

Manufacturers of Vibration Control Products

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SCB, SSBS, SSB, SCBH & SCBV SWAY BRACE ANCHORS, SCBA ASSEMBLY, SRC ROD CLAMP for ANGLE, UC ROD CLAMP for **CHANNEL, CCB CLEVIS CROSS BRACE. JAH JOIST ATTACHMENT** HARDWARE & SLDB LOAD DISTRIBUTION BRACKET

> CABLE BRACE **ANCHOR** (Formed Steel)

"**H**" BOLT DIA

HOLE DIA

SCB-0

# SEISMIC **SWAY BRACE**

**DATA SHEET DS-602-3** 

# **Seismic Sway Brace System**

Through the use of aircraft cable with swivel anchors, piping, ductwork and suspended equipment can be safely prevented from swinging out of control during earthquakes or when exposed to wind.

Cable braces are designed so when they are installed with sufficient slack they do not interfere with neoprene or spring isolator function but effectively control movement, preventing equipment detachment and excessive damage.

#### **SCB-** Seismic Cable Brace Swivel Anchor with All Parts Electro-Galvanized

TYPE SCB ASSEMBLY RATINGS AS CONTROLLED BY CABLE BREAK STRENGTH\*

| Size          | Cable<br>Dia.<br>(in) (mm) | OSHPD<br>Max. Ratings<br>(lbs) (kgs) |
|---------------|----------------------------|--------------------------------------|
| SCB-0         | 1/16* 1.6                  | 235 107                              |
| SCB-0         | 3/32* 2.4                  | 460 209                              |
| SCB-0         | 3/32 2.4                   | 500 227                              |
| SCB-1         | 1/8 3.0                    | 975 442                              |
| SCB-2         | 3/16 4.5                   | 2050 930                             |
| SCB-3 & -3-2B | 1/4 6.0                    | 3150 1429                            |
| SCB-4         | 3/8 9.0                    | 6875 3118                            |

<sup>\* 7</sup> x 7 Strand Core

#### TYPE SCB ANCHOR DIMENSIONS (inches mm)

| Size           | Α             | В            | С               | D              | Е            | F         | G              | Н          |
|----------------|---------------|--------------|-----------------|----------------|--------------|-----------|----------------|------------|
| SCB-0<br>SCB-1 | 15/16<br>13/8 | 11/2<br>2    | 3/4<br><b>1</b> | 15/16<br>15/16 | 13/4<br>33/8 | _<br>11/2 | 7/16<br>9/16   | 1/2<br>1/2 |
| SCB-2<br>SCB-3 | 13/8          | 23/4<br>31/2 | 13/8<br>13/4    | 13/16<br>17/16 | 43/8<br>43/4 | 13/4      | 11/16<br>13/16 | 5/8<br>3/4 |
| SCB-3-2B       | 2             | 43/4         | 1               | 17/16          | 43/4         | 2         | 13/16          | 3/4        |
| SCB-4          | 31/8          | 5            | 21/2            | 115/16         | 53/4         | 21/4      | 15/16          | 1          |
| SCB-0          | 33            | 38           | 19              | 24             | 44           | _         | 13             | 13         |
| SCB-1          | 35            | 51           | 25              | 24             | 86           | 38        | 14             | 13         |
| SCB-2          | 41            | 70           | 35              | 30             | 111          | 44        | 17             | 16         |
| SCB-3          | 51            | 89           | 41              | 37             | 121          | 51        | 21             | 19         |
| SCB-3-2B       | 51            | 121          | 25              | 37             | 121          | 51        | 21             | 19         |
| SCB-4          | 79            | 127          | 64              | 49             | 146          | 57        | 33             | 25         |

#### SSBS- Seismic Solid Brace Strut Anchor

#### **TYPE SSBS RATINGS**

| OSHPD Rated           | Torque on 1/2"   |
|-----------------------|------------------|
| Capacity <sup>†</sup> | (13mm) Dia. Bolt |
| (lbs) (kgs)           | (ft-lbs) (N-M)   |
| 3000 1365             | 50 68            |

<sup>&</sup>lt;sup>†</sup>Attachment nuts must have stamped teeth to achieve these values.

#### **TYPE SSBS DIMENSIONS**

|                               | Α                                | For Rod Sizes  |
|-------------------------------|----------------------------------|--|
| Size                          | (in) (mm)                        | (lbs) (kgs)  |
| SSBS-12<br>SSBS-20<br>SSBS-25 | 17/32 13<br>25/32 20<br>11/32 26 | 3/8 & 1/2 9 & 13<br>5/8 & 3/4 16 & 19<br>7/8 & 1 22 & 25 |

Finish: All parts are Zinc Electro Plated.

## SSB- Seismic Solid Brace Swivel Anchor with All Parts Electro-Galvanized. Angle or Channel is substituted for Cable.

Swivel ended anchors simplify installations as braces do not have to be cut to exact length. The anchor will swivel to provide solid anchorage when bolting.

| ANCHOR RATINGS* |              |  |  |  |  |  |  |
|-----------------|--------------|--|--|--|--|--|--|
| OSHPD           |              |  |  |  |  |  |  |
|                 | Max. Ratings |  |  |  |  |  |  |
| Size            | (lbs) (kgs)  |  |  |  |  |  |  |
| SSB-3           | 5000 2268    |  |  |  |  |  |  |
| SSB-4           | 8750 3967    |  |  |  |  |  |  |

# TYPE SSB ANCHOR DIMENSIONS (inches mm)

**ATTACHMENT** 

NUT

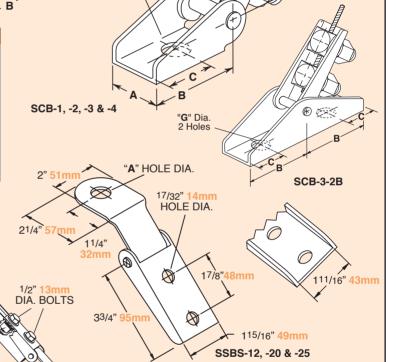
| Size           | Α         | В         | С            | D                            | Е            | F         | G              | Н             |
|----------------|-----------|-----------|--------------|------------------------------|--------------|-----------|----------------|---------------|
|                | 2<br>31/8 | 31/2<br>5 | 13/4<br>21/2 | 17/16<br>1 <sup>15/</sup> 16 | 43/4<br>53/4 | 2<br>21/4 | 13/16<br>15/16 | 9/16<br>11/16 |
| SSB-3<br>SSB-4 | 51<br>79  | 89<br>127 | 41<br>64     | 37<br>49                     | 121<br>146   | 51<br>57  | 21<br>33       | 14<br>17      |

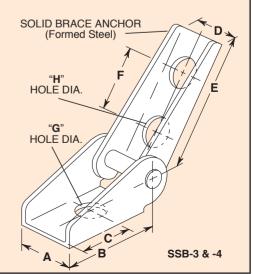
STAMPED TEETH

Ratings are based on attachment to steel.

Ratings will be controlled by attachment methods to concrete.

GALVANIZED AIRCRAFT CABLE 7 x 19 STRAND CORE

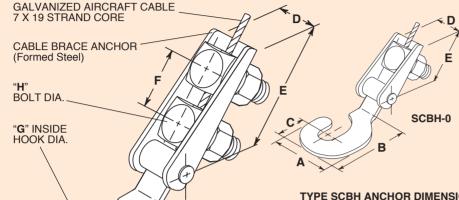




<sup>\*</sup>Ratings are from test data and calculations used to obtain California OSHPD Preapproval Number OPA-0349. Testing was supervised and certified by an independent engineer registered in the state of California.

#### **SCBH-** Seismic Cable Brace Hook Anchor and Assembly

Cables can only be used in tension so a hook does not slide off. A hooked end provides for quick attachment to hanger rods without removing clevis bolts or trapeze rods.



#### TYPE SCBH ASSEMBLY RATINGS AS CONTROLLED BY CABLE BREAK STRENGTH

| Size   | Cable<br>Dia.<br>(in) (mm) | OSHPD<br>Max.<br>Ratings<br>(lbs) (kgs) |
|--------|----------------------------|---|
| SCB-0  | 1/16* 1.6                  | 235 107                                 |
| SCB-0  | 3/32* 2.4                  | 460 209                                 |
| SCB-0  | 3/32 2.4                   | 500 227                                 |
| SCBH-1 | 1/8 3.0                    | 975 442                                 |
| SCBH-2 | 3/16 4.5                   | 2050 930                                |
| SCBH-3 | 1/4 6.0                    | 3150 1429                               |

#### \* 7 x 7 Strand Core

Ratings are from test data and calculations used to obtain California OSHPD Preapproval Number OPA-0349. Testing was supervised and certified by an independent engineer registered in the state of California.

Ratings are based on attachment to steel.

SCBH assemblies will fit rod sizes as tabulated.

Preferred installation angle is 45°. Maximum variation ±15°.

#### TYPE SCBH ANCHOR DIMENSIONS (inches mm)

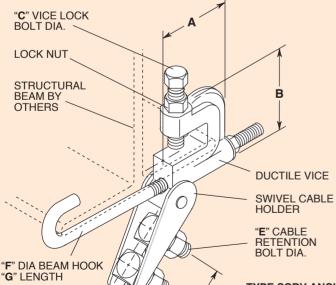
| Size   | For use with Rod Sizes | Α    | В     | С     | D     | Е    | F    | G    | Н   |
|--------|------------------------|------|-------|-------|-------|------|------|------|-----|
| SCBH-0 | 3/8                    | 13/8 | 21/16 | 11/16 | 15/16 | 13/4 | -    | 3/8  | 1/2 |
| SCBH-1 | 1/2, 5/8               | 17/8 | 23/8  | 1     | 1     | 33/8 | 11/2 | 5/8  | 1/2 |
| SCBH-2 | 3/4, 7/8               | 27/8 | 33/4  | 13/8  | 13/16 | 43/8 | 13/4 | 7/8  | 5/8 |
| SCBH-3 | 1, 1 <sup>1</sup> /8   | 31/2 | 43/4  | 13/4  | 17/16 | 43/4 | 2    | 11/8 | 3/4 |
| SCBH-0 | 10                     | 35   | 52    | 17    | 24    | 44   | -    | 10   | 13  |
| SCBH-1 | 13, 16                 | 48   | 60    | 25    | 25    | 86   | 38   | 16   | 13  |
| SCBH-2 | 19, 22                 | 73   | 95    | 35    | 30    | 111  | 44   | 22   | 16  |
| SCBH-3 | 25, 28                 | 89   | 121   | 44    | 37    | 121  | 51   | 29   | 19  |

#### **SCBV**- Seismic Cable Brace Vise Anchor and Assembly

В

The SCBV can be used with either an SCB or SCBH on the other end. Clamping to beam flanges eliminates drilling or welding and generally presents a cost savings.

SCBH-1, -2 & -3



#### TYPE SCBV ASSEMBLY **RATINGS AS CONTROLLED BY** CABLE BREAK STRENGTH

| Size   | Cable<br>Dia.<br>(in) (mm) | OSHPD<br>Max.<br>Ratings<br>(lbs) (kgs) |
|--------|----------------------------|---|
| SCBV-1 | 1/8 <b>3.0</b>             | 975 442                                 |
| SCBV-2 | 3/16 <b>4.5</b>            | 2050 930                                |
| SCBV-3 | 1/4 <b>6.0</b>             | 3150 1429                               |

Ratings are from test data and calculations used to obtain California OSHPD Preapproval Number OPA-0349. Testing was supervised and certified by an independent engineer registered in the state of California.

Ratings are based on attachment to steel beams.

SCBV assemblies will fit beam flanges as tabulated

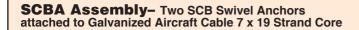
Preferred installation angle is 45°. Maximum variation ±15°.

TYPE SCBV ANCHOR DIMENSIONS (inches mm)

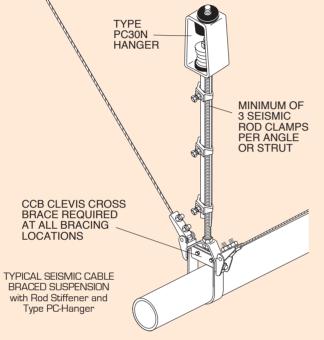
| Size   | VICE JAW Width Clearance Depth |       |        | Α    | В    | С    | D    | E   | F   | G   | Beam Flange<br>Width<br>Range |
|--------|--------------------------------|-------|--------|------|------|------|------|-----|-----|-----|-------------------------------|
| SCBV-1 | 11/16                          | 11/16 | 15/16  | 17/8 | 23/8 | 7/16 | 11/2 | 1/2 | 3/8 | 10  | 31/2 - 81/2                   |
| SCBV-2 | 7/8                            | 11/16 | 11/16  | 27/8 | 3    | 1/2  | 13/8 | 5/8 | 3/8 | 12  | 31/2 - 10                     |
| SCBV-3 | 11/16                          | 11/8  | 115/16 | 33/8 | 33/4 | 5/8  | 2    | 3/4 | 1/2 | 12  | 4 - 91/2                      |
| SCBV-1 | 17                             | 17    | 33     | 48   | 60   | 11   | 38   | 13  | 9   | 254 | 89 - 216                      |
| SCBV-2 | 22                             | 27    | 27     | 73   | 76   | 13   | 44   | 16  | 9   | 305 | 89 - 254                      |
| SCBV-3 | 27                             | 29    | 49     | 86   | 95   | 16   | 51   | 19  | 13  | 305 | 102 - 241                     |

hanger for equipment, ductwork or piping. To be used as a seismic restraint only.

NOTE: Not to be used as a vertical



Controlling sway is frequently not enough to insure safety. Rod stiffeners such as angle attached with seismic rod clamps (SRC) or strut channel attached with seismic rod clamps (UC) prevent suspended rods from buckling from vertical movements. Mason isolation hangers which have vertical limit stops should be used to minimize travel and reduce damage due to excessive acceleration. These vertical limit stops are standard on all Mason precompressed (PC-prefixed) isolation hangers.



PIPE CLEVIS

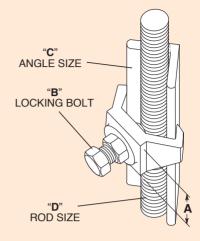
PIPE CLEVIS

**BOLT** 

CLEVIS CROSS BRACE

**PIPE** 

#### SRC- Seismic Rod Clamp with Plated Nut and Bolt and Painted Clamp

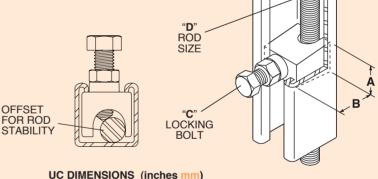


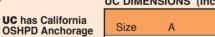
**SRC** has California OSHPD Anchorage Preapproval number **OPA-0349.** 

#### SRC DIMENSIONS (inches mm)

| l | Type<br>& Size                                      | Α  | В   | С   | D<br>Acceptable Rod Sizes |
|---|---|--|---|---|---------------------------|
|   | SRC-1<br>SRC-1 <sup>1</sup> / <sub>2</sub><br>SRC-2 | 13/8 <b>35</b><br>13/4 <b>44</b><br>13/4 <b>44</b> | 1/2 <b>13</b><br>5/8 <b>16</b><br>5/8 <b>16</b> | 1x1x <sup>1</sup> /4<br>1 <sup>1</sup> /2 x1 <sup>1</sup> /2 x <sup>1</sup> /4<br>2 x 2 x <sup>1</sup> /4 | 3/8 - 5/8                 |

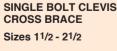
### **UC-** Seismic Rod Clamp for Strut Channel

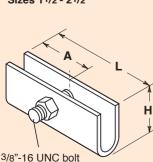


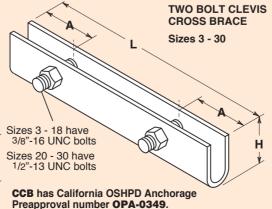


| Size | Α                    | В                                 | С           | Fits Rod Sizes      |
|------|----------------------|-----------------------------------|-------------|---------------------|
| UC-1 | 1 25                 | 1 <sup>1</sup> /8 <mark>28</mark> | 3/8"-16 UNC | 3/8 to 1/2 10 to 13 |
| UC-2 | 1 <sup>1</sup> /4 32 | 1 <sup>1</sup> /8 <mark>28</mark> | 1/2"-13 UNC | 5/8 to 3/4 16 to 19 |

#### **CCB-** Clevis Cross Brace

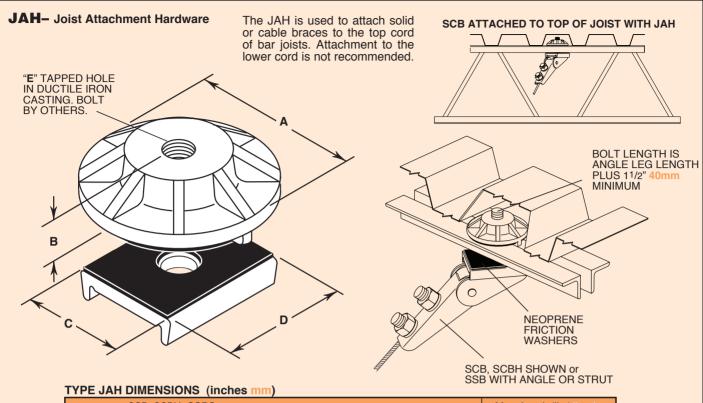






Preapproval number **OPA-0349.** 

| TYPE CCB DIMENSIONS (inches mm) |       |     |        |    |       |           |  |  |  |  |  |  |
|---------------------------------|-------|-----|--------|----|-------|-----------|--|--|--|--|--|--|
| Size                            | L     |     | Н      |    | А     |           |  |  |  |  |  |  |
| CCB-11/2                        | 17/8  | 48  | 1      | 25 | 15/16 | <b>24</b> |  |  |  |  |  |  |
| CCB-2                           | 23/8  | 60  | 1      | 25 | 13/16 | 30        |  |  |  |  |  |  |
| CCB-21/2                        | 27/8  | 73  | 11/8   | 29 | 17/16 | 37        |  |  |  |  |  |  |
| CCB-3                           | 31/2  | 89  | 11/8   | 29 | 3/4   | 19        |  |  |  |  |  |  |
| CCB-4                           | 41/2  | 114 | 11/8   | 29 | 1     | 25        |  |  |  |  |  |  |
| CCB-5                           | 59/16 | 141 | 15/16  | 33 | 1     | 25        |  |  |  |  |  |  |
| CCB-6                           | 65/8  | 168 | 15/16  | 33 | 11/2  | 38        |  |  |  |  |  |  |
| CCB-8                           | 85/8  | 219 | 17/16  | 37 | 2     | 51        |  |  |  |  |  |  |
| CCB-10                          | 103/4 | 273 | 19/16  | 40 | 21/2  | 64        |  |  |  |  |  |  |
| CCB-12                          | 123/4 | 324 | 19/16  | 40 | 3     | 76        |  |  |  |  |  |  |
| CCB-14                          | 14    | 356 | 111/16 | 42 | 31/2  | 89        |  |  |  |  |  |  |
| CCB-16                          | 16    | 406 | 17/8   | 48 | 4     | 102       |  |  |  |  |  |  |
| CCB-18                          | 18    | 457 | 2      | 51 | 41/2  | 114       |  |  |  |  |  |  |
| CCB-20                          | 20    | 508 | 21/2   | 64 | 5     | 127       |  |  |  |  |  |  |
| CCB-24                          | 24    | 610 | 21/2   | 64 | 6     | 152       |  |  |  |  |  |  |
| CCB-30                          | 30    | 762 | 21/2   | 64 | 71/2  | 191       |  |  |  |  |  |  |



| Size  | SCB, SCBH, SSBS<br>& SSB Size | Α                 | В      | С                    | D           | E         | Max. Load<br>SCB&SCBH | ( )( )           |
|-------|-------------------------------|-------------------|--------|----------------------|-------------|-----------|-----------------------|------------------|
| JAH-1 | SCB, SCBH, SSBS-12            | 3 76              | 3/4 19 | 17/8 <mark>48</mark> | 21/4 57     | 1/2-13UNC | 975 <b>442</b>        | 3000 1361        |
| JAH-2 | SCB, SCBH, SSBS-20            | 3 <mark>76</mark> | 3/4 19 | 21/8 54              | 3 <b>76</b> | 5/8-11UNC | 2050 930              | 3000 1361        |
| JAH-3 | SCB, SCBH, SSB-3              | 3 76              | 3/4 19 | 21/2 64              | 33/4 95     | 3/4-10UNC | 3150 1429             | 5000 <b>2268</b> |

