

Technical Bulletin

Bulletin # 1002

Proper Skiving Techniques

Belt Type: Heavy Duty

Composition: Typically made up of rubber top and bottom covers protecting the carcass or fabric of the belt. In most cases the rubber top side is thicker than the bottom side.

Skiving:

When preparing heavy duty belting for mechanical belt splicing it has been found that skiving the top of the belt provide two advantages.

1. The belt splice will be stronger. This splice strength has been verified through static pull tests and dynamic running tests under controlled tensile testing. The skived area now allows for a shorter rivet. The shorter the rivet the less moment arm or torque can be applied to the rivet to pull it out.

That is why rivet selection is so important. Mechanical belt splices like the RC6 Riv-Nail Splice is a compressive fastener. The top and bottom of the fastener are compressed by the action of the setting of the rivets. Rubber is like a solid fluid mass and can be compressed. It is subject to significant shear force as the carry side of the belt stretches as it goes over pulleys and the underside is placed into compression. It is a proven fact that the top side of a belt 1' thick going over a 60" head pulley with a 180° wrap will be stretched 1 ½" longer as the underside of the belt is compressed. That is a lot of shear force in motion!

2. Skiving also allows the fastener to sit lower in the belt, allowing the cleaners to pass easier over the belt splice.



RIV-NAIL

Note: when skiving, always allow at least 1/32" to 1/16" of rubber over the fabric. This will help protect the fabric from being cut by the belt fastener.

Finally, always measure the skived section of the belt end when selecting the rivet size. If the skive is more or less uniform, use the longest rivet size for the skived area. CAI anvil plates will allow the excess to flow out and become fully set. If the skive has low and high places, try to use the correct rivet in each area of the skived portion of the belt.