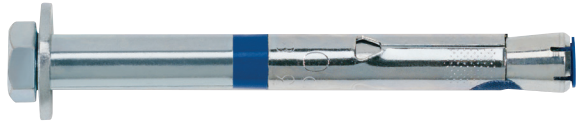
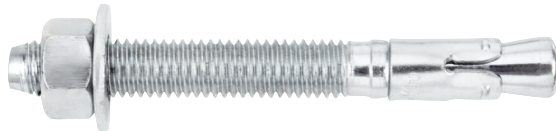


Mechanical Anchors



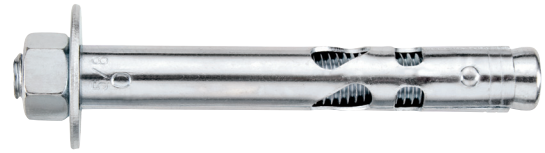
Powers Power-Bolt Heavy Duty Sleeve Anchor	
Diameter/Length	1/4" x 1" up to 3" 5/16" x 1-3/4" up to 3-1/2" 3/8" x 1-7/8" up to 4" 1/2" x 2-3/4" up to 5" 5/8" x 5-1/2" 3/4" x 3-1/4" up to 8-1/4"
Head	Hex Head, Flat Head* *limited sizes
Material	Carbon Steel, 304 Stainless Steel
Manufacturer	Powers Fasteners



Wedge Expansion Anchor	
Diameter/Length	1/4" x 1-3/4" up to 3-1/4" 3/8" x 2-1/4" up to 7" 1/2" x 2-3/4" up to 10" 5/8" x 3-1/2" up to 10" 3/4" x 4-1/4" up to 12" 7/8" x 6" up to 10" 1" x 6" up to 12" 1-1/4" x 9" and 12"
Head	Hex Head
Material	Carbon Steel, Stainless Steel, Mechanically Galvanized
Finish	Zinc
Manufacturer	Powers Fasteners, Simpson, Imports



Tie-Wire Wedge Expansion Anchor	
Diameter/Length	1/4" x 2"
Material	Carbon Steel
Finish	Zinc
Manufacturer	Powers, Simpson, Generic



Medium-Duty Sleeve Type Expansion Anchor	
Diameter/Length	5/16" x 1-1/2" and 2-3/8" 3/8" x 1-7/8" up to 4" 1/2" x 2-1/2" up to 6" 5/8" x 2-1/2" up to 5-3/4" 3/4" x 2-3/4" up to 8-1/4"
Head	Hex Nut, Acorn Nut, Round Head, Combo Flat Head
Material	Carbon Steel, Stainless Steel
Manufacturers	Powers Fasteners, Simpson



Powers Rod Hanger Lok-Bolt AS	
Diameter/Length	1/4" x 1-1/2" 3/8" x 1-7/8" 1/2" x 2-1/4"
Material	Carbon Steel
Finish	Zinc
Manufacturer	Powers Fasteners

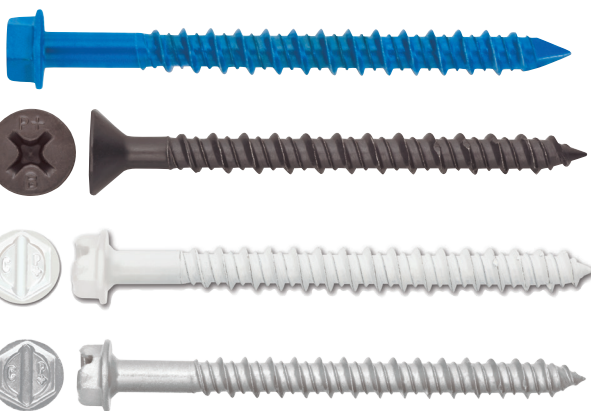


Powers Tie-Wire Lok-Bolt AS	
Diameter/Length	5/16" x 1-1/2"
Material	Carbon Steel
Finish	Zinc
Manufacturer	Powers Fasteners



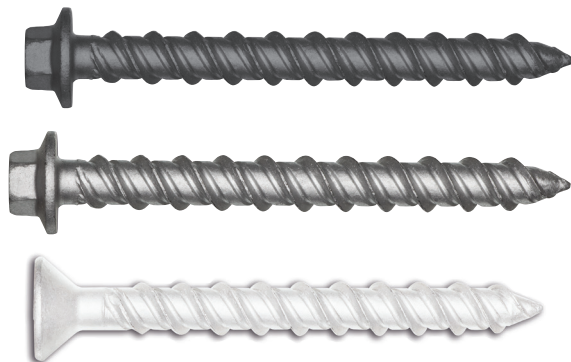
Powers Wedge-Bolt+ Screw Anchors

Diameter/Length	1/4" x 1-1/4" up to 3" 3/8" x 1-3/4" up to 6" 1/2" x 2" up to 8" 5/8" x 3" up to 8" 3/4" x 3" up to 10"
Head	Hex Head
Material	Carbon Steel, Stainless Steel
Finish	Zinc
Manufacturer	Powers Fasteners



Concrete Screws

Diameter/Length	3/16" x 1-1/4 up to 4" 1/4" x 1-1/4" up to 6" *sizes on the 1/4" and 3/4" increments
Head	Hex Head, Phillips Flat Head
Material	Carbon Steel, Stainless Steel
Finish	Coated
Manufacturer	ITW Buildex, Simpson, Powers, International Fasteners, Elco



Concrete Screws

Diameter/Length	5/16" x 1-3/4" up to 6" *sizes on the 1/4" and 3/4" increments
Head	Phillips Flat Head, Trim Phillips Flat Head, Hex Flange Head, Trim Hex Head
Material	Carbon Steel
Finish	Coated
Manufacturer	Powers Fasteners



3/8" Concrete Screws

Diameter/Length	3/8" x 2" up to 6"
Head	Flange Hex Head, Phillips Flat Head
Material	Carbon Steel
Finish	Zinc
Manufacturer	Powers



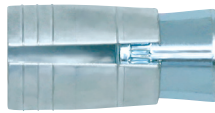
Powers Snake+ Internally Threaded Self-Tapping Anchor

Size	Min. Hole Depth	Internal Thread Depth
1/4"	2"	22/32"
3/8"	1-5/8"	11/16"
1/2"	2-1/2"	29/32"



Powers Smart Drop-In Anchor

Diameter	1/4" up to 3/4"
Material	Carbon Steel
Must be used with the Smart setting tool	



Powers Hollow-Set Drop-In Anchors

Zamac Body with Carbon Steel Cone		
Size	Overall Length	Sleeve Length
1/4"	7/8"	5/8"
5/16"	1-5/16"	15/16"
3/8"	1-5/16"	15/16"
1/2"	1-3/4"	1-1/4"
5/8"	2"	1-1/2"
Zamac Body with Stainless Steel Cone		
Size	Overall Length	Sleeve Length
1/4"	7/8"	5/8"
3/8"	1-5/16"	15/16"



Setting Tools for Solid Base Materials

Sizes 1/4" up to 5/8"



Setting Tools for Hollow Base Materials

Sizes 1/4" up to 5/8"



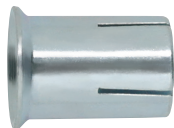
Steel Drop-In Anchors

Carbon Steel Dropin (Smooth Wall)			
Size	Drill Diameter	Min. Depth	Thread Depth
1/4"	3/8"	1"	7/16"
3/8"	1/2"	1-9/16"	5/8"
1/2"	5/8"	2"	13/16"
5/8"	7/8"	2-1/2"	1-3/16"
3/4"	1"	3-3/16"	1-3/8"
Carbon Steel Flanged Dropin (Lipped)			
Size	Drill Diameter	Min. Depth	Thread Depth
1/4"	3/8"	1"	7/16"
3/8"	1/2"	1-9/16"	5/8"
1/2"	5/8"	2"	13/16"
Carbon Steel Knurled Wall Dropin			
Size	Drill Diameter	Min. Depth	Thread Depth
1/4"	3/8"	1"	7/16"
3/8"	1/2"	1-9/16"	5/8"
1/2"	5/8"	2"	13/16"
5/8"	7/8"	2-1/2"	1-3/16"
3/4"	1"	3-3/16"	1-3/8"
Type 303 Stainless Steel Dropin			
Size	Drill Diameter	Min. Depth	Thread Depth
1/4"	3/8"	1"	7/16"
3/8"	1/2"	1-9/16"	5/8"
1/2"	5/8"	2"	13/16"
5/8"	7/8"	2-1/2"	1-3/16"
3/4"	1"	3-3/16"	1-3/8"
Type 316 Stainless Steel Dropin			
Size	Drill Diameter	Min. Depth	Thread Depth
1/4"	3/8"	1"	7/16"
3/8"	1/2"	1-9/16"	5/8"
1/2"	5/8"	2"	13/16"
5/8"	7/8"	2-1/2"	1-3/16"
3/4"	1"	3-3/16"	1-3/8"
Carbon Steel Coil Thread Dropin			
Size	Drill Diameter	Min. Depth	Thread Depth
1/2"	5/8"	2"	13/16"
3/4"	1"	3-3/16"	1-3/8"



Setting Tool for Steel Dropin Anchors

1/4" up to 3/4"



Mini Drop-In Anchor, Carbon Steel

Size	Drill Diameter	Min. Depth	Thread Depth
1/4"	3/8"	5/8"	3/8"
3/8"	1/2"	3/4"	13/32"
1/2"	5/8"	1"	5/8"



SDS-PLUS 1/2" Accu-Bit for 3/8" Drop-In, Smart Drop-in, and Mini Drop-in

Size	Usable Length	Qty
SDS-Plus 1/2" Concrete Accu-Bit for 3/8" Standard Drop-in	1 3/8"	10
SDS-Plus for 1/2" Mini Drop-in	1"	10



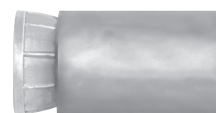
Double Expansion Anchor

Size	Anchor Length	Drill Diameter	Min. Hole Depth
1/4"	1-3/8"	1/2"	1-1/4"
5/16"	1-5/8"	5/8"	1-1/2"
3/8"	2"	3/4"	1-3/4"
1/2"	2-1/2"	7/8"	2-1/4"
5/8"	2-3/4"	1"	2-1/2"
3/4"	3-15/16"	1-1/4"	3-1/2"



Single Expansion Anchor

Size	Anchor Length	Drill Diameter	Min. Hole Depth
1/4"	1-5/16"	1/2"	1-3/8"
5/16"	1-1/2"	5/8"	1-5/8"
3/8"	1-1/2"	5/8"	1-5/8"
1/2"	2-1/16"	7/8"	2-1/2"
5/8"	2-5/8"	1"	2-3/4"



Calk-In

Size	Drill Diameter	Min. Depth
8-32	5/16"	1/2"
10-24	3/8"	5/8"
1/4"-20	1/2"	7/8"
5/16"-18	5/8"	1"
3/8"-16	3/4"	1-1/4"
1/2"-13	7/8"	1-1/2"
3/4"-10	1-1/4"	2-1/4"

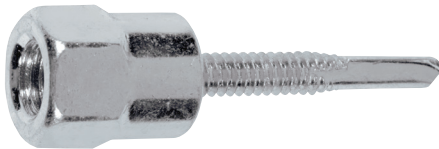


Lag Shield

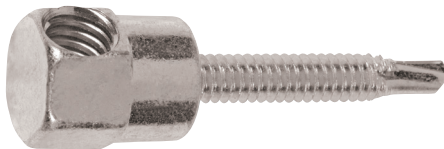
Size	Drill Diameter	Min. Embedment
1/4" Short	1/2"	1"
1/4" Long	1/2"	1-1/2"
5/16" Short	1/2"	1-1/4"
5/16" Long	1/2"	1-3/4"
3/8" Short	5/8"	1-3/4"
3/8" Long	5/8"	2-1/2"
1/2" Short	3/4"	2"
1/2" Long	3/4"	3"
5/8" Short	7/8"	2"
5/8" Long	7/8"	3-1/2"
3/4" Short	1"	2"
3/4" Long	1"	3-1/2"



Powers Concrete Vertigo+		
Rod Size	Screw Shank Size & Length	Finish
1/4"	3/8" x 2-1/8"	Yellow Dichromate Finish
3/8"	3/8" x 2-1/8"	Yellow Dichromate Finish
1/2"	3/8" x 2-1/8"	Yellow Dichromate Finish



Powers Vertigo Steel Vertical Hanger		
Rod Size	Screw Shank Size & Length	Point Style
#3 for Purlins		
1/4"	1/4-20 x 1"	#3
3/8"	1/4-20 x 2"	#3
3/8"	1/4-20 x 1" (w/nuts)	#3
3/8"	1/4-20 x 1-1/2"	#3
3/8"	1/4-20 x 1-1/2" (w/nuts)	#3
#5 for Beams		
1/4"	12-24 x 1-1/2"	#5
3/8"	12-24 x 1-1/2" (w/nuts)	#5
1/2"	12-24 x 1-1/2" (w/nuts)	#5



Powers Vertigo Steel Side Hanger		
Rod Size	Screw Shank Size & Length	Point Style
#3 for Purlins		
1/4"	1/4-20 x 1"	#3
3/8"	1/4-20 x 1" (w/nuts)	#3
3/8"	1/4-20 x 1-1/2" (w/nuts)	#3
3/8"	1/4-20 x 2" (w/nuts)	#3
#5 for Beams		
1/4"	12-20 x 1-1/2"	#5
3/8"	12-20 x 1-1/2" (w/nuts)	#5



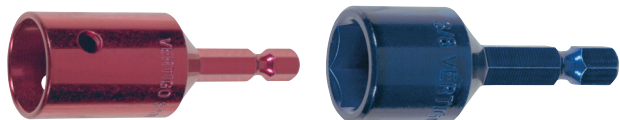
Powers Vertigo Wood Vertical Hanger		
Rod Size	Screw Shank Size & Length	Point Style
1/4"	1/4" x 2"	Type 17
3/8"	1/4" x 1"	Type 17
3/8"	1/4" x 2"	Type 17
3/8"	1/4" x 3"	Type 17
3/8"	1/4" x 4"	Type 17
3/8"	5/16" x 2-1/2"	Type 17
1/2"	5/16" x 2-1/2"	Type 17



Powers Vertigo Wood Side Hanger		
Rod Size	Screw Shank Size & Length	Point Style
1/4"	1/4" x 1"	Type 17
3/8"	1/4" x 1"	Type 17
3/8"	1/4" x 2"	Type 17
3/8"	5/16" x 2-1/2"	Type 17



Powers Vertigo Concrete Vertical Hanger		
Rod Size	Screw Shank Size & Length	Shank Style
1/4"	1/4" x 1-1/4"	ANSI Wedge-Bolt OT Thread
3/8"	1/4" x 1-1/2"	ANSI Wedge-Bolt OT Thread
1/2"	3/8" x 2-3/4"	ANSI Wedge-Bolt OT Thread



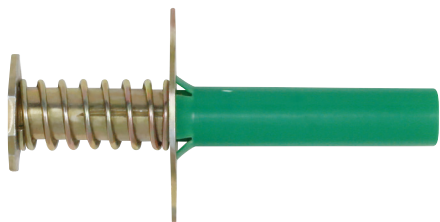
Driver Sockets for Vertigo

Universal Steel & Wood Socket	Red
1/4" Concrete Socket	Blue
3/8" Concrete Socket	Blue
1/2" Concrete Socket	Blue



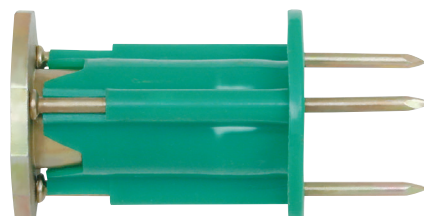
Vertigo Tool Kit

Sleeve Assembly, 1/4" and 3/8" blue concrete drive sockets and red universal drive socket	
Sleeve Assembly	
1/4" x 6" Hex Shank SDS Drill Bit	



Powers Bang-It Concrete Inserts

Description	Pre Drilled Hole
1/4" Brown Bang-It	13/16"
3/8" Green Bang-It	13/16"
1/2" Yellow Bang-It	13/16"
5/8" Red Bang-It	1-3/16"
3/4" Purple Bang-It	1-3/16"
7/8" Black Bang-It	1-3/16"



Powers Wood-Knocker Concrete Inserts

1/4" Brown Wood Knocker
3/8" Green Wood Knocker
1/2" Yellow Wood Knocker
5/8" Red Wood Knocker
3/4" Purple Wood Knocker
1/2" Coil Thread Wood Knocker
3/4" Coil Thread Wood Knocker



Spike Anchor

Diameter/Length	3/16" x 1" up to 4" 1/4" x 1" up to 4" 3/8" x 2" up to 6" 1/2" x 2-3/4" up to 6-1/2"
Head	Mushroom Head, Flat Head
Material	Carbon Steel, Stainless Steel
Manufacturer	Powers



Suspended Ceilings Tie-Wire Spike Grade 8.2 Carbon Steel

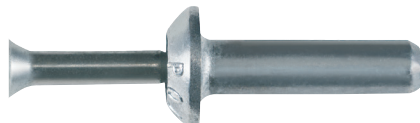
Size	Drill Diameter	Minimum Embedment	Tie-Wire Hole Size
3/16"	3/16"	1-1/4"	3/16"
1/4"	1/4"	1-1/4"	9/32"



Concrete Forming Forming Spike Grade 8.2 Carbon Steel		
Size	Drill Diameter	Minimum Embedment
3/16" x 1-1/2"	3/16"	1-1/4"
3/16" x 2"	3/16"	1-1/4"
3/16" x 2-3/4"	3/16"	1-1/4"
1/4" x 2-3/4"	1/4"	1-1/4"



Tie-Wire Drive (13/64" Tie Wire Hole)		
Size	Drill Diameter	Minimum Embedment
1/4" x 1-3/4"	1/4"	1-1/8"



Powers Zamac Hammer-Screw	
Diameter/Length	1/4" x 3/4" up to 3"
Head	Mushroom Head/No. 2 Phillips Type
Material	Zamac Alloy with Carbon Steel Drive Screw
*1/4" x 1-1/4" available with Perma-Seal Coating	



Drive Pin Type Anchor	
Diameter/Length	3/16" x 7/8" 1/4" x 3/4" up to 3"
Head	Mushroom Head, Flat Head
Material	Zamac Alloy with Carbon or Stainless Steel Drive Pin



Plastic Drive Pin Type Anchor	
Diameter/Length	3/16" x 1" and 1-1/2" 1/4" x 1" up to 4"
Head	Mushroom Head, Flat Head, Round Head
Material	Engineered Nylon with Carbon or Stainless Steel Drive Pin

Adhesive Anchors



Powers AC100+Gold Adhesive Anchoring System

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 hardware into drilled holes in concrete and masonry base materials.

Available in 10 fl. oz. Quik-Shot
One mixing nozzle is included with each cartridge



Powers PE1000+ Adhesive Anchoring System

The PE1000+ is a two-component, high strength epoxy adhesive anchoring system. The system includes injection adhesive in plastic cartridges, mixing nozzles, dispensing tools and hole cleaning equipment. The PE1000+ is designed for bonding threaded rod and reinforcing bar hardware into drilled holes in solid concrete base materials.

Available in 13 fl. oz. dual cartridge
One mixing nozzle is included with each cartridge



Powers T308+ Adhesive Anchoring System

T308+ is a two-component epoxy adhesive anchoring system. The system includes injection adhesive in plastic cartridges, mixing nozzles, dispensing tools and hole cleaning equipment. T308+ is designed for bonding threaded rod and reinforcing bar into drilled holes in concrete and masonry based materials.

Available in 8.5 fl. oz. Quik-Shot cartridge
One mixing nozzle is included with each cartridge



Powers Hole Cleaning Tools and Accessories

Nylon brush for 7/16" ANSI hole (3/8" rod or #3 rebar)

Nylon brush for 9/16" ANSI hole (1/2" rod or #4 rebar)

Nylon brush for 3/4" ANSI hole (5/8" rod or #5 rebar)

Nylon brush for 1" & 1-1/8" ANSI hole (7/8" & 1" rod or #7, #8 rebar)

Nylon brush for 1-1/4" ANSI hole (1-1/4" rod or #10 rebar)

Hand pump/dust blower (25 fl. oz. cylinder volume)

Adhesive cleaning kit, includes 4 wire brushes, steel brush extension, SDS-plus adapter, standard drill adapter, hand pump/dust blower, gloves and safety glasses



Powers Chem-Stud Spin-In Type Capsule Adhesive

The Chem-Stud Anchor System consists of self contained two-part glass capsules and matching chisel pointed anchor rods which are installed using a rotary hammer drill and rod adapters. The Chem-Stud adhesive is an ester based resin material packaged in a single use glass capsules designed for installation of 3/8" through 1-1/2" threaded rods in solid concrete and masonry materials. It can also be used with chisel pointed reinforcing bars

Rod Size	Drill Diameter	Length
3/8"	7/16"	3-1/2"
1/2"	9/16"	4-1/4"
5/8"	11/16"	5"
3/4"	7/8"	6-5/8"
7/8"	1"	7"
1"	1-1/8"	8-1/4"
1-1/4"	1-1/2"	10-1/4"



Powers Hammer-Capsule Drive-In Type Capsule Adhesive

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.

Size	Drill Diameter	Capsule Length
3/8"	7/16"	3-1/2"
1/2"	9/16"	4-1/4"
5/8"	11/16"	5"
3/4"	7/8"	6-5/8"
7/8"	1"	7"
1"	1-1/8"	8-1/4"



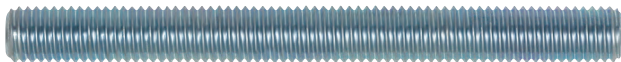
Stainless Steel Screen Tubes

Size	Drill Diameter
1/4" x 6" up to 10"	3/8"
3/8" x 3-1/2" up to 12"	1/2"
1/2" x 3-1/2" up to 10"	5/8"
5/8" x 4-1/2" up to 10"	3/4"
3/4" x 6" up to 13"	7/8"
15/16" x 8" up to 17"	1"



Plastic Screen Tubes

Size	Drill Diameter
1/4" x 1-3/4"	1/2"
3/8" x 2-3/4" up to 8"	9/16"
1/2" x 3-1/2" and 6"	3/4"
5/8" x 6"	7/8"
3/4" x 6"	1"



Threaded Rod

Pro-Fast carries a full range of diameters and lengths of threaded studs. Most studs are available in plain, zinc, and stainless steel material.