

Instrument Panel (IP) Rail Conveyor Buffer

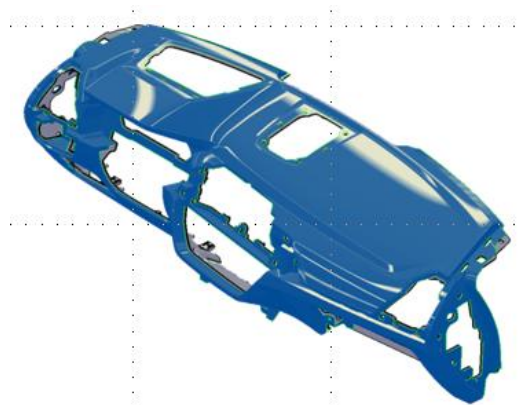
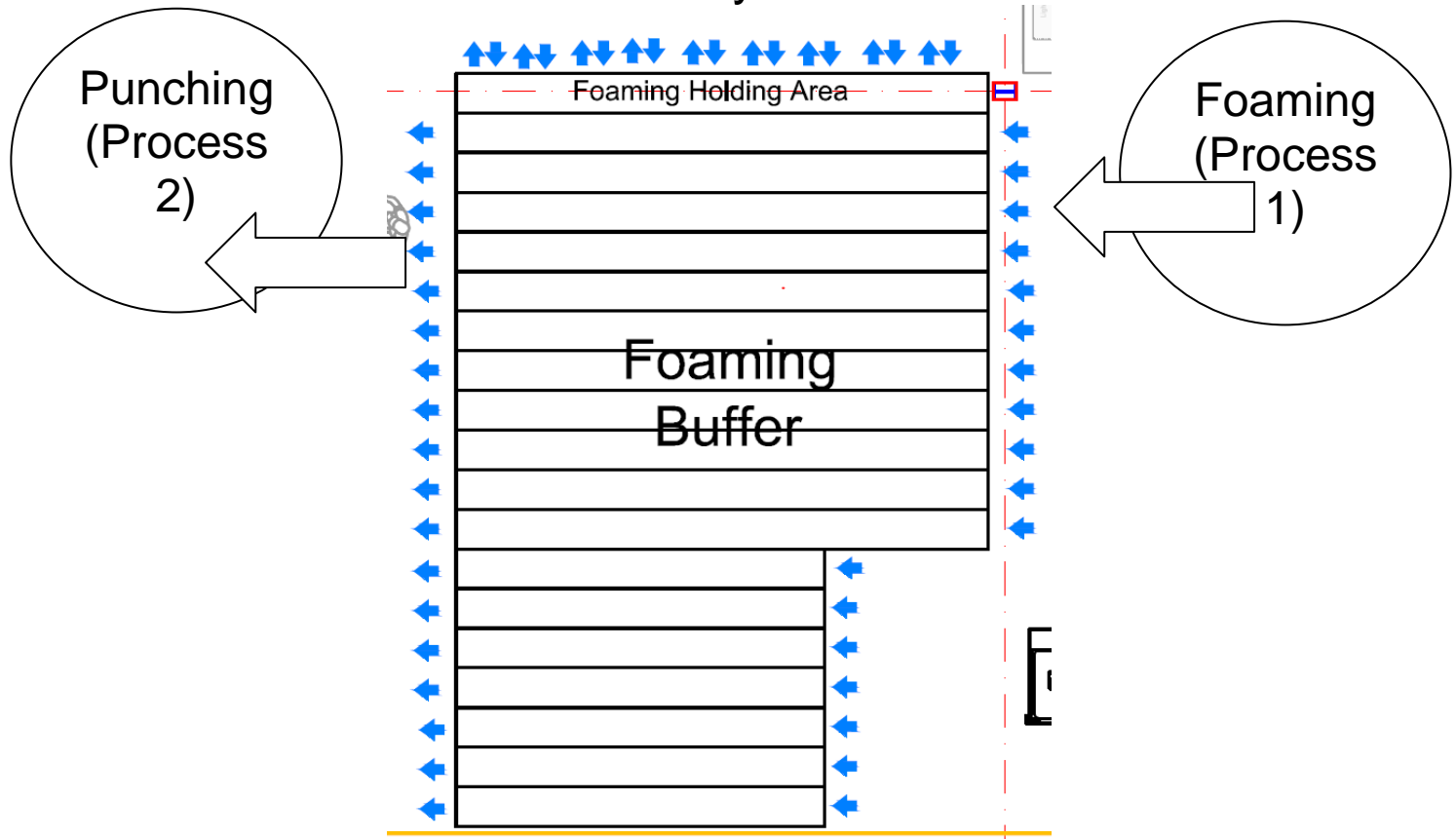


Image of Instrument Panel
that is being hung (note: will be hung vertically)

Goal:

Provide a overhead rail conveyor system that will do the following for 15 instrument panel variants (types):

1. Hang the Instrument panel at Process 1 and
Unhang the Instrument panel at Process 2 according to FIFO
2. Store Instrument panels as buffer between Process 1 and 2 while the IP's dry/cure
3. Return hanger (trolley) to loading area after unloading
4. Provide the fixture that the IP will hang from (if capable)

Constraints:

1. Foaming buffer planned area is 27 ft wide x 38 ft long. General area in planned layout, could be changed slightly if design concept requires.
2. Instrument panel is 1542mm x 616mm x 496 mm. (Apx in ft: 5.5 h x 2 l x 1.5 w)
3. 15 different variants of Instrument panels must be able to be loaded at unique point (15 rows) depending on what is being ran. Initial layout shows 18, can change.
4. Instrument panels must have required spacing or holding fixture so they do not touch during movement.
5. If IP needs to be taken out of due to FIFO error (reworking, etc) then IP should be capable of being moved from unloading area to holding area.
6. There must be a designated rail that will hold each unique variant from loading to unloading. At least 350 IP's to be contained in entire buffer system at any given time. This is to have appropriate dry/cure time and well as buffer incase of upstream equipment failure. These numbers are base on take rates of variants.

Breadown is below:

Variant A	91	Variant I	11
Variant B	38	Variant J	10
Variant C	24	Variant K	10
Variant D	23	Variant L	6
Variant E	23	Variant M	6
Variant F	13	Variant N	3
Variant G	13	Variant O	3
Variant H	11		

