

# TABLESTACA METALICA INFRAESTRUCTURA PORTUARIA



# TABLESTACA ROLADA EN CALIENTE

# HOT ROLLED SHEET PILE



## Propiedades Físicas Physical Properties

Section	Width		Height		Thickness		Mass		Section Modulus	Moment of Inertia
	b	h	t	s	G Wall	G Single	Wy Wall	Iy Wall		
	mm	mm	mm	mm	kg/m <sup>2</sup>	kg/m	cm <sup>3</sup> /m	cm <sup>4</sup> /m		
Z 12-770	770	343,5	8,6	8,5	72,8	94,5	21.496	1.252		
Z 13-770	770	344,0	9,1	9,0	76,2	99,0	22.433	1.304		
Z 14-770	770	344,5	9,6	9,5	79,6	103,4	23.370	1.357		
*Z 17-700	700	420,0	8,5	8,4	73,3	104,7	36.425	1.735		
Z 18-700	700	420,5	9,1	9,0	76,7	109,6	38.001	1.807		
*Z 19-700	700	421,0	9,6	9,5	80,2	114,6	39.578	1.880		
Z 20-700	700	421,5	10,1	10,0	83,7	119,6	41.155	1.953		
Z 24-700	700	459,2	11,3	11,2	95,8	136,9	55.949	2.437		
*Z 26-700	700	460,2	12,3	12,2	103,0	147,1	59.843	2.601		
Z 27-700	700	460,7	12,8	12,7	106,4	152,0	61.641	2.676		
Z 28-700	700	461,7	13,3	13,2	110,1	157,3	63.740	2.764		
Z 36-700	700	499,2	15,1	11,2	118,7	169,6	89.753	3.596		
Z 38-700	700	500,2	16,1	12,2	126,5	180,7	94.984	3.798		
Z 40-700	700	501,2	17,1	13,2	134,3	191,9	100.219	3.999		
Z 42-700	700	499,2	18,1	14,0	143,0	204,3	104.543	4.228		
Z 44-700	700	500,2	19,1	15,0	150,7	215,3	110.942	4.436		
Z 46-700	700	501,2	20,1	16,0	158,5	226,4	116.159	4.635		
Z 48-700	700	503,2	22,1	15,0	159,3	227,6	120.467	4.788		
Z 50-700	700	504,2	23,1	16,0	166,7	238,1	125.358	4.973		
Z 52-700	700	505,2	24,1	17,0	174,3	249,0	130.403	5.162		

\* IN STOCK



### Calidades Disponibles Available Qualities

#### Americana American

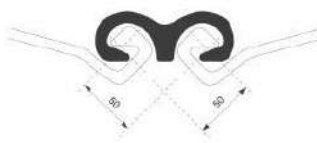
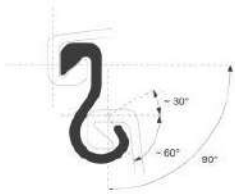
#### Europea European

ASTM	Yield Strength	
	KSI	Mpa.
A 572 Gr. 50	50	345
A 572 Gr. 55	55	380
A 572 Gr. 60	60	415
A 572 Gr. 65	65	450

EN 102448	Yield Strength	
	KSI	Mpa.
S 320 GP	46	320
S 355 GP	51	355
S 390 GP	57	390
S 430 GP	62	430

E20XL 11,73 kg/m

OMEGA 17,33 kg/m

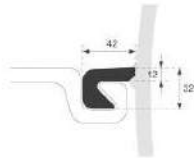
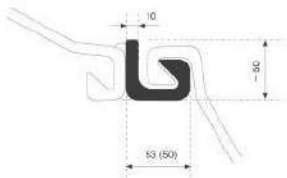


Tolerances on shape and dimensions for hot-rolled sheet piles according to EN 10248-2

Tolerances	Z Profile	VL / ZU Profile
Weight	± 5 %	± 5 %
Length (L)	± 200 mm	± 200 mm
Height (h)	h ≤ 300 mm: ± 7 mm	h ≤ 200 mm: ± 4 mm h > 200 mm: ± 5 mm
Wall thickness	t,s ≤ 8,5 mm: ± 0,5 mm t,s > 8,5 mm: ± 6 %	t,s ≤ 8,5 mm: ± 0,5 mm t,s > 8,5 mm: ± 6 %
Width Single pile	± 2 % b	± 2 % b
Width Double pile	± 3 % (2b)	± 3 % (2b)
Straightness	≤ 0,2 % L	≤ 0,2 % L
	± 2 % b	± 2 % b

E22 (C9) 10,22 kg/m (9,27 kg/m)

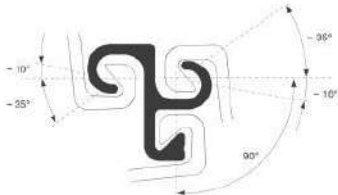
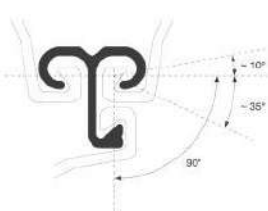
E21 6,70 kg/m



Squareness of ends for all profiles

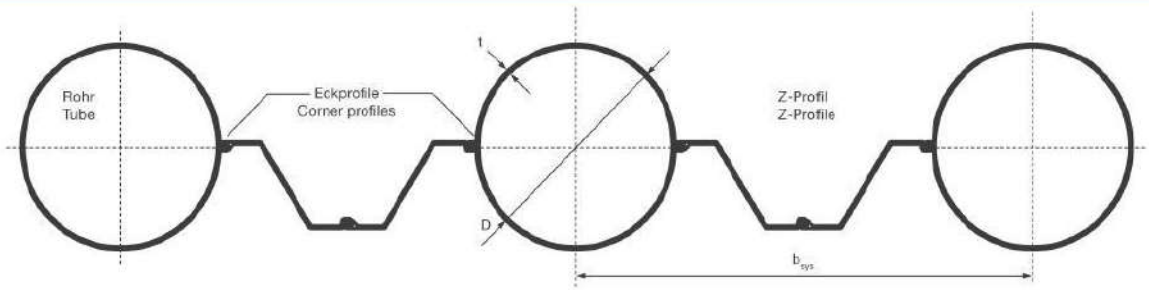
VT 17,70 kg/m

VTS 17,60 kg/m

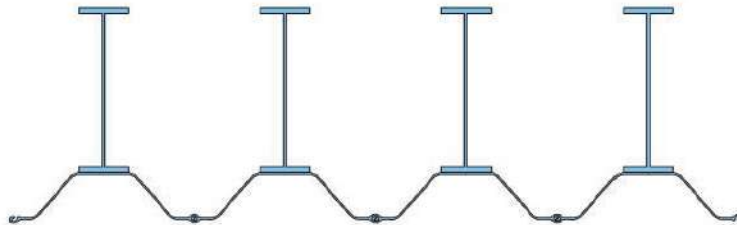


Standardabmessungen Lochung  
Standard dimension lifting hole:

Diameter D (mm)	40	40	50	50	40
Distance Y (mm)	75	300	200	250	150



TUBERÍA + TABLESTACA



VIGA W (IPR) + TABLESTACA



# SISTEMAS DE TENSORES

# TIE ROD SYSTEM

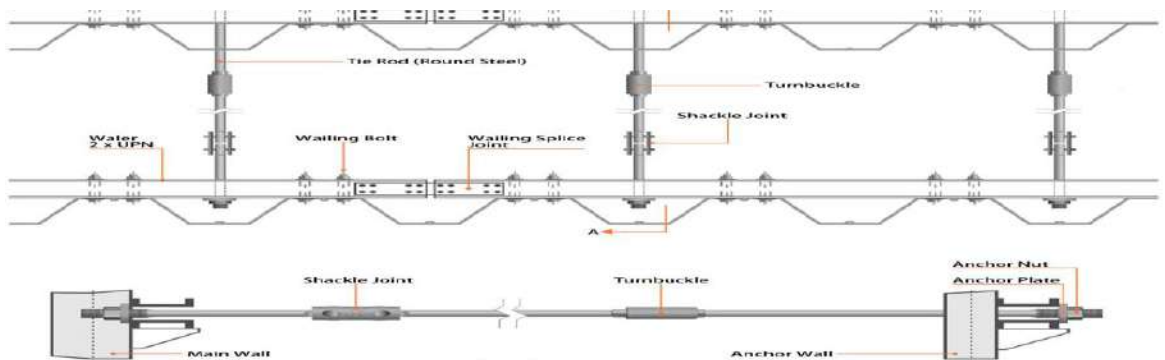


### Old Style A36 Tie Rods

### Grade 75 All-Thread Rebar

### 150 KSI All-Thread-Bar

Actual Tie Rod Dia.	Heavy Upset Thread Dia.	Weight per Linear Foot (Meters)	Min. Ultimate Strength of Bar	Bar Desig. & Nominal Dia.	Approx. Thread Major Diameter	Weight per Linear Foot (Meters)	Min. Yield Strength of Rebar	Min. Ultimate Strength of Rebar	Bar Dia.	Approx. Thread Major Diameter	Weight per Linear Foot (Meters)	Min. Yield Strength of Rebar	Min. Ultimate Strength of Rebar
1-1/4" (32 mm)	1-1/2" (38 mm)	4.17 lbs. (1.9 KG)	71.2 kips (317 kN)	#8 - 1" (25 mm)	1-1/8" (28.6 mm)	2.7 lbs. (3.94 Kg)	59.3 kips (264 kN)	79 kips (351 kN)	1" (26 mm)	1-1/8" (28.6 mm)	3.09 lbs. (4.6 Kg)	102 kips (454 kN)	128 kips (567 kN)
1-3/8" (35 mm)	1-3/4" (44 mm)	5.05 lbs. (2.3 KG)	86.2 kips (383 kN)	#9-1-1/8" (29 mm)	1-1/4" (31.8 mm)	3.4 lbs. (5.06 Kg)	75 kips (334 kN)	109 kips (485 kN)					
1-1/2" (38 mm)	2" (51 mm)	6.01 lbs. (2.7 KG)	103 kips (456 kN)	#10-1-1/4" (32 mm)	1-3/8" (34.9 mm)	4.3 lbs. (5.50 Kg)	95.3 kips (424 kN)	127 kips (565 kN)					
1-5/8" (41 mm)	2" (51 mm)	7.05 lbs. (3.2 KG)	120 kips (535 kN)										
1-3/4" (44 mm)	2-1/4" (57 mm)	8.18 lbs. (3.7 KG)	140 kips (620 kN)	#11-1-3/8" (36 mm)	1-1/2" (38.1 mm)	5.3 lbs. (7.85 Kg)	117 kips (521 kN)	156 kips (694 kN)	1-1/4" (32 mm)	1-7/16" (36.5 mm)	4.51 lbs. (6.71 Kg)	150 kips (667 kN)	188 kips (834 kN)
1-7/8" (48 mm)	2-1/4" (57 mm)	9.39 lbs. (4.3 KG)	160 kips (712 kN)										
2" (51 mm)	2-1/2" (64 mm)	10.7 lbs. (4.8 KG)	182 kips (810 kN)										
2-1/8" (54 mm)	2-1/2" (64 mm)	12.1 lbs. (5.5 KG)	206 kips (915 kN)						1-3/8" (36 mm)	1-9/16" (39.7 mm)	5.71 lbs. (8.50 Kg)	190 kips (843 kN)	237 kips (1054 kN)
2-1/4" (57 mm)	2-3/4" (70 mm)	13.5 lbs. (6.1 KG)	231 kips (1026 kN)	#18-2-1/4" (57 mm)	2-7/16" (61.9 mm)	13.6 lbs. (19.6 Kg)	300 kips (1335 kN)	400 kips (1780 kN)					
2-3/8" (60 mm)	2-3/4" (70 mm)	15.1 lbs. (6.8 KG)	257 kips (1143 kN)						1-3/4" (46 mm)	2" (50.8 mm)	9.06 lbs. (13.5 Kg)	312 kips (1388 kN)	390 kips (1734 kN)
2-1/2" (64 mm)	3-1/4" (83 mm)	16.7 lbs. (7.6 KG)	285 kips (1266 kN)										
2-5/8" (67 mm)	3-1/4" (83 mm)	18.4 lbs. (8.3 KG)	314 kips (1396 kN)										
2-3/4" (70 mm)	3-1/2" (89 mm)	20.2 lbs. (9.2 KG)	346 kips (1532 kN)										
2-7/8" (73 mm)	3-1/2" (89 mm)	22.1 lbs. (10.0 KG)	376 kips (1675 kN)										
3" (76 mm)	3-3/4" (95 mm)	24.0 lbs. (10.9 KG)	410 kips (1823 kN)	#20-2-1/2" (64 mm)	2-3/4" (69.9 mm)	16.7 lbs. (24.8 Kg)	368 kips (1637 kN)	491 kips (2184 kN)	2-1/4" (57 mm)	2-1/2" (63.5 mm)	14.1 lbs. (20.8 Kg/M)	490 kips (2181 kN)	613 kips (2727 kN)
3-1/8" (80 mm)	3-3/4" (95 mm)	26.1 lbs. (11.8 KG)	445 kips (1979 kN)										
3-1/4" (83 mm)	4" (102 mm)	28.2 lbs. (12.8 KG)	481 kips (2141 kN)										
3-3/8" (86 mm)	4" (102 mm)	30.4 lbs. (13.8 KG)	519 kips (2309 kN)	#24 - 3" (76 mm)	3-3/16" (81.0 mm)	24.0 lbs. (35.8 Kg)	512 kips (2277 kN)	682 kips (3034 kN)					
3-1/2" (89 mm)	4-1/4" (108 mm)	32.7 lbs. (14.8 KG)	558 kips (2482 kN)										
3-5/8" (92 mm)	4-1/4" (108 mm)	35.1 lbs. (15.9 KG)	599 kips (2663 kN)										
3-3/4" (95 mm)	4-1/2" (114 mm)	37.6 lbs. (17.0 KG)	641 kips (2851 kN)						2-1/2" (65 mm)	2-3/4" (69.9 mm)	18.2 lbs. (27.1 Kg)	622 kips (2766 kN)	778 kips (3457 kN)
4" (102 mm)	4-1/2" (114 mm)	42.7 lbs. (19.4 KG)	729 kips (3242 kN)	#28-3-1/2" (89 mm)	3-3/4" (95.3 mm)	32.7 lbs. (48.6 Kg)	720 kips (3206 kN)	961 kips (4274 kN)					



# ACCESORIOS

# ACCESORIES



## Grade 75 All-Thread Rebar

Bar Size	Turnbuckles Length	Turnbuckles Part No.	Sleeve Nuts Across Flats	Sleeve Nuts Length
#8 - 1" (25 mm)	12-5/8" (321 mm)	32044	1-5/8" (41 mm)	6-1/2" (165 mm)
#9 - 1-1/8" (28 mm)	13-1/2" (343 mm)	32045	1-7/8" (48 mm)	6-3/4" (171 mm)
#10 - 1-1/4" (32 mm)	14-3/8" (365 mm)	32059	2-1/8" (54 mm)	7-1/2" (191 mm)
#11 - 1-3/8" (35 mm)	14-3/4" (375 mm)	32048	2-3/8" (60 mm)	8-1/4" (210 mm)
#14 - 1-3/4" (45 mm)	16-7/8" (429 mm)	32085	2-7/8" (73 mm)	10-1/2" (267 mm)
#18 - 2-1/4" (55 mm)	22-1/2" (572 mm)	32098	3-3/4" (95 mm)	12-1/4" (311 mm)
#20 - 2-1/2" (64 mm)	Note 1	N.A.	4" (102 mm)	14-1/2" (368 mm)

## 150 KSI All-Thread-Bar

Bar Size	Turnbuckles Length	Turnbuckles Part No.	Sleeve Nuts Across Flats	Sleeve Nuts Length
1" (26 mm)	14-3/8" (365 mm)	32059	2"	6-1/2" (165 mm)
1-1/4" (32 mm)	14-5/8" (371 mm)	32049	2-1/4"	8" (203 mm)
1-3/8" (36 mm)	16-7/8" (429 mm)	32085	2-3/4"	9-1/2" (241 mm)
1-3/4" (46 mm)	22-1/2" (572 mm)	32098	3-1/2"	13" (330 mm)
2-1/2" (65 mm)	Note 1	N.A.	4-1/2"	16-1/2" (419 mm)

## Methods of Corrosion Protection

Corrosion Protection Type	Abrasion Resistance (4=best)	Typical Thickness	Can be applied to accessories?	Applied in the Field?
Hot Dip Galvanizing	4	3-4 mils	yes	no
Epoxy Coating	1	7-12 mils	yes	no
Pre-Grouted Bars	3	2", 3" or 4" tubing	no	yes
Extruded Polyethylene Coating	2	23-25 mils	no	no
Corrosion Inhibiting Compound	2	N. A.	yes	yes



WASHERS



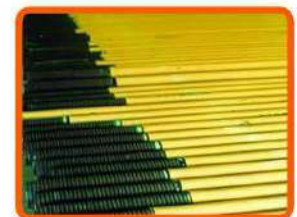
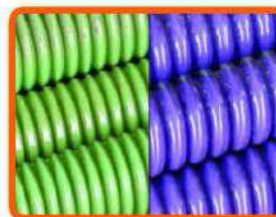
HEX NUT



SPHERICAL HEX NUT



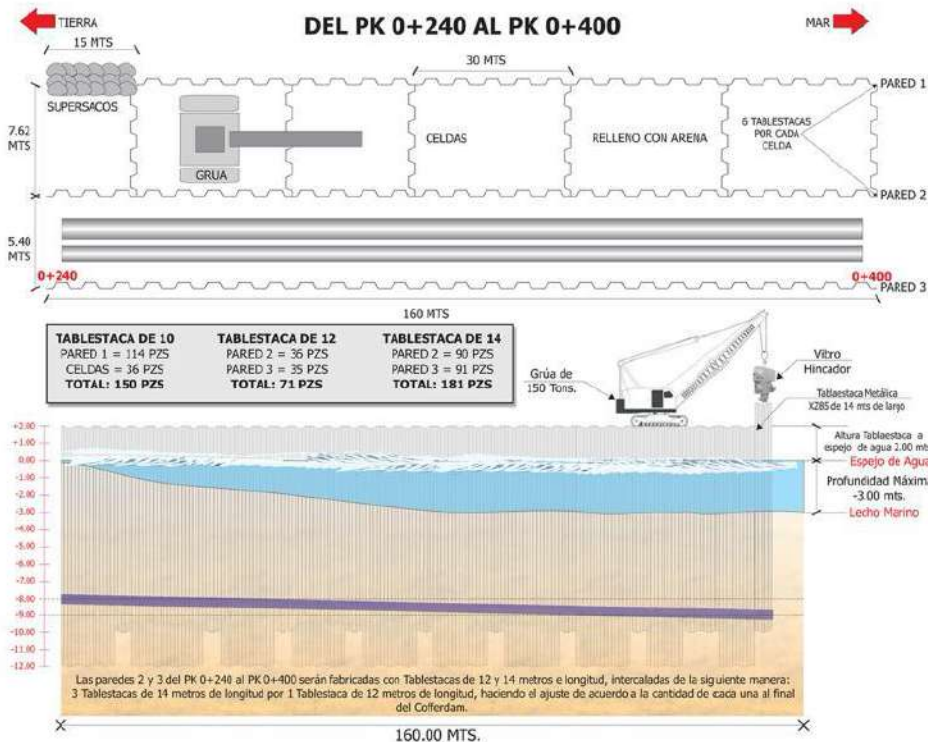
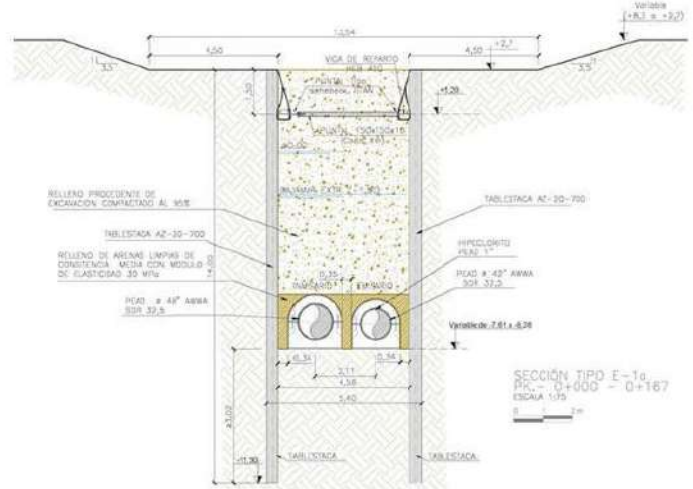
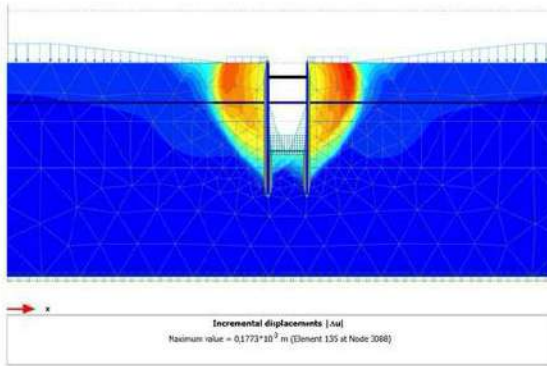
CLEVIS



# SOPORTE TÉCNICO

# TECHNICAL SUPPORT

- ✓ Propuesta de secciones, largos y cantidades estimadas a partir de datos muy preliminares.
- ✓ Presentación de ingeniería básica (planos, cuantificación y memoria técnica) usando información mas detallada como mecánica de suelos plantas y cortes del proyecto.
- ✓ Apoyo técnico durante la elaboración de proyectos ejecutivos en el diseño de tablestaca metálica.
- ✓ Proporcionar al cliente un abanico de opciones de diferentes compañías instaladoras para la elección más adecuada de acuerdo con el trabajo y la zona de ejecución.
- ✓ De ser necesario, apoyo presencial en la obra durante diferentes etapas del hincado para hacer recomendaciones y lograr una correcta ejecución de los trabajos.





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