

# Battle Royale – a clash of injection molding approaches using Simulation Moldflow – **PROBLEM STATEMENT**

Tim VanAst – Cascade Engineering  
Jay Shoemaker – Autodesk

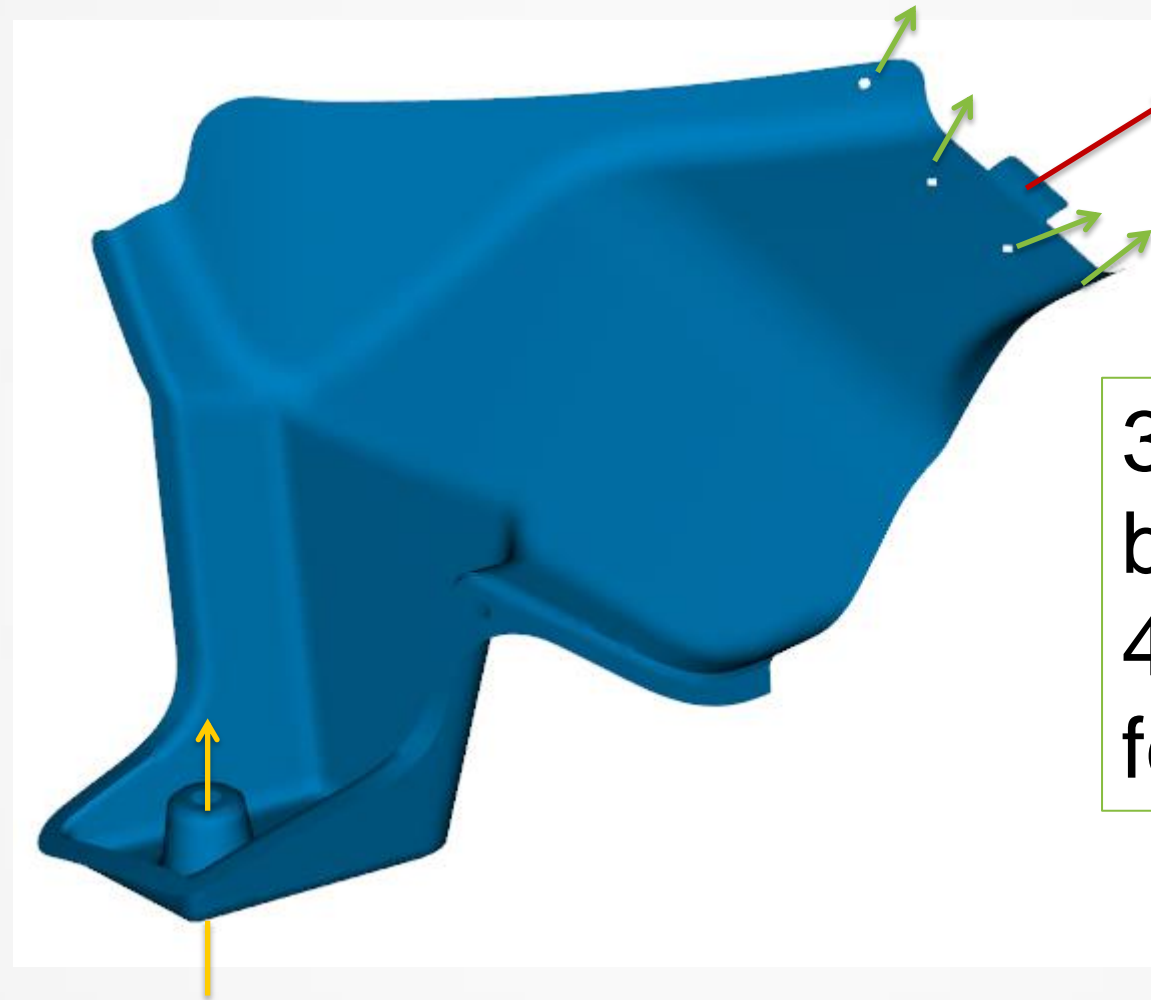
# Problem Statement

- The reinforcement is an underbody part we are quoting and need to know:
  - recommended cycle time
  - that it will mold in the quoted machine
  - if we can meet the required critical dimensions.
- The part will be Molded In Color - black. It is visible when looking behind the tire, but it's not a class A show surface.
  - Cavities: 2 (RH and LH)
  - Machine: 750 ton (but would like to get it into a 650 ton)
  - Feed system can be cold or hot and can be gated anywhere on the part that is toolable.
  - Material: DuPont Zytel 70G33L Nylon 33%gf



# Assembly Process

1. Tab will be slide into “doghouse” on fender

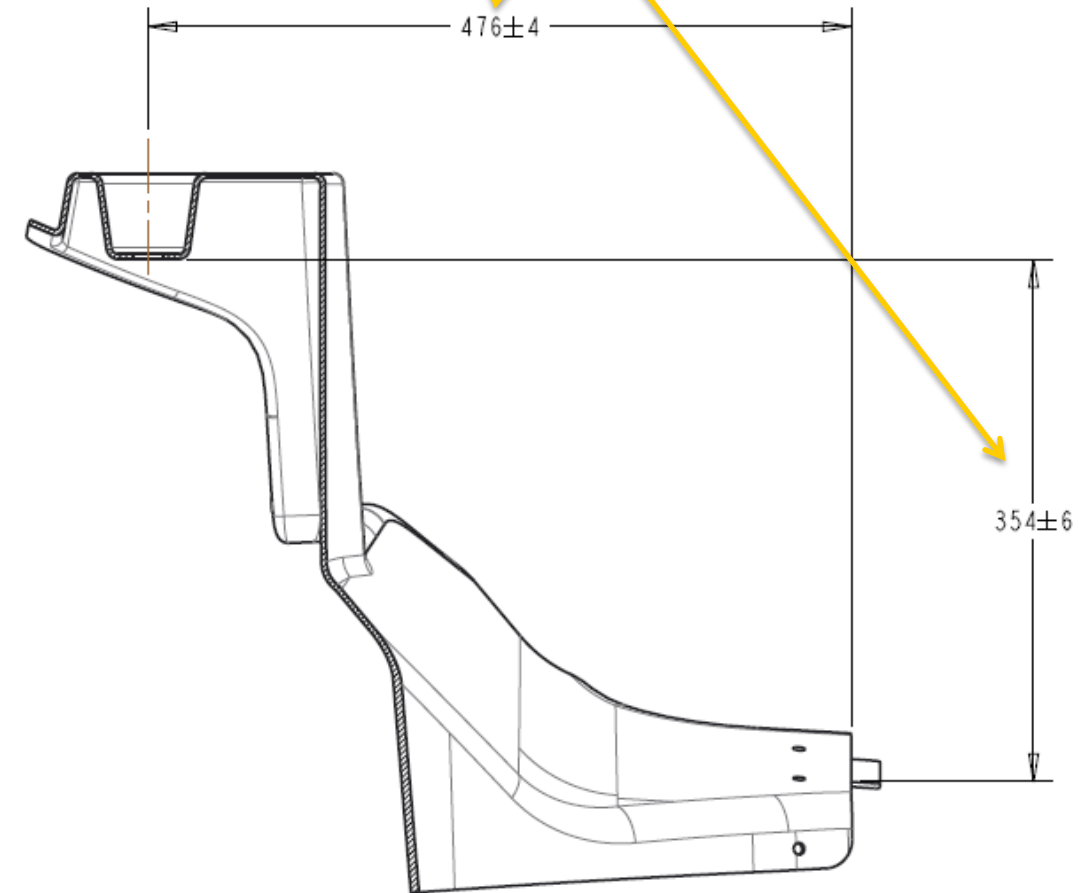
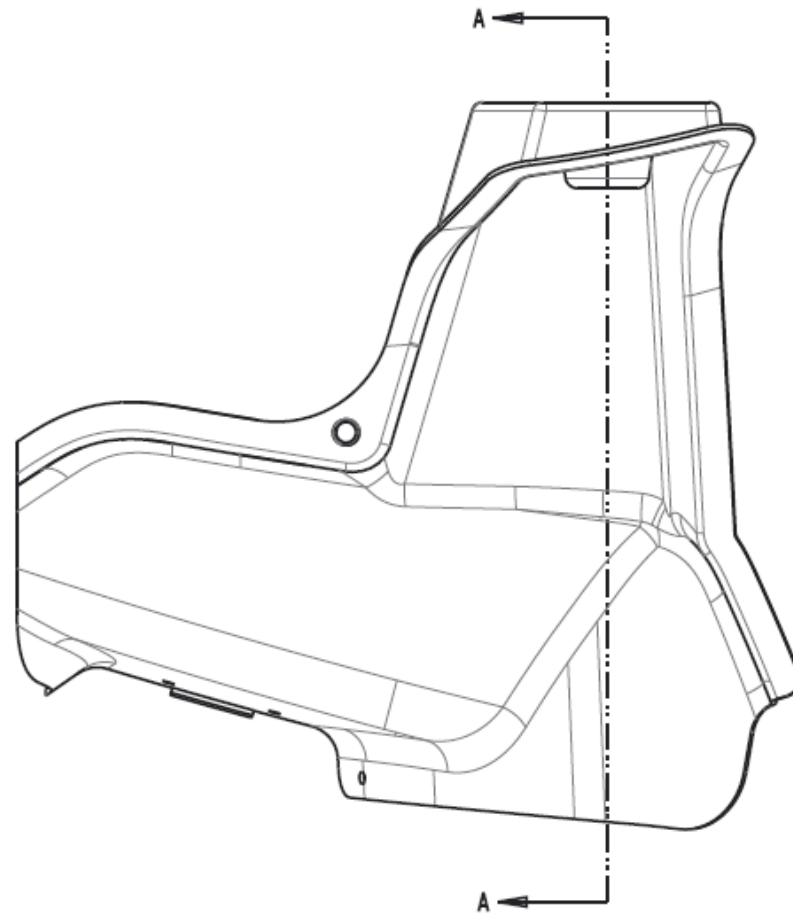


3. Screws will be installed in 4 locations to fender

2. Bolt will attach to frame

# Critical Dimension

Y & Z dimensions from bolt hole to corner of tab are critical



SECTION A-A

MOLDFLOW CHECK PART  
33% GLASS FILLED NYLON  
SCALE 0.250

