

WOOD

STEEL

NEW! CONCRETE
VERTIGO®+

CODE LISTED
ICC-ES ESR-2989

CONCRETE

VERTIGO

Rod Hanging System



MAINLINE

Preferred by the pros.

Vertigo®

S I M P L E R O D

What is Vertigo?

Vertigo is an all steel threaded fastening system for suspending steel threaded rod vertically overhead in pipe hanging, fire protection, electrical conduit and cable-tray applications. Vertigo® can be installed in a variety of base materials including steel 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 trusses. For all steel and wood Vertigo® fasteners, a 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, screw gun or hammer drill.

Labor Savings

SAVE MORE THAN 50% IN INSTALLATION COSTS

STEEL		SPEED OF INSTALLED		TYPICAL COST INSTALLED (3/8" SIZE)				
BASE MATERIAL	INSTALLATION	COST	INSTALLATION	LABOR/MIN	TIME	LABOR	MATERIAL	TOTAL
Steel Vertigo®	Fast	Low	Very Easy	\$0.77	1	\$0.77	\$0.54	\$1.31
Beam Clamp	Slow	High	Hard	\$0.77	4	\$3.08	\$0.39	\$3.47

SAVE \$2.16 SAVE 63%

WOOD		SPEED OF INSTALLED		TYPICAL COST INSTALLED (3/8" SIZE)				
BASE MATERIAL	INSTALLATION	COST	INSTALLATION	LABOR/MIN	TIME	LABOR	MATERIAL	TOTAL
Wood Vertigo®	Fast	Low	Easy	\$0.77	1	\$0.77	\$0.54	\$1.31
I-Beam Connector	Medium	High	Medium	\$0.77	3	\$2.31	\$0.33	\$2.64
Post Screw Rod	Medium	High	Medium	\$0.77	3	\$2.31	\$0.33	\$2.64

SAVE \$1.35 SAVE 52%

CONCRETE		SPEED OF INSTALLED		TYPICAL COST INSTALLED (3/8" SIZE)				
BASE MATERIAL	INSTALLATION	COST	INSTALLATION	LABOR/MIN	TIME	LABOR	MATERIAL	TOTAL
Concrete Vertigo®	Medium	Low	Easy	\$0.77	5	\$3.85	\$0.55	\$4.40
Steel Dropin	Slow	High	Hard	\$0.77	11	\$8.47	\$0.48	\$8.95

SAVE \$4.55 SAVE 51%

*Labor rates based on ENR 20-City average of hourly pay scales for Electricians, Plumbers and Steamfitters, report dated June 2002.

What is Vertigo For?

- Pipe hanging
- Conduit
- Eye rod
- Cable Trays
- Lighting systems
- Strut channels
- Overhead utilities
- Sprinkler systems
- Drop ceilings
- HVAC Duct
- Electrical
- Refrigeration

Who Uses Vertigo?

- Plumbers
- Maintenance Contractors
- Electricians
- Sprinkler Contractors
- Mechanical Contractors
- HVAC Contractors

Why Vertigo?

- Competitive advantages:
- Lower "IN-PLACE" cost
- Simple to install
- FAST
- 1 Socket for Wood & Steel
- 1 system for all rod hanging
- Powers Support
- 15 year performance warranty

Vertigo®

H A N G I N G S Y S T E M



1. Where can I buy Powers Vertigo® Hangers?

You can buy them at any Peco distributor. For a distributor near you please visit MainlineCollection.com.

2. How difficult is it to use the setting tools and should they be used? ...Hangermate® and Sammy Super Screw® have several drivers and tools Vertigo® Drivers should always be used.

For wood and steel Vertigo there is only one driver, so it's easy. For concrete, each of the 3 sizes has its own driver. For wood and steel Vertigo® the driver allows the coupler to spin free of the driver without stripping or overdriving the fastener. For Vertigo + there is only one driver size. All Steel and Wood Vertigos are driven with the same universal driver: UDS7187 Socket Driver for Steel and Wood Vertigo®

Each size concrete Vertigo (1/4", 3/8", 1/2") has its own driver: CDS7195 Socket for Concrete Vertigo 1/4" (3/8" standard socket) CDS7197 Socket for Concrete Vertigo 3/8" (1/2" standard socket) CDS7198 Socket for Concrete Vertigo® 1/2" (11/16" socket) 7180SD, 7181SD, 7182SD Socket for Vertigo®+ 1/4", 3/8", 1/2" (11/16" Socket)

3. What type of drill should be used to install steel and wood Vertigo®?

It is especially important when driving Steel Vertigo® or any drill screw to use a low RPM drill to keep the points from wearing prematurely. The RPM allows the case hardened drill tip to do its job, especially in thicker steel. Cordless: 12, 14, 18 volt @ 1500-1800 RPM with variable speed Corded: 4.5-6 amp @ 1500-1800 RPM with variable speed *For 1/4" and 3/8" Concrete Vertigo® the same tool can be used but must be torque adjustable.

4. Can Concrete Vertigo® be installed with Powers 3000 Tool Catalog #5865? Yes, both the 1/4" and 3/8" Concrete Vertigo's can be drilled with a 1/4" x 6" Hex ANSI bit (Peco Catalog# TPVSDS-14X6) They are installed by inserting the Vertigo® socket into the 3000 extension tool and sliding over the drill bit. This allows you to drill and drive with one tool. Be sure the tool is variable speed and in hard aggregate concrete please use a torque adjustable tool.

5. We have heard that some competitive fasteners snap when the rod is pulled to the side while installing a hanger. Is this a problem for Vertigo®? No, the Vertigo product has a special heat treatment which will allow it to pass a 15 degree bend test.

6. Is Powers Vertigo Pole Tool easy to use? Yes, it extends from 6 to 12 feet and has a quick release 3-jaw chuck to accept sockets and drill bits.

Sammy™ and Sammy Super Screw® are trademarks owned by Illinois Tool Works Inc. Hanger Mate is a registered trademark of Elco Textron Inc.

Vertigo®

S I M P L E R O D



1/4" 3/8" 1/2" CONCRETE VERTIGO®+

CODE LISTED
ICC-ES ESR-2989

CONCRETE VERTIGO™+							
CONCRETE CAT NO.	PACKAGE TYPE	ROD SIZE	SCREW SHANK SIZE & LENGTH	THREAD STYLE	PRE-DRILL	FINISH	BOX
7180SD		1/4"	3/8" X 2-3/4"	Wedge-Bolt+ 3/8" Wedge-Bit		Yellow Dichromate	100
7183		3/8"	3/8" X 2-3/4"	Wedge-Bolt+ 3/8" Wedge-Bit		Yellow Dichromate	100
7183J		1/2"	3/8" X 2-3/4"	Wedge-Bolt+ 3/8" Wedge-Bit		Yellow Dichromate	50

STEEL VERTICAL HANGER						
STEEL CAT NO.		ROD SIZE	SCREW SHANK SIZE & LENGTH	POINT STYLE	SELF-DRILLING RANGE	PACK QTY.
#3 For Purlins						
SVH7155J	Jar With Tool	1/4"	1/4-20 X 1"	#3	0.036" (20 Gage) — 0.188" (3/16")	20
7155	Box	1/4"	1/4-20 X 1"	#3	0.036" (20 Gage) — 0.188" (3/16")	100
7155J	Jar	1/4"	1/4-20 X 1"	#3	0.036" (20 Gage) — 0.188" (3/16")	50
SVH7157J	Jar With Tool	3/8"	1/4-20 X 2"	#3	0.036" (20 Gage) — 0.188" (3/16")	20
7157	Box	3/8"	1/4-20 X 2"	#3	0.036" (20 Gage) — 0.188" (3/16")	100
7157J	Jar	3/8"	1/4-20 X 2"	#3	0.036" (20 Gage) — 0.188" (3/16")	50
SVH7158J	Jar With Tool	3/8"	1/4-20 X 1" (W/Nuts)	#3	0.036" (20 Gage) — 0.188" (3/16")	20
7158	Box	3/8"	1/4-20 X 1" (W/Nuts)	#3	0.036" (20 Gage) — 0.188" (3/16")	100
7158J	Jar	3/8"	1/4-20 X 1" (W/Nuts)	#3	0.036" (20 Gage) — 0.188" (3/16")	50
SVH7159J	Jar With Tool	3/8"	1/4-20 X 1-1/2"	#3	0.036" (20 Gage) — 0.188" (3/16")	20
7159	Box	3/8"	1/4-20 X 1-1/2"	#3	0.036" (20 Gage) — 0.188" (3/16")	100
7159J	Jar	3/8"	1/4-20 X 1-1/2"	#3	0.036" (20 Gage) — 0.188" (3/16")	50
SVH7160J	Jar With Tool	3/8"	1/4-20 X 1-1/2" (W/Nuts)	#3	0.036" (20 Gage) — 0.188" (3/16")	20
7160	Box	3/8"	1/4-20 X 1-1/2" (W/Nuts)	#3	0.036" (20 Gage) — 0.188" (3/16")	100
71860J	Jar	3/8"	1/4-20 X 1-1/2" (W/Nuts)	#3	0.036" (20 Gage) — 0.188" (3/16")	50

#5 For Beams						
SVH7152J	Jar With Tool	1/4"	12-20 X 1-1/2"	#5	0.188" (3/16") — 0.500" (1/2")	20
7152	Box	1/4"	12-20 X 1-1/2"	#5	0.188" (3/16") — 0.500" (1/2")	100
7152J	Jar	1/4"	12-20 X 1-1/2"	#5	0.188" (3/16") — 0.500" (1/2")	50
SVH7154J	Jar With Tool	3/8"	12-20 X 1-1/2" (W/Nuts)	#5	0.188" (3/16") — 0.500" (1/2")	20
7154	Box	3/8"	12-20 X 1-1/2" (W/Nuts)	#5	0.188" (3/16") — 0.500" (1/2")	100
7154J	Jar	3/8"	12-20 X 1-1/2" (W/Nuts)	#5	0.188" (3/16") — 0.500" (1/2")	50
SVH7161J	Jar With Tool	1/2"	12-20 X 1-1/2" (W/Nuts)	#5	0.188" (3/16") — 0.500" (1/2")	20
7161	Box	1/2"	12-20 X 1-1/2" (W/Nuts)	#5	0.188" (3/16") — 0.500" (1/2")	100
7161J	Box	1/2"	12-20 X 1-1/2" (W/Nuts)	#5	0.188" (3/16") — 0.500" (1/2")	100

* denotes similar dimensions Sammy™ and Sammy Super Screw® are trademarks owned by Illinois Tool Works Inc. Hanger Mate™ is a registered trademark of Elco Textron Inc.

CROSS REFERENCE	
ELCO Hanger Mate®	ITW Sammy Super Screw®
EZE 405	DSTR100
EZE 665	DSTR1
EZE 670*	DSTR1
EZE 605	DST15
EZE 670	■

■	■
EZE 605	■
■	TEK50
■ denotes NO similar dimensions	

Vertigo®

H A N G I N G S Y S T E M

WOOD VERTICAL HANGER

WOOD CAT NO.	PACKAGE TYPE	ROD SIZE	SCREW SHANK SIZE & LENGTH	POINT STYLE	SELF-DRILLING RANGE	PACK QTY.
WVH7163J	Jar With Tool	1/4"	1/4" X 2"	Type 17	1/8"	20
7163	Box	1/4"	1/4" X 2"	Type 17	1/8"	100
7163J	Jar	1/4"	1/4" X 2"	Type 17	1/8"	50
WVH7203J	Jar With Tool	3/8"	1/4" X 1"	Type 17)	1/8"	20
7203	Box	3/8"	1/4" X 1"	Type 17	1/8"	100
7203J	Jar	3/8"	1/4" X 1"	Type 17	1/8"	50
WVH7165J	Jar With Tool	3/8"	1/4" X 2"	Type 17	1/8"	20
7165	Box	3/8"	1/4" X 2"	Type 17	1/8"	100
7165J	Jar	3/8"	1/4" X 2"	Type 17	1/8"	50
WVH7167J	Jar With Tool	3/8"	1/4" X 3"	Type 17	1/8"	20
7167	Box	3/8"	1/4" X 3"	Type 17	1/8"	100
7167J	Jar	3/8"	1/4" X 3"	Type 17)	1/8"	50
WVH7169J	Jar With Tool	3/8"	1/4" X 4"	Type 17	1/8"	20
7169	Box	3/8"	1/4" X 4"	Type 17	1/8"	100
7169J	Jar	3/8"	1/4" X 4"	Type 17	1/8"	50
WVH7162J	Jar With Tool	3/8"	5/16" X 2-1/2"	Type 17	1/8"	20
7162	Box	3/8"	5/16" X 2-1/2"	Type 17	1/8"	100
7162J	Jar	3/8"	5/16" X 2-1/2"	Type 17	1/8"	50
WVH7164J	Jar With Tool	1/2"	5/16" X 2-1/2"	Type 17	1/8"	20
7164	Box	1/2"	5/16" X 2-1/2"	Type 17	1/8"	100
7164J	Jar	1/2"	5/16" X 2-1/2"	Type 17	1/8"	50

CROSS REFERENCE

ELCO Hanger Mate®	ITW Sammy Super Screw®
EZE 455	GST200
■	GST100
■	GST20
■	GST30
■	GST40
EZE 750	■
■	■

CONCRETE SIDE HANGER

WOOD CAT NO.	PACKAGE TYPE	ROD SIZE	SCREW SHANK SIZE & LENGTH	POINT STYLE	SELF-DRILLING RANGE	PACK QTY.
CVH7171J	Jar With Tool	1/4"	1/4" X 1-1/4"	ANSI Wedge-Bolt (OT)	1/4" ANSI	20
7171	Box	1/4"	1/4" X 1-1/4"	ANSI Wedge-Bolt (OT)	1/4" ANSI	100
7171J	Jar	1/4"	1/4" X 1-1/4"	ANSI Wedge-Bolt (OT)	1/4" ANSI	50
CVH7173J	Jar With Tool	3/8"	1/4" X 1-1/2"	ANSI Wedge-Bolt (OT)	1/4" ANSI	20
7173	Box	3/8"	1/4" X 1-1/2"	ANSI Wedge-Bolt (OT)	1/4" ANSI	100
7173J	Jar	3/8"	1/4" X 1-1/2"	ANSI Wedge-Bolt (OT)	1/4" ANSI	50
CVH7175J	Jar With Tool	1/2"	3/8" X 2-3/4"	ANSI Wedge-Bolt (OT)	1/4" ANSI	20
7175	Box	1/2"	3/8" X 2-3/4"	ANSI Wedge-Bolt (OT)	1/4" ANSI	100

EZE 455	CST200
EZE 560	CST20
■	CST2

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■ denotes NO similar dimensions



S I M P L E R O D

STEEL SIDE HANGER						
STEEL CAT NO.	PACKAGE TYPE	ROD SIZE	SCREW SHANK SIZE & LENGTH	POINT STYLE	SELF-DRILLING RANGE	PACK QTY.
#3 For Purlins						
SSH7183J	Jar With Tool	1/4"	1/4-20 X 1"		#3	20
7183	Box	1/4"	1/4-20 X 1"		#3	100
7183J	Jar	1/4"	1/4-20 X 1"		#3	50
SSH7184J	Jar With Tool	3/8"	1/4-20 X 1" (W/Nuts)		#3	20
7184	Box	3/8"	1/4-20 X 1" (W/Nuts)		#3	100
7184J	Jar	3/8"	1/4-20 X 1" (W/Nuts)		#3	50
SSH7186J	Jar With Tool	3/8"	1/4-20 X 1-1/2" (W/Nuts) #3		0.036" (20 Guage) - 0.188" (3/16")	20
7186	Box	3/8"	1/4-20 X 1-1/2" (W/Nuts) #3		0.036" (20 Guage) - 0.188" (3/16")	100
7186J	Jar	3/8"	1/4-20 X 1-1/2" (W/Nuts) #3		0.036" (20 Guage) - 0.188" (3/16")	50
SSH7188J	Jar With Tool	3/8"	1/4-20 X 2" (W/Nuts)		#3	20
7188	Box	3/8"	1/4-20 X 2" (W/Nuts)		#3	100

#5 For Beams						
SSH7200J	Jar With Tool	1/4"	12-20 X 1-1/2"		#5	20
7200	Box	1/4"	12-20 X 1-1/2"		#5	100
7200J	Jar	1/4"	12-20 X 1-1/2"		#5	50
SSH7201J	Jar With Tool	3/8"	12-20 X 1-1/2" (W/Nuts)		#5	20
7201	Box	3/8"	12-20 X 1-1/2" (W/Nuts)		#5	100
7201J	Jar	3/8"	12-20 X 1-1/2" (W/Nuts)		#5	50

WOOD SIDE HANGER						
WOOD CAT NO.	PACKAGE TYPE	ROD SIZE	SCREW SHANK SIZE & LENGTH	POINT STYLE	SELF-DRILLING RANGE	PACK QTY.
WSH7185J	Jar With Tool	1/4"	1/4" X 1	Type 17	1/8"	20
7185	Box	1/4"	1/4" X 1	Type 17	1/8"	100
7185J	Jar	1/4"	1/4" X 1	Type 17	1/8"	50
WSH7205J	Jar With Tool	3/8"	1/4" X 1	Type 17	1/8"	20
72051	Box	3/8"	1/4" X 1	Type 17	1/8"	100
7205J	Jar	3/8"	1/4" X 1	Type 17	1/8"	50
WSH7170J	Jar With Tool	3/8"	1/4" X 2"	Type 17	1/8"	20
7170	Box	3/8"	1/4" X 2"	Type 17	1/8"	100
7170J	Jar	3/8"	1/4" X 2"	Type 17	1/8"	50
WSH7156J	Jar With Tool	3/8"	5/16" X 2-1/2"	Type 17	1/8"	20
7156	Box	3/8"	5/16" X 2-1/2"	Type 17	1/8"	100
7156J	Jar	3/8"	5/16" X 2-1/2"	Type 17	1/8"	50

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
CROSS REFERENCE	
ELCO Hanger Mate®	ITW Sammy Super Screw®
■	JRC1-1/2
EZE 860*	SWD10
EZE 870*	■
EZE 861*	SWDR1

■	■
■	■

■	SWG200*
■	SWG10
EZE 880	SWG20
EZE 830*	■

■ denotes NO similar dimensions

ACCESSORIES

NUT DRIVER CAT.NO.	SOCKET DESCRIPTION	SUGGESTED USAGE GUIDELINES	COLOR	PACK QTY.
USD7187	Universal Steel & Wood Socket	1500 — 1800 Rpm Drill Speed	Red 	1
CSD7195	Side	1/4-20 x 1" (w/nuts)	Blue 	1
CSD7197	Vertical	1/4-20 x 1" (w/nuts)	Blue 	1
CSD7198	Side	1/4-20 x 1-1/2" (w/nuts)	Blue 	1

POLE TOOL	DESCRIPTION	PACK QTY.
7166	6'-12' Pole Tool (Includes 3 Jaw Chuck)	1

3000 TOOL	DESCRIPTION	PACK QTY.
USD7187	SDS Driver Kit For 1/4" And 3/8" Concrete Vertigo® Includes 8" Extension Sleeve, Use 1/4" X6" Sds Hex Bit (Cat No. 5866)	1

INSTALLATION SPECIFICATIONS

POINT SIZE	#3	#5
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)	1,500 - 1,800	1,500 - 1,800

SCREW SIZE	1/4" WOOD (THREAD FORMING)	3/8" WOOD (THREAD FORMING)
Point Style	Type 17	Type 17
Root Diameter (in)	3/16	Screwlength less 5/16
Thread Length (in)	Screwlength less 5/16	1/16
Flange Thickness (in)	1/16	3/1

COUPLING SIZE & TYPE	1/4" VERTICAL	3/8" VERTICAL	1/2" VERTICAL	1/4" SIDE	3/8" SIDE
Coupling Width (flat to flat) (in)	5/8	5/8	5/8	5/8	5/8
Coupling Height (in)	13/16	13/16	13/16	13/16	13/16
Coupling Thread Size (UNC)	1/4" - 20	3/8" - 16	1/2" - 13	1/4" - 20	3/8" - 16
Coupling Thread Depth (in)	3/8	3/8	3/8	5/8 (through)	5/8 (through)

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

MATERIAL SPECIFICATIONS

ANCHOR COMPONENT	MATERIAL
Screw Body	Carbon Steel (Case Hardened)
Coupling	Carbon Steel (Case Hardened)
Plating	ASTM B 633, SC1, Type III (Zinc)

Installation Procedure

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

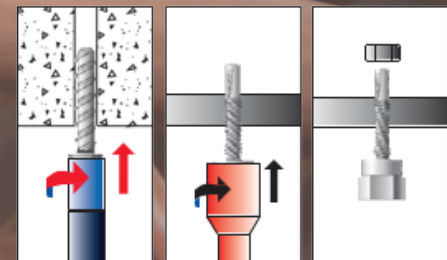
If pre-drilling is required (all concrete base materials and certain types of wood truss / wood joist), select the recommended drill bit type and diameter. Drill to the appropriate embedment depth, adding at least one diameter (1/4" to 1/2") to the drilling depth to prevent the tip of the fastener from 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. Concrete Vertigo may also be installed in "Impact" mode with a small electric wrench.

CONCRETE STEEL WOOD



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 VERTIGO® - Ultimate Load Capacities Installed in Minimum ASTM A 36 Steel (Purlins and Beams)

ANCHOR SIZE/ROD DIA.	MOUNT DIRECTION	SCREW SHANK SIZE & LENGTH	STEEL GAUGE (THICKNESS)						
			20 0.036" (LBS)	18 0.048" (LBS)	16 0.060" (LBS)	14 0.075" (LBS)	12 0.105" (LBS)	3/16" 0.188" (LBS)	1/4" 0.250" (LBS)
1/4"	Vertical	1/4-20 x 1" (w/nuts)	1,550	1,550	1,775	1,775	2,050	3,850	-
1/4"	Side	1/4-20 x 1" (w/nuts)	1,550	1,550	1,775	1,775	2,050	3,850	-
3/8"	Vertical	1/4-20 x 1" (w/nuts)	1,550	1,550	1,775	1,775	2,050	3,850	-
3/8"	Side	1/4-20 x 1-1/2" (w/nuts)	1,550	1,550	1,775	1,775	2,050	3,850	-
3/8"	Vertical	1/4-20 x 1-1/2"	405	620	985	1,160	1,560	3,205	-
3/8"	Side	1/4-20 x 1-1/2"	405	620	985	1,160	1,560	1,965	-
3/8"	Vertical	1/4-20 x 2" (w/nuts)	1,550	1,550	1,775	1,775	2,050	3,850	-
1/2"	Vertical	12-20 x 1-1/2"	495	710	920	1,560	2,050	3,280	5,040

Steel Vertigo® are recommended to be installed with the Universal Steel & Wood Nut Driver.

Wood VERTIGO® - Ultimate Load Capacities Installed in Wood Base Materials (Structural Wood and Timber)Beams)

ANCHOR SIZE/ROD DIA.	MOUNT DIRECTION	SCREW SHANK SIZE & LENGTH	EMBEDMENT DEPTH	FIR (LBS)	PINE (LBS)	SPRUCE (LBS)
1/4"	Vertical	1/4" x 2"	2"	1,510	1,510	1,510
1/4"	Side	1/4" x 1"	1"	685	650	650
3/8"	Vertical	1/4" x 2"	2"	1,510	1,510	1,510
3/8"	Side	1/4" x 2"	2"	1,800	1,800	1,800
3/8"	Vertical	1/4" x 3"	3"	2,075	1,510	1,510
3/8"	Vertical	1/4" x 4"	4"	2,075	1,510	1,510
3/8"	Vertical	3/8" x 2-1/2"	2-1/2"	2,670	3,110	3,110
3/8"	Side	3/8" x 2-1/2"	2-1/2"	1,450	1,530	1,530
1/2"	Vertical	3/8" x 2-1/2"	2-1/2"	2,670	3,110	3,110

*Timber/joist manufacturers may require pre-drilled holes with wood depending on the location of the anchor installation. Consult with the manufacturer for details. Wood Vertigo® are recommended to be installed with the Universal Steel & Wood Nut Driver.

Concrete VERTIGO® - Ultimate Load Capacities Installed in Normal Weight Concrete

ANCHOR SIZE/ROD DIA.	MOUNT DIRECTION	SCREW SHANK SIZE & LENGTH	ANSI DRILL BIT DIAMETE	EMBEDMENT DEPTH	MAX CLAMPING TORQUE	2,000 PSI CONCRETE		4,000 PSI CONCRETE		6,000 PSI CONCRETE	
						TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
1/4"	Vertical	1/4" x 1-1/4"	1/4"	1-1/4"	8 ft. - lbs.	1,390	1,810	1,950	2,440	2,070	2,570
3/8"	Vertical	1/4" x 1-1/2"	1/4"	1-1/2"	8 ft. - lbs.	1,760	2,580	2,595	2,640	2,770	2,700
1/2"	Vertical	3/8" x 2-3/4"	3/8"	2-3/4"	35 ft. - lbs.	5,320	5,250	6,050	6,330	8,620	7,410

Concrete Vertigo® are recommended to be installed with the appropriate Concrete Nut Driver.

Concrete VERTIGO® - Ultimate Tension Load Capacities Installed in Hollow Core Plank

ANCHOR SIZE/ROD DIA.	MOUNT DIRECTION	SCREW SHANK SIZE & LENGTH	ANSI DRILL BIT DIAMETE	EMBEDMENT DEPTH	MAX CLAMPING TORQUE	CENTER OF WEB (LBS)	CENTER OF CORE (LBS)
1/4"	Vertical	1/4" x 1-1/4"	1/4"	1-1/4"	8 ft. - lbs.	2,775	1,920
3/8"	Vertical	1/4" x 1-1/2"	1/4"	1-1/2"	8 ft. - lbs.	3,700	2,570
1/2"	Vertical	3/8" x 2-3/4"	3/8"	2-3/4"	35 ft. - lbs.	8,240	3,480

Tabulated load values are for anchors installed in 8-inch thick hollow core plank with a minimum compressive strength of 4,000 psi at the time of installation. The 4' x 6' normal-weight concrete member features include 1-1/2" cover above and below cores and a minimum web thickness of 1-1/2".

Concrete Vertigo are recommended to be installed with the appropriate Concrete Nut Driver. Depending on fastener application and governing building code, ultimate load capacities should be reduced by a minimum safety factor to determine the allowable working load. NFPA 13 Fire Protection requirements are 5 times the weight of the liquid (water) filled pipe plus 250 lbs. Consult the engineer of record.

