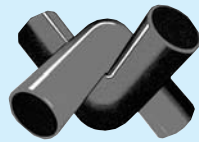
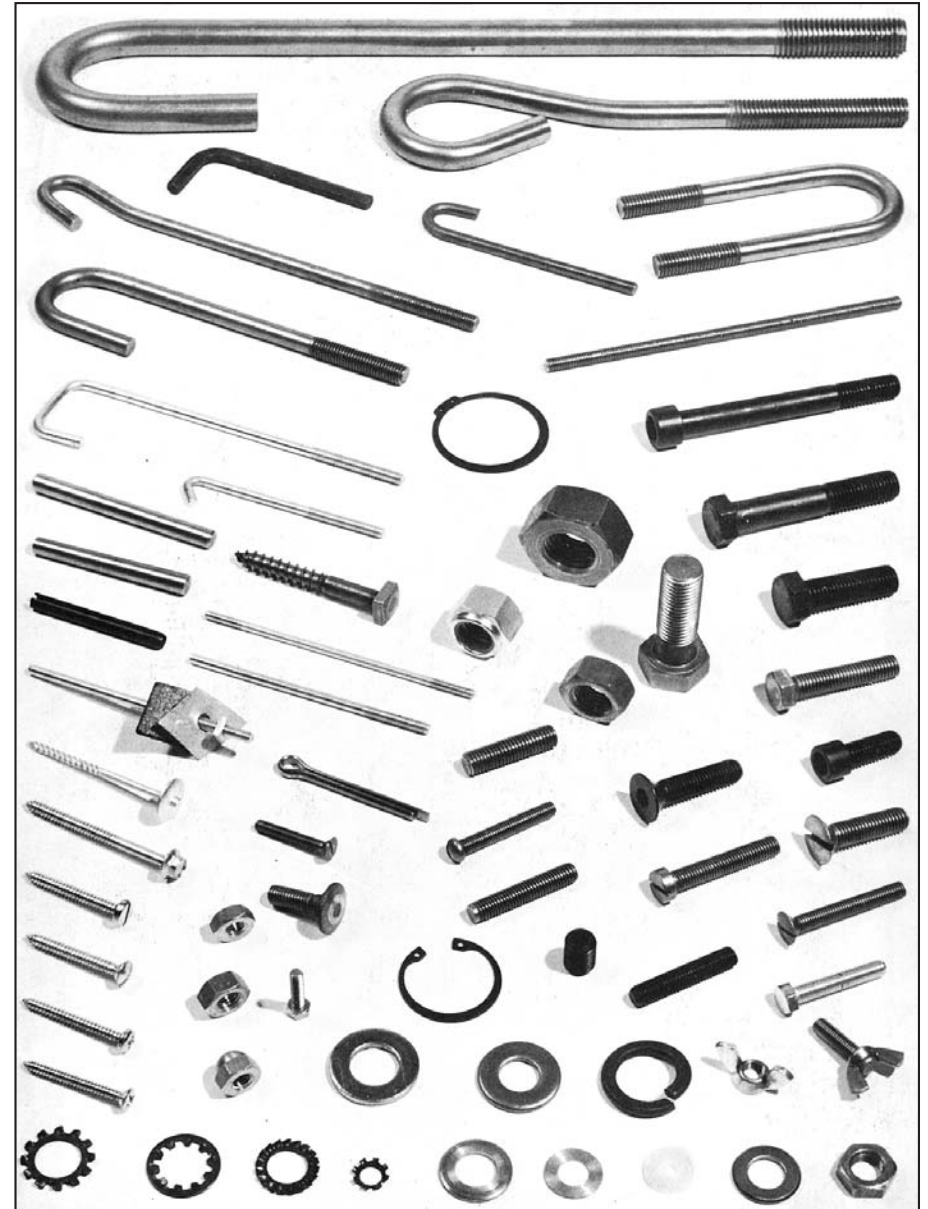




# IRON AND STEEL PRODUCTS





**TUXOR**


**BULLONERIA  
BOLTING  
BOULONNERIE****TUXOR****Altri materiali  
da costruzione**


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>SPINE CONICHE TAPER PINS GOUPILLES CONIQUES</p>
UNI 129	(DIN 1)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>VITI A TESTA TONDA CON INTAGLIO SLOTTED ROUND HEAD SCREWS VIS A TETE RONDE FENDUE</p>
UNI 252	

DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>VITI PER LEGNO A TESTA TONDA CON INTAGLIO SLOTTED ROUND HEAD WOOD SCREWS VIS A BOIS A TETE RONDE FENDUE</p>
UNI 701	(DIN 96)

DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>VITI PER LEGNO A TESTA SVASATA PIANA CON INTAGLIO SLOTTED RAISED COUNTERSUNK (FLAT) HEAD WOOD SCREWS VIS A BOIS A TETE FRAISEE FENDUE</p>
UNI 702	(DIN 97)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>VITI PER LEGNO A TESTA SVASATA CON CALOTTA CON INTAGLIO SLOTTED RAISED COUNTERSUNK (OVAL) HEAD WOOD SCREWS VIS A BOIS A TETE FRAISEE BOMBEE, FENDUE</p>
UNI 703	(DIN 95)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>VITI PER LEGNO A TESTA ESAGONALE HEXAGON HEAD WOOD SCREWS VIS A BOIS A TETE HEXAGONALE</p>
UNI 704	(DIN 571)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>RIBATTINI A TESTA TONDA STRETTA ROUND HEAD RIVETS RIVETS A TETE RONDE</p>
UNI 748	(DIN 660)

DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>RIBATTINI A TESTA TONDA LARGA FLAT ROUND HEAD RIVETS RIVETS A TETE BOMBEE</p>
UNI 749	(DIN 674)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>RIBATTINI A TESTA SVASATA PIANA COUNTERSUNK HEAD RIVETS RIVETS A TETE FRAISEE</p>
UNI 752	(DIN 661)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>COPPIGLIE SPLIT PINS GOUPILLES CYLINDRIQUES FENDUES</p>
UNI 1336	(DIN 94)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p><b>PERNI CON TESTA PIANA LARGA</b>  <i>CLEVIS CAPNUTS WITH HEAD</i>            GOUJONS A TETE LARGE</p>
UNI 1713	(DIN 1444)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p><b>ROSETTE PIANE SMUSSATE</b>  <i>SINGLE CHAMFER PLAIN WASHERS</i>            RONDELLES PLATES CHANFREINEES</p>
UNI 1734	(DIN 125/B)

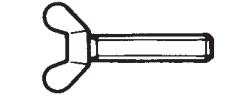
DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p><b>ROSETTE PIANE PER RIBATTINI</b>  <i>PLAIN WASHERS FOR RIVETS</i>            RONDELLES PLATES POUR RIVETS</p>
UNI 1739	


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p><b>ROSETTE ELASTICHE SPACCATE</b>  <i>SINGLE COIL SPRING LOCK WASHERS WITH SQUARE ENDS</i>            RONDELLES ELASTIQUES SIMPLES SPIRE SANS BECS</p>
UNI 1751/B	(DIN 127/B)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p><b>GRILLI NAVALI A "U"</b>  <i>STRAIGHT SHACKLES</i>            MANILLES DROITES</p>
UNI 1947/A	


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p><b>DADI ESAGONALI CIECHI CON CALOTTA PIANA</b>  <i>HEXAGON CAPNUTS PLAIN CALOTTE</i>            ECROUS HEXAGONAUX BORGNES A CALOTTE PLATE</p>
UNI 2733	(DIN 1444)

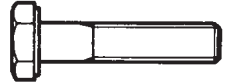
DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p><b>DADI AD ALETTE</b>  <i>WING NUTS</i>            ECROUS A OREILLES</p>
UNI 5448	(DIN 315)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p><b>VITI AD ALETTE</b>  <i>WING SCREWS</i>            VIS A OREILLES</p>
UNI 5449	(DIN 316)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p><b>DADI ESAGONALI NORMALI</b>  <i>HEXAGONAL NORMAL NUTS</i>            ECROUS HEXAGONAUX NORMAUX</p>
UNI 5588	(DIN 934)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>DADI ESAGONALI BASSI  <i>HEXAGON THIN NUTS</i>            ECROUS HEXAGONAUX BAS</p>
UNI 5589	(DIN 936)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>DADI ESAGONALI SOTTILI  <i>HEXAGON LOW NUTS</i>            ECROUS HEXAGONAUX FINS</p>
UNI 5590	(DIN 439)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>VITI A TESTA ESAGONALE LARGA AD ALTA            RESISTENZA PER CARPENTERIA  <i>HIGH-STRENGTH LARGE HEXAGON BOLTS            FOR STRUCTURAL ENGINEERING</i>            VIS A TETE HEXAGONALE LARGE HAUTE RESISTANCE            POUR CHARPENTERIE</p>
UNI 5712	(DIN 6914)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>DADI ESAGONALI LARGHI AD ALTA RESISTENZA PER CARPENTERIA  <i>HIGH-STRENGTH LARGE HEXAGON NUTS            FOR STRUCTURAL ENGINEERING</i>            ECROUS HEXAGONAUX LARGES HAUTE RESISTANCE            POUR CHARPENTERIE</p>
UNI 5713	(DIN 6915)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>ROSETTE PER BULLONI AD ALTA RESISTENZA PER CARPENTERIA  <i>WASHERS FOR HIGH - STRENGTH STRUCTURAL BOLTING</i>            RONDELLES POUR VIS HAUTE RESISTANCE POUR CHARPENTERIE</p>
UNI 5714	(DIN 6916)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>BULLONI A TESTA ESAGONALE CON DADO ESAGONALE  <i>HEXAGON BOLTS WITH HEXAGONAL NUT</i>            BOULONS A TETE HEXAGONALE AVEC ECROU HEXAGONAL</p>
UNI 5727	(DIN 601)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>VITI A TESTA TONDA CON NASELLO SOTTO LA TESTA  <i>CUP HEAD NIB BOLTS</i>            CORPS DE BOULON A TETE RONDE, A ERGOT</p>
UNI 5730	(DIN 607)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>VITI A TESTA ESAGONALE CON GAMBO            PARZIALMENTE FILETTATO PASSO GROSSO  <i>HEXAGON SCREWS WITH PARTLY THREADED SHANK - COARSE THREAD</i>            VIS A TETE HEXAGONALE AVEC BOUT PARTIELLEMENT            FILETE-FILET NORMAL</p>
UNI 5737	(DIN 931)

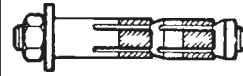
DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>VITI A TESTA ESAGONALE CON GAMBO PARZIALMENTE FILETTATO PASSO FINE                      HEXAGON SCREWS WITH PARTLY THREADED SHANK - FINE THREAD                      VIS A TETE HEXAGONALE AVEC BOUT PARTIELLEMENT FILETE-FILET FIN</p>
UNI 5738	(DIN 960)

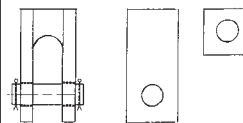
DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>VITI A TESTA ESAGONALE CON GAMBO INTERAMENTE FILETTATO PASSO GROSSO                      HEXAGON SCREWS WITH FULLY THREADED SHANK - COARSE THREAD                      VIS A TETE HEXAGONALE AVEC BOUT FILETE JUSQU'A PROXIMITE DE LA TETE-FILET NORMAL</p>
UNI 5739	(DIN 933)


DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>VITI AUTOFILETTANTI A TESTA ESAGONALE                      HEXAGON HEAD TAPPING SCREWS                      VIS A TOLE A TETE HEXAGONALE</p>
UNI 6949	(DIN 7976)

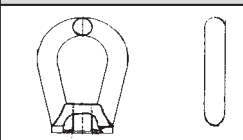
DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>VITI AUTOFILETTANTI A TESTA SVASATA PIANA CON INTAGLIO                      SLOTTED COUNTERSUNK (FLAT) HEAD TAPPING SCREWS                      VIS A TOLE A TETE FRAISEE FENDUE</p>
UNI 6952	(DIN 7972)

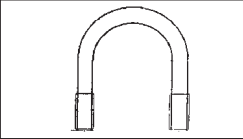
DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>TASSELLI CON VITI                      DOWEL WITH SCREWS                      GOUJONS AVEC VIS</p>

DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>BULLONI AD ESPANSIONE                      EXPANSION BOLTS                      GOUJONS POUR CHARGEMENTS LOURDS</p>

DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>FORCELLE                      CLEVIS                      FOURCHE</p>

DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>TENDITORE                      TURNBUCKLE                      TENDEUR A VIS</p>

DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>GOLFARI                      EYE NUT                      CLOU À CEILLET</p>

DESCRIZIONE - DESCRIPTION - DESCRIPTION	
	<p>CAVALLOTTI                      U - BOLT                      CLOU À DEUX POINTES</p>

**PRODOTTI TRAFILATI  
DRAWN BARS  
PRODUITS ETIRES**

Norma UNI	Werkstoff Nr./DIN	AISI	BS	AFNOR	SIS	JIS	GOST
100Cr6	1.3505/100Cr6	E 52100	534 A99	100 C6	2258	SUJ2	SchCh 15
100CrMo7	1.3536/100CrMo6			~ 100 CD7			
102Cr6KU	1.2067/100Cr6	~ L3	~ BL3	Y100 C6		~ 5KC 11	~ 9 Ch1
107CrV3KU	1.2210/115CrV3			~ 100 C3			~ 11 ChF
107WCr5KU	1.2419/105WCr6			105 WC13		SKS 31	~ChVG
12NiCr3	~ 1.5713/~13NiCr6	3115		~ 10 NC6			
16CrNi4	~ 1.5919/~ 15CrNi6		S 107	~ 16 NC6	~ 2311		~ 15 Ch GN2T
16MnCr5	1.7131/16MnCr5	~ 5115	590 H7	16 MC5		~ SCR 415	~ 18 Ch G
16NiCr11	~ 1.5732/~ 14NiCr6	3115		~ 14 NC11		SNC 415(H)	
16NiCrMo12				16 NCD 13			
16NiCrMo2							
18CrMo4	~ 1.7264/~ 20CrMo5			18 CD4		SCM 421	~ 20 Ch M
18NiCrMo5	~ 1.6587/~ 17CrNiMo6		815 M17	~ 18 NCD6			
18NiCrMo7	~ 1.6587/~ 17CrNi1106	~ 4320	~ (Er325)	18 NCD7			20 Ch N2M
20CrNi4							
20MnCr5	1.7147/20MnCr5	5120		20 MC5		SMnC 420N	~ 18 Ch G
20NiCrMo2	1.6523/21NiCrMo2	8620	805 M20	20 NCD2	2506	SNCM220(H)	
25CrMo4	1.7218/25CrMo4-10	4125	1717 CDS110	25 CD4	2225	SCM 420	~ 30 ChM
30CrMo4-1-8	~ 1.7218/25 CrMo4	4130		30 CD4			30 ChM
30CrMoCoV12 30 12KU		BH 10A	30 DCKV28				
30CrMoV1227KU	1.2365/X32CrMoV33	~ H10	BH10	30 DCV28			3 Ch3M3F
30NiCrMo12	1.6655/32NiCrMo125		826 M31	30 NCD12			
31CrMo12	1.8515/31CrMo12		722 M24	30 CD12	2240		
31CrMoV10	1.8519/31CrMoV9		S106				
31NiCr14	1.5755/31NiCr14		653 M31	18 NC13		SNC 836	
34CrAlMo7	1.8507/34CrAlMo5	A355Cl.D	905 M31	30 CAD6-12			
34NiCrMo16	~ 1.6747/~30NiCrMo166		835 M35	35 NCD16			
35CrMo4	1.7220/34CrMo4	4135	708 A 37	35 CD4	2234	SCM 432	35 ChM
35CrMo8KU	~ 1.2311/40CrMnMo7						
36CrMn55	1.7033/34 Cr4	5132	530 A32	32 C4		S Cr430	35 Ch
37CrMn4	~ 1.7033/34Cr4	~ 5135		~ 32 C4		~ SCR 430H	~ 35 Ch
38 CR'	1.7043/38Cr4	~ 5135	~ 530 A 36	38 C4		~ SCR 435H	~ 40 Ch
39NiCrMo3	1.6511/36NiCrMo4	9840	816 M40	40 NCD3			40 Ch N2MA

Norma UNI	Werkstoff Nr./DIN	AISI	BS	AFNOR	SIS	JIS	GOST
40NiCrMo2	1.6546/40NiCrMo22	8740	311-Type7	40 NCD2		SNCM 240	38 Ch GNM
40NiCrMo3	~ 1.6511/36CrNiMo4	9840	816 M40	40 NCD3			40 Ch N2MA
40NiCrMo7	1.6562/40NiCrMo73	4340	817 M40			SNB 24-1-5	
40NiCrMoV16KU	1.2766/35NiCrMo16			Y35 NCD16			
41Cr4	1.7035/41 Cr4	5140	530 M40	42 C4KCV 18-05-04-01		S Cr440	40 Ch
41CrAlMo7	1.8509/41CrAlMo7	A355Cl.A	905 M39	40 CAD6-12	2940		~ 38 Ch 2MjNA
41CrMo4	1.7223/41CrMo4	4142	708 M40	42 CD4TS	2244	SCM 440	40 Ch FA
42CrMo4	1.7225/42CrMo4	4140	708 M40	42 CD4	2244	SCM 440	~ 32 ChM
45Cr2	1.7005/45Cr2	5045		42 C2			
45SiCrMo6							
45WCrV8KU	1.2542/45WCrV7	~ S1	~ BS1	~ 55 WC20	~ 2710		~ 5 ChV2S
48Si7	1.0902/48Si7			46 S7			
50CrV4	1.8159/50 CrV4	6150	735 A50	50 CV4	3230	SUP 10	50 ChGFA
50CrV4	1.8159/50CrV4	6150	735 A50	50 CV4	2230	SUP 10	50 Ch GFA
51 CrMoV4	1.7701/51CrMoV4						
52SiCrNi5							
55Cr3	1.7176/55Cr3	5155	527 A60	55 C3	2253	SUP 9	50 Ch GA
55NiCrMoV7KU	1.2713/55NiCrMoV6	~ L6	Nr.5 (BS 224)	~ 55 NCDV7		~ SKT 4	~ 5 ChNM
55Si7	1.0904/55Si7	9255	250 A53	55 S7	2090		55 S2
55WCrV8KU	1.2550/60WCrV7	~ S1		~ 55 WC20			~ 6 ChV2S
56NiCrMoV7KU	1.2714/56NiCrMoV7	~ L6	~ Nr.5 (BS 224)	~ 55 NCDV7		~ SKT 4	
60 SiCr8	1.0961/60SiCr7	9262	250 A61	60 SC7		SUP 7	
60Si7	~ 1.0909/~60Si7	9260	250 A58	60 S7	~ 2090		60 S2
90 MnVr8Ku	1.2842/90MoCrV8	~ 02	~ B02	~ 90 MV8			
95MnWCr5KU	~ 1.2510/100MnCrW4	01	B01	90 MWCV5	~ 2140		~ 9 ChVG
C10	1.1121/Ck10	~ 1010	045 M10	XC 10	1265	S 10C	10
C15	1.1141/Ck15	~ 1015	055 M15	~ XC 18	~ 1370	S 15C	15
C25	1.1158/Ck25	1025	070 M26	XC 25		S 25C	25
C30	1.1178/Ck30	1030	060 M30	XC 32	~ 1572	S 30C	30
C35	1.1181/Ck35	1035	080 M36	~ XC38	1572	S 35C	35
C36	1.1183/Ck35	1035	060 A 35	~ XC 38	1572	S 35C	35
C40	1.1186/Ck40	1040	020 M40	XC 42		S 40C	40
C45	1.1191/Ck45	1045	080 M46	XC 45	1672	S 45C	45
C46	1.1193/Ck45	1045	080 M46	XC 45	1672	S 45C	45
C50	1.1206/Ck 50	1050	080 M50	XC 48			50
C53	1.1213/Ck53	1050	060 A52	~ XC 48HITS	1674	S 50C	50
C55	1.1203/Ck 55	1055	070 M55	XC 55		Sc 55C3	55
C60	1.1221/Ck 60	1060	080 A62	XC 60	1665	S 58CA	60





**TABELLA PESI DEI PRODOTTI TRAFILATI  
WEIGHT TABLE FOR DRAWN BARS  
TABLEAU DES POIDS DES PRODUITS ETIRES**

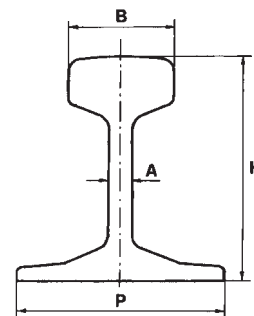
mm.	TONDI ROUNDS RONDS Kg/m	QUADRI SQUARES CARRÉS Kg/m	ESAGONI HEXAGONS HEXAGONS Kg/m
2	0,025	0,031	0,026
2,5	0,039	0,050	0,042
3	0,055	0,070	0,060
3,5	0,076	0,098	0,082
4	0,099	0,125	0,108
4,5	0,125	0,159	0,136
5	0,154	0,196	0,169
6	0,222	0,282	0,243
7	0,302	0,384	0,331
8	0,395	0,502	0,432
9	0,499	0,636	0,546
10	0,617	0,785	0,675
11	0,746	0,950	0,816
12	0,888	1,113	0,971
13	1,042	1,327	1,140
14	1,208	1,539	1,322
15	1,387	1,767	1,518
16	1,578	2,010	1,727
17	1,782	2,269	1,949
18	1,998	2,544	2,185
19	2,226	2,835	2,435
20	2,446	3,141	2,698
21	2,719	3,463	2,975
22	2,982	3,810	3,275
23	3,262	4,154	3,568
24	3,551	4,523	3,890
25	3,853	4,908	4,216
26	4,168	5,309	4,560
27	4,495	5,725	4,917
28	4,834	6,157	5,288
29	5,185	6,605	5,675
30	5,549	7,068	6,071
31	5,925	7,547	6,459
32	6,313	8,042	6,907
33	6,714	8,552	7,319

mm.	TONDI ROUNDS RONDS Kg/m	QUADRI SQUARES CARRÉS Kg/m	ESAGONI HEXAGONS HEXAGONS Kg/m
34	7,127	9,079	7,798
35	7,553	9,621	8,233
36	7,990	10,178	8,742
37	8,440	10,752	9,202
38	8,903	11,341	9,740
39	9,378	11,945	10,221
40	9,865	12,565	10,792
42	10,876	13,854	11,902
43	11,400	14,522	12,430
44	11,936	15,205	13,060
45	12,485	15,904	13,610
46	13,046	16,619	14,227
48	14,205	18,095	15,540
50	15,413	19,635	16,860
52	16,671	21,237	18,180
53	17,319	22,061	18,830
54	17,983	22,902	19,602
55	18,650	23,758	20,305
56	19,335	24,630	21,060
58	20,740	26,420	22,600
60	22,195	28,274	24,180
65	26,049	33,183	28,730
70	30,210	33,484	33,320
75	34,680	44,178	38,250
80	39,458	50,265	43,520
83	42,27		
85	44,54	56,72	49,12
88	47,74		
90	49,94	63,58	55,07
93	53,32		
95	55,64	70,85	61,35

mm.	TONDI ROUNDS RONDS Kg/m	QUADRI SQUARES CARRÉS Kg/m	ESAGONI HEXAGONS HEXAGONS Kg/m
100	61,65	78,50	67,98
105	67,97	86,55	
110	74,60	95	
115	81,54	103	
120	88,78	113	
125	96,33	123	
130	104	133	
135	112,4	143	
140	120,8	154	
145	129,6	165	
150	138,7	177	
155	148,1	189	
160	157,8	201	
165	167,9	214	
170	178,2	227	
175	188,8	240	
180	199,8	254	
185	211,0	267	
190	222,6	283	
200	246,6	314	
210	271,5		
220	298,2		
230	326		
240	355		
250	381		
260	416		
270	449		
280	483		
290	518		
300	554		

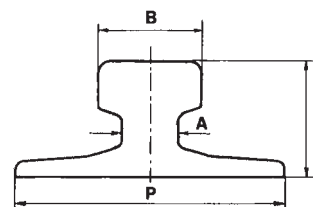
**ROTAIE  
RAILS  
RAILS**

**ROTAIE PER LINEE FERROVIARIE (Vignole)  
RAILS VIGNOLES  
RAILS POUR LIGNE FERROVIAIRE**



	H	B	P	A	Kg/mt
tipo 21	100	50	80	10	21,373
tipo 27	120	50	95	11	27,349
tipo 30	125	56	100	12	30,152
tipo 36	130	60	100	14	36,188
tipo 46	145	63,5 67,2	135	14	46,786
tipo 50	148	65,2 70	135	14	49,850
tipo 60	172	70,6 74,3	150	16,5	60,340

**ROTAIE PER CARROPONTE (Burbac)  
CRANE RAILS  
RAILS POUR PONT ROULANT**



			H mm	B mm	P mm	A mm	Peso in Kg/mt
KS 22	A 45	1	55	45	125	24	22,5
KS 32	A 55	2	65	55	150	31	32,2
KS 43	A 65	3	75	65	175	38	43,8
KS 56	A 75	4	85	75	200	45	57
KS 75	A 100	5	95	100	200	60	75,2
KS 101	A 120	6	105	120	220	72	101,3

**ACCESSORI PER ROTAIE  
ACCESSORIES FOR RAILWAYS  
ACCESSOIRES POUR RAILS**

Attacchi ferroviari  
Piastrine di appoggio  
Piastroni  
Piastroni e lastre speciali  
Piastroni e piastre di serraggio  
Ganasce  
Caviglie  
Chiarvarde e Dadi

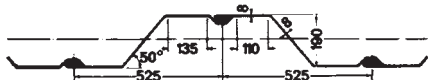
Railway fastenings  
Baseplates  
Double joint baseplates  
Special double baseplates  
and special baseplates  
Rail clips  
Fishplates  
Screwspikes  
Clipbolts and nuts

Attaches ferroviaires  
Selles  
Selles doubles de jonction  
Selles doubles speciales  
et selles speciales  
Crapauds  
Eclisses  
Tirefonds  
Boulons et ecrous

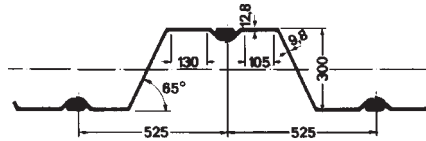
**PALANCOLE  
SHEET PILING  
PALPLANCHES**

**HOESCH Sections**

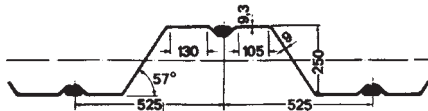
HOESCH 95



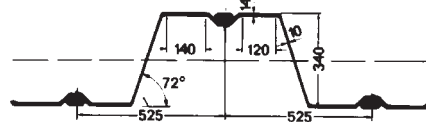
HOESCH 155



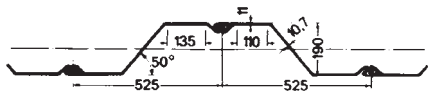
HOESCH 116



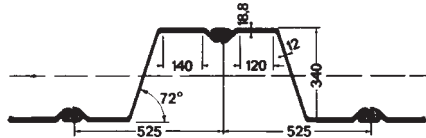
HOESCH 175



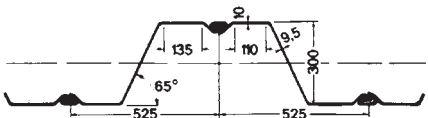
HOESCH 122



HOESCH 215

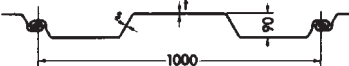


HOESCH 134



**HOESCH Panel Sections**

HT 45 bis HT 70

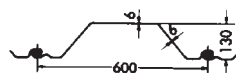


**HOESCH Light-weight Sections**

HL 1

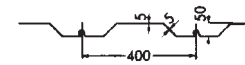


HL 2

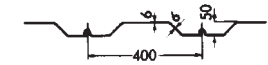


**HOESCH Trench Sheeting**

HKD 400

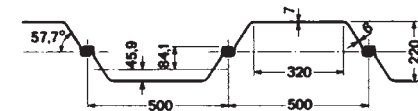


HKD 400/6

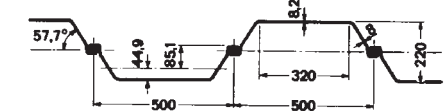


**LARSEN Sections**

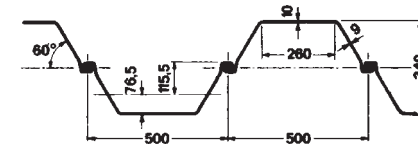
LARSEN 20



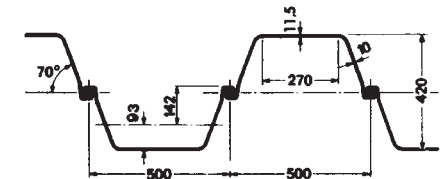
LARSEN 21



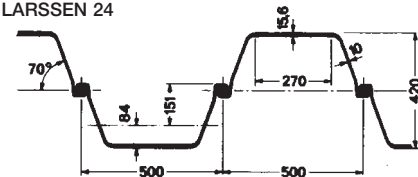
LARSEN 22



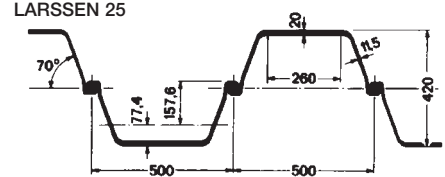
LARSEN 23



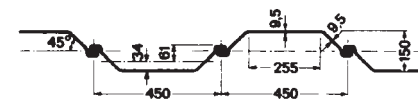
LARSEN 24



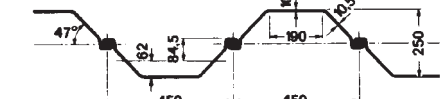
LARSEN 25



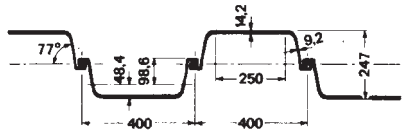
LARSEN 31



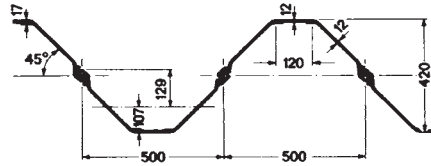
LARSEN 32



LARSSEN III

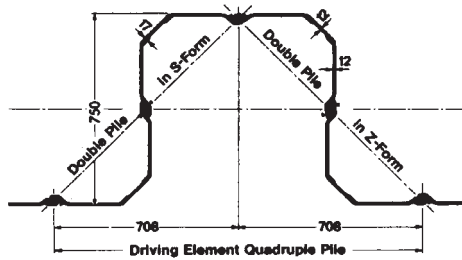


LARSSEN 43



LARSSEN 430

(Wall configuration using LARSSEN 43)



**Steel Qualities**

SHEET PILING STEEL QUALITIES ACCORDING TO GERMAN ENGINEERING STANDARDS - MECHANICAL PROPERTIES

STEEL GRADE	Tensile Strength <sup>1)</sup>	Yield Point <sup>2)</sup>	Elongation <sup>1)</sup>
	MN/m <sup>2</sup> (N/mm <sup>2</sup> )	MN/m <sup>2</sup> (N/mm <sup>2</sup> ) minimum	% minimum
ST SP 37	360 - 440	235	25
ST SP 45	440 - 530	265	22
ST SP S	490 - 590	355	22
According to Technical Conditions of Delivery for Steel sheet Piles			
St KE 300	440 - 530	300	25
Special Quality for HOESCH Trench Sheeting			

The tensile test is to be made in accordance with DIN 50 145 with short proportional bars.  
 1) Permissible allowance on values of tensile strength  $\pm 20$  MN/m<sup>2</sup> (N/mm<sup>2</sup>)  
 2) 9,81 N = 1 kp.  
 We also supply steel grades in accordance with other domestic and foreign standards.

Denominazione Name Nom	Larghezza Width Larg	Profondità Width Larg	Spessore frontale Front Thik Ep Front	Spessore ali laterali Wing Thik Ep des Ailes	Perimetro Metre Develop	Superficie
	b	h	t	s	sviluppo	acciaio
	mm	mm	mm	mm	cm/m parete	cm <sup>2</sup> /m parete

**Palancole Larssen originali (marchio registrato)**

Larssen 600		150	9,5	9,5	225	120
Larssen 600 k		150	10	10	225	126
Larssen 601		310	7,5	6,4	258	98
Larssen 602		310	8,2	8	258	113
Larssen 603		310	9,7	8,2	260	138
Larssen 603 k		310	10	9	260	145
Larssen 604	600	380	10,5	9	282	158
Larssen 605		420	12,5	9	290	177
Larssen 605 k		420	12,2	10	290	184
Larssen 606		435	15,6	9,2	293	201
Larssen 606 k		435	15,6	10	293	207
Larssen 607		435	21,5	9,8	293	243
Larssen 607 k		435	21,5	10	293	244
Larssen 20		220	7	6	250	101
Larssen 21		220	8,2	8	250	121
Larssen 22		340	10	9	280	155
Larssen 23	500	420	11,5	10	315	197
Larssen 24		420	15,6	10	315	223
Larssen 24/12		420	15,6	12	315	236
Larssen 25		420	20	11,5	311	262
Larssen 32 <sup>e)</sup>	450	250	10,5	10,5	250	155
Larssen III	400	247	14,2	9,2	285	197
Larssen 43	500	420	12	12	280	212
Larssen 460 <sup>s)</sup>	708	750	12	12	396	299

**Palancole Hoesch (marchio registrato)**

Hoesch 1200	575	260	9,5	9,5	259	136
Hoesch 1700	575	350	10	9	270	148
Hoesch 1700 K	575	350	9,5	9,5	270	149
Hoesch 95		190	8	6	240	121
Hoesch 116		250	9,3	9	253	148
Hoesch 122		190	11	10,7	240	155
Hoesch 134	525	300	10	9,5	274	171
Hoesch 155		300	12,8	9,8	267	197
Hoesch 175		340	14	10	299	223
Hoesch 215		340	18,8	12	291	274

denominazione	Peso		Momento di inerzia di 2° grado	Movimento di resistenza	Raggio d'inerzia
	b	h	J <sub>y</sub>		i
	Kg/m palanca singola	Kg/m <sup>2</sup> parete	cm <sup>4</sup> /m parete	cm <sup>3</sup> /m parete	cm
<b>Palancole Larssen originali (marchio registrato)</b>					
Larssen 600	56,4	94	3840	510	5,66
Larssen 600 k	59,4	99	4050	540	5,60
Larssen 601	46,3	77	11520	745	10,83
Larssen 602	53,4	89	12,870	830	10,66
Larssen 603	64,8	108	18,600	1200	11,63
Larssen 603 k	68,1	113	19220	1240	11,55
Larssen 604	74,5	124	30710	1620	13,93
Larssen 605	83,5	139	42370	2020	15,50
Larssen 605 k	86,7	144	42550	2030	15,20
Larssen 606	94,4	157	54370	2500	16,47
Larssen 606 k	97,5	162	55240	2540	16,34
Larssen 607	114,4	191	69600	3200	16,93
Larssen 607 k	115,2	192	70030	3220	16,92
Larssen 20	39,5	79	660	600	8,08
Larssen 21	47,5	95	7700	700	7,98
Larssen 22	61	122	21250	1250	11,70
Larssen 23	77,5	155	42000	2000	14,60
Larssen 24	87,5	175	52500	2500	15,30
Larssen 24/12	92,7	185	53610	2650	15,10
Larssen 25	103	206	63840	3040	15,61
Larssen 32 <sup>e</sup> )	54,9	122	10500	850	8,26
Larssen III	62	155	16670	1350	9,18
Larssen 43	83	166	34900	1660	12,80
Larssen 460 <sup>s</sup> )	83	235 <sup>s</sup> )	241800	6450	28,40
<b>Palancole Hoesch (marchio registrato)</b>					
Hoesch 1200	61,5	107	14820	1140	10,40
Hoesch 1700	66,7	116	30100	1720	14,27
Hoesch 1700 K	67,3	117	29750	1700	14,13
Hoesch 95	49,9	95	7130	750	7,68
Hoesch 116	60,9	116	15,000	1200	10,10
Hoesch 122	64,1	122	8930	940	7,59
Hoesch 134	70,4	134	25500	1700	12,20
Hoesch 155	81,4	155	30000	2000	12,30
Hoesch 175	91,9	175	44200	2800	14,10
Hoesch 215	113	215	53550	3150	14,00

## PROGRAMMA DI FORNITURA

denominazione	Larghezza	Profondità	Spessore frontale	Spessore ali laterali	Perimetro	Superficie
	b	h	t	s	sviluppo	acciaio
	mm	mm	mm	mm	cm/m parete	cm <sup>2</sup> /m parete
<b>Profili piatti Union (marchio registrato)</b>						
FL 408			8	-		165
FL 409			9	-		172
FL 409,5	400	86	9,5	-	215	176
FL 412			12	-		194
FL 412,7			12,7	-		199
FL 511			11	-		172
FL 512	500	88	12	-	255	180
FL 512,7			12,7	-		184
<b>Profili leggeri Hoesch</b>						
HL 1	450	80	4,5	4,5	230	57,3
HL 2	600	130	6	6	238	80,3
HL 2/7	600	131	7	7	239	95,5
HL 3	700	150	8	8	243	111,9
<b>Ferri scanalati Hoesch</b>						
HKD 400/6	400	50	6	6	240	70,4
HKD 800	800	100	8	8	237	93
<b>Profili a tavola Hoesch</b>						
HT 45 <sup>s</sup> )			4,5	4,5		57,3
HT 50 <sup>s</sup> )			5	5		63,7
HT 60 <sup>s</sup> )	1000	90	6	6	227	76,4
HT 70 <sup>s</sup> )			7	7		89,2

denominazione	Peso		Momento di inerzia di 2° grado	Movimento di resistenza	Raggio d'inerzia
	b	h	J <sub>y</sub>		i
	Kg/m palancola singola	Kg/m <sup>2</sup> parete	cm <sup>4</sup> /m parete	cm <sup>3</sup> /m parete	cm
<b>Profili piatti Union (marchio registrato)</b>					
FL 408	51,6	129			1,74
FL 409	54	135			1,71
FL 409,5	55,2	138	500	120	1,89
FL 412	61	152			1,61
FL 412,7	62,6	156			1,59
FL 511	67,5	135			1,52
FL 512	70,5	141	400	80	1,49
FL 512,7	72,5	145			1,47
<b>Profili leggeri Hoesch</b>					
HL 1	20,2	45	560	140	3,13
HL 2	37,8	63	220	338	5,23
HL 2/7	45	75	2560	388	5,17
HL 3	61,5	88	4050	540	6,00
<b>Ferri scanalati Hoesch</b>					
HKD 400/6	22,1	55	254	102	1,90
HKD 800	59	73	1364	273	3,83
<b>Profili a tavola Hoesch</b>					
HT 45 <sup>5)</sup>	45	45	716	159	
HT 50 <sup>5)</sup>	50	50	788	175	3,50
HT 60 <sup>5)</sup>	60	60	936	208	
HT 70 <sup>5)</sup>	70	70	1090	240	

**MATERIALI NAVALI  
SHIPBUILDING MATERIAL  
MATERIEL NAVAL**

**LAMIERE DA SCAFO  
SHIPBUILDING PLATES  
TOLES NAVALES**

8000 x 2000 x 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 18 - 20 - 22 - 25 - 30 - 35 - 40 - 50  
8000 x 2500 x 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 18 - 20 - 22 - 25 - 30 - 35 - 40 - 45 - 50 - 55 - 60  
10000 x 2500 x 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 18 - 20 - 22 - 25 - 30 - 35 - 40 - 45 - 50 - 55 - 60  
12000 x 2500 x 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 18 - 20 - 22 - 25 - 30 - 35 - 40 - 45 - 50 - 55 - 60

**GRADE D-SS**

12000 x 2500 x 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 18 - 20 - 22 - 25 - 30 - 35 - 40

**GRADE E**

12000 x 2500 x 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 18 - 20 - 22 - 25 - 30 - 35 - 40

**GRADE DH 36-ERSS 36**

12000 x 2500 x 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 18 - 20 - 22 - 25 - 30 - 35 - 40

**GRADE EH 36-ERE 36**

12000 x 2500 x 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 18 - 20 - 22 - 25 - 30 - 35 - 40

**COLLAUDATI DA - TESTED BY - APPROUVES PAR  
RINA - LRS - BV - DNV - ABS**

**PIATTI A BULBO  
BULB FLATS  
FERS PLATS A BOULE**

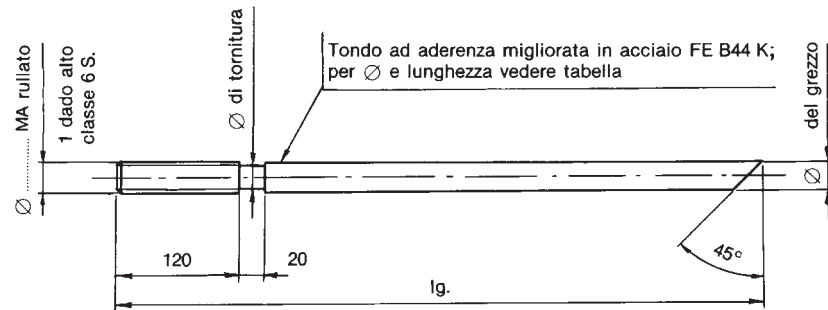
**GRADE A - B - S - AH36 - ERS36 - DH36 - ERSS36**



DIM	Kg/ml	DIM	Kg/ml	DIM	Kg/ml	DIM	Kg/ml
80 x 5	4,41	160 x 9	14,0	240 x 10	25,4	340 x 12	46,1
80 x 6	5,06	160 x 10	15,3	240 x 11	27,4	340 x 13	48,8
80 x 7	6,72	180 x 8	14,8	240 x 12	29,3	340 x 14	51,5
100 x 6	6,32	180 x 9	16,2	260 x 10	28,3	340 x 15	54,2
100 x 7	7,13	180 x 10	17,6	260 x 11	30,3	370 x 13	54,6
100 x 8	7,96	180 x 11	19,0	260 x 12	32,4	370 x 14	57,5
120 x 6	7,31	180 x 12	20,4	280 x 11	33,5	370 x 15	60,5
120 x 7	8,25	200 x 9	18,5	280 x 12	35,7	370 x 16	63,5
120 x 8	9,19	200 x 10	20,1	280 x 13	37,9	400 x 13	60,8
140 x 7	9,74	200 x 11	21,7	300 x 11	36,7	400 x 14	63,9
140 x 8	10,83	200 x 12	23,2	300 x 12	39,0	400 x 15	67,0
140 x 9	11,92	220 x 9	21,0	300 x 13	41,5	400 x 16	70,2
140 x 10	13,03	220 x 10	22,8	320 x 12	42,5	430 x 14	70,6
160 x 7	11,4	220 x 11	24,5	320 x 13	45,0	430 x 15	73,9
160 x 8	12,7	220 x 12	26,2	320 x 14	47,5	430 x 17	80,6

**TIRANTI  
STUD BOLTS  
TIGES**

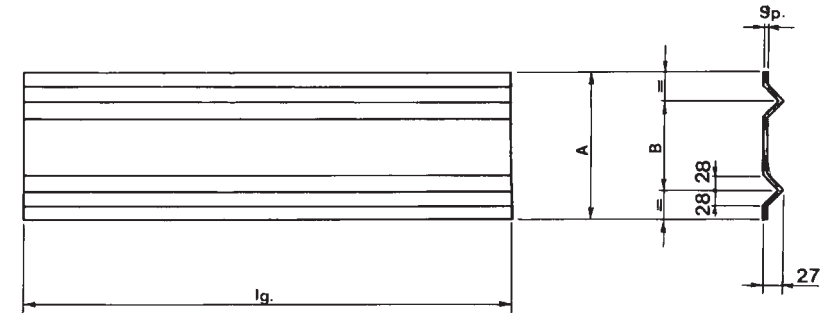
**TIRANTI FILETTATI PER CHIODI DI GALLERIA  
SCREWED STUD BOLTS FOR NAILS TUNNEL  
TIGES FILETEES POUR CLOU DE TUNNEL**



Tipo del tirante	Ø .....MA rullato	Ø di tornitura	Ø del grezzo	Lunghezza lg. in m/m	Peso di un pezzo in kg.
20 AM 300 F	20 MA	18,2	20	3000	7,39
20 AM 350 F	20 MA	18,2	20	3500	8,63
20 AM 400 F	20 MA	18,2	20	4000	9,86
22 AM 300 F	22 MA	20,2	22	3000	8,95
22 AM 350 F	22 MA	20,2	22	3500	10,44
22 AM 400 F	22 MA	20,2	22	4000	11,93
24 AM 300 F	24 MA	21,9	24	3000	10,65
24 AM 350 F	24 MA	21,9	24	3500	12,43
24 AM 400 F	24 MA	21,9	24	4000	14,2
27 AM 300 F	27 MA	25	28	3000	14,5
27 AM 350 F	27 MA	25	28	3500	16,92
27 AM 400 F	27 MA	25	28	4000	19,33
30 AM 300 F	30 MA	27,5	30	3000	16,65
30 AM 350 F	30 MA	27,5	30	3500	19,42
30 AM 400 F	30 MA	27,5	30	4000	22,2

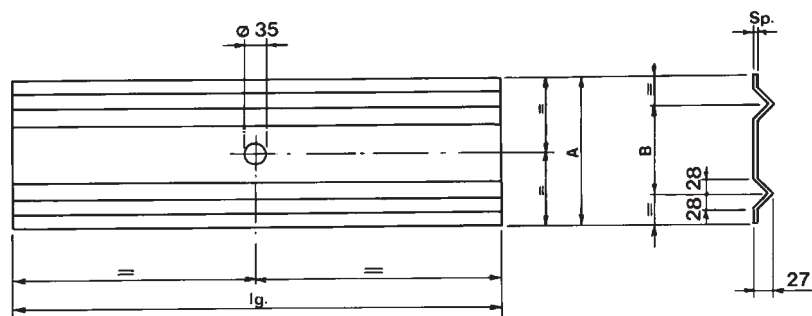
**MARCIAVANTI METALLICI  
STEEL LAGGINGS  
PROFILS POUR TUNNEL**

**MARCIAVANTI METALLICI  
STEEL LAGGINGS  
PROFILS POUR TUNNELS**

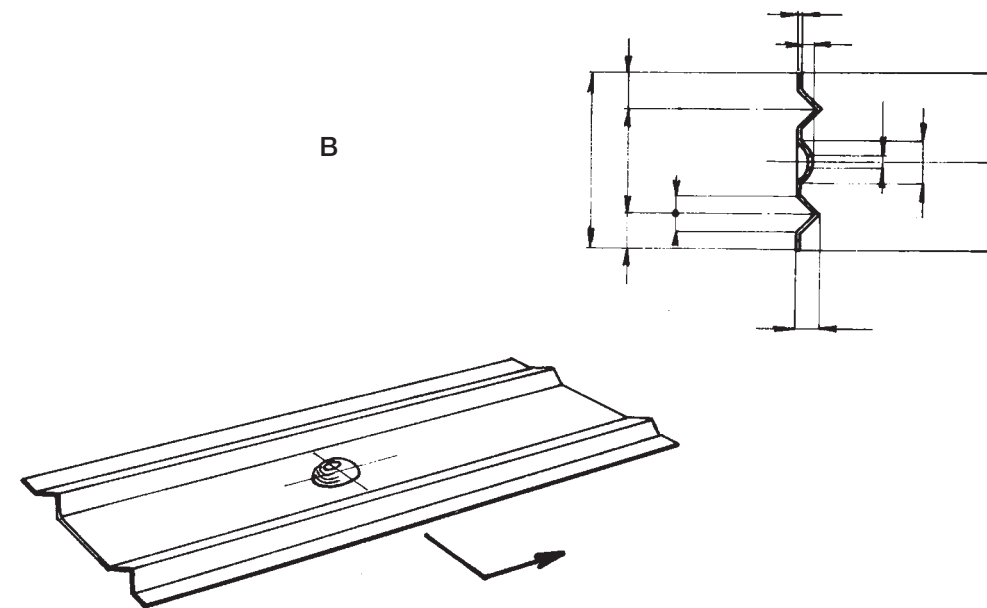
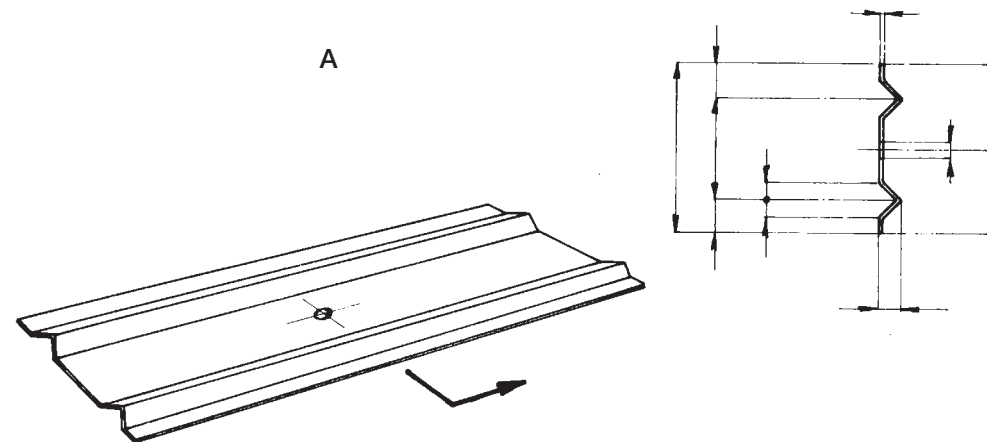


Marciavanti tipo	Lunghezza lg.	Quota A	Quota B	Spessore mm	Peso in kg.
M 1	600	300	180	3	4,58
M 2	1000	300	180	3	7,63
M 3	1000	370	220	3	9,28
M 4	1200	300	180	3	9,16
M 5	1200	370	220	3	11,13
M 6	1500	300	180	3	11,44
M 7	1500	370	220	3	13,92
M 8	2000	300	180	3	15,26
M 9	2000	370	220	3	18,56
M 10	600	300	180	4	6
M 11	1000	300	180	4	10
M 12	1000	370	220	4	12,21
M 13	1200	300	180	4	12
M 14	1200	370	220	4	14,66
M 15	1500	300	180	4	15
M 16	1500	370	220	4	18,32
M 17	2000	300	180	4	20
M 18	2000	370	220	4	24,43

**MARCIAVANTI METALLICI FORATI  
STEEL LAGGINGS WITH HOLE  
PROFILS POUR TUNNELS AVEC TROU**

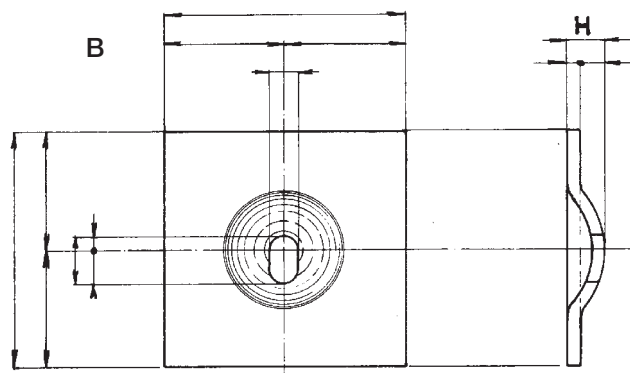
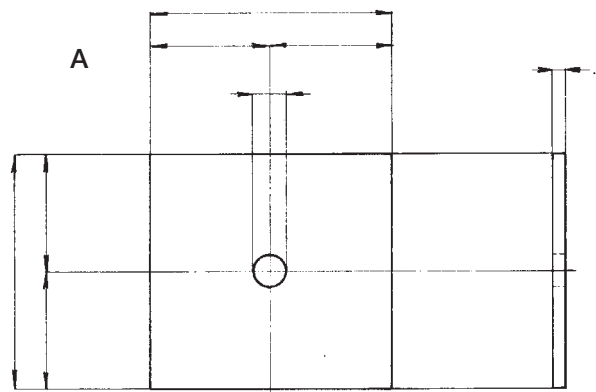


Marciavanti tipo	Lunghezza lg.	Quota A	Quota B	Spessore mm	Peso in kg.
M 1 F	600	300	180	3	4,58
M 2 F	1000	300	180	3	7,63
M 3 F	1000	370	220	3	9,28
M 4 F	1200	300	180	3	9,16
M 5 F	1200	370	220	3	11,13
M 6 F	1500	300	180	3	11,44
M 7 F	1500	370	220	3	13,92
M 8 F	2000	300	180	3	15,26
M 9 F	2000	370	220	3	18,56
M 10 F	600	300	180	4	6
M 11 F	1000	300	180	4	10
M 12 F	1000	370	220	4	12,21
M 13 F	1200	300	180	4	12
M 14 F	1200	370	220	4	14,66
M 15 F	1500	300	180	4	15
M 16 F	1500	370	220	4	18,32
M 17 F	2000	300	180	4	20
M 18 F	2000	370	220	4	24,43



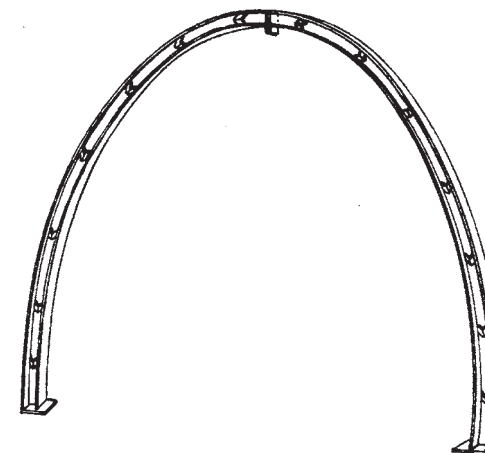


**PIASTRE DI ANCORAGGIO  
ANCHORING PLATE  
PLAQUE DE CINTRAGE**

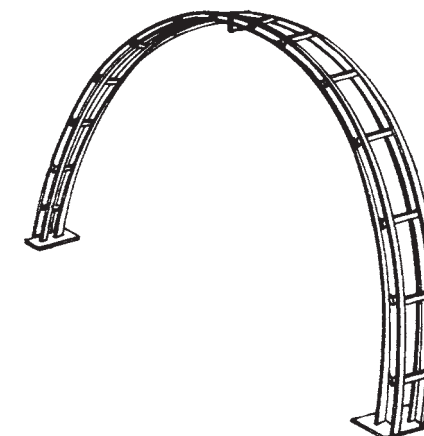


**CENTINE METALLICHE  
STEEL ARCH FOR TUNNEL  
CINTRES METALLIQUES**

DIMENSIONI A RICHIESTA - SIZES AS REQUIRED - DIMENSIONS SUR DEMANDE

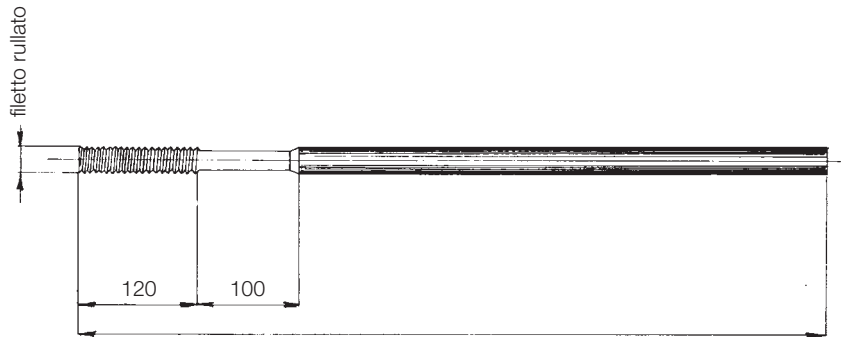


DIMENSIONI A RICHIESTA - SIZES AS REQUIRED - DIMENSIONS SUR DEMANDE

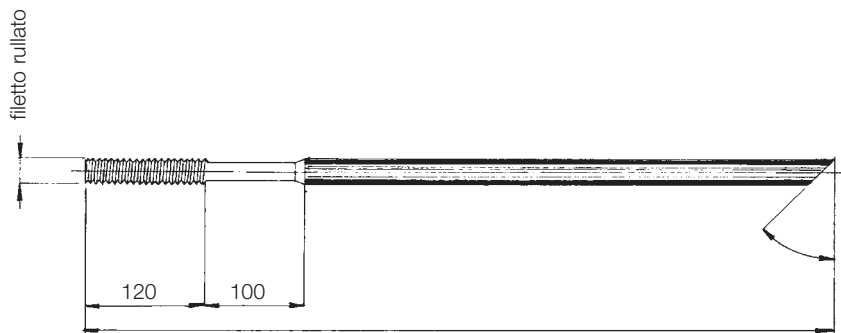


**TIRANTI FILETTATI  
SCREWED TENSION BARS  
TIGES FILETEES**

**TIRANTI FILETTATI CON ESTREMITÀ PIANA PER CHIODI DI GALLERIA  
SCREWED TENSION BARS WITH PLAIN END FOR TUNNEL ANCHOR  
TIGES FILETEES AVEC EXTREMITÉ LISSE POUR CLOUS DE TUNNEL**



**TIRANTI FILETTATI CON ESTREMITÀ A BECCO DI FLAUTO PER CHIODI DI GALLERIA  
SCREWED TENSION BARS WITH CHANFERED END FOR TUNNEL ANCHOR  
TIGES FILETEES AVEC EXTREMITÉ LISSE CHANFRENEE POUR CLOUS DE TUNNEL**



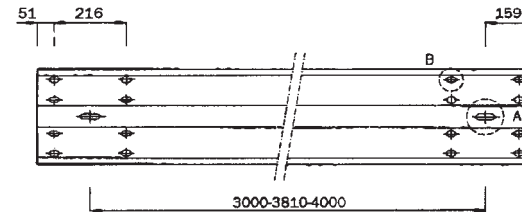
**BARRIERE STRADALI  
GUARD RAIL  
GLISSIERES DE SECURITÉ**

**NORMATIVE AASHTO AMERICANA  
STANDARD HIGHWAG AASHTO  
REGLEMENTATION AASHTO**

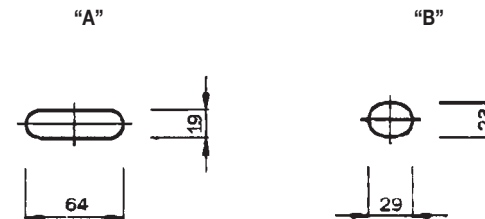
La tipologia di questa barriera, le cui norme hanno regolamentato per lungo tempo l'uso della barriera di sicurezza nel mondo, quando ancora non esistevano le specifiche nazionali, è adottata quasi universalmente. Le norme AASHTO prevedono due classi di barriera (in funzione dello spessore del metallo di base) e quattro tipi (determinati dal peso della zincatura e dal tipo di protezione). La lunghezza utile della fascia è normalmente di 3,81 metri. Il palo può essere piegato a freddo oppure profilato a caldo. Le norme AASHTO regolamentano sia le fasce a doppia onda che quelle a tripla onda.

*These standards, which regulated the use of safety barriers in the world for many years, before specific "national" standards existed, are adopted almost universally. AASHTO standards envisage two classes of barrier (depending on the thickness of base metal) and four types (determined by the weight of the zinc coating and the type of protection). The effective length of the beam is usually 3.81 meters. The post may be cold formed or hot rolled. AASHTO standards regulate both double and triple wave beams.*

Ce type de glissière, dont les normes ont, pendant de nombreuses années, réglementé l'emploi des glissières de sécurité dans le monde alors qu'il n'existait encore aucune réglementation nationale, est aujourd'hui adopté de façon presque universelle. Les normes "AASHTO" prévoient deux classes de glissières (en fonction de l'épaisseur du métal de base) et quatre types (déterminés par l'épaisseur du zincage et du type de protection). La longueur utile du rail est généralement de 3,81 mètres. Le poteau peut être plié à froid ou profilé à chaud. Les normes AASHTO régulent aussi bien les rails à double ondulation que les rails à triple ondulation.

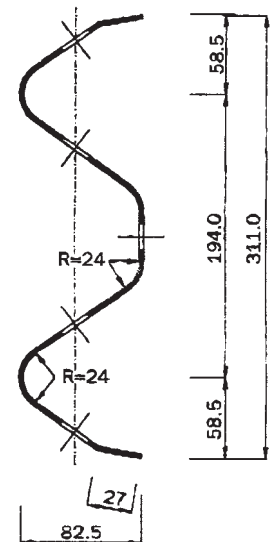


**PARTICOLARI - DETAILS - DETAILS**

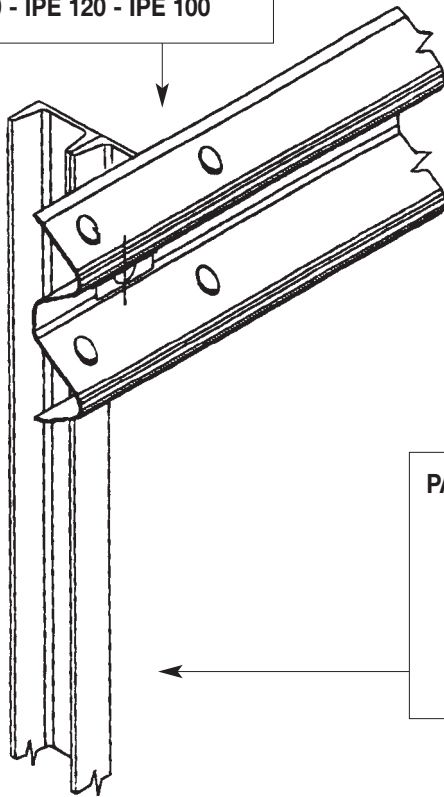


Modelli in accordo ad altre normative sono disponibili su richiesta  
Models according to other norms available on request  
Modèles en accords aux autres normes sont disponibles sus demande

**SEZIONE DEL NASTRO  
BEAM SECTION  
COUPE HORIZONTALE**

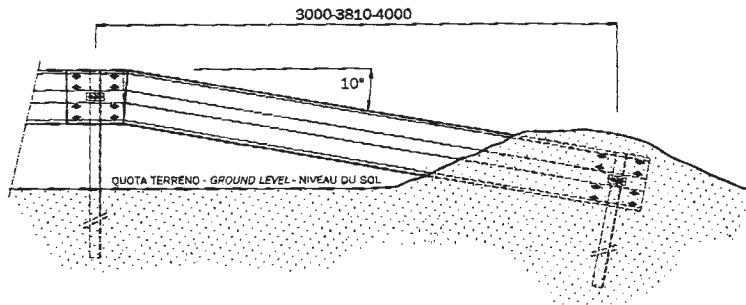


**DISTANZIATORE - SPACER - ECARTEUR:**  
 "C" 120 X 80 X 6 - "C" 120 X 65 X 4  
 UNP 140 - UNP 120 - IPE 120 - IPE 100



**PALO - POST - POTEAU:**  
 "C" 120 X 80 X 9  
 "C" 120 X 65 X 4  
 UNP 140  
 UNP 120  
 IPE 120  
 IPE 100

**TERMINALE A TERRA - GROUND TERMINAL - EXTREMITE FICHEE EN TERRE**



**CONDOTTE METALLICHE  
 POLISECTION PIPE CULVERTS  
 BUSES METALLIQUES**

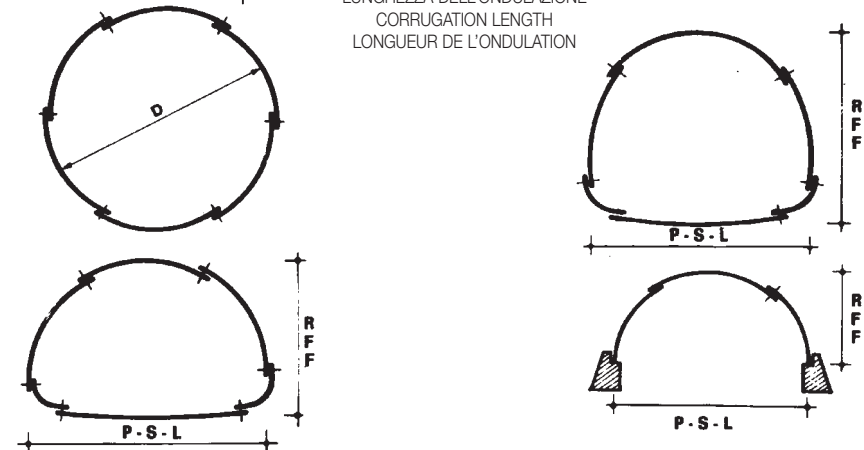
**ONDULAZIONE - CORRUGATION - ONDULATION**

ASSE NEUTRO  
 NEUTRAL AXIS  
 AXE NEUTRE

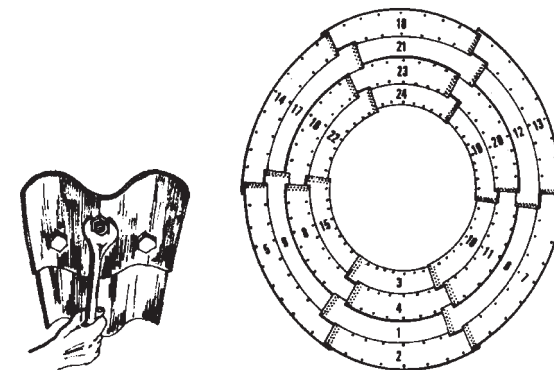
SPESORE  
 THICKNESS  
 EPAISSEUR



LUNGHEZZA DELL'ONDULAZIONE  
 CORRUGATION LENGTH  
 LONGUEUR DE L'ONDULATION



**SCHEMA DI MONTAGGIO - ASSEMBLY SCHEME - SCHEMA DE MONTAGE**

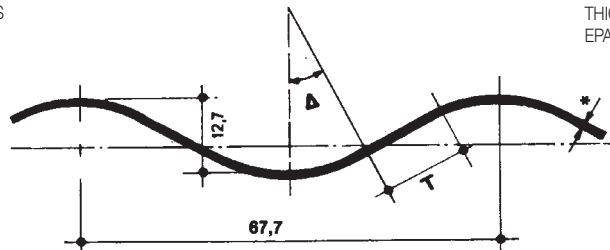


**CONDOTTE A INCASTRO  
NESTABLE PIPE CULVERTS  
BUSES EMBOITABLE**

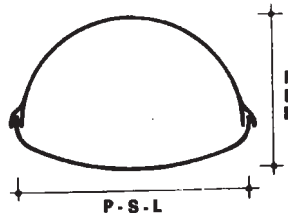
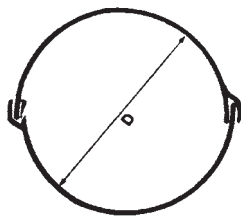
**ONDULAZIONE - CORRUGATION - ONDULATION**

ASSE NEUTRO  
NEUTRAL AXIS  
AXE NEUTRE

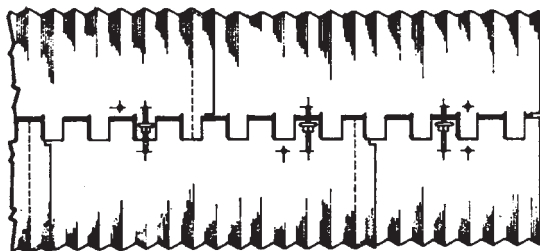
SPESSORE  
THICKNESS  
EPAISSEUR



LUNGHEZZA DELL'ONDULAZIONE  
CORRUGATION LENGTH  
LONGUEUR DE L'ONDULATION

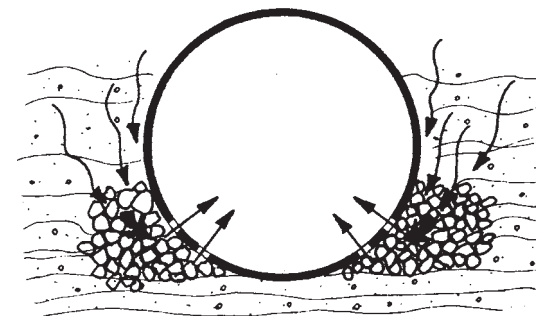


**SCHEMA DI MONTAGGIO - ASSEMBLY SCHEME - SCHEMA DE MONTAGE**



**TUBI DI DRENAGGIO  
DRAINING PIPES  
TUBES POUR DRAINAGE**

**SEZIONE TRASVERSALE  
CROSS SECTION  
COUPE TRANSVERSALE**



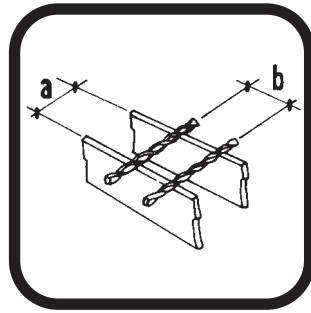
SPESSORI ESPRESSI IN GAUGE ED EQUIVALENZA IN MM

THICKNESS IN U.S. GAUGE AND MILLIMETERS

EPAISSEURS EXPRIMEES EN JAUGES ET EQUIVALENCE EN MM.

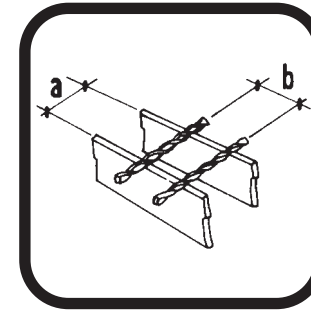
mm	7,14	6,74	6,35	5,95	5,55	5,15	4,76	4,36	3,96	3,57	3,17	2,77	2,38	1,98	1,78	1,58
GAUGE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

**GRIGLIATI PER EDILIZIA  
STEEL GRATING MESH  
CAILLEBOTIS POUR BATIMENT**



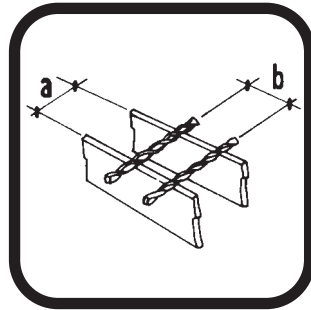
a = mm. 34  
b = mm. 38 o 76

mm	mm								
	25 x 2	30 x 2	25 x 3	30 x 3	40 x 3	50 x 3			
300	8800	12800	13300	19200	34100	53300			
400	5000	7200	7500	10800	19200	30000			
500	3200	4600	4800	6900	12300	19200			
600	2200	3200	3250	4800	8500	13300			
700	1600	2300	2400	3450	6150	9600			
800	1200	1750	1800	2650	4700	7400			
900	970	1400	1460	2100	3750	5850			
1000	800	1150	1200	1700	3050	4800			
1100	650	940	980	1400	2500	3900			
1200		750	800	1200	2100	3300			
1300		680	700	1000	1800	2800			
1400			600	860	1500	2400			
1500				770	1350	2100			
1600				680	1200	1900			
1700				575	1000	1600			
1800					900	1400			
1900					800	1250			
2000					700	1100			
mm	Kg/mq								
34 x 38	16,9	19,1	22,9	26,7	33,9	41,5			
34 x 76	14,9	17,1	20,9	24,7	31,9	39,5			



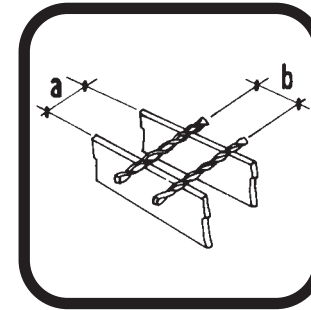
a = mm. 30  
b = mm. 50

mm	mm								
	25 x 2	30 x 2	25 x 3	30 x 3	40 x 3	50 x 3	30 x 4	40 x 4	60 x 4
300	9700	13200	14700	21300	37300	60200	28900	50900	115000
400	5500	8000	8200	12000	21200	34000	16300	28700	64600
500	3500	5100	5300	7500	13600	21700	10400	18300	41300
600	2400	3500	3600	5300	9500	14900	7200	12600	28300
700	1800	2600	2700	3900	6900	10900	5250	9250	20800
800	1350	2000	2100	3000	5300	8400	4000	7100	16000
900	1050	1550	1600	2350	4200	6500	3150	5550	12500
1000	850	1250	1315	1900	3350	5400	2600	4600	10300
1100	700	1000	1050	1550	2800	4300	2100	3700	8250
1200	600	850	900	1300	2300	3600	1700	3000	6800
1300		750	750	1100	2000	3000	1450	2600	5800
1400		600	650	950	1700	2600	1250	2200	5000
1500			550	800	1500	2300	1100	2000	4400
1600				700	1300	2100	1000	1750	4000
1700				600	1150	1750	850	1500	3350
1800					1050	1600	750	1350	3000
1900					850	1400	680	1200	2700
2000					800	1250	600	1050	2400
mm	Kg/mq								
30 x 50	16,3	18,5	22,5	26,4	33,9	41,7	33,9	44,3	64,8



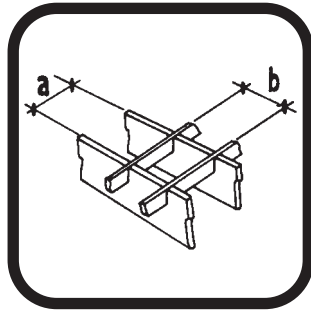
a = mm. 22  
b = mm. 76

mm	mm							
	20 x 2	25 x 2	30 x 2	25 x 3	30 x 3	40 x 3	50 x 3	60 x 4
300	8700	13550	19500	20350	29350	52200	81600	155000
400	4900	7650	11000	11450	16500	29400	46000	87400
500	3100	5000	7000	7300	10600	18800	29400	55900
600	2150	3400	4900	5000	7350	13100	17600	38900
700	1550	2450	3550	3700	5300	9500	14800	28200
800	1200	1900	2750	2800	4100	7000	11400	21600
900	950	1500	2150	2250	32850	5800	9000	17200
1000	780	1200	1750	1800	2600	4700	7300	14000
1100	600	990	1400	1500	2100	3800	5900	11300
1200		840	1150	1250	1800	3200	5000	9600
1300		700	1000	1075	1550	2750	4300	8150
1400		600	860	900	1300	2300	3650	6950
1500			760	800	1150	2000	3200	6000
1600			660	700	1000	1850	2900	5500
1700			570	600	915	1600	2550	4800
1800					800	1400	2200	4200
1900					700	1250	2000	3800
2000					650	1150	1800	3500
mm	Kg/mq							
22 x 76	17,6	21,5	24,8	30,6	36,4	47,6	59,2	93,4



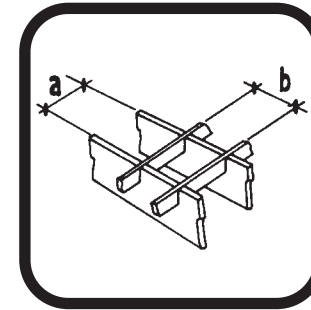
a = mm. 15  
b = mm. 76

mm	mm						
	20 x 2	25 x 2	30 x 2	25 x 3	30 x 3	40 x 3	
300	12600	19700	26500	29500	42600	75700	
400	7100	11100	16000	16500	24000	42400	
500	4570	7100	10200	10600	15300	27200	
600	3150	4950	7150	7200	10600	19000	
700	2300	3600	5200	5400	7800	13800	
800	1750	2750	4000	4100	6000	10600	
900	1400	2150	3150	3280	4700	8400	
1000	1100	1750	2550	2630	3800	6750	
1100	930	1450	2050	2170	3140	5600	
1200	750	1200	1700	1800	2600	4690	
1300	650	1000	1500	1500	2250	4000	
1400	570	890	1250	1340	1900	3400	
1500		780	1100	1140	1670	3000	
1600		690	1000	980	1470	2600	
1700			870	890	1280	2300	
1800			780	800	1180	2100	
1900			680	700	1050	1850	
2000					950	1650	
mm	Kg/mq						
15 x 76	24,8	30,3	35,7	43,8	52,2	68,4	



a = mm. 66  
b = mm. 11

mm	mm							
	25 x 3	30 x 3	40 x 3	50 x 3				
300	6650	9600	17050	26650				
400	3750	5400	9600	15000				
500	2400	3450	6150	9600				
600	1625	2400	4250	6650				
700	1200	1750	3075	4800				
800	900	1325	2350	3700				
900	730	1050	1875	2925				
1000	600	850	1525	2400				
1100	490	700	1250	1950				
1200	400	600	1050	1650				
1300	350	500	900	1400				
1400	300	430	750	1200				
1500		385	675	1050				
1600		340	600	950				
1700		285	500	800				
1800			450	700				
1900			400	625				
2000			350	550				
mm	Kg/mq							
60 x 10	29,83	32,16	45,13	49,80				

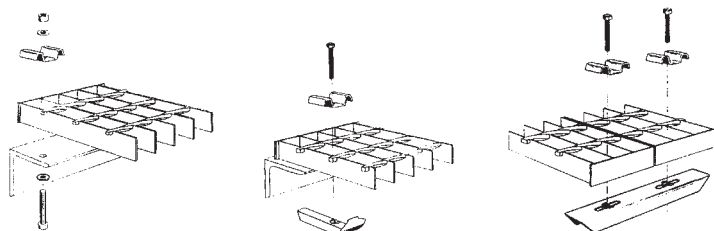


a = mm. 22  
b = mm. 66

mm	mm								
	25 x 2	30 x 2	25 x 3	30 x 3	40 x 3	50 x 3	60 x 4	70 x 4	80 x 4
300	8800	12800	13300	19200	34100	53300	101300	140750	183850
400	5000	7200	7500	10800	19200	30000	57000	79150	103400
500	3200	4600	4800	6900	12300	19200	36500	50650	66150
600	2200	3200	3250	4800	8500	13300	25300	35150	45950
700	1600	2300	2400	3450	6150	9600	18200	25850	33750
800	1200	1750	1800	2650	4700	7400	14000	19750	25850
900	970	1400	1460	2100	3750	5850	11100	15600	20430
1000	800	1150	1200	1700	3050	4800	9100	12650	16500
1100	650	940	980	1400	2500	3900	7450	10450	13650
1200		750	800	1200	2100	3300	6300	8750	11450
1300		680	700	1000	1800	2800	5350	7450	9750
1400			600	860	1500	2400	4550	6450	8400
1500				770	1350	2100	4050	5600	7350
1600				680	1200	1900	3600	4900	6450
1700				575	1000	1600	3000	4350	5700
1800					900	1400	2650	3900	5100
1900					800	1250	2400	3500	4550
2000					700	1100	2100	3150	4100
mm	Kg/mq								
30 x 10	-	-	39,02	43,20	-	-	-	-	-
30 x 30	18,64	21,58	26,91	31,08	42,19	50,53	80,30	-	-
30 x 60	16,68	19,62	23,88	28,05	37,78	46,12	73,45	84,55	96,62

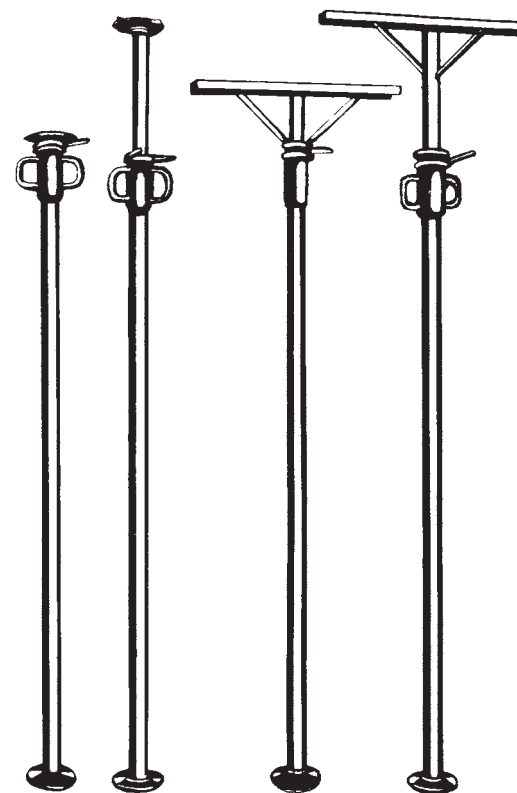
mm	mm								
	25 x 2	30 x 2	25 x 3	30 x 3	40 x 3	50 x 3	60 x 4	70 x 4	80 x 4
300	13550	19500	20350	29350	52200	81600	155000	211150	275800
400	7650	11000	11450	16500	29400	46000	87400	118750	155150
500	5000	7000	7300	10600	18800	29400	55900	76000	99290
600	3400	4900	5000	7350	13100	17600	38900	52750	68950
700	2450	3550	3700	5300	9500	14800	28200	38750	50650
800	1900	2750	2800	4100	7000	11400	21600	29650	38750
900	1500	2150	2250	3250	5800	9000	17200	23450	30600
1000	1200	1750	1800	2600	4700	7300	14000	19000	24800
1100	990	1400	1500	2100	3800	5900	11300	15700	20500
1200	840	1150	1250	1800	3200	5000	9600	13150	17200
1300	700	1000	1075	1550	2750	4300	8150	11200	14650
1400	600	860	900	1300	2300	3650	6950	9650	12650
1500		760	800	1150	2000	3200	6000	8400	11000
1600		670	700	1000	1850	2900	5500	7400	9650
1700		570	600	915	1600	2550	4800	6550	8550
1800				800	1400	2200	4200	5850	7650
1900				700	1250	2000	3800	5250	6850
2000				650	1150	1800	3500	4750	6200
mm	Kg/mq								
20 x 60	22,81	26,98	33,08	39,09	52,49	64,51	102,82	118,82	135,79

**ANCORAGGI ZINCATI STANDARD  
GALVANIZED STANDARD FIXTURES  
FIXAGES GALVANISES STANDARD**



**PONTEGGI  
SCAFFOLDING  
ECHAFAUDAGE**

**PUNTELLO REGOLABILE PER SOLAI  
ADJUSTABLE STAY FOR FLOORS  
ETAJ REGLABLE POUR PLANCHERS**



**CON PIASTRELLE  
ALLE ESTREMITÀ  
vite centrale/filetto quadro riportato  
tubo esterno Ø 57  
tubo interno Ø 48  
da cm. 180/330  
da cm. 200/360  
da cm. 220/380**

*WITH END PLATES  
central screw/inserted square thread  
outer pipe dia. 57  
inner pipe dia. 48  
180/330 cm.  
200/360 cm.  
220/380 cm.*

**AVEC PLAQUES AUX EXTREMITES  
vis centrale/filet carré rapporté  
tuyau externe Ø 57  
tuyau interne Ø 48  
de cm. 180/330  
de cm. 200/360  
de cm. 220/380**

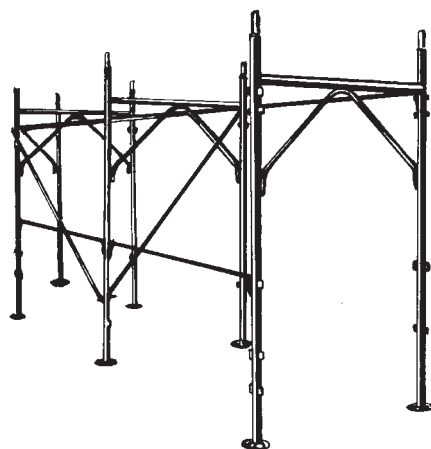
**CON CROCIERA SALDATA cm. 60  
vite centrale/filetto quadro riportato  
tubo esterno Ø 57  
tubo interno Ø 48  
da cm. 200/330  
da cm. 200/360  
da cm. 220/380**

*WITH WELDED CROSSPIECE 60 cm.  
central screw/inserted square thread  
outer pipe dia. 57  
inner pipe dia. 48  
200/330 cm.  
200/360 cm.  
220/380 cm.*

**AVEC CROISILLON SOUDE de cm. 60  
vis centrale/filet carré rapporté  
tuyau externe Ø 57  
tuyau interne Ø 48  
de cm. 200/330  
de cm. 200/360  
de cm. 220/380**



**TELAIO PONTEGGIO PREFABBRICATO  
FRAME FOR PREFABRICATED SCAFFOLD  
PAN ECHAFAUDAGE PREFABRIQUE**



In tubo Ø 48 caratteristiche dimensionali:  
ingombro max mt. 1,10 x 2,10  
altezza utile dei montanti mt. 2  
interasse mt. 1,05  
interasse nel montaggio da un telaio all'altro mt. 1,80

*Dia 48 pipe dimensions:  
max. bulk 1.10 x 2.10 m.  
useful height of standards 2 m  
center distance 1.05 m.  
center distance between frames when assembled 1.80 m.*

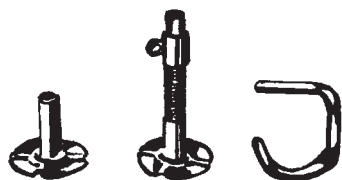
En tuyau Ø 48 caractéristiques des dimensions:  
encombrement max. mt. 1,10 x 2,10  
hauteur utile des montants mt. 2  
entre-axe mt. 1,05  
entre-axe dans le montage d'un pan à l'autre mt. 1,80

**DIAGONALE** lunghezza mt. 2,10 / tubo Ø 27  
*DIAGONAL 2.10 m. long / dia. 27 pipe*  
DIAGONALE lunghezza mt. 2,10 / tuyau Ø 27



**ORIZZONTALE** lunghezza mt. 1,70 / tubo Ø 27  
*HORIZONTAL 1.70 m. long / dia. 27 pipe*  
ORIZZONTALE lunghezza mt. 1,70 / tuyau Ø 27

**TESTATA** lunghezza mt. 1,20 / tubo Ø 27  
*HEAD PIECE 1.20 m. long / dia. 27 pipe*  
TETE lunghezza mt. 1,20 / tuyau Ø 27



**BASETTA FISSA - BASETTA REGOLABILE A VITE**  
*FIXED BASE - ADJUSTABLE SCREW ON BASE*  
PATTE FISSA - PATTE REGLABLE A VIS

**GANCIO IN TONDO**  
per impedire lo sfilamento dei telai sovrapposti  
*GRAB HOOK*  
to prevent superposed frames from slipping  
CROCHETS ROUNDS  
pour empêcher le défilament des pans superposés

**CAVALLETTO PER SOFFITTO IN TUBO REGOLABILE  
FLOOR STAND - TUBULAR ADJUSTABLE  
CHEVALET POUR PLANCHER EN TUYAU REGLABLE**



Larghezza min. 210 max 390 cm.  
Altezza min. 80 max 140 cm.  
Altezza min. 65 max 110 cm.

*Width min. 210 max. 390 cm.  
Height min. 80 max. 140 cm.  
Height min. 65 max. 110 cm.*

Largeur min. 210 max. 390 cm.  
Hauteur min. 80 max. 140 cm.  
Hauteur min. 65 max. 110 cm.

**BASAMENTO PER TRABATELLO  
BASE FOR SCAFFOLD  
BASE POUR ECHAFAUDAGE**



**BASAMENTO CON RUOTE GOMMATE  
E STABILIZZATORI**  
ingombro massimo cm. 190 x 130

*BASE WITH TIRES AND STABILIZERS  
max. bulk 190 x 130 cm.*

BASE AVEC DES ROUES EN CAOUTCHOUC  
ET STABILISATEURS  
encombrement max. cm. 190 x 130

**CASSAFORMA  
FORMWORK  
COFFRE**



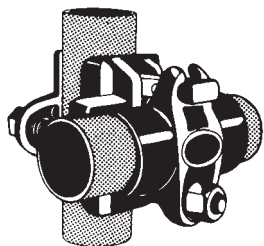
**CASSAFORMA per pilastri e muri in pannelli da  
cm. 60 x 80 a richiesta pannelli da cm. 5 a cm. 55 x 80**

*FORM WITH for pillars and walls in 60 x 80 cm. panels  
panels from 5 to 55 x 80 cm. on request*

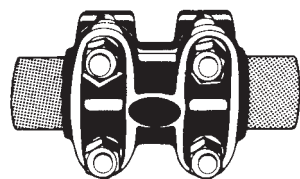
COFFRE pour piliers et murs en panneaux de cm. 60 x 80  
sur demande panneaux de cm. 5 à cm. 55 x 80

**RACCORDI PER PONTEGGI Ø 42 o 48,25 mm**  
**SCAFFOLDING FITTINGS Ø 42 or 48,25 mm**  
**RACCORDS POUR ECHAFAUDAGE Ø 42 ou 48,25 mm**

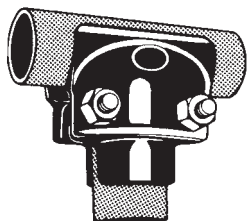
**RACCORDI ORTOGONALI**  
*RIGHT-ANGLE COUPLER*  
**RACCORDS ORTHOGONAUX**



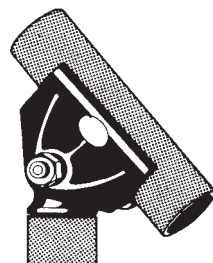
**GIUNTO A PERNI**  
*PIN COUPLER*  
**RACCORD A ERGOTS**



**RACCORDO FINALE**  
*FINAL COUPLER*  
**RACCORD FINAL**



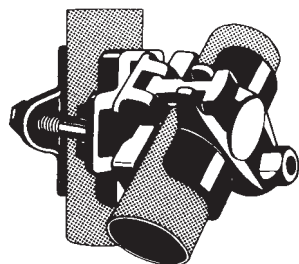
**RACCORDO FINALE ORIENTABILE**  
*SWIVEL FINAL COUPLER*  
**RACCORD FINAL ORIENTABILE**



**RACCORDO SEMPLICE**  
*SLEEVE COUPLER*  
**RACCORD SIMPLE**

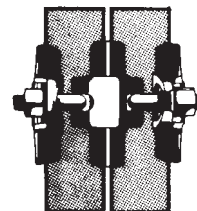


**RACCORDO ORIENTABILE**  
*SWIVEL COUPLER*  
**RACCORD ORIENTABILE**



**RACCORDI PER PONTEGGI Ø 42 o 48,25 mm**  
**SCAFFOLDING FITTINGS Ø 42 or 48,25 mm**  
**RACCORDS POUR ECHAFAUDAGE Ø 42 ou 48,25 mm**

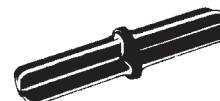
**RACCORDO PARALLELO**  
*PARALLEL COUPLER*  
**RACCORD PARALLELE**



**GIUNTO ARTICOLATO A SPINOTTO**  
*INCLINABLE COUPLER*  
**RACCORD A GOUJON ARTICULE**



**SPINOTTO**  
*JOINT PIN*  
**GOUJON D'ASSEMBLAGES**



**BASSETTA**  
*BASE PLATE*  
**PLAQUE DE BASE**



**BASSETTA ORIENTABILE**  
*INCLINABLE BASE PLATE*  
**PLAQUE DE BASE ARTICULE**



**VITONI DI ANCORAGGIO**  
*REVEAL PINS*  
**VERINS D'AMARRAGE**



**RUOTA IN ACCIAIO**  
*CASTOR WHEEL STEEL*  
**ROUE EN ACIER**



**RUOTA IN GOMMA**  
*CASTOR WHEEL RUBBER*  
**ROUE EN CAUDTCHOUC**

