

GENERAL INFORMATION

SAFE-T PIN™

Nail Anchor

PRODUCT DESCRIPTION

The Safe-T Pin is an all-steel nail anchor which is designed for use in a variety of applications and as an improved alternative to traditional zamac nailin anchors where overhead use is not recommended. The Safe-T Pin can be used pre-drilled holes in solid base materials such as concrete, grouted block, and brick.

GENERAL APPLICATIONS AND USES

- Electrical fixtures
- HVAC / Mechanical
- Signage
- Drywall track
- Maintenance
- Interior applications / low level corrosion environment

FEATURES AND BENEFITS

- + General purpose anchoring
- + Installs in a variety of solid base materials
- + Suitable for overhead use where specified
- + All-steel anchor components

APPROVALS AND LISTINGS

- Tested in accordance with ASTM E488 and with ICC-ES AC193 for use in concrete

GUIDE SPECIFICATIONS

CSI Divisions: 03 16 00 - Concrete Anchors, 04 05 19.16 - Masonry Anchors and 05 05 19 - Post-Installed Concrete Anchors. Anchors shall be Safe-T Pin anchors as supplied by DEWALT, Towson, MD. Anchors shall be installed in accordance with published instructions and the Authority Having Jurisdiction.

MATERIAL SPECIFICATIONS

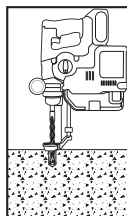
Anchor component	Specification
Anchor body	Low carbon steel (AISI 1008 or equivalent)
Zinc plating according to ASTM B 633 SC1, Type III. Minimum plating requirement for Mild Service Condition.	

INSTALLATION SPECIFICATIONS

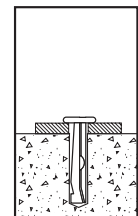
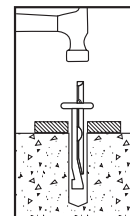
Anchor Property / Setting Information	Notation	Units	Nominal Anchor Size, d (inch)
			1/4
Nominal outside anchor diameter	d _o	in.	0.250
Safe-T Pin drill bit diameter	d _{bit}	mm	6
Safe-T Pin bit tolerance range	-	mm	5.9 to 6.4
Nominal embedment	h _{nom}	in.	1-3/16
Minimum hole depth	h _o	in.	1-1/2
Minimum concrete member thickness	h _{min}	in.	3
Minimum edge distance	c _{min}	in.	3-1/2
Minimum spacing distance	s _{min}	in.	3-1/2

Installation Guidelines

Using the proper Safe-T Pin drill bit size, drill a hole into the base material to the required depth. The tolerances of the Safe-T Pin bit used must meet the requirements of the published range. Remove dust and debris from the hole during drilling (e.g. dust extractor) or following drilling (e.g. suction, forced air) to extract loose particles created by drilling.

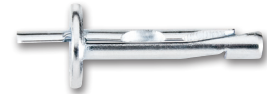


Insert the anchor through the fixture. Drive the anchor pin into the anchor body to expand it. Be sure the head is seated firmly against the fixture and that the anchor is at the minimum required embedment.



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SAFE-T PIN

ANCHOR MATERIALS

- Zinc Plated Carbon Steel

ANCHOR SIZE RANGE (TYP.)

- 1/4" diameter (6mm) x 1-3/8" length

SUITABLE BASE MATERIALS

- Normal-weight Concrete
- Sand-lightweight Concrete
- Grout-filled Concrete Masonry (CMU)
- Brick Masonry

PERFORMANCE DATA

Ultimate and Allowable Load Capacities for Safe-T Pin in Normal-Weight Concrete^{1,2,3,4,5}

Nominal Anchor Diameter in.	Nominal Drill Bit Diameter (mm)	Minimum Embedment Depth in.	Minimum Concrete Compressive Strength			
			f'c = 3,000 psi			
			Ultimate Tension lbs.	Allowable Tension lbs.	Ultimate Shear lbs.	Allowable Shear lbs.
1/4	6	1-3/16	1,330	330	1,745	435

1. Tabulated load values are for anchors installed in uncracked concrete. Concrete compressive strength must be at the specified minimum at the time of installation.
2. Ultimate load capacities must be reduced by a minimum safety factor of 4.0 or greater to determine allowable working load.
3. The tabulated load values are applicable to single anchors in uncracked concrete.
4. The tabulated load values and allowable working loads must be multiplied by 0.60 for installations into lightweight concrete.
5. The tabulated load values and allowable working loads must be multiplied by 0.70 in cases where the anchors are installed into drilled holes in concrete using a 1/4-inch ANSI drill bit.

Ultimate and Allowable Load Capacities for Safe-T Pin in Grouted-filled Concrete Masonry^{1,2,3}

Nominal Anchor Diameter in.	Nominal Drill Bit Diameter (mm)	Minimum Embedment Depth in.	Minimum Concrete Compressive Strength			
			f'm = 1,500 psi			
			Ultimate Tension lbs.	Allowable Tension lbs.	Ultimate Shear lbs.	Allowable Shear lbs.
1/4	6	1-3/16	920	185	745	150

1. Tabulated load values are for anchors installed in minimum 6-inch wide, minimum Grade N, Type II, lightweight, medium-weight or normal-weight concrete masonry units conforming to ASTM C 90. Mortar must be minimum Type N. Masonry compressive strength must be at the specified minimum at the time of installation.
2. Ultimate load capacities must be reduced by a minimum safety factor of 5.0 or greater to determine allowable working load. Consideration of safety factors of 10 or higher may be necessary depending upon the application such as life safety.
3. Minimum spacing and edge distances for anchors in masonry is 4 inches.

Ultimate and Allowable Load Capacities for Safe-T Pin in Solid Clay Brick Masonry^{1,2,3}

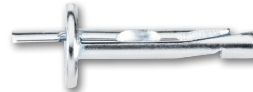
Nominal Anchor Diameter in.	Nominal Drill Bit Diameter (mm)	Minimum Embedment Depth in.	Minimum Concrete Compressive Strength			
			f'm = 1,500 psi			
			Ultimate Tension lbs.	Allowable Tension lbs.	Ultimate Shear lbs.	Allowable Shear lbs.
1/4	6	1-3/16	1,100	220	745	150

1. Tabulated load values are for anchors installed in multiple wythe, minimum Grade SW, solid clay brick masonry walls conforming to ASTM C 62. Mortar must be minimum Type N. Masonry compressive strength must be at the specified minimum at the time of installation (f'm ≥ 1,500 psi).
2. Ultimate load capacities must be reduced by a minimum safety factor of 5.0 or greater to determine allowable working load. Consideration of safety factors of 10 or higher may be necessary depending upon the application such as life safety.
3. Minimum spacing and edge distances for anchors in masonry is 4 inches.

ORDERING INFORMATION

Safe-T Pin

Cat. No.	Size	Pack Qty.	Carton Qty.
2800SD-PWR	1/4" (6mm) x 1-3/8"	100	600



Drill Bit

Cat. No.	Size	Pack Qty.	Carton Qty.
02800-PWR	6 mm	1	50

