

# REINFORCED WING SPAR DEMO TOOL

The co-cured reinforced skin panel, or wing spar, is a demonstration of how Smart Tools that act as bladders can be used as stringers to reinforce skin panels.

## SMART TOOLS AS BLADDERS

The co-cured reinforced skin panel, or wing spar, is a demonstration of how Smart Tools that act as bladders can be used as stringers to reinforce skin panels.

### HOW IT WORKS

Carbon fiber pre-preg is placed into the lower half of the female cavity of the cure mold. Next, prepreg is placed onto the rigid Smart Tool and placed into the female cavity and a layer of prepreg is placed over top.

The mold lid is placed and vacuum bagged for cure. After the cure cycle, the now elastic Smart Tool is removed from the composite with low force, and reformed in the reforming mold.

## WHAT'S INCLUDED



Engineering & Technician Support



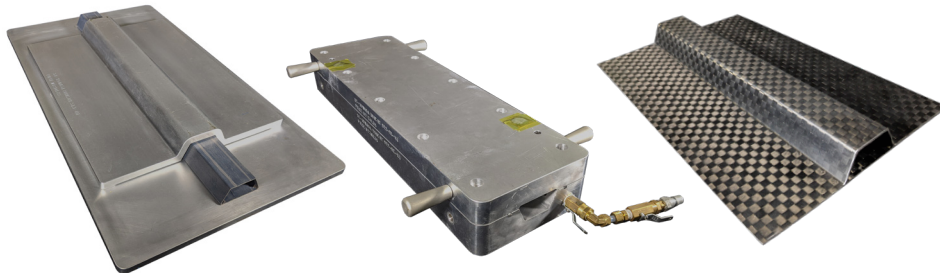
Standard Operating Procedure



Step by Step Video Instructions



VKS Digital Work Instructions



Cure Mold with Smart Tool

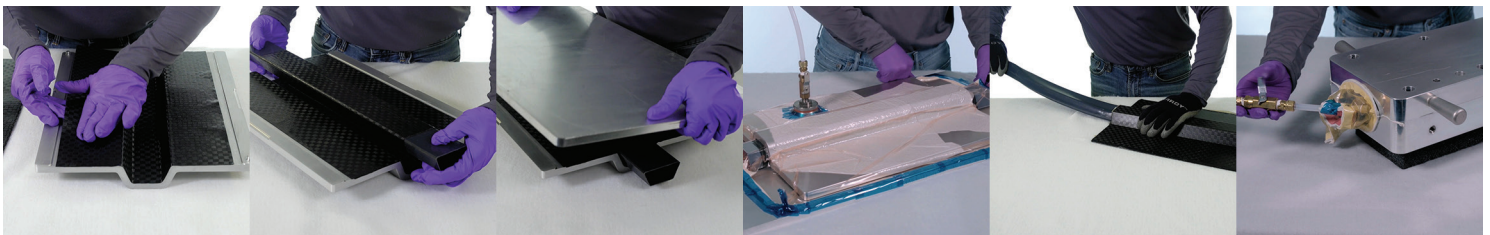
Smart Tool Reforming Mold

Completed Composite Part

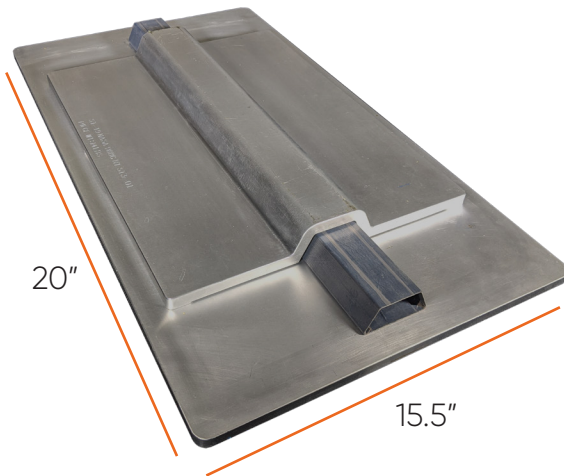
## PRICING

\$ 1,000 Cure Mold  
 \$ 500 Noodle Tool  
 \$ #### Smart Tool\*

\*Exact prices per Smart Tool are dependant on resin type, which is specified by the customer

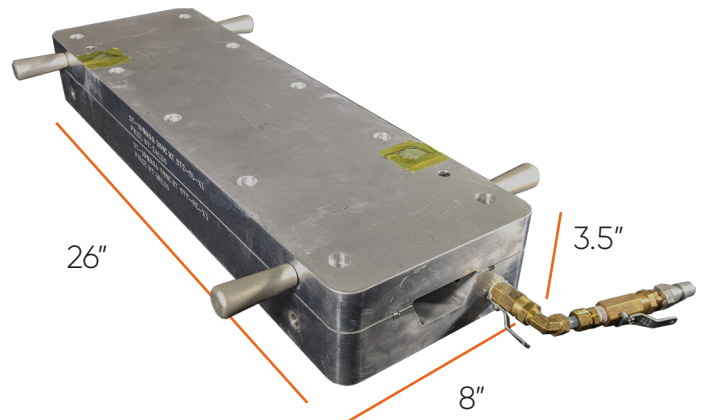


## TOOLING DIMENSIONS & DESCRIPTIONS



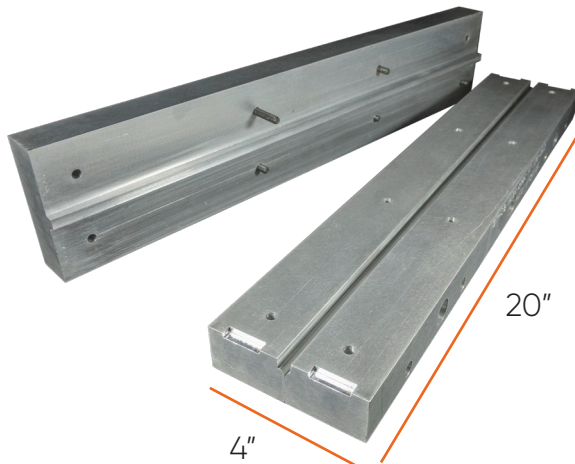
### CURE MOLD

The cure mold is used to form the composite part using the Smart Tool.



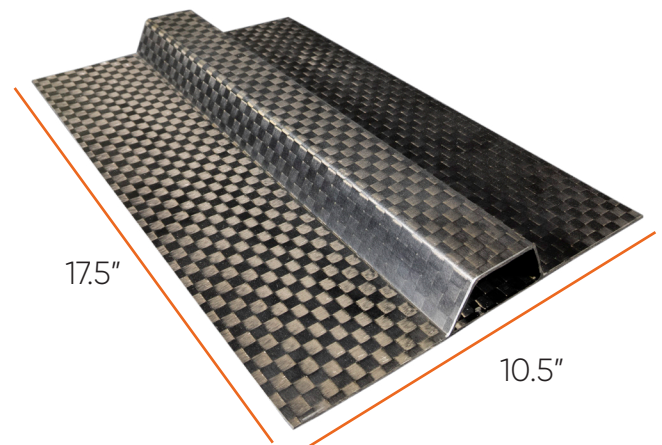
### REFORMING MOLD

The reforming mold is used to reform the elastic Smart Tool back to net geometry.



### NOODLE TOOL

The noodle tool is used to form prepreg noodles to fill voids in between the Smart Tool & prepreg in the cure mold



### FINAL PART

Above is the completed composite reinforced wing spar created using the cure mold