

WOOD

STEEL

NEW! CONCRETE
VERTIGO®+

CODE LISTED
ICC-ES ESR-2989

CONCRETE

Vertigo

Rod Hanging System





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 BASE MATERIAL | SPEED OF INSTALLATION | INSTALLED COST | INSTALLATION | TYPICAL COST INSTALLED (3/8" SIZE) | | | | |
|------------------------|--------------------------|-------------------|--------------|------------------------------------|------|--------|----------|--------|
| | | | | 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 BASE MATERIAL | SPEED OF INSTALLATION | INSTALLED COST | INSTALLATION | TYPICAL COST INSTALLED (3/8" SIZE) | | | | |
|-----------------------|--------------------------|-------------------|--------------|------------------------------------|------|--------|----------|--------|
| | | | | 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 BASE MATERIAL | SPEED OF INSTALLATION | INSTALLED COST | INSTALLATION | TYPICAL COST INSTALLED (3/8" SIZE) | | | | |
|---------------------------|--------------------------|-------------------|--------------|------------------------------------|------|--------|----------|--------|
| | | | | 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

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 call the Peco Sales Department at 800-521-7326

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 it's 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 it's 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.

7. 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.

Vertigo®

S I M P L E R O D



CONCRETE VERTIGO™+

| CONCRETE CAT NO. | PACKAGE TYPE | ROD SIZE | SCREW SIZE & LENGTH SHANK | THREAD STYLE | PRE-DRILL | FINISH | BOX |
|------------------|--------------|----------|---------------------------|--------------|----------------|-------------------|-----|
| 7180SD | | 1/4" | 3/8" X 2-3/4" | Wedge-Bolt+ | 3/8" Wedge-Bit | Yellow Dichromate | 100 |
| 7181SD | | 3/8" | 3/8" X 2-3/4" | Wedge-Bolt+ | 3/8" Wedge-Bit | Yellow Dichromate | 100 |
| 7182SD | | 1/2" | 3/8" X 2-3/4" | Wedge-Bolt+ | 3/8" Wedge-Bit | Yellow Dichromate | 50 |

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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 |
| 7160J | Jar | 3/8" | 1/4-20 X 1-1/2" (W/Nuts) | #3 | 0.036" (20 Gage) — 0.188" (3/16") 50 |

CROSS REFERENCE

| | |
|-------------------|------------------------|
| ELCO Hanger Mate® | ITW Sammy Super Screw® |
|-------------------|------------------------|

#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 | Jar | 1/2" | 12-20 X 1-1/2" (W/Nuts) | #5 | 0.188" (3/16") — 0.500" (1/2") 50 |

EZE 405 DSTR100

EZE 665 DSTR1

EZE 670* DSTR1

EZE 605 DST15

EZE 670 ■

■ ■

EZE 605 ■

■ TEK50

* 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. ■ denotes NO similar dimensions

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 |
| 7169 | 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

■ GST10

■ GST20

■ GST30

■ GST40

EZE 750 ■

■ ■

CONCRETE VERTICAL 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) | 3/8" ANSI | 20 |
| 7175 | Box | 1/2" | 3/8" X 2-3/4" | ANSI Wedge-Bolt (OT) | 3/8" ANSI | 50 |
| 7175J | Jar | 1/2" | 3/8" X 2-3/4" | ANSI Wedge-Bolt (OT) | 3/8" ANSI | 20 |

EZE 455 CST200

EZE560 CST20

■ CST2

For Side Mount Concrete Applications Use Catalog Number 7185 And 7170 With A 3/16" ANSI Drill B

■ denotes NOSimilar dimensions

* denotes similar dimensions

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S I M P L E R O D

| STEEL SIDE HANGER | | | | | | | CROSS REFERENCE | |
|-----------------------|---------------|----------|-----------------------------|-------------|------------------------------------|-----------|-------------------|------------------------|
| STEEL CAT NO. | | ROD SIZE | SCREW SHANK SIZE & LENGTH | POINT STYLE | SELF-DRILLING RANGE | PACK QTY. | ELCO Hanger Mate® | ITW Sammy Super Screw® |
| #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 | ■ | JRC1-1/2 |
| 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 | EZE 860* | SWD10 |
| 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 Gauge) — 0.188" (3/16") | 20 | | |
| 7186 | Box | 3/8" | 1/4-20 X 1-1/2" (W/Nuts) #3 | | 0.036" (20 Gauge) — 0.188" (3/16") | 100 | EZE 870* | ■ |
| 7186J | Jar | 3/8" | 1/4-20 X 1-1/2" (W/Nuts) #3 | | 0.036" (20 Gauge) — 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 | EZE 861* | SWDR1 |
| 7188J | Jar | 3/8" | 1/4-20 X 2" (W/Nuts) | | #3 | 50 | | |
| #5 For Beams | | | | | | | | |
| SSH7200J | Jar With Tool | 1/4" | 12-20 X 1-1/2" | #5 | 0.188" (3/16") — 0.500" (1/2") | 20 | | |
| 7200 | Box | 1/4" | 12-20 X 1-1/2" | #5 | 0.188" (3/16") — 0.500" (1/2") | 100 | ■ | ■ |
| 7200J | Jar | 1/4" | 12-20 X 1-1/2" | #5 | 0.188" (3/16") — 0.500" (1/2") | 50 | | |
| SSH7201J | Jar With Tool | 3/8" | 12-20 X 1-1/2" (W/Nuts) #5 | | 0.188" (3/16") — 0.500" (1/2") | 20 | | |
| 7201 | Box | 3/8" | 12-20 X 1-1/2" (W/Nuts) #5 | | 0.188" (3/16") — 0.500" (1/2") | 100 | ■ | ■ |
| 7201J | Jar | 3/8" | 12-20 X 1-1/2" (W/Nuts) #5 | | 0.188" (3/16") — 0.500" (1/2") | 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 | ■ | SWG200* |
| 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 | | |
| 7205 | Box | 3/8" | 1/4" X 1" | Type 17 | 1/8" | 100 | ■ | SWG10 |
| 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 | EZE 880 | SWG20 |
| 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 | EZE 830* | ■ |
| 7156J | Jar | 3/8" | 5/16" X 2-1/2" | Type 17 | 1/8" | 50 | | |

* 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. ■ denotes NOSimilar dimensions

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

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 | 1/4" Concrete Socket | | Blue ■ | 1 |
| CSD7197 | 3/8" Concrete Socket | | Blue ■ | 1 |
| CSD7198 | 1/2" Concrete Socket (Use For All Vertigo+ Diameters) | | 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" X 6" Sds Hex Bit (Cat No. 5866) | 1 |

INSTALLATION SPECIFICATIONS

| POINT STYLE | #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 | 7/32 |
| Thread Length (in) | Screw length less 5/16 | Screw length less 5/16 |
| Flange Thickness (in) | 1/16 | 1/16 |

| 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) |

| ROD DIAMETER / ANCHOR SIZE | 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 | 3/8* | 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 | 1/2" - 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 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.

CONCRETE



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)

| 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 | 1,380 |
| 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 DIAMETER | 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 DIAMETER | 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.



Peco Fasteners, Inc. • P. O. Box 43483 • Atlanta, GA 30336
 Location: Peco Fasteners, Inc. • 1218-A Six Flags Rd. • Austell, GA 30168
 Phone: 770-745-1300 • Wholesale Only: 800-521-7326 • Fax: 770-745-1333

WOOD

STEEL

NEW! CONCRETE
VERTIGO®+

CODE LISTED
ICC-ES ESR-2989

CONCRETE

Vertigo

Rod Hanging System





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 BASE MATERIAL | SPEED OF INSTALLATION | INSTALLED COST | INSTALLATION | TYPICAL COST INSTALLED (3/8" SIZE) | | | | |
|------------------------|--------------------------|-------------------|--------------|------------------------------------|------|--------|----------|--------|
| | | | | 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 BASE MATERIAL | SPEED OF INSTALLATION | INSTALLED COST | INSTALLATION | TYPICAL COST INSTALLED (3/8" SIZE) | | | | |
|-----------------------|--------------------------|-------------------|--------------|------------------------------------|------|--------|----------|--------|
| | | | | 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 BASE MATERIAL | SPEED OF INSTALLATION | INSTALLED COST | INSTALLATION | TYPICAL COST INSTALLED (3/8" SIZE) | | | | |
|---------------------------|--------------------------|-------------------|--------------|------------------------------------|------|--------|----------|--------|
| | | | | 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

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 call the Peco Sales Department at 800-521-7326

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 it's 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 it's 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.

7. 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.

Vertigo®

S I M P L E R O D



Concrete Vertigo+

CONCRETE VERTIGO™+

| CONCRETE CAT NO. | PACKAGE TYPE | ROD SIZE | SCREW SIZE & LENGTH SHANK | THREAD STYLE | PRE-DRILL | FINISH | BOX |
|------------------|--------------|----------|---------------------------|--------------|----------------|-------------------|-----|
| 7180SD | | 1/4" | 3/8" X 2-3/4" | Wedge-Bolt+ | 3/8" Wedge-Bit | Yellow Dichromate | 100 |
| 7181SD | | 3/8" | 3/8" X 2-3/4" | Wedge-Bolt+ | 3/8" Wedge-Bit | Yellow Dichromate | 100 |
| 7182SD | | 1/2" | 3/8" X 2-3/4" | Wedge-Bolt+ | 3/8" Wedge-Bit | Yellow Dichromate | 50 |

CODE LISTED
ICC-ES ESR-2989

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 |
| 7160J | Jar | 3/8" | 1/4-20 X 1-1/2" (W/Nuts) | #3 | 0.036" (20 Gage) — 0.188" (3/16") 50 |

CROSS REFERENCE

| | |
|-------------------|------------------------|
| ELCO Hanger Mate® | ITW Sammy Super Screw® |
|-------------------|------------------------|

#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 | Jar | 1/2" | 12-20 X 1-1/2" (W/Nuts) | #5 | 0.188" (3/16") — 0.500" (1/2") 50 |

* 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. ■ denotes NO similar dimensions

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 |
| 7169 | 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

■ GST10

■ GST20

■ GST30

■ GST40

EZE 750 ■

■ ■

CONCRETE VERTICAL 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) | 3/8" ANSI | 20 |
| 7175 | Box | 1/2" | 3/8" X 2-3/4" | ANSI Wedge-Bolt (OT) | 3/8" ANSI | 50 |
| 7175J | Jar | 1/2" | 3/8" X 2-3/4" | ANSI Wedge-Bolt (OT) | 3/8" ANSI | 20 |

EZE 455 CST200

EZE560 CST20

■ CST2

For Side Mount Concrete Applications Use Catalog Number 7185 And 7170 With A 3/16" ANSI Drill B

■ denotes NOSimilar dimensions

* denotes similar dimensions

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S I M P L E R O D

| STEEL SIDE HANGER | | | | | | | CROSS REFERENCE | |
|-----------------------|---------------|----------|-----------------------------|-------------|------------------------------------|-----------|-------------------|------------------------|
| STEEL CAT NO. | | ROD SIZE | SCREW SHANK SIZE & LENGTH | POINT STYLE | SELF-DRILLING RANGE | PACK QTY. | ELCO Hanger Mate® | ITW Sammy Super Screw® |
| #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 | ■ | JRC1-1/2 |
| 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 | EZE 860* | SWD10 |
| 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 Gauge) — 0.188" (3/16") | 20 | | |
| 7186 | Box | 3/8" | 1/4-20 X 1-1/2" (W/Nuts) #3 | | 0.036" (20 Gauge) — 0.188" (3/16") | 100 | EZE 870* | ■ |
| 7186J | Jar | 3/8" | 1/4-20 X 1-1/2" (W/Nuts) #3 | | 0.036" (20 Gauge) — 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 | EZE 861* | SWDR1 |
| 7188J | Jar | 3/8" | 1/4-20 X 2" (W/Nuts) | | #3 | 50 | | |
| #5 For Beams | | | | | | | | |
| SSH7200J | Jar With Tool | 1/4" | 12-20 X 1-1/2" | #5 | 0.188" (3/16") — 0.500" (1/2") | 20 | | |
| 7200 | Box | 1/4" | 12-20 X 1-1/2" | #5 | 0.188" (3/16") — 0.500" (1/2") | 100 | ■ | ■ |
| 7200J | Jar | 1/4" | 12-20 X 1-1/2" | #5 | 0.188" (3/16") — 0.500" (1/2") | 50 | | |
| SSH7201J | Jar With Tool | 3/8" | 12-20 X 1-1/2" (W/Nuts) #5 | | 0.188" (3/16") — 0.500" (1/2") | 20 | | |
| 7201 | Box | 3/8" | 12-20 X 1-1/2" (W/Nuts) #5 | | 0.188" (3/16") — 0.500" (1/2") | 100 | ■ | ■ |
| 7201J | Jar | 3/8" | 12-20 X 1-1/2" (W/Nuts) #5 | | 0.188" (3/16") — 0.500" (1/2") | 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 | ■ | SWG200* |
| 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 | | |
| 7205 | Box | 3/8" | 1/4" X 1" | Type 17 | 1/8" | 100 | ■ | SWG10 |
| 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 | EZE 880 | SWG20 |
| 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 | EZE 830* | ■ |
| 7156J | Jar | 3/8" | 5/16" X 2-1/2" | Type 17 | 1/8" | 50 | | |

* 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. ■ denotes NOSimilar dimensions

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

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 | 1/4" Concrete Socket | | Blue ■ | 1 |
| CSD7197 | 3/8" Concrete Socket | | Blue ■ | 1 |
| CSD7198 | 1/2" Concrete Socket (Use For All Vertigo+ Diameters) | | 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" X 6" Sds Hex Bit (Cat No. 5866) | 1 |

INSTALLATION SPECIFICATIONS

| POINT STYLE | #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 | 7/32 |
| Thread Length (in) | Screw length less 5/16 | Screw length less 5/16 |
| Flange Thickness (in) | 1/16 | 1/16 |

| 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) |

| ROD DIAMETER / ANCHOR SIZE | 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 | 3/8* | 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 | 1/2" - 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 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.

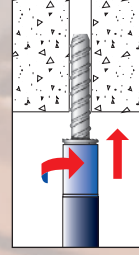
CONCRETE



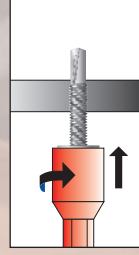
Select the appropriate socket driver for the anchor size and type to be installed and mount into chuck of installation tool. Insert the Vertigo fastener into the socket driver, and install perpendicular to the base material surface. Drive the fastener with a smooth steady

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.

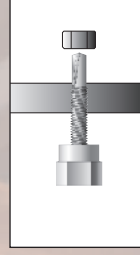
CONCRETE



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)

| 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 | 1,380 |
| 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 DIAMETER | 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 DIAMETER | 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.



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