

Heli-Pin *Helical Facade Anchor*

PRODUCT DESCRIPTION

The Heli-Pin anchor is a one-piece stainless steel helical wall tie system used for anchoring existing brick veneers to the back-up structural members without exposing hardware. The helical design allows the tie to be driven quickly and easily into a predrilled pilot hole with a Heli-Pin setting tool and a roto-hammer drill (or embedded into mortar joints in new construction) to provide a reliable mechanical connection between a masonry façade and its backup material or between multiple wythes of brick. Existing façades constructed of various masonry materials can be reattached and reinforced using the Heli-Pin. They are ideal for stabilizing areas with missing or corroded wall ties as well as retrofits to multiple width masonry wall sections. Heli-Pin anchor performs in concrete and masonry as well as wood and steel studs.

GENERAL APPLICATIONS AND USES

- Mechanical connections between a masonry façade and its backup material
- Replace missing or corroded wall ties
- Used in new construction by being embedded into the mortar joint

FEATURES AND BENEFITS

- + Virtually invisible repairs to masonry building facades
- + Ease and speed of installation with a roto-hammer and available setting tool
- + Made of corrosion resistant stainless steel
- + Helical shaped tie is both tension and compression resistant, and provides solid connection with the base material.
- + Variety of lengths and diameters, for a broad range of applications
- + Reinforced central core for high shaft strength

APPROVALS AND LISTINGS

Tested in accordance with CSA A370

GUIDE SPECIFICATIONS

CSI Divisions: *03151-Concrete Anchoring, 04081-Masonry Anchorage*
 Anchors shall be Heli-Pin as supplied by Powers Fasteners, Inc., Brewster, NY.
 Anchors shall be installed in accordance with published instructions and the Authority Having Jurisdiction.

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Heli-Pin

ANCHOR MATERIALS

Type 304 Stainless Steel

ANCHOR SIZE RANGE (TYP.)

8mm (5/16") x 6" to 12"

SUITABLE BASE MATERIALS

- Normal-weight Concrete
- Grouted Concrete Masonry (CMU)
- Hollow Concrete Masonry (CMU)
- Brick Masonry
- Wood Studs
- Metal Studs
- Natural Stone

MATERIAL SPECIFICATIONS

Anchor Component	Specification
Anchor body	Type 304 Stainless Steel

INSTALLATION PROCEDURE



Using a proper diameter bit drill a pilot hole through façade material into backup base material to a depth at least ¼" deeper than the embedment required.



Mount installation tool on a rotary hammer drill. Position the Heli-Pin in the installation tool and insert into the pilot hole.



Drive the pin until it is about ½" below the surface of the façade material (setting tool should be flush with face of base material). Patch hole with appropriate material.

PERFORMANCE DATA

Typical Performance Characteristics for 8mm Heli-Pin¹

Material	Minimum Effective Embedment Depth <i>h_{ef}</i> in.	Ultimate Tension/Compression lbs.
Mortar Joint	3	700
Brick (solid)	3-5/8	700
Brick (cavity)	3-5/8	1200
Hollow CMU 6" (normal wt. CMU)	1	800
Grouted CMU (lightweight block)	2	550
Concrete	1-1/4	1200
2x4 Wood Stud	3	520
2x6 Wood Stud	3	520
Metal Stud	16 gauge	300
Granite	1-1/8	500
Travertine	7/8	500
Limestone	3	600

1. The data reflects the results of lab, field and in-house testing and provided as a guideline for the designers. Site testing is suggested for verification of load carrying capacity.

PERFORMANCE DATA
8mm Heli-Pin Masonry Bit Size

Facade Material	Heli-Pin	Back-up Base Material						
		Mortar Joint	Brick	Hollow CMU	Solid CMU	Concrete	Wood Stud	Metal Stud
Mortar Joint	8mm	3/16"	1/4"	3/16"	3/16"	1/4"	3/16"	3/16"
Brick	8mm	1/4"	1/4"	1/4"	1/4"	1/4"	5/16"	1/4"
Hollow CMU	8mm	3/16"	1/4"	3/16"	3/16"	1/4"	3/16"	3/16"
Solid CMU	8mm	3/16"	1/4"	3/16"	3/16"	1/4"	3/16"	3/16"
Precast Concrete	8mm	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
Stone	8mm	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"

8mm Heli-Pin Length Selection

Nominal length	Minimum Drilled Hole Depth in.	Cavity Range	
		CMU (hollow or solid)	Concrete
6"	6-5/8	0 to 1"	0 to 1-1/2"
8"	8-5/8	0 to 3"	1-1/2" to 3-1/2"
10"	10-5/8	0 to 5"	3-1/2" to 5-1/2"
12"	12-5/8	0 to 7"	5-1/2" to 7-1/2"

ORDERING INFORMATION

Cat.No.	Item Description	Std.Box	Std.Ctn.
08341	Heli-Pin Anchor 8mm (5/16") x 6"	100	1000
08342	Heli-Pin Anchor 8mm (5/16") x 8"	100	1000
08343	Heli-Pin Anchor 8mm (5/16") x 10"	100	1000
08344	Heli-Pin Anchor 8mm (5/16") x 12"	50	500



Cat.No.	Item Description	Std.Box	Std.Ctn.
08345	Heli-Pin Setting Tool	1	12



Essential for correct installation of Heli-Pins. The tool will automatically counter-sink the Heli-Pin, allowing for fast, efficient installation.