



Introduction

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Wedge Expansion Anchors

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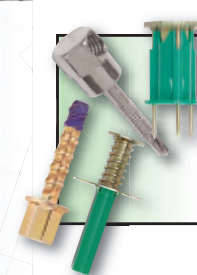
Masonry Fastening Systems

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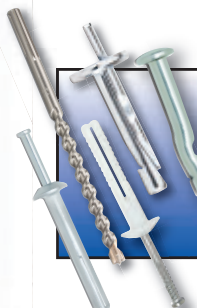


Rod Hanger System/Concrete Inserts

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INTRODUCTION

The term post-installed anchor is used to describe devices installed in holes drilled in hardened concrete for the purpose of transferring loads. Post-installed anchor types include expansion, undercut, screw, grouted and adhesive anchors.

Torque-controlled expansion anchors are set by the application of a defined torque to the anchor bolt. This generates the necessary expansion force in the anchor and preloads the bolt. Torque-controlled expansion anchors re-expand upon the application of tension loads in excess of the preload in the bolt, a mechanism referred to as follow-up expansion.

Special inspection is the inspection of construction activities requiring unique expertise or where additional assurance of quality is deemed necessary. Concrete placement, masonry construction, structural welding and high strength bolting are common special inspection items. These inspections are in addition to the normal progress inspections performed by the building department inspectors.



TYPES OF POST-INSTALLED ANCHORS

Mechanical anchors comprise undercut anchors, expansion anchors and screw anchors. In their usual form, undercut anchors interlock with the concrete at the base of the drilled hole. They derive tension resistance by bearing. Expansion anchors derive tension resistance via the friction generated by expansion forces against the wall of the drilled hole. Two types of expansion anchors, torque-controlled and displacement controlled are identified. Torque-controlled expansion anchors are set by the application of a defined torque to the anchor bolt.

This generates the necessary expansion force in the anchor and preloads the bolt. Torque-controlled expansion anchors re-expand upon the application of tension loads in excess of the preload in the bolt, a mechanism referred to as follow-up expansion. Displacement-controlled expansion anchors are set by driving the expansion cone or the anchor sleeve through a defined displacement, which results in a corresponding level of expansion force.

Displacement-controlled expansion anchors don't generate additional expansion force upon loading. Screw anchors derive tension resistance via the interlock of the screw threads with the concrete. Adhesive anchors derive tension resistance via the bond of the adhesive with the concrete surface in the drilled hole and with the steel anchor element. Hybrid anchors, such as torque-controlled adhesive anchors, combine the working principle of expansion and adhesive anchors.



REQUIREMENTS FOR POST-INSTALLED ANCHORS

Table 1704.4 of the IBC provides special inspection requirements for concrete construction. Anchors installed in hardened concrete are listed as requiring periodic special inspection. Periodic special inspection is the inspection of construction or work by an approved special inspector who is intermittently present in the area when and where the construction or work has been or is being performed.



The inspection requirements for post-installed anchors are generally derived from the manufacturer's published installation instructions (MPII) and from the relevant evaluation report (ICC-ES ESR) for the product. Typical inspection procedures consist of reviewing the type of anchors that will be installed prior to the commencement of work and determination of what aspects of the installation are critical from an inspection standpoint. This varies from anchor type to anchor type. Generally, inspection focuses on verification that the anchor is in accordance with the project specifications, that the installation procedure is in accordance with the MPII, and that the anchor size, placement and embedment are in accordance with the contract documents.

Where required by the contract documents, procedures to avoid existing reinforcing bars in the concrete during drilling are reviewed by the inspector. Where core drilling is used, this is particularly important. Measures to be taken if reinforcing bars are encountered or damaged may include relocation of the anchor and will usually involve consultation with the EOR.

POST-INSTALLED MECHANICAL ANCHORS

The special inspector must verify that the installation is in accordance with the requirements of the approved construction documents, applicable evaluation report and the MPII, including verification of the location of the anchor, edge distance and spacing requirements. Pre-installation inspection of post-installed mechanical anchors usually consists of verification of anchor type, material, size and length, drilling method, drill bit type and size, hole cleaning procedures, and anchor installation and setting procedures. Special attention to aspects of the installation may be required depending on the job conditions. For example, where anchors installed in a slab on grade, it may be necessary to check that the hole drilling procedures do not result in breaking through to the underside of the slab.

Use of a properly calibrated torque wrench is required for setting of many types of anchors, and is also required to avoid over-torquing of anchors during subsequent assembly. Prior to application of torque, anchor threads are inspected for damage or fouling. During setting of torque-controlled expansion anchors, the inspector will note the number of full turns required to achieve the required torque. the threads.

Where anchors fail to set within the maximum permitted number of turns, procedures to remove and replace the anchor are developed with the EOR. Where large numbers of anchors are being installed, the inspector may observe the initial installations continuously, and thereafter perform periodic inspections as the installation proceeds.

ICC-ES acceptance criteria include a requirement for a length identification letter code to be stamped on the ends of anchors recognized for multiple embedments (usually wedge anchors). This makes it possible for the special inspector to determine, in conjunction with knowledge of the specific anchor make, the embedment of these types of anchors after they have been installed.

Verification of proper set is conducted according to the anchor type. Torque-controlled expansion anchors such as wedge anchors and sleeve anchors are generally checked by application of torque with a calibrated torque wrench. Drop-in anchors are checked by placing the setting tool into the anchor body to verify full set prior to installation of the bolt or threaded rod. Verification of proper set of screw anchors is performed during installation by ensuring that the minimum torque resistance is achieved, that the maximum torque is not exceeded, and that the anchor has achieved the required embedment.

ADHESIVE ANCHORS



The special inspector must verify that the installation is in accordance with the requirements of the approved construction documents, applicable evaluation report and the MPII, including verification of the location of the anchor, edge distance and spacing requirements. Pre-installation inspection of adhesive anchors usually consists of verification of anchor type, material, size and length, drilling method, drill bit type and size, hole cleaning procedures, and anchor installation and setting procedures. In addition, the inspector must verify the expiration date of the adhesive and the manner in which it has been stored.



Anchor elements (threaded rod, reinforcing bars, internally threaded sleeves) must be inspected for the presence of substances that might interfere with bond (e.g., dust, mud, oil) and that the threads are undamaged and not fouled.

Reinforcing bars must be free of loose rust. In cases where the concrete temperature may be higher or lower than normal room temperature, the concrete temperature in-situ must be verified prior to installation for conformance with the requirements of the MPII and to establish the cure time for the adhesive.



Since the design bond strengths for adhesive anchors are often associated with the use of specific drilling techniques (based on the resulting hole roughness), it is important that the specified hole drilling technique is used.

Verification of hole cleaning procedures in accordance with the MPII is critical. Where holes are drilled and cleaned in advance of anchor installation, it must be verified that the holes are protected from intrusion of contaminants or moisture (e.g., rainwater) during the interim period, or that the cleaning steps are performed immediately prior to anchor installation. Prior to anchor installation, hole depths must be verified to ensure the correct embedment and to determine, in the case of injection systems, that the correct amount of adhesive is dispensed into the hole.

Injection adhesive systems have special requirements to ensure that the adhesive injected is correctly metered and mixed. These usually include, for 1 new cartridge, dispensing a quantity of adhesive from the mixing nozzle prior to beginning injection of adhesive in the hole. The objective of adhesive injection is to avoid entrained air. For long holes and holes drilled horizontally or overhead, the MPII may specify special equipment such as extension tubes, stoppers and end caps to achieve a void-free injection. The presence of air bubbles in the adhesive may be detectable as a tendency of

the anchor element to spring back after being pushed into the adhesive mass or a popping sound is heard as air bubbles are displaced upward. Inspection of the installed anchor includes verifying that the anchor position is true (angle with respect to the concrete surface), that the anchor is secured against movement during the cure time, and that adhesive has not fouled the threads.

The inspector should verify that personnel performing adhesive anchor installation are experienced and qualified to use the specific adhesive anchor system being employed. ACI 318-11 Appendix D requires that certified adhesive anchor installers must perform all horizontal and upwardly inclined installations of adhesive anchors that resist sustained tension.

CAMA Special Inspection Guidelines for Expansion and Adhesive Anchors, Copyright @ 2011 CAMA.



Anchor Selection Chart

	Base Material								Anchor Diameter	Working Load (Concrete)			Coating/Material							Competitive Products				
	Concrete	Lightweight Concrete	Hollow Core Plank	Grout-filled Concrete Masonry	Hollow Concrete Masonry	Solid Block	Hollow Brick	Unreinforced Masonry		Steel	Drywall	Under 500 lbs.	500 lbs. to 5,000 lbs.	Over 5,000 lbs.	Zinc Plated Carbon Steel	Galvanized Steel	Type 303/304 Stainless Steel	Type 316 Stainless Steel	Type 410 Stainless Steel		Zamac Alloy	Perma-Seal Coated	Nylon / Plastic	Lead
ADHESIVE SYSTEMS																								
PE1000+ 3-to-1 Cartridge - Epoxy Anchor			■	□	□	■	□	□	□	□	□	□	■	■	■	■	■	■	■	■	■	■	■	Hilti RE 500-SD
AC100+ Gold 10-to-1 Cartridge - Vinylester Anchor			■	□	□	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Hilti HY 200/ HY 150 MAX Simpson AT - XP Red Head Epcon A7
Pure110+ 1-to-1 Cartridge - Epoxy Anchor			■	□	□	□	□	□	□	□	□	■	■	■	■	■	■	■	■	■	■	■	■	Simpson SET-XP Red Head Epcon G5
Hammer-Capsule Glass Capsule - Hammer Type Anchor			■	□	□	□	□	□	□	□	□	■	■	■	■	■	■	■	■	■	■	■	Simpson VGC Capsule ITW Chemset Hammer Cpsl.	
HEAVY DUTY																								
Atomic+ Undercut Undercut Anchor			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Hilti HDA Undercut
Power-Bolt+ Heavy Duty Sleeve Anchor			■	■	■	■	□	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Hilti HSL-3
Power-Bolt Heavy Duty Sleeve Anchor			■	■	□	■	□	■	□	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Hilti HSL
MEDIUM DUTY																								
Power-Stud+ SD1 Expansion Anchor			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Hilti Kwik Bolt 3 (KB3) Simpson Strong-Bolt Red Head Trubolt
Power-Stud+ SD2 Expansion Anchor			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Hilti Kwik Bolt T2 Simpson Strong-Bolt 2 Red Head Trubolt+
Power-Stud +SD4/SD6 Expansion Anchor			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Hilti Kwik Bolt 3 (KB3) Simpson Strong-Bolt Red Head Trubolt
Power-Stud HD5 Expansion Anchor			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Hilti Kwik Bolt 3 (KB3) HDG Red Head Trubolt
Power-Stud (MG, SS) Expansion Anchor			■	■	□	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Hilti Kwik Bolt 3 (KB3) Simpson Wedge-All
Lok-Bolt AS Sleeve Anchor			■	■	□	■	■	■	□	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Hilti HLC Simpson Sleeve-All Red Head Dynabolt
Wedge-Bolt+ Screw Anchor			■	■	□	■	□	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Hilti Kwik HUS / HUS-EZ Simpson Titen HD Red Head Large Dia. Tapcon (LDT)
Wedge-Bolt (SS) Screw Anchor			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	No Similar Product
Snake+ Rod Hanger / Screw Anchor			■	■	□	□	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	No Similar Product
Vertigo+ (Concrete) Rod Hanger / Screw Anchor			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Simpson Titen HD Rod Hanger Hilti HUS-EZ I
Vertigo (Steel / Wood) Rod Hanger / Screw Anchor			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	ITW Sammy



Anchor Selection Chart

	Base Material								Anchor Diameter	Working Load (Concrete)			Coating/Material							Competitive Products				
	Concrete	Lightweight Concrete	Hollow Core Plank	Grout-filled Concrete Masonry	Hollow Concrete Masonry	Solid Brick	Hollow Brick	Unreinforced Masonry		Steel	Drywall	Under 500 lbs.	500 lbs. to 5,000 lbs.	Over 5,000 lbs.	Zinc Plated Carbon Steel	Galvanized Steel	Type 303/304 Stainless Steel	Type 316 Stainless Steel	Type 410 Stainless Steel		Zamac Alloy	Perma-Seal Coated	Nylon / Plastic	Lead
MEDIUM DUTY																								
Bang-It / Wood-Knocker Speciality Cast-In-Place		■	■							1/4" - 3/4"	■	■		■								■		Hilti HCI-WF / HCI-MD Simpson Blue Banger
Steel Dropin Dropin Anchor		■	■							1/4" - 3/4"	■	■		■		■								Hilti HDI Drop-In Red Head RL Drop-In
Mini Dropin Dropin Anchor		■	■	□						1/4" - 1/2"	■	■		■										Hilti HDI-P Short Drop-In Red Head RX Drop-In
Hollow-Set Dropin Dropin Anchor		■	■	■	■	■	■	□		1/4" - 5/8"	■	■		■		■			■					No Similar Product
Double Bolt/Shield Anchors		■	■		■	■	■			1/4" - 3/4"	■	■								■				
Single Bolt/Shield Anchors		■	□	□	□	□				1/4" - 5/8"	■									■				
LIGHT DUTY																								
Tapper+ Screw Anchor	ES	■	■	■	■	■	■	□		3/16" - 5/16"	■	■									■			Hilti Kwik-Con II Simpson Titen / Titen HD Redhead Tapcon
Tapper (SS) Screw Anchor		■	■		■	■				3/16" - 1/4"	■					■		■						Hilti Kwik-Con II Simpson Titen ITW Tapcon
Safe-T+Pin Pin / Nail Anchors	ES	■	■		■	■				8mm	■			■										No Similar Product
Spike Pin / Nail Anchors		■	■		■		□			3/16" - 1/2" (CS) 3/16" - 3/8" (SS)	■	■		■		■			■					Simpson Crimp Red Head Redi-Drive
Zamac Hammer Screw Pin / Nail Anchors		■	□	□	■	■	■	□		3/16" - 1/4"	■			■					■	■				No Similar Product
Zamac or Nylon Nailin Pin / Nail Anchors		■	□	□	■	■	■	□		3/16" - 1/4"	■			■		■			■		■			
Calk-In Bolt/Shield Anchors		■	□		■	□	■			#8-32 - 1/2"	■	■								■		■		
Zamac or Nylon Zip-It Drywall Anchors									■	#10, 6, 8 Screw	■									■		■		ITW EZ
Wall Dog Drywall Anchors		■	■		■	■	■	■		3/16"	■									■				No Similar Product

■: Suitable □: May Be Suitable **ES** Indicates a Code Listed Product

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POWER-STUD™ + SD1 & SD2

Strength Design Wedge Expansion Anchors

The Power-Stud + anchors are fully threaded, torque-controlled, wedge expansion anchors that are designed for consistent performance in cracked and uncracked concrete. Suitable base materials include normal-weight concrete, structural sand-lightweight concrete and concrete over metal deck.

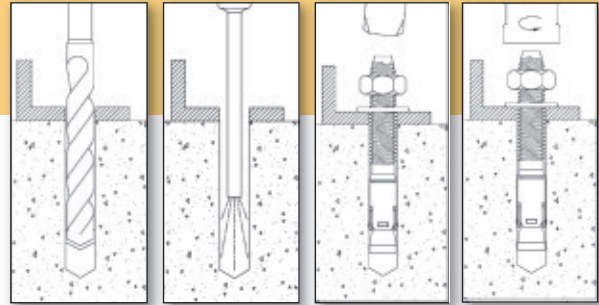
- Consistent performance in high and low strength concrete
- Nominal drill bit size is same as anchor diameter.
- Length ID code and identifying marking stamped on head of anchor
- Installed through standard fixture holes
- Design allows for follow-up expansion after setting under tensile loading

Installation:

1. Using the proper drill bit size, drill a hole into the base material to the required depth. The tolerances of the drill bit used should meet the requirements of ANSI Standard B212.15
2. Remove dust and debris from the hole.
3. Position the washer on the anchor and attach the nut. If installing through a fixture, drive the anchor through the fixture in to the hole.

Be sure the anchor is driven to the minimum required nominal embedment depth.

4. Tighten anchor with torque wrench applying required installation torque.



POWER-STUD+ SD1

Carbon Steel Body & Expansion Clip



CODE LISTED
ICC-ES ESR-2818
CATEGORY 1
Cracked & Uncracked
Concrete

CODE LISTED
ICC-ES ESR-2966
Concrete Masonry
Units (CMU)



ITEM CODE	SIZE	THREAD LENGTH	CARBIDE BIT SIZE	BOX QTY.	CTN. QTY.
POW 7400SD1*	1/4" x 1-3/4"	3/4"	1/4" x 4"	100	600
POW 7402SD1	1/4" x 2-1/4"	1-1/4"	1/4" x 6"	100	600
POW 7404SD1	1/4" x 3-1/4"	2-1/4"	1/4" x 6"	100	600
POW 7410SD1*	3/8" x 2-1/4"	7/8"	3/8" x 6"	50	300
POW 7412SD1*	3/8" x 2-3/4"	1-3/8"	3/8" x 6"	50	300
POW 7413SD1	3/8" x 3"	1-5/8"	3/8" x 6"	50	300
POW 7414SD1	3/8" x 3-1/2"	2-1/8"	3/8" x 6"	50	300
POW 7415SD1	3/8" x 3-3/4"	2-3/8"	3/8" x 6"	50	300
POW 7416SD1	3/8" x 5"	3-5/8"	3/8" x 10"	50	300
POW 7417SD1	3/8" x 7"	5-5/8"	3/8" x 10"	50	200
POW 7420SD1*	1/2" x 2-3/4"	1"	1/2" x 6"	50	200
POW 7422SD1	1/2" x 3-3/4"	2"	1/2" x 6"	50	200
POW 7423SD1	1/2" x 4-1/2"	2-3/4"	1/2" x 10"	50	200
POW 7424SD1	1/2" x 5-1/2"	3-3/4"	1/2" x 10"	50	150
POW 7426SD1	1/2" x 7"	5-1/4"	1/2" x 12"	25	100
POW 7427SD1	1/2" x 8-1/2"	6-3/4"	1/2" x 12"	25	100
POW 7428SD1	1/2" x 10"	6-3/4"	1/2" x 12"	25	100
POW 7430SD1*	5/8" x 3-1/2"	1-1/2"	5/8 x 8"	25	100
POW 7432SD1	5/8" x 4-1/2"	2-1/2"	5/8 x 8"	25	100
POW 7433SD1	5/8" x 5"	3"	5/8 x 8"	25	100
POW 7434SD1	5/8" x 6"	4"	5/8 x 8"	25	75
POW 7436SD1	5/8" x 7"	5"	5/8 x 12"	25	75
POW 7438SD1	5/8" x 8-1/2"	6-1/2"	5/8 x 12"	25	50
POW 7439SD1	5/8" x 10"	8"	5/8 x 12"	25	50
POW 7440SD1*	3/4" x 4-1/4"	1-3/4"	3/4 x 8"	20	60
POW 7441SD1*	3/4" x 4-3/4"	2-1/4"	3/4 x 8"	20	60
POW 7442SD1	3/4" x 5-1/2"	3"	3/4 x 8"	20	60
POW 7444SD1	3/4" x 6-1/4"	3-3/4"	3/4 x 12"	20	60
POW 7446SD1	3/4" x 7"	4-1/2"	3/4 x 12"	20	60
POW 7448SD1	3/4" x 8-1/2"	6"	3/4 x 12"	10	40
POW 7449SD1	3/4" x 10"	7-1/2"	3/4 x 12"	10	30
POW 7451SD1	3/4" x 12"	9-1/2"	3/4 x 18"	10	30
POW 7450SD1	7/8" x 6"	2-3/4"	7/8 x 12"	10	40
POW 7452SD1#	7/8" x 8"	4-3/4"	7/8 x 12"	10	40
POW 7454SD1#	7/8" x 10"	6-3/4"	7/8 x 18"	10	30
POW 7461SD1*	1" x 6"	2-3/8"	1 x 10"	10	30
POW 7463SD1	1" x 9"	5-3/8"	1 x 12"	10	30
POW 7465SD1	1" x 12"	8-3/8"	1 x 18"	5	15
POW 7473SD1#	1-1/4" x 9"	4-3/4"	1-1/4 x 15"	5	15
POW 7475SD1#	1-1/4" x 12"	7-3/4"	1-1/4 x 22-1/2"	5	15

* Denotes sizes which are less than the minimum standard anchor length for strength design

* The published size includes the diameter and the overall length of the anchor.

* Allow for fixture thickness plus one anchor diameter for the nut and washer thickness when selecting a length.

* # ICC-ES Pending

APPROVALS & LISTINGS - SD1 & SD2

- International Code Council, Evaluation Service (ICC-ES), ESR-2818 for concrete Code compliant with the 2015 IBC, 2015 IRC, 2012 IBC, 2012 IRC, 2009 IBC, 2009 IRC, 2006 IBC and 2006 IRC.
- International Code Council, Evaluation Service (ICC-ES), ESR-2966 for masonry Code compliant with the 2012 IBC, 2012 IRC, 2009 IBC, 2009 IRC, 2006 IBC, and 2006 IRC.
- Tested in accordance with ACI 355.2/ASTM E 488 and ICC-ES AC193 for use in structural concrete under the design provisions of ACI 318 (Strength Design method using Appendix D)
- Evaluated and qualified by an accredited independent testing laboratory for recognition in cracked and uncracked concrete including seismic and wind loading (Category 1 anchors)
- Tested in accordance with ICC-ES AC01 for use in Masonry
- Underwriters Laboratories (UL Listed) - File No. EX1289. See listing for sizes

MATERIAL SPECIFICATIONS - SD1 & SD2

ANCHOR COMPONENT	SPECIFICATION
Anchor Body	Medium Carbon Steel
Hex Nut	Carbon steel, ASTM A 563, Grade A
Washer	Carbon steel, ASTM F 844; meets dimensional requirements of ANSI B18.22.2, Type A plain
Expansion Wedge (clip)	SD1-Carbon Steel SD2-Stainless Steel
Plating	Zinc plating according to ASTM B 633, SC1, Type III (Fe/Zn 5) Minimum plating requirement for Mild Service Condition

TIE WIRE POWER-STUD+ SD1

Carbon Steel Body & Expansion Clip



SPECIFICATIONS

ITEM NO.	SIZE	THREAD LENGTH	BOX QTY.	CTN. QTY.
POW 7409SD1	1/4"	n/a	100	500

POWER-STUD™ + SD2, SD4 & SD6 Strength Design Wedge Expansion Anchors

The Power-Stud+ SD2 anchor is a fully threaded, torque-controlled, designed for consistent performance in cracked and uncracked concrete. Suitable base materials include normal-weight concrete, structural sand-lightweight and concrete over metal deck. The anchor is manufactured with a zinc plated carbon steel body and stainless steel expansion clip for premium performance.

The Power-Stud+ SD4 and Power-Stud+ SD6 anchors are fully threaded, torque-controlled, Category 1 stainless steel, designed for consistent performance in cracked and uncracked concrete. Suitable base material is normal-weight and sand-lightweight concrete. The anchor is manufactured with a stainless steel body and expansion clip. Nut and washer included.

POWER-STUD+® SD2

Carbon Steel Body & Stainless Steel Clip



CODE LISTED
ICC-ES ESR-2502
CATEGORY 1
Cracked & Uncracked Concrete

ITEM CODE	SIZE	THREAD LENGTH	CARBIDE BIT SIZE	BOX QTY.	CTN. QTY.
POW 7413SD2	3/8" x 3"	1"	3/8" x 6"	50	300
POW 7415SD2	3/8" x 3-3/4"	2-1/2"	3/8" x 6"	50	300
POW 7416SD2	3/8" x 5"	3-3/4"	3/8" x 10"	50	300
POW 7422SD2	1/2" x 3-3/4"	2-1/8"	1/2" x 6"	50	200
POW 7423SD2	1/2" x 4-1/2"	2-7/8"	1/2" x 10"	50	200
POW 7424SD2	1/2" x 5-1/2"	3-7/8"	1/2" x 10"	50	150
POW 7426SD2	1/2" x 7"	5-3/8"	1/2" x 12"	25	100
POW 7427SD2	1/2" x 8-1/2"	6-7/8"	1/2" x 12"	25	100
POW 7435SD2	5/8" x 4-3/4"	2-7/8"	5/8" x 8"	25	100
POW 7433SD2	5/8" x 5"	3-1/8"	5/8" x 8"	25	100
POW 7434SD2	5/8" x 6"	4-1/8"	5/8" x 8"	25	75
POW 7436SD2	5/8" x 7"	5-1/8"	5/8" x 12"	25	75
POW 7438SD2	5/8" x 8-1/2"	6-5/8"	5/8" x 12"	25	75
POW 7442SD2	3/4" x 5-1/2"	3-1/4"	3/4" x 8"	20	60
POW 7444SD2	3/4" x 6-1/4"	4"	3/4" x 12"	20	60
POW 7446SD2	3/4" x 7"	4-3/4"	3/4" x 12"	20	60
POW 7448SD2	3/4" x 8-1/2"	6-1/4"	3/4" x 12"	10	60



• The published size includes the diameter and the overall length of the anchor.
• All anchors are packaged with nuts and washers.

LENGTH IDENTIFICATION

MARK	A	B	C	D	E	F	G	H	I
From	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"
Up to but not including	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"
MARK	J	K	L	M	N	O			
From	6"	6-1/2"	7"	7-1/2"	8"	8-1/2"			
Up to but not including	6-1/2"	7"	7-1/2"	8"	8-1/2"	9"			
MARK	P	Q	R	S	T				
From	9"	9-1/2"	10"	11"	12"				
Up to but not including	9-1/2"	10"	11"	12"	13"				

• Length identification mark indicates overall length of anchors.

• A-T is appropriate for SD1

• A-O is appropriate for SD2

• A-R is appropriate for SD4 & SD6

HEAD MARKING

Letter Code = Length Identification Mark
 "+" Symbol = Strength Design Compliant Anchor
 Number Code = Carbon Steel Body & Expansion Clip (SD1) and Stainless Steel Expansion Clip (SD2) (not on 1/4" diameter anchors)
 Number Code = Stainless Steel Body Type 4 or 6 (SD4 & SD6) (not on 1/4" diameter anchors)

SD1 and SD2



SD4 and SD6



APPROVALS & LISTINGS - SD4 & SD6

- International Code Council Evaluation Service (ICC-ES), ESR-2502 for cracked and uncracked concrete [2015 IBC, 2015 IRC, 2012 IBC & IRC, 2009 IBC & IRC, and 2006 IBC & IRC]
- Tested in accordance with ACI 355.2/ASTM E 488 and ICC-ES AC193 for use in structural concrete under the design provisions of ACI 318 (Strength Design method using Appendix D)
- Evaluated and qualified by an accredited independent testing laboratory for recognition in cracked and uncracked concrete including seismic and wind loading (Category 1 anchors)

MATERIAL SPECIFICATIONS

ANCHOR COMPONENT	SPECIFICATION	
	SD4	SD6
Anchor Body	Type 304 Stainless Steel	Type 316 Stainless Steel
Washer	300 Series Stainless Steel	Type 316 Stainless Steel
Hex Nut	Type 316 Stainless Steel	
Expansion Wedge (clip)	Type 316 Stainless Steel	

POWER-STUD+™ SD4

Type 304 Stainless Steel Body & Type 316 Stainless Steel Clip

CODE LISTED
ICC-ES ESR-2502
CATEGORY 1
Cracked & Uncracked Concrete

POWER-STUD+™ SD6

Type 316 Stainless Steel Body & Clip



ITEM CODE SD4	ITEM CODE SD6	SIZE	THREAD LENGTH	CARBIDE BIT SIZE	BOX QTY.	CTN. QTY.
POW 7300SD4	POW 7600SD6	1/4" x 1-3/4"	3/4"	1/4" x 4"	100	600
POW 7302SD4	POW 7602SD6	1/4" x 2-1/4"	1-1/4"	1/4" x 6"	100	600
POW 7304SD4	POW 7604SD6	1/4" x 3-1/4"	2-1/4"	1/4" x 6"	100	600
POW 7310SD4*	POW 7610SD6	3/8" x 2-1/4"	7/8"	3/8" x 6"	50	300
POW 7312SD4*	POW 7612SD6	3/8" x 2-3/4"	1-3/8"	3/8" x 6"	50	300
POW 7313SD4	POW 7613SD6	3/8" x 3"	1-5/8"	3/8" x 6"	50	300
POW 7314SD4*	POW 7614SD6	3/8" x 3-1/2"	2-1/8"	3/8" x 6"	50	300
POW 7315SD4	POW 7615SD6	3/8" x 3-3/4"	2-3/8"	3/8" x 6"	50	300
POW 7316SD4	POW 7616SD6	3/8" x 5"	3-5/8"	3/8" x 10"	50	300
POW 7317SD4*	POW 7617SD6	3/8" x 7"	5-5/8"	3/8" x 10"	50	300
POW 7320SD4*	POW 7620SD6	1/2" x 2-3/4"	1"	1/2" x 6"	50	300
POW 7322SD4	POW 7622SD6	1/2" x 3-3/4"	2"	1/2" x 6"	50	300
POW 7323SD4	POW 7623SD6	1/2" x 4-1/2"	2-3/4"	1/2" x 10"	50	300
POW 7324SD4	POW 7624SD6	1/2" x 5-1/2"	3-3/4"	1/2" x 10"	50	300
POW 7326SD4	POW 7626SD6	1/2" x 7"	5-1/4"	1/2" x 12"	25	100
POW 7330SD4*	POW 7630SD6	5/8" x 3-1/2"	1-1/2"	5/8" x 8"	25	100
POW 7332SD4*	POW 7632SD6	5/8" x 4-1/2"	2-1/2"	5/8" x 8"	25	100
POW 7333SD4	POW 7633SD6	5/8" x 5"	3"	5/8" x 8"	25	100
POW 7334SD4	POW 7634SD6	5/8" x 6"	4"	5/8" x 8"	25	75
POW 7336SD4*	POW 7636SD6	5/8" x 7"	5"	5/8" x 12"	25	75
POW 7338SD4	POW 7638SD6	5/8" x 8-1/2"	6-1/2"	5/8" x 12"	25	50
POW 7340SD4*	POW 7640SD6	3/4" x 4-1/4"	1-7/8"	3/4" x 8"	20	60
POW 7341SD4*	POW 7341SD4	3/4" x 4-3/4"	2-3/8"	3/4" x 8"	20	60
POW 7342SD4	POW 7642SD4	3/4" x 5-1/2"	3-1/8"	3/4" x 8"	20	60
POW 7344SD4*	POW 7644SD4	3/4" x 6-1/4"	3-7/8"	3/4" x 12"	20	60
POW 7346SD4*	POW 7646SD4	3/4" x 7"	4-5/8"	3/4" x 12"	20	60
POW 7348SD4	POW 7648SD4	3/4" x 8-1/2"	6-1/8"	3/4" x 12"	10	40
POW 7349SD4		3/4" x 10"	7-5/8"	3/4" x 12"	10	40

• Red Item Codes denotes sizes which are less than the minimum standard anchor length for strength design

• The published size includes the diameter and the overall length of the anchor.

• All anchors are packaged with nuts and washers.

• * Discontinued item once current stock exhausted.

POWER-STUD®

Wedge Expansion Anchors

TYPE 304 & 316 STAINLESS STEEL

Stainless Steel Power-Stud™ anchors are manufactured from AISI Type 304 / 304 Cu and Type 316 stainless steel which is passivated.



ITEM CODE	316	SIZE	THREAD LENGTH	BOX QTY.	CTN. QTY.
POW 07300	POW 07600	1/4" x 1-3/4"	3/4"	100	500
POW 07302	POW 07602	1/4" x 2-1/4"	1-1/4"	100	500
POW 07304	POW 07604	1/4" x 3-1/4"	2-1/4"	100	500
POW 07310	POW 07610	3/8" x 2-1/4"	1-1/4"	50	250
POW 07312	POW 07612	3/8" x 2-3/4"	1-5/8"	50	250
POW 07313	POW 07613	3/8" x 3"	1-7/8"	50	250
POW 07314	POW 07614	3/8" x 3-1/2"	2-3/8"	50	250
POW 07315	POW 07615	3/8" x 3-3/4"	2-5/8"	50	250
POW 07316	POW 07616	3/8" x 5"	3-1/8"	50	250
POW 07320	POW 07620	1/2" x 2-3/4"	1-3/8"	50	200
POW 07322	POW 07622	1/2" x 3-3/4"	2-3/8"	50	200
POW 07323	POW 07623	1/2" x 4-1/2"	3-1/8"	50	200
POW 07324	POW 07624	1/2" x 5-1/2"	4-1/8"	50	150
POW 07326	POW 07626	1/2" x 7"	5-5/8"	25	100
POW 07330	POW 07630	5/8" x 3-1/2"	2"	25	100
POW 07332	POW 07632	5/8" x 4-1/2"	3"	25	100
POW 07333	POW 07633	5/8" x 5"	3-1/2"	25	100
POW 07334	POW 07634	5/8" x 6"	4-1/2"	25	75
POW 07336	POW 07636	5/8" x 7"	5-1/2"	25	75
POW 07338	POW 07638	5/8" x 8-1/2"	7"	25	75
POW 07340	POW 07640	3/4" x 4-1/4"	2-3/8"	20	60
POW 07341	POW 07641	3/4" x 4-3/4"	2-7/8"	20	60
POW 07342	POW 07642	3/4" x 5-1/2"	3-5/8"	20	60
POW 07344	POW 07644	3/4" x 6-1/4"	4-3/8"	20	60
POW 07346	POW 07646	3/4" x 7"	5-1/8"	20	60
POW 07348	POW 07648	3/4" x 8-1/2"	6-5/8"	10	40
POW 07349		3/4" x 10"	8-1/8"	10	30
POW 07352		7/8" x 8"	4-3/4"	10	40
POW 07361		1" x 6"	2-3/8"	10	30
POW 07363		1" x 9"	5-3/8"	10	30
POW 07365		1" x 12"	8-3/8"	5	15

• The published size includes the diameter and the overall length of the anchor.

• Allow for fixture thickness plus one anchor diameter for the nut and washer thickness when selecting a length.

MATERIAL SPECIFICATIONS

ANCHOR COMPONENT	TYPE 304	TYPE 316
Anchor Body	Type 304Cu (1/4"-3/4", lengths up to 7") Type 304 (7/8"-1", lengths up to 7")	Type 316 Stainless Steel
Hex Nut	Type 18-8 (300 Series) Stainless Steel	Type 316 Stainless Steel
Washer	Type 18-8 (300 Series) Stainless Steel	Type 316 Stainless Steel
Expansion Wedge	Type 304 Stainless Steel	Type 316 Stainless Steel

POWER-STUD™ HD5

Hot-Dipped Galvanized

The Power-Stud HD5 anchor is a fully threaded, torque-controlled, wedge expansion anchor. Suitable base materials include normal-weight concrete and structural sandlightweight concrete. The anchor is manufactured with a hot-dip galvanized carbon steel body and stainless steel expansion clip. Nut and washer are included.



ITEM CODE	SIZE	THREAD LENGTH	BOX QTY.	CTN. QTY.
POW 7713HD5	3/8" x 3"	1-1/2"	50	300
POW 7715HD5	3/8" x 3-3/4"	2-3/8"	50	300
POW 7716HD5	3/8" x 5"	3-1/2"	50	300
POW 7717HD5	3/8" x 7"	5-1/2"	50	200
POW 7720HD5	1/2" x 2-3/4"	1"	50	200
POW 7722HD5	1/2" x 3-3/4"	2"	50	200
POW 7723HD5	1/2" x 4-1/2"	2-3/4"	50	200
POW 7724HD5	1/2" x 5-1/2"	3-3/4"	50	200
POW 7726HD5	1/2" x 7"	5-1/4"	50	150
POW 7730HD5	5/8" x 3-1/2"	1-1/2"	25	100
POW 7733HD5	5/8" x 5"	3"	25	100
POW 7734HD5	5/8" x 6"	4"	25	100
POW 7738HD5	5/8" x 8-1/2"	6-1/2"	25	75
POW 7741HD5	3/4" x 4-3/4"	2-1/4"	20	60
POW 7742HD5	3/4" x 5-1/2"	3"	20	60
POW 7746HD5	3/4" x 7"	4-1/2"	20	60
POW 7748HD5	3/4" x 8-1/2"	6"	10	40

• The published size includes the diameter and the overall length of the anchor.

• All anchors are packaged with nuts and washers.

MATERIAL SPECIFICATIONS

ANCHOR COMPONENT	SPECIFICATION
Anchor Body	Medium Carbon Steel
Hex Nut	Carbon steel, ASTM A 563, Grade A
Washer	Carbon steel, ASTM F 844; meets dimensional requirements of ANSI B18.22.2, Type A plain
Expansion Wedge (clip)	Type 304 Stainless Steel
Plating (Anchor, body, nut, washer)	Zinc Galvanized According to ASTM A 153 Class C or D

LENGTH IDENTIFICATION

MARK	A	B	C	D	E	F	G	H	I
From	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"
Up to but not including	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"
MARK	J	K	L	M	N	O			
From	6"	6-1/2"	7"	7-1/2"	8"	8-1/2"			
Up to but not including	6-1/2"	7"	7-1/2"	8"	8-1/2"	9"			

• Length identification mark indicates overall length of anchors.

EXPANSION ANCHORS



DOMESTIC ANCHORING

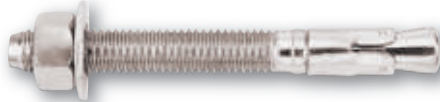
Wedge Type Expansion Anchors



A one piece, fully threaded, wedge style anchor. The drill bit diameter needed for proper installation is the same nominal size as the anchor diameter.

CARBON STEEL

Carbon Steel Wedge Anchors are manufactured from carbon steel plated with commercial bright zinc and a supplementary chromate treatment in accordance with ASTM Specification B 633, SC1, Type III.



ITEM CODE	SIZE	MIN. EMBEDMENT	THREAD LENGTH	BOX QTY.	CTN. QTY.
POW 7400USA	1/4" x 1-3/4"	1-1/8"	3/4"	100	500
POW 7402USA	1/4" x 2-1/4"	1-1/8"	3/4"	100	500
POW 7404USA	1/4" x 3-1/4"	1-1/8"	3/4"	100	500
POW 7410USA	3/8" x 2-1/4"	1-1/2"	7/8"	50	250
POW 7412USA	3/8" x 2-3/4"	1-1/2"	1-1/8"	50	250
POW 7413USA	3/8" x 3"	1-1/2"	1-1/8"	50	250
POW 7414USA	3/8" x 3-1/2"	1-1/2"	1-1/8"	50	250
POW 7415USA	3/8" x 3-3/4"	1-1/2"	1-1/8"	50	250
POW 7416USA	3/8" x 5"	1-1/2"	1-1/8"	50	250
POW 7417USA	3/8" x 6-1/2"	1-1/2"	1-1/8"	50	200
POW 7420USA	1/2" x 2-3/4"	2-1/4"	1-1/4"	50	200
POW 7422USA	1/2" x 3-3/4"	2-1/4"	1-1/4"	50	200
POW 7423USA	1/2" x 4-1/4"	2-1/4"	1-1/4"	50	200
POW 7424USA	1/2" x 5-1/2"	2-1/4"	1-1/4"	50	150
POW 7426USA	1/2" x 7"	2-1/4"	1-1/4"	25	100
POW 7427USA	1/2" x 8-1/2"	2-1/4"	1-1/4"	25	100
POW 7428USA	1/2" x 10"	2-1/4"	1-1/4"	25	100
POW 7429USA	1/2" x 12"	2-1/4"	1-1/4"	25	100
POW 7430USA	5/8" x 3-1/2"	3-3/4"	2"	25	100
POW 7432USA	5/8" x 4-1/2"	3-3/4"	3"	25	100
POW 7433USA	5/8" x 5"	3-3/4"	2"	25	100
POW 7434USA	5/8" x 6"	3-3/4"	2"	25	75
POW 7436USA	5/8" x 7"	3-3/4"	2"	25	75
POW 7437USA	5/8" x 12"	3-3/4"	2"	25	75
POW 7438USA	5/8" x 8-1/2"	3-3/4"	2"	25	75
POW 7439USA	5/8" x 10"	3-3/4"	2"	25	75
POW 7440USA	3/4" x 4-1/4"	3-1/4"	2"	20	60
POW 7441USA	3/4" x 4-3/4"	3-1/4"	2"	20	60
POW 7442USA	3/4" x 5-1/2"	3-1/4"	2"	20	60
POW 7444USA	3/4" x 6-1/4"	3-1/4"	2"	20	60
POW 7446USA	3/4" x 7"	3-1/4"	2"	20	60
POW 7448USA	3/4" x 8-1/2"	3-1/4"	2"	10	40
POW 7449USA	3/4" x 10"	3-1/4"	2"	10	30
POW 7451USA	3/4" x 12"	3-1/4"	2"	10	30
POW 7461USA	1" x 6"	4-1/2"	2"	10	40
POW 7463USA	1" x 9"	4-1/2"	2"	10	30
POW 7465USA	1" x 12"	4-1/2"	2"	5	15
POW 7475USA	1-1/4" x 12"	4-1/2"	2"	5	15

Anchor produced in the U.S.A., nut and washer made in Taiwan or China*

TYPE 303 STAINLESS STEEL

Stainless steel wedge anchors are manufactured from AISI Type 303 stainless steel which is passivated.



ITEM CODE	SIZE	MIN. EMBEDMENT	THREAD LENGTH	BOX QTY.	CTN. QTY.
POW 7300USA	1/4" x 1-3/4"	1-1/8"	3/4"	100	500
POW 7302USA	1/4" x 2-1/4"	1-1/8"	3/4"	100	500
POW 7304USA	1/4" x 3-1/4"	1-1/8"	3/4"	100	500
POW 7310USA	3/8" x 2-1/4"	1-1/2"	7/8"	50	250
POW 7312USA	3/8" x 2-3/4"	1-1/2"	1-1/8"	50	250
POW 7313USA	3/8" x 3"	1-5/8"	1-1/8"	50	250
POW 7314USA	3/8" x 3-1/2"	1-5/8"	1-1/8"	50	250
POW 7315USA	3/8" x 3-3/4"	1-5/8"	1-1/8"	50	250
POW 7316USA	3/8" x 5"	1-5/8"	1-1/8"	50	250
POW 7320USA	1/2" x 2-3/4"	2-1/4"	1-1/4"	50	200
POW 7323USA	1/2" x 4-1/2"	2-1/4"	1-1/4"	50	200
POW 7324USA	1/2" x 5-1/2"	2-1/4"	1-1/4"	50	150
POW 7326USA	1/2" x 7"	2-1/4"	1-1/4"	25	100
POW 7330USA	5/8" x 3-1/2"	3-3/4"	2"	25	100
POW 7332USA	5/8" x 4-1/2"	3-3/4"	2"	25	100
POW 7333USA	5/8" x 5"	3-3/4"	2"	25	100
POW 7334USA	5/8" x 6"	3-3/4"	2"	25	75
POW 7336USA	5/8" x 7"	3-3/4"	2"	25	75
POW 7338USA	5/8" x 8-1/2"	3-3/4"	2"	25	75
POW 7340USA	3/4" x 4-1/4"	3-1/4"	2"	20	60
POW 7341USA	3/4" x 4-3/4"	3-1/4"	2"	20	60
POW 7342USA	3/4" x 5-1/2"	3-1/4"	2"	20	60
POW 7344USA	3/4" x 6-1/4"	3-1/4"	2"	20	60
POW 7346USA	3/4" x 7"	3-1/4"	2"	20	60
POW 7348USA	3/4" x 8-1/2"	3-1/4"	2"	10	40
POW 7349USA	3/4" x 10"	3-1/4"	2"	10	30



* The published size includes the diameter and the overall length of the anchor.

* Allow for fixture thickness plus one anchor diameter for the nut and washer thickness when selecting a length.

TYPE 316 STAINLESS STEEL

ITEM CODE	SIZE	MIN. EMBEDMENT	THREAD LENGTH	BOX QTY.	CTN. QTY.
POW 7600USA	1/4" x 1-3/4"	1-1/8"	3/4"	100	500
POW 7602USA	1/4" x 2-1/4"	1-1/8"	1-1/8"	100	500
POW 7604USA	1/4" x 3-1/4"	1-1/8"	1-1/8"	100	500
POW 7610USA	3/8" x 2-1/4"	1-1/2"	1-1/8"	50	250
POW 7612USA	3/8" x 2-3/4"	1-1/2"	1-1/8"	50	250
POW 7613USA	3/8" x 3"	1-1/2"	1-1/8"	50	250
POW 7614USA	3/8" x 3-1/2"	1-1/2"	1-1/8"	50	250
POW 7615USA	3/8" x 3-3/4"	1-1/2"	1-1/8"	50	250
POW 7616USA	3/8" x 5"	1-1/2"	1-1/8"	50	250
POW 7620USA	1/2" x 2-3/4"	2-1/4"	1-1/4"	50	200
POW 7622USA	1/2" x 3-3/4"	2-1/4"	1-1/4"	50	200
POW 7623USA	1/2" x 4-1/2"	2-1/4"	1-1/4"	50	200
POW 7624USA	1/2" x 5-1/2"	2-1/4"	1-1/4"	50	150
POW 7626USA	1/2" x 7"	2-1/4"	1-1/4"	25	100
POW 7630USA	5/8" x 3-1/2"	3-3/4"	2"	25	100
POW 7632USA	5/8" x 4-1/2"	3-3/4"	2"	25	100
POW 7633USA	5/8" x 5"	3-3/4"	2"	25	100
POW 7634USA	5/8" x 6"	3-3/4"	2"	25	75
POW 7636USA	5/8" x 7"	3-3/4"	2"	25	75
POW 7638USA	5/8" x 8-1/2"	3-3/4"	2"	25	75
POW 7640USA	3/4" x 4-1/4"	3-1/4"	2"	20	60
POW 7641USA	3/4" x 4-3/4"	3-1/4"	2"	20	60
POW 7642USA	3/4" x 5-1/2"	3-1/4"	2"	20	60
POW 7644USA	3/4" x 6-1/4"	3-1/4"	2"	20	60
POW 7646USA	3/4" x 7"	3-1/4"	2"	20	60
POW 7648USA	3/4" x 8-1/2"	3-1/4"	2"	10	40
POW 7652USA	7/8" x 8"	3-7/8"	2-1/4"	10	40
POW 7663USA	1" x 9"	4-1/2"	2-1/4"	10	30



* The published size includes the diameter and the overall length of the anchor.

* Allow for fixture thickness plus one anchor diameter for the nut and washer thickness when selecting a length.



www.shoptanner.com email: sales@tannerbolt.com 800 456-2658

4302 Glenwood Rd., Brooklyn, NY 11210 718 434-4500 Fax: 718 434-3215
60-01 55th Drive, Maspeth, NY 11378 718 786-2050 Fax: 718 228-7297

POWER-BOLT+ Heavy Duty Sleeve Anchors

The Power-Bolt+ anchor is a torque controlled, heavy duty sleeve style anchor which is designed for consistent performance in cracked and uncracked concrete. Suitable base materials include normal-weight concrete and sand-lightweight concrete. The anchor is manufactured with a zinc plated carbon steel bolt, sleeve, cone and expansion clip. The PB+ has a finished hex head.

- Consistent performance in high and low strength concrete
- Nominal drill bit size is the same as the anchor diameter
- Anchor can be installed through standard fixture holes
- Length ID code and identifying marking stamped on head of 1 anchor
- Design allows for follow-up expansion after setting under tensile loading
- Internal Grade 8 equivalent bolt is removable
- High shear load capacity

APPROVALS & LISTINGS

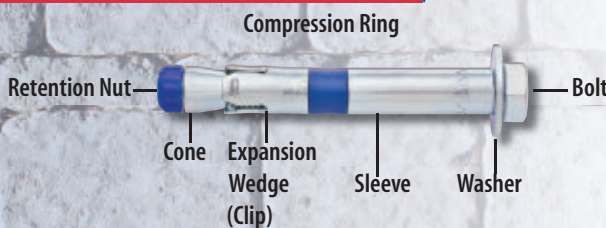
- International Code Council, Evaluation Service (ICC-ES), ESR-3260 for cracked and uncracked concrete -1/2", 5/8" and 3/4" diameters.
- Code compliant with 2015 IBC, 2015 IRC, 2012 IBC, 2012 IRC, 2009 IBC, 2009 IRC, 2006 IBC, and 2006 IRC.
- Tested in accordance with ACI 355.2 and ICC-ES AC193 (including ASTM E 488) for use in structural concrete under the design provisions of ACI 318 (Strength Design method using Appendix D)
- Evaluated and qualified by an accredited independent testing laboratory for recognition in cracked and uncracked concrete including seismic and wind loading (Category 1 anchors): 1/2", 5/8" and 3/4" diameters.

The information and data was current as of 2015.

MATERIAL SPECIFICATIONS

ANCHOR COMPONENT	SPECIFICATION
Bolt	Medium carbon steel (Grade 8 equivalent)
Washer	Conforms to ASTM F844
Cone	AISI C1035-C1040
Expansion Clip	AISI C1040-C1050
Metal Sleeve	Medium carbon steel tubing (seamless)
Compression Ring & Retainer Nut	Engineered plastic
Plating	Zinc plating according to ASTM B 633, SC1 Type III (Fe/Zn 5). Minimum plating requirements for Mild Service Condition.

ANCHOR ASSEMBLY



HEAD MARKING

Letter Code = Length Identification Mark
 "PB+" Symbol = Power-Bolt+ Strength Design Compliant



LENGTH IDENTIFICATION

MARK	A	B	C	D	E	F	G	H	I
From	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"
Up to but not including	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"
MARK	J	K	L	M	N	O	P	Q	R
From	6"	6-1/2"	7"	7-1/2"	8"	8-1/2"	9"	9-1/2"	10"
Up to but not including	6-1/2"	7"	7-1/2"	8"	8-1/2"	9"	9-1/2"	10"	11"

* Length identification mark indicates overall length of anchors.

POWER-BOLT+

Carbon Steel, Finished Hex Head



ITEM CODE	SIZE	MAX. FIXTURE THICKNESS	BOX QTY.	CTN. QTY.
POW 6902SD*	1/4" x 1-3/4"	1/2"	100	600
POW 6906SD*	1/4" x 3"	1-3/4"	100	600
POW 6910SD*	3/8" x 2-1/4"	1/4"	50	300
POW 6913SD*	3/8" x 3"	1"	50	300
POW 6914SD*	3/8" x 3-1/2"	1-1/2"	50	300
POW 6916SD*	3/8" x 4"	2"	50	300
POW 6930SD*	1/2" x 2-3/4"	1/4"	50	200
POW 6932SD	1/2" x 3-1/2"	1/4"	50	200
POW 6934SD	1/2" x 4-3/4"	1-1/2"	25	150
POW 6936SD	1/2" x 5-3/4"	2-1/2"	25	150
POW 6940SD*	5/8" x 3"	1/4"	20	120
POW 6942SD	5/8" x 4"	1/4"	15	90
POW 6944SD	5/8" x 5"	1-1/4"	15	90
POW 6945SD	5/8" x 6"	2-1/4"	15	90
POW 6947SD	5/8" x 8-1/2"	4-3/4"	10	40
POW 6950SD*	3/4" x 3-1/4"	1/4"	15	90
POW 6952SD*	3/4" x 4-1/4"	1-1/4"	10	60
POW 6954SD	3/4" x 5-1/4"	2-1/4"	10	60
POW 6956SD	3/4" x 7-1/4"	4-1/4"	10	40
POW 6958SD	3/4" x 8-1/4"	5-1/4"	10	40



- * Denote sizes which are less than the minimum standard anchor length for strength design or not included in ESR-3260.
- * The size includes the diameter and the length is measured from below the washer to the end of the anchor.

INSTALLATION SPECIFICATIONS

Anchor Property/ Setting Information	Units	Nominal Anchor Diameter (in.)				
		1/4	3/8	1/2	5/8	3/4
Anchor outside diameter	in. (mm)	0.250 (6.4)	0.375 (9.5)	0.500 (12.7)	0.625 (15.9)	0.750 (19.1)
Internal bolt diameter (UNC)	in. (mm)	#8 (4)	1/4 (6.4)	3/8 (9.5)	7/16 (11.1)	9/16 (14.3)
Nominal drill bit diameter	in.	1/4 ANSI	3/8 ANSI	1/2 ANSI	5/8 ANSI	3/4 ANSI
Minimum diameter of hole clearance in fixture	in. (mm)	5/16 (8)	7/16 (11)	9/16 (14)	11/16 (17)	13/16 (21)
Minimum nominal embedment depth	in. (mm)	1-1/4 (32)	2 (51)	2-1/2 (64)	2-3/4 (70)	3 (76.2)
Minimum hole depth	in. (mm)	1-1/2 (38)	2-1/4 (57)	3 (76)	3-1/4 (83)	3-5/8 (92)
Minimum member thickness	in. (mm)	3-1/2 (89)	4-1/2 (114)	5 (127)	6-1/2 (165)	7 (178)
Minimum edge distance	in. (mm)	1-3/4 (44)	2-3/4 (70)	3-1/4 (83)	4-1/2 (114)	6 (152)
Minimum spacing distance	in. (mm)	2 (51)	3-1/2 (89)	4-1/2 (114)	6 (152)	6 (152)
Installation torque	ft.-lbf. (N-m)	4 (5)	20 (27)	40 (54)	60 (81)	110 (149)
Torque wrench/socket size	in.	3/8	1/2	5/8	3/4	15/16
Bolt Head Height	in. (mm)	1/8 (3)	13/64 (5)	9/32 (7)	5/16 (8)	3/8 (10)

1 inch = 25.4 mm, 1 ft-lbf = 1.356 N-m.

POWER-BOLT®

Heavy Duty Sleeve Anchors

The Power-Bolt® anchor is a heavy duty sleeve style, self-undercutting anchor which is vibration resistant and removable. Power-Bolt® anchors are manufactured using a Grade 5 bolt with a hex or flat head and can be used in concrete, brick, block or stone.

Expansion occurs at two locations within the drilled hole. First the cone is

pulled into the expansion sleeve, developing a mid-level compression force. Further turning causes the threaded bolt to advance into the threads of the expander cone, forcing its four sections outward. This action undercuts the base material deep in the anchor hole, greatly increasing the holding power of the Power-Bolt®. The bolt and cone remain locked together which prevents loosening under even the most severe vibratory conditions.

POWER-BOLT® HEX HEAD

304 Stainless Steel

Stainless steel Power-Bolt® anchors are manufactured from 300 series stainless steel (passivated).



ITEM CODE	SIZE	DRILL DIA.	MIN. EMBEDMENT	BOX QTY.	CTN. QTY.
POW 05902	1/4" x 1-3/4"	1/4"	1-1/4"	100	600
POW 05906	1/4" x 3"	1/4"	1-1/4"	100	600
POW 05910	3/8" x 2-1/4"	3/8"	2"	50	300
POW 05914	3/8" x 3-1/2"	3/8"	2"	50	300
POW 05916	3/8" x 4"	3/8"	2"	50	300
POW 05930	1/2" x 2-3/4"	1/2"	2-1/2"	50	200
POW 05934	1/2" x 4-3/4"	1/2"	2-1/2"	25	150

• The published length is measured from below the washer to the end of the anchor.

POWER-BOLT® FLAT HEAD

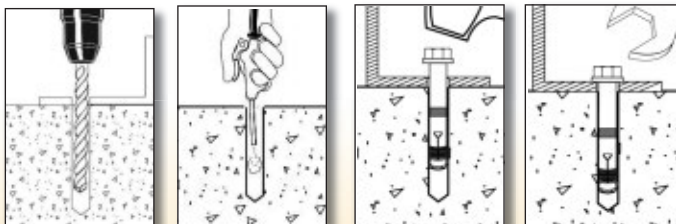
Carbon Steel, Zinc Plated

The flat head Power-Bolt™ anchor has a hex key insert formed in the head of the bolt. 1 box contains an Allen wrench which matches the insert size.



ITEM CODE	SIZE	DRILL DIA.	MIN. EMBEDMENT	BOX QTY.	CTN. QTY.
POW 06981	3/8" x 3-3/4"	3/8"	2"	50	300
POW 06982	3/8" x 5"	3/8"	2"	50	300
POW 06983	3/8" x 6"	3/8"	2"	50	300
POW 06984	1/2" x 5"	1/2"	2-1/2"	25	150
POW 06987	5/8" x 5-1/2"	5/8"	2-3/4"	15	90

INSTALLATION



Using the proper diameter bit, drill a hole into the base material to a depth of at least 1/2" or one anchor diameter deeper than the embedment required.

Blow the hole clean of dust and other material. Do not expand the anchor or advance the bolt in the anchor assembly prior to installation.

Drive the anchor through the fixture into the anchor hole until the bolt head is firmly seated against the fixture. Be sure the anchor is driven to the required embedment depth.

Tighten the anchor by turning the head 3 to 5 turns past finger tight or by applying the guide installation torque from the finger tight position.

MATERIAL SPECIFICATIONS

Anchor Component	Carbon Steel Flat Head	Stainless Hex Head
Internal Bolt	SAE Grade 5*	**Type 304 SS
Washer	N/A	Type 18-8 SS
Expander Sleeve	AISI 1010	Type 304 SS
Extension Sleeve	AISI 1010	Type 304 SS
Expander Cone	AISI 12L14	Type 303 SS
Compression Ring	Nylon	Nylon
Dust Cap	Nylon	Nylon
Zinc Plating	ASTM B 633, SC1, TYPE III (Fe/Zn 5) - Mild Service Condition	

* 1/4" and 5/16" diameter Power-Bolts are manufactured with SAE Grade 8 internal bolts.

** Manufactured with a minimum yield strength of 65,000 psi.

Stainless steel anchor components are passivated. The stainless steel expander cone is zinc plated.

LOK-BOLT AS™ Sleeve Type Expansion Anchor

The Lok-Bolt AS™ is an all steel pre-assembled single unit sleeve anchor which can be used in concrete and masonry units. Available in these head styles; Hex, Acorn Nut, Round, Combo Flat, Threshold Flat, Rod-Hanger & Tie-Wire. Extension sleeves can be added to create longer lengths.

- New compression sleeve crushes for tighter clamping forces.
- Fits easily through window and door jams without hanging up.
- One-piece all-steel design -- Immediate loading.
- Ideal for hollow or solid concrete masonry & normal weight concrete.

LOK-BOLT AS™ HEX NUT

Carbon Steel & Stainless Steel



ITEM CODE	SIZE	DRILL DIA.	BOX QTY.	CTN. QTY.
POW 05005S	5/16" x 1-1/2"	5/16"	100	1000
POW 05010S	5/16" x 2-3/8"	5/16"	100	500
POW 05015S	3/8" x 1-7/8"	3/8"	50	500
POW 05020S	3/8" x 3"	3/8"	50	500
POW 05022S	3/8" x 4"	3/8"	50	250
POW 05025S	1/2" x 2-1/2"	1/2"	25	250
POW 05030S	1/2" x 3"	1/2"	25	250
POW 05034S	1/2" x 3-3/4"	1/2"	25	125
POW 05033S	1/2" x 5-1/4"	1/2"	25	125
POW 05032S	1/2" x 6"	1/2"	10	100
POW 05035S	5/8" x 2-1/2"	5/8"	25	125
POW 05038S	5/8" x 3"	5/8"	25	125
POW 05040S	5/8" x 4-1/4"	5/8"	10	100
POW 05045S	5/8" x 5-3/4"	5/8"	10	100
POW 05050S	3/4" x 2-3/4"	3/4"	10	100
POW 05055S	3/4" x 4-1/4"	3/4"	10	40
POW 05060S	3/4" x 6-1/4"	3/4"	10	30
POW 05065S	3/4" x 8-1/4"	3/4"	10	30

• The published length is measured from below the washer to the end of the anchor.

LOK-BOLT AS™ ACORN NUT

Carbon Steel & Stainless Steel



ITEM NO.	SIZE	DRILL DIA.	BOX QTY.	CTN. QTY.
POW 05125S	1/4" x 5/8"	1/4"	100	1000
POW 05150S	1/4" x 1-3/8"	1/4"	100	1000
POW 05175S	1/4" x 2-1/4"	1/4"	100	1000

• The published length is measured from below the washer to the end of the anchor.

LOK-BOLT AS™ ROUND HEAD

Carbon Steel & Stainless Steel, Slotted



ITEM CODE	SIZE	DRILL DIA.	BOX QTY.	CTN. QTY.
POW 05205S	1/4" x 1-3/8"	1/4"	100	1000
POW 05210S	1/4" x 2-1/4"	1/4"	100	1000
POW 05215S	1/4" x 3"	1/4"	100	1000
POW 05220S	1/4" x 3-3/4"	1/4"	100	1000
POW 05225S	5/16" x 2-3/8"	5/16"	100	1000
POW 05230S	5/16" x 3-3/8"	5/16"	100	500
POW 05235S	3/8" x 2-3/4"	3/8"	50	500
POW 05240S	3/8" x 3-3/4"	3/8"	50	250

• The published length is measured from below the washer to the end of the anchor.

LOK-BOLT AS™ FLAT HEAD

Carbon Steel & Stainless Steel, Combo Drive



ITEM CODE	SIZE	DRILL DIA.	BOX QTY.	CTN. QTY.	ITEM CODE	BUCKET QTY.	
POW 05305S	1/4" x 1-1/2"	1/4"	100	1000	-	-	
POW 05310S	POW 06170S	1/4" x 2-1/4"	1/4"	100	1000	TB-552	1000
POW 05315S	POW 06172S	1/4" x 3"	1/4"	100	1000	TB-554	1000
POW 05320S		1/4" x 4"	1/4"	100	500	TB-556	500
POW 05325S		1/4" x 5-1/4"	1/4"	100	500		
POW 05330S		5/16" x 2-1/4"	5/16"	100	1000		
POW 05340S		3/8" x 2-3/4"	3/8"	50	300	TB-540	500
POW 05345S	POW 06174S	3/8" x 4"	3/8"	50	250	TB-542	500
POW 05350S	POW 06175S	3/8" x 5"	3/8"	50	250	TB-544	250
POW 05360S	POW 06176S	3/8" x 6"	3/8"	50	250	TB-545	250

LOK-BOLT AS™ THRESHOLD FLAT HEAD

Threshold, Carbon Steel



ITEM CODE	SIZE	DRILL DIA.	BOX QTY.	CTN. QTY.
POW 05500S	1/4" x 2"	1/4"	100	1000

LOK-BOLT AS™ ROD HANGER

Carbon Steel



ITEM CODE	SIZE	DRILL DIA.	BOX QTY.	CTN. QTY.
POW 05810S	1/4" x 1-1/2"	5/16"	50	250
POW 05815S	3/8" x 1-7/8"	3/8"	50	250
POW 05825S	1/2" x 2-1/4"	1/2"	25	125

LOK-BOLT AS™ TIE-WIRE

Carbon Steel



ITEM CODE	SIZE	DRILL DIA.	BOX QTY.	CTN. QTY.
POW 05700S	5/16" x 1-1/2"	5/16"	100	1000

LOK-BOLT AS™ EXTENDERS

Carbon Steel



ITEM CODE	SIZE	DRILL DIA.	BOX QTY.	CTN. QTY.
POW 05684S	3/8" x 1-1/4"	3/8"	50	500

ECONOMY

Sleeve Anchors

This sleeve anchor is a versatile medium-duty anchor available in carbon steel which can be used in concrete, masonry, grout-filled block and hollow block. Anchors should be installed with carbide tipped hammer drill bits.

ACORN NUT

Carbon Steel, Zinc Plated



ITEM CODE	SIZE	DRILL DIA.	BOX QTY.	ITEM CODE	BUCKET QTY.
SA14-58	1/4" x 5/8"	1/4"	100	-	-
SA14-138	1/4" x 1-3/8"	1/4"	100	TB-510	1000
SA14-214	1/4" x 2-1/4"	1/4"	100	TB-511	1000

HEX NUT

Carbon Steel, Zinc Plated



ITEM CODE	SIZE	DRILL DIA.	BOX QTY.	ITEM CODE	BUCKET QTY.
SH516-112	5/16" x 1-1/2"	5/16"	100	TB-520	1000
SH516-212	5/16" x 2-1/2"	5/16"	100	TB-522	500
SH38-178	3/8" x 1-7/8"	3/8"	50	TB-524	500
SH38-300	3/8" x 3"	3/8"	50	TB-526	500
SH38-400	3/8" x 4"	3/8"	50	TB-528	250
SH12-214	1/2" x 2-1/4"	1/2"	50	TB-530	250
SH12-300	1/2" x 3"	1/2"	25	TB-532	250
SH12-400	1/2" x 4"	1/2"	25	TB-534	125
SH12-600	1/2" x 6"	1/2"	25	TB-535	100
SH58-214	5/8" x 2-1/4"	5/8"	25	TB-536	125
SH58-300	5/8" x 3"	5/8"	25	TB-537	125
SH58-414	5/8" x 4-1/4"	5/8"	25	TB-538	100
SH58-600	5/8" x 6"	5/8"	20	TB-539	100
SH34-212	3/4" x 2-1/2"	3/4"	10	TB-541	100
SH34-414	3/4" x 4-1/4"	3/4"	10	TB-543	100
SH34-614	3/4" x 6-1/4"	3/4"	10	TB-545	50

Tanner offers its trademarked Bucket of Bolts!™ specially developed with the contractor in mind. Our best selling items are packaged in 3-1/2 gallon plastic pails with a sturdy handle and a reusable screw type top. The Tanner bucket prevents product loss at the jobsite due to spillage and broken cardboard boxes. Please look for the bucket logo throughout our catalog.



Don't Forget to Buy Carbide Drill Bits!
Please turn to pages 118-119



NYLON FRAME

Expansion Fixing Anchors



- Special functioning allows for use in solid and hollow building materials with an anchorage depth of just 50 mm, ensuring an economical fixing.
- The ETA approval covers use in a range of solid and hollow building materials, and guarantees a secure fixing.
- A specially developed combination of plugs & screws ensures the very best handling. The plug's noticeable hold, makes installation convenient.
- The extensive range with diameters of 6, 8 and 10 mm offers the right plug for every fixing.
- Nylon fixing anchors are approved for a variety of solid and hollow building materials, such as concrete, brick and thermal insulation blocks.



ITEM CODE	SIZE	DRIVE	MAX. FIXTURE THICKNESS	BOX QTY.	ITEM CODE	BUCKET QTY.
F1-46264	3/8" x 4"	T-40	2"	50	TB-905	500
F1-46265	3/8" x 4-1/2"	T-40	2-3/4"	50	-	-
F1-46266	3/8" x 5-1/2"	T-40	3-1/2"	50	TB-906	250
F1-46267	3/8" x 6-1/4"	T-40	4-5/16"	50	TB-907	250
F1-46268	3/8" x 7"	T-40	5-1/8"	50	-	-

S-PLUG

Nylon Expansion Fixing

- For use with wood, chipboard and self-tapping screws
- Anti-rotation lugs stop the plug rotating in the drill hole.
- The wide neck is subject to no expansion pressure and prevents surface damage to tiles and plaster.
- Temperature-resistant from -40° to +80°C.
- The plug's geometry allows the use of wood and chipboard screws between 2 and 16 mm.



ITEM CODE	DRILL HOLE DIA. MM.	MIN. DRILL HOLE DEPTH MM.	PLUG LENGTH/MIN. ANCHORING DEPTH MM.	BOX QTY.
S5	5	35	25	100
S6	6	40	30	100
S8	8	55	40	100
S10	10	70	50	50
S12	12	80	60	25
S16	16	100	80	10

ATOMIC+ UNDERCUT™ Heavy Duty Undercut Anchor

The Atomic+ Undercut anchor is for applications in cracked and uncracked concrete. They are available in standard ASTM A 36 steel, high strength ASTM A 193 Grade B7 high strength steel and Type 316 stainless steel designations. The Type 316 stainless steel version can be considered for exterior use and industrial applications where a high level of corrosion resistance is required. They are installed into a pre-drilled hole which has been

enlarged at the bottom in the shape of a reversed cone using the Powers Undercut drill bit. The result is an anchor which transfers load mainly through bearing, and unlike a typical expansion anchor is not dependent upon friction between the expansion sleeve and the concrete. Due to the use of a thick walled expansion sleeve, the load is distributed to a large area which can provide ductile behavior of the anchor even at relatively shallow embedments.

CODE LISTED
ICC-ES ESR-3067
CATEGORY 1
Cracked & Uncracked
Concrete

A 36 STEEL



ITEM CODE	NOMINAL ANCHOR DIA.	OVERALL LENGTH	REQUIRED UNDERCUT BIT	RECOMMENDED STOP BIT	ANCHOR TYPE	STD. BOX
POW 03100SD	3/8"	5-1/2"	POW 03200SD	POW 03220SD	Standard	20
POW 03102SD	3/8"	5-1/2"	"	*	Through bolt	20
POW 03108SD	1/2"	7"	POW 03201SD	POW 03222SD	Standard	15
POW 03110SD	1/2"	7"	"	*	Through bolt	15
POW 03120SD	5/8"	7-3/4"	POW 03202SD	POW 03225SD	Standard	10
POW 03122SD	5/8"	7-3/4"	"	*	Through bolt	10
POW 03132SD	3/4"	8-5/8"	POW 03203SD	POW 03228SD	Standard	8
POW 03134SD	3/4"	8-5/8"	"	*	Through bolt	8

A 193, GRADE B7 STEEL High Strength



ITEM CODE	NOMINAL ANCHOR DIA.	OVERALL LENGTH	REQUIRED UNDERCUT BIT	RECOMMENDED STOP BIT	ANCHOR TYPE	STD. BOX
POW 03104SD	3/8"	6-3/4"	POW 03200SD	POW 03221SD	Standard	20
POW 03106SD	3/8"	6-3/4"	"	*	Through bolt	20
POW 03112SD	1/2"	8"	POW 03201SD	POW 03223SD	Standard	15
POW 03114SD	1/2"	8"	"	*	Through bolt	15
POW 03116SD	1/2"	9-3/4"	"	POW 03224SD	Standard	15
POW 03118SD	1/2"	9-3/4"	"	*	Through bolt	15
POW 03124SD	5/8"	10-3/4"	POW 03202SD	POW 03226SD	Standard	10
POW 03126SD	5/8"	10-3/4"	"	*	Through bolt	10
POW 03128SD	5/8"	12-1/4"	"	POW 03227SD	Standard	10
POW 03130SD	5/8"	12-1/4"	"	*	Through bolt	10
POW 03136SD	3/4"	13-5/8"	POW 03203SD	POW 03229SD	Standard	8
POW 03138SD	3/4"	13-5/8"	"	*	Through bolt	8

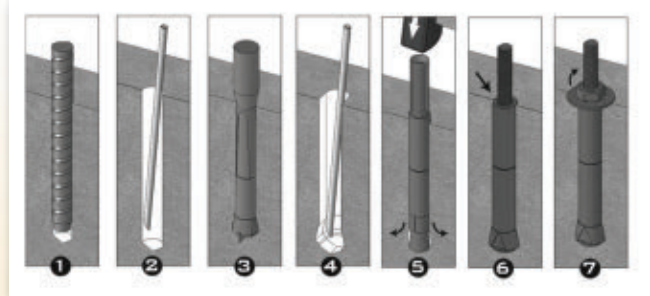
TYPE 316 STAINLESS STEEL



ITEM CODE	NOMINAL ANCHOR DIA.	OVERALL LENGTH	REQUIRED UNDERCUT BIT	RECOMMENDED STOP BIT	ANCHOR TYPE	STD. BOX
POW 03600SD	3/8"	5-1/2"	POW 03200SD	POW 03220SD	Standard	20
POW 03602SD	3/8"	5-1/2"	"	*	Through bolt	20
POW 03608SD	1/2"	7"	POW 03201SD	POW 03222SD	Standard	15
POW 03610SD	1/2"	7"	"	*	Through bolt	15
POW 03620SD	5/8"	7-3/4"	POW 03202SD	POW 03225SD	Standard	10
POW 03622SD	5/8"	7-3/4"	"	*	Through bolt	10
POW 03632SD	3/4"	8-5/8"	POW 03203SD	POW 03228SD	Standard	8
POW 03634SD	3/4"	8-5/8"	"	*	Through bolt	8

* For availability of all anchors lengths please contact Powers Fasteners.
* Contact Powers Fasteners for appropriate drilling method and hardware.

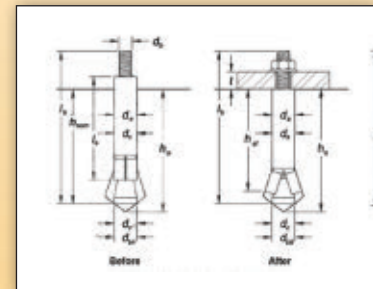
INSTALLATION



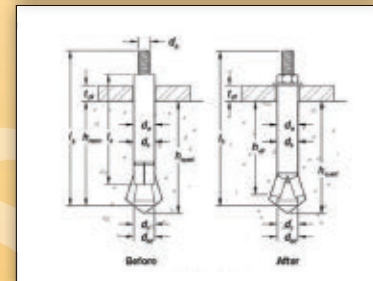
- 1.) Drill the hole to proper depth and diameter per specifications using rotohammer and stop drill.
- 2.) Clean the hole using a blow-out bulb or compressed air.
- 3.) Insert the undercut bit and start the rotohammer. Undercutting is complete when the stopper sleeve is fully compressed (gap closed)
- 4.) Clean the hole using a blow-out bulb or compressed air.
- 5.) Insert anchor into hole. Place setting sleeve over anchor and drive the expansion sleeve over the expansion coupling.
- 6.) Verify that the setting mark is visible on the threaded rod above the sleeve.
- 7.) Apply proper torque

INSTALLATION DETAIL

Before & After
Application of Setting
Sleeve & Attachment)



Standard Type
(Pre-set Version)



Through Bolt Type

ATOMIC+ UNDERCUT™ continued

STOP DRILL BITS

The Stop Drill Bit creates a drill hole to the proper depth for standard installations of the Atomic+ Undercut anchor (for through bolt applications contact Powers Fasteners for appropriate drilling method and hardware).

ITEM CODE	NOMINAL STOP DRILL BIT DIAMETER	CORRESPONDING NOMINAL ANCHOR DIAMETER	MAXIMUM DRILL DEPTH	SHANK TYPE	STD. TUBE
POW 03220SD	5/8	3/8	3-1/8"	SDS	1
POW 03221SD	5/8	3/8	4-3/8"	SDS	1
POW 03222SD	3/4	1/2	4-1/4"	SDS	1
POW 03223SD	3/4	1/2	5-1/4"	SDS	1
POW 03224SD	3/4	1/2	7"	SDS	1
POW 03225SD	1	5/8	5"	SDS-Max	1
POW 03226SD	1	5/8	8"	SDS-Max	1
POW 03227SD	1	5/8	9-1/2"	SDS-Max	1
POW 03228SD	1-1/8	3/4	5-13/16"	SDS-Max	1
POW 03229SD	1-1/8	3/4	10-13/16"	SDS-Max	1



UNDERCUT DRILL BITS

The Undercut Drill Bit has a unique design that enlarges the bottom of the drill hole creating a reverse cone sized to receive the Atomic+ Undercut anchor.



ITEM CODE	NOMINAL STOP DRILL BIT DIAMETER	CORRESPONDING NOMINAL ANCHOR DIAMETER	MAXIMUM DRILL DEPTH	SHANK TYPE	STD. TUBE
POW 03200SD	5/8"	3/8"	9"	SDS	1
POW 03201SD	3/4"	1/2"	10-1/4"	SDS	1
POW 03202SD	1"	5/8"	12-1/4"	SDS-Max	1
POW 03203SD	1-1/8"	3/4"	13-1/2"	SDS-Max	1

CUTTER BLADE REPLACEMENT

For Undercut Bits



ITEM CODE	DESCRIPTION	STD. TUBE
POW 03205SD	Atomic+ (3/8") Cutter Blade - 5/8"	1
POW 03206SD	Atomic+ (1/2") Cutter Blade - 3/4"	1
POW 03208SD	Atomic+ (5/8") Cutter Blade - 1"	1
POW 03209SD	Atomic+ (3/4") Cutter Blade - 1-1/8"	1

REPLACEMENT BOW JAWS



ITEM CODE	DESCRIPTION	STD. TUBE
POW 03212SD	3/8" Bow Jaw for 5/8" Hole	1
POW 03215SD	1/2" Bow Jaw for 3/4" Hole	1
POW 03216SD	5/8" Bow Jaw for 1" Hole	1
POW 03217SD	3/4" Bow Jaw for 1-1/8" Hole	1

SETTING SLEEVE

ITEM CODE	CORRESPONDING NOMINAL ANCHOR DIAMETER	STD. BOX
POW 03210SD	3/8"	1
POW 03211SD	1/2"	1
POW 03212SD	5/8"	1
POW 03213SD	3/4"	1



* Note: One Undercut Setting Sleeve is packaged with 1 box of Atomic+ Undercut anchors.

APPROVALS & LISTINGS

- International Code Council, Evaluation Service (ICC-ES), ESR-3067 Code compliant with the 2015 IBC, 2015 IRC, 2012 IBC, 2012 IRC, 2009 IBC, 2009 IRC, 2006 IBC, and 2006 IRC
- Tested in accordance with ACI 355.2/ASTM E488 and ICC-ES AC193 for use in structural concrete under the design provisions of ACI 318 (Strength Design method using Appendix D)
- Evaluated and qualified by an accredited independent testing laboratory for recognition in cracked and uncracked concrete including seismic and wind loading (Category 1 anchors)

The information and data was current as of 2015

LENGTH IDENTIFICATION

MARK	A	B	C	D	E	F	G	H	I
From	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"
Up to but not including	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"

MARK	J	K	L	M	N	O
From	6"	6-1/2"	7"	7-1/2"	8"	8-1/2"
Up to but not including	6-1/2"	7"	7-1/2"	8"	8-1/2"	9"

MARK	P	Q	R	S	T
From	9"	9-1/2"	10"	11"	12"
Up to but not including	9-1/2"	10"	11"	12"	13"

* Length identification mark indicates overall length of anchors.

HEAD MARKING

Letter Code = Length Identification Mark
 "+" Symbol = Strength Design Compliant Anchor



MATERIAL SPECIFICATIONS

Anchor Component	Standard	High Strength	Type 316
	ASTM A 36	ASTM A 193 Grade B7	Stainless Steel
Threaded Rod	ASTM A 36	ASTM A 193 Grade B7	Type 316 Stainless Steel
Expansion Coupling	ASTM A 108 12L14	ASTM A 108 12L14	Type 316 Stainless Steel
Expansion/Spacer Sleeve	ASTM A 513 Type 5	ASTM A 513 Type 5	Type 316 Stainless Steel
Hex Nuts	Carbon Steel, ASTM A 563, Grade A		Type 316 Stainless Steel ASTM A 563, Grade A
Washer	Carbon Steel, ASTM A 844; meets dimensional requirements of ANSI B18.2.2.2, Type A Plain		Type 316 Stainless Steel ASTM F 844, meets dimensional requirements ANSI B18.2.2.2, Type A
Plating	Zinc Plating according to ASTM B 633, SC1, TYPE III (Fe/Zn 5) Minimum plating requirement for Mild Service Condition		N/A

WEDGE-BOLT®+ Screw Anchors

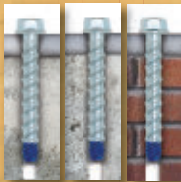
The Wedge-Bolt®+ anchor is a one piece, heavy duty screw anchor with a finished hex head. Simple to install, easy to identify and fully removable. It is designed for consistent and reliable performance in cracked and uncracked concrete, as well as grouted masonry.

- Wedge-Bolt+ is marked with a blue tip and must be installed with a matched tolerance Wedge-Bit.
- Consistent performance in high & low strength concrete.
- Anchor can be installed through standard fixture holes.
- Wedge-Bit size is same as the nominal anchor diameter.
- Fast installation with powered impact wrench.
- Diameter, length & identity marking stamped on head of 1 anchor.



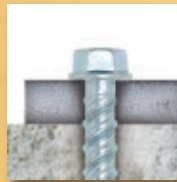
Concrete, Block, Brick

The Wedge-Bolt®+ anchor is versatile and can be used in a variety of base materials. This reduces the need to stock assorted anchor types and learn a variety of installation procedures.



Tight Fit matches standard fixture holes

The Blue Tip Wedge-Bolt®+ anchor is designed to match standard fixture clearance holes that are 1/16" over nominal to provide a secure fit. Since the Wedge-Bolt is specially matched to the clearance hole, the need for layout or hole spotting is eliminated.



Close to edge installation

The Wedge Bolt®+ anchor cuts a thread into the base material. Since there are no expansion forces, the Wedge-Bolt+ anchor can be installed closer to the edge than traditional mechanical anchors without damaging the base material.



Immediate high strength loading

The Wedge-Bolt®+ anchor can be loaded immediately. Unlike some adhesive anchors, there is no lengthy curing time. This allows for immediate completion of fastening applications.



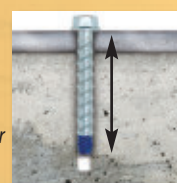
One-piece design

The Wedge-Bolt®+ anchor is a one-piece unit which features a finished hex head formed with an integral washer, a patented dual lead thread, and a chamfered tip. A one-piece design eliminates the possibility of lost anchor parts or improper assembly.



Shallow embedment depth

The Wedge-Bolt®+ anchor can be installed at shallower embedment depths than traditional wedge or sleeve anchors reducing the chance of striking reinforcing bars or embedded cables. Drilling time and bit wear can be reduced resulting in significant savings.



Removable and reusable

The Wedge-Bolt®+ anchor is easy to remove, leaving a neat clean hole. Unlike traditional anchors no grinding off of anchors is needed and no anchor components are left in the hole. If required Wedge-Bolts can be reinstalled in the same hole after adjustment of the fixture.



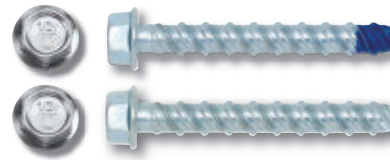
Diameter & length ID

Wedge-Bolt®+ anchors have both the diameter and length clearly embossed on the head of the anchor. This enables simple and easy inspection.



WEDGE-BOLT®+ HEX HEAD

Carbon Steel, Zinc Plated (w/Blue Tip) & Mechanically Galvanized



CODE LISTED
ICC-ES ESR-2526
CATEGORY 1
Cracked & Uncracked
Concrete

CODE LISTED
ICC-ES ESR-1678
Concrete Masonry
Units (CMU)

ITEM CODE	CARBON	GALVANIZED	DIAMETER SIZE & LENGTH	CLEARANCE HOLE DIA.	MIN. EMBED.	THREAD LENGTH	BOX QTY.	CTN. QTY.
POW 7204SD*			1/4" x 1-1/4"	5/16"	1"	1-1/8"	100	600
POW 7206SD*			1/4" x 1-3/4"	5/16"	1"	1-5/8"	100	600
POW 7207SD			1/4" x 2"	5/16"	1-3/4"	2"	100	600
POW 7208SD			1/4" x 2-1/4"	5/16"	1-3/4"	2"	100	600
POW 7210SD			1/4" x 3"	5/16"	1-3/4"	2-3/4"	100	500
POW 7220SD*			3/8" x 1-3/4"	7/16"	1-1/2"	1-1/2"	50	300
POW 7222SD			3/8" x 2-1/2"	7/16"	2-1/8"	2-1/4"	50	300
POW 7224SD			3/8" x 3"	7/16"	2-1/8"	2-3/4"	50	250
POW 7226SD	POW 7726SD		3/8" x 4"	7/16"	2-1/8"	3-3/4"	50	250
POW 7228SD	POW 7728SD		3/8" x 5"	7/16"	2-1/8"	3-3/4"	50	250
POW 7230SD	POW 7730SD		3/8" x 6"	7/16"	2-1/8"	3-3/4"	50	150
POW 7240SD*			1/2" x 2"	9/16"	1-3/4"	1-3/4"	50	200
POW 7242SD*			1/2" x 2-1/2"	9/16"	1-3/4"	2-1/4"	50	200
POW 7244SD			1/2" x 3"	9/16"	2-1/2"	2-3/4"	50	150
POW 7246SD	POW 7746SD		1/2" x 4"	9/16"	2-1/2"	3-3/4"	50	150
POW 7248SD	POW 7748SD		1/2" x 5"	9/16"	2-1/2"	3-3/4"	25	100
POW 7250SD	POW 7750SD		1/2" x 6"	9/16"	2-1/2"	3-3/4"	25	75
POW 7268SD	POW 7751SD		1/2" x 6-1/2"	9/16"	2-1/2"		25	75
POW 7252SD	POW 7752SD		1/2" x 8"	9/16"	2-1/2"		25	75
POW 7260SD			5/8" x 3"	11/16"	2-1/2"	2-3/4"	25	100
POW 7262SD			5/8" x 4"	11/16"	3-1/4"	3-3/4"	25	100
POW 7264SD	POW 7764SD		5/8" x 5"	11/16"	3-1/4"	3-3/4"	25	75
POW 7266SD	POW 7766SD		5/8" x 6"	11/16"	3-1/4"	3-3/4"	25	75
	POW 7768SD		5/8" x 6-1/2"				25	75
POW 7270SD	POW 7770SD		5/8" x 8"	11/16"	3-1/4"		25	75

- * Sizes which are less than the minimum standard anchor length for strength design
- Length of the anchor measured from under the head

• Wedge-Bolt+ is marked with a blue tip and must be installed with a matched tolerance Wedge-Bit.

Don't Forget to Buy Wedge-Bits! Please turn to page 101

APPROVALS & LISTINGS

- International Code Council, Evaluation Service (ICC-ES), ESR-2526 for concrete. Code compliant with the 2015 IBC, 2015 IRC, 2012 IBC, 2012 IRC, 2009 IBC, 2009 IRC, 2006 IBC, 2006 IRC.
- International Code Council, Evaluation Service (ICC-ES), ESR-1678 for concrete masonry code compliant with the 2012 IBC, 2012 IRC, 2009 IBC, 2009 IRC, 2006 IBC, 2006 IRC.
- Tested in accordance with ACI 355.2 and ICC-ES AC193 for use in structural applications in concrete under the design provisions of ACI 318 (Strength Design method using Appendix D)
- Evaluated and qualified by an accredited independent testing laboratory for recognition in cracked and uncracked concrete including seismic and wind loading (Category 1 anchors)
- Evaluated and qualified by an accredited independent testing laboratory for reliability against brittle failure, e.g. hydrogen embrittlement
- Tested in accordance with ASTM E488 and AC106 criteria

MATERIAL SPECIFICATIONS

Anchor Component	Specification
Anchor body & hex washer head	Case hardened carbon steel
Plating	Zinc plating according to ASTM B 633, SC1, Type III (Fe/Zn 5) Minimum plating requirement for Mild Service Condition Mechanically galvanized zinc plating according to ASTM B 695, Class 55

WEDGE-BOLT® Screw Anchors

WEDGE-BOLT® HEX HEAD 316 Stainless Steel

The 316 stainless steel anchor is a one piece, heavy duty screw anchor, simple to install, easy to identify, fully removable and vibration resistant.

- Excellent corrosion resistance for exterior & highly corrosive applications
- Installs closer to an edge than traditional stainless expansion anchors
- Fast installation & immediate loading through standard fixture holes
- Removable and will not leave components in the hole (can be re-installed in original hole)



ITEM CODE	DIAMETER SIZE & LENGTH	CLEARANCE HOLE DIA.	MIN. EMBED.	THREAD LENGTH	BOX QTY.	CTN. QTY.
POW 07870	1/4" x 2"	5/16"	1-3/4"	1-3/4"	100	600
POW 07872	1/4" x 3"	5/16"	1-3/4"	2-3/4"	100	500
POW 07876	1/4" x 4"	5/16"	1-3/4"	2-3/4"	100	500
POW 07878	1/4" x 5"	5/16"	1-3/4"	2-3/4"	100	500
POW 07880	3/8" x 2-1/2"	7/16"	2"	2-1/4"	50	300
POW 07882	3/8" x 3"	7/16"	2"	2-1/4"	50	250
POW 07884	3/8" x 4"	7/16"	2"	3-1/2"	50	250
POW 07886	3/8" x 5"	7/16"	2"	3-1/2"	50	250
POW 07888	1/2" x 3"	9/16"	2-1/2"	2-3/4"	50	150
POW 07890	1/2" x 4"	9/16"	2-1/2"	2-3/4"	50	150
POW 07892	1/2" x 5"	9/16"	2-1/2"	3-3/4"	25	100
POW 07894	1/2" x 6"	9/16"	2-1/2"	3-3/4"	25	75

* The published length is measured from below the washer to the end of the anchor.

* 316 Stainless Steel Wedge-Bolt has a blue marking and must be installed with a matched tolerance Wedge-Bit.

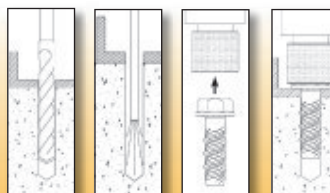
INSTALLATION SPECIFICATIONS

Anchor Property / Setting Information	Units	Nominal Anchor Diameter		
		1/4"	3/8"	1/2"
Anchor diameter	in. (mm)	0.250 (6.4)	0.375 (9.5)	0.500 (12.7)
Minimum diameter of hole clearance in fixture	in. (mm)	5/16 (7.9)	7/16 (11.1)	9/16 (14.3)
Nominal drill bit diameter	in.	1/4 Wedge-Bit	3/8 Wedge-Bit	1/2 Wedge-Bit
Min. nominal embedment depth	in. (mm)	1-3/4 (44)	2 (51)	2-3/4 (70)
Minimum hole depth	in. (mm)	2 (51)	2-1/4 (57)	3 (77)
Minimum overall anchor length	in. (mm)	2 (51)	2-1/2 (64)	3 (76)
Maximum impact wrench power (torque)	ft.-lbf. (N-m)	115 (156)	245 (332)	300 (407)
Torque wrench/socket size	in.	7/16	9/16	3/4
Head height	in.	7/32	21/64	7/16

For SI: 1 inch = 25.4 mm, 1 ft-lbf = 1.356 N-m.

INSTALLATION

- Using the proper Wedge-Bit size, drill a hole into the base material to the required depth. The tolerances of the carbide Wedge-Bit used must meet the requirements of the published Wedge-Bit range.
- Remove dust and debris from the hole
- Select a powered impact wrench that does not exceed the maximum torque for the selected anchor diameter.



The anchor should be snug after installation. Do not spin the hex socket off the anchor to disengage.

Attach an appropriate sized hex socket to the impact wrench. Mount the screw anchor head into the socket.

- Drive the anchor through the fixture and into the hole until the head of the anchor comes into contact with the fixture.

WEDGE-BIT™

SDS, SPLINE, SDS-MAX, HD STRAIGHT SHANK

For proper performance, the Wedge-Bolt anchors must be installed with a Wedge-Bit. The Wedge-Bit has a special matched tolerance range designed to provide optimum performance for the anchor. The available shank styles and sizes are listed below.

ITEM CODE	DESCRIPTION	USABLE LENGTH	POUCH QTY.
POW 01312	SDS 1/4" x 4"	2"	1
POW 01314	SDS 1/4" x 6"	4"	1
POW 01315	SDS 1/4" x 8"	6"	1
POW 01316	SDS 3/8" x 6"	4"	1
POW 01318	SDS 3/8" x 8"	6"	1
POW 01332	SDS 3/8" x 12"	10"	1
POW 01319	SDS 3/8" x 18"	16"	1
POW 01320	SDS 1/2" x 6"	4"	1
POW 01322	SDS 1/2" x 10"	8"	1
POW 01334	SDS 1/2" x 12"	10"	1
POW 01335	SDS 1/2" x 18"	16"	1
POW 01324	SDS 5/8" x 8"	6"	1
POW 01326	SDS 5/8" x 12"	10"	1
POW 01336	SDS 5/8" x 18"	16"	1
POW 01328	SDS 3/4" x 8"	6"	1
POW 01330	SDS 3/4" x 12"	10"	1



SDS

POW 01340	Spline 1/2" x 13"	8"	1
POW 01342	Spline 1/2" x 16"	11"	1
POW 01344	Spline 5/8" x 13"	8"	1
POW 01348	Spline 3/4" x 13"	8"	1
POW 01354	SDS-Max 1/2" x 13"	8"	1
POW 01356	SDS-Max 5/8" x 13"	8"	1
POW 01358	SDS-Max 3/4" x 13"	8"	1



SPLINE

POW 01370	HD Straight Shank 1/4" x 4"	2-3/4"	1
POW 01372	HD Straight Shank 1/4" x 6"	4"	1
POW 01380	HD Straight Shank 3/8" x 6"	4"	1
POW 01384	HD Straight Shank 3/8" x 13"	11"	1
POW 01390	HD Straight Shank 1/2" x 6"	4"	1
POW 01394	HD Straight Shank 1/2" x 13"	11"	1
POW 01396	Straight Shank 5/8" x 13"	11"	1
POW 01397	HD Straight Shank 3/4" x 13"	11"	1



SDS-MAX

HD STRAIGHT SHANK

TAPPER+

Concrete Screw Anchors

The Tapper+ fastening system is a complete family of screw anchors for light to medium duty applications in concrete, masonry block, brick, and wood base materials. The Tapper+ is fast and easy to install and provides a neat, finished appearance. The Tapper+ screw anchor is engineered with matched tolerance drill bits and installation tools designed to meet the needs of the user and also provide optimum performance.

The Tapper+ features a gimlet point for self-drilling into wood base materials without pre-drilling. The Tapper+ screw anchor is available in carbon steel with a Perma-Seal climate coating in several colors. Head styles include a slotted hex washer head, Phillips flat head, trim Phillips flat head and Hex flange washer head.



APPROVALS & LISTINGS

- International Code Council, Evaluation Service (ICC-ES), ESR-3068 for uncracked concrete (including FBC supplement), ESR-3196 for masonry, ESR-3042 for wood, ESR-3213 for chemically treated lumber.
- Code compliant with the 2012 IBC, 2012 IRC, 2009 IBC, 2009 IRC, 2006 IBC, and 2006 IRC.
- Tested in accordance with ACI 355.2 and ICC-ES AC193 (including ASTM E 488) for use in structural concrete, ICC-ES AC106 for use in masonry, ICC-ES AC233 for use in wood, and ICC-ES AC257 for use in pressure treated lumber
- Evaluated and qualified by an accredited independent testing laboratory for reliability against brittle failure, e.g. hydrogen embrittlement
- Miami-Dade County Notice of Acceptance (NOA) 15-0629.06

HEAD MARKING

- 'P' Marking = Powers Tapper +
- '+' Symbol = Strength Design Compliant Anchor Length Identification Mark
- ★ = 5/16" Diameter Identification mark



LENGTH IDENTIFICATION

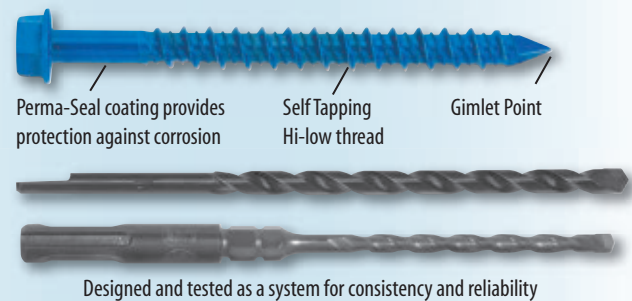
MARK	A	B	C	D	E	F	G	H	I	J
From	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"
Up to but not including	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"	6-1/2"

* Length identification mark indicates overall length of anchors.

INSTALLATION SPECIFICATIONS

Dimensions	HEX HEAD			FLAT HEAD		
	Anchor Diameter 3/16"	Anchor Diameter 1/4"	Anchor Diameter 5/16"	Anchor Diameter 3/16"	Anchor Diameter 1/4"	Anchor Diameter 5/16"
Tapper+ Drill Bit Size	5/32"	3/16"	1/4"	5/32"	3/16"	1/4"
Fixture, Clearance Hole	1/4"	5/16"	5/16"	1/4"	5/16"	5/16"
Head Height	7/64"	9/64"	1/4"	-	-	-
Hex Head Wrench/Socket Size	1/4"	5/16"	5/16"	-	-	-
Washer O.D.	11/32"	13/32"	9/16"	-	-	-
Washer Thickness	1/32"	1/32"	1/16"	-	-	-
Phillips Head O.D.	-	-	-	3/8"	1/2"	9/16"
Phillips Head Height	-	-	-	9/64"	3/16"	9/32"
Phillips Bit Size	-	-	-	2	3	3

MATCHED TOLERANCE SYSTEM

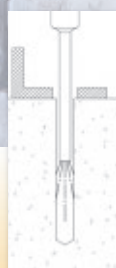


Designed and tested as a system for consistency and reliability

INSTALLATION



1.) Using the proper Tapper+ drill bit size, drill a hole into the base material to the required depth. The tolerances of the Tapper+ bit used must meet the requirements of the published range in Table 1.



2.) Remove dust and debris from hole using hand pump, compressed air or a vacuum to remove loose particles left from drilling.



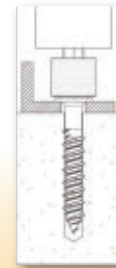
3.) For 3/16" and 1/4" sizes, attach a Tapper 1000 installation socket tool for the selected anchor size to a percussion drill and set the drill to rotary only mode. Mount the screw anchor head into the socket. For flat-head versions a phillips bit tip must be used with the socket tool.



For the 5/16" size, select a powered impact wrench that does not exceed the maximum torque for the selected anchor diameter. Attach an appropriate sized hex socket or phillips bit to the impact wrench. Mount the screw anchor head into the socket or phillips bit.



4.) For 3/16" and 1/4" sizes, place the point of the Tapper+ anchor through the fixture and drive the anchor until it is fully seated at the proper embedment. The socket tool will automatically disengage from the head of the Tapper+.



For the 5/16" size, drive the anchor with an impact wrench through the fixture and into the hole until the head of the anchor comes into contact with the fixture. The anchor must be snug after installation. Do not spin the hex socket or phillips bit off the anchor to disengage.

TAPPER+

Concrete Screw Anchors

BLUE PERMA-SEAL TAPPER+

Standard Pack*



ITEM CODE		SCREW SIZE	BOX QTY.	CTN. QTY.
HEX WASHER HEAD	PHILLIPS FLAT HEAD			
POW 2700SD*	POW 2740SD*	3/16" x 1-1/4"	100	500
POW 2702SD*	POW 2742SD*	3/16" x 1-3/4"	100	500
POW 2704SD	POW 2744SD	3/16" x 2-1/4"	100	500
POW 2706SD	POW 2746SD	3/16" x 2-3/4"	100	500
POW 2708SD	POW 2748SD	3/16" x 3-1/4"	100	500
POW 2710SD	POW 2750SD	3/16" x 3-3/4"	100	500
POW 2712SD	POW 2752SD	3/16" x 4"	100	500
POW 2720SD*	POW 2760SD*	1/4" x 1-1/4"	100	500
POW 2722SD*	POW 2762SD*	1/4" x 1-3/4"	100	500
POW 2724SD	POW 2764SD	1/4" x 2-1/4"	100	500
POW 2726SD	POW 2766SD	1/4" x 2-3/4"	100	500
POW 2728SD	POW 2768SD	1/4" x 3-1/4"	100	500
POW 2730SD	POW 2770SD	1/4" x 3-3/4"	100	500
POW 2732SD	POW 2772SD	1/4" x 4"	100	500
POW 2734SD	POW 2774SD	1/4" x 5"	100	100
	POW 2776SD	1/4" x 6"	100	100

* Denote sizes which are less than the minimum standard anchor length for strength design.

* - One Tapper+ drill bit included in 1 standard box.

BLUE PERMA-SEAL TAPPER+

Master Pack**

ITEM CODE		SCREW SIZE	QUANTITY	DRILL BIT REFERENCES
HEX WASHER HEAD	PHILLIPS FLAT HEAD			STRAIGHT SDD HEX
POW 9462SD*	POW 9476SD*	3/16" x 1-1/4"	2000	2781 2793
POW 9463SD*	POW 9477SD*	3/16" x 1-3/4"	2000	2781 2793
POW 9464SD	POW 9478SD	3/16" x 2-1/4"	2000	2782 2793
POW 9465SD	POW 9479SD	3/16" x 2-3/4"	2000	2782 2793
POW 9466SD	POW 9480SD	3/16" x 3-1/4"	1000	2783 2794
POW 9467SD	POW 9481SD	3/16" x 3-3/4"	1000	2783 2794
POW 9468SD	POW 9482SD	3/16" x 4"	1000	2783 2794
POW 9469SD*	POW 9483SD*	1/4" x 1-1/4"	2000	2785 2796
POW 9470SD*	POW 9484SD*	1/4" x 1-3/4"	2000	2785 2796
POW 9471SD	POW 9485SD	1/4" x 2-1/4"	1000	2786 2796
POW 9472SD	POW 9486SD	1/4" x 2-3/4"	1000	2786 2796
POW 9473SD	POW 9487SD	1/4" x 3-1/4"	1000	2787 2797
POW 9474SD	POW 9488SD	1/4" x 3-3/4"	1000	2787 2797
POW 9475SD	POW 9489SD	1/4" x 4"	1000	2787 2797
	POW 9490SD	1/4" x 5"	1000	2788 2797
	POW 9491SD	1/4" x 6"	1000	2789 2797

** - Drill bit not included with master pack.

* Denote sizes which are less than the minimum standard anchor length for strength design.

CARBIDE DRILL BITS

Straight Shank



ITEM CODE	SIZE	USABLE LENGTH	STD. TUBE
POW 02781SD	5/32" x 3-1/2"	2"	10
POW 02782SD	5/32" x 4-1/2"	3"	10
POW 02783SD	5/32" x 5-1/2"	4"	10
POW 02785SD	3/16" x 3-1/2"	2"	10
POW 02786SD	3/16" x 4-1/2"	3"	10
POW 02787SD	3/16" x 5-1/2"	4"	10
POW 02788SD	3/16" x 6-1/2"	5"	10
POW 02789SD	3/16" x 7-1/2"	6"	10

CARBIDE DRILL BITS

Hex Shank SDS-Plus



ITEM CODE	SIZE	USABLE LENGTH	STD. TUBE
POW 02793SD	5/32" x 5"	3"	1
POW 02794SD	5/32" x 7"	4"	1
POW 02796SD	3/16" x 5"	3"	1
POW 02797SD	3/16" x 7"	4"	1

INSTALLATION TOOLS

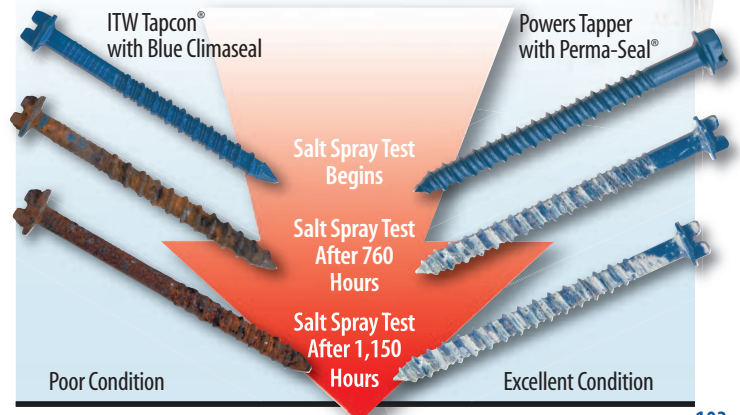
for 3/16" and 1/4" Tapper+



ITEM CODE	DESCRIPTION	MAX. SCREW LENGTH	MAX. BIT LENGTH	STD. BOX
POW 02791	Combo Tapper 1000 Tool	4"	5-1/2"	1
POW 02795	1000 SDS Extension (8")	6"	7-1/2"	1

CORROSION RESISTANCE

Comparison



5/16" TAPPER+ XTREME Concrete Screws

The new Tapper+ Xtreme concrete screw is fully threaded in lengths up to 3-1/4" for light gauge metal attachment to CMU. Available in a choice of 4 head styles including hex flange head, trim hex head, flat and trim flat. Tapper+ Xtreme has been tested to meet ICC-ES Standards for uncracked concrete.



- One piece self-tapping concrete screw ideally suited for extreme weather environment.
- Improved its durability and strength by thickening the core and broadening the thread.
- Applications include; metal door frames, hand rails, exterior electric fixtures, screens and more
- Added core makes it ideal for retrofitting

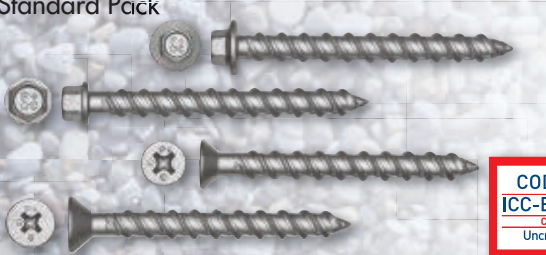


APPROVALS & LISTINGS

- International Code Council, Evaluation Service (ICC-ES), ESR-3068 for uncracked concrete (including FBC supplement), ESR-3196 for masonry, ESR-3042 for wood, ESR-3213 for chemically treated lumber.
- Code compliant with the 2012 IBC, 2012 IRC, 2009 IBC, 2009 IRC, 2006 IBC, and 2006 IRC.
- Tested in accordance with ACI 355.2 and ICC-ES AC193 (including ASTM E 488) for use in structural concrete, ICC-ES AC106 for use in masonry, ICC-ES AC233 for use in wood, and ICC-ES AC257 for use in pressure treated lumber
- Evaluated and qualified by an accredited independent testing laboratory for reliability against brittle failure, e.g. hydrogen embrittlement
- Miami-Dade County Notice of Acceptance (NOA) 15-0629.06

SILVER PERMA-SEAL

Standard Pack



CODE LISTED
ICC-ES ESR-3068
CATEGORY 1
Uncracked Concrete

ITEM CODES							
HEX WASHER HEAD	TRIM HEX HEAD	PHILLIPS FLAT HEAD	TRIM FLAT HEAD	SCREW SIZE	BOX QTY.	CTN. QTY.	
POW 2200SD	POW 2230SD		POW 2240SD	5/16" x 1-3/4"	100	500	
POW 2202SD	POW 2232SD	POW 2212SD	POW 2242SD	5/16" x 2-1/4"	100	500	
POW 2204SD	POW 2234SD	POW 2214SD	POW 2244SD	5/16" x 2-3/4"	100	500	
POW 2206SD	POW 2236SD	POW 2216SD	POW 2246SD	5/16" x 3-1/4"	100	500	
POW 2208SD	POW 2238SD	POW 2218SD	POW 2248SD	5/16" x 4"	100	500	
POW 2210SD		POW 2220SD	POW 2250SD	5/16" x 5"	100	500	
		POW 2222SD		5/16" x 6"	100	500	

INSTALLATION TOOLS

for Tapper+ Xtreme

ITEM CODE	DESCRIPTION	STD. BOX
POW 2291SD	Tapper+ Xtreme Installation Kit includes: #3 Phillips Impact Power Bit, 5/16" Impact Ready Nut Driver 14" x 6" SDS+ Tapper+/Wedge Bit, 14" x 8" Wedge Bit SDS+	1

TAPPER

Stainless Steel Concrete Screws

410 Stainless Steel

- Screen Enclosures
- Storm Shutters
- Exterior Metal Lighting Fixtures
- Light Duty Industrial Applications

TYPE 410 STAINLESS STEEL

Hex Head & Flat Head



HEX WASHER HEAD	ITEM CODE	SCREW SIZE	BOX QTY.	CTN. QTY.	WT./100	DRILL BIT REFERENCES	
						STRAIGHT	SDD HEX
	POW 04185	3/16" x 1-1/4"	100	500	1-1/2	02781	02793
	POW 04186	3/16" x 1-3/4"	100	500	1-3/4	02781	02793
	POW 04187	3/16" x 2-1/4"	100	500	2	02782	02793
	POW 04188	3/16" x 2-3/4"	100	500	2-3/4	02782	02793
	POW 04110	1/4" x 1-1/4"	100	500	2-3/4	02785	02796
	POW 04112	1/4" x 1-3/4"	100	500	2-3/4	02785	02796
	POW 04114	1/4" x 2-1/4"	100	500	2-3/4	02786	02796
	POW 04116	1/4" x 2-3/4"	100	500	2-3/4	02786	02796
	POW 04117	1/4" x 3-1/4"	100	500	2-3/4	02785	02796
	POW 04119	1/4" x 3-3/4"	100	500	2-3/4	02785	02796
	POW 04127	1/4" x 4"	100	500	2-3/4	02786	02797
	POW 04128	1/4" x 5"	100	500	2-3/4	02788	
	POW 04129	1/4" x 6"	100	500	2-3/4	02788	

• Packaging contains 1 drill bit per box.

INSTALLATION SPECIFICATIONS

410 Stainless Steel Tapper

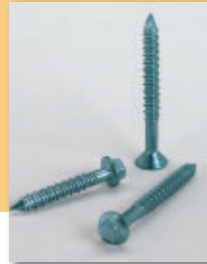
Dimensions	Anchor Diameter	
	1/4" HEX	1/4" PFH
Tapper Drill Bit Size	3/16"	3/16"
Fixture, Clearance Hole	5/16"	5/16"
Thread Size (UNC)	1/4"-14	1/4"-14
Head Height	9/64"	3/16"
Hex Width	5/16"	1/2" O.D.
Washer O.D.	13/32"	N/A
Washer Thickness	1/32"	N/A
Hex Driver/Phillips Driver	3/8"	#3

MATERIAL SPECIFICATIONS

Anchor Component	410 Stainless Steel
Anchor body	Type 410 Stainless Steel
Coating/Plating/Finish	Class 4 Sealcoat (1500 hour rating for ASTM B 117 salt test, 20 hour rating for DIN 500018.2.05 kestemich-test undamaged coating reference). For consideration for exterior applications.

ULTRACON® Masonry Concrete Screws

The system consists of three elements: cold formed carbon steel concrete screws, precision-cut carbide drill bits and high-quality installation tools. When all three parts of the system are used, consistent performance and maximum pull-out strengths can be realized.



- Quick installation, 2 to 3 fasteners per minute.
- Blue Stalgard® Stalgard coating provides 1000 hours of salt spray resistance (per ASTM B117)
- Twin-lead threads mechanically link to masonry, increasing joint integrity.



5/16" HEX WASHER HEAD

Slotted Blue Stalgard®

ITEM CODE	SIZE	BOX QTY.
ELC ELE300*	3/16" x 1-1/4"	100
ELC ELE310	3/16" x 1-3/4"	100
ELC ELE320	3/16" x 2-1/4"	100
ELC ELE330	3/16" x 2-3/4"	100
ELC ELE340	3/16" x 3-1/4"	100
ELC ELE350	3/16" x 3-3/4"	100
ELC ELE360	3/16" x 4"	100
ELC ELE405*	1/4" x 1-1/4"	100
ELC ELE415*	1/4" x 1-3/4"	100
ELC ELE425*	1/4" x 2-1/4"	100
ELC ELE435*	1/4" x 2-3/4"	100
ELC ELE445	1/4" x 3-1/4"	100
ELC ELE455	1/4" x 3-3/4"	100
ELC ELE465	1/4" x 4"	100
ELC ELE475*	1/4" x 5"	100
ELC ELE485*	1/4" x 6"	100

- * Available in Silver Stalgard® finish
- Note: All fasteners are packed 100/bx with one drill bit



FLAT HEAD PHILLIPS BLUE STALGARD®

ITEM CODE	SIZE	BOX QTY.
ELC ELF305*	3/16" x 1-1/4"	100
ELC ELF315*	3/16" x 1-3/4"	100
ELC ELF325*	3/16" x 2-1/4"	100
ELC ELF335*	3/16" x 2-3/4"	100
ELC ELF345*	3/16" x 3-1/4"	100
ELC ELF355*	3/16" x 3-3/4"	100
ELC ELF365	3/16" x 4"	100
ELC ELF400*	1/4" x 1-1/4"	100
ELC ELF410*	1/4" x 1-3/4"	100
ELC ELF420*	1/4" x 2-1/4"	100
ELC ELF430*	1/4" x 2-3/4"	100
ELC ELF440*	1/4" x 3-1/4"	100
ELC ELF450*	1/4" x 3-3/4"	100
ELC ELF460	1/4" x 4"	100
ELC ELF470	1/4" x 5"	100
ELC ELF480	1/4" x 6"	100

- * Available in Silver Stalgard® finish
- Note: All fasteners are packed 100/bx with one drill bit



HEX WASHER HEAD & FLAT HEAD PHILLIPS

Blue Stalgard®



ITEM CODE		SIZE	BUCKET QTY.
HEX WASHER HEAD	FLAT HEAD PHILLIPS		
TB-850	TB-870	3/16" x 1-1/4"	5000
TB-851	TB-871	3/16" x 1-3/4"	3000
TB-852	TB-872	3/16" x 2-1/4"	2000
TB-853	TB-873	3/16" x 2-3/4"	1500
TB-854	TB-874	3/16" x 3-1/4"	1000
TB-855	TB-875	3/16" x 3-3/4"	1000
TB-856	TB-876	3/16" x 4"	1000
TB-857	TB-877	1/4" x 1-1/4"	3000
TB-858	TB-878	1/4" x 1-3/4"	2000
TB-859	TB-879	1/4" x 2-1/4"	1500
TB-860	TB-880	1/4" x 2-3/4"	1000
TB-861	TB-881	1/4" x 3-1/4"	1000
TB-862	TB-882	1/4" x 3-3/4"	1000
TB-863	TB-883	1/4" x 4"	1000



Tanner offers its trademarked *Bucket of Bolts!* specially developed with the contractor in mind. Our best selling items are packaged in 3-1/2 gallon plastic pails with a sturdy handle and a reusable screw type top. The Tanner bucket prevents product loss at the jobsite due to spillage and broken cardboard boxes. Please look for the bucket logo throughout our catalog.

INSTALLATION TOOLS



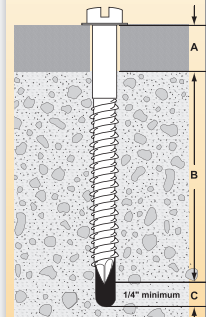
ITEM CODE	DESCRIPTION
ELC ELP100	Two piece for all sizes and head styles

ELCO DRILL BITS

Tanged and SDS

ITEM CODE	DESCRIPTION	SIZE	TUBE QTY.
ELC ELT300	Tanged	5/32" x 3-1/2"	10
ELC ELT310	Tanged	5/32" x 4-1/2"	10
ELC ELT320	Tanged	5/32" x 5-1/2"	10
ELC ELT535	SDS	5/32" x 5"	10
ELC ELT555	SDS	5/32" x 7"	10
ELC ELT405	Tanged	3/16" x 3-1/2"	10
ELC ELT415	Tanged	3/16" x 4-1/2"	10
ELC ELT630	SDS	3/16" x 5"	10
ELC ELT425	Tanged	3/16" x 5-1/2"	10
ELC ELT435	Tanged	3/16" x 6-1/2"	10
ELC ELT650	SDS	3/16" x 7"	10
ELC ELT445	Tanged	3/16" x 7-1/2"	10

A = Attachment thickness
 B = UltraCon® embedment (min. of 1"; max. of 1-3/4")
 A+B = UltraCon® length (must be at least 1/4" deeper than UltraCon® embedment)
 B+C = Hole depth



CRETE-FLEX® SS4 Masonry Fastening System

Crete-Flex SS4 fasteners are the result of Elco's unique engineering technology. Unlike case hardening (the typical heat treat given to 410 stainless fasteners), Crete-Flex fasteners receive a proprietary, dual-heat-

treating process that maximizes corrosion resistance and ductility. Crete-Flex fasteners then receive Elco's unique Stalgard® coating process. The combination of this unique heat treatment and silver Stalgard finish results in superior corrosion resistance. Even after 2,400 hours in a salt spray cabinet (per ASTM B117), Crete-Flex fasteners show no signs of red rust.



HEX WASHER HEAD

5/16" Hex .425 Washer OD

ITEM CODE	SIZE	BOX QTY.	ITEM CODE	CARTON QTY.
ELC EMF310	#14-10 x 1-1/4"	100	ELC EMB305	3000
ELC EMF330	#14-10 x 1-3/4"	100	ELC EMB325	2000
ELC EMF350	#14-10 x 2-1/4"	100	ELC EMB345	1500
ELC EMF370	#14-10 x 2-3/4"	100	ELC EMB365	1000
ELC EMF390	#14-10 x 3-1/4"	100	ELC EMB385	1000
ELC EMF410	#14-10 x 3-3/4"	100	ELC EMB405	500
ELC EMF430	#14-10 x 4"	100	ELC EMB425	500
ELC EMF450	#14-10 x 5"	100	ELC EMB445	500
ELC EMF470	#14-10 x 6"	100	ELC EMB465	500



PHILLIPS FLAT HEAD

#14 Diameter, #3 Drive .470 Head Diameter

ITEM CODE	SIZE	BOX QTY.	ITEM CODE	CARTON QTY.
ELC EMF690	#14-10 x 1-1/4"	100	ELC EMB695	3000
ELC EMF710	#14-10 x 1-3/4"	100	ELC EMB715	2000
ELC EMF730	#14-10 x 2-1/4"	100	ELC EMB735	1500
ELC EMF750	#14-10 x 2-3/4"	100	ELC EMB755	1000
ELC EMF770	#14-10 x 3-1/4"	100	ELC EMB775	1000
ELC EMF790	#14-10 x 3-3/4"	100	ELC EMB795	500
ELC EMF810	#14-10 x 4"	100	ELC EMB815	500
ELC EMF830	#14-10 x 5"	100	ELC EMB835	500
ELC EMF850	#14-10 x 6"	100	ELC EMB855	500



HEX FLANGE HEAD

5/16" Hex 5/8" Washer OD

ITEM CODE	SIZE	BOX QTY.	ITEM CODE	CARTON QTY.
ELC EMF340	#14-10 x 1-3/4"	100	ELC EMB335	1000
ELC EMF360	#14-10 x 2-1/4"	100	ELC EMB355	1000



SYSTEM BITS

for Crete-Flex® Fasteners

ITEM CODE	SIZE	FOR CRETE-FLEX® FASTENERS UP TO:
ELC EMC100	.234 x 4-1/2" tanged	2" - 3"
ELC EMC110	.234 x 5-1/2" tanged	4"
ELC EMC115	.234 x 7-1/2" tanged	6"
ELC EMC120	.234 x 5-1/2" Hex-Shanked SDS	2-1/4"
ELC EMC130	.234 x 7" Hex-Shanked SDS	through 4"
ELC EMC140	.234 x 6 x 8-1/4" SDS	through 5"
ELC EMC150	.234 x 9 x 11" SDS	through 6"

*Packaging individually

AGGRE-GATOR™ Threaded Concrete Anchor



Aggre-Gator™ fasteners bring the corrosion resistance of 300 series stainless steel and the efficiency of hardened steel tapping threads together in one unique fastener. The head and shank of the fastener are manufactured from 300 series stainless steel, while the tapping

threads and gimlet point are fused and hardened steel.

- Outstanding corrosion resistance
- Alternating, hi-low notched thread profile provides quick starts & cutting

- Fused & hardened steel tapping threads installs easy and hold tight
 - Coated with silver-colored Stalgard®
 - Virtually immune to hydrogen-assisted stress corrosion cracking
- Applications for Aggre-Gator™ fasteners;**
- Exposed anchoring / coastal / wet areas
 - Aluminum enclosures, hurricane shutters / windows / awnings / thresholds
 - Curtain wall & window wall support anchors
 - Stone façade support anchors
 - ACQ treated wood



HEX WASHER HEAD

5/16" Hex



ITEM CODE	FASTENER SIZE	DRILL BIT SIZE	BOX QTY.
ELC EML315	1/4" x 1-3/4"	3/16" x 3-1/2"	50
ELC EML325	1/4" x 2-1/4"	3/16" x 4-1/2"	50
ELC EML335	1/4" x 2-3/4"	3/16" x 4-1/2"	50
ELC EML345	1/4" x 3-1/4"	3/16" x 5-1/2"	50
ELC EML365	1/4" x 4"	3/16" x 5-1/2"	50

*Box Qty. packaging contains 1 tanged masonry bit per box.

TRIMFIT® FLAT HEAD

#3 Phillips Drive

ITEM CODE	FASTENER SIZE	DRILL BIT SIZE	BOX QTY.
ELC EMM310	1/4" x 1-3/4"	3/16" x 3-1/2"	50
ELC EMM320	1/4" x 2-1/4"	3/16" x 4-1/2"	50
ELC EMM330	1/4" x 2-3/4"	3/16" x 4-1/2"	50
ELC EMM340	1/4" x 3-1/4"	3/16" x 5-1/2"	50
ELC EMM360	1/4" x 4"	3/16" x 5-1/2"	50

*Box Qty. packaging contains 1 tanged masonry bit per box.

Snake+™

Internally Threaded Screw Anchor For Use With Strength Design



The Snake+™ overhead anchor speeds installation of threaded rods and is one of the industry's first mechanical anchors to meet the new more stringent International Building Code (IBC) for strength design (Cracked Concrete).

The patented proprietary anchor eliminates the time consuming steps of banging in a drop-in and using a special tool to set the expansion mechanism. It is simply set into a drilled hole, tightened with a 1/2" impact wrench until flush with the ceiling and ready for the insertion of threaded rod. There is no need to swing a heavy hammer overhead while on a ladder or lift.

Snake+™

Carbon Steel Anchor, Zinc Plated



CODE LISTED
ICC-ES ESR-2272
CATEGORY 1
Cracked & Uncracked
Concrete

CITY OF LOS ANGELES
LARR-25810 (Concrete)



ITEM CODE	ROD/ANCHOR SIZE	MIN HOLE DEPTH	THREAD DEPTH	BOX QTY.	CARTON QTY.
POW 6400SD	1/4"	2"	22/32"	100	1000
POW 6401SD	3/8"	1-5/8"	11/16"	50	500
POW 6403SD	1/2"	2-1/2"	29/32"	50	300

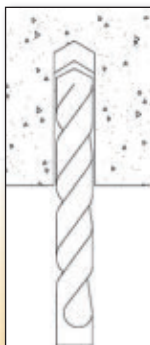
Snake+™ ANCHOR

Setting Tools

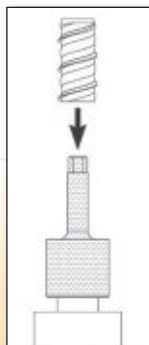


ITEM CODE	DESCRIPTION	BOX QTY.
POW 6402SD	1/4" Hex Adapter with Hex Driver End	1
POW 6407SD	3/8" Hex Adapter with Hex Driver End	1
POW 6404SD	1/2" Hex Adapter with Hex Driver End	1

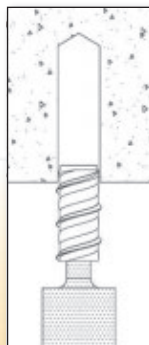
INSTALLATION



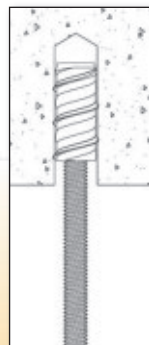
Using the proper drill bit size, drill a hole into the base material to the required depth. The tolerances of the carbide drill bit used should meet the requirements of ANSI Standard B212.15.



Select a powered impact wrench that does not exceed the maximum torque, for theselected anchor diameter. Attach the Snake+ setting tool to the impact wrench. Mount the anchor onto the setting tool.



Drive the anchor into the hole until the shoulder of the Snake+ setting tool comes into contact with the surface of the base material. Do not spin the setting tool off the anchor to disengage.



Insert threaded rod or a bolt into the Snake+, taking care not to exceed the maximum specified tightening torque of the steel insert element. Min. thread engagement should be at least one anchor diameter.

APPROVALS & LISTINGS

- International Code Council, Evaluation Service (ICC-ES), ESR-2272 for concrete. Code compliant with the 2015 IBC, 2015 IRC, 2012 IBC, 2012 IRC, 2009 IBC, 2009 IRC, 2006 IBC, and 2006 IRC.
- Tested in accordance with ACI 355.2 and ICC-ES AC193 for use in structural concrete under the design provisions of ACI 318 (Strength Design method using Appendix D)
- Evaluated and qualified by an accredited independent testing laboratory for recognition in cracked and uncracked concrete including seismic and wind loading (Category 1 anchor)
- Evaluated and qualified by an accredited independent testing laboratory for reliability against brittle failure, e.g. hydrogen embrittlement
- Evaluated and qualified by an accredited independent testing laboratory for supplemental recognition in redundant fastening applications
- FM Global (Factory Mutual) - File No. 3038104 (see report for sizes) www.approvalguide.com - Pipe hanger components for automatic sprinkler systems

INSTALLATION SPECIFICATIONS

Anchor Property/ Setting Information	Units	Normal Anchor Size		
		1/4	3/8	1/2
Nominal outside anchor diam.	in. (mm)	0.375 (9.5)	0.500 (12.7)	0.750 (19.1)
Internal thread diameter (UNC)	in. (mm)	0.250 (6.4)	0.375 (9.5)	0.500 (12.7)
Drill bit diameter dbit	in.	3/8 ANSI	1/2 ANSI	3/4 ANSI
Minimum hole depth	in. (mm)	2 (51)	2 (51)	2-1/2 (64)
Minimum concrete member thickness	in (mm)	3 (76)	4 (102)	4 (102)
Overall anchor length	in. (mm)	1-1/4 (32)	1-1/4 (32)	1-11/16 (43)
Nominal embedment depth	in. (mm)	1-5/8 (41)	1-5/8 (41)	2-3/16 (55)
Effective embedment	in. (mm)	Not Applicable	1.10 (28)	1.54 (39)
Minimum edge distance	in. (mm)	Not Applicable	3 (76)	4 (102)
Minimum spacing distance	in. (mm)	Not Applicable	3 (76)	4 (102)
Critical edge distance	in. (mm)	Not Applicable	3 (76)	4 (102)
Maximum impact wrench power (torque)	ft.-lb. (N-m)	120 (163)	345 (468)	345 (468)
Maximum tightening torque of steel insert element (threaded rod or bolt)	ft.-lb. (N-m)	4 (6)	14 (19)	36 (49)

1. The information presented in this table is to be used in conjunction with the design criteria of ACI 318 Appendix D.

SMART DI+™ ANCHOR (DROP-IN) Internally Threaded Expansion Anchor



Anchor prior to installation



When properly set, anchor indicator will leave blue paint in recessed cavity

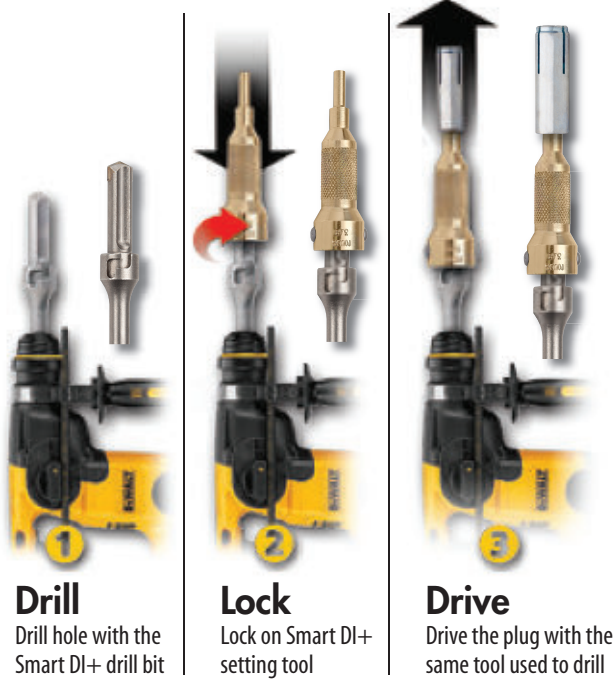
The Smart DI+™ Anchor (Drop-In) is an all-steel, machine bolt anchor available in carbon steel. It can be used in solid concrete, hard stone, and solid block base materials. The Smart DI+™ Anchor (Drop-In) is specifically designed to be easier to fully set during installation as a benefit to the user.

The Smart DI+™ Anchor (Drop-In) has a unique patent pending crown design, which is painted blue. The contractor uses the approved SDS+ rotary hammer with the DI+™ Drill and DI+™ Tool, which allows the anchor to be

set in 2-3 seconds. The blue outer ring will be removed, leaving blue paint in the 4 recessed cavities of the anchor, indicating that the anchor has been properly set. This procedure is a clear indication for the installer and inspector of a properly set anchor, using the DI+™ Tool.

- Installs with reduced effort compared to traditional drop in style anchors
- Can be installed using the Powers manual setting tool or Powers Smart DI+™ System with a hammer-drill
- Setting indicator makes identification of properly set anchors easy (when installed using the DI+™ Tool and DI+™ Drill)
- Internally threaded anchor for easy bolt removability and service work

INSTALLATION-SMART DI+™ SYSTEM



Drill

Drill hole with the Smart DI+ drill bit

Lock

Lock on Smart DI+ setting tool

Drive

Drive the plug with the same tool used to drill

INSTALLATION SPECIFICATIONS

Anchor (Rod) Size	Rod/Anchor Diameter				
	1/4"	3/8"	1/2"	5/8"	3/4"
Nominal Outside Diameter (in.)	0.375	0.500	0.625	0.875	1.000
ANSI Drill Bit Size, (in.)	3/8	1/2	5/8	7/8	1
Maximum Tightening Torque (ft.-lbs.)	5	10	20	40	80
Thread Size (UNC)	1/4-20	3/8-16	1/2-13	5/8-11	3/4-10
Thread Depth (in.)	7/16	5/8	13/16	1-3/16	1-3/8
Anchor Length (Min. Embedment)	1"	1-9/16"	2"	2-1/2"	3-3/16"

SDS+ ROTARY HAMMER DRILL

Recommended Specs.

Diameter	Concrete Compressive Strength (psi)	Rated Tool Impact Energy Suggested Range* (ft.-lbs)
1/4"	2,500	1.3 - 2.6
	6,500	
3/8"	2,500	1.3 - 4.0
	6,500	
1/2"	2,500	2.0 - 4.0
	6,500	

1. Drill a hole into the base material to the depth of embedment required using the appropriate Powers DI+™ Drill. The tolerances of the drill bit used must meet the requirements of ANSI Standard B212.15. Standard installation with a DI+™ Drill may result in the anchor being slightly subset from the surface. Minimum published embedment depths must be achieved by using the shoulder of the DI+™ Drill as a guide.

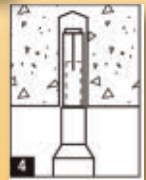
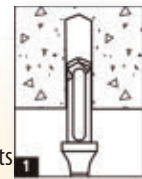
2. Blow the hole clean of dust and other materials. Insert the anchor into the hole and, if necessary, tap flush with the surface.

3. Slide the appropriate Powers DI+™ Tool over the DI+™ Drill used to drill the hole and twist counterclockwise to lock the setting tool onto the bit. If tool does not fit snug onto bit it may be necessary to replace the internal rubber spring plug in the tool (see ordering information). Replacement kit sold separately.

4. Once attached, insert the tip of the setting tool into the Smart DI+™ Anchor (Drop-In) and drive the internal plug fully using the rotation with hammer mode of the SDS+ drill.

5. For proper installation, the shoulder of the setting tool must come briefly in full contact with the Smart DI+™ Anchor (Drop-In) resulting in the blue indicator paint being removed from the raised top of the anchor. The paint will remain in the recessed portion of the top indicating full expansion.

6. If using a fixture, position it, insert the bolt and tighten so as not to exceed the maximum tightening torque. Most overhead applications utilize threaded rod. Minimum thread engagement should be at least one anchor diameter.



SMART DI+™ ANCHOR

Carbon Steel Smooth Wall Drop-in



ITEM CODE	ROD/ANCHOR SIZE	OVERALL LENGTH	THREAD DEPTH	BOX QTY.	CARTON QTY.	FM or UL
POW 6304SD	1/4"	1"	7/16"	100	1,000	-
POW 6306SD	3/8"	1-9/16"	5/8"	50	500	FM/UL
POW 6308SD	1/2"	2"	13/16"	50	250	FM/UL

SMART DI+™ TOOL

Anchor (Drop-In)



ITEM CODE	ROD/ANCHOR SIZE	PIN LENGTH
POW 00425SD	1/4"	39/64"
POW 00427SD	3/8"	61/64"
POW 00429SD	1/2"	1-13/16"

DI+™ TOOL REPAIR KIT



ITEM CODE	KIT CONTENTS	FITS TOOL NO.
POW 00426SD	2 Guide Screws, 1 Rubber Spring Plug	POW 00425SD
POW 00428SD	2 Guide Screws, 1 Rubber Spring Plug	POW 00427SD
POW 00430SD	2 Guide Screws, 1 Rubber Spring Plug	POW 00429SD

DI+™ DRILL



ITEM CODE	DESCRIPTION	BIT DIAMETER
POW 00391SD	Smart Bit for 1/4"	3/8"
POW 00397SD	Smart Bit for 3/8"	1/2"
POW 00410SD	Smart Bit for 1/2"	5/8"

STEEL DROP-IN

The Dropin™ is an all steel, machine bolt anchor available in carbon steel and in two type of stainless. It can be used in solid concrete, hard stone, and solid block base materials. FM and UL listings make this anchor appropriate for overhead applications.

TYPE 303 & 316

Stainless Steel



ITEM CODE	316	ROD/ANCHOR SIZE	MIN. DEPTH	THREAD DEPTH	BOX QTY.	CARTON QTY.	FM or UL
POW 06204	POW 06224	1/4"	1"	7/16"	100	1,000	-
POW 06206	POW 06226	3/8"	1-9/16"	5/8"	50	500	FM/UL
POW 06208	POW 06228	1/2"	2"	13/16"	50	250	FM/UL
POW 06210	POW 06230	5/8"	2 1/2"	1 3/16"	25	125	FM/UL
POW 06212	POW 06232	3/4"	3-3/16"	1 3/8"	10	50	FM/UL

FLANGED DROPIN (LIPPED)

Carbon Steel



ITEM CODE	ROD/ANCHOR SIZE	MIN. DEPTH	THREAD DEPTH	BOX QTY.	CARTON QTY.	FM or UL
POW 06324	1/4"	1"	7/16"	100	1,000	-
POW 06326	3/8"	1-9/16"	5/8"	50	500	FM/UL
POW 06328	1/2"	2"	13/16"	50	250	FM/UL

MANUAL SETTING TOOLS



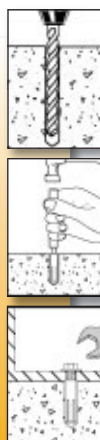
ITEM CODE	ROD/ANCHOR SIZE	PIN LENGTH
POW 06305	1/4"	39/64"
POW 06307	3/8"	61/64"
POW 06309	1/2"	1-3/16"
POW 06311	5/8"	1-5/16"
POW 06313	3/4"	1-61/64"

MINI DROP-IN™

The Mini Dropin™ is a carbon steel machine bolt anchor for use in shallow embedment applications, in addition to solid concrete & precast hollow core plank. It can be used in post-tensioned concrete slabs and concrete pours over steel deck.

INSTALLATION

1. Drill a hole into the base material to the depth of embedment required. Tolerances of the drill bit used must meet the requirements of ANSI Standard B212.15. Do not over drill the hole unless the application calls for a subset anchor.
2. Blow the hole clean of dust and other materials. Insert the anchor into the hole and tap flush with surface. Using a Powers setting tool specifically, set the anchor by driving the tool with a sufficient number of hammer blows until the shoulder of the tool is seated against the anchor. Anchor will not hold allowable loads required if shoulder of Powers setting tool does not seat against anchor.
3. If using a fixture, position it, insert bolt and tighten. Most overhead applications utilize threaded rod. Minimum thread engagement should be at least one anchor diameter.



MINI DROPIN

Carbon Steel

ITEM CODE	ROD/ANCHOR SIZE	DRILL DIAMETER	MIN. DEPTH	BOX QTY.	CARTON QTY.
POW 06335	1/4"	3/8"	5/8"	100	1000
POW 06322	3/8"	1/2"	3/4"	100	1000
POW 06337	1/2"	5/8"	1"	50	250



SETTING TOOLS

ITEM CODE	MINI DROPIN SIZE	BOX QTY.	CARTON QTY.
POW 06336	1/4"	1	50
POW 06323	3/8"	1	50
POW 06338	1/2"	1	50

ACCU-BIT™ DRILL STOP

ITEM CODE	ROD/ANCHOR SIZE	BOX QTY.
POW 00392	3/8" Accu-Bit for 1/4" Mini Dropln	1
POW 00398	1/2" Accu-Bit for 3/8" Mini Dropln	1
POW 00411	5/8" Accu-Bit for 1/2" Mini Dropln	1



HOLLOW-SET™ DROPIN™ Expansion Anchors

The Hollow-Set™ Dropin™ anchor is designed for anchoring in hollow base materials such as hollow concrete block, brick with weep holes and hollow core pre-cast concrete plank. Hollow masonry materials often have a minimum outer wall thickness of 1-1/2". During the drilling process, spalling on

the back side of the wall often decreases the wall thickness available for anchoring to 1" or less. The design of the Hollow-Set™ Dropin overcomes this problem. It is also appropriate for use in overhead applications.

INSTALLATION SPECIFICATIONS

Dimension	Rod/Anchor Diameter				
	1/4"	5/16"	3/8"	1/2"	5/8"
ANSI Drill Bit Size, (in.)	3/8	5/8	5/8	3/4	1
Maximum Tightening Torque (ft.-lbs.)	3-4	5-7	8-10	15-20	30-40
Thread Size (UNC)	1/4-20	5/16-18	3/8-16	1/2-13	5/8-11
Overall Anchor Length (in.)	7/8	1-5/16	1-5/16	1-3/4	2
Sleeve Length (in.)	5/8	15/16	15/16	1-1/4	1-1/2
Thread Length (in.)	3/8	5/8	5/8	3/4	1

INSTALLATION

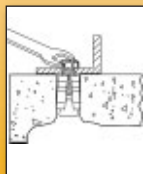
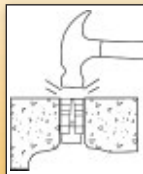
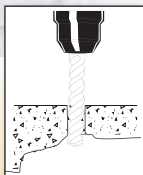
HOLLOW BASE MATERIAL

Drill a hole into the base material to the required depth. In hollow base materials, drill through into the cell or void. The tolerances of the drill bit used should meet the requirements of ANSI Standard B212.15.

Blow the hole clean of dust and other materials. Do not expand the anchor prior to installation. Insert cone end and tap flush to surface.

Position fixture, insert bolt and tighten. The bolt should engage a minimum of 2/3 of the anchor threads. The anchor can also be expanded using a Hollow-Set Tool.

(If Hollow-Set Tool is used, thread anchor onto tool prior to tapping into anchor hole. When flush with surface, turn tool clockwise to tighten. Release tool from set anchor by turning counter-clockwise. Fixture can then be attached).



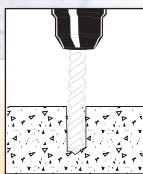
INSTALLATION

SOLID BASE MATERIAL

Drill a hole into the base material to the required embedment depth. The tolerances of the drill bit used should meet the requirements of ANSI Standard B212.15.

Blow the hole clean of dust and other materials. Insert the anchor into the hole. Position the setting tool in the anchor.

Use the Solid Tool, set the anchor by driving the Zamac sleeve over the cone using several sharp hammer blows. Be sure the anchor is at the required embedment depth, so that anchor threads do not protrude above the surface of the base material. Position the fixture, insert the bolt or threaded rod and tighten.



HOLLOW-SET™

Zamac Body w/Carbon Steel Cone



ITEM CODE	ROD/ANCHOR SIZE	DRILL DIAMETER	OVERALL LENGTH	SLEEVE LENGTH	BOX QTY.	CARTON QTY.
POW 09320	1/4"	3/8"	7/8"	5/8"	100	1000
POW 09330	5/16"	5/8"	1-5/16"	15/16"	50	500
POW 09340	3/8"	5/8"	1-5/16"	15/16"	50	500
POW 09350	1/2"	3/4"	1-3/4"	1-1/4"	50	250
POW 09360	5/8"	1"	2"	1-1/2"	25	125

HOLLOW-SET™

Zamac Body w/Stainless Steel Cone



ITEM CODE	ROD/ANCHOR SIZE	DRILL DIAMETER	OVERALL LENGTH	SLEEVE LENGTH	BOX QTY.	CARTON QTY.
POW 09420	1/4"	3/8"	7/8"	5/8"	100	1000
POW 09440	3/8"	5/8"	1-5/16"	15/16"	100	500

SETTING TOOLS

For Hollow Base Materials



ITEM CODE	SIZE	BOX QTY.
POW 09323	1/4"	1
POW 09333	5/16"	1
POW 09343	3/8"	1
POW 09353	1/2"	1
POW 09363	5/8"	1

SETTING TOOLS

For Solid Base Materials



ITEM CODE	SIZE	BOX QTY.
POW 09322	1/4"	1
POW 09342	5/16" and 3/8"	1
POW 09352	1/2"	1
POW 09362	5/8"	1

Hollow set tool for hollow block and clay brick masonry base materials.

SINGLE & DOUBLE EXPANSION SHIELDS

Expansion Anchors

Single and double expansion shields are anchors designed to be used in concrete, brick or block. Used with a machine thread screw or bolt, the anchor expands against the concrete at one or two points. The expansion action at one end (for the single,) or both ends of the (double expansion) shield, distributes the anchored load throughout the length of the shield. This expansion anchor is recommended for shear loads or where the bolt is subjected to side pressure or vibration. Once fastened, the object may be unbolted, removed, and/or re-fastened. The anchors are made from a die-cast zinc alloy. The single is not recommended for use in overhead applications.

SINGLE EXPANSION SHIELDS

ITEM CODE	ROD/ANCHOR DIA.	DRILL DIA.	MIN. HOLE DEPTH	BOX QTY.	CARTON QTY.
POW 09650	1/4"	1/2"	1-3/8"	50	250
POW 09655	5/16"	5/8"	1-5/8"	50	250
POW 09665	3/8"	5/8"	1-5/8"	50	250
POW 09675	1/2"	7/8"	2-1/2"	25	125
POW 09685	5/8"	1"	2-3/4"	25	125



DOUBLE EXPANSION SHIELDS

ITEM CODE	ROD/ANCHOR DIA.	DRILL DIA.	OVERALL LENGTH	MIN. HOLE DEPTH	BOX QTY.	CARTON QTY.	ITEM CODE	BUCKET QTY.
POW 09510	1/4"-20	1/2"	1-3/8"	1-1/4"	50	500	TB-160	1000
POW 09515	5/16"-18	5/8"	1-5/8"	1-1/2"	50	500	TB-162	500
POW 09520	3/8"-16	3/4"	2"	1-3/4"	50	250	TB-163	250
POW 09525	1/2"-13	7/8"	2-1/2"	2-1/4"	25	250		
POW 09530	5/8"-11	1"	2-3/4"	2-1/2"	25	100		
POW 09535	3/4"-10	1-1/4"	3-15/16"	3-1/2"	10	50		



LAG SHIELDS

Shell Expansion Anchors

Lag shield anchors are designed for anchoring into concrete, brick and block. The anchor is available in two lengths, short or long. The short shield is used for anchoring in high grade concrete or where the thickness of the base material prohibits the use of a longer length shield. The long shield is used in lower grade base material or where extra anchoring strength is needed. The shield is manufactured of zinc alloy, a rust-proof material.

LAG SHIELDS

ITEM CODE	SIZE	DRILL DIA.	MIN. HOLE DEPTH	BOX QTY.	CARTON QTY.
POW 01051	1/4" Short	1/2"	1"	50	500
POW 01101	5/16" Short	1/2"	1-1/4"	50	500
POW 01151	3/8" Short	5/8"	1-3/4"	50	500
POW 01201	1/2" Short	3/4"	2"	50	500
POW 01251	5/8" Short	7/8"	2"	25	125
POW 01301	3/4" Short	1"	2"	25	125
POW 01055	1/4" Long	1/2"	1-1/2"	50	500
POW 01105	5/16" Long	1/2"	1-3/4"	50	500
POW 01155	3/8" Long	5/8"	2-1/2"	50	250
POW 01205	1/2" Long	3/4"	3"	50	200
POW 01255	5/8" Long	7/8"	3-1/2"	25	125
POW 01305	3/4" Long	1"	3-1/2"	25	100



CAULK-IN

Machine Bolt Anchors

The Caulk-In is a pre-assembled precision cast calking type machine bolt anchor which can be used in concrete, block, brick or stone. The Caulk-In consists of an antimonial lead alloy calking sleeve and a Zamac alloy internally threaded expanded cone. This anchor is not recommended for use in overhead applications.

CAULK-IN

ITEM CODE	SIZE	DRILL DIA.	MIN. HOLE DEPTH	BOX QTY.	CARTON QTY.
POW 09205	# 8-32	5/16"	1/2"	100	1,000
POW 09210	# 10-24	3/8"	5/8"	100	1,000
POW 09220	1/4"-20	1/2"	7/8"	100	1,000
POW 09225	5/16"-18	5/8"	1"	50	250
POW 09230	3/8"-16	3/4"	1-1/4"	50	250
POW 09240	1/2"-13	7/8"	1-1/2"	50	250



SETTING TOOLS

ITEM CODE	POW 09201	POW 09211	POW 09221	POW 09226	POW 09231	POW 09241
SIZE	#8	#10	1/4"	5/16"	3/8"	1/2"

INSTALLATION SPECIFICATIONS

Dimension	Rod/Anchor Diameter					
	#8-32	#10-24	1/4"	5/16"	3/8"	1/2"
ANSI Drill Bit Size, (in.)	5/16	3/8	1/2	5/8	3/4	7/8
Maximum Tightening Torque	15 (in.-lbs.)	20 (in.-lbs.)	60 (in.-lbs.)	7 (ft.-lbs.)	10 (ft.-lbs.)	15 (ft.-lbs.)
Thread Length in Cone(in.)	13/32	15/32	19/32	3/4	1	1-1/8

INSTALLATION

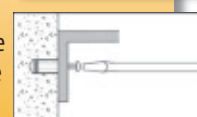
1. Drill a hole into the base material to the required depth. The tolerances of the drill bit used should meet the requirements of ANSI Standard B212.15. Do not over drill the hole.



2. Blow the hole clean of dust and other material. Insert the anchor into the hole. Position the setting tool in the anchor.



3. Using the tool, set the anchor by driving the lead sleeve over the cone using several sharp hammer blows. Be sure the anchor is at the required embedment depth so that anchor threads do not protrude above the surface of the base material. Position the fixture, insert screw or bolt and tighten.



ANCHORS

VERTIGO+™ Steel Threaded Fastening System

Vertigo+ is a one piece, all steel threaded fastening system for suspending threaded rod in pipe hanging, fire protection, electrical conduit and cable-tray applications. They can be installed in a variety of base materials including normal-weight concrete, structural sand-lightweight concrete and concrete over steel deck. Vertigo+ accepts threaded rods and bolts in 1/4", 3/8" and 1/2" diameters. Vertigo+ anchors are designed for simple fast installations and reliable performance in cracked and uncracked concrete.

APPROVALS & LISTINGS

- International Code Council, Evaluation Service (ICC-ES). ESR-2526. Code compliant with the 2015 IBC, 2015 IRC, 2012 IBC, 2012 IRC, 2009 IBC, 2009 IRC, 2006 IBC, and 2006 IRC
- Tested in accordance with ACI 355.2 / ASTM E 488 and ICC-ES AC193 for use in structural concrete under the design provisions of ACI 318 (Strength Design method using Appendix D)
- Evaluated and qualified by an accredited independent testing laboratory for recognition in cracked and uncracked concrete including seismic and wind loading (Category 1 anchors)
- Evaluated and qualified by an accredited independent testing laboratory for reliability against brittle failure, e.g. hydrogen embrittlement

MATCHED TOLERANCE SYSTEM



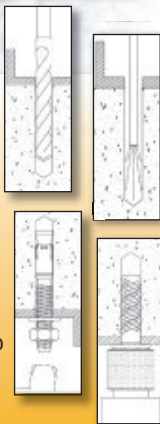
INSTALLATION

Using the proper Wedge-Bit size, drill a hole into the base material to the required depth. The tolerances of the Wedge-Bit used must meet the requirements of the published Wedge-Bit range.

Remove dust and debris from the hole

Select a powered impact wrench that does not exceed the maximum torque; screw for the selected anchor diameter. Attach an appropriate sized hex socket/driver to the impact wrench. Mount the screw anchor head into the socket.

Drive the anchor into the hole until the head of the anchor comes into contact with the member surface. The anchor should be snug after installation. Do not spin the hex socket off the anchor to disengage. Insert threaded rod or bolt into Vertigo+.



VERTIGO+ ROD HANGER

Carbon Steel w/Blue Tip



CODE LISTED
ICC-ES ESR-2989
Cracked Concrete

CODE LISTED
ICC-ES ESR-2526
Concrete

ITEM CODE	ROD DIA.	SCREW SHANK SIZE & LENGTH	THREAD STYLE	PRE-DRILL DIA.	WEDGE-BIT	BOX QTY.	CARTON QTY.
POW 7180SD	1/4"	3/8" x 2-1/8"	Wedge-Bolt+	3/8"	Wedge-Bit	50	500
POW 7181SD	3/8"	3/8" x 2-1/8"	Wedge-Bolt+	3/8"	Wedge-Bit	50	500
POW 7182SD	1/2"	3/8" x 2-1/8"	Wedge-Bolt+	3/8"	Wedge-Bit	50	250

WEDGE-BITS

ITEM CODE	DESCRIPTION	USABLE LENGTH	BOX QTY.	CARTON QTY.
POW 01316	SDS 3/8" x 6"	4"	1	1
POW 01380	HD Straight Shank 3/8" x 6"	4"	5	25



VERTIGO™ Steel Threaded Fastening System

Vertigo are available in three versions which can be installed in a variety of base materials including steel purlins, bar joists and beams, wood frame columns and beams, as well as concrete ceilings, beams and columns. Steel threaded rods in 1/4", 3/8" and 1/2" diameters can be vertically suspended with Vertigo. In wood and steel base materials, Vertigo is also offered in a side mount style for lateral installation of 1/4" and 3/8" diameter steel threaded rods onto joists, columns and overhead members. For all steel and wood Vertigo fasteners, a universal Vertigo Socket Driver is recommended to provide proper installation with a screw gun or hammer drill. Concrete Vertigo fasteners should be installed with the appropriate size standard drive sockets and adjustable torque, battery powered screw gun or hammer drill.

INSTALLATION SPECIFICATIONS

Steel Vertigo

Point Style	#3	#5
Self Drilling Range	0.036" (20 gage) – 0.188" (3/16")	0.188" (3/16") – 0.500" (1/2")
Screw Size (UNC)	1/4-20 thread	1/4-20 thread
Root Diameter (in.)	13/64	13/64
Thread Length (in.)	1-3/16" (1-1/2" screw)	31/32" (1-1/2" screw)
Flange Thickness (in.)	1/16	1/16
Drill Speed (RPM)	500-1,500	500-1,500

Install with universal steel and wood socket.

Wood Vertigo

Screw Size	1/4" Thread Forming	5/16" Thread Forming
Pre-drill Diameter (in.) (if required)	1/8	1/8
Point Style	Type 17	Type 17
Root Diameter (in.)	3/16	7/32
Thread Length (in.)	Screw length less 5/16	Screw length less 5/16
Flange Thickness (in.)	1/16	1/16

Install with universal steel and wood socket.

Vertigo Coupling (Steel & Wood)

Coupling Size and Type	1/4" Vertical	3/8" Vertical	1/2" Vertical	1/4" Side	3/8" Side
Thread Size (UNC)	1/4-20	3/8-16	1/2-13	1/4-20	3/8-16
Thread Depth (in.)	3/8	3/8	3/8	5/8 (through)	5/8 (through)
Width (flat to flat) (in.)	5/8	5/8	5/8	5/8	5/8
Height (in.)	13/16	13/16	13/16	13/16	13/16

Concrete Vertigo (Wedge-Bolt OT)

Rod Diameter/Anchor Size	1/4"	3/8"	1/2"
ANSI Drill Bit (in.)	1/4	1/4	3/8
Overall Screw Shank Length	1-1/4	1-1/2	2-3/4
Anchor Thread Length (in.)	1-1/8	1-3/8	2-1/2
Root Diameter (in.)	15/64	15/64	23/64
Coupling / Washer Height (in.)	27/64	9/16	53/64
Integral Washer O.D. (in.)	31/64	39/64	31/32
Coupling Thread Size (UNC)	1/4-20	3/8-16	1/2-13
Coupling Thread Depth (in.)	3/8	1/2	3/4
Socket Driver Size (in.)	3/8	1/2	11/16

Install with appropriate sized concrete socket.

VERTIGO™ Steel Threaded Fastening System

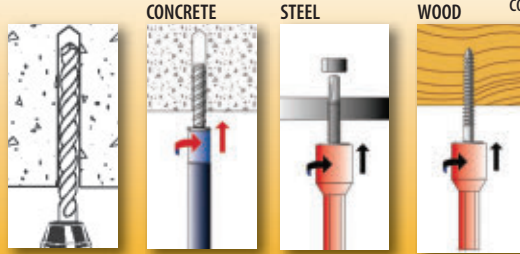
INSTALLATION

When installing Vertigo fasteners, eye protection should be worn as a safety precaution.

If pre-drilling is required (certain types of wood truss/wood joist and all concrete base materials), select the recommended drill bit type and diameter. For Concrete Vertigo only, drill to the appropriate embedment depth, adding at least one diameter (1/4" to 1/2") to the drilling depth to prevent the tip of the fastener from running into a dead end at the rear of the anchor hole.

Select the appropriate socket driver for the anchor size and type to be installed and mount into chuck of

installation tool. Insert the Vertigo fastener into the socket driver, and install perpendicular to the base material surface. Drive the fastener with a smooth steady motion until the coupling is firmly seated against the surface of the base material.



Thread the appropriate diameter steel threaded rod or threaded bolt into the coupling. The threaded rod or bolt should fully engage the thread length of the coupling on a vertical mount fastener. The threaded rod or threaded portion of the bolt can pass through coupling of a side mount fastener.

For UL and FM listings, Steel Vertigo should be installed with a retaining nut.

STEEL -VERTICAL & SIDE MOUNT

#3 Point for Purlins, #5 Point for Beams



Vertical



Side Mount

ITEM CODE	ROD DIA.	SCREW SHANK SIZE & LENGTH	POINT STYLE	SELF DRILLING RANGE	BOX QTY.	CARTON QTY.
POW 07155	POW 07183	1/4" 1/4-20 x 1"	#3	0.036" (20 gage) to 0.188" (3/16")	100	500
POW 07157	3/8"	1/4-20 x 2"	#3		100	500
POW 07158	POW 07184	3/8" 1/4-20 x 1" (w/nut)	#3		100	500
POW 07159	POW 07186	3/8" 1/4-20 x 1-1/2"	#3		100	500
	POW 07188	3/8" 1/4-20 x 2" (w/nut)	#3		100	500
POW 07160	3/8"	1/4-20 x 1-1/2" (w/nut)	#3		100	500
POW 07152	POW 07200	1/4" 12-20 x 1-1/2"	#5	0.188" (3/16") to	100/50	500/250
POW 07154	POW 07201	3/8" 12-20 x 1-1/2" (w/nut)	#5	0.500" (1/2")	100	500
POW 07161	1/2"	12-20 x 1-1/2" (w/nut)	#5		100	500

CONCRETE VERTICAL MOUNT



ITEM CODE	ROD DIA.	SCREW SHANK SIZE & LENGTH	THREAD STYLE	PRE-DRILL DIAMETER	BOX QTY.	CARTON QTY.
POW 07171	1/4"	1/4" x 1-1/4"	Wedge-Bolt OT	1/4" ANSI	100	500
POW 07173	3/8"	1/4" x 1-1/2"	Wedge-Bolt OT	1/4" ANSI	100	500
POW 07175	1/2"	3/8" x 2-3/4"	Wedge-Bolt OT	3/8" ANSI	50	250

POLE TOOL & DRIVE SOCKETS



ITEM CODE	DESCRIPTION	RPM	BOX QTY.	CARTON QTY.
POW 07166	6'-12' Pole Tool (includes three Jaw Chuck)	N/A	1	1
POW 07187	Universal Steel & Wood Socket (Red)	500 to 1500 RPM	5	25
POW 07195	1/4" Concrete Socket (Blue)	-	5	25
POW 07197	3/8" Concrete Socket (Blue)	-	5	25
POW 07198	1/2" Concrete Socket (Blue)	-	5	25

WOOD-VERTICAL & SIDE MOUNT



Vertical

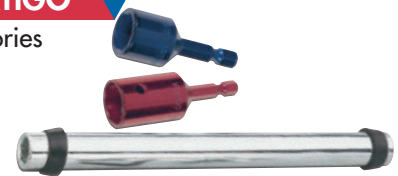


Side Mount

ITEM CODE	ROD DIA.	SCREW SHANK SIZE & LENGTH	POINT STYLE	SELF DRILLING RANGE	BOX QTY.	CARTON QTY.
POW 07163	POW 07185	1/4" 1/4" x 1"	TYPE 17	1/8"	100	500
POW 07203	POW 07205	3/8" 1/4" x 1"	TYPE 17		100	500
POW 07165	POW 07170	3/8" 1/4" x 2"	TYPE 17		100	500
POW 07167	3/8"	1/4" x 3"	TYPE 17		100	500
POW 07169	3/8"	1/4" x 4"	TYPE 17		100	500
POW 07162	POW 07156	3/8" 5/16" x 2-1/2"	TYPE 17		100	500
POW 07164	1/2"	5/16" x 2-1/2"	TYPE 17		100	500

CONCRETE VERTIGO

Installation Accessories



ITEM CODE	DESCRIPTION	MAX. BIT LENGTH	USABLE LENGTH	BOX QTY.	CARTON QTY.
POW 05864	1/4" and 3/8" Concrete Drive Sockets (Blue)	6"	-	1	10
	Universal Steel & Wood Socket (Red)				
	Sleeve Assembly (same as Cat# 5874)				
POW 05874	Sleeve Assembly	6"	-	1	-
POW 05866	1/4" x 6" Hex Shank SDS Drill Bit		4"	1	-

HANGER MATE® Threaded Rod Anchoring System

The HangerMate® threaded rod anchoring system includes end-drilled heads for ceiling/vertical mount applications and cross-drilled heads for wall/horizontal mount applications. Heads are drilled and tapped to accept 1/4"-20 and 3/8"-16 threaded rod. Point and thread styles designed to ease installation into specific materials. For steel applications, a wide variety of point sizes and shank lengths are available. Use the Selection Guide to find the fastener for your application.



- Entire system requires only one driver.
- Easy to install with contractor grade power tools.
- Self-drilling points for steel up to .500" thick.
- In wood applications, no pre-drilling is typically required.
- Solid, one piece cold formed part, head cannot spin off or unscrew from body.

HANGER MATE® MP

For Wood, Steel or Concrete

PRODUCT	ITEM CODE	FOR ROD SIZE	SIZE	BOX QTY.
	ELC EZG910	1/4-20	1/4"-10 x 2"	50
	ELC EZG930	3/8-16	1/4"-10 x 2"	50
	ELC EZH935	3/8-16	1/4"-10 x 2"	50

• Self-Drilling Point

PRODUCT SELECTION GUIDE

For Wood Applications

PRODUCT	ITEM CODE	FOR ROD SIZE	SIZE	BOX QTY.
	ELC EZG315	1/4-20	5/16"-14 x 2-1/4"	50
	ELC EZG650	3/8-16	5/16"-14 x 2-1/4"	50
	ELC EZG670	3/8-16	5/16"-14 x 3"	50
HORIZONTAL MOUNT				
	ELC EZH320	1/4-20	5/16"-14 x 2-1/4"	50
	ELC EZH665	3/8-16	5/16"-14 x 2-1/4"	50

• Waxed high-low thread and Type 17 point with shank slot; typically, no pre-drilling is required

PRODUCT SELECTION GUIDE

For Concrete/Masonry Applications

PRODUCT	ITEM CODE	FOR ROD SIZE	SIZE	BOX QTY.
	ELC EZG365	1/4-20	5/16"-14 x 2-1/4"	50
	ELC EZG730	3/8-16	5/16"-14 x 2-1/4"	50
HORIZONTAL MOUNT				
	ELC EZH370	1/4-20	5/16"-14 x 2-1/4"	50
	ELC EZH735	3/8-16	5/16"-14 x 2-1/4"	50

• High-low thread and gimlet point

INSTALLATION TOOL

PRODUCT	ITEM CODE	DESCRIPTION	QTY.
	ELC EZE215	Drive Socket	1

BANG-IT™ Concrete Inserts

Bang-It concrete inserts are designed for installation in and through metal composite deck (i.e. "pan-deck") used to support newly poured concrete floors or roof slabs. After predrilling the deck and installation, the protective sleeve of the insert protrudes below the surface of the deck allowing overhead attachment of steel threaded rod in sizes ranging from 1/4" to 7/8" in diameter. The sleeve prevents sprayed fire-proofing material and acoustical dampening products from clogging the internal threads of the insert. Prevents burying, masking or losing the insert location. The hex impact plate resists rotation within the concrete as a steel threaded rod is being installed.



INSTALLATION SPECIFICATIONS

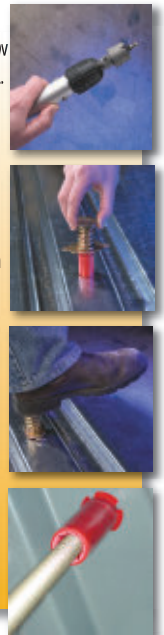
Dimension	Nominal Rod/Anchor Size					
	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"
Metal Hole Saw Diameter (in.)	13/16	13/16	13/16	1-3/16	1-3/16	1-3/16
Drilling Speed (rpm)	700-900	700-900	700-900	500-700	500-700	500-700
Height of Spring (in.)	2	2	2	2	2	2
Insert Thread Length (in.)	3/8	5/8	11/16	15/16	1-1/8	1-5/16
Length of Sleeve (in.)	3-3/8	3-3/8	3-3/8	3-3/8	3-3/8	3-3/8
Thread Size, UNC	1/4-20	3/8-16	1/2-13	5/8-1	3/4-10	7/8-9
Overall Length (in.)	5-5/16	5-5/16	5-5/16	5-5/16	5-5/16	5-5/16
Steel Flange Thickness (in.)	5/64	5/64	5/64	5/64	5/64	5/64

INSTALLATION

Prior to pouring concrete, use the recommended diameter metal hole saw to drill a hole through the metal deck at the location the insert is needed.

From the topside of the metal deck, place the Bang-It concrete insert's color-coded, plastic protective sleeve through the pre-drilled hole. The oversized steel flange will balance the spring-loaded impact plate and cause it to stand upright. Either step on the Bang-It with your foot or using a hand held hammer, strike the head of the Bang-It with enough force to cause the tapered portion of the protective plastic sleeve to push through the metal deck, clamping the deck surface between the sleeve and the flange. When all inserts are installed, concrete pouring may commence.

Either before or after the concrete has been placed, tap the appropriate diameter steel threaded rod or threaded bolt through the opening at the end of the plastic sleeve and screw into the internally threaded insert. Minimum thread engagement should be one anchor diameter. Concrete should be allowed to properly cure and achieve its design compressive strength before loading the threaded rod with the intended assembly. For safety purposes, it is best to wait until the insert is ready to be put in service before screwing the steel threaded rod into place.



BANG-IT DECK INSERT (UNC)

ITEM CODE	DESCRIPTION	COLOR CODE	PRE-DRILLED HOLE	BOX QTY.
POW 07540	1/4" Bang-It	Brown	13/16"	100
POW 07542	3/8" Bang-It	Green	13/16"	100
POW 07544	1/2" Bang-It	Yellow	13/16"	100
POW 07546	5/8" Bang-It	Red	1-3/16"	50
POW 07548	3/4" Bang-It	Purple	1-3/16"	50
POW 07549	7/8" Bang-It	Black	1-3/16"	50



WOOD-KNOCKER™ Concrete Inserts

Wood-Knocker concrete inserts are installed onto wooden forms used to support newly poured concrete floor slabs, roof slabs or walls. When the forms are stripped, the color-coded flange is visibly embedded in the concrete surface. The inserts allow the attachment of steel threaded rod or threaded bolts in sizes ranging from 1/4" to 3/4" in diameter. The hex impact plate offers resistance to rotation within the concrete as a steel threaded rod or threaded bolt is being installed.

INSTALLATION SPECIFICATIONS

Dimension	Nominal Rod/Anchor Size				
	1/4"	3/8"	1/2"	5/8"	3/4"
Insert Thread Length (in.)	3/8	5/8	11/16	15/16	1-1/8
Plastic Flange Dia. (in.)	1-3/8	1-3/8	1-3/8	1-5/8	1-5/8
Plastic Flange Thickness (in.)	7/64	7/64	7/64	7/64	7/64
Thread Size, UNC	1/4-20	3/8-16	1/2-13	5/8-11	3/4-10
Overall Length (in.)	1-7/8	1-7/8	1-7/8	1-7/8	1-7/8
Break-Off Nail Length (in.)	3/4	3/4	3/4	3/4	3/4
Steel Flange Thickness (in.)	5/64	5/64	5/64	5/64	5/64

INSTALLATION

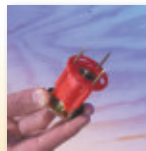
Prior to pouring concrete over the wood form, place the Wood-Knocker concrete insert (break-off nails down) on the surface of the wood form at the desired location. Strike the impact plate of the insert with a hand held hammer, until the plastic color-coded flange is flush with the wood surface. When all inserts are installed, concrete pouring may commence.

After the wood forms are removed, the three break-off nails and color coded flange are left exposed. Carefully remove any unbroken nails by swiping with a hammer. Eye protection should be worn when removing the break-off nails. The appropriate diameter steel rod or threaded bolt can be inserted into the opening of the flange and screwed into the internally threaded insert.

Minimum thread engagement should be one anchor diameter. Concrete should be allowed to properly cure and achieve its design compressive strength before loading the rod or threaded bolt with the intended assembly.

For safety purposes, it is best to wait until the insert is ready to be put in service before screwing the steel threaded rod into place.

Note: UL listing for 5/8" Wood-Knocker is for 8" pipe maximum.



WOOD-KNOCKER FORM INSERT

ITEM CODE	DESCRIPTION	COLOR CODE	BOX QTY.
POW 07550	1/4" Wood-Knocker (UNC)	Brown	200
POW 07552	3/8" Wood-Knocker (UNC)	Green	200
POW 07554	1/2" Wood-Knocker (UNC)	Yellow	200
POW 07556	5/8" Wood-Knocker (UNC)	Red	150
POW 07558	3/4" Wood-Knocker (UNC)	Purple	150
POW 07567	1/2" Coil Thread Wood-Knocker	Yellow	200
POW 07568	3/4" Coil Thread Wood-Knocker	Purple	150



ZAMAC NAILIN® Drive Pin Type Anchors

The Zamac Nailin® is a tamper-proof nail drive anchor which has a body formed from Zamac alloy. Nails are available in carbon or stainless steel. The anchor can be used in concrete, block, brick or stone. This anchor is not recommended for applications overhead.

INSTALLATION SPECIFICATIONS

Dimension	Anchor Diameter		
	3/16"	1/4"	1/4"
	MH	MH	FH
ANSI Drill Bit Size, dbit (in.)	3/16	1/4	1/4
Fixture Clearance Hole (in.)	1/4	5/16	5/16
Head Height (in.)	7/64	9/64	3/16
Head Width dhd (in.)	13/32	35/64	35/64

MH =
Mushroom Head
FH = Flat Head

INSTALLATION

Using the proper diameter bit, drill a hole into the base material to a depth of at least 1/4" deeper than the required embedment. The tolerances of the drill bit used should meet the requirements of ANSI Standard B212.15.

Blow the hole clean of dust and other material.

Insert the anchor through the fixture. Drive the nail into the anchor body to expand it. Be sure the head is seated firmly against the fixture and that the anchor is at the proper embedment. Take care not to over-drive. This anchor is not recommended for use overhead.



ZAMAC NAILIN® MUSHROOM HEAD w/Carbon Steel Nail



ITEM CODE	SIZE	DRILL DIA.	BOX QTY.	CARTON QTY.	ITEM CODE	BUCKET QTY.
POW 02802	3/16" x 7/8"	3/16"	100	500	TB-492	2000
POW 02808	1/4" x 1"	1/4"	100	500	TB-493	1000
POW 02814	1/4" x 1-1/4"	1/4"	100	500	TB-494	1000
POW 02820	1/4" x 1-1/2"	1/4"	100	500	TB-495	1000
POW 02826	1/4" x 2"	1/4"	100	500	TB-496	1000
H14-250*	1/4" x 2-1/2"	1/4"	100	-	TB-497*	500
POW 02804	1/4" x 3"	1/4"	100	-	TB-498	500

*Tanner brand

Stainless Steel Nail

ITEM CODE	SIZE	DRILL DIA.	BOX QTY.	CARTON QTY.
POW 02858	1/4" x 1"	1/4"	100	500
POW 02864	1/4" x 1-1/4"	1/4"	100	500
POW 02870	1/4" x 1-1/2"	1/4"	100	500
POW 02876	1/4" x 2"	1/4"	100	500

ZAMAC NAILIN® FLAT HEAD w/Carbon Steel Nail

ITEM CODE	SIZE	DRILL DIA.	BOX QTY.	CARTON QTY.
POW 02836	1/4" x 1-1/2"	1/4"	100	500
POW 02838	1/4" x 2"	1/4"	100	500

NYLON NAILIN™ Nail Anchors

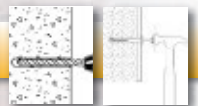
The Nylon Nailin™ is a nail drive anchor with a body formed from engineered plastic and drive nails available in carbon and stainless steel. The anchor can be used in concrete, block, brick or stone. The anchor is pre-assembled with either a carbon steel or stainless steel nail. This anchor is not recommended for applications overhead.

INSTALLATION SPECIFICATIONS

Dimension	Anchor Diameter					
	3/16"			1/4"		
	RH	FH	MH	RH	FH	MH
ANSI Drill Bit Size, dbit (in.)	3/16	3/16	3/16	1/4	1/4	1/4
Fixture Clearance Hole (in.)	1/4	1/4	1/4	5/16	5/16	5/16
Head Height (in.)	1/8	1/8	1/8	1/8	1/8	1/8
Head Width dhd (in.)	3/8	3/8	9/16	7/16	7/16	9/16

INSTALLATION

Installation as with standard Zamac Nailin (see P27).



NYLON NAILIN™ ROUND & FLAT HEAD

Carbon Steel Nail



ITEM CODE	ANCHOR SIZE	DRILL DIAMETER	BOX QTY.	CARTON QTY.
POW 02431	3/16" x 1"	3/16"	100	1000
POW 02451	3/16" x 1-1/2"	3/16"	100	1000
POW 02521	1/4" x 1"	1/4"	100	1000
POW 02541	1/4" x 1-1/2"	1/4"	100	1000
	1/4" x 2"	1/4"	100	1000

NYLON NAILIN™ MUSHROOM HEAD

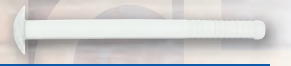
Carbon & Stainless Steel Nail



ITEM CODE	ANCHOR SIZE	DRILL DIAMETER	BOX QTY.	CARTON QTY.
POW 02433	3/16" x 1"	3/16"	100	1000
POW 02513	1/4" x 3/4"	1/4"	100	1000
POW 02523	1/4" x 1"	1/4"	100	1000
POW 02543	1/4" x 1 1/2"	1/4"	100	1000
POW 02563	1/4" x 2"	1/4"	100	1000
POW 02573	1/4" x 3"	1/4"	100	1000
POW 02583	1/4" x 4"	1/4"	100	1000
POW 02593	1/4" x 6"	1/4"	100	400

NYLON NAILIN™ MUSHROOM HEAD

Bodies Only



ITEM CODE	ANCHOR SIZE	DRILL DIAMETER	BOX QTY.	CARTON QTY.
POW 02574	1/4" x 3"	1/4"	2500	2500

ZAMAC HAMMER-SCREW® Nail Anchors

The Hammer-Screw is a unique, one-step nail drive anchor featuring a Phillips type head and a screw thread for use in concrete, block, brick or stone. It is available in 1/4" diameter and lengths ranging from 3/4" to 3". With a body formed from corrosion resistant Zamac alloy and a zinc plated carbon steel or Perma-Seal™ coated drive screw, this anchor has been developed as an improvement over standard nailin anchors. This product has been designed to provide a removable anchor with higher tension load capacities compared with traditional nailin when installed in concrete. It is not recommended for overhead, life-safety or sustained tensile loading applications unless special considerations are given to the allowable loads.

INSTALLATION & MATERIAL SPECIFICATIONS

Dimension	Anchor Diameter	Anchor Component	Component Material
			Mushroom Head
ANSI Drill Bit Size, dbit (in.)	1/4"	Drive Screw	Carbon Steel Screw
Fixture Clearance Hole (in.)	5/16	Anchor Body	ASTM B 633, SC1, Type III (Fe/Zn 5)
Head Height (in.)	9/64	Screw Plating	Perma-Seal Fluoropolymer
Head Width dhd (in.)	35/64	Screw Coating	

INSTALLATION

Installation as with standard Zamac Nailin (see P27).

To remove Hammer-Screw— Press a Phillips screw driver firmly into the screw head and turn counterclockwise.

Remove the screw from the anchor body, then pry out the fixture and anchor body simultaneously by working the claw of a hammer under the fixture.



HAMMER-SCREW MUSHROOM HEAD

w/No. 2 Phillips Head Screw



ITEM CODE	ANCHOR SIZE	DRILL DIAMETER	BOX QTY.	CARTON QTY.	ITEM CODE	MASTER BOX QTY.	MASTER CARTON QTY.
POW 02839	1/4" x 3/4"	1/4"	100	500	POW 02939	1000	1000
POW 02840	1/4" x 1"	1/4"	100	500	POW 02940	1000	1000
POW 02842	1/4" x 1-1/4"	1/4"	100	500	POW 02942	1000	1000
POW 02844	1/4" x 1-1/2"	1/4"	100	500	POW 02944	1000	1000
POW 02846	1/4" x 2"	1/4"	100	500	POW 02946	1000	1000
POW 02848	1/4" x 2-1/4"	1/4"	100	500	POW 02948	1000	1000
POW 02850	1/4" x 3"	1/4"	100	500	POW 02949	1000	1000



w/No. 2 Phillips Head Perma-Seal Screw

ITEM CODE	ANCHOR SIZE	DRILL DIAMETER	BOX QTY.	CARTON QTY.	ITEM CODE	MASTER BOX QTY.	MASTER CARTON QTY.
POW 02817	1/4" x 1-1/4"	1/4"	100	500	POW 02818	1000	1000

SAFE-T-PIN™ Nail Anchors

The Safe-T+ Pin™ is a small-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, brick and stone. It can also be used in cracked concrete applications where the anchors are engineered for redundant fastening.

APPROVALS & LISTINGS

- Tested in accordance with ASTM E 488
- Tested in accordance with ICC-ES AC193 for use in structural concrete
- Evaluated and qualified by an accredited independent laboratory for recognition in redundant fastening applications in cracked and uncracked concrete

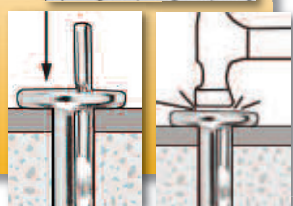
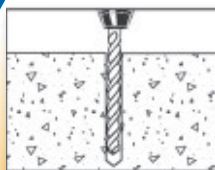
INSTALLATION SPECIFICATIONS

Anchor Property Setting Information	Nominal Anchor Size (inch)	
	Units	1/4"
Nominal outside anchor dia.	in.(mm)	0.250 (6.4)
Safe-T+ Pin drill bit dia.	mm	6
Safe-T+ Pin bit tolerance range	mm	5.9 to 6.4
Nominal Embedment	in.(mm)	1-3/16 (30) 2-1/2 (64)
Min. hole depth	in.(mm)	1-1/2(38) 2-3/4 (70)
Min. concrete member thickness	in.(mm)	3(76) 4 (102)
Min. edge distance	in.(mm)	3-1/2(90) 3-1/2(90)
Min. spacing distance	in.(mm)	3-1/2(90) 3-1/2(90)

INSTALLATION

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. Blow the hole clean of dust and other material.

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.



SAFE-T-PIN™



CODE LISTINGS
ICC-ES ESR-3057
CATEGORY 1
Cracked & Uncracked
Concrete
(Redundant Fastening)

ITEM CODE	DESCRIPTION	BOX QTY.	CARTON QTY.
POW 2800SD	1/4" (6mm) x 1-3/8"	100	600
POW 2801SD	1/4" (6mm) x 2-1/2"	100	600
POW 02800	6 mm Drill Bit	1	50

One 6mm drill bit is included in 1 box of Safe-T+ anchors.

HELI-PIN™ Helical Facade Anchors

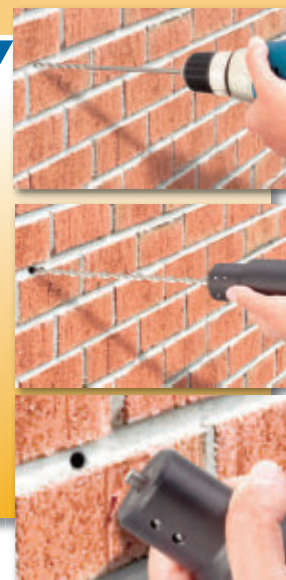
The Heli-Pin™ anchor is a one-piece stainless steel helical wall tie system used for anchoring existing brick veneers to the back-up structural members without exposing hardware. The helical design allows the tie to be driven quickly and easily into a predrilled pilot hole with a Heli-Pin™ setting tool and a rotary hammer drill (or embedded into mortar joints in new construction) to provide a reliable mechanical connection between a masonry facade and its backup material or between multiple widths 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.

INSTALLATION

Using a proper diameter bit drill a pilot hole through facade material into backup base material to a depth at least 1/4" 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 1/2" below the surface of the façade material (setting tool should be flush with face of base material). Patch hole with appropriate material.



HELI-PIN™



ITEM CODE	DESCRIPTION	BOX QTY.	CARTON QTY.
POW 08341	Heli-Pin Anchor 8mm (5/16") x 6"	100	1000
POW 08342	Heli-Pin Anchor 8mm (5/16") x 8"	100	1000
POW 08343	Heli-Pin Anchor 8mm (5/16") x 10"	100	1000
POW 08344	Heli-Pin Anchor 8mm (5/16") x 12"	50	500

HELI-PIN™ SETTING TOOL



ITEM CODE	DESCRIPTION	BOX QTY.	CARTON QTY.
POW 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.

ANCHORS

HIGH IMPACT FULL HEAD SDS+ Carbide Bits



- 2X More Carbide for Long Life
- Four flute design cleans debris out for fast, efficient drilling
- Innovative Bonding System delivers extreme durability



ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH	ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH
DEW DW5502	POW 00701	3/16" x 4-1/2"	2"	DEW DW5527		3/8" x 6-1/2"	4"
DEW DW5503	POW 00703	3/16" x 6-1/2"	4"	DEW DW5529	POW 00727	3/8" x 10"	8"
DEW DW5504	POW 00705	3/16" x 8-1/2"	6"	DEW DW55300	POW 00729	3/8" x 12"	10"
DEW DW55050	POW 00707	3/16" x 10-1/2"	8"	DEW DW5531	POW 00731	3/8" x 18"	16"
DEW DW5506	POW 00709	3/16" x 12"	10"	DEW DW5532		3/8" x 23-1/2"	21"
DEW DW5507		3/16" x 14"	12"		POW 00733	7/16" x 6-1/4"	4"
DEW DW55100		7/32" x 6-1/2"	4"		POW 00735	7/16" x 12-1/4"	10"
DEW DW5512		7/32" x 10"	8"	DEW DW5537		1/2" x 6"	4"
DEW DW5516	POW 00711	1/4" x 4-1/2"	2"	DEW DW5538		1/2" x 10-1/2"	8"
DEW DW5517	POW 00713	1/4" x 6"	4"	DEW DW5539	POW 00741	1/2" x 12"	10"
DEW DW5518	POW 00715	1/4" x 8-1/2"	6"	DEW DW5540	POW 00743	1/2" x 18"	16"
	POW 00717	1/4" x 10"	8"	DEW DW55410		1/2" x 24"	22"
DEW DW55200	POW 00719	1/4" x 12"	10"		POW 00745	9/16" x 6-1/4"	4"
DEW DW5521		1/4" x 14"	12"		POW 00747	9/16" x 12-1/4"	10"
DEW DW5524	POW 00721	5/16" x 6-1/2"	4"		POW 00749	9/16" x 18"	16"
DEW DW5526	POW 00723	5/16" x 12"	10"				

*Packaged individually

HIGH IMPACT 4 CUTTER SDS+ Carbide Bits

ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH	STD. POUCH
DEW DW5471		5/8" x 10"	8"	1
DEW DW5472		5/8" x 18"	16"	1
DEW DW5474		3/4" x 10"	8"	1
DEW DW5475	POW 07086*	3/4" x 18"	16"	1
DEW DW5477		7/8" x 10"	8"	1
DEW DW5478		7/8" x 18"	16"	1
DEW DW5479		1" x 10"	8"	1
DEW DW5480		1" x 18"	16"	1
DEW DW5481		1-1/8" x 10"	8"	1
DEW DW5482	POW 07094*	1-1/8" x 18"	16"	1

*Quatro Head SDS-Plus

HIGH IMPACT FULL HEAD SDS+ Carbide Bulk Packs

ITEM CODE DEWALT	SIZE	USABLE LENGTH	STD. BOX
DEW DW5502B25	3/16" x 4-1/2"	2"	25
DEW DW5503B25	3/16" x 6-1/2"	4"	25
DEW DW5504B25	3/16" x 8-1/2"	6"	25
DEW DW55050B25	3/16" x 10-1/2"	8"	25
DEW DW5506B25	3/16" x 12"	10"	25
DEW DW55100B25	7/32" x 6-1/2"	4"	25
DEW DW5516B25	1/4" x 4-1/2"	2"	25
DEW DW5517B25	1/4" x 6"	4"	25
DEW DW5518B25	1/4" x 8-1/2"	6"	25
DEW DW5524B25	5/16" x 6-1/2"	4"	25
DEW DW5527B25	3/8" x 6-1/2"	4"	25
DEW DW5537B25	1/2" x 6"	4"	25

2 CUTTER SDS+ Carbide Bits



- Carbide tip design maximizes carbide surface contact for longer bit life
- Elongated Four Flute Helix for Faster Material Removal
- Increased Steel Prevents Breakage



ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH	ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH
DEW DW5400		5/32" x 4"	2"	DEW DW5437	POW 00346	1/2" x 6"	4"
DEW DW5401	POW 00302	5/32" x 6-1/2"	4-1/2"	DEW DW5438	POW 00348	1/2" x 10"	8"
DEW DW5402	POW 00304	3/16" x 4"	2"	DEW DW5439	POW 00349	1/2" x 12"	10"
DEW DW5403	POW 00306	3/16" x 6-1/2"	4-1/2"	DEW DW5440	POW 00351	1/2" x 18"	16"
DEW DW5404	POW 00308	3/16" x 8-1/2"	6-1/2"	DEW DW5441	POW 00352	1/2" x 24"	22"
DEW DW5405	POW 00310	3/16" x 10"	8"	DEW DW5442	POW 00354	9/16" x 6"	4"
DEW DW5406	POW 00312	3/16" x 12"	10"	DEW DW5443	POW 00355	9/16" x 12"	10"
DEW DW5407	POW 00314	3/16" x 14"	12"	DEW DW5444		9/16" x 18"	16"
DEW DW5408		3/16" x 16"	14"	DEW DW5445		9/16" x 24"	22"
DEW DW5410		7/32" x 6"	4"	DEW DW5446	POW 00359	5/8" x 8"	6"
	POW 00316	7/32" x 8"	6"	DEW DW5447	POW 00361	5/8" x 12"	10"
DEW DW5412	POW 00317	7/32" x 10"	8"	DEW DW5448	POW 00362	5/8" x 18"	16"
	POW 00318	7/32" x 14"	12"	DEW DW5449		5/8" x 24"	22"
	POW 00319	7/32" x 16"	14"	DEW DW5450	POW 00364	11/16" x 8"	6"
DEW DW5416	POW 00320	1/4" x 4"	2"		POW 00365	11/16" x 12"	10"
DEW DW5417	POW 00321	1/4" x 6"	4"	DEW DW5453	POW 00368	3/4" x 8"	6"
DEW DW5418	POW 00322	1/4" x 8-1/2"	6-1/2"	DEW DW5455	POW 00370	3/4" x 12"	10"
DEW DW5420	POW 00323	1/4" x 12"	10"	DEW DW5456	POW 00371	3/4" x 18"	16"
	POW 00324	1/4" x 14"	12"	DEW DW5457		3/4" x 24"	22"
	POW 00325	1/4" x 16"	14"	DEW DW5458	POW 00373	27/32" x 8"	6"
	POW 00327	1/4" x 20"	18"	DEW DW5460	POW 00375	7/8" x 8"	6"
DEW DW5424	POW 00329	5/16" x 6"	4"	DEW DW5461	POW 00376	7/8" x 12"	10"
DEW DW5426	POW 00331	5/16" x 12"	10"	DEW DW5462	POW 00377	7/8" x 18"	16"
DEW DW5427	POW 00333	3/8" x 6"	4"		POW 00379	1" x 8"	6"
DEW DW5429	POW 00334	3/8" x 10"	8"	DEW DW5464	POW 00380	1" x 10"	8"
DEW DW5430	POW 00336	3/8" x 12"	10"		POW 00381	1" x 12"	10"
DEW DW5431	POW 00338	3/8" x 18"	16"	DEW DW5466	POW 00382	1" x 18"	16"
DEW DW5432	POW 00339	3/8" x 24"	22"	DEW DW5468		1-1/8" x 10"	8"
DEW DW5433	POW 00341	7/16" x 6"	4"	DEW DW5469		1-1/8" x 8"	16"
DEW DW543	POW 00343	7/16" x 12"	10"				
DEW DW5436		7/16" x 18"	16"				

Packaged individually

2 CUTTER SDS+ Carbide Bulk Packs

ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH	STD. POUCH
DEW DW5401B25	POW 00662	5/32" x 6-1/2"	4-1/2"	25
DEW DW5402B25	POW 00664	3/16" x 4"	2"	25
DEW DW5403B25	POW 00666	3/16" x 6-1/2"	4-1/2"	25
DEW DW5404B25	POW 00668	3/16" x 8-1/2"	6-1/2"	25
DEW DW5405B25	POW 00670	3/16" x 10"	8"	25
DEW DW5406B25		3/16" x 12"	10"	25
DEW DW5410B25	POW 00675	7/32" x 6"	4"	25
	POW 00676	7/32" x 8"	6"	25
	POW 00677	7/32" x 14"	12"	25
DEW DW5416B25	POW 00680	1/4" x 4"	2"	25
DEW DW5417B25	POW 00681	1/4" x 6"	4"	25
DEW DW5418B25	POW 00682	1/4" x 8-1/2"	6-1/2"	25
	POW 00683	1/4" x 11"	9"	25
DEW DW5424B25	POW 00689	5/16" x 6"	4"	25
DEW DW5427B25	POW 00693	3/8" x 6"	4"	25
DEW DW5437B25	POW 00696	1/2" x 6"	4"	25
DEW DW5446B10	POW 00697	5/8" x 8"	6"	10

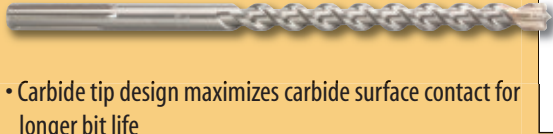
2 CUTTER SDS+ 5 pc. Carbide Bits Set



ITEM CODE DEWALT	INCLUDES
DEW DW5470	3/16" x 4-1/2" x 6-1/2", 1/4" x 2" x 4", 1/4" x 4" x 6", 3/8" x 4" x 6", 1/2" x 4" x 6"

2 & 4 CUTTER SDS MAX

High Impact Carbide Bits



- Carbide tip design maximizes carbide surface contact for longer bit life
- U-Flute cleans debris out for fast, efficient drilling.
- Open head design channels dust into flutes for quicker drilling.



ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH	ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH
2 CUTTER							
DEW DW5803	POW 08801	1/2" x 13-1/2"	8"	DEW DW5821	POW 08843	1-1/8" x 15"	10"
DEW DW5804	POW 08802	1/2" x 21-1/2"	16"	DEW DW5822	POW 08844	1-1/8" x 22-1/2"	18"
DEW DW5801	POW 08805	9/16" x 13-1/2"	8"	DEW DW5853		1-1/8" x 29"	24"
DEW DW5802		9/16" x 21-1/2"	16"	DEW DW5854		1-1/8" x 36"	31"
4 CUTTER							
DEW DW5806	POW 08809	5/8" x 13-1/2"	8"	DEW DW5824	POW 08846	1-1/4" x 15"	10"
DEW DW5809	POW 08810	5/8" x 21-1/2"	16"	DEW DW5825	POW 08847	1-1/4" x 22-1/2"	18"
DEW DW5807	POW 08812	5/8" x 36"	31"	DEW DW5855		1-1/4" x 29"	24"
DEW DW5808	POW 08815	11/16" x 21-1/2"	16"	DEW DW5826	POW 08848	1-1/4" x 36"	31"
DEW DW5810	POW 08817	3/4" x 13-1/2"	8"	DEW DW5860		1-5/16" x 22-1/2"	18"
DEW DW5812	POW 08818	3/4" x 21-1/2"	16"	DEW DW5827	POW 08853	1-3/8" x 22-1/2"	18"
DEW DW5813	POW 08820	3/4" x 36"	31"	DEW DW5856		1-3/8" x 29"	24"
DEW DW5814		13/16" x 21-1/2"	16"	DEW DW5829		1-7/16" x 22-1/2"	18"
DEW DW5817		27/32" x 21-1/2"	16"	DEW DW5828	POW 08859	1-1/2" x 22-1/2"	18"
DEW DW5815	POW 08829	7/8" x 13-1/2"	8"	DEW DW5858		1-1/2" x 29"	24"
DEW DW5816	POW 08830	7/8" x 21-1/2"	16"	DEW DW5859		1-1/2" x 36"	31"
DEW DW5851		7/8" x 36"	31"	DEW DW5861		1-9/16" x 22-1/2"	18"
DEW DW5818	POW 08833	1" x 13-1/2"	8"	DEW DW5830		1-3/4" x 22-1/2"	18"
DEW DW5819	POW 08834	1" x 21-1/2"	16"	DEW DW5831		2" x 22-1/2"	18"
DEW DW5852		1" x 29"	24"				
DEW DW5820	POW 08836	1" x 36"	31"				

Packaged individually

REBAR CUTTERS SDS+ Shank



No more broken or shattered hammer bits; now you can drill through the concrete-embedded rebar & not have to relocate the hole to avoid the rebar. Carbide-tipped rotary rebar cutter is intended for rotary drilling only; percussion (hammering action) will damage the tool.

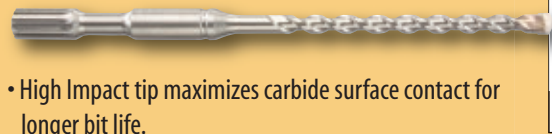
ITEM CODE SDS+ SHANK	SIZE	USABLE LENGTH	SUGGESTED RPM'S
<i>This is a one-piece system (non-removable shanks)</i>			
RCSDS-3/8x8	3/8"	8"	850-1200
RCSDS-3/8 x 1 2	3/8"	12"	850-1200
RCSDS-3/8x18	3/8"	18"	850-1200
RCSDS-7/16x12	7/16"	12"	850-1200
RCSDS-1/2x12	1/2"	12"	850-1200
RCSDS-1/2x18	1/2"	18"	850-1200
RCSDS-9/16x12	9/16"	12"	850-1200
RCSDS-9/16x18	9/16"	18"	850-1200
RCSDS-5/8x12	5/8"	12"	750-1000
RCSDS-5/8x18	5/8"	18"	750-1000
RCSDS-11/16x12	11/16"	12"	750-1000
RCSDS-3/4x12	3/4"	12"	600-850
RCSDS-3/4x18	3/4"	18"	600-850
RCSDS-3/4x24	3/4"	24"	600-850
RCSDS-13/16x12	13/16"	12"	600-850
RCSDS-7/8x12	7/8"	12"	600-850

ITEM CODE SDS+ SHANK	SIZE	USABLE LENGTH	SUGGESTED RPM'S
<i>This is a two-piece system and it comes with a shank to make an overlength of 12"; however longer or shorter shanks are available</i>			
RCSDS-1x12	1"	12"	500-750
RCSDS-1-1/8x12	1-1/8"	12"	500-750
RCSDS-1-1/4x12	1-1/4"	12"	450-600
RCSDS-1-3/8x12	1-3/8"	12"	450-600
RCSDS-1-1/2x12	1-1/2"	12"	350-500
RCSDS-1-3/4x12	1-3/4"	12"	350-500
RCSDS-2x12	2"	12"	350-500
RCSDS-2-1/2x12	2-1/2"	12"	350-500

* Also available in straight shanks

4 CUTTER SPLINE

High Impact Carbide Bits



- High Impact tip maximizes carbide surface contact for longer bit life.
- Open head design channels dust into flutes and longer helix four flute design expedites mill removal for quicker drilling.



ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH	ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH
DEW DW5740	POW 07017	5/8" x 10"	5"	DEW DW5756	POW 07051	1" x 22"	17"
DEW DW5741	POW 07020	5/8" x 16"	11"	DEW DW5757	POW 07053	1" x 36"	31"
DEW DW5742	POW 07021	5/8" x 22"	17"	DEW DW5758	POW 07057	1-1/8" x 16"	11"
DEW DW5743	POW 07023	5/8" x 27"	22"	DEW DW5759	POW 07059	1-1/8" x 22"	17"
DEW DW5744		5/8" x 36"	31"	DEW DW5760	POW 07064	1-1/4" x 16"	11"
DEW DW5746	POW 07031	3/4" x 10"	5"	DEW DW5761	POW 07066	1-1/4" x 22"	17"
DEW DW5747	POW 07033	3/4" x 16"	11"	DEW DW5762	POW 07069	1-1/4" x 36"	31"
DEW DW5748	POW 07035	3/4" x 22"	17"	DEW DW5763	POW 07072	1-3/8" x 16"	11"
DEW DW5749	POW 07036	3/4" x 27"	22"	DEW DW5765		1-3/8" x 22"	17"
DEW DW5750	POW 07037	3/4" x 36"	31"	DEW DW5764	POW 07077	1-1/2" x 22"	17"
DEW DW5752	POW 07043	7/8" x 16"	11"	DEW DW5768		1-3/4" x 22"	17"
DEW DW5753	POW 07045	7/8" x 22"	17"	DEW DW5769		2" x 22"	17"
DEW DW5755	POW 07049	1" x 16"	11"				

Packaged individually

2 CUTTER SPLINE

Carbide Bits

- Carbide tip design maximizes carbide surface contact for longer bit life CARBIDE® tip maximizes carbide surface contact for longer bit life.
- U-Flute cleans debris out for fast, efficient drilling.

ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH	ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH
DEW DW5700	POW 01401	3/8" x 10"	5"	DEW DW5716	POW 01434	3/4" x 22"	17"
DEW DW5701	POW 01402	3/8" x 13"	8"	DEW DW5717	POW 01436	3/4" x 27"	22"
	POW 01403	3/8" x 16"	11"	POW 01437	3/4" x 36"	31"	
DEW DW5702	POW 01405	7/16" x 10"	5"	DEW DW5719	POW 01443	7/8" x 16"	11"
DEW DW5703	POW 01407	1/2" x 10"	5"	DEW DW5720	POW 01444	7/8" x 22"	17"
	POW 01408	1/2" x 13"	8"	POW 01446	7/8" x 36"	31"	
DEW DW5704	POW 01409	1/2" x 16"	11"	DEW DW5721	POW 01449	1" x 16"	11"
DEW DW5705	POW 01410	1/2" x 22"	17"	DEW DW5722	POW 01450	1" x 22"	17"
DEW DW5706	POW 01412	1/2" x 27"	22"	DEW DW5723	POW 01453	1" x 36"	31"
DEW DW5707	POW 01413	1/2" x 36"	31"	DEW DW5724		1-1/8" x 10"	5"
DEW DW5708	POW 01415	9/16" x 10"	5"	DEW DW5725	POW 01457	1-1/8" x 16"	11"
DEW DW5735		9/16" x 22"	17"	DEW DW5726	POW 01458	1-1/8" x 22"	17"
DEW DW5709	POW 01418	5/8" x 10"	5"	DEW DW5727	POW 01464	1-1/4" x 16"	11"
	POW 01419	5/8" x 13"	8"	DEW DW5728	POW 01465	1-1/4" x 22"	17"
DEW DW5710	POW 01420	5/8" x 16"	11"	DEW DW5729	POW 01470	1-3/8" x 16"	11"
DEW DW5711	POW 01421	5/8" x 22"	17"	DEW DW5730	POW 01471	1-3/8" x 22"	17"
DEW DW5712		5/8" x 27"	22"	DEW DW5731		1-1/2" x 16"	11"
	POW 01424	5/8" x 36"	31"	DEW DW5732	POW 01477	1-1/2" x 22"	17"
DEW DW5713	POW 01427	11/16" x 10"	5"	DEW DW5733	POW 01486	1-3/4" x 22"	17"
DEW DW5714	POW 01431	3/4" x 10"	5"	DEW DW5734	POW 01490	2" x 22"	17"
DEW DW5715	POW 01433	3/4" x 16"	11"				

Packaged individually

ANCHORS

PREMIUM PERCUSSION BITS

- 2 Cutter carbide tip maximizes carbide surface contact for longer bit life.
- Four flute design cleans debris out for fast, efficient drilling
- Three flats on shank eliminate bit slipping in chuck (except DW5232, DW5233, DW5237, DW5238)



ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH	ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH
DEW DW5221	POW 00501	1/8" x 3"	2"	DEW DW5232		3/8" x 18"	16"
DEW DW5209		5/32" x 3"	2"	DEW DW5233	POW 00525	3/8" x 24"	22"
DEW DW5227	POW 00503	5/32" x 6"	4"	DEW DW5234		7/16" x 6"	4"
DEW DW5222	POW 00504	3/16" x 3"	2"	DEW DW5235	POW 00531	1/2" x 6"	4"
DEW DW5223	POW 00505	3/16" x 6"	4"	DEW DW5236	POW 00532	1/2" x 12"	10"
DEW DW5211		7/32" x 6"	4"	DEW DW5237		1/2" x 18"	16"
DEW DW5224	POW 00512	1/4" x 4"	2"	DEW DW5238	POW 00534	1/2" x 24"	22"
DEW DW5225	POW 00513	1/4" x 6"	4"	DEW DW5217		9/16" x 6"	4"
DEW DW5226	POW 00514	1/4" x 12"	7"	DEW DW5241	POW 00538	5/8" x 6"	4"
	POW 00516	1/4" x 24"	22"	DEW DW5242	POW 00540	5/8" x 12"	7"
DEW DW5228	POW 00519	5/16" x 6"	4"	DEW DW5244	POW 00545	3/4" x 6"	4"
DEW DW5229		5/16" x 12"	7"	DEW DW5245	POW 00547	3/4" x 12"	7"
DEW DW5230	POW 00522	3/8" x 6"	4"	DEW DW5219		7/8" x 12"	7"
DEW DW5231	POW 00523	3/8" x 12"	10"	DEW DW5249		1" x 12"	7"

Packaged individually

PERCUSSION BITS BULK PACKS

ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	USABLE LENGTH	STD. BOX
DEW DW5221B25		1/8" x 3"	2"	25
DEW DW5227B25		5/32" x 6"	4"	25
DEW DW5222B25		3/16" x 3"	2"	25
DEW DW5223B25		3/16" x 6"	4"	25
DEW DW5224B25	POW 00593	1/4" x 4"	2"	25
DEW DW5225B25	POW 00594	1/4" x 6"	4"	25
DEW DW5228B25		5/16" x 6"	4"	25
DEW DW5230B25	POW 00595	3/8" x 6"	4"	25
DEW DW5235B10		1/2" x 6"	4"	10

*The shank is hex shaped for drill bits 5/8" diameter and larger.

PERCUSSION BITS SETS



ITEM CODE	DESCRIPTION
DEW DW5204	4-Pc. Premium Percussion Masonry Drill Bit Set
DEW DW5205	5-Pc. Premium Percussion Masonry Drill Bit Set
DEW DW5207	7-Pc. Premium Percussion Masonry Drill Bit Set

HEAVY DUTY CORE BITS

TWO-PC. CARBIDE CORE BITS



Heavy Wall

- Alternating tooth design delivers increased durability and quicker centering.
- Low friction core body provides faster drilling
- Two-piece design provides more versatility than one-piece design

ITEM CODE DEWALT	DIAMETER & LENGTH	DESCRIPTION	STD. BOX
DEW DW5900	1-1/2" x 4"	Core Bit Body	1
DEW DW5901	2" x 4"	Core Bit Body	1
DEW DW5902	2-1/2" x 4"	Core Bit Body	1
DEW DW5903	3" x 4"	Core Bit Body	1
DEW DW5904	3-1/2" x 4"	Core Bit Body	1
DEW DW5905	4" x 4"	Core Bit Body	1
DEW DW5906	5" x 4"	Core Bit Body	1
DEW DW5907	Centering	Core Bit Body	1
DEW DW5908	Thread Adapter		1
DEW DW5909	7" Spline	Core Bit Shank	1
DEW DW5910	16" Spline	Core Bit Shank	1
DEW DW5911	7" SDS Max	Core Bit Shank	1
DEW DW5912	16" SDS Max	Core Bit Shank	1



ONE-PC. CARBIDE CORE BITS



SDS Max, Spline

- Tool free centering bit allows for easier removal
- One-piece design provides more durability than two-piece design

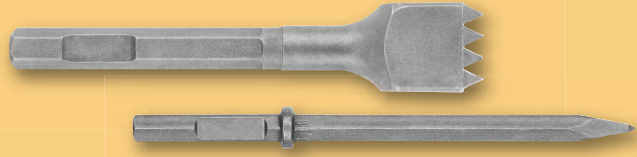
ITEM CODE DEWALT	DIAMETER & LENGTH	DESCRIPTION	STD. BOX
SDS MAX			
DEW DW5914	1-3/4" x 12"	Core Bits	1
DEW DW5915	1-3/4" x 22"	Core Bits	1
DEW DW5916	2" x 12"	Core Bits	1
DEW DW5917	2" x 22"	Core Bits	1
DEW DW5918	2-3/4" x 12"	Core Bits	1
DEW DW5919	2-3/4" x 22"	Core Bits	1
DEW DW5920	3-1/4" x 12"	Core Bits	1
DEW DW5921	3-1/4" x 22"	Core Bits	1
DEW DW5922	3-1/2" x 12"	Core Bits	1
DEW DW5923	3-1/2" x 22"	Core Bits	1
DEW DW5924	4" x 12"	Core Bits	1
DEW DW5925	4" x 22"	Core Bits	1
DEW DW5926	5" x 22"	Core Bits	1
DEW DW5927	6" x 22"	Core Bits	1
SPLINE			
DEW DW5930	1-3/4" x 12"	Core Bits	1
DEW DW5931	1-3/4" x 22"	Core Bits	1
DEW DW5932	2" x 12"	Core Bits	1
DEW DW5933	2" x 22"	Core Bits	1
DEW DW5934	2-3/4" x 12"	Core Bits	1
DEW DW5935	2-3/4" x 22"	Core Bits	1
DEW DW5936	3-1/4" x 12"	Core Bits	1
DEW DW5937	3-1/4" x 22"	Core Bits	1
DEW DW5938	3-1/2" x 12"	Core Bits	1
DEW DW5939	3-1/2" x 22"	Core Bits	1
DEW DW5940	4" x 12"	Core Bits	1
DEW DW5941	4" x 22"	Core Bits	1
DEW DW5942	5" x 22"	Core Bits	1
DEW DW5943	6" x 22"	Core Bits	1
DEW DW5945	Centering Bit		1



HEAVY DUTY CHISELS

Spline, SDS Max, 3/4" Hex, 1-1/8" Hex

- Fully hardened steel body delivers increased life and durability.
- Bulk packs of 10 or 15 available for the most common products.



ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	CHISEL TYPE	STD. BOX
SPLINE- 3/4" HEX x 21/32" ROUND SPLINE SHANK				
DEW DW5770	POW 00950	12"	Bull Point	1
DEW DW5771	POW 00951	18"	Bull Point	1
DEW DW5772		1-1/2" x 12"	Slotting Chisel	1
DEW DW5773	POW 00954	1-1/2" x 12"	Scaling Chisel	1
DEW DW5774	POW 00955	2" x 12"	Scaling Chisel	1
DEW DW5775		3" x 12"	Scaling Chisel	1
DEW DW5779	POW 00952	1" x 12"	Cold Chisel	1
DEW DW5780	POW 00953	1" x 18"	Cold Chisel	1
DEW DW5783	POW 00960	10"	Bushing Tool	1
DEW DW5785	POW 00959	3/4"	Ground Rod Driver	1
DEW DW5790		Spline to 1/2" Chuck Adapter		1
DEW DW5791		Spline to SDS Plus Adapter		1
DEW DW5786B		4-1/2"	Clay Spade	1
DEW DW5770B15		12"	Bull Point	15
DEW DW5771B15		18"	Bull Point	15
DEW DW5775B10		3"	Scaling Chisel	10
DEW DW5779B15		1" x 12"	Cold Chisel	15
DEW DW5780B15		1" x 18"	Cold Chisel	15
DEW DW5783B10		10"	Bushing Tool	10



ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	CHISEL TYPE	STD. BOX
SDS MAX				
DEW DW5832	POW 00965	12"	Bull Point	1
DEW DW5833	POW 00966	18"	Bull Point	1
DEW DW5834	POW 00967	1" x 12"	Cold Chisel	1
DEW DW5835	POW 00968	1" x 18"	Cold Chisel	1
DEW DW5837	POW 00969	2" x 12"	Scaling Chisel	1
DEW DW5838	POW 00970	3" x 12"	Scaling Chisel	1
DEW DW5842		12"	Slotting Tool	1
DEW DW5843	POW 00975	10"	Bushing Tool	1
DEW DW5846		16"	Asphalt Cutter	1
DEW DW5847	POW 00974	3/4"	Ground Rod Driver	1
DEW DW5848B		4-1/2"	Clay Spade	1
DEW DW5832B15		12"	Bull Point	15
DEW DW5833B15		18"	Bull Point	15
DEW DW5834B15		1" x 12"	Cold Chisel	15
DEW DW5835B15		1" x 18"	Cold Chisel	15
DEW DW5838B10		3"	Scaling Chisel	10
DEW DW5843B10		10"	Bushing Tool	10



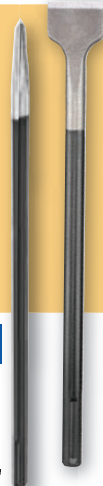
ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	CHISEL TYPE	STD. BOX
1-1/8" HEX				
DEW DW5960		20"	Bull Point	Each
DEW DW5962		20"	Cold Chisel	Each
DEW DW5961		3" x 20"	Scaling Chisel	Each
DEW DW5965		5-1/2"	Clay Spade	Each
DEW DW5964		1"	Ground Rod Driver	Each
DEW DW5963		17"	Asphalt Cutter	Each

ITEM CODE DEWALT	ITEM CODE POWERS	SIZE	CHISEL TYPE	STD. BOX
3/4" HEX				
DEW DW5949		10"	Bushing Tool	1
DEW DW5950		12"	Bull Point	1
DEW DW5951		18"	Bull Point	1
DEW DW5952		3" x 12"	Scaling Chisel	1
DEW DW5953	POW 00982	1" x 12"	Cold Chisel	1
DEW DW5954	POW 00983	1" x 18"	Cold Chisel	1
DEW DW5958		3/4"	Ground Rod Driver	1
DEW DW5959B		4-1/2"	Clay Spade	1
DEW DW5949B10		10"	Bushing Tool	10
DEW DW5950B15		12"	Bull Point	15
DEW DW5951B15		18"	Bull Point	15
DEW DW5952B10		3" x 12"	Scaling Chisel	10
DEW DW5953B15		1" x 12"	Cold Chisel	15
DEW DW5954B15		1" x 18"	Cold Chisel	15

HIGH IMPACT STEEL CHISELS

SDS Max, SDS PLUS, 3/4" Hex

- Dual Steel Design is high impact and shock resistant.
- High durability, wear resistant tip increase durability and reduces down time.
- High durability, shock resistant shaft prevents breakage and increases productivity



ITEM CODE DEWALT	SIZE	CHISEL TYPE	STD. BOX
3/4" HEX			
DEW DWA5970	16"	Bull Point	1
DEW DWA5973	1" x 16"	Cold Chisel	1

ITEM CODE DEWALT	SIZE	CHISEL TYPE	STD. BOX
SDS MAX			
DEW DWA5850	12"	Bull Point	1
DEW DWA5851	16"	Bull Point	1
DEW DWA5852	1" x 12"	Cold Chisel	1
DEW DWA5853	1" x 16"	Cold Chisel	1
DEW DWA5854	2" x 16"	Scaling Chisel	1
DEW DWA5855	3" x 16"	Scaling Chisel	1
DEW DWA5856	10"	Bushing Tool	1

ITEM CODE DEWALT	SIZE	CHISEL TYPE	STD. BOX
SDS PLUS			
DEW DWA5320	12"	Bull Point	1
DEW DWA5321	1-1/2" x 12"	Scaling Chisel	1
DEW DWA5322	3/4" x 12"	Cold Chisel	1

POWERFOAM™

PowerFoam is a single component, moisture curing expanding polyurethane foam. The adhesive strength of PowerFoam allows it to be set on various types of building elements including concrete, brick, wood, metal, aluminum & steel. When installing the foam, consideration should be given to the 2-3 times expansion of the foam after it leaves the plastic tube. The surface of the foam initially dries within 1- 5 hours and becomes fully cured in 12-15 hours. The foam works best at room temperature. It is dispensed through a straw-like plastic tube that is packaged with the can. The structure of the hardened foam provides excellent insulation against heat and noise. The foam has a R-5 equivalent value when used in place of traditional installation methods. PowerFoam is used in applications where it is not necessary to control the size of the bead or the rate of flow. PowerFoam can be used in a wide

variety of applications. Use it to fill, seal or insulate. It blocks drafts, stops leaks, saves energy, adheres to all types of construction material, deadens sound, acts as a buoyancy material once cured, controls radon, confines asbestos fibers, and can be used in HVAC applications. PowerFoam also seals and keeps out insects and rodents. After installation, it is recommended that a full 24 hours elapse prior to scraping, sanding staining or painting.



POWERFOAM™

ITEM CODE	DESCRIPTION	CTN. QTY.
POW 08130N	PowerFoam™ 12 oz.	12
POW 08132N	PowerFoam™ 29 oz.	12

TRIGGERFOAM PRO™

Foam Products

- TriggerFoam Pro™ a professional grade, gun applied, polyurethane foam sealant
- TriggerFoam Pro™ is dispensed through a special gun that allows the user to control the flow rate and diameter of the bead, allowing precise placement of the foam.
- Excellent Fire and Smoke ratings.
- B2 Rated, self extinguishing foams.
- 29 oz. contents versus competition with 20-24 oz.
- Fire Block, Window and Door, All Season all meet E814 Type V Residential Fire Blocking requirements and are colored orange.

- Window and Door Foam meets AAMA 812 requirements. Will not distort window and door frames.
- Voids should be filled approximately 30-60% to allow for the final expansion of the foam.
- Recommended curing time is 24 hours prior to scraping or painting.



TRIGGERFOAM PRO™

Fireblock

FireBlock is designed to effectively block the spread of smoke and flame in Type V residential construction. It is more cost effective than fiberglass and caulks used for this purpose. NOT A FIRESTOP.

TriggerFoam Pro	Hilti
Pro Fire Block	CF-810
29 oz.	23 oz.
Orange	Orange
Gun Applied	Gun Applied
Flame: 5	Flame: 0
Smoke: 10	Smoke: 10
Type V Res. Fire Block Meets E814	Type V Res. Fire Block
18 mo. Shelf life	12 mo. Shelf life
ESR-3263	-

APPROVALS & LISTINGS

International Code Council Evaluation Service (ICC-ES), ESR-3263 for Thermal and Moisture Protection and annular space protection for wood fire blocking.

- Code compliant with the 2009 IBC, 2009 IRC, 2006 IBC, 2006 IRC.
- Underwriters Laboratory (UL Listing) – File No. R16754, Caulkings and Sealants
- Tested in accordance with UL 723 “Test for Surface Burning Characteristics of Building Materials” and ASTM E814M
- Applied to Inorganic Reinforced Cement Board tested as applied in two 3/4” diameter beads, 5” OC covering 12.5 percent of the exposed test area:
 - Flame spread 5
 - Smoke developed 10
- Tested in accordance with ASTM E 90 (Sound Transmission Classification 60), ASTM C 518 and ASTM C 423



FIREBLOCK

ITEM CODE	DESCRIPTION	CTN. QTY.
POW 08133P	TriggerFoam Pro™ Fireblock 29 oz	12



TRIGGERFOAM PRO™

Window & Door

Window and Door formula does not distort window and door frames when expanded. Adheres to wood, metal, masonry and concrete. Seals gaps and joints, insulates, stops air infiltration and saves time and money. Ideal for use around pipes, wires and ductwork.

TriggerFoam Pro	Hilti
Pro Windows/Doors	CF-812
29 oz.	23 oz.
Orange	Off-White
Gun Applied	Gun Applied
Flame: 0	Flame: 0
Smoke: 10	Smoke: 5
Type V Res. Fire Block	Not a Fire Block
Meets E814	-
18 mo. Shelf life	12 mo. Shelf life

APPROVALS & LISTINGS

- Underwriters Laboratories - File No. R16754
- Caulking and Sealants Surface Burning Characteristics
- ASTM E 84 (12.5%) • Flame Spread 0
- Smoke Developed 10
- ASTM E 90 Sound Transmission Classification 60
- AAMA 812 -04
- ICC-ES ESR-3263 Code Listed

CODE LISTED
ICC-ES ESR-3263
CATEGORY 1
Fireblocking in Residential Construction

The information and data was current as of May 14, 2012.

WINDOW & DOOR

ITEM CODE	DESCRIPTION	CTN. QTY.
POW 08134P	TriggerFoam Pro™ Window & Door Formula 29 oz	12



TRIGGERFOAM PRO™

All Season

All Season formula has an extended application temperature range, which allows use at temperatures as low as 23°F (5°C). May be used at 14° F (-10° C) if can is stored at 77° F (25° C) for 8 hrs. before use. Adheres to wood, metal, masonry and concrete. Seals gaps and joints, insulates, stops air infiltration, and saves time and money.

TriggerFoam Pro	Hilti
All Season	CF-512 Pro Foam
29 oz.	24 oz.
Orange	Off-White
Gun Applied	Gun Applied
Flame: 0	Flame: 25
Smoke: 10	Smoke: 50
Type V Res. Fire Block	Not a Fire Block
18 mo. Shelf life	12 mo. Shelf life

APPROVALS & LISTINGS

- Underwriters Laboratories - File No. R16754
- Caulking and Sealants
- ASTM E 84 (12.5%)
- Flame Spread 0
- Smoke Developed 10
- ASTM E 90 Sound Transmission Classification 60
- ICC-ES ESR-3263 Code Listed

CODE LISTED
ICC-ES ESR-3263
CATEGORY 1
Fireblocking in Residential Construction

The information and data was current as of May 14, 2012.

ALL SEASON

ITEM CODE	DESCRIPTION	CTN. QTY.
POW 08135P	TriggerFoam Pro™ All Season Formula 29 oz	12



TRIGGERFOAM PRO™

Standard Formula

Standard formula adheres to wood, metal, masonry and concrete. Seals gaps and joints, insulates, stops air infiltration and saves time and money. Ideal for use around pipes, wires and ductwork.

TriggerFoam Pro	Hilti
Standard	CF-116
29 oz.	29 oz.
Beige	Off-White
Gun Applied	Gun Applied
-	B2
18 mo. Shelf life	12 mo. Shelf life

APPROVALS & LISTINGS

- Underwriters Laboratories - File No. R16754
- Caulking and Sealants Surface Burning Characteristics
- ASTM E 84 (12.5%) • Flame Spread 5
- Smoke Developed 10 • ASTM E 90 Sound Transmission Classification 60

The information and data was current as of May 14, 2012.

STANDARD FORMULA

ITEM CODE	DESCRIPTION	CTN. QTY.
POW 08136N	TriggerFoam Pro™ Standard Formula 29 oz	12



TRIGGERFOAM PRO™

Accessories

TriggerFoam Pro™ Cleaner removes uncured polyurethane foam sealant from inside and outside of application tools. May also be used to remove uncured foam from hands, clothing and unintended surfaces. Always test on an inconspicuous area to be sure that cleaner will not damage the finish. Contents are extremely flammable. Do not smoke while using. Keep away from flames, pilot lights, hot surfaces such as light bulbs and objects that may create sparks, such as electric motors, fans, etc.

ACCESSORIES

ITEM CODE	DESCRIPTION	CTN. QTY.
POW 08147	TriggerFoam Pro™ Cleaner 17 fl. oz.	6
POW 08126	TriggerFoam Pro™ 20" Metal Gun	1
POW 08128	TriggerFoam Pro™ Deluxe Metal Gun, Black	1
POW 08139	TriggerFoam Pro™ Plastic Gun	1



AC100+GOLD™

Vinylester Injection Adhesive

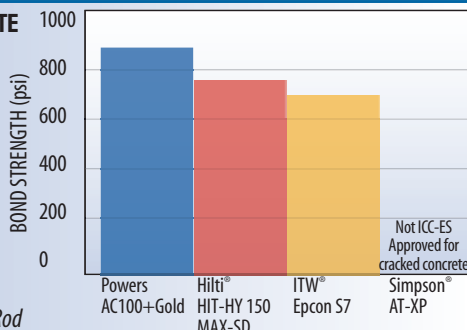
The AC100+ Gold is a two-component vinylester adhesive anchoring system. The system includes injection adhesive in plastic cartridges, mixing nozzles, dispensing tools and hole cleaning equipment. The AC100+ Gold is designed for bonding threaded rod and reinforcing bar elements into drilled holes in concrete and masonry base materials

APPROVALS & LISTINGS

- International Code Council, Evaluation Service (ICC-ES) ESR-2582 (Including FBC Supplement)
- Code compliant with the 2012 IBC, 2012 IRC, 2009 IBC, 2009 IRC, 2006 IBC, and 2006 IRC
- Tested in accordance with ASTM E 488 and ICC-ES AC308 for use in structural concrete with ACI 318 Appendix D (Strength Design).
- Compliant with NSF/ANSI Standard 61 for drinking water system components – health effects; minimum requirements for materials in contact with potable water and water treatment
- Conforms to requirements of ASTM C 881, Types I, II, IV and V, Grade 3, Classes A & B (meets Type III with exception of elongation)
- Department of Transportation listings – see www.powers.com or contact transportation agency

CRACKED CONCRETE BOND STRENGTH COMPARISON

Characteristic Bond Strength Comparison for Acrylic Adhesive Anchoring Systems Installed into Cracked Normal-Weight Concrete with 1/2-inch Threaded Rod



AC100+GOLD™ CARTRIDGES



CODE LISTED
ICC-ES ESR-2582
 CATEGORY 1
 Cracked & Uncracked Concrete

ICC-ES ESR-3200
 Concrete Masonry Units (CMU)



ITEM CODE	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 8478SD	10 fl. oz. Quick-Shot	12	36
POW 8486SD	12 fl. oz. dual cartridge	-	12
POW 8490SD	28 fl. oz. dual cartridge	-	8

- A FREE mixing nozzle is packed with 1 cartridge.
- AC100+Gold™ mixing nozzles must be used to ensure complete and proper mixing of the adhesive.

• See accessories for mixing nozzles and hole cleaning tools on p126

DISPENSING TOOLS

ITEM CODE	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 08437	Manual caulking gun for Quick-Shot	1	12
POW 08485	8 and 12 oz. high performance manual tool	1	20
POW 08494	28 oz. standard all metal manual tool	1	-



PE1000+™

Epoxy Injection Adhesive System

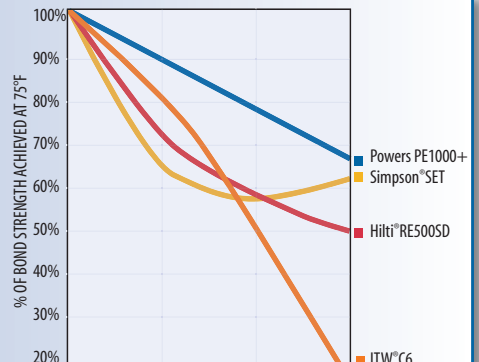
The PE1000+ is a two-component, high strength adhesive anchoring system. The system includes injection adhesive, mixing nozzles, dispensing tools and hole cleaning equipment. The PE1000+ pure epoxy features an exceptional 3:1 ratio holding power and is designed for anchoring threaded rod, bolts, reinforcing bars and smooth dowels into concrete and other solid base materials.

APPROVALS & LISTINGS

- International Code Council, Evaluation Service (ICC-ES) ESR-2583
- Code compliant with the 2015 IBC, 2015 IRC, 2012 IBC, 2012 IRC, 2009 IBC, 2009 IRC, 2006 IBC, and 2006 IRC
- Tested in accordance with ACI 355.4 and AC308 for use in structural concrete according to ACI 318 Appendix D (Strength Design)
- Evaluated and qualified by an accredited independent testing laboratory for recognition in cracked and uncracked concrete including seismic and wind loading
- Compliant with NSF/ANSI Standard 61 for drinking water system components – health effects; minimum requirements for materials in contact with potable water and water treatment
- Conforms to requirements of ASTM C 881, Types I, II, IV and V, Grade 3, Classes B & C (also meets type III except for elongation)
- Department of Transportation listings – see www.powers.com or contact transportation agency

BOND STRENGTH REDUCTION VS. ELEVATED TEMPERATURE

Bond Strength vs. Temperature Chart for Epoxy Adhesive Anchoring Systems Installed into Uncracked Normal-Weight Concrete with Threaded Rod



PE1000™ CARTRIDGES



CODE LISTED
ICC-ES ESR-2583
 CATEGORY 1
 Cracked & Uncracked Concrete



ITEM CODE	DESCRIPTION	CTN. QTY.
POW 0500SD	13 fl. oz. dual cartridge w/ nozzle & ext. tube	12
POW 0502SD	20 fl. oz. dual cartridge w/ nozzle & ext. tube	12

- A FREE mixing nozzle is packed with 1 cartridge.
- PE1000+™ mixing nozzles must be used to ensure complete and proper mixing of the adhesive.

• See accessories for mixing nozzles and hole cleaning tools on p126

DISPENSING TOOLS

ITEM CODE	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 08298	13 fl. oz. and 20 fl. oz. manual disp.	1	5



PURE110+™

Epoxy

The Powers Pure110+ is a two-component adhesive anchoring system. The system includes injection adhesive in plastic cartridges, mixing nozzles, dispensing tools and hole cleaning equipment. The Pure110+ is designed for bonding threaded rod and reinforcing bar hardware into drilled holes in solid concrete base materials. General applications includes;

- Bonding threaded rod and reinforcing bar into hardened concrete
- Evaluated for installation and use in dry and wet holes
- Can be installed in a wide range of base material temperatures
- Designed for use with threaded rod & reinforcing bar hardware elements
- Evaluated and recognized for freeze/thaw performance
- Cartridge design allows for multiple uses using extra mixing nozzles
- Mixing nozzles proportion adhesive and provide simple delivery method into drilled holes
- Evaluated and recognized for long term and short term loading

APPROVALS & LISTINGS

- International Code Council, Evaluation Service (ICC-ES) ESR-3298 for cracked and uncracked concrete
- Code Compliant with 2012 IBC, 2012 IRC, 2009 IBC, 2009 IRC, 2006 IBC, and 2006 IRC.
- Conforms to requirements of ASTM C 881, Types I, II, IV and V, Grade 3, Classes B & C (also meets Type III except for elongation)
- Department of Transportation listings – see www.powers.com or contact transportation agency
- Tested in accordance with ACI 355.4, ASTM E 488, and ICC-ES AC308 for use in structural concrete (Design according to ACI 318 Appendix D)
- Evaluated and qualified by an accredited independent testing laboratory for recognition in cracked and uncracked concrete including seismic and wind loading.
- Compliant with NSF/ANSI 61 for drinking water system components - health effects; minimum requirements for materials in contact with potable water and water treatment

PURE110+™ CARTRIDGES



ITEM CODE	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 08310SD	9 fl. oz. Quik-Shot cartridge	12	24
POW 08321SD	21 fl. oz. dual cartridge	12	

- A FREE mixing nozzle is packed with 1 cartridge.
- Pure110+™ mixing nozzles must be used to ensure complete and proper mixing of the adhesive.

• See accessories for mixing nozzles and hole cleaning tools on p126



DISPENSING TOOLS

ITEM CODE	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 08409	21 fl. oz. standard metal manual tool	1	10
POW 08421	21 fl. oz. high performance manual tool	1	10
POW 08437	Manual caulking gun for Quik-Shot	1	12
POW 08479	High performance caulking gun for Quik-Shot	1	12



HAMMER-CAPSULES®

Drive-In Capsule Anchor

The Hammer-Capsule® System consists of a self contained, single use, two-part glass capsule into which threaded anchor rod or reinforcing bars can be directly driven without the need for a chisel point or spinning action. It is designed for use in the installation of 3/8" through 1" diameter threaded rod in solid concrete and masonry materials. It can also be used to install reinforcing bars. A mixture of hardener and quartz aggregate is contained in the upper portion of the capsule while the lower portion contains an epoxy acrylate resin. Unlike traditional capsule anchors which required the use of chisel-pointed anchor rod and special installation tools, the Hammer-Capsule is designed for use with straight cut anchor rod.

- Anchoring rebar and threaded rods in solid concrete and grouted concrete masonry.
- Steel erection including anchoring of equipment and column base plates
- Use to reduce vibratory loads caused by machinery, moving vehicles, etc.
- Barriers, fencing and railing attachments

MATERIAL SPECIFICATIONS

Physical Properties

Shelf Life	2 Years
Storage Conditions	Store dry at 40° - 90°F and out of direct sunlight
Installation Temp.	Condition capsules to 60°F minimum for best results
Color	Mixed adhesive mortar-amber
Consistency	Paste mortar

HAMMER-CAPSULES®



ITEM CODE	SIZE	DRILL DIA.*	MIN. DEPTH	BOX QTY.	CTN. QTY.
POW 06702	3/8"	7/16"	3-1/2"	10	500
POW 06703	1/2"	9/16"	4-1/4"	10	200
POW 06704	5/8"	11/16"	5"	10	100
POW 06705	3/4"	7/8"	6-5/8"	5	50
POW 06706	7/8"	1"	7"	5	50
POW 06707	1"	1-1/8"	8-1/4"	5	50

*The drill bit diameters and depths listed are for installations using threaded rod.

• See accessories for mixing nozzles and hole cleaning tools on p126

ACCESSORY PRODUCTS

For Adhesive Anchors

MIXING NOZZLES

ITEM CODE	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 08293	Extra mixing nozzle for AC100+ Gold (5, 8, 10 & 12 oz.)	2	24
POW 08294	Extra mixing nozzle (w/8" extension) for AC100+ Gold 28 oz./PE1000+/Pure50+/Pure110+ Quik-Shot	2	24
POW 08281	Mixing nozzle extension, 8" minimum	2	24
POW 08609	Extra high flow mixing nozzle (with 8" extension) for Pure110+ dual cartridge	2	24

HOLE CLEANING TOOLS

& Accessories

ITEM CODE	DESCRIPTION
POW 08284	Wire brush for 7/16" ANSI hole (3/8" rod or #3 rebar), 6-3/4" length
POW 08285	Wire brush for 9/16" ANSI hole (1/2" rod or #4 rebar), 6-3/4" length
POW 08275	Wire brush for 5/8" ANSI hole (5/8" rod or #4 rebar), 6-3/4" length
POW 08286	Wire brush for 11/16" ANSI hole (5/8" rod or #5 rebar), 7-7/8" length
POW 08278	Wire brush for 3/4" ANSI hole (5/8" rod or #5 rebar), 7-7/8" length
POW 08287	Wire brush for 7/8" ANSI hole (3/4" rod or #6 rebar), 7-7/8" length
POW 08288	Wire brush for 1" ANSI hole (7/8" rod or #7 rebar), 11-7/8" length
POW 08289	Wire brush for 1-1/8" ANSI hole (1" rod or #8 rebar), 11-7/8" length
POW 08290	Wire brush for 1-3/8" ANSI hole (1-1/4" rod or #9 rebar), 11-7/8" length
POW 08291	Wire brush for 1-1/2" ANSI hole (#10 rebar), 11-7/8" length
POW 08283	SDS-plus adapter for steel brushes
POW 08296	Standard drill adapter for steel brushes (e.g. Jacobs Chuck)
POW 08282	Steel brush extension, 12" length
POW 08280	Hand pump/dust blower (25 fl.oz. cylinder volume)
POW 08292	Air compressor nozzle with extension, 18" length
POW 52073	Adhesive cleaning kit, includes 4 wire brushes (08284, 08285, 08286, 08287), steel brush extension (08282), SDS-plus adapter (08283), standard drill adapter (08296), hand pump/dust blower (08280), gloves and safety glasses



STAINLESS STEEL SCREEN TUBES

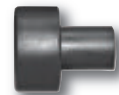
Screen tubes are used with voids and cavities which require keying action for load transfer. The screen tubes hold the adhesive in place & accept threaded rod and reinforcing bar.

ITEM CODE	DESCRIPTION	DRILL DIA.	CTN. QTY.
POW 07864	1/4" x 8" Screen Tube*	3/8"	25
POW 07961	3/8" x 3-1/2" Screen Tube*	1/2"	25
POW 07962	3/8" x 6" Screen Tube*	1/2"	25
POW 07963	3/8" x 8" Screen Tube*	1/2"	25
POW 07964	3/8" x 10" Screen Tube*	1/2"	25
POW 07959	3/8" x 12" Screen Tube*	1/2"	25
POW 07965	1/2" x 3-1/2" Screen Tube	5/8"	25
POW 07966	1/2" x 6" Screen Tube	5/8"	25
POW 07967	1/2" x 8" Screen Tube*	5/8"	25
POW 07968	1/2" x 10" Screen Tube*	5/8"	25
POW 07969	5/8" x 4-1/2" Screen Tube	3/4"	20
POW 07970	5/8" x 6" Screen Tube	3/4"	20
POW 07971	5/8" x 8" Screen Tube*	3/4"	20
POW 07972	5/8" x 10" Screen Tube*	3/4"	20
POW 07973	3/4" x 6" Screen Tube	7/8"	10
POW 07977	3/4" x 8" Screen Tube	7/8"	10
POW 07974	3/4" x 10" Screen Tube	7/8"	10
POW 07975	3/4" x 13" Screen Tube	7/8"	10
POW 07860	7/8" x 2" Screen Tube	1"	25



* Screen tubes are made from a 300 series stainless steel. The nominal diameter of the screen listed indicates the matching rod diameter.
 • *Includes extension tubing.

ADHESIVE PISTONS



ITEM CODE	DESCRIPTION	ANSI DRILL DIA.	THREADED ROD SIZE	REINFORCING BAR SIZE	BOX QTY.	CTN. QTY.
POW 08300	7/8" Plug	7/8"	3/4"	#6	10	100
POW 08301	1" Plug	1"	7/8"	#7	10	100
POW 08303	1-1/8" Plug	1-1/8"	1"	#8	10	100
POW 08305	1-3/8" Plug	1-3/8"	1-1/4"	#9	10	100

• All accessories packaged 1 per box

POWERSTICK™

Bonding Sealant

An easy-to-use polymer in a convenient cartridge system and aerosol can, PowerStick™ is an all-purpose adhesive and sealant. PowerStick can be used for most interior and exterior applications whether it's concrete, brick, block, metal or wood. This powerful high-tack adhesive resists expansion and contraction due to weather, creating a durable air and moisture-tight seal. The 10oz. tube is easy to work with in confined spaces. PowerStick™ is odor-free and solvent-free and is mildew-resistant when cured. It can be painted over with latex or oil-based paints and cleans up easily with a damp cloth.



POWERSTICK™



ITEM CODE	SIZE	COLOR	BOX QTY.	CTN. QTY.
POW 08166N	10 oz. tube	White	12	12
POW 08168N	10 oz. tube	Gray	12	12

DISPENSING TOOLS

ITEM CODE	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 08437	Manual caulking gun for Quik-Shot	1	12
POW 08479	High performance caulking gun for Quik-Shot	1	1



WALL-DOG™

Universal Light Duty Anchor

The Powers Wall-Dog™ is the industry's first all steel one-piece screw anchor, which features high-profile threads for easy fastening into wallboard and other masonry base materials. Its deep cutting, corkscrew-like threads provide for smooth entry and a powerful hold, and when removed the Wall-Dog leaves a much smaller hole than toggles or other systems. For fastening into wallboard or wood, no pre-drilling is required. Fastening into concrete, hollow or grout filled block, brick and plaster requires a pre-drilled 3/16" ANSI hole. For aesthetic appearances, the Wall-Dog is available in three color finishes: Chrome, White, Zinc, and in three head styles: Hex, Oval, Pan.



INSTALLATION

For fastening into wallboard or wood, no pre-drilling is required. The anchor is inserted through the fixture and screwed in with an ordinary Phillips screwdriver.



Fastening into concrete, grout-filled or hollow block, brick or plaster requires a 3/16" pre-drilled hole using a carbide tipped drill bit. See pages 31-33 for carbide drill bits



COMBO HEX WASHER HEAD

ITEM CODE	DESCRIPTION	BOX QTY.	CTN. QTY.	MASTER CTN.
POW 02265	1-1/4" Combo HWH Chrome			5000
POW 02271	1-1/4" Combo HWH Chrome	100	1000	



• 1/4" Anchor with #8 head and No.2 Phillips Drive.

PAN HEAD

ITEM CODE	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 02316	1-1/4" Pan Head Zinc	100	1000
POW 02330	1-1/4" Pan Head White	100	1000
POW 02273	1-1/2" Pan Head White	100	600
POW 02275	1-1/2" Pan Head Zinc	100	600



• 1/4" Anchor with #8 head and No.2 Phillips Drive.

OVAL HEAD

ITEM CODE	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 02314	1-1/4" Oval Head Zinc	100	1000
POW 02328	1-1/4" Oval Head White	100	1000



• 1/4" Anchor with #8 head and No.2 Phillips Drive.

KIT W/SCREWDRIVER

ITEM CODE	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 02289	Kit w/No.2 Phillips Screwdriver	1	10



KIT W/BIT

ITEM CODE	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 02332	Kit w/3/16" Straight Shank Drill Bit	1	10

• 1 Kit packaged w/50 Chrome Pan head anchors

ZIP-IT®

Wallboard Anchor

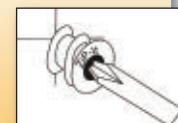
The Zip-It® anchor is a one piece self drilling anchor designed for use in hollow gypsum wallboard for light duty loads. It is available in both engineered nylon and Zamac alloy for use with either a No. 6 or No. 8 screws in 3/8" to 1" wallboard. The Zip-It® Jr. is also available in engineered nylon and Zamac alloy for use with No. 6 screws in 3/8" to 5/8" wallboard. The Zinc Zip-It® is now available in a spade point for faster drilling into drywall.

INSTALLATION

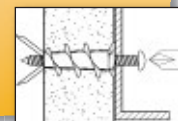
Inset either No.2 or No.3 Phillips driver bit into the recess of the Zip-It® anchor head. Use a manual screwdriver or a low rpm battery powered electric screw gun.



Push the Zip-It® anchor into the surface of the wallboard until the two cutting blades penetrate the surface. Using gentle forward pressure, rotate the Zip-It® until the collar sets flush to the surface of the wall.



Put the fixture in place, insert the screw and tighten until it feels secure. As the screw is threaded into the nylon versions, the point will expand resulting in increased load capacity in thicker wallboard.



ZIP-IT® NYLON

ITEM CODE	WALL THICKNESS	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 02345	3/8" to 1"	Nylon Zip-It, no screws	100	1000
POW 02348	3/8" to 1"	Nylon Zip-It, #8 x 1" screws	100	1000



ZIP-IT® JR NYLON

ITEM CODE	WALL THICKNESS	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 02350	3/8" to 5/8"	Nylon Zip-It Jr., no screws	100	1000
POW 02351	3/8" to 5/8"	Nylon Zip-It Jr., #6 x 1" screws	100	1000

ZIP-IT® ZINC

ITEM CODE	WALL THICKNESS	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 02346Z	3/8" to 1"	Zinc Zip-It, no screws	100	1000
POW 02349Z	3/8" to 1"	Nylon Zip-It, #8 x 1" screws	100	1000



ZIP-IT® JR ZINC

ITEM CODE	WALL THICKNESS	DESCRIPTION	BOX QTY.	CTN. QTY.
POW 02362Z	3/8" to 5/8"	Zinc Zip-It Jr., no screws	100	1000
POW 02364Z	3/8" to 5/8"	Zinc Zip-It Jr., #6 x 1" screws	100	1000

ZIP-IT® BUCKET OF BOLTS!™

ITEM CODE	WALL THICKNESS	DESCRIPTION	BUCKET QTY.
TB-490	3/8" to 1"	Nylon	2000
TB-491	3/8" to 1"	Zamac Zinc	2000



PLASTIC ANCHORS

The plastic anchor is designed for use with lightweight fixtures with a sheet metal or wood screw. It is recommended for light duty static applications where holding power is not a critical factor. Not for overhead use.

ITEM CODE	SIZE	DRILL DIAMETER	BOX QTY.	CTN. QTY.
POW 07559	#6-8 x 3/4"	3/16"	100	1000
POW 07569	#8-10 x 7/8"	3/16"	100	1000
POW 07579	#10-12 x 1"	1/4"	100	1000
POW 07589	#14-16 x 1-1/2"	5/16"	50	500



BUCKET OF BOLTS™

ITEM CODE	DESCRIPTION	BUCKET QTY.
TB-110	#10 x 1" Pan Combo Head Sheet Metal Screws w/Plastic Anchors	4000
TB-111	#10 x 1-1/4" Pan Combo Head Sheet Metal Screws w/Plastic Anchors	3500
TB-115	#10-12 X 1" Plastic Anchors only	5000

ALLIGATOR® Solid-Wall Anchor

The ALLIGATOR® solid-wall anchor is the only anchor that extrudes the entire length of the screw. The screw extrudes and compresses the anchor polymer into the wall of the hole under tremendous pressure. The anchor molds and conforms exactly to the surface of the hole - without chemicals. All forces supported by the screw are transmitted outwardly 360° to the wall surface of the hole. This provides greater holding power by distributing the force over the maximum area possible. Also holds if you hit a cavity.

- **Fast**-can be installed through the fixture with a screw gun without special drill bits.
- **Easy**-anti-rotation fins and a unique head design prevent sinking & spinning.

- **Versatile** -works in any building material.
- **Intelligent** -works with a broad range of screw sizes for the highest holding power without cracking the wall.
- **Strong** -holds more than metal anchors 2 times their diameter.
- **Quick** -sets instantly. "Molding" action bonds anchor to wall.
- **Vibration-Proof** -specially formulated corrosion-proof polymer absorbs shock.
- **Adaptable** -non-corroding, non-magnetic, and non-conductive.



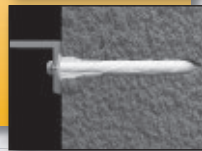
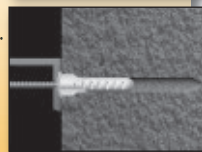
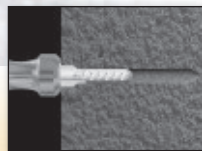
INSTALLATION

Drill hole into solid wall same diameter as anchor diameter. Minimum hole depth = 2x the length of the anchor. Push in anchor and tap flush to wall with hammer.

Place item over anchor. Insert screw and tighten flush with item.

Anchor will extrude up to 2x its original length, sealing the hole and providing highest holding power.

For best results, use a screw gun for installation in solid walls. If you hit a hidden cavity, the screw opens the anchor and locks securely.



FLUSH MOUNT

ITEM CODE	DRILL DIAMETER	SCREW RANGE	BOX QTY.
MEC A5	3/16" (5mm)	#4 - #10	200
MEC A6	1/4" (6mm)	#6 - #14	100
MEC A8	5/16" (8mm)	#6 - 5/16"	100
MEC A10	3/8" (10mm)	#10 - 3/8"	50

• The A10 anchor works ONLY in solid walls.



MATERIALS

ALLIGATOR solid-wall anchors can be used in almost any material, including:

Concrete	Brick	Cinder Block
Wood	Masonry	Ceramic Tile
Plaster	Stone	Stucco
Aerated Concrete	Flakeboard	Drywall

FLANGED MOUNT

ITEM CODE	DRILL DIAMETER	SCREW RANGE	BOX QTY.
MEC AF5	3/16" (5mm)	#4 - #10	200
MEC AF6	1/4" (6mm)	#6 - #14	100
MEC AF8	5/16" (8mm)	#6 - 5/16"	100

• Minimum wall thickness for flanged anchors to work in hollow walls: AF5 = 1/4" AF6 = 3/8" AF8 = 1/2"



TOGGLE BOLTS

The toggle bolt is a spring wing type hollow wall anchor designed for use in block, wallboard and other hollow based materials. It is a two-part assembly consisting of a machine screw and a spring wing toggle. Machine screws are round head combo drive & are also available in other head styles.

TOGGLE BOLTS

Round Head Combo Head

ITEM CODE	SIZE	DRILL DIAMETER	BOX QTY.
TR18-200	1/8" x 2"	3/8"	50
TR18-300	1/8" x 3"	3/8"	50
TR18-400	1/8" x 4"	3/8"	50
TR31-200	3/16" x 2"	1/2"	50
TR31-300	3/16" x 3"	1/2"	50
TR31-400	3/16" x 4"	1/2"	50
TR31-500	3/16" x 5"	1/2"	50
TR31-600	3/16" x 6"	1/2"	50
TR14-200	1/4" x 2"	5/8"	50
TR14-300	1/4" x 3"	5/8"	50
TR14-400	1/4" x 4"	5/8"	50
TR14-500	1/4" x 5"	5/8"	50
TR14-600	1/4" x 6"	5/8"	50
TR56-300	5/16" x 3"	7/8"	25
TR56-400	5/16" x 4"	7/8"	25
TR56-500	5/16" x 5"	7/8"	25
TR56-600	5/16" x 6"	7/8"	25
TR38-300	3/8" x 3"	7/8"	25
TR38-400	3/8" x 4"	7/8"	25
TR38-500	3/8" x 5"	7/8"	25
TR38-600	3/8" x 6"	7/8"	25
TR12-400	1/2" x 4"	1-1/4"	25
TR12-600	1/2" x 6"	1-1/4"	25



BUCKET OF BOLTS™

ITEM CODE	SIZE	BUCKET QTY.
TB-100	3/16" x 3"	1000
TB-101	3/16" x 4"	1000
TB-105	1/4" x 3"	500
TB-106	1/4" x 4"	500



TOGGLE WINGS

Toggle wings are light-duty anchors used with machine screws in hollow block or wallboard. The machine screw must be inserted through the object to be mounted into the spring loaded wing, which folds for installation through a predrilled hole. Once through the hole, the wing re-opens.

TOGGLE WINGS

ITEM CODE	SIZE	DRILL DIAMETER	BOX QTY.
TW18	1/8" (6-32)	3/8"	100
TW31	3/16"(10-24)	1/2"	100
TW14	1/4"	5/8"	100
TW56	5/16"	7/8"	50
TW38	3/8"	7/8"	50
TW12	1/2"	1-1/4"	25



SNAPTOGGLE® & TOGGLER®

SNAPTOGGLE® and TOGGLER® are ideal for heavy loads in hollow walls, ceilings and floors. The toggle bolts pre-install without a bolt and can be installed with a screw gun. This allows one-person installations (instead of two), saving time and money. It's like having an extra pair of hands. Their new longer and stronger plastic straps now work in base materials 3/8" to 3-5/8". To insure precise alignment, the straps snap off flush with the wall every time. The metal channel pushes aside insulation, and new improved plating exceeds government specs.

- Strongest toggle bolt & requires the smallest hole.
- Allows removal of bolt or fixture without anchor falling behind wall.
- Will not damage or break through wall even when vibrated.
- Holds up to 265 lbs. in drywall with 1/4"-20 anchor.*
- Holds up to 1080 lbs in concrete with 1/4"-20 anchor.*
- Available in 304 stainless steel.

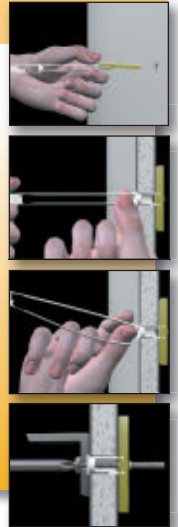
INSTALLATION

Drill the appropriate hole: 1/2" for SNAPTOGGLE anchors, 3/4" for TOGGLER anchors. Hold metal channel flat alongside plastic straps and slide channel through hole.

With one hand, hold ends of SNAPTOGGLE plastic straps (TOGGLER plastic ring) and pull toward you until metal channel rests flush behind wall. Slide plastic cap along straps with other hand until flange of cap is flush with wall.

Place thumb between plastic straps. Push side to side, snapping off straps at wall.

Place item over flange. Insert bolt through item and tighten until flush against item, then stop.



SNAPTOGGLE®

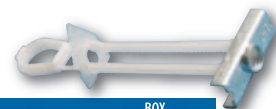
Toggle Bolts, Zinc



ITEM CODE	BOLT SIZE	GRIP RANGE	BOX QTY.
MEC BA	#10-24	3/8"-3-5/8"	100
MEC BB	1/4"-20	3/8"-3-5/8"	100

TOGGLER®

Toggle Bolts, Zinc



ITEM CODE	BOLT SIZE	GRIP RANGE	BOX QTY.
MEC BC	3/8"-16	3/8"- 2-1/2"	25
MEC BD	1/2"-13	3/8"- 2-1/2"	25

SNAPTOGGLE®, ALLIGATOR®, TOGGLER® and typeface, and logo symbol are registered trademarks of Mechanical Plastics Corp.

SCRU-LEAD™ Wall Anchor

The Scru-Lead anchor is designed for use with sheet metal or wood screws in concrete, block or brick. The anchor is made entirely of lead alloy which is soft enough for easy installation, yet hard enough to give secure holding power. The performance of this product depends on the integrity of the base material. The anchor is recommended for light duty applications where holding power is not a critical factor. It should not be used overhead.

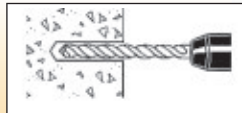
- Can be used in a variety of base materials
- Anchor body is corrosion resistant

INSTALLATION SPECIFICATIONS

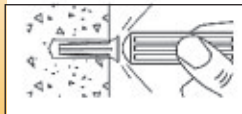
Dimension	Screw Size		
	#6-#8	#10-#14	#16-#18
ANSI Drill Bit Size, (in.)	1/4	5/16	3/8
Flange Size (in.)	25/64	1/2	37/64
Screw Size Range	#6-#8	#10-#14	#16-#18

INSTALLATION

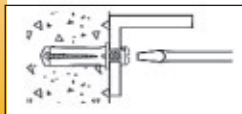
Drill a hole into the base material to the depth of embedment required. The tolerances of the drill bit used must meet the requirements of ANSI Standard B212.15



Blow the hole clean of dust and other material. Insert the anchor into the hole until the flange is seated flush with the surface of the base material.



Position the fixture. Insert the screw tip through the fixture into the anchor and tighten.



POLLY™ Hollow Wall Anchor

The Polly is a sleeve type hollow wall anchor designed for use in base materials such as plaster, wallboard, concrete block or hollow tile. Once the anchor has been set, the screw may be removed as often as necessary without affecting the anchor.

- Allows for fixture and screw removal and re-anchoring
- Federal GSA Specification – The Polly meets the descriptive requirements of FF-B-588D, Type III, Class A

INSTALLATION SPECIFICATIONS

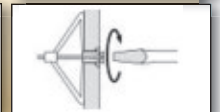
Dimension	Anchor Diameter		
	1/8"	3/16"	1/4"
ANSI Drill Bit Size, (in.)	5/16	3/8	7/16
Collar Diameter (in.)	1/2	5/8	11/16
Body Diameter (in.)	17/64	3/8	7/16
Thread Size (UNC)	6-32	10-24	1/4-20

INSTALLATION

Drill a hole through the base material into the hollow area.



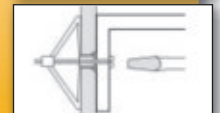
Insert the Polly and tap the head until the gripper prongs are embedded in the base material. Maintain pressure with the screwdriver while turning the screw until a definite resistance is felt, indication the Polly is set.



For faster setting, use the Polly setting tool. Back screw head out 2-3 turns, slide the tool behind the screw head, then squeeze the tool to expand the Polly. This tool fits all sizes.



To complete installation, remove the screw, line up mounting hole of item to be fastened, re-insert screw and tighten.



SCRU-LEAD™



ITEM CODE	ANCHOR SIZE	DRILL DIAMETER	BOX QTY.	CTN. QTY.
POW 09409	#6 - #8 x 3/4"	1/4"	100	1000
POW 09414	#6 - #8 x 1"	1/4"	100	1000
POW 09419	#6 - #8 x 1-1/2"	1/4"	100	500
POW 09429	#10 - #14 x 1"	5/16"	100	500
POW 09439	#10 - #14 x 1 1/2"	5/16"	100	500
POW 09460	#16 - #18 x 1 1/2"	3/8"	25	250

STANDARD POLLY™

w/Combination Slotted Phillips Head

ITEM CODE	ANCHOR SIZE	SCREW LENGTH	DRILL DIAMETER	WALL THICKNESS	BOX QTY.	CTN. QTY.
POW 02100	1/8" Ex. Short	1-1/16"	5/16"	1/8" to 1/4"	100	500
POW 02101	1/8" Short	1-3/4"	5/16"	3/8" to 1/2"	100	500
POW 02102	1/8" Long	2-1/4"	5/16"	5/8" to 1"	100	500
POW 02111	3/16" Short	2"	3/8"	3/8" to 5/8"	50	250
POW 02112	3/16" Long	2-1/2"	3/8"	3/4" to 1-1/8"	50	250
POW 02113	3/16" Ex. Long	3"	3/8"	1-1/4" to 1-3/4"	25	125
POW 02121	1/4" Short	2-1/4"	7/16"	3/8" to 1/2"	50	250
POW 02122	1/4" Long	2-3/4"	7/16"	5/8" to 1-1/8"	50	250



POLLY SETTING TOOL

ITEM CODE	BOX QTY.	CTN. QTY.
POW 02150	1	1



TRAK-IT® C5 Gas Operated Fastening System

The all new fuel injected Trak-It® C5 cordless concrete pin nailer is the lightest and smallest tool in its class, resulting in less operator fatigue and a better overall ergonomic feel. C5 has the greatest power output at 105 Joules, allowing for shooting into even the hardest concrete, is able to shoot pins up to 1-1/2" in length, and is the only tool in its class that

TRAK-IT C5

shoots .102, .108, .120 and .145 diameter pins. No other tool can make this claim!

- Size – Lower profile is achieved by new combustion chamber design
- Trigger Pull Force – Lightest pull load of any tool at 2.65
- Adjustable Depth Control – Can adjust depth up to .187"

Length	17.24"
Height	14.71
Width	4.88"
Weight	7.90 lbs.
Power	105 Joules
Power/Weight Ratio	13.04
Pin Length	1/2"-1-1/2"
Pin Shank Dia.	.102"-.145"
Trigger Pull Load	2.5 lbs.
Magazine	Removable by Lever
Adj. Depth Control	Ratcheting Dial
Dust Resistant	Stainless Steel Mesh
Maintenance Counter	LED Cleaning Indicator
Shots Per Fuel Cell	800



C5 Tool Weight vs. Competition (in Lbs.)

5	HILTI®	ITW®
7.90	8.63	9.53

STANDARD .102 STRAIGHT PINS

ITEM NO.	SHANK DIA.	LENGTH	STEP DIA.	PLATE	KNURL/ SPIRAL	APPLICATIONS
POW 55310	0.102"	3/4"	-	Zinc	-	Metal track to concrete
POW 55312	0.102"	1"	-	Zinc	-	Light gauge metal track to concrete
POW 55314	0.102"	1-1/4"	-	Zinc	-	Fixture to concrete or block
POW 55316	0.102"	1-1/2"	-	Zinc	-	Fixture to concrete or block

STANDARD .145 STRAIGHT PINS

POW 55318	0.145"	3/4"	-	Zinc	-	Metal track to concrete
POW 55320	0.145"	1"	-	Zinc	-	Light gauge metal track to concrete, 1/4 & 3/8 plywood to concrete and block, rubber membrane to concrete or block

CONCRETE & STEEL PINS STRUCTURAL

POW 55336	0.145"	1"	.120"	Zinc	K	1/2" & 5/8" plywood to steel
POW 55338	0.145"	1-1/4"	.120"	Zinc	K	3/4" plywood to steel 1" furring strip to steel
POW 55322	0.145"	1-1/4"	.102"	Zinc	-	Fixture to concrete or block
POW 55324	0.145"	1-1/2"	.102"	Zinc	-	Fixture to concrete or block

SPECIALTY TAPERED SHORT PINS

POW 55325	0.120"	1/2"	-	Zinc	-	Metal track to steel
POW 55326	0.120"	1/2"	.102"	Zinc	K	Metal track to steel
POW 55328	0.120"	.680"	.102"	Zinc	K	Metal track to steel or hard concrete
POW 55330	0.120"	.730"	.102"	Zinc	K	1/4" plywood to steel or hard concrete
POW 55342	0.102"	.780"	.088"	Zinc	K	Steel, stud, strut, precast concrete, block & steel

SPECIALTY SPIRAL KNURL PIN

POW 55340	0.108"	1-3/8"	0.102"	Zinc	KS	Plywood/Denz Glass to steel stud
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PRESSURE TREATED LUMBER PINS

POW 55332	0.145"	1"	0.120"	ACQ	K	Pressure treated lumber
POW 55334	0.145"	1-1/4"	0.120"	ACQ	K	Pressure treated lumber

TRAK-IT® C5 TOOLS

ITEM NO.	PRODUCT
POW 55142	C-5 Gas Tool Deep Track (1.25)
POW 55148	C-5 Gas Tool Long Track (1.5)

C5 TRAK-IT® ACCESSORIES

ITEM NO.	PRODUCT
POW 55342	Accessory DT (1-1/4 pin)
POW 55344	Accessory ST (1-1/2 pin)
POW 55346	Accessory LT (1-1/2 pin)

FUEL CELLS

POW 55302	Fuel Cell 20 per box
POW 55301	100 per box

TOOL ACCESSORIES

POW 55583	Battery
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STICK-E™ Electrical & Mechanical Fastening System

- Fasten directly through fixture with MAGAZINE pin and STICK-E accessories, no more drilling and anchoring.



STICK-E ACCESSORIES

ITEM CODE	PRODUCT	STD. BOX	ITEM CODE	PRODUCT	STD. BOX
POW 55064	Mini Conduit Clip 1/2"	100	POW 55096	Bridal Ring 2"	100
POW 55066	Mini Conduit Clip 3/4"	100	POW 55050	Rod Hanger 1/4"	100
POW 55068	Mini Conduit Clip 1"	100	POW 55052	Rod Hanger 3/8"	100
POW 55059	Conduit Clip (One Hole Strap) 1/2"	100	POW 55042	Insulation Washer 1-7/16"	100
POW 55061	Conduit Clip (One Hole Strap) 3/4"	100	POW 55040	Lathing Washer 1" with Holes	100
POW 55063	Conduit Clip (One Hole Strap) 1"	100	POW 55043	SS Sealing Washer 3/4"	100
POW 55094	Bridal Ring 1-1/4"	100	POW 55157	Denz-Tight™ Pin Washer	100
POW 55095	Bridal Ring 1-1/2"	100			

POWDER ACTUATED FASTENING SYSTEMS Semi-Automatic Tools

Powder actuated fastening systems provide a cost effective method of attaching fixtures for light duty, static load conditions. The system consists of specially designed fasteners, installation tools, and powder loads which are designed to function in combination to provide optimum performance. These systems provide the contractor with the ability to fasten into

concrete, masonry, and structural steel without pre-drilling holes. For most applications, this eliminates the time consuming layout or hole spotting resulting in faster installation and reduced costs. In addition, powder actuated fastening systems are completely portable and are ideal for locations that are difficult to access.

P7201 Single Shot Tool

The P7201 is a low velocity, single shot .22 caliber tool which can be used to install .300" head drive pins, 8mm head drive pins and 1/4"-20 threaded studs up to 1-1/2" in total length. The P7201 is commonly used in the drywall trade.

TECHNICAL DATA

Tool Body	Precision Cast Aluminum
Tool Length	13-1/2"
Tool Weight	4.3 lbs.
Pin Length	1/2" to 1-1/2" Total Length
Load Type	.22 Caliber "A" Load
Power Level	Gray (1), Brown (2), Green (3), Yellow (4)

APPLICATIONS

- Ceiling clip assemblies
- Electrical boxes, conduit clip assemblies
- Track to Floor
- Wood to Steel
- Electrical Fixture to Steel
- Conduit Clip to Concrete
- Electrical Fixture to Concrete
- Wood to Concrete
- Duct straps
- Metal track



P7201™

ITEM CODE	DESCRIPTION
POW 52004	P7201 Tool (Deluxe Kit): Safety Glasses, Ear Plugs, Allen Wrenches, Wire Brushes, Tool Lubricant, Spall Guard Pin & Load Starter Kit: .300 Head Drive Pins (50)1/2", (50)3/4", (50)1", (15) 3" .300 Head Drive Pins w/7/8" washer (100)Green, (100)Yellow, (60)Brown .22 Caliber Loads
POW 52005	P7201 Tool (Blister Pack):

P3500 & PA3500 Single Shot Tools

The P3500™ is a low velocity, semi-automatic .27 caliber tool which can be used to install .300 head drive pins, ballistic point drive pins, 8mm head drive pins and 1/4"-20 threaded studs, up to 3" in total length. The PA3500™ is a modified version of the P3500 that includes a power adjuster, allowing the operator to effectively decrease the power level of the load being used. For example, a red load can be toned down to the level of a green. 3 power settings - minimum, medium, and maximum.

TECHNICAL DATA

Tool Body	Precision Cast Aluminum
Tool Length	13-5/8"
Tool Weight	5 lbs.
Pin Length	1/2" to 3" Total Length
Load Type	.27 Caliber 10 Load Strip and .27 Caliber Safety Strip
Power Level	Brown (2), Green (3), Yellow (4), Red (5)

APPLICATIONS

- Electrical Fixture to Concrete
- Wood to Concrete
- Wood to Steel
- Electrical Fixture to Steel
- Commercial & Residential Construction
- Concrete Forming
- Conduit Clip to Concrete



ITEM CODE	ITEM CODE	DESCRIPTION
P3500	PA3500	
POW 52000	POW 52019	(Deluxe Kit): Safety Glasses, Ear Plugs, Allen Wrenches, Wire Brushes, Tool Lubricant, Spall Guard, Spare Parts Pin Starter Kit: .300 Headed Pins (50)1/2", (50)3/4", (30) 3" with 7/8" Washer, Case
POW 52001	POW 52025	(Blister Pack)

SNIPER Semi-Automatic Pole Tool

The Sniper Pole Tool is ideal for installing overhead ceiling clips with a 1-1/2" pin. It features an internal safety sequence strip loading mechanism, allowing load advancements only after the pin has been installed in the nose piece, and handle must be clicked to advance the next load.

TECHNICAL DATA

Tool Body	Composite
Tool Length	17"
Tool Weight	8 lbs.
Pin Length	1-1/2" Total Length
Load Type	.27 Caliber in a 10 Strip Load
Power Level	Brown (2), Green (3), Yellow (4), Red (5)

APPLICATIONS

- Electrical Fixture to Concrete
- Ceiling Clip Assemblies
- Door Frames
- Electrical Fixture to Steel
- Metal Track
- Forming Applications



SNIPER

ITEM CODE	DESCRIPTION	BOX
POW 52051	Sniper Tool	1
POW 52053	6 ft. Pole for higher reach applications	1
POW 52061	8 ft. Pole for higher reach applications	1

.300 HEAD DRIVE PINS .145 Shank Diameter

Designed for permanently fastening a fixture to concrete, some types of concrete block, and A36 or A572 structural steel. The pins have a specially designed point to allow proper penetration into typical base materials.

CODE LISTED
ICC-ES ESR-2024

STANDARD

ITEM CODE	SHANK LENGTH	BOX QTY.	CARTON QTY.
POW 50012 (knurled)	1/2"	100	5000
POW 50016 (knurled)	5/8"	100	5000
POW 50022	3/4"	100	5000
POW 50026	1"	100	5000
POW 50032	1-1/4"	100	1000
POW 50034	1-1/2"	100	1000
POW 50038	2"	100	1000
POW 50040	2-1/4"	100	1000
POW 50044	2-1/2"	100	1000
POW 50048	3"	100	1000



Knurled shank designs are available to increase performance in steel base materials. A plastic flute is mounted over the point to retain the drive pin in the fastener guide of the tool providing guidance during the driving operation.

.300 HEAD DRIVE PINS W/TOP HAT

Primarily for fastening drywall to concrete or steel. Pins are assembled with metal top hat for faster insertion into the driving tool. Reduces chance for finger pricking and provides extra bearing surface against drywall track.

ITEM CODE	SHANK LENGTH	SHANK DIAMETER	BOX QTY.	CARTON QTY.
POW 50136	1/2"(K)	.145"	100	5000
POW 50138	5/8"(K)	.145"	100	5000
POW 50140	3/4"	.145"	100	5000



(K) = Knurled

.300 PINS W/WASHERS .145 Shank Diameter

Provides resistance to pullover by the additional bearing surface provided by the washer, these pins are available with preassembled 14 gauge (0.075") metal washers in various diameters.

3/4" WASHERS

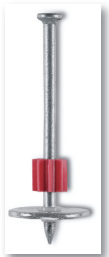
ITEM CODE	SHANK LENGTH	BOX QTY.	CARTON QTY.
POW 50070	3/4"	100	1000
POW 50080	2-1/2"	100	1000

7/8" WASHERS

ITEM CODE	SHANK LENGTH	BOX QTY.	CARTON QTY.
POW 50090	1"	100	1000
POW 50092	1-1/4"	100	1000
POW 50094	1-1/2"	100	1000
POW 50096	2"	100	1000
POW 50098	2-1/2"	100	1000
POW 50100	3"	100	1000

1" WASHERS

ITEM CODE	SHANK LENGTH	BOX QTY.	CARTON QTY.
POW 50108	1-1/4"	100	1000
POW 50110	1-1/2"	100	1000
POW 50112	2"	100	1000
POW 50114	2-1/2"	100	1000
POW 50116	3"	100	1000



BALLISTIC POINT™ DRIVE PINS .300 Head Diameter

Premium drive pins with a 0.300" head have a specially designed point to allow more consistent penetration into harder base materials and will reduce failures in dense concrete and steel. Drive Pins are manufactured with .150" diameter shank and a .181" step shank in various lengths. A plastic flute is mounted over the point to retain the drive pin in the fastener guide of the tool providing guidance during the driving operation. Ballistic Point Drive Pins are ideal for fastening to steel and hard concrete. Standard powder actuated pins fasten inconsistently in steel and harder concrete base materials. Ballistic Point Drive Pins have a unique pointed tip for more consistent performance. Pin penetration into difficult base materials is improved due to a rolled manufacturing process and a black coating applied to the pin.

DRIVE PINS

ITEM CODE	SHANK LENGTH	SHANK DIAMETER	BOX QTY.	CARTON QTY.
POW 50052	1/2"	.150"	100	1000
POW 50054	3/4"	.150"	100	1000

STEP SHANK DRIVE PINS

ITEM CODE	SHANK LENGTH	SHANK DIAMETER	BOX QTY.	CARTON QTY.
POW 50056	1-1/4"	.181/.150	100	5000
POW 50057	1-7/8"	.181/.150	100	1000



DRIVE PINS-PRESSURE TREATED LUMBER

Mechanically Galvanized (MG)

Designed with mechanically galvanized coating in accordance with ASTM B695, Class 55 for fastening through pressure treated lumber into concrete and grout-filled concrete masonry. These drive pins provide an equivalent solution for code compliant wood to concrete fastening applications and are available with a round washer for increased pullover resistance.



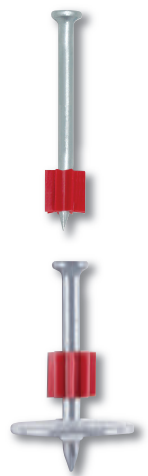
.300" HEAD MG PIN

ITEM CODE	SHANK LENGTH	SHANK DIAMETER	BOX QTY.	CARTON QTY.
POW 50034MG	1-1/2"	.145"	1000	5000
POW 50038MG	2"	.145"	1000	5000
POW 50045MG	2-1/2"	.145"	1000	5000
POW 50047MG	3"	.145"	1000	5000

.300" HEAD MG PIN

w/1" Round Washer

ITEM CODE	SHANK LENGTH	SHANK DIAMETER	BOX QTY.	CARTON QTY.
POW 50110MG	1-1/2"	.145"	1000	5000
POW 50112MG	2"	.145"	1000	5000
POW 50113MG	2-1/2"	.145"	1000	5000
POW 50115MG	3"	.145"	1000	5000



THREADED STUDS

Threaded studs are available in 1/4"-20 and 3/8"-16 thread diameters with a variety of thread and shank lengths for use in concrete, some types of concrete block, and A36 or A572 structural steel. They are used for applications where it may be desirable to remove the fixture, where shimming may be required or for suspending sprinkler systems. The 3/8"-16 studs have FM approval. The shank diameter for the threaded studs is 0.145" for the 1/4"-20 and 0.205" for the 3/8"-16. Both sizes have a specially designed point to allow

proper penetration into the base material. Knurled shank designs are available to increase performance in steel base materials. A plastic flute is mounted over the point to retain the drive pin in the fasteners guide of the tool- providing guidance during the driving operation. On the 1/4"-20 threaded studs a plaster cap is also provided to protect the threads of the fastener during the driving process as well as providing guidance during installation.

1/4"-20

ITEM CODE	THREAD LENGTH	SHANK LENGTH	SHANK DIAMETER	BOX QTY.	CARTON QTY.
POW 50322	3/4"	1/2" (K)	.145"	100	1000
POW 50326	3/4"	3/4"	.145"	100	1000
POW 50328	1/2"	1"	.145"	100	1000
POW 50330	3/4"	1"	.145"	100	1000
POW 50336	3/4"	1-1/4"	.145"	100	1000
POW 50338	1-1/4"	1-1/4"	.145"	100	1000



(K) =Knurled

3/8"-16

ITEM CODE	THREAD LENGTH	SHANK LENGTH	SHANK DIAMETER	BOX QTY.	CARTON QTY.
POW 50340	1-1/4"	3/4" (K)	.205"	100	1000
POW 50342	1-1/4"	1"	.205"	100	1000
POW 50344	1-1/4"	1-1/4"	.205"	100	1000



(K) =Knurled

ASSEMBLIES & ACCESSORIES

CODE LISTED
ICC-ES ESR-2024

.300 HEAD PINS w/CEILING CLIPS

ITEM CODE	DESCRIPTION	HEAD DIA.	SHANK DIA.	WIRE HOLE	BOX QTY.	CARTON QTY.
POW 50364	1" (Economy)	.300	.145	.278"	100	1000
POW 50368	1-1/8"	.300	.145	.278"	100	1000
POW 50370	1-1/4"	.300	.145	.278"	100	1000



For acoustical applications and suspended ceiling systems or light fixtures. Several styles of angled clips are pre-mounted onto clips.

BALLISTIC POINT DRIVE PIN

With Ceiling Clips 45°

ITEM CODE	DESCRIPTION	SHANK DIAMETER	HEAD DIAMETER	BOX QTY.	CARTON QTY.
POW 50366	7/8" w/CC	.181/.150	.300"	100	1000
POW 50058	1-1/4" w/CC	.181/.150	.300"	100	1000



POWER LOADS

Powers offers high quality powder loads, with unsurpassed quality and reliability. Specific load types are designed for 1 unique powder actuated tool. They are offered as single cartridge units for single shot tools and also collated in groups of 10 into plastic strips or metal discs for semi-automatic tools.

Safety Strip® Power Loads

The safety strip is molded in a special length to provide a visual indication that the tool is loaded.

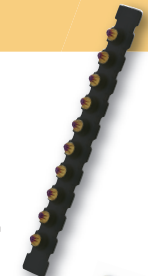
.22 CALIBER "A" SINGLE SHOT

ITEM CODE	DESCRIPTION	BOX QTY.	CARTON QTY.
POW 50500	Gray .22A	100	5000
POW 50502	Brown .22A	100	5000
POW 50504	Green .22A	100	5000
POW 50506	Yellow .22A	100	5000



.27 CALIBER 10 LOAD STRIPS

ITEM CODE	DESCRIPTION	BOX QTY.	CARTON QTY.
POW 50606	Purple .27 strip	100	1000



.25 CALIBER 10 LOAD STRIPS

ITEM CODE	DESCRIPTION	BOX QTY.	CARTON QTY.
POW 50570	Green .25 strip	100	1000
POW 50574	Yellow .25 strip	100	1000
POW 50578	Red .25 strip	100	1000



SAFETY STRIP®

ITEM CODE	DESCRIPTION	BOX QTY.	CARTON QTY.	MASTER CARTON
POW 50620	Brown .27 Caliber	100	1000	-
POW 50622	Green .27 Caliber	100	1000	-
POW 50624	Green .27 Caliber	1000	-	10,000
POW 50626	Yellow .27 Caliber	100	1000	-
POW 50628	Yellow .27 Caliber	1000	-	10,000
POW 50630	Red .27 Caliber	100	1000	-
POW 50632	Red .27 Caliber	1000	-	10,000

