

# TECHNICAL DATA SHEET

## U-SHAPED FIXED HEAD (TFU5-312E)



### PRODUCT CHARACTERISTICS

#### Physical and Chemical properties

<b>STEEL GRADE</b>	Conform to CAN/CSA G40.21-350W and/or ASTM A500 grade C standards
<b>ARC WELDING</b>	Conform to CSA W59
<b>HOT DIP GALVANIZATION</b>	Conform to ASTM-A123M
<b>BOLT CONNECTIONS</b>	Conform to ASTM-A325 / ASTM-F3125

#### Models

#### Standard characteristics

<b>TFU5-312E</b>	Plate 1/4" thick with 4 5/8" int., welded to a 4" Ø x 4" lg. tube
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#### Mechanical resistance

EFFORTS	ULS <sup>(1)</sup>	SLS <sup>(1)</sup>
Compression in kN (lbs) <sup>(2)</sup>	200 (45 000)	160 (36 000)
Tension in kN (lbs) <sup>(2)</sup>	60 (13 500)	30 (6 700)

(1): ULS = Ultimate Limit State; SLS = Service Limit State

(2): The strengths shown in the table above represent the maximum capacities of the metal assembly of the part when connected to a pile with a diameter of 89 mm (3 1/2")

## CONDITIONS OF USE

The U-shaped pile heads are ideal to support wooden beams or columns.

The bolted fixed heads are designed to support compression, tensile and lateral loads.

To support the tensile loads, two (2) of the four (4) adaptor clamping bolts must be screwed through the holes drilled to that effect in the superior part of the pile.

Applied loads should be centered on the pile head.

In cases where the pile head is intended to support a hollow column, a steel plate with a thickness superior or equal of 1/4" must absolutely be installed at the base of the column beforehand, an engineer's approval will be required.

2 through bolts of a minimum diameter of 1/2" must be used to connect the head to the wooden structure. The threads must be excluded from the shearing area.

## ADVANTAGES

- Product and installation are supplied;
- Can be installed in all climates, weather or ground conditions;
- The most reliable & economical solution available;
- Reusable and recyclable, environmentally friendly;
- Can be installed under an existing structure;
- No waiting time, you can build as soon as the installation is completed.

**CCMC**  
13102-R



### NORMATIVE INFORMATION

Postech screw pile accessories have been calculated and tested on-site by an engineering firm recognized by the CCMC. The purpose of these tests was to validate the mechanical resistance of Postech accessories.

**MANUFACTURER:**  
Pieux Vistech - Postech Screw Piles  
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Sherbrooke QC J1N 0G2  
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[postechpiles.com](http://postechpiles.com)

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### ALLOWABLE CAPACITIES WITH WOOD

#### COMPRESSION

Wood Species, grade No. 2 <sup>(1)</sup>	Parallel to grain (//)			Perpendicular to grain (⊥)			Grading Rules Agency
	Fc // (psi)	Dry kN (Lbs)	Wet kN (Lbs)	Fc ⊥ (psi)	Dry kN (Lbs)	Wet kN (Lbs)	
D. Fir-L	<b>1350</b>	135 (30 340)	108 (24 270)	<b>625</b>	67 (15 100)	45 (10 120)	WCLIB, WWPA
Hem-Fir	<b>1300</b>	130 (29 210)	104 (23 370)	<b>405</b>	43 (9 780)	29 (6 550)	WCLIB, WWPA
S-P-F	<b>1150</b>	115 (25 840)	92 (20 670)	<b>425</b>	45 (10 270)	30 (6 880)	NLGA
Northern	<b>850</b>	85 (19 100)	68 (15 280)	<b>350</b>	37 (8 450)	25 (5 660)	NLGA

#### TENSION<sup>(2)</sup>

Wood Species, grade No. 2 <sup>(1)</sup>	Specific Gravity G <sup>(3)</sup>	Parallel to grain (//)		Perpendicular to grain (⊥)		Grading Rules Agency
		Dry kN (Lbs)	Wet kN (Lbs)	Dry kN (Lbs)	Wet kN (Lbs)	
D. Fir-L	0.50	20 (4 540)	14 (3 180)	16 (3 640)	11 (2 540)	WCLIB, WWPA
Hem-Fir	0.43	18 (4 140)	12 (2 900)	14 (3 310)	10 (2 320)	WCLIB, WWPA
S-P-F	0.42	18 (4 070)	12 (2 850)	14 (3 250)	10 (2 280)	NLGA
Northern	0.35	15 (3 420)	10 (2 390)	12 (2 740)	8 (1 910)	NLGA

(1) : As per AWC NDS 2018 Table 4A values (visually graded lumber), applicable for No. 2 grade or higher

(2) : Resistance values assuming that the tension load is due to wind or seismic loading.

(3) : Specific Gravity of wood species, G, based on weight and volume when dry

For designs requiring different wood species or strengths greater than those indicated in the service capacity tables, an engineer's approval will be required. Column buckling must be taken into account by project engineer.



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13102-R



CERTIFIÉE  
CSA W47.1

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