

Figure 1: Electrical resistance measurements before and after failure



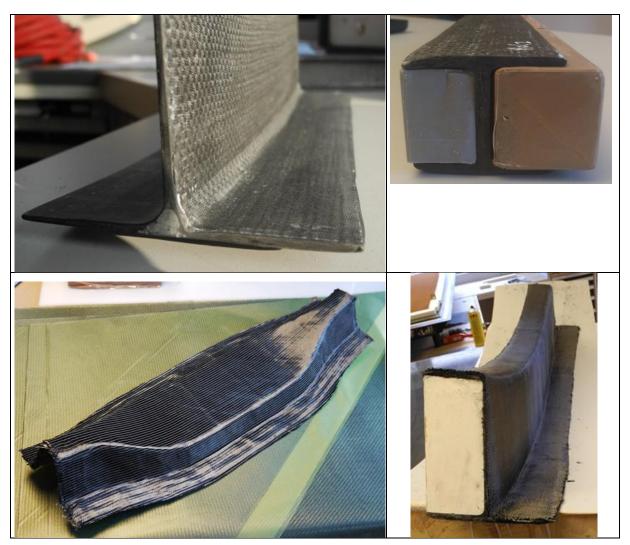


Figure 2: Stringer manufacturing trials

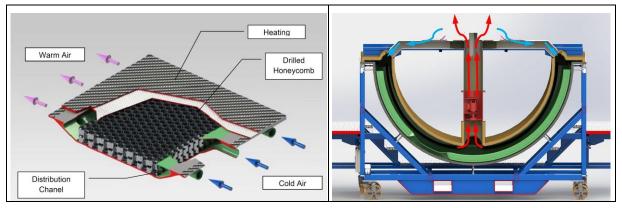


Figure 3: The two active cooling concepts for the nacelle tool



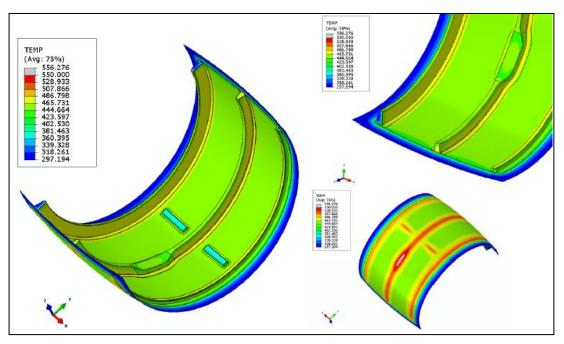


Figure 4: Results of the thermal analysis for the nacelle tool

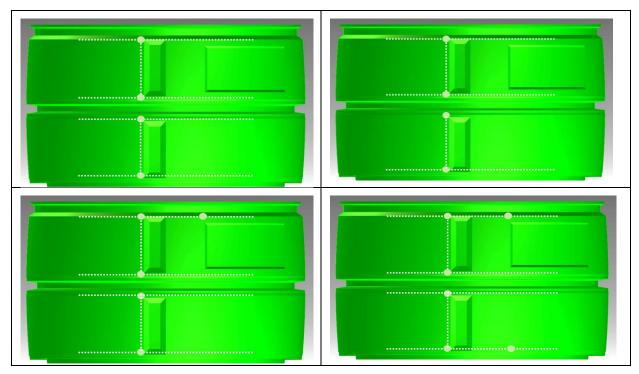


Figure 5: Alternative infusion strategies studied



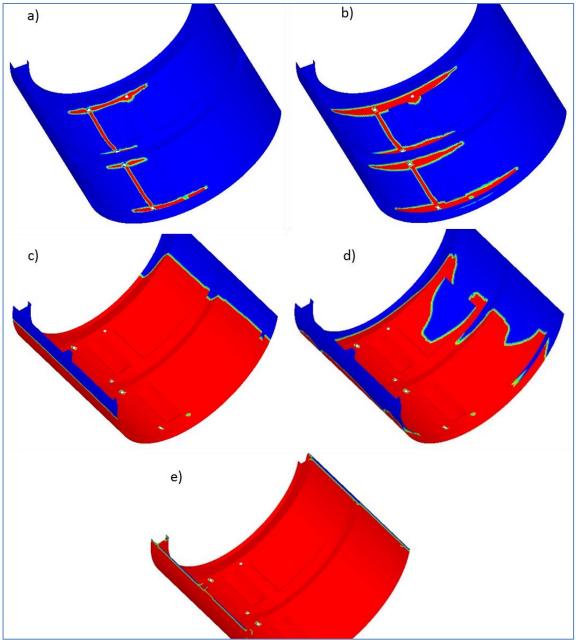


Figure 6: Indicative results of the mould filling simulation for an infusion strategy



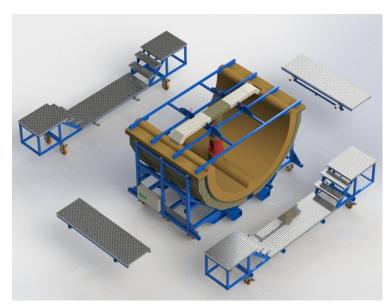


Figure 7 : The complete IRIDA prototype tool

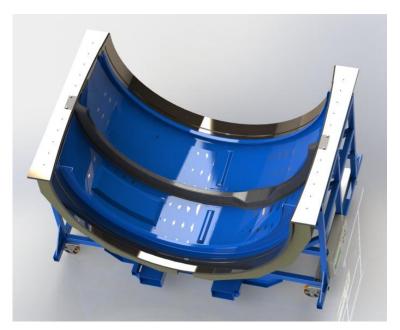


Figure 8 :The main infusion tool





Figure 9: The manufactured main infusion tool and the original design

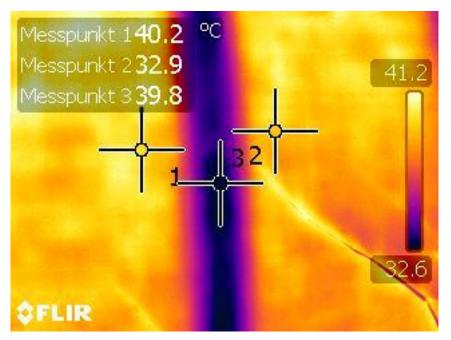


Figure 10 :Thermal imaging of the tool showing the clear drop of temperature in the stringer placement area



Figure 11 : The fiber preform inside the tool





Figure 12 :The nacelle demonstrator

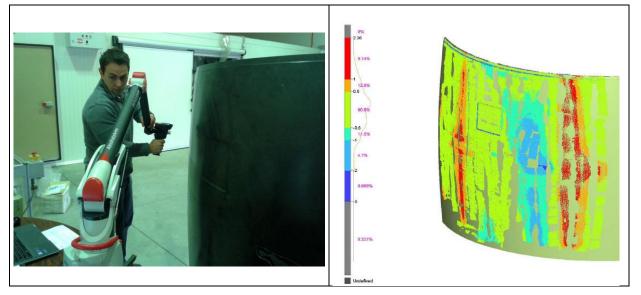
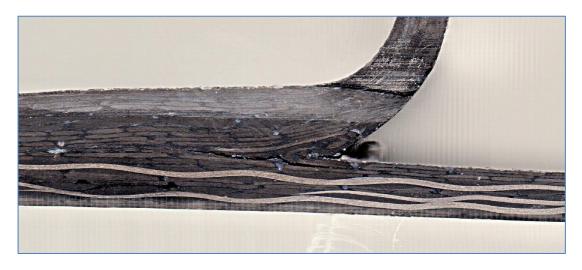


Figure 13 : Dimensional accuracy measurements





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Figure 14 :Macrographs of the cross section cut out of the demo part showing major defects