



# SUPER ANCHOR SAFETY®

## Tile-Retro Anchor No. 2815T Instruction/Specification Manual 04-2021

ENGLISH  
VERSION

**[WARNING TO USER!]**

You are required to read and use the Instruction/Specification manual supplied at the time this device was shipped. Improper use and installation can result in serious injury or death. Follow inspection requirements before each use.

### Material Specifications

**Anchor Leg:** 14 gauge 430 Stainless Steel.

**D-Rings:** Stamped Dacromet™ or yellow zinc plated steel.

**Fastener Holes:** 3/16" d.

**Anchor Leg/D-Ring Min. Tensile Strength:** 5,000lb(22.5kN).

**Stamp Marks:** DOM Y/M and mfg.

### Certifications

**Compliance:** OSHA1926.502/1910.66

ANSI Z359.1-07/A10.32-2012

### Non-Specified Use

Do not use for window washing, work positioning, or Horizontal Lifeline Systems. Do not attach to the underside or side of a top chord or framing.

### Fastener Specifications

Supplied with 3" Spiral SST nails. Optional SAS fasteners (see Table 1/Table 2). **CAUTION!** DO NOT substitute with other types of fasteners unless they have been engineered by a qualified person or supplied by SAS. **Screws:** Use the lowest torque setting to flush mount with leg surface.

**WARNING!** Always use eye protection when installing fasteners. DO NOT install screws by hammering. DO NOT reuse fasteners.

### Fastener/Anchor Inspection Prior to Use

At the time of first installation check the underside of the sheathing at anchor location and inspect for blow outs as shown at Fig.3. Before using the anchor, always confirm it has been correctly installed. Remove from service if any of the following conditions are present:

- 1) Deformation of D-Ring or Shackle.
- 2) Missing fasteners (see Table 1/Table 2).
- 3) Fastener Blow-outs (see Fig.3).
- 4) Subjected to a free fall.

### Anchor Installation over Wood Framing

Framing must be capable of supporting 5,000lb(22.5kN) or 2 times the intended fall protection load. Install over min. 2x4 top chord with 7/16" or thicker OSB or Plywood sheathing that is structurally sound and free of defects or damage. Position leg over top chord center and install leg fasteners as shown at Fig.2. Install leg off-center fasteners at a slight angle toward the rafter center. Defective anchor installations must be removed and installed at a different location using new fasteners.

**WARNING!** DO NOT install over open framing without sheathing.

### Specified Use

Fall arrest or fall restraint PPE anchorage.

Permanent or temporary installation on wood framed structures.

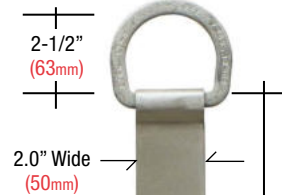
**User Specifications:** 1 person max user wt. 340lb(154kg).

**Free Fall:** Max length 6ft(1.8m). **Max. Arrest force:** 1,800lb(8kN).

Energy Absorber required specified for the user's weight.

Fig.1

Tile-Retro  
2815T



Top Chord Center  
Leg Center  
Fastener Hole

Year Month Mfg.  
DOM: Date of mfg.  
Stamp Marks  
Leg Center

40.0"  
(1016mm)  
Leg  
Length

Fig.2

Anchor/Fastener Attachment  
Over Asphalt Shingles

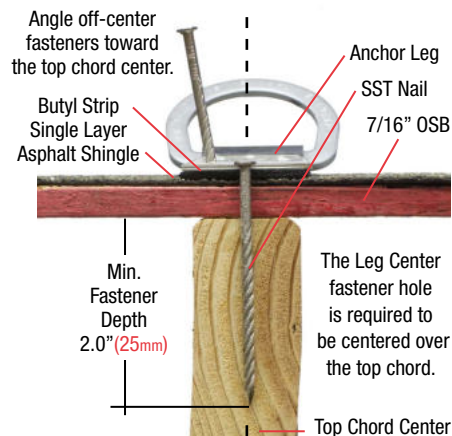
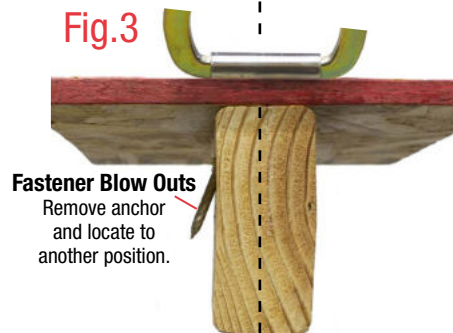


Fig.3



**WARNING!**  
DO NOT USE ANCHOR  
WITH BLOW-OUTS!

Use 5 Top  
Fastener  
Holes Each  
Leg  
for High-Profile  
Tiles.

Top Chord Center  
Leg Center  
Fastener Hole

Table 1 Fastener Specifications Low Profile/Asphalt Shingles

Fasteners			▲ Max Service Load Applied	
Part No.	Min.	Types	0°-30° Angle	Over 30°
Tile Retro	8 ea leg Total 16	3.0" SST Spiral Nails 3" Screws. Hex Head or Bugle Head	3,600lb(16kN) See Fig.5	Fall Restraint Use Only! No Risk of Free Fall

Table 2 Fastener Specifications High Profile Tiles

Tile Retro	5 ea leg Total 10	3.0" SST Spiral Nails 3" Screws. Hex Head or Bugle Head	Use top 6 fastener holes. See Fig.1/ Fig. 8	
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▲ SAS energy absorber MAF = 1,800lb(8kN) + safety factor x2.  
Other mfg. energy absorbers may be used when compatibility is ensured by a qualified or competent person.

### Fastener Types

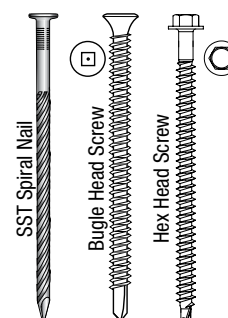


Fig.4

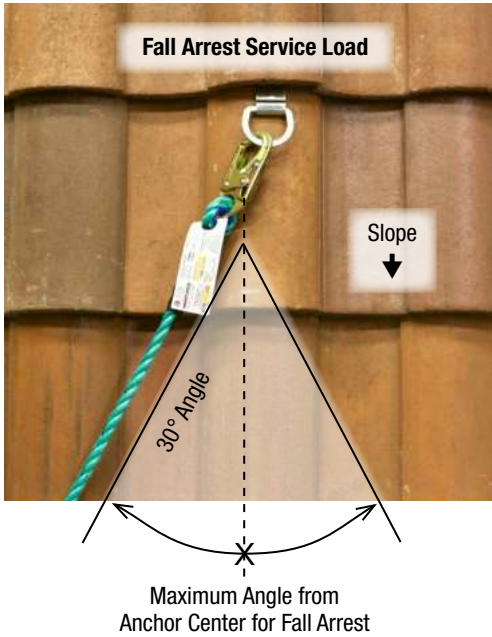
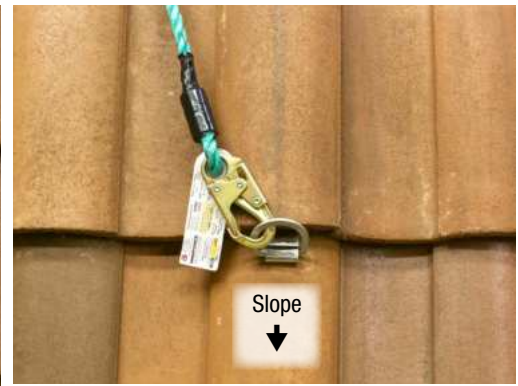


Fig.5



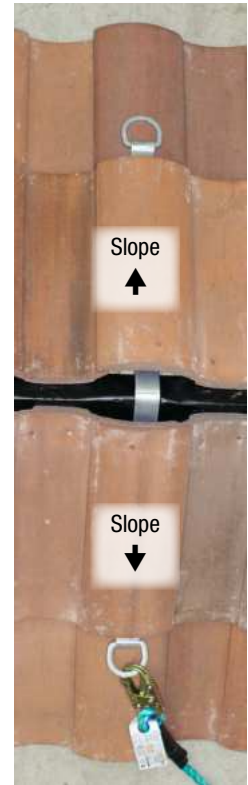
Side Loading  
Fall Restraint, no Static Load  
Note: Use of multiple anchors correctly positioned is necessary to avoid exceeding a 30° anchor side load.

Fig.6



Reverse Loading  
**WARNING! DO NOT USE ANCHOR IN THIS POSITION**  
Load is applied in the opposite direction of the slope.

Fig.7



**Direction of Load**

**Fall Arrest:** When exposed to fall hazards do not exceed a 30° angle from the anchors parallel to slope position as shown at Fig.4. Do not use on slopes greater than 8/12.

**Fall Restraint:** No exposure to a free fall, sliding fall, or static loading of the anchor and at least 6ft from any gable edge, perimeter edge or other fall hazard. See Fig.5.

**Steep Slope Definition:** OSHA 3146-05R 2015: slopes greater than 4/12. RS series anchors are not recommended for work that requires prolonged tension on the anchor and must not be used for work positioning.

**Permanent Installation over Roofing Membrane**

The use of SAS butyl strips, a user supplied waterproof membrane or a compatible caulking between the anchor leg and underlayment or roofing membrane as shown at Fig.2 is recommended to prevent water penetration at the fastener locations. **Re-Roofing:** Table 1 fasteners are specified for a single layer of roofing material or underlayment. The min. fastener depth penetration is 2.0”(25mm) as shown at Fig.2. Longer length screws may be required for heavier materials or multiple layers. Contact SAS for longer fastener specifications.

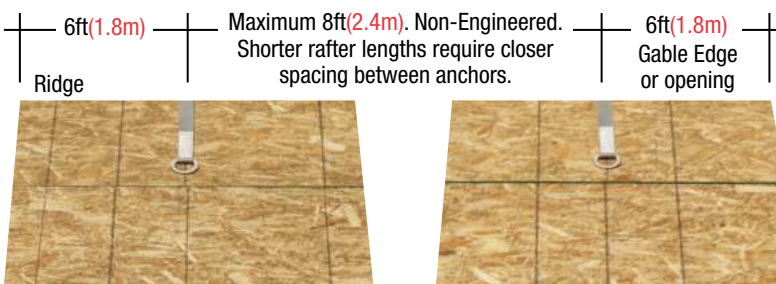
**Tile-Retro Fit Specified for Tile Roofing**

Install anchors at the ridge as shown at Fig.7. Conform the anchor leg to the tile profile as shown at Fig.8. The anchor leg length is designed for use with concrete roof tiles that have a maximum exposure of 13.5” allowing the D-ring to extend below the head lap of the top course. Due to the high profile of some tiles, only 5 or 6 fasteners of each leg can be used.

**Anchor Location/Spacing**

The maximum spacing between anchors for a non-engineered system is 8ft(2.4m). Install anchors at the ridge a minimum of 6ft from gable edges or openings in the roof as shown at Fig.9. Do not install over hips. Engineered spacing between anchors is calculated using the free fall distance, rafter length, and 30° service load. Consult SAS anchor location plan service for an engineered system. **User Engineering:** End users may engineer their own anchor spacing specifications when performed by a qualified or competent person.

Fig.9



Anchor Spacing

**Reverse and Side Load Warning!**

As shown at Fig.6, in the event of a fall, the anchor fasteners may unzip (pull out) resulting in a failure to arrest a fall. Do not side load when exposed to a free fall hazard, static loading, or slopes over 8/12. **WARNING! Do not attach 2 workers to the anchor at the same time.**

**High-Profile tiles, use top 5 fastener holes.**

**Conform anchor leg to the tile profile.**

It may be necessary to remove some material from the underside of the top course so it fits properly over the anchor leg at the head lap. Caulking may be necessary to provide protection against wind driven rain, snow or dust.

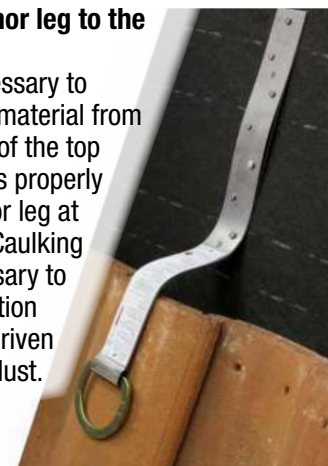


Fig.8