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Crimping Fluid Connectors Tails on Other Manufacturers Hoses

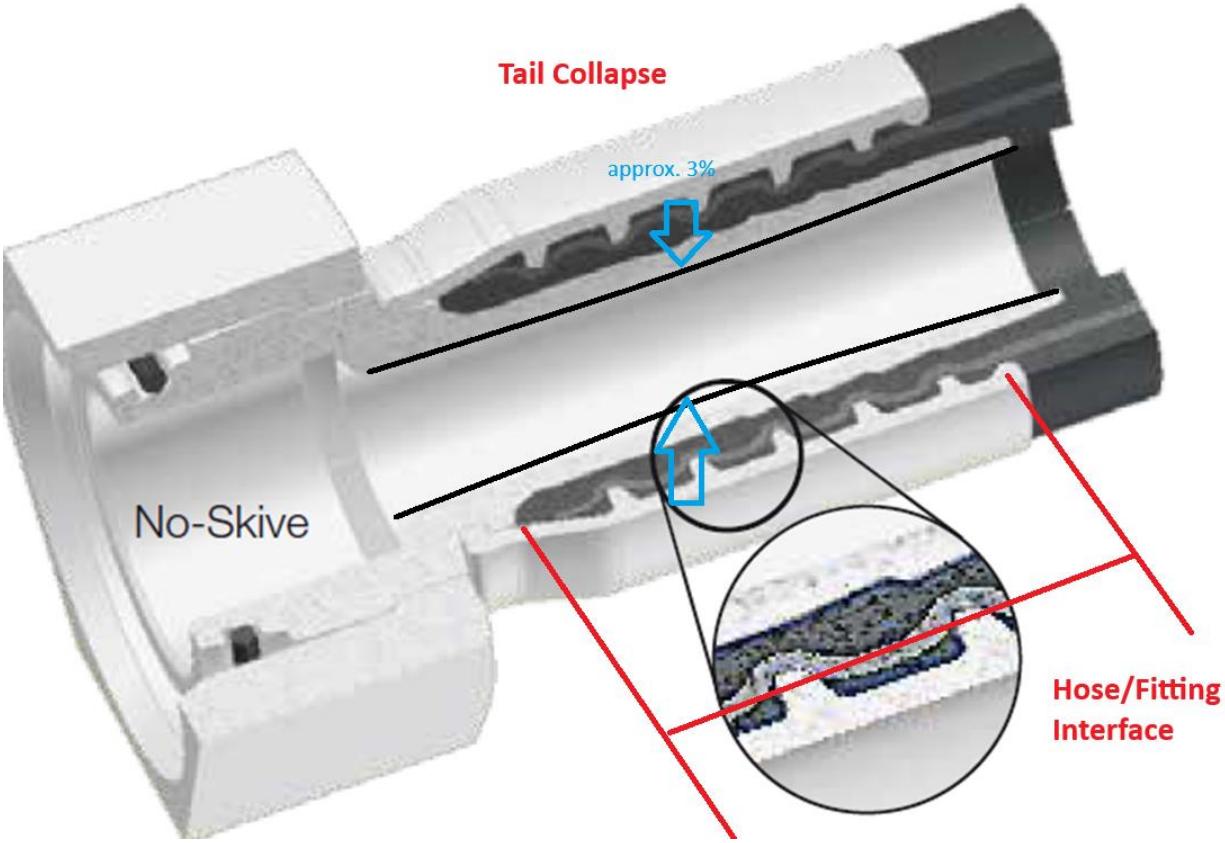
BACKGROUND

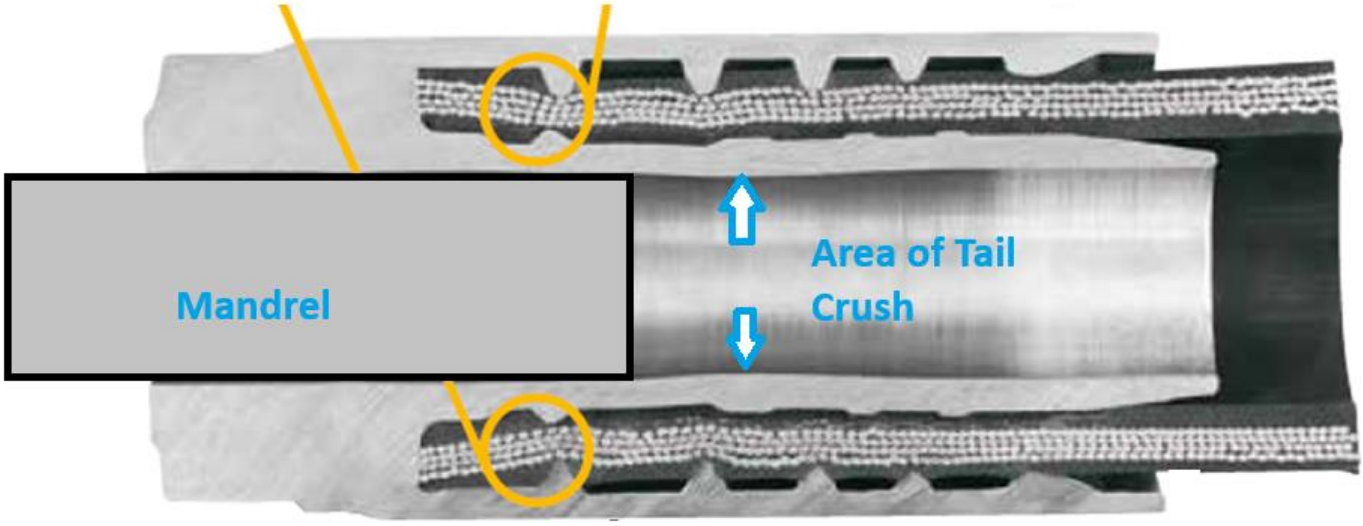
Fluid Connectors hose and fittings are rigorously tested as assemblies as per SAE J343. Our crimp chart provides swage dimensions for Fluid Connectors' "FluidFlex" branded hose. These dimensions may not be suitable, without adjustment, for assembling Fluid Connector fittings on "other brand" hoses. As per SAE J517, Chapter 5, it is our responsibility to advise that the use of these crimp dimensions on non-FluidFlex hose do not provide a "matched" assembly.

> ***SAE J517 Chapter 5. Hose Assemblies*** *Hose assemblies may be fabricated by the manufacturer, an agent for or customer of the manufacturer, or by the user. Fabrication of permanently attached connectors to hydraulic hose requires specialized assembly equipment. Field attachable connectors (screw style and segment clamp style) can usually be assembled without specialized equipment although many manufacturers provide equipment to assist in this operation. SAE J517 hose from one manufacturer is usually not compatible with SAE J516 connectors supplied by another manufacturer.* ***It is the responsibility of the fabricator to consult the manufacturer's written assembly instructions or the manufacturers directly before intermixing hose and connectors from two manufacturers.*** *Similarly, assembly equipment from one manufacturer is usually not interchangeable with that of another manufacturer. It is the responsibility of the fabricator to consult the manufacturer's written instructions or the manufacturer directly for proper assembly equipment. Always follow the manufacturer's instructions for proper preparation and fabrication of hose assemblies.*

RECOMMENDED METHOD TO ESTABLISH A CRIMP DIMENSION FOR YOUR COMBINATION

As such, we advise to carry out tail collapse testing during the assembly. This is how crimp dimensions are initially established prior to confirmation by testing. It is done by finding a tubular "mandrel" or round object that is a fairly snug fit inside the bore of the fitting being crimped. The ultimate guide is for an object with 3% less diameter than the ID of the fitting. As crimping is performed in a stepped manner, with the "mandrel" out, the "mandrel" is presented into the bore of the fitting, and when it can no longer be pushed into the fitting, the correct crimp diameter has been achieved. The crimping is carried out in very small steps toward the correct diameter. **The "mandrel" is never inside the fitting whilst crimping is taking place!** The crimping process is stopped, and the mandrel tried during the stop. If you crimp with the mandrel inside the fitting, you may never get it out again. The aim is for the collapse to be mid-way along the hose/fitting interface area.





Once again, do not carry out crimping with the mandrel inside the fitting! It may get caught there. When close to the correct crimp, crimp in the smallest amounts possible, and stop when the mandrel can no longer be inserted past about halfway along the hose/fitting interface.