

ROOF SPECIALTIES

TWA-3/-13/-13U (ECONO) FALL ARREST ROOF ANCHORS (Bolt Around Beam)

DESCRIPTION

Thaler TWA ECONO bolt around beam anchors consist of a urethane insulated hollow steel post (HSS) with base plate, four stainless steel bolts and under-beam plate for securing to a steel beam, and flashing sleeve. The top of the anchor is available with three different options:

1. Galvanized forged eye (TWA-3)
2. Stainless steel forged eye (TWA-13).
3. Stainless steel U Bolt eye (TWA-13U).

Prominent Features: Condensation free and maintenance free (attractive, neat flashing never needs caulking; see Thaler EPDM Flashing Seals literature). Anchor integrity is backed by high \$7,000,000.00 liability insurance.

Options: All stainless steel anchor, PVC coated flashing deck flange for PVC roof membrane, Bituminous painted flashing deck flange for BUR and ModBit roof membrane. See other Thaler TWA ECONO models for different securements.

RECOMMENDED USE

Suitable for all low slope/flat roofs as fall arrest anchors for securing workers' lifelines or the tying back of suspended access equipment such as outrigger beams and parapet wall clamps. Also suitable for suspension of boatswain chair.

APPLICABLE STANDARDS

Thaler TWA ECONO anchors conform to all Canadian and U.S. standards, provincial and state labour/safety codes and materials standards relating to anchor fabrication, window cleaning and other suspended maintenance operations. Conformance includes CSA, OML, ASME, ANSI, IWCA, OSHA, CAL OSHA, AISC, AWS, and other references. Thaler SJ-34 and SJ-35 New-Standard STACK JACK Flashing conforms to CSA B272-93. See separate Thaler Fall Protection Systems literature for specific data.

WARRANTY

20 year warranty (lifetime on all stainless steel) against leaks, condensation and defects in materials and/or manufacture when installed in accordance with Thaler "Installation Instructions". Copy of Warranty Certificate available upon request.

MAINTENANCE

Regulatory authorities require anchors to be inspected annually with inspection data (date, inspector's name and comments) recorded in the Fall Protection Maintenance Log Book for Window Cleaning and/or Other Suspended Access Maintenance Operations (including travel restraint). Apart from this requirement, Thaler anchors require no maintenance (maintenance free).

PLANNING SERVICE

Without obligation Thaler will provide layout drawings for fall arrest roof anchors in compliance with all applicable standards, safety regulations and local building codes.

SPECIFICATION (Short Form)

Fall arrest roof anchors: Thaler [TWA-3 with galvanized forged 1018 steel eye] [TWA-13 with Type 304 stainless steel forged eye] [TWA-13U with Type 304 stainless steel U bolt] ECONO roof anchor to [CSA Z91-02] [OSHA 1910.66, Sub parts D and F] with: urethane insulated, hollow, hot dipped galvanized ASTM 500C steel post (HSS) 1/4" (6 mm) wall thickness x 3-1/2" (89 mm) dia. x 14" (356 mm) high welded to 1/2" x 8" x 8" (12 mm x 203 mm x 203 mm) 44W base plate; four: 5/8" (16 mm) Type 304 s.s. bolts and 5/8" x 8" x 8" (16 mm x 203 mm x 203 mm) under-beam plate, lock washers and nuts; [SJ-34, 7" (178 mm)] [SJ-35, 13" (330 mm)] high New-Standard STACK JACK Flashing of [.064" (1.6 mm) mill finish 1100-OT alloy aluminum] [.021" (0.53 mm) 16 oz. copper] [.018" (0.46 mm) Type 304 stainless steel] to CSA B272-93, with EPDM Triple Pressure Grommet Top Seal and EPDM Base Seal and [bituminous painted deck flange] [PVC coated deck flange]; manufactured by Thaler Metal Industries, 1-800-387-7217 (Mississauga, Ontario, Canada) or 1-800-576-1200 (Niagara Falls, NY), installed as per manufacturer's written instructions. Provide 20 year warranty against leaks, condensation and defects in materials and/or manufacture.

FORGED EYE (TWA-3/-13/-13SS)

BEAM SHOWN TO ILLUSTRATE USE OF GUSSET PLATES (BY OTHERS) WHEN REQUIRED

STACK JACK FLASHING
SJ-34 7" (178 mm) HIGH,
SJ-35 13" (330 mm) HIGH



U BOLT EYE (TWA-13U/-13USS)

EPDM TRIPLE PRESSURE GROMMET TOP SEAL
THALER SJ-34 NEW STANDARD STACK JACK FLASHING (ALUMINUM, COPPER OR STAINLESS STEEL)

CONVENTIONAL ROOF ILLUSTRATED (BUR)

EMBED DECK FLANGE IN LAYER OF PLASTIC CEMENT (BUR)

GUSSET PLATES BY OTHERS (WHEN REQUIRED)

1/2" x 8" x 8" (12 mm x 203 mm x 203 mm) PLATE

Anchor Type	Eye Construction
TWA-3	Galvanized Forged Eye
TWA-13	Stainless Steel Forged Eye
TWA-13U	Stainless Steel U Bolt Eye
TWA-13SS	Forged Eye All Stainless Steel
TWA-13USS	U-Bolt Eye All Stainless Steel

Note: Anchors are designed to resist without fracture and/or pull-out a force of 5400 lbs (24.03 kN), applied in the most adverse direction.

FORGED EYE AND BASE WELDED TO HSS PIPE AND HOT DIP GALVANIZED
1/4" x 3-1/2" DIA. (6 mm x 89 mm) HSS WELDED TO 1/2" x 8" x 8" (12 mm x 203 x 203 mm) BASE PLATE USING 5/16" (8 mm) FILLET WELD, ALL HOT DIP GALVANIZED AND URETHANE INSULATED TO PREVENT CORROSION.

THALER SJ-35 NEW STANDARD STACK JACK FLASHING (ALUMINUM, COPPER OR STAINLESS STEEL)

INVERTED ROOF ILLUSTRATED (BUR)

18 GA. GALVANIZED CLOSURE PLATE SCREW FASTENED TO STEEL DECK
EPDM BASE SEAL BONDED TO METAL SLEEVE ELIMINATES CONDENSATION (SEE THALER EPDM FLASHING SEALS LITERATURE)

FOUR 5/8" (16 mm) S.S. BOLTS, LOCK WASHER AND NUTS
DEFORM THREADS AS PER CSA OR OSHA GUIDELINE

TWA-3/-13/-13U/ (ECONO) FALL ARREST ROOF ANCHORS (Bolt Around Beam)

NOTE: REFER TO PAGE I-1-8 OF TWA ECONO ANCHORS (I-1 Section) FOR NON-STANDARD HEIGHT ANCHORS

INSTALLATION

"Installation Instructions" are provided with every Thaler product. Essentially, Thaler TWA-3/-13/-13U ECONO Fall Arrest Roof Anchors are installed by bolting the anchor around a structural beam as per Thaler layout drawings, using a maximum torque of 75 ft-lbf (102 Nm), deforming the exposed bolt threads, then placing the flashing sleeve over the anchor and roof membrane, and as follows:

BUR: Set flashing deck flange in layer of plastic cement and flash in with 3 overlapping layers of felt flashing.

ModBit: Torch membrane until bitumen is fluid and set flashing flange into fluid. Flash in flange with two overlapping layers of ModBit and seal with asphalt sealer. Do not overheat (melt) EPDM Base Seal.

Single Ply: Set deck flange in layer of membrane adhesive and extend single ply up sleeve to highest elevation possible and clamp membrane to STACK JACK Flashing. Note: for PVC membrane, specify PVC coated STACK JACK by adding suffix P to end of model number e.g. TWA-3-A-P; weld roofing to deck flange using PVC torch.

Precautions: Apply an asphaltic or other type protective coating to aluminum STACK JACK Flashing to a height of 2" (51 mm) above a limestone ballast to avoid corrosive reaction. Also, if coating deck flange with bituminous paint on site, allow 24 hours for drying before applying roof membrane.

Ordering: Specify flashing material required by adding appropriate suffix to model number e.g. TWA-3-A, for aluminum, etc. Available throughout North America. Contact Thaler for list of distributors and current cost information. Most products are readily available from stock. **Note:** The TWA-13 stainless steel forged eye has a galvanized finish over top of the stainless steel. The process of galvanizing the lower part of the anchor requires the entire anchor to be dipped in the zinc bath, thereby covering the stainless steel eye. If there is any question about product received on site, the eye material may be checked with a magnet. Type 304 stainless steel is non-magnetic.

ROOF SPECIALTIES

TWA-3/-13/-13U (ECONO) FALL ARREST ROOF ANCHORS (Bolt Around Beam)

DESCRIPTION

Thaler TWA ECONO bolt around beam anchors consist of a urethane insulated hollow steel post (HSS) with base plate, four stainless steel bolts and under-beam plate for securing to a steel beam, and flashing sleeve. The top of the anchor is available with three different options:

1. Galvanized forged eye (TWA-3)
2. Stainless steel forged eye (TWA-13).
3. Stainless steel U Bolt eye (TWA-13U).

All stainless steel (TWA-13SS).
All stainless steel (TWA-13USS).

Prominent Features: Condensation free and maintenance free (attractive, neat flashing never needs caulking; see Thaler EPDM Flashing Seals literature). Anchor integrity is backed by high \$7,000,000.00 liability insurance.

Options: All stainless steel anchor, PVC coated flashing deck flange for PVC roof membrane, Bituminous painted flashing deck flange for BUR and ModBit roof membrane. See other Thaler TWA ECONO models for different securements.

RECOMMENDED USE

Suitable for all low slope/flat roofs as fall arrest anchors for securing workers' lifelines or the tying back of suspended access equipment such as outrigger beams and parapet wall clamps. Also suitable for suspension of boatswain chair.

APPLICABLE STANDARDS

Thaler TWA ECONO anchors conform to all Canadian and U.S. standards, provincial and state labour/safety codes and materials standards relating to anchor fabrication, window cleaning and other suspended maintenance operations. Conformance includes CSA, OML, ASME, ANSI, IWCA, OSHA, CAL OSHA, AISC, AWS, and other references. Thaler SJ-34 and SJ-35 New-Standard STACK JACK Flashing conforms to CSA B272-93. See separate Thaler Fall Protection Systems literature for specific data.

WARRANTY

20 year warranty (lifetime on all stainless steel) against leaks, condensation and defects in materials and/or manufacture when installed in accordance with Thaler "Installation Instructions". Copy of Warranty Certificate available upon request.

MAINTENANCE

Regulatory authorities require anchors to be inspected annually with inspection data (date, inspector's name and comments) recorded in the Fall Protection Maintenance Log Book for Window Cleaning and/or Other Suspended Access Maintenance Operations (including travel restraint). Apart from this requirement, Thaler anchors require no maintenance (maintenance free).

PLANNING SERVICE

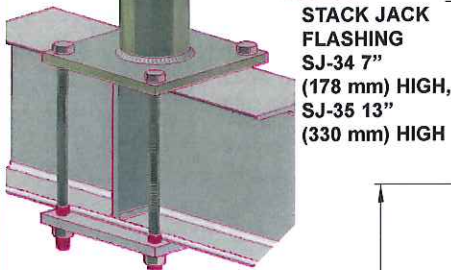
Without obligation Thaler will provide layout drawings for fall arrest roof anchors in compliance with all applicable standards, safety regulations and local building codes.

SPECIFICATION (Short Form)

Fall arrest roof anchors: Thaler [TWA-3 with galvanized forged 1018 steel eye] [TWA-13 with Type 304 stainless steel forged eye] [TWA-13U with Type 304 stainless steel U bolt] ECONO roof anchor to [CSA Z91-02] [OSHA 1910.66, Sub parts D and F] with: urethane insulated, hollow, hot dipped galvanized ASTM 500C steel post (HSS) 1/4" (6 mm) wall thickness x 3-1/2" (89 mm) dia. x 14" (356 mm) high welded to 1/2" x 8" x 8" (12 mm x 203 mm x 203 mm) 44W base plate; four: 5/8" (16 mm) Type 304 s.s. bolts and 5/8" x 8" x 8" (16 mm x 203 mm x 203 mm) under-beam plate, lock washers and nuts; [SJ-34, 7" (178 mm)] [SJ-35, 13" (330 mm)] high New-Standard STACK JACK Flashing of .064" (1.6 mm) mill finish 1100-OT alloy aluminum] [.021" (.53 mm) 16 oz. copper] [.018" (.46 mm) Type 304 stainless steel] to CSA B272-93, with EPDM Triple Pressure Grommet Top Seal and EPDM Base Seal and [bituminous painted deck flange] [PVC coated deck flange]; manufactured by Thaler Metal Industries, 1-800-387-7217 (Mississauga, Ontario, Canada) or 1-800-576-1200 (Niagara Falls, NY), installed as per manufacturer's written instructions. Provide 20 year warranty against leaks, condensation and defects in materials and/or manufacture.

FORGED EYE (TWA-3/-13/-13SS)

BEAM SHOWN TO ILLUSTRATE USE OF GUSSET PLATES (BY OTHERS) WHEN REQUIRED



U BOLT EYE (TWA-13U/-13USS)

EPDM TRIPLE PRESSURE GROMMET TOP SEAL
THALER SJ-34 NEW STANDARD STACK JACK FLASHING (ALUMINUM, COPPER OR STAINLESS STEEL)

CONVENTIONAL ROOF ILLUSTRATED (BUR)

EMBED DECK FLANGE IN LAYER OF PLASTIC CEMENT (BUR)

GUSSET PLATES BY OTHERS (WHEN REQUIRED)

1/2" x 8" x 8" (12 mm x 203 mm x 203 mm) PLATE

3-1/2" (89 mm)
2" (51 mm)
THALER
FORGED EYE AND BASE WELDED TO HSS PIPE AND HOT DIP GALVANIZED
1/4" x 3-1/2" DIA. (6 mm x 89 mm) HSS WELDED TO 1/2" x 8" x 8" (12 mm x 203 x 203 mm) BASE PLATE USING 5/16" (8 mm) FILLET WELD, ALL HOT DIP GALVANIZED AND URETHANE INSULATED TO PREVENT CORROSION.

THALER SJ-35 NEW STANDARD STACK JACK FLASHING (ALUMINUM, COPPER OR STAINLESS STEEL)

INVERTED ROOF ILLUSTRATED (BUR)

18 GA. GALVANIZED CLOSURE PLATE SCREW FASTENED TO STEEL DECK

EPDM BASE SEAL BONDED TO METAL SLEEVE ELIMINATES CONDENSATION (SEE THALER EPDM FLASHING SEALS LITERATURE)

FOUR 5/8" (16 mm) S.S. BOLTS, LOCK WASHER AND NUTS

DEFORM THREADS AS PER CSA OR OSHA GUIDELINE

TWA-3/-13/-13U/ (ECONO) FALL ARREST ROOF ANCHORS (Bolt Around Beam)

NOTE: REFER TO PAGE I-1-8 OF TWA ECONO ANCHORS (I-1 Section) FOR NON-STANDARD HEIGHT ANCHORS

INSTALLATION

"Installation Instructions" are provided with every Thaler product. Essentially, Thaler TWA-3/-13/-13U ECONO Fall Arrest Roof Anchors are installed by bolting the anchor around a structural beam as per Thaler layout drawings, using a maximum torque of 75 ft-lbf (102 Nm), deforming the exposed bolt threads, then placing the flashing sleeve over the anchor and roof membrane, and as follows:

BUR: Set flashing deck flange in layer of plastic cement and flash in with 3 overlapping layers of felt flashing.

ModBit: Torch membrane until bitumen is fluid and set flashing flange into fluid. Flash in flange with two overlapping layers of ModBit and seal with asphalt sealer. Do not overheat (melt) EPDM Base Seal.

Single Ply: Set deck flange in layer of membrane adhesive and extend single ply up sleeve to highest elevation possible and clamp membrane to STACK JACK Flashing. Note: for PVC membrane, specify PVC coated STACK JACK by adding suffix P to end of model number e.g. TWA-3-A-P; weld roofing to deck flange using PVC torch.

Precautions: Apply an asphaltic or other type protective coating to aluminum STACK JACK Flashing to a height of 2" (51 mm) above a limestone ballast to avoid corrosive reaction. Also, if coating deck flange with bituminous paint on site, allow 24 hours for drying before applying roof membrane.

Ordering: Specify flashing material required by adding appropriate suffix to model number e.g. TWA-3-A, for aluminum, etc. Available throughout North America. Contact Thaler for list of distributors and current cost information. Most products are readily available from stock. **Note:** The TWA-13 stainless steel forged eye has a galvanized finish over top of the stainless steel. The process of galvanizing the lower part of the anchor requires the entire anchor to be dipped in the zinc bath, thereby covering the stainless steel eye. If there is any question about product received on site, the eye material may be checked with a magnet. Type 304 stainless steel is non-magnetic.

**TWA-3-13-13U
(ECONO) FALL ARREST
ROOF ANCHORS
(Bolt Around Beam)**

DESCRIPTION

Trader IWA ECONO bolt around beam anchors consist of a urethane insulated hollow steel post (HSS) with base plate, four stainless steel bolts and under-beam plate for securing to a steel beam, and flashing sleeve. The top of the anchor is available with three different options:

2. *Stainless steel forged eye* (TWA-13).
3. *Stainless steel U Bolt eye* (TWA-13u).

All stainless steel (TWA-13USS).

Prominent Features: Condensation free and maintenance free (attractive, neat fishing never needs caulking; see Trailer EPDM Flashing Seals literature). Anchor Integrity is backed by high \$7,000,000.00 liability insurance.

Options: All stainless steel anchor, PVC coated flashing deck flange for PVC roof membrane, Bituminous painted flashing deck flange for BUR and Modbit roof membrane. See other Thichler TWA ECONO models for different securements.

RECOMMENDED USE

Suitable for all low slope/flat roofs as fall arrest anchors for securing workers' lifelines or the 'ying back' of suspended access equipment such as outrigger beams and parapet wall clamps. Also suitable for suspension of bodyswain chair.

APPLICABLE STANDARDS

Thier JVA, ECONO anchors conform to all Canadian and U.S. standards, provincial and state labour/safety codes and materials standards relating to anchor fabrication, window cleaning and other suspended maintenance operations. Conformance includes CSA, CAN, DIN, AS/NZ, AISI, MWCA, OSHA, CAL OSHA, ASC, AWS, and other references. Thier SL-34 and S-35 New-Steel® STACK JACK Floating conforms to CAN B272-93. See separate Thier Fall Protection Systems literature for specific data.

WARRANTY

20 year warranty (lifetime on all stainless steel) against leaks, condensation and defects in materials and/or manufacture when installed in accordance with Inaire "Installation Instructions". Copy of Warranty Certificate available upon request.

MAINTENANCE

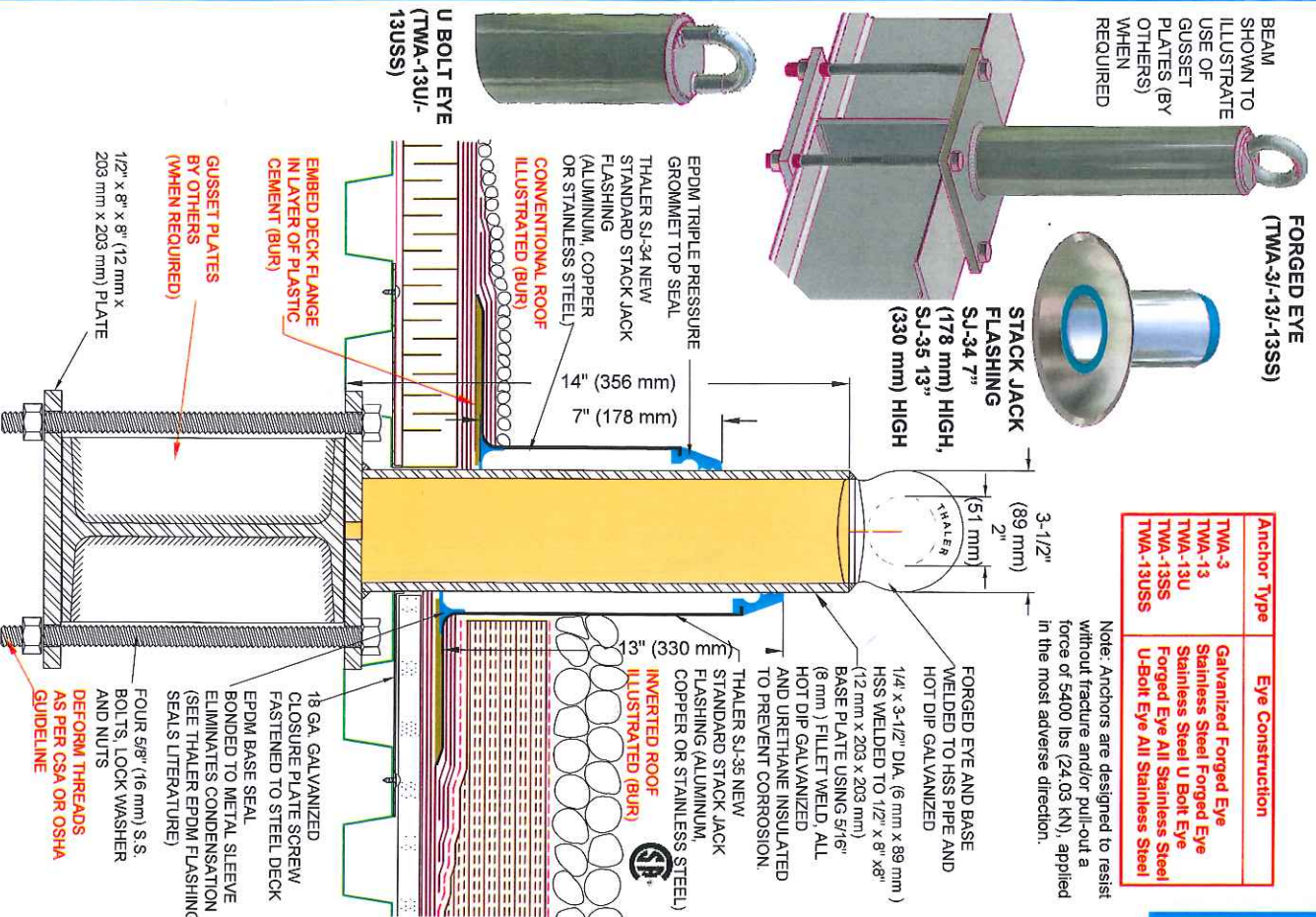
Regularly authorities require anchors to be inspected annually with inspection data (date, inspector's name and comments) recorded in the Fall Protection Maintenance Log Book for Window Cleaning and/or Other Suspended Access Maintenance Operations (including travel restraint). Apart from this requirement, tender anchors require no maintenance (maintenance free).

PLANNING SERVICE

Without obligation Traler will provide layout drawings for tall arrest roof anchors in compliance with all applicable standards, safety regulations and local building codes.

SPECIFICATION (Short Form)

Fold cases, roof anchors. Model IMA-3 with givco-stainless steel 1018 steel eye (I) IMA-13 with type 304 stainless steel forged eye (I) IMA-13U with type 304 stainless steel U bolt ECONO roof anchor to CSA Z91-02/ISHA 1910.65, Sub parts D and F with urethane insulated, hollow, hot dipped galvanized ASTM 500C steel post (HS) 1/4" (6 mm) wall thickness x 3-1/2" (89 mm) long, x 1 1/4" (356 mm) high welded to 1/2" x 8" x 8" (12 mm x 203 mm x 203 mm) 44W base plate, (I) 5/8" (16 mm) type 304 s.s. bolts and 5/8" x 8" x 8" (16 mm x 203 mm x 203 mm) under-beam bolt, lock washers and nuts; (S) 3/4" x (178 mm) (S)-35 (17-330 mm) high; New-Standard SWACK JAWC Flaring of (1.02" (1.6 mm) mill finish 11-00-01 alloy aluminum) (1.02" (1.6 mm) 16 oz. copper) (0.18" (0.46 mm) type 304 stainless steel) to CSA B272-93, with EPDM Triple Pressure Grommet top Seal and EPDM Base Seal and (I)thi-mous painted deck flange (I) PVC coated deck flange (I) manufactured by Incof Metal Industries, 1-800-387-7217 (Mississauga, Ontario, Canada) or 1-800-576-1200 (Niagara Falls, NY), installed as per manufacturers written instructions. Provide 20 year warranty against leaks, condensation and defects in materials and/or manufacture.



Note: Anchors are designed to resist without fracture and/or pull-out a force of 5400 lbs (24.03 kN), applied in the most adverse direction.

Anchor Type	Eye Construction
TWA-3	Galvanized Forged Eye
TWA-13	Stainless Steel Forged Eye
TWA-13U	Stainless Steel U Bolt Eye
TWA-13SS	Forged Eye All Stainless Steel
TWA-13USS	U-Bolt Eye All Stainless Steel

**TWA-3/-13/-13U/ (ECONO) FALL ARREST ROOF ANCHORS
(Bolt Around Beam)**

NOTE: REFER TO PAGE I-1-8 OF TWA ECONO ANCHORS (I-1 Section) FOR NON-STANDARD HEIGHT ANCHORS

INSTALLATION

"Installation Instructions" are provided with every Tiedler product. Essentially, Tiedler TMA-3/1-3/1-3U ECONO Roll Arrest Roof Anchors are installed by bolting the anchor around a structural beam as per Tiedler layout drawings, using a maximum torque of 75 ft-lbf (102 Nm), deforming the exposed bolt threads, then placing the fastening sleeve over the anchor and roof membrane, and as follows:

BLUR: Set flashing deck flange in layer of plastic cement and flash in with 3 overlapping layers of felt flashing.

MOBBLE: Torch membrane until blumen is fluid and set flashing flange into fluid. Flash in flange with two overlapping layers of Mobblit and seal with asphalt sealer. Do not overheat (melt) EPDM Seal.

Single Ply: Set deck flange in layer of membrane adhesive and extend single ply up sleeve to highest elevation possible and clamp membrane to SLACK JACK FLAP. Note: for PVC membrane, specify PVC coated SLACK JACK by adding suffix P to end of model number e.g. TWA-3-A-P; weld roofing to deck flange using PVC torch.

Precautions: Apply asphaltic or other type protective coating to aluminum stack JACK Fastening to a height of 2" (51 mm) above a limestone ballast to avoid corrosive reaction. Also, if coating deck flange with bituminous paint on site, allow 24 hours for drying before applying roof membrane.

Coating: Specify flanging material required by adding appropriate suffix to model number e.g., TWA-3-A, for aluminum, etc. Available throughout North America. Contact flange for list of distributors and current cost information. Most products are readily available from stock. **Note:** The TWA-13 stainless steel flange eye has a galvanized finish over top of the stainless steel. The process of galvanizing the lower part of the anchor requires the entire anchor to be dipped in the zinc bath, thereby covering the stainless steel eye. If there is any question about product received on site, the eye material may be checked with a magnet. Type 304 stainless steel is non-magnetic.