

Anchors for Steel

Installs into steel structures easily and quickly!

> Available in Vertical, Horizontal and Swivel Head





SIDEWINDERS® FOR STEEL HORIZONTAL MOUNT

### **DESCRIPTION/SUGGESTED SPECIFICATIONS**

# Self drilling & self tapping into steel up to 1/2" thick—

The Steel Sammy is made using Teks<sup>®</sup> self-drilling fasteners, perfect for Hanging Sprinklers, Pipes, Electrical Fixture or HVAC Equipment to steel purlin, structural beams, and open web joist. The Steel Sammy is available in vertical mount, horizontal mount, and Swivel mount to accommodate all fastening situations.

## **ADVANTAGES**

- Made with Teks<sup>®</sup> self-drilling fasteners no pre-drilling required.
- Install into steel range from 22 gauge 1/2" thickness
- Reduces installation cost.
- Quick to install using the Sammy Nut Driver with a no load speed 2000-2500 rpm, minimum 6 amps drill/driver.
- Saves time from traditional methods.

# Sammy's Vertical Mount Product Features



Sammy's Sidewinder® Product Features



Construction Products Call our toll free number 800-387-9692 or visit <u>www.itwconstruction.ca</u> for general information.

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# SAMMYS for Steel

## **APPLICATIONS**



### Sprinkler Systems

Pipes/Plumbing

**Electrical Lighting and Fixtures** 

**HVAC Equipment and Fixutres** 

## **APPROVALS**

See Selection Chart for items with approvals.





### INSTALLATION INSTRUCTIONS VERTICAL MOUNT



- Insert the appropriate nut driver into a 3/8" or 1/2" portable drill.
- Insert the SAMMYS into the #14 (black) nut driver (p/n 8113910). Drill should be in a vertical position.
- **3.** Push the face of the nut driver tight to the member. When the nut driver spins freely on the SAMMYS, stop drill and remove.
- 4. The SAMMYS is now ready to receive 1/4", 3/8", 1/2" or metric all thread rod, bolt stock. (The 1/2" requires the #14SW red nut driver)

#### Important Vertical Installation Notes

Warranty requires the use of appropriate nut drivers for installation. **Model** #14 Nut Driver Item No: 100 Color: Black Use With Sammys for 1/4" and 3/8" Rod PN 8113910 Eye protection should be worn at all times when installing this product.

### INSTALLATION INSTRUCTIONS HORIZONTAL MOUNT



- **1.** Insert the appropriate nut driver into a 3/8" or 1/2" portable drill.
- Insert the SAMMYS into the #14W (red) nut driver (p/n 8114910). With drill unit in a horizontal position and at a right angle to the structural member, begin installation.
- 3. When the nut driver spins free on the SAMMYS, stop drill and remove.
- The unit is now ready to receive 1/4", 3/8", or metric all thread rod, bolt stock.

#### Important Horizontal Installation Notes

Warranty requires the use of appropriate nut drivers for installation. Sidewinders must be installed using Model #14SW (Red) nut driver only. Item No: 101 PN: 8114910 Eye protection should be worn at all times when installing this product.

# Sammy Swivel Head Product Features

- Eliminates distortion of threaded rod in sloped roof applications.
- Accommodates up to 3 1/2" x 12 pitch.
- Installs into angled Z-Purlin; Allows threaded rod to hang plumb.
- Allows 17° deflection from vertical.





# **SAMMYS for Steel**

### **SELECTION CHART**

## SAMMYS Vertical Mount

Part # 8113910 Part # 8114910 Part # 8273910 ULTIMATE TEST TEST ROD PART (UL MAX BOX CASE NUT MIN PULLOUT FM MODEL DESCRIPTION LOAD LOAD SIZE NUMBER us THICKNESS THICKNESS QTY QTY DRIVER (LBS) LISTED (LBS) (LBS) 1/4-20 x 1' 1/4" DSTR 100 \* 8024957 1510 (20 ga.) .036"-20 ga 3/16" 25 125 TEKS 3 1/4-14 x 1" 1/4" 8025957 DST 100 446 (20 ga.) .036"-20 ga 3/16" 25 125 TEKS 3 12-24 x 1-1/2" 1/4" 8030957 TEK 500 3125 (3/16") .187"-3/16" 1/2" 25 125 TEKS 5 1/4-20 x 1" DSTR 1 \* 3/8" 8038957 1510 (20 ga.) 1500 1475 .036"-20 ga 3/16' 25 125 TEKS 3 5/16-18 x 1-1/4" 8039957 DSTR 516 \* 3/8" 2200 (20 ga.) 1500 1475 .036"-20 ga 1/8" 25 125 TEKS 3 446 (20 ga.) 1/4-14 x 1" 8040957 3/16" 3/8" DST 10 25 .036"-20 ga 125 TEKS 3 970 (16 ga.) Part # 8113910 1/4-14 x 1" 446 (20 ga.) 3/8" 8077925 DST 10-SS 125 .036"-20 ga 3/16" 25 TEKS 3 970 (16 ga.) 446 (20 ga.) 1/4-14 x 1-1/2" 3/8" 8041957 DST 15 .036"-20 ga 3/16" 25 125 TEKS 3 970 (16 ga.) 1/4-14 x 2 446 (20 ga.) 3/8" 8042957 DST 20 3/16" 25 125 .036"-20 ga TEKS" 3 970 (16 ga.) 1/4-14 x 3" 446 (20 ga.) 3/8" 8044957 DST 30 .036"-20 ga 3/16' 25 125 970 <u>(16 ga.)</u> TEKS 3 5/16-18 x 1-1/4" 3/8" 8045957 DST 516 1500 (3/16") 1475 1500 .125"-1/8" 1/8' 25 125 TEKS 3 12-24 x 1-1/2" 3/8" 8046957 **TEK 50** 3125 (3/16") 1500 1475 .187"-3/16" 1/2" 25 125 TEKS 5 5/16-18 x 1-1/4" DSTR 5.16 \* 1/2" 8034925 2220 (20 ga.) 1/8" .036"-20 ga 25 125 TEKS 3 Part # 8114910 12-24 x 1-1/2" 1/2" TEK 5.0 3125 (3/16") .187"-3/16" 1/2" 125 8036925 25 TEKS 5

\*Includes retaining nut

# SAMMYS



| S | WĬ          | rel H          | lead        | B)                       |  | <u> </u>                                     | . TECT                               |                  |                  |            |             |                   |
|---|-------------|----------------|-------------|--------------------------|--|--|--------------------------------------|------------------|------------------|------------|-------------|-------------------|
|   | ROD<br>SIZE | PART<br>NUMBER | MODEL       | DESCRIPTION              | ULTIMATE<br>PULLOUT<br>(LBS)   | CULUSTED US LOAD<br>LISTED (LBS)             | FM<br>APPROVED TEST<br>LOAD<br>(LBS) | MIN<br>THICKNESS | MAX<br>THICKNESS | BOX<br>QTY | CASE<br>QTY | NUT<br>DRIVER     |
|   | 3/8"        | 8137957        | SH-DSTR 1 * | 1/4-20 x 1"<br>TEKS 3    | 3220 (3/16")   | 1500   | 1475                                 | 0.35"            | 3/16"            | 25         | 125         | Part #<br>8113910 |
|   | 3/8"        | 8268957        | SH-TEK50    | 12-24 x 1-3/4"<br>TEKS 5 | 2368 (1/2" steel Vertical)<br>1306 (45° off Vertical)<br>2281 (3/16" HSS)<br>1585 (3/16" HSS 45° off Vertical) | 1500 (Vertical)<br>850 (45° off<br>Vertical) | 4"<br>2-1/2"                         | 3/16"            | 1/2"             | 25         | 125         | Part #            |
|   | 1/2"        | 8270957        | SH-TEK 5.0  | 12-24 x 1-3/4"<br>TEKS 5 | 2368 (1/2" steel Vertical)<br>1306 (45° off Vertical)<br>2281 (3/16" HSS)<br>1585 (3/16" HSS 45° off Vertical) |  |                                      | 3/16"            | 1/2"             | 25         | 125         | 8273910           |

\*Includes retaining nut





# **SAMMYS for Steel**

## **SELECTION CHART**

SAMMYS Horizontal Mount



|  |             |                |              |                            |                              |              |                | i di ci i o i i i | · · · · · · · · · · · · · · · · · · · |            |             |                   |
|--|-------------|----------------|--------------|----------------------------|------------------------------|--------------|----------------|-------------------|---------------------------------------|------------|-------------|-------------------|
|  | ROD<br>SIZE | PART<br>NUMBER | MODEL        | DESCRIPTION                | ULTIMATE<br>PULLOUT<br>(LBS) | ULISTED LOAD | <fm> LOAD</fm> | MIN<br>THICKNESS  | MAX<br>THICKNESS                      | BOX<br>QTY | CASE<br>QTY | NUT<br>DRIVER     |
|  | 3/8"        | 8050957        | SWD 10       | 1/4-14 x 1"<br>TEKS 3      | 1477 (16 ga.)                |              |                | .060"-16 ga       | 3/16"                                 | 25         | 125         |                   |
|  | 3/8"        | 8080925        | SWD 10-SS    | 1/4-14 x 1"<br>TEKS 3      | 1477 (16 ga.)                |              |                | .060"-16 ga       | 3/16"                                 | 25         | 125         |                   |
|  | 3/8"        | 8051957        | SWD 15       | 1/4-14 x 1-1/2"<br>TEKS 3  | 1477 (16 ga.)                |              |                | .060"-16 ga       | 3/16″                                 | 25         | 125         |                   |
|  | 3/8"        | 8055957        | SWDR 1 *     | 1/4-20 x 1"<br>TEKS 3      | 1900 (20 ga.)                | 1500         | 1475           | .036"-20 ga       | 3/16"                                 | 25         | 125         | Part #<br>8114910 |
|  | 3/8"        | 8054957        | SWDR 1-1/2 * | 12-24 x 1-1/2"<br>TEKS 5   | 2375 (3/16")                 | 1500         | 1475           | .188"-3/16"       | 1/2"                                  | 25         | 125         |                   |
|  | 3/8"        | 8056957        | SWDR 516 *   | 5/16-18 x 1-1/4"<br>TEKS 3 | 2480 (20 ga.)                | 1500         | 1475           | .036"-20 ga       | 1/8"                                  | 25         | 125         |                   |
|  | 3/8"        | 8057957        | SWT 15       | 12-24 x 1-1/2"<br>TEKS 5   | 2375 (3/16")                 |              |                | .187"-3/16"       | 1/2"                                  | 25         | 125         |                   |

SPECIAL NUT DRIVER SYSTEM: The nut drivers were designed with a unique spin-off feature which provides a fast and safe installation each time. When the face of the driver comes into contact with the material you are installing into, continue drilling until nut driver spins free. Installation is then complete. Warranty requires the use of the appropriate nut driver for installations.

### **PERFORMANCE TABLES**

| Sheet Steel Ga             |      |      |      |      |      |      |      |      |       |      |
|----------------------------|------|------|------|------|------|------|------|------|-------|------|
| GAUGE NO.                  | 26   | 24   | 22   | 20   | 18   | 16   | 14   | 12   | 3/16″ | 1/4″ |
| Nominal Decimal Equivalent | .018 | .024 | .030 | .036 | .048 | .060 | .075 | .105 | .188  | .250 |

# **Ultimate Pullout Values** (avg. lbs. ultimate) - SAMMYS

|             | FASTENER |    |      | STEEL GAUGE (lbs.) |      |      |      |      |      |  |  |  |  |
|-------------|----------|----|------|--------------------|------|------|------|------|------|--|--|--|--|
| MODEL       | DIA.     | PT | 20   | 18                 | 16   | 14   | 12   | 3/16 | 1/4  |  |  |  |  |
| DST         | 1/4      | #3 | 446  | 613                | 970  | 1145 | 1544 | 3190 |      |  |  |  |  |
| DST 516     | 5/16     | #3 | 457  | 568                | 1209 | 1712 | 2422 |      |      |  |  |  |  |
| TEK 50      | #12      | #5 |      | 487                | 699  | 913  | 1527 | 3270 | 3593 |  |  |  |  |
| DSTR 1-1/2" | #12      | #5 |      |                    |      |      |      | 3270 | 3593 |  |  |  |  |
| DSTR 1"     | 1/4      | #3 | 1510 |                    |      |      |      |      |      |  |  |  |  |
| DSTR 516    | 5/16     | #3 | 2200 |                    |      |      |      |      |      |  |  |  |  |

# **Aluminum Curtain Wall Extrusion**Ultimate Pullout Values

|        | (AVERAGE LBS. ULTIMATE) |     |           |      |      |      |  |  |  |  |  |  |
|--------|-------------------------|-----|-----------|------|------|------|--|--|--|--|--|--|
|        | FASTENER                |     | THICKNESS |      |      |      |  |  |  |  |  |  |
| MODEL  | DIA.                    | PT. | .114      | .092 | .365 | .132 |  |  |  |  |  |  |
| DST 10 | 1/4                     | #3  | 1265      |      | 2750 |      |  |  |  |  |  |  |
| SWD 10 | 1/4                     | #3  |           | 1120 |      | 1420 |  |  |  |  |  |  |

# **Ultimate Pullout Values** (avg. lbs. ultimate) - SIDEWINDERS

| F           | FASTENER |    |      |    | STEEL GAUGE (lbs.) |      |    |      |     |  |  |  |  |  |
|-------------|----------|----|------|----|--------------------|------|----|------|-----|--|--|--|--|--|
| MODEL       | DIA.     | PT | 20   | 18 | 16                 | 14   | 12 | 3/16 | 1/4 |  |  |  |  |  |
| SWD         | 1/4      | #3 |      |    | 1477               |      |    |      |     |  |  |  |  |  |
| SWDR 1-1/2" | #12      | #5 | 2375 |    |                    |      |    |      |     |  |  |  |  |  |
| SWDR 1"     | 1/4      | #3 | 1900 |    |                    | 1900 |    |      |     |  |  |  |  |  |
| SWDR 516    | 5/16     | #3 | 2480 |    |                    | 2480 |    |      |     |  |  |  |  |  |



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# Swivel Head Teks for Seismic Restraint



# FOR 3/8" AND 1/2" RODS

### SH-TEK 50 FOR 3/8" ROD

Structural attachment for installation of branch/end of line restraint using 3/8" all thread (.299" OD) or end thread rod (.374" OD).

Designed for use in bar joist, I-beam, rectangular, square, and circular hollow structural steel ranging from 1/8" to 1/2" in low slope or pitched roof designs (12/12). It may be used to attach short length of rod to eliminate lateral sway bracing per NFPA 13, 9.3.5.3.8, (2007).

Provides upper structural attachment in a wide range of steel thicknesses, from 1/8" through 1/2". This fastening system provides a secure and economical attachment to the structure.

### SH-TEK 5.0 FOR 1/2" ROD

Structural attachment for installation of branch/end of line restraint using 1/2" all thread (.405" OD) or end thread rod (.500" OD).

Designed for use in bar joist, I-beam, rectangular, square, and circular hollow structural steel ranging from 1/8" to 1/2" in low slope or pitched roof designs (12/12). It may be used to attach short length of rod to eliminate lateral sway bracing per NFPA 13, 9.3.5.3.8, (2007).

Provides upper structural attachment in a wide range of steel thicknesses, from 1/8" through 1/2". This fastening system provides a secure and economical attachment to the structure

# DESCRIPTION

#### **FEATURES**

- Structural attachment and restraint component combined; ready for selected rod.
- No pre-drilling.
- Access to the back of fastener not required.
- Does not require use of a retaining nut.
- Quick and easy installation.

# SPECIFICATIONS

FOR 3/8" ROD AND 1/2" ROD

| <b>Restrained Pipe Size:</b>         | Up to Schedule 40 pipe 2" or less      |
|--------------------------------------|--|
| Max Length of<br>Restraint Material: | See Maximum Horizontal Load Table      |
| Maximum Angle:                       | 45° from horizontal                    |
| Material:                            | Carbon Steel                           |
| Screw Description:                   | 12-24 x 1-3/8" Teks® 5 milled point    |
| Finish:                              | Electro-zinc (cap), Climaseal® (faster |
|                                      |  |

e Maximum Horizontal Load Tables below.

> ctro-zinc (cap), Climaseal® (fastener) Tested to GR-63-CORE Standard for performance in

BENEFITS

Reduced installation cost.

Aesthetically pleasing.

Reduced material coordination.

Less on site material (GO GREEN).

TESTED

REOUIREME

TESTED TO SEISMIC DESIGN

CATEGORIES C.D.E. & F

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**Testing:** structural steel in seismic restraint applications as outlined for use in NFPA 13 (2007), 9.3 at an independent test lab. The calculated force used for the testing was equal to that found in a Zone 4 and an 8.4 Richter scale seismic event.

Listing for 3/8" Rod: UL 203 listed as pipe hanger File EX 5098

- Perpendicular to structural member – 4" Schedule 40 pipe - 45° off vertical

UL 203A File EX 15565 (UL) us

Listing for 1/2" Rod:



# SAMMYS Swivel Head Teks<sup>™</sup> - Seismic Restraint

| ROD<br>SIZE | PART<br>NUMBER | MODEL      | MIN<br>THICKNESS | MAX<br>THICKNESS | APPLICATION       | BOX<br>QTY | CASE<br>QTY | INSTALLATION TOOL                  |
|-------------|----------------|------------|------------------|------------------|-------------------|------------|-------------|------------------------------------|
| 3/8"        | 8268957        | SH-TEK 50  | 1/8"             | 1/2"             | Structural Steel* | 25         | 125         | Must be installed with #14 SH Nut  |
| 1/2"        | 8270957        | SH-TEK 5.0 | 1/8"             | 1/2"             | Structural Steel* | 25         | 125         | Driver (ORANGE) (Part No. 8273910) |

\* I-Beam, Bar Joist, Hollow Structural Steel

### **PERFORMANCE TABLES**

# Maximum Rod Length for I/r=100, 200, 300, and 400

| Destroint Change and Sing    | Nominal Diameter | Augo (in 2) | Least Radius of   | Maximum Rod Length for I/r (ft) |           |           |            |  |
|------------------------------|------------------|-------------|-------------------|---------------------------------|-----------|-----------|------------|--|
| Restraint Shape and Size     | Nominal Diameter | Area (in.²) | Gyration, r (in.) | l/r = 100                       | l/r = 200 | l/r = 300 | l/r = 400* |  |
| Rods (all thread)            | 3/8 in.          | 0.07        | 0.075             | 0.6                             | 1.3       | 1.9       | 2.5        |  |
| Rous (all thread)            | 1/2 in.          | 0.129       | 0.101             | 0.8                             | 1.7       | 2.5       | 3.4        |  |
|                              | 3/8 in.          | 0.11        | 0.094             | 0.8                             | 1.6       | 2.4       | 3.1        |  |
| Rods (threaded at ends only) | 1/2 in.          | 0.196       | 0.125             | 1.0                             | 2.1       | 3.1       | 4.2        |  |
|                              | 1/2 III.         | 0.190       | 0.125             | 1.0                             | 2.1       | 5.1       | 4.2        |  |

Reference: NFPA 13, (2007)

\* Reference: NFPA 13, (2010)





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# SAMMYS for Steel – Seismic Restraint

## **DESCRIPTION (SIDEWINDER)**

#### SWDR 1-1/2 AND SWDR 516 FOR 3/8" ROD

Structural attachment for installation of branch/end of line restraint using 3/8" threaded rod. Used primarily in purlin, bar joist, or other steel structural members. These fastening systems provide a secure and economical attachment to the structure.

The SWDR 1-1/2 model provides upper structural attachment in a range of steel thicknesses, from 3/16" through 1/2". A retaining nut is included with each fastener.

The SWDR 516 model provides upper structural attachment in a range of steel thicknesses, from 20 ga. through 1/8". A retaining nut is included with each fastener.

### **SPECIFICATIONS**

| <b>Restrained Pipe Size:</b> | Up to Schedule 40 pipe 2" or less   |
|------------------------------|---|
| Max Length of                |   |
| <b>Restraint Material:</b>   | See Maximum Horizontal Load Tables below.                                     |
| Maximum Angle:               | 45° from horizontal   |
| Material:                    | Carbon Steel  |
| Screw Description:           | (SWDR 1-1/2): 12-24 X 1-1/2″ Teks® 5<br>(SWDR 516): 5/16″-18 X 1-1/4″ Teks® 3 |
| Finish (both):               | Electro-Zinc (cap) Silver Climaseal® (screw)                                  |
| Testing:                     | BX Report # R-1362  |
| Listing:                     | UL 203 as a pipe hanger CUL 203 as a pipe hanger UL 203A pending              |

## **SELECTION CHART**

## SAMMYS Sidewinders for Steel - Seismic Restraint

| ROD<br>SIZE | PART<br>NUMBER | MODEL      | MIN<br>THICKNESS | MAX<br>THICKNESS | APPLICATION               | BOX<br>QTY | CASE<br>QTY | INSTALLATION TOOL   |
|-------------|----------------|------------|------------------|------------------|---------------------------|------------|-------------|---|
| 3/8"        | 8054957        | SWDR 1-1/2 | 16 ga.           | 1/2"             | Steel Purlin or Bar Joist | 25         | 125         | The SWDR 1-1/2 and SWDR 516 must be installed with #14 SW       |
| 3/8"        | 8056957        | SWDR 516   | 16 ga.           | 1/8"             | Steel Purlin or Bar Joist | 25         | 125         | Red Nut Driver (Part No. 8114910).<br>No pre-drilling required. |

### **PERFORMANCE TABLES**

## Maximum Horizontal Loads for Restraint with I/r=100, 200, 300, and 400

| Postraint Chang and Size     | Nominal Diameter | $A_{res}$ (in 2) | Least Radius of   | Maximum Rod Length for l/r (ft) |           |           |            |  |
|------------------------------|------------------|------------------|-------------------|---------------------------------|-----------|-----------|------------|--|
| Restraint Shape and Size     | Nominal Diameter | Area (in.²)      | Gyration, r (in.) | l/r = 100                       | l/r = 200 | l/r = 300 | l/r = 400* |  |
| Rods (all thread)            | 3/8 in.          | 0.07             | 0.075             | 0.6                             | 1.3       | 1.9       | 2.5        |  |
|                              | 1/2 in.          | 0.129            | 0.101             | 0.8                             | 1.7       | 2.5       | 3.4        |  |
| Rods (threaded at ends only) | 3/8 in.          | 0.11             | 0.094             | 0.8                             | 1.6       | 2.4       | 3.1        |  |
|                              | 1/2 in.          | 0.196            | 0.125             | 1.0                             | 2.1       | 3.1       | 4.2        |  |

Reference: NFPA 13, (2007)

\* Reference: NFPA 13, (2010)



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