



# SUPER ANCHOR SAFETY®

## RS Series Anchors Instruction/Specification Manual 06-2021

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:** 430 Stainless Steel  
**RS-10/20/Retro Fit:** 2 Layers 20ga.  
**D-Ring:** 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.

### Specified Use

Fall arrest or fall restraint PPE anchorage.  
 Permanent or temporary installation on wood framed structures.  
 May be used on metal decking min. of 24ga. w/SAS engineering.  
**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.

### Non-Specified Use

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

### Fastener Specifications

Supplied with 3.0" Spiral SST nails. Optional SAS fasteners (see Table 1).  
**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 specified in this manual.

### 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.4. 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-A).
- 3) Fastener Blow-outs (see Fig.4).
- 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.3. Install leg off-center fasteners at a slight angle toward the rafter center Fig.3.1. Defective anchor installations must be removed and installed at a different location using new fasteners. **WARNING!** DO NOT install over open framing without sheathing.

Table 1 SAS Supplied Fasteners/Service Load

Fasteners			▲Max Service Load Applied	
Part No.	Min.	Types	0°-30° Angle	Over 30°
RS-10	6	3.0" SST Spiral Nails *3.0" Screws HH/BH	3,600lb(16kN) See Fig.5	Fall Restraint Use Only! No risk of Free Fall
Retro-Fit	8			
RS-20	8			

\*HH=12ga Hex Head / BH=Bugle Head

▲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.

### Certifications

**Compliance:** OSHA1926.502/1910.66  
 ANSI Z359.1-07/A10.32-2012  
**Canadian 3<sup>rd</sup> Party Engineering:**  
 Certified by a member of  
 l'Ordre des ingénieurs du Québec.

Fig.2

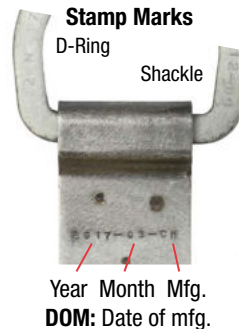


Fig.3.1

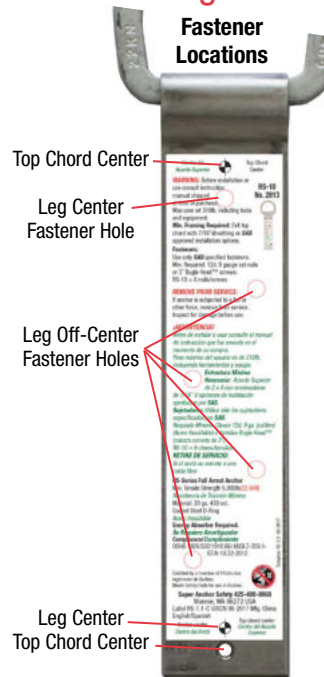


Fig.1

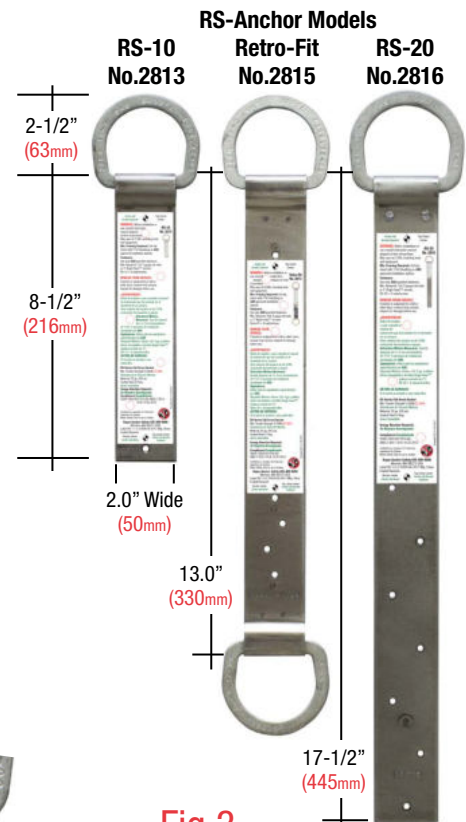


Fig.3

### Anchor/Fastener Attachment

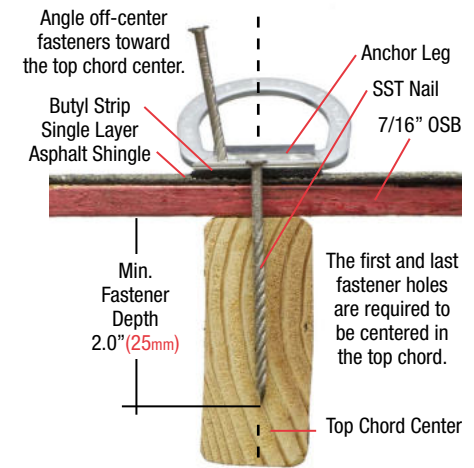
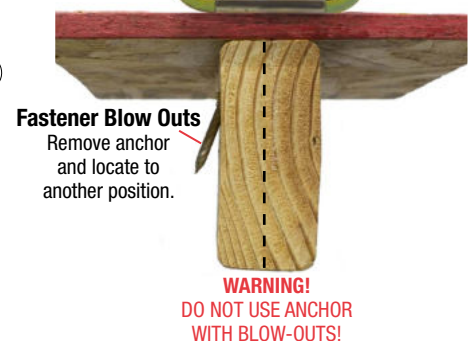
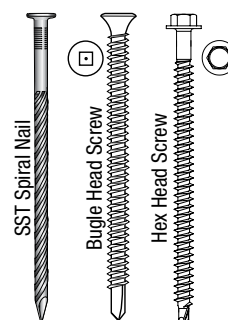


Fig.4



### Fastener Types



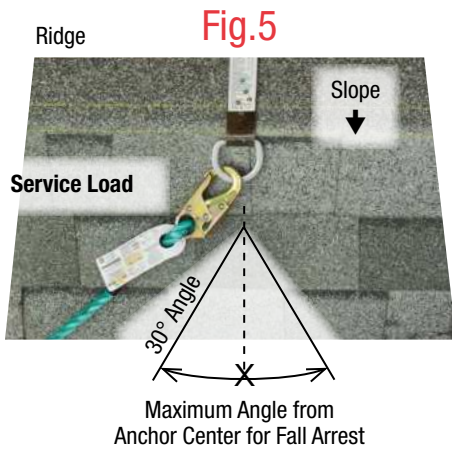


Fig. 5

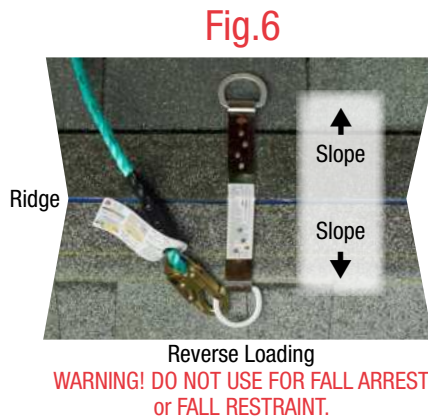


Fig. 6

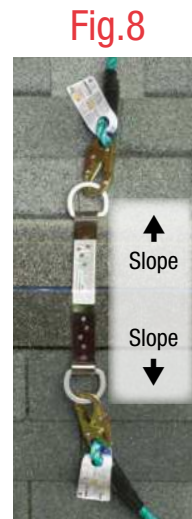


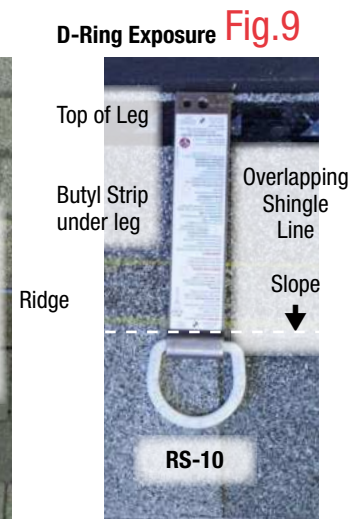
Fig. 7



Side Loading

Fall Restraint no Static Load

Note: Use of multiple anchors correctly positioned is necessary to avoid exceeding a 30° anchor side load.



D-Ring Exposure Fig. 9

Align top of leg as shown.

**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. 5, 10a. 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. 7, 13.

**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.

**Reverse and Side Load Warning!**

As shown at Figs. 6, and 10b, 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 fall hazard, static loading, or slopes over 8/12.

**Anchor Location/Spacing**

The maximum spacing between anchors for a non-engineered system is 8ft(2.4m). Install anchors at the ridge or in the field at a minimum of 6ft from gable edges or openings in the roof or work surface as shown at Fig. 13. 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. Documentation of the engineering is required.

**Vertical Surfaces:** Sheathing must be in place and the wall fully braced to support the intended fall protection load. Use only RS-20 anchors attached with Bugle or Hex Head screws.

**Permanent Installation over Roofing Membrane**

Use SAS butyl strips, a user supplied waterproof membrane or a compatible caulking between the anchor leg underside and the roofing material surface as shown at Fig. 3. They are recommended to cover the fastener heads and anchor leg sides for low slope, high wind areas or where buildups of surface debris may occur.

**Re-Roofing:** Table 1 fasteners are specified for a single layer of roofing material. The min. fastener depth penetration is 2.0”(25mm) as shown at Fig. 4. Longer length screws may be required for heavier materials or multiple layers. Contact SAS for longer fastener specifications.

**RS-20 Specified for Tile Roofing**

Install anchors on each side of the roof at the ridge or field. Conform the anchor leg to the tile profile as shown at Fig. 11. Plan the D-ring exposure as shown at Fig. 12 before installing the anchor. Use the 8 fastener holes at the top of the anchor leg.

WARNING! DO NOT ATTACH 2 workers to a Retro-Fit at the same time.

**Service Load**  
Correct position for Fall Arrest or static loads.

Fig. 10a



Fig. 10b



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

Fig. 11



Conform Anchor Leg to the tile profile.

Fig. 12



D-Ring exposure

**Note:** It may be necessary to remove lugs or weather blocks from the underside of the succeeding tile 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.

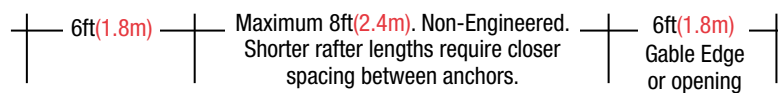


Fig. 13

Anchor Spacing