Tube Bending Trials for Prototype ATLAS Upgrade Stave

Annealing

Aluminum 3003 tubing ID/OD(8/8.7 mm) is used and hand annealed using a heat gun.



Bending







Flattening





Shim size is 0.284"

Results

After flattening.

Sample	Anneal T(°F)	Bead Filled?	Thickness(inches)	Width(inches)
1	850	yes	0.292-0.295	0.368-0.371
2	1030	yes	0.292-0.294	0.365-0.374
3	1000	no	0.287-0.291	0.367-0.385
4	850	no	0.287-0.289	0.365-0.385