Marker Band Precrimping

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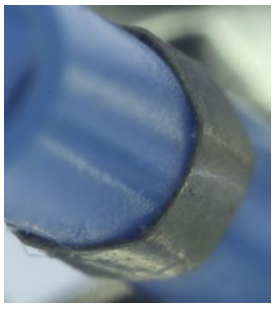
Before a marker band can be swaged it must be positioned on the catheter then precrimped. For a detailed comparison of crimping and swaging, refer to knowledge base article: *MS105 Crimping versus Swaging.*

Precrimping is a single, large deformation of the marker band to keep it in position during swaging. The band is formed into a polygon with the same shape as the crimper die cavity. The precrimped band is then swaged to return the shape to a smooth cylinder and embed the band into the catheter for the best placement retention.

A good precrimp is determined by the band shape and placement retention. The perimeter of the band is conserved during crimping. Therefore, there is a maximum amount a band can change shape by a multi-sided crimper before it will buckle. Buckling occurs when the band is crimped past the geometric shape its perimeter allows. Buckling can be inhibited by having a tight fit between catheter diameter and band inner diameter. We recommend a diametric difference as small as manufacturing tolerance will allow.

Proper Precrimp	**Improper Precrimp**
The corners or bend radii of the crimped band should be round with smooth transitions to the flats. The flat sides should have a slight convex bow away from the center. Swaging will produce a round band with smooth surface finish. 	Over crimping of the band causes the corners to become sharp, the flat sections to bow in, or the band to fracture. Swaging may cause the band to fracture or form groves down the length of the band.