registrabile |
| 3. | montante telaio antistrappo | 8.  | doghe trasversali               |
| 4. | cerniere speciali corazzate | 9.  | serratura di sicurezza          |
| 5. | travesa telaio              | 10. | maniglia in ottone              |



## FERMAVETRO PER VETRATE CON ANTE APRIBILI

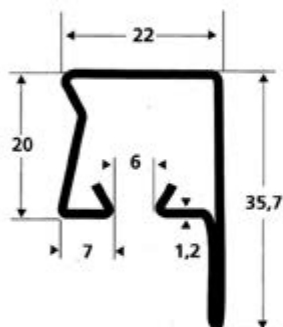


FV 22 M  
peso 0.80 kg/ml - lunghezza barra 6m

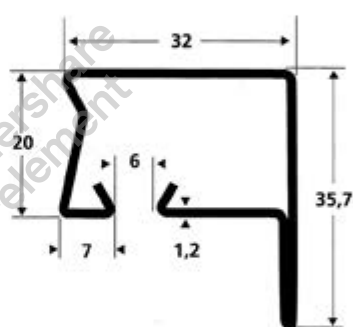


FV 32 M  
peso 1.0 kg/ml - lunghezza barra 6m

## FERMAVETRO PER VETRATE FISSE

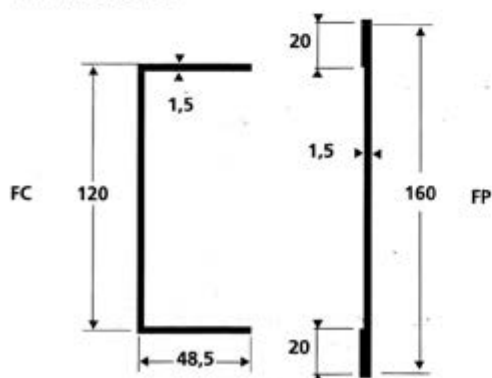


FV 22 F  
peso 1.0 kg/ml - lunghezza barra 6m

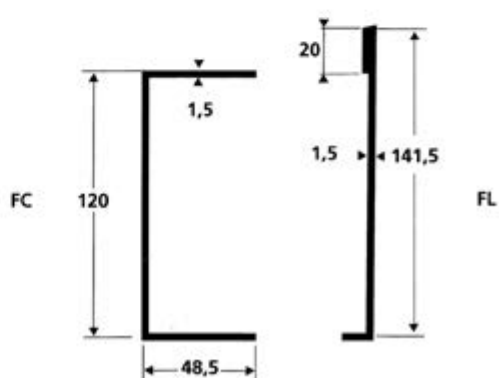


FV 32 F  
peso 1.2 kg/ml - lunghezza barra 6m

## FASCIONI

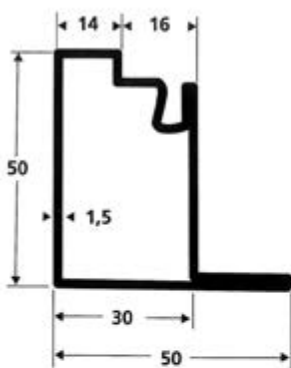


CENTRALE  
peso 5.04 kg/ml - lunghezza barra 5m

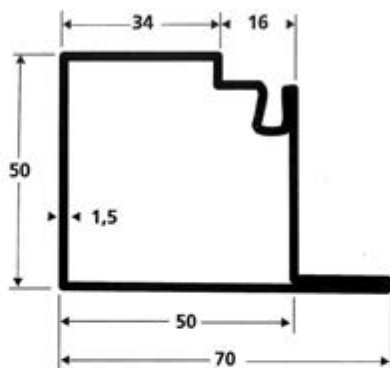


DI BASE  
peso 4.8 kg/ml - lunghezza barra 5m

## PROFILI A "L"

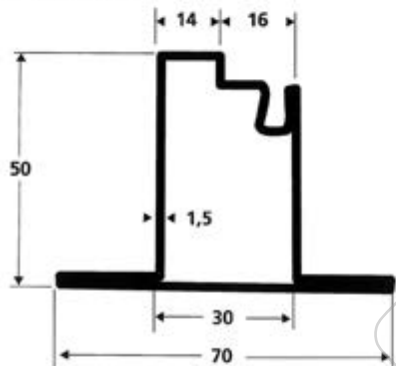


T 50 - 30  
peso 2.4 kg/ml - lunghezza barra 6m

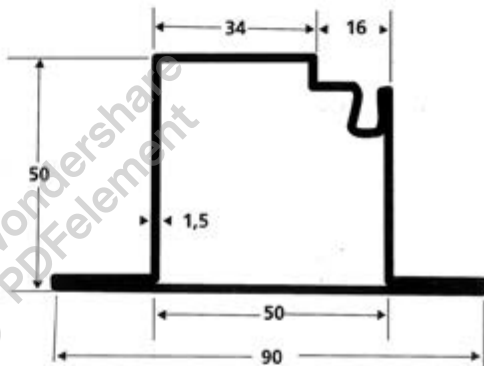


Z 50 - 50  
peso 2.8 kg/ml - lunghezza barra 6m

## PROFILI A "T"

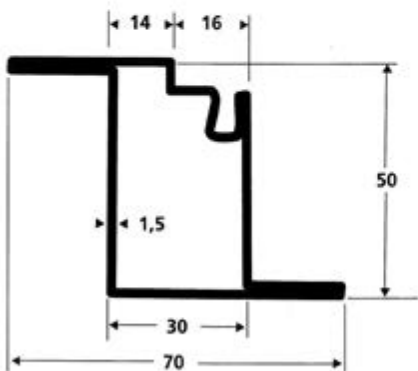


T 50 - 30  
peso 2.8 kg/ml - lunghezza barra 6m

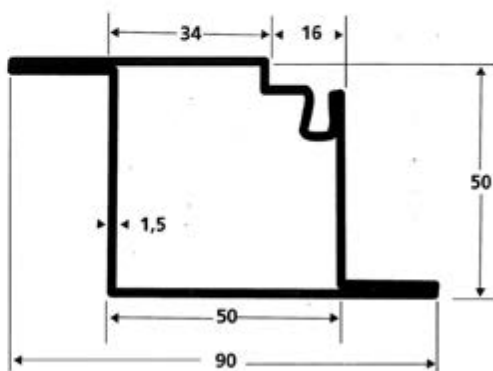


Z 50 - 50  
peso 3.3 kg/ml - lunghezza barra 6m

## PROFILI A "Z"



Z 50 - 30  
peso 2.8 kg/ml - lunghezza barra 6m



Z 50 - 50  
peso 3.3 kg/ml - lunghezza barra 6m

**konzu s.r.l.s.**  
**Tel. 392-7573175**  
**www.konzusrls.com**  
**E-mail: konzusrl@gmail.com**  
**Sede legale: Via Verga n°2**  
**20028 San Vittore Olona (MI) Italia**



**Iscriviti al servizio gratuito di newsletter**

