



**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.



Fig.13

Anchor Spacing



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.



Fig.10a

Service Load  
Correct position for Fall Arrest or static loads.



Fig.10b

Reverse Load

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



Conform Anchor Leg to the tile profile.



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.