

## Overview

The winder failed via crossfeed slipping on the first start. After completing the first ply, the machine was paused for a resin fill. The first ply looked excellent except for a large excess of resin. Upon unpausing the run to being the 2nd ply the crossfeed completely slipped and began to turn around right in the middle of the tube. The layer was aborted, the fiber was cut and the file was started fresh at the start point. Within a couple passes, the crossfeed again slipped. The run was allowed to continue as there was no chance at restarting for the day but more slips occurred at a frequency of about once every other pass. The entire run was forfeited and the mandrel was cleaned off.

## Differences in setup from 2/24 test

- Length of part changed from 205mm to 450mm
- Original mandrel replaced with maximum length mandrel for the machine (same diameter and material)
- Wiper position subtly altered due to repositioning from cleaning
- Output path of crossfeed now covers new areas of the slide previously unused

## Observations

- Slips all occurred *near* the place where the two components that make up the slide meet
  - During the 2/24 test the crossfeed did still encounter this spot on the slide however it was traveling slowly (in the turnaround region)
  - Slips were observed occurring going in both directions, both before and after the joint but never more than ~4 inches away from it
- All documented slips thus far have been due to the belt slipping on the pulley of the motor as opposed to slipping of the motor and this was still the case
- There was quite a bit of vibration in the crossfeed belt while the crossfeed was in various spots and at various speeds.
  - Belt resonance can be observed in particular during acceleration/deceleration of the crossfeed in previous video capture of winding.