

GENERAL INFORMATION

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: 03 16 00 - Concrete Anchors and 04 05 19.16 - Masonry Anchors. Anchors shall be Heli-Pin as supplied by DEWALT, Towson, MD. Anchors shall be installed in accordance with published instructions and the Authority Having Jurisdiction.

INSTALLATION AND MATERIAL SPECIFICATIONS

Material Specifications

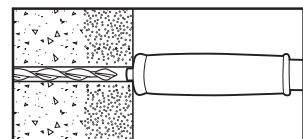
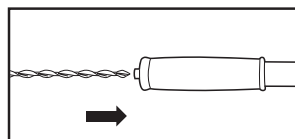
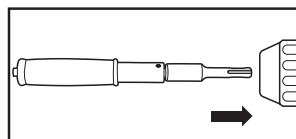
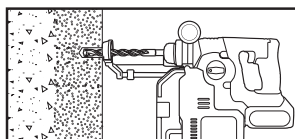
Anchor Component	Component Material
Anchor Body	Type 304 Stainless Steel

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.



SECTION CONTENTS

General Information..... 1
 Installation and Material Specifications 1
 Performance Data..... 2
 Ordering Information..... 2



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

PERFORMANCE DATA

Typical Performance Characteristics for 8mm Heli-Pin¹

Material	Minimum Effective Embedment Depth h_{ef} 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.

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"

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"

ORDERING INFORMATION

Heli-Pin Anchors

Catalog Number	Description	Standard Box	Standard Carton
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



Heli-Pin Setting Tool

Catalog Number	Description	Standard Box	Standard Carton
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.

