Modular Coil Winding Form Status

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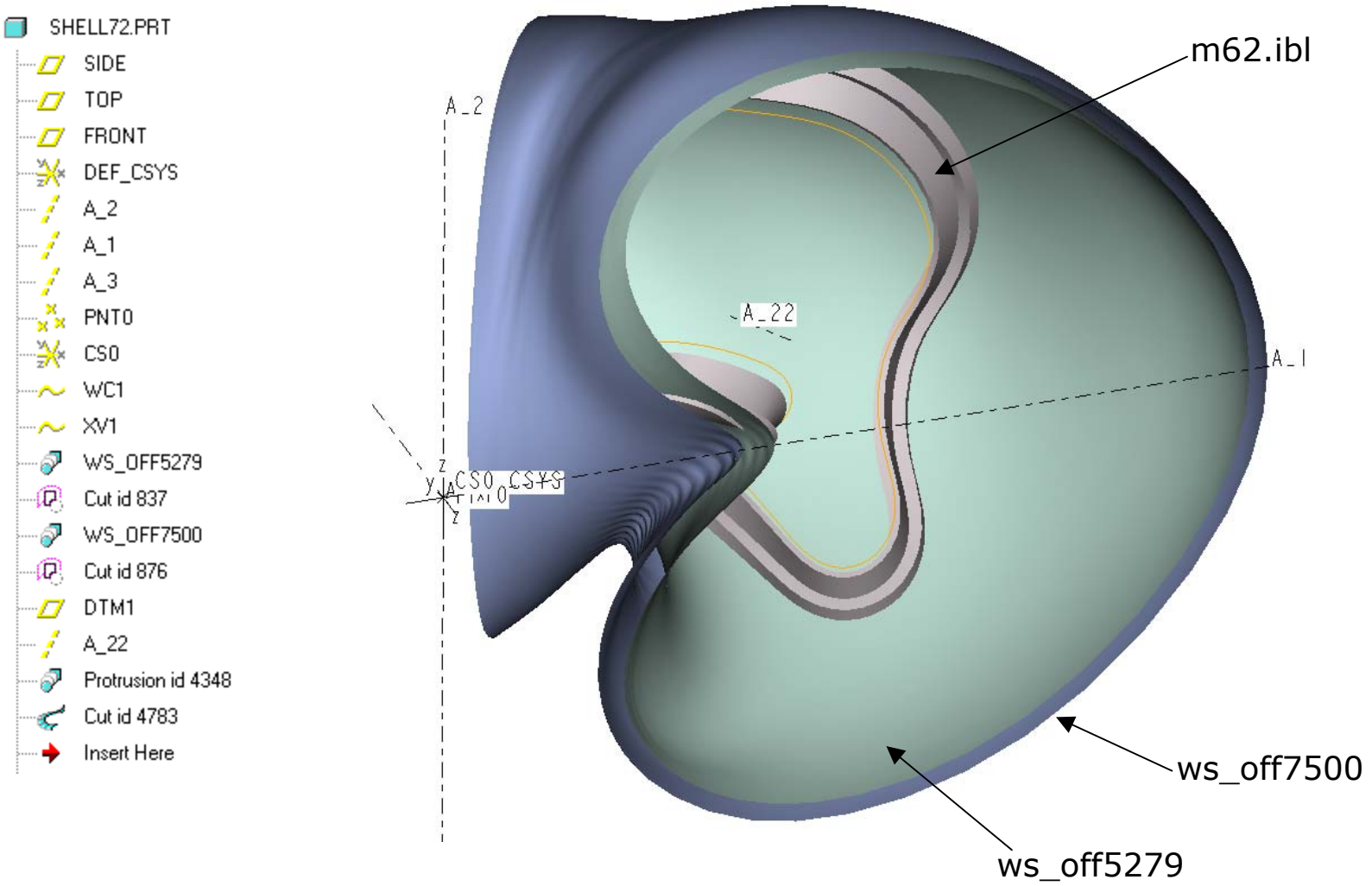
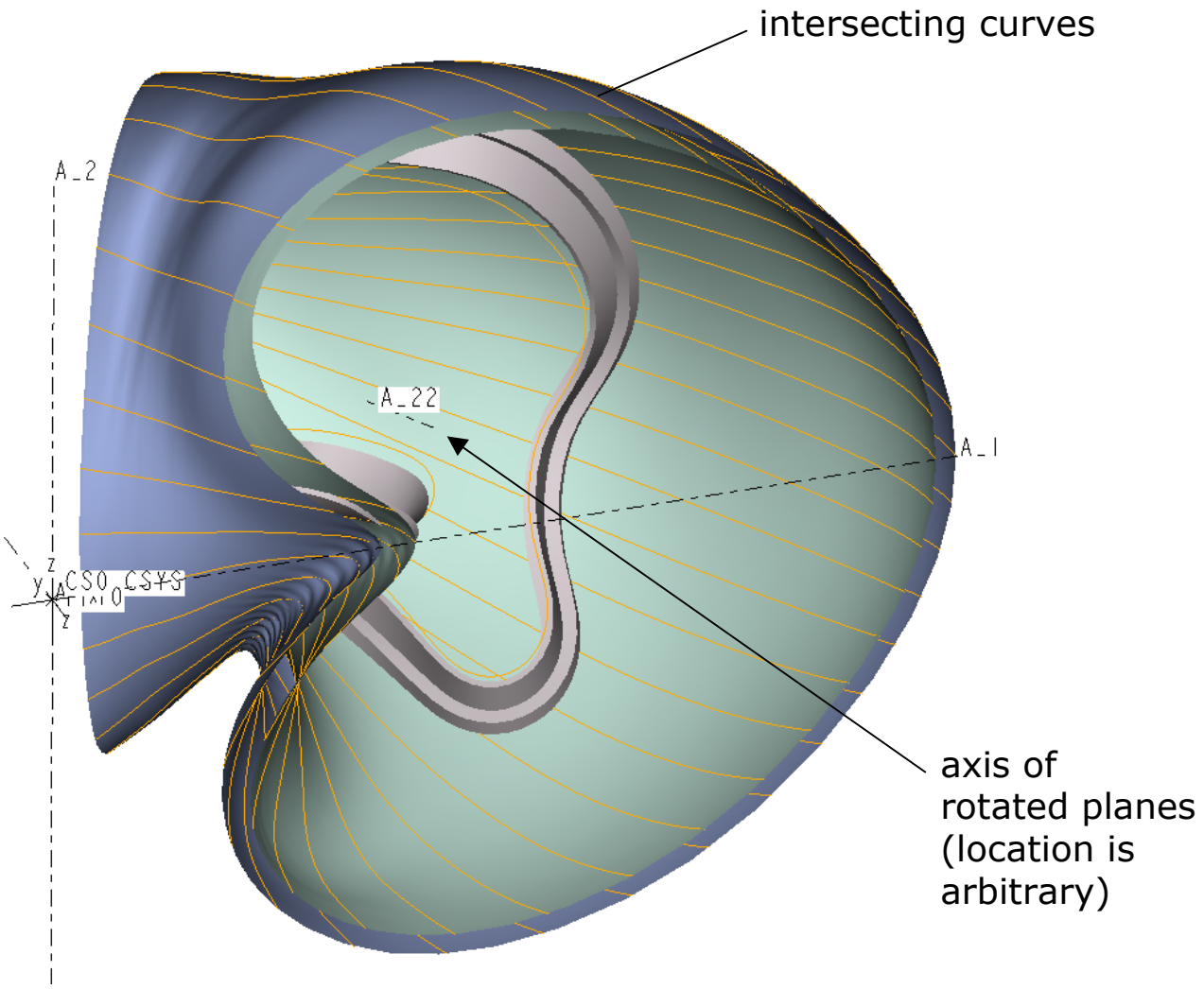
8/25/03

Status

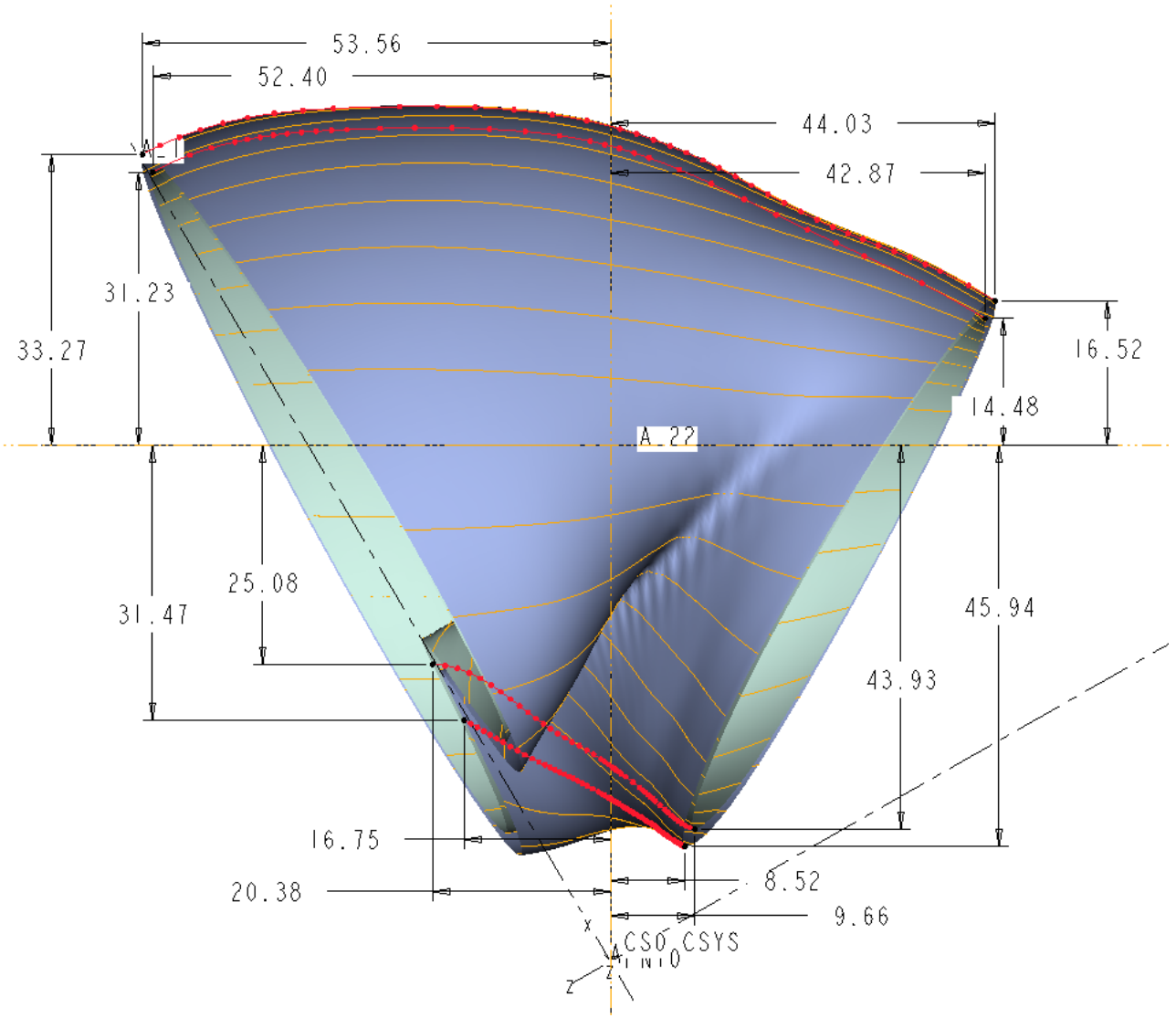
- Method has been developed to address winding form geometry issues:
    - Overlap of tee base
    - Nesting surfaces
    - Wing geometry
- Basic approach is to model a unique inner surface for each shell segment that makes space for the wings of adjacent coils. The outer surface is made by offset/smoothing of inner surface.

Example: Type B Winding Form

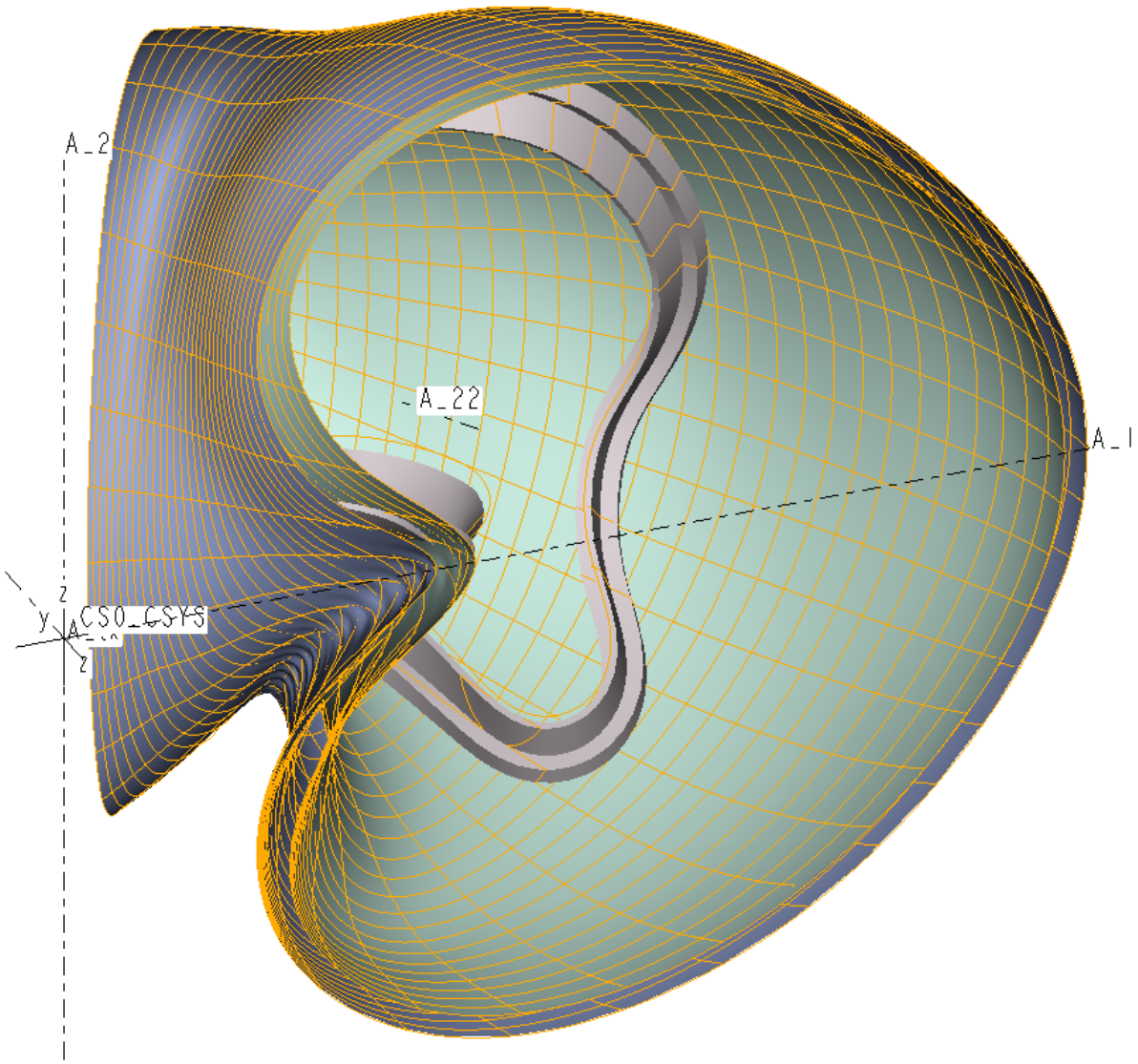



intersecting curves
A_2
A_22
A_1
CSO_CSYS
axis of
rotated planes
(location is
arbitrary)

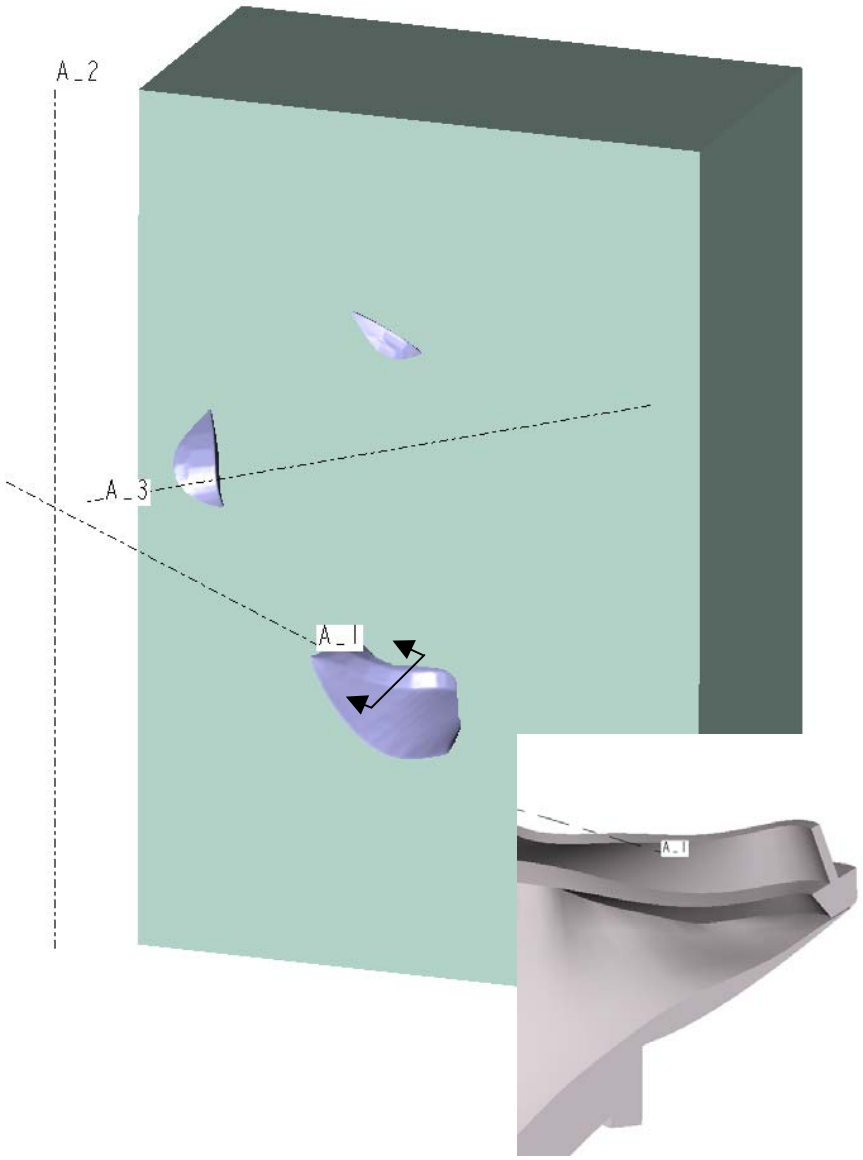
create duplicate spline curves that are independent from starting surface

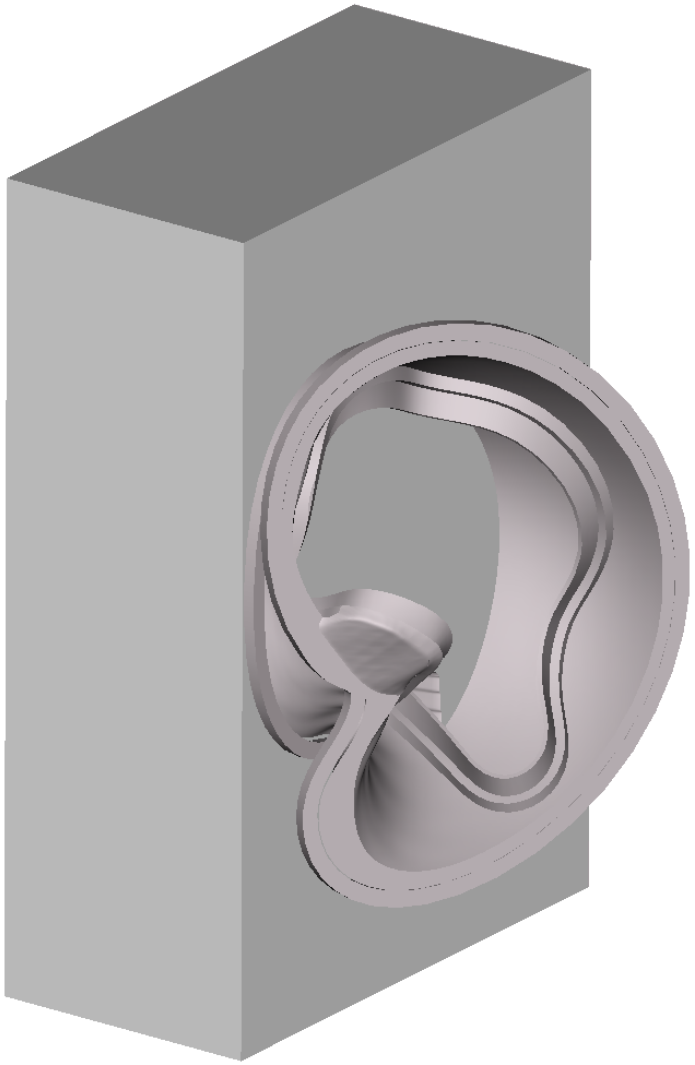


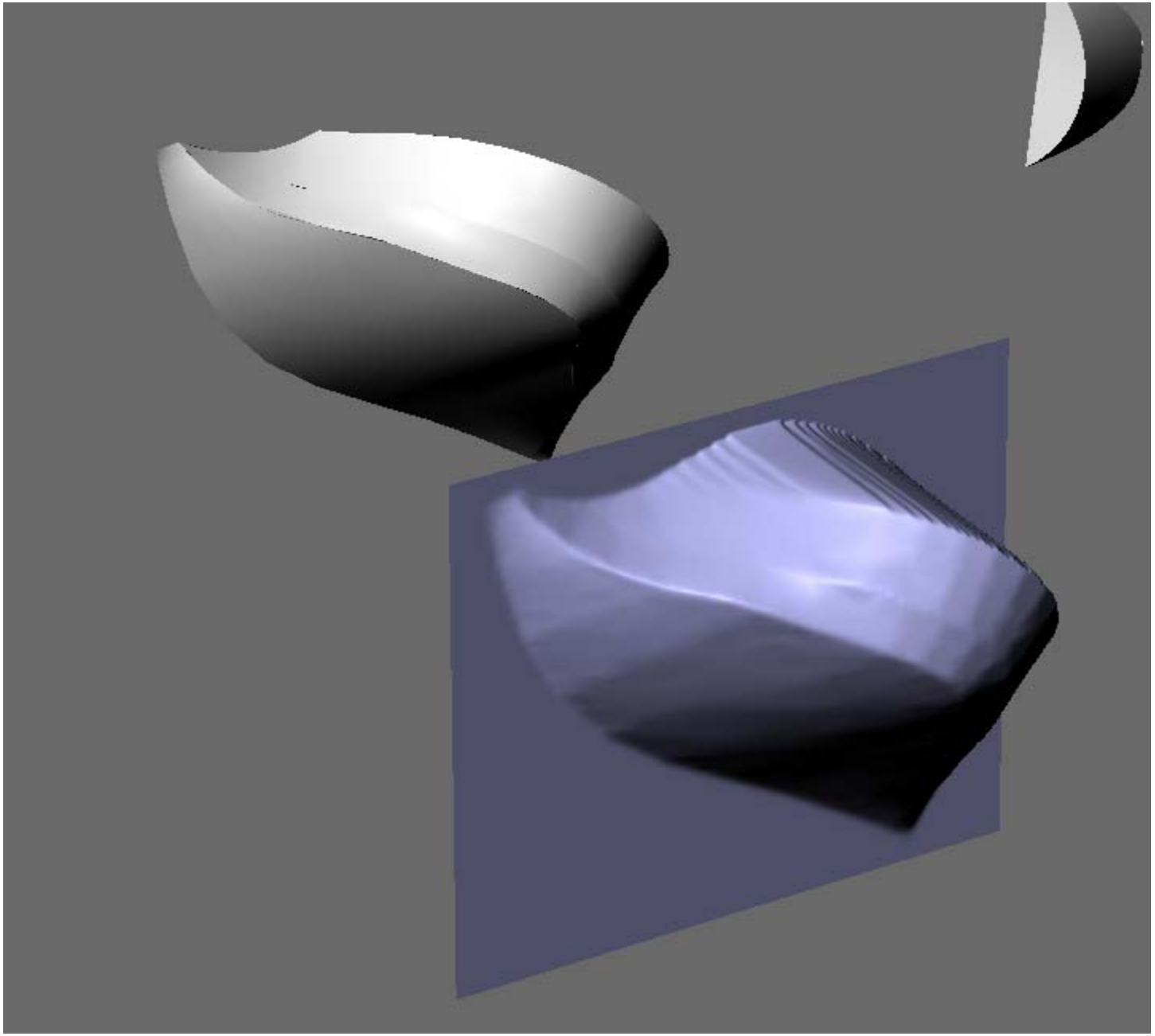
intersect spline curves with radial planes to get 1st dir curves for inner, outer surface

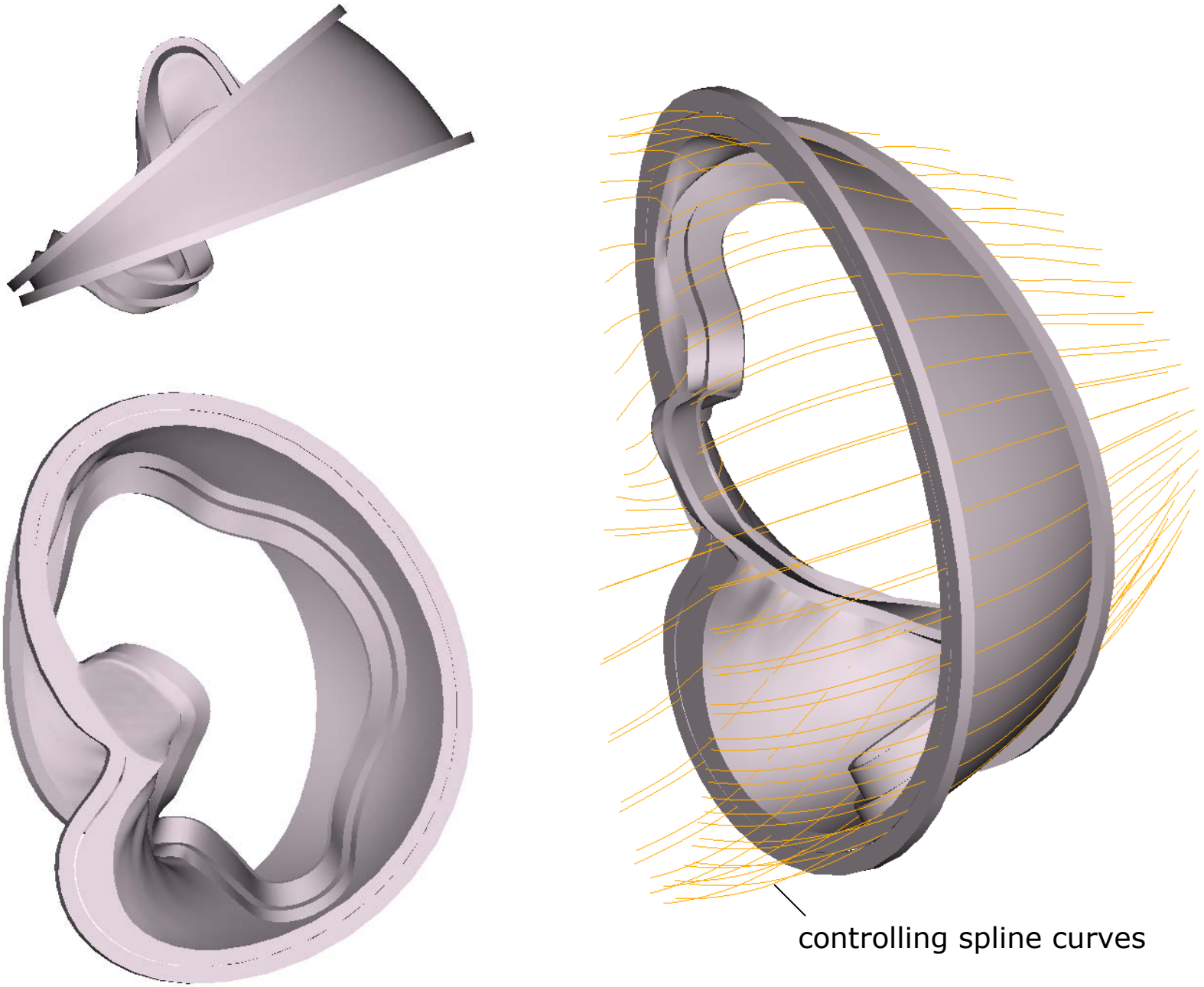


cut with end block leaves wing material and cuts shell back to flange

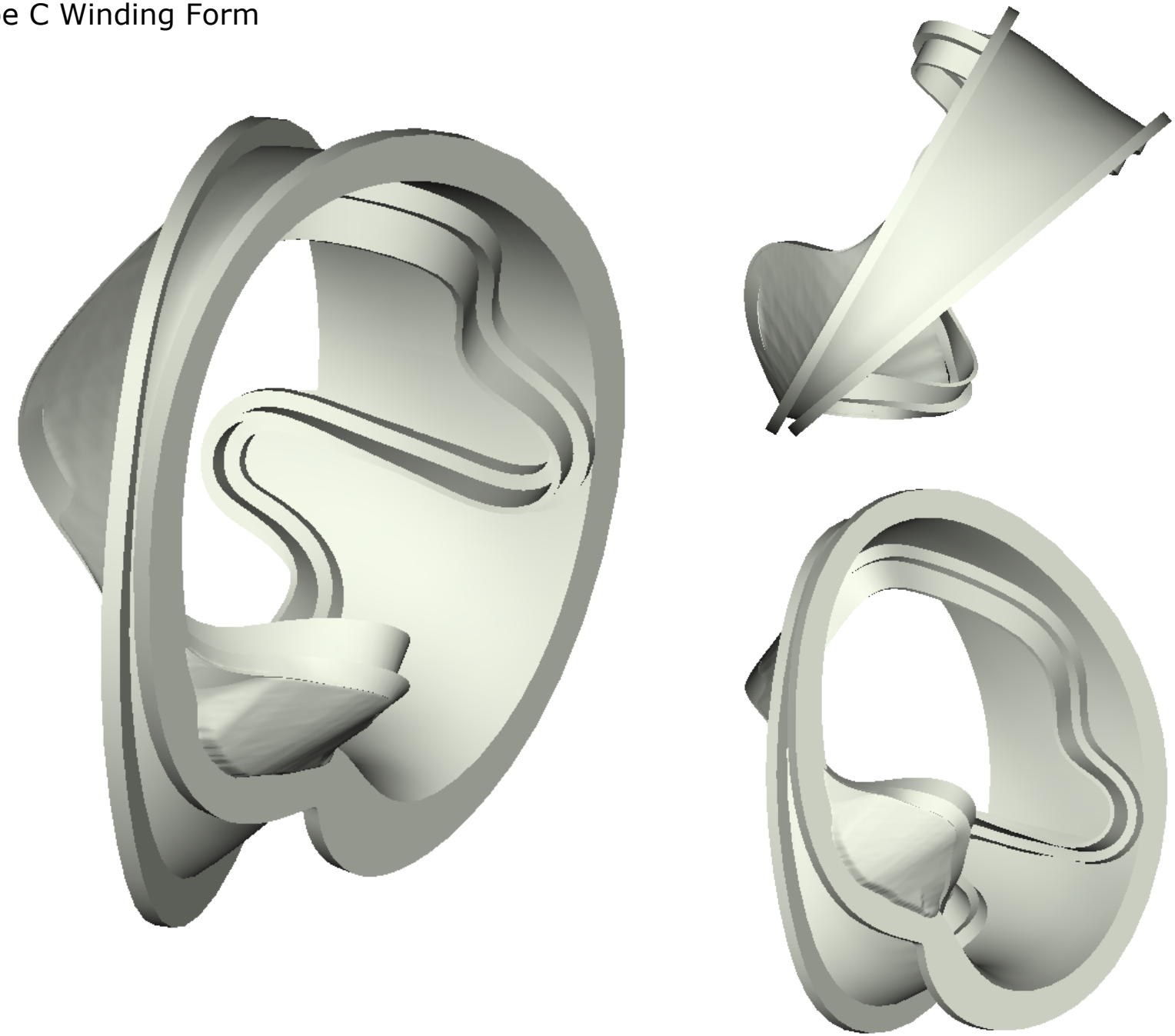


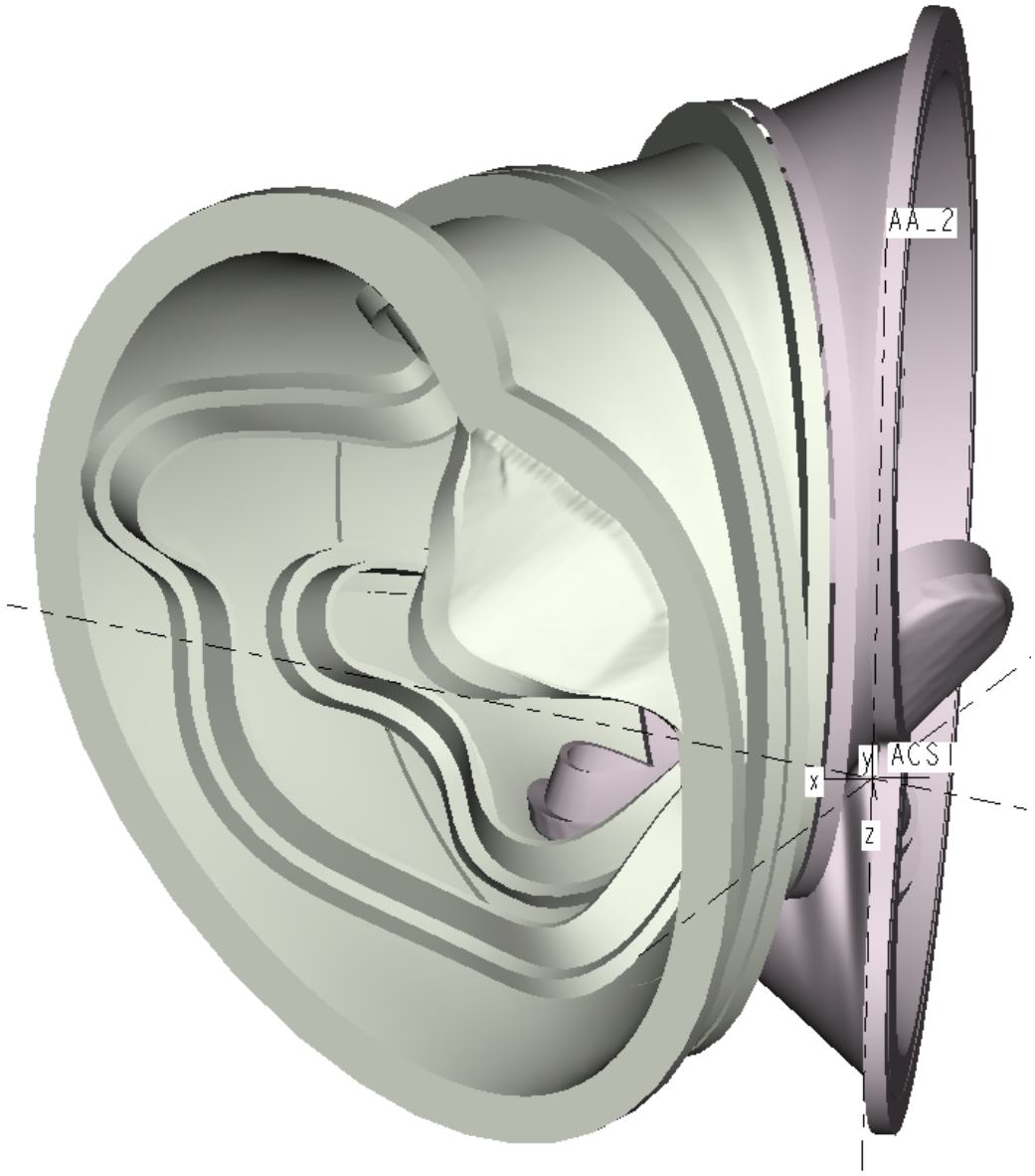
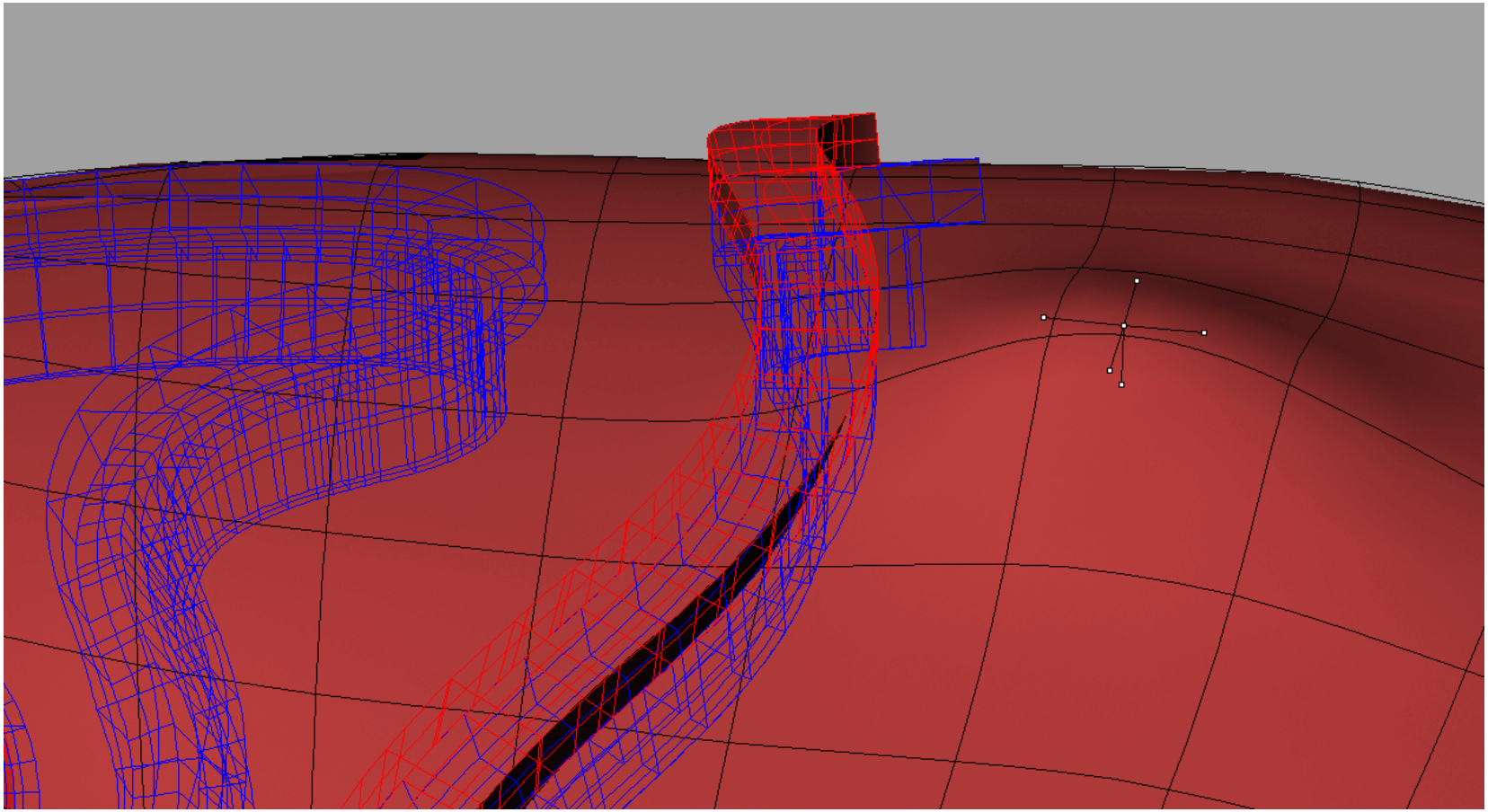
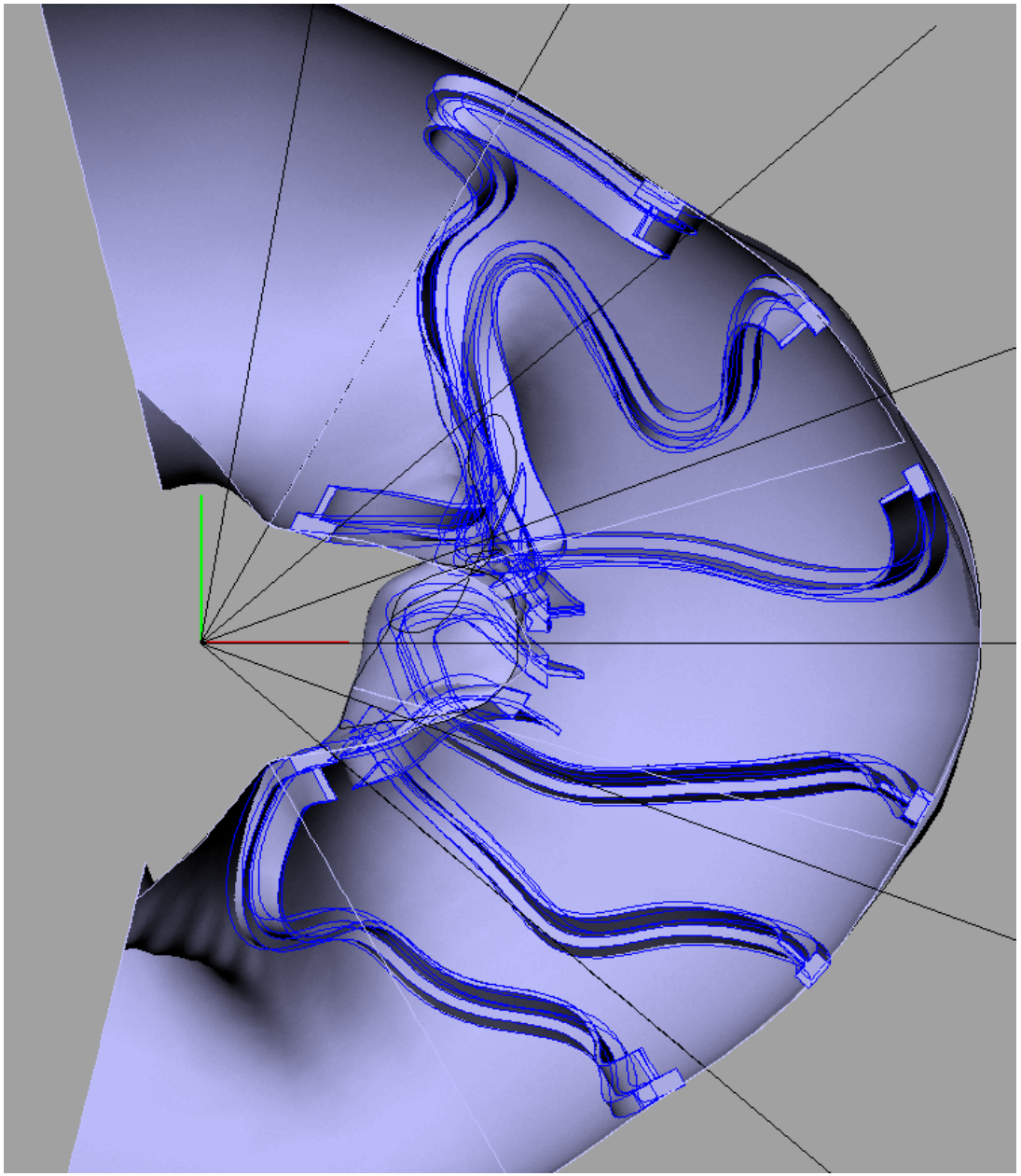





controlling spline curves

Type C Winding Form




AA_2
ACS1
y
x
z

Finally discovered how to use Rhino surface tweaking!
Could be used to make initial ProE surface closer to final shape.