TECHNICAL DATA SHEET **UNDERPINNING BRACKET (TAL-U312)**











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:

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PRODUCT CHARACTERISTICS		
Physical and Chemical properties		
STEEL GRADE	Conform to CAN/CSA G40.21-350W and/or ASTM A500 grade C standards	
ARC WELDING	Conform to CSA W59	
GALVANIZATION	Conform to ASTM-A123 / A123M	
BOLT CONNECTION	Conform to ASTM-A325 / ASTM-F3125	
Model	Standard characteristics	
TAL-U312	14" x 6 5/8" bearing plate and 2 x 1" Ø threaded rods.	
Mechanical resistance - with P312 pile		
EFFORTS	ULS ⁽¹⁾	SLS ⁽¹⁾
Compression in kN (lbs) ⁽²⁾	240 (53 950)	130 (29 200)

(1): ULS = Ultimate limit state ; SLS = Service limit state

(2): The resistances presented in this table represents the maximum capacities of the underpinning bracket's steel assembly when connected to a pile shaft with a diameter of an 89 mm (3 1/2"), with a maximum pile installation angle of 3° from vertical.

Allowable Compression Loads with Concrete - with P312 pile ⁽¹⁾		
Concrete Resistance MPa (psi)	Allowable loads for foundation walls ^{(2) (3)} kN (lbs)	
17 (2500)	85 (19 150)	
24 (3500)	115 (26 100)	

(1): Applicable when connected to a pile shaft with a diameter of an 89 mm (3 $\frac{1}{2}$), with a maximum pile installation angle of 3° from vertical.

- (2): Capacity considering two (2) 3/4"Ø and 5 1/2" long Hilti Kwik Bolt TZ or equivalent as determined by registered design professional.
- (3): For designs requiring higher loads than those included in this loads table, an engineer must validate the design.

CONDITIONS OF USE

Underpinning brackets are ideal for connecting preexisting concrete structures to screw piles.

The TAL-U312 underpinning brackets can be connected to a pile with a 89 mm (3 1/2 ") shaft.

Underpinning brackets must be connected to the concrete foundation using two (2) 3/4" Ø and 5 1/2" long Hilti Kwik Bolt TZ or equivalent as determined by registered design professional.

The installator must cut an opening in the footing to install the bracket directly on the foundation wall.

Applications for concrete beams or structural slabs must be approved by project engineer.

It is the project engineer's responsibility to check one way shear in concrete beam applications.

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.