Blender Clamp\_1m

THIS GIVES 0,0,0 ORIGIN AT BOTTOM OF CLAMP (WEST SIDE). FLOW IS ALONG X AXIS.

Add plane

* Size to 1m
* Scale on X to 9.0 and Y to 2.7
* Location X=4.5, Y=1.35
* Edit mode
* G (grab) + X top left and right corners to 4 and -4 respectively
* Bisect the flat top with a plane at 4.5,2.7,0 and of angles 1,0,0.
* Bevel verticies only (Shift + Control + B) the top left and right points with width 0.1m and 5 segments
* Extrude 1m on Z
* Add air area as cube of 1m, scale of 34, 12.7, 1.0
* Position cube to 12, 6.35, 0.5.
* Separate and rename sections
  + inlet
  + outlet
  + clamp
  + ground
  + top
  + front
  + back

Note that this gives an angle of repose of around 34 deg, not the 31 hoped for.

* It is actually not possible to have a flat top with 9m wide, 2.7 high. With this, 31 deg is the angle of repose for a triangle.
* At a height of 2.5 or 2.6, 31 deg is possible with a flat top.
* Maybe try introducing a step at the foot?

Export

* As stl
* Select ascii
* Batch mode: Object
* Save to CASE/constant/triSurface folder
* Rename the created objects in File Explorer to not have original file name (of the Blender file).
* Using Text Editor, open each stl file and rename patch names to reflect patch file name.