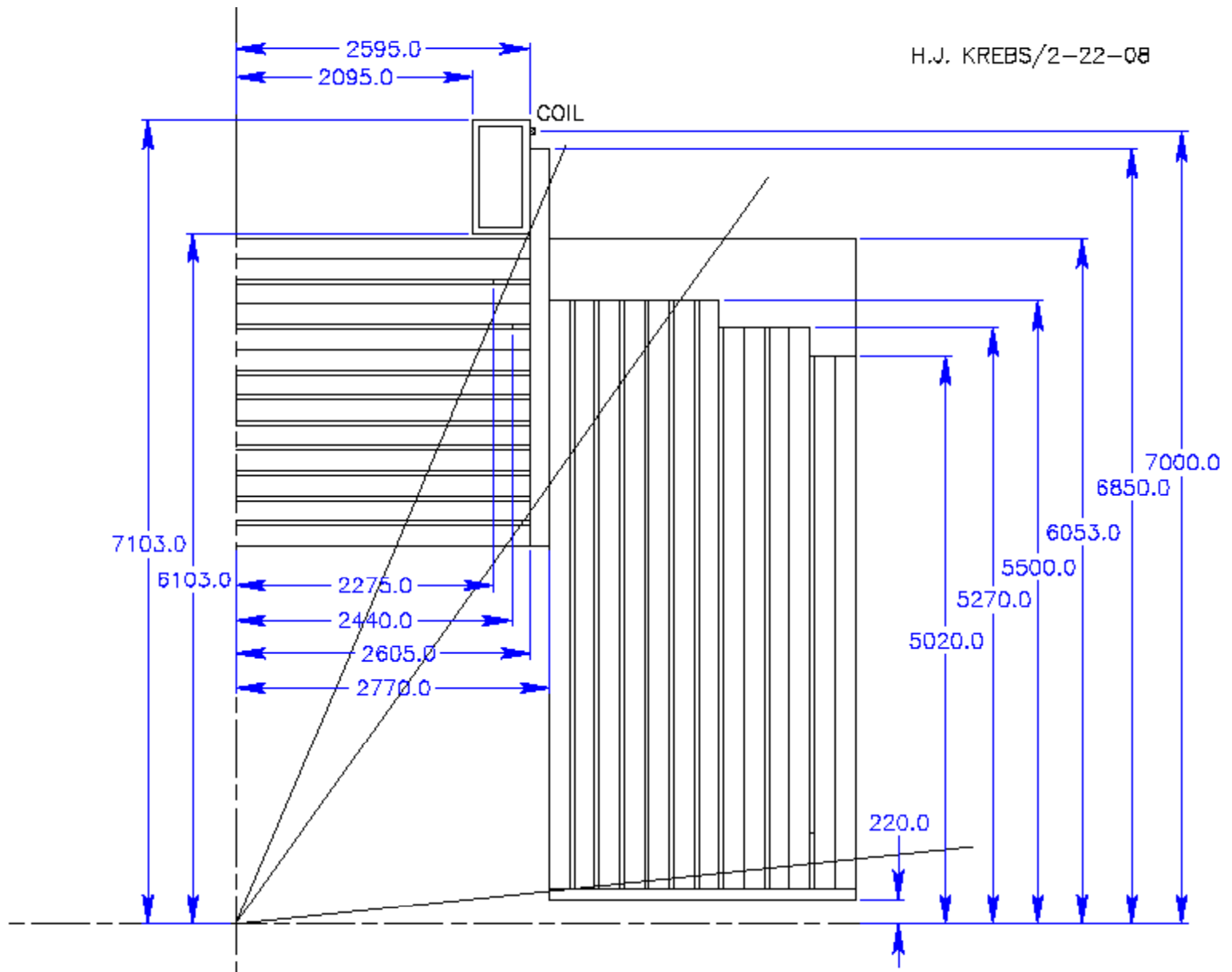


# SiD End Door Design Concepts

H.J. Krebs  
April 4, 2008

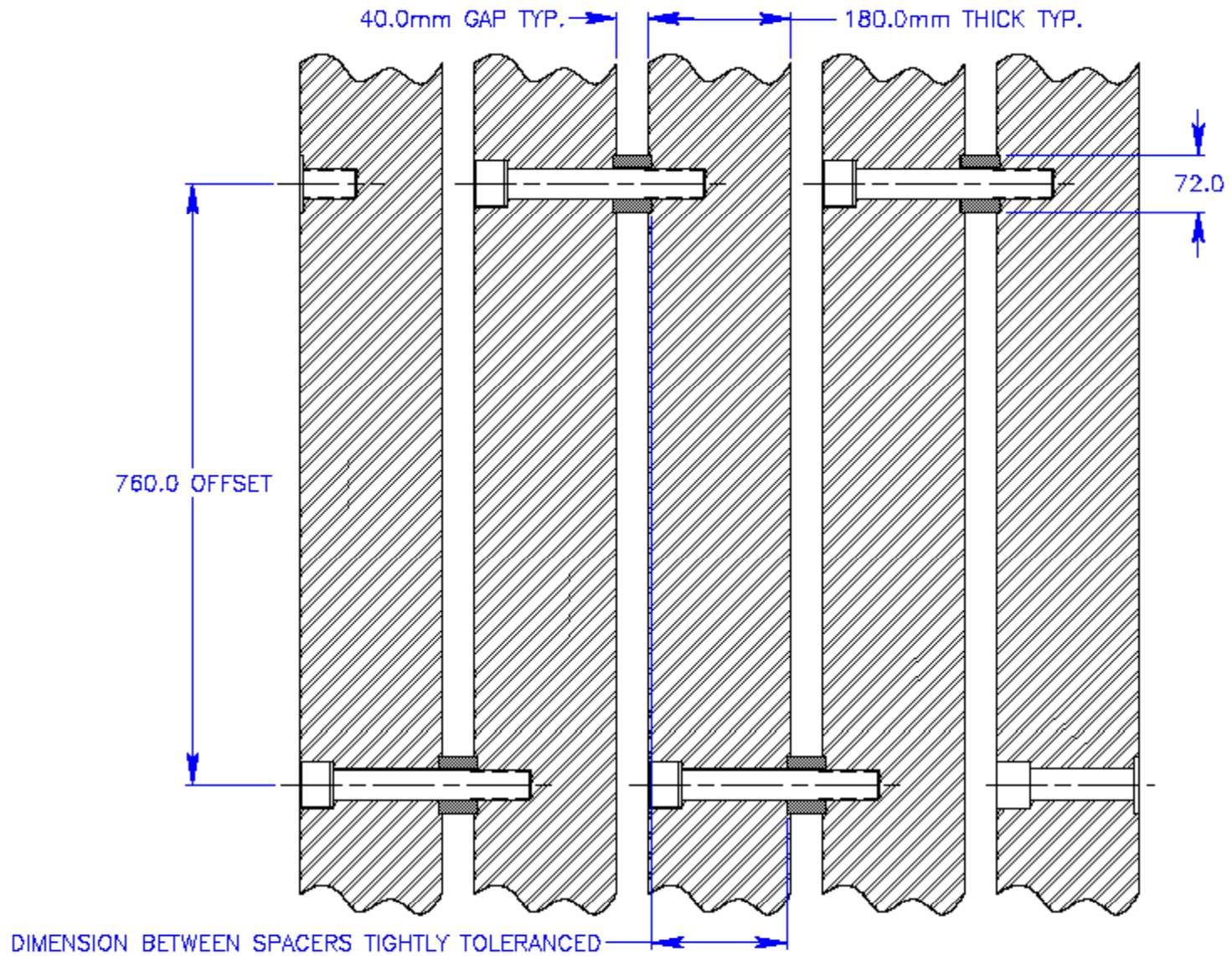
## Design Features

- Uses continuous cast steel plates rolled to 180mm thickness
- 40mm gaps for muon identification chambers
- Plate-to-plate spacers are staggered for better muon identification coverage
- Welded and bolted construction
- 100mm thick inner support cylinder

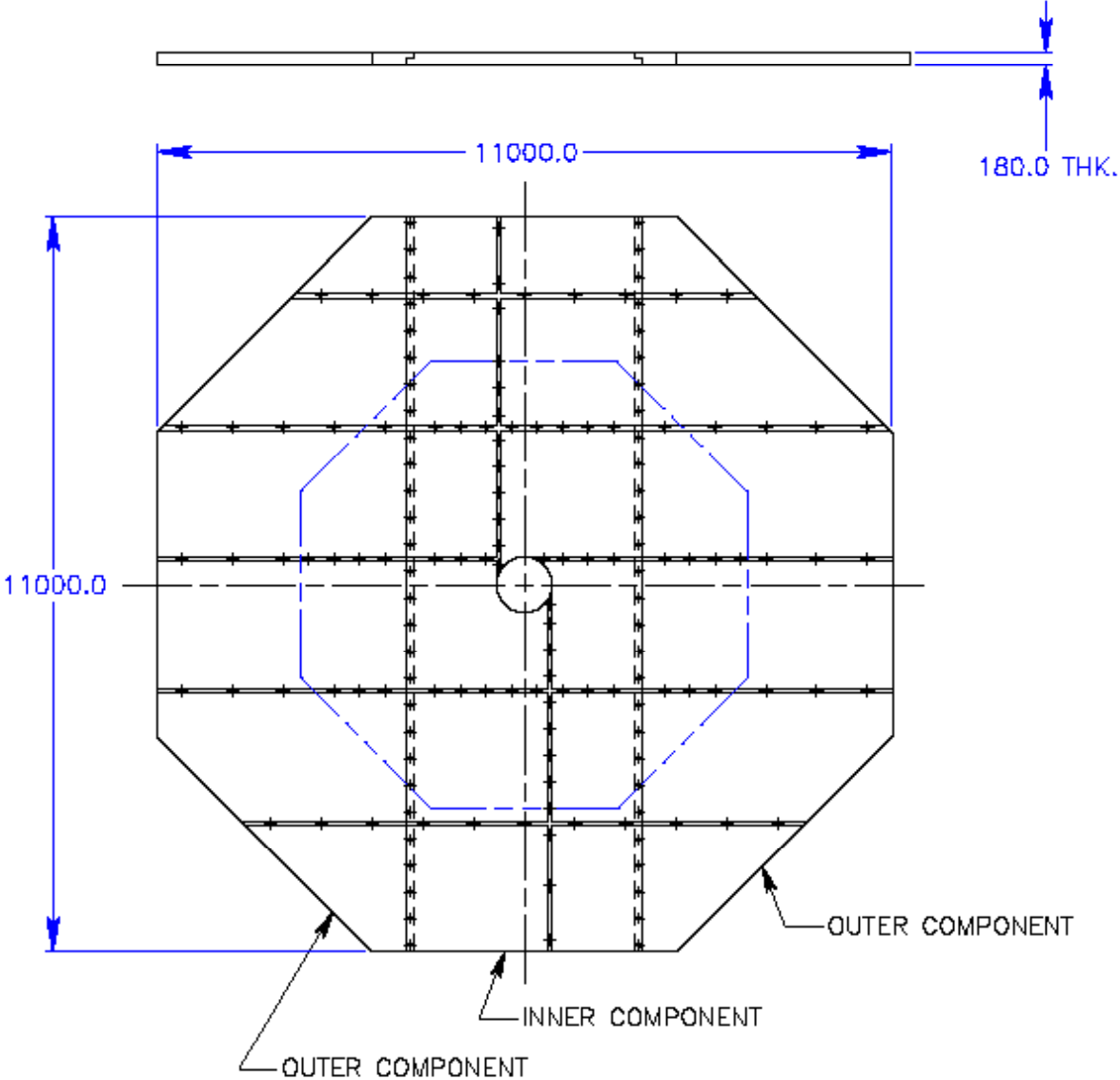


H.J. KREBS/2-22-08

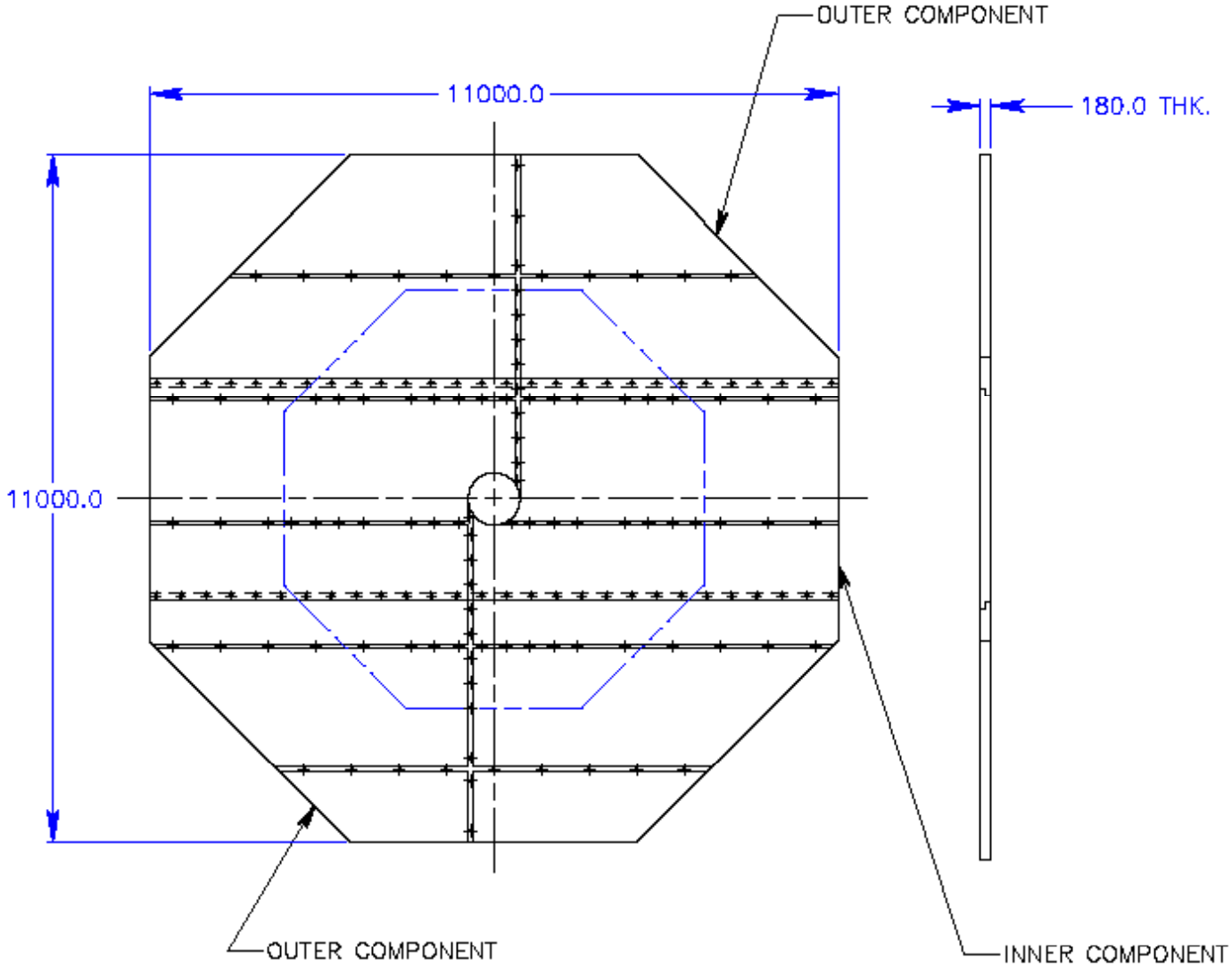
# Spacer Offset



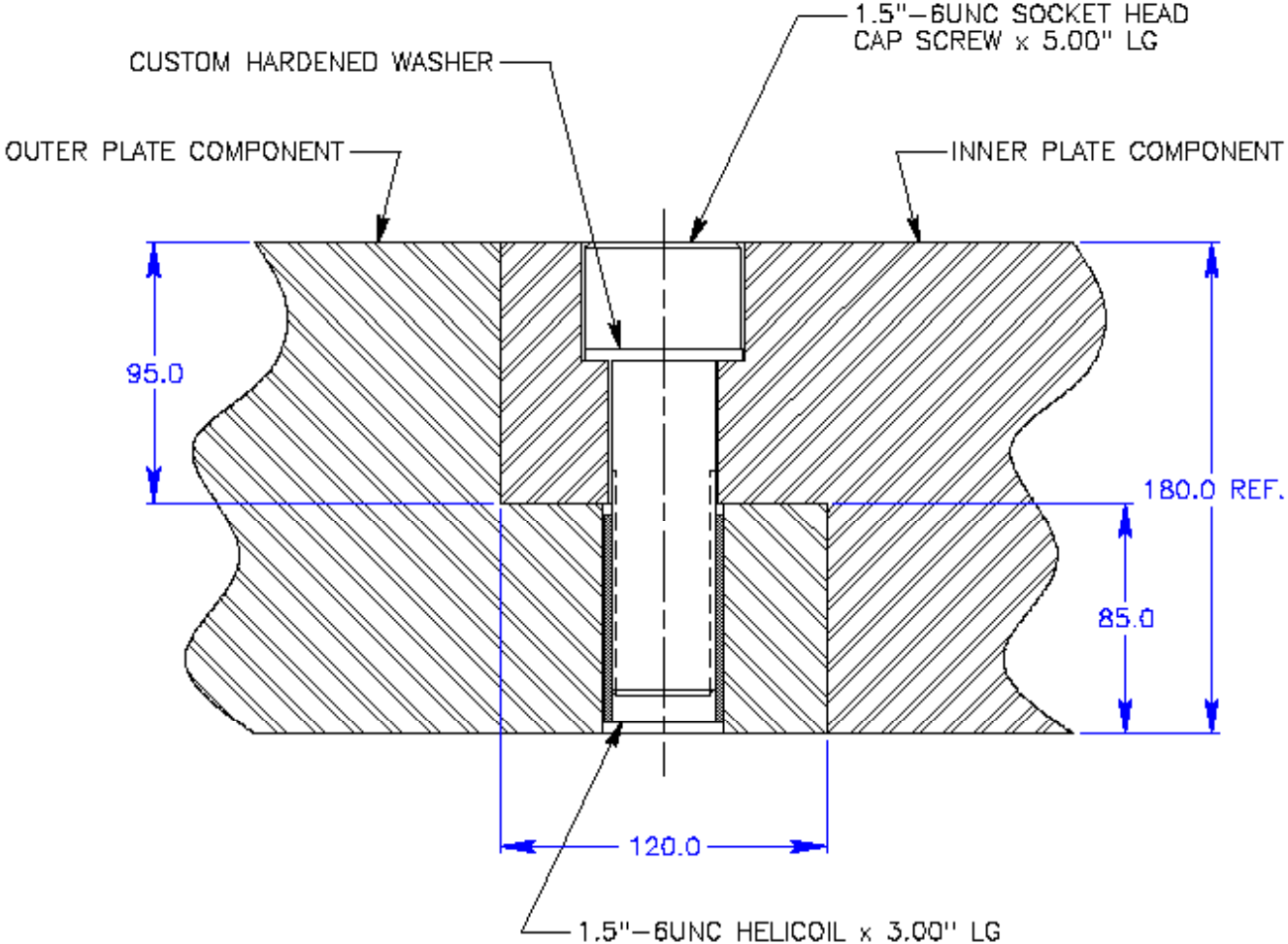
# Three Piece Plate Construction (Odd Numbered Plates)



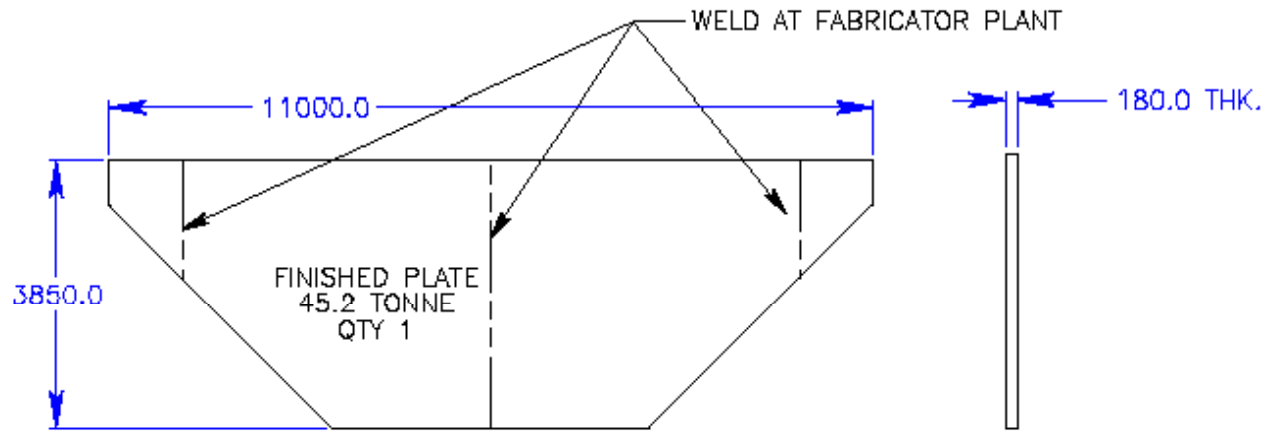
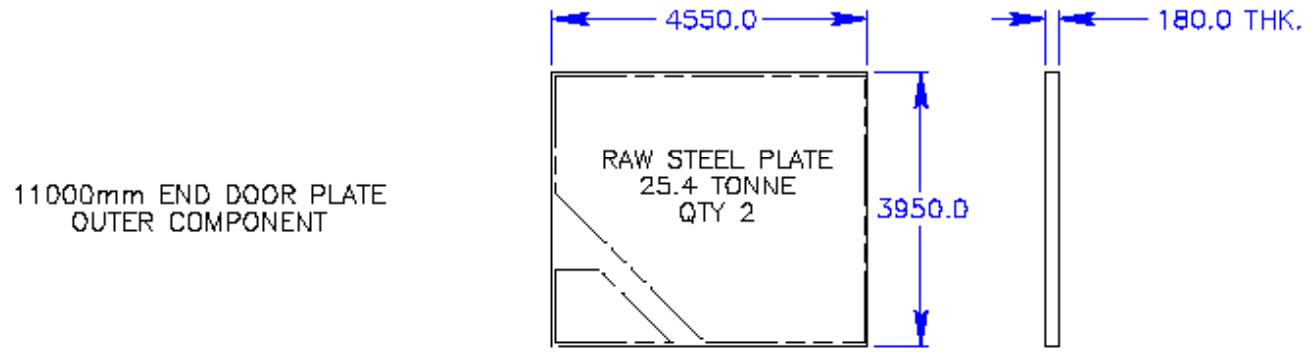
# Three Piece Plate Construction (Even Numbered Plates)



# Intra Plate Bolted Connection

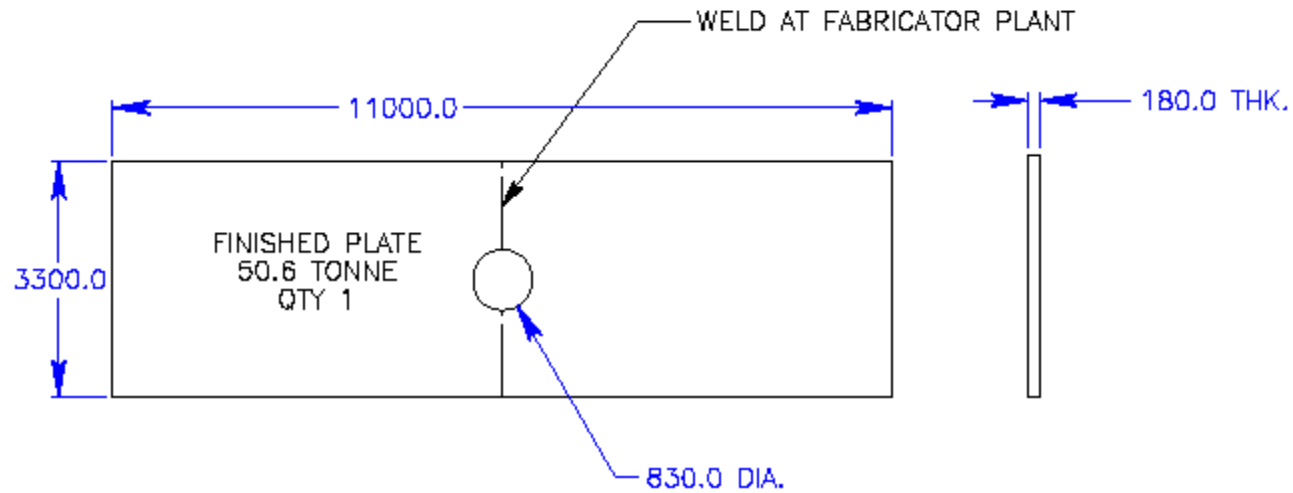
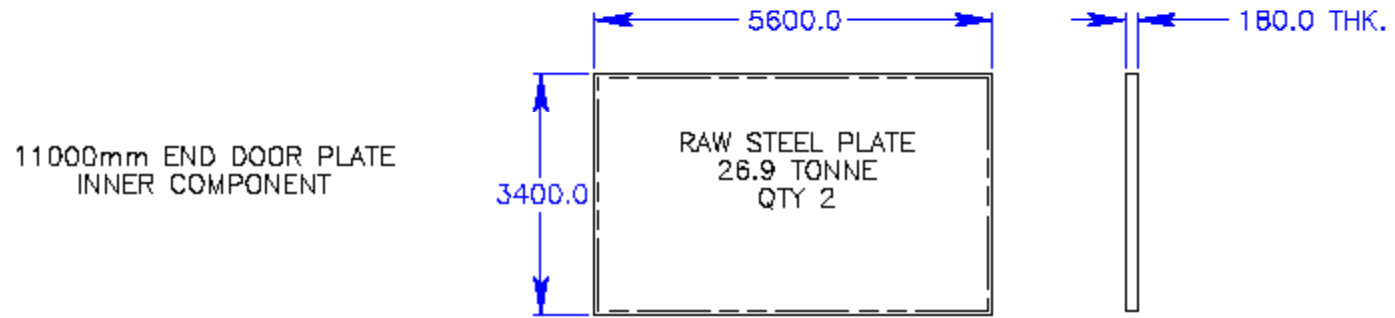


# Outer Plate Component

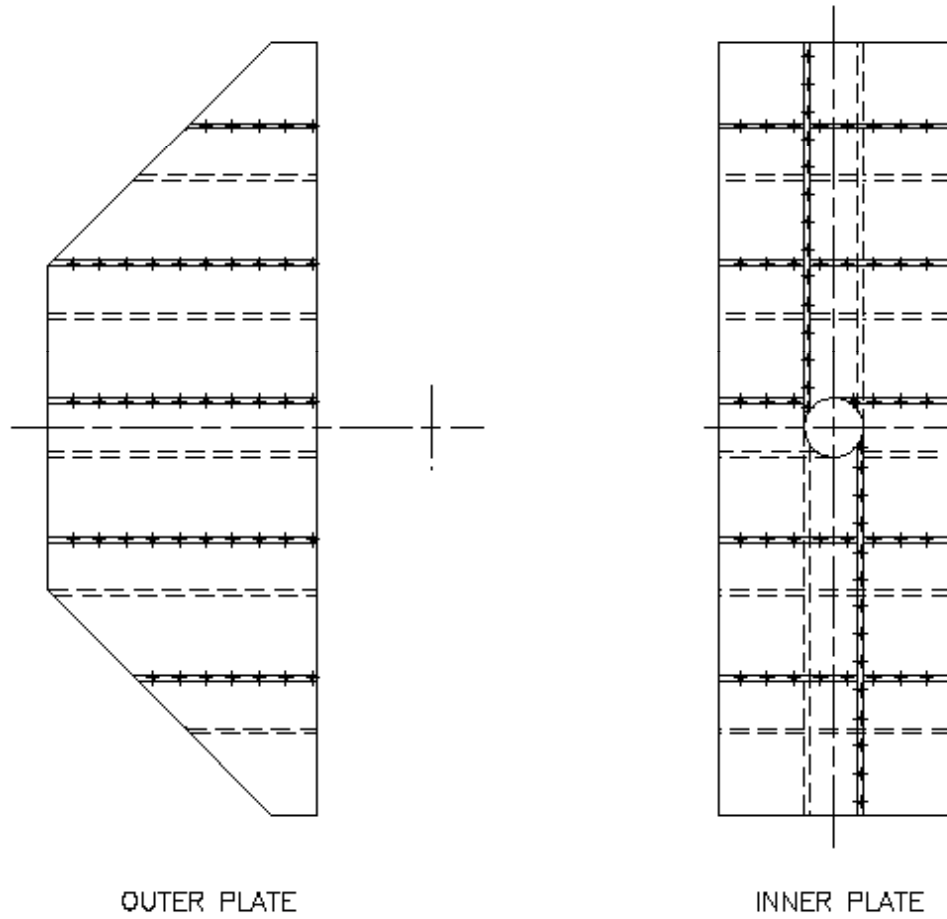




# Inner Plate Component

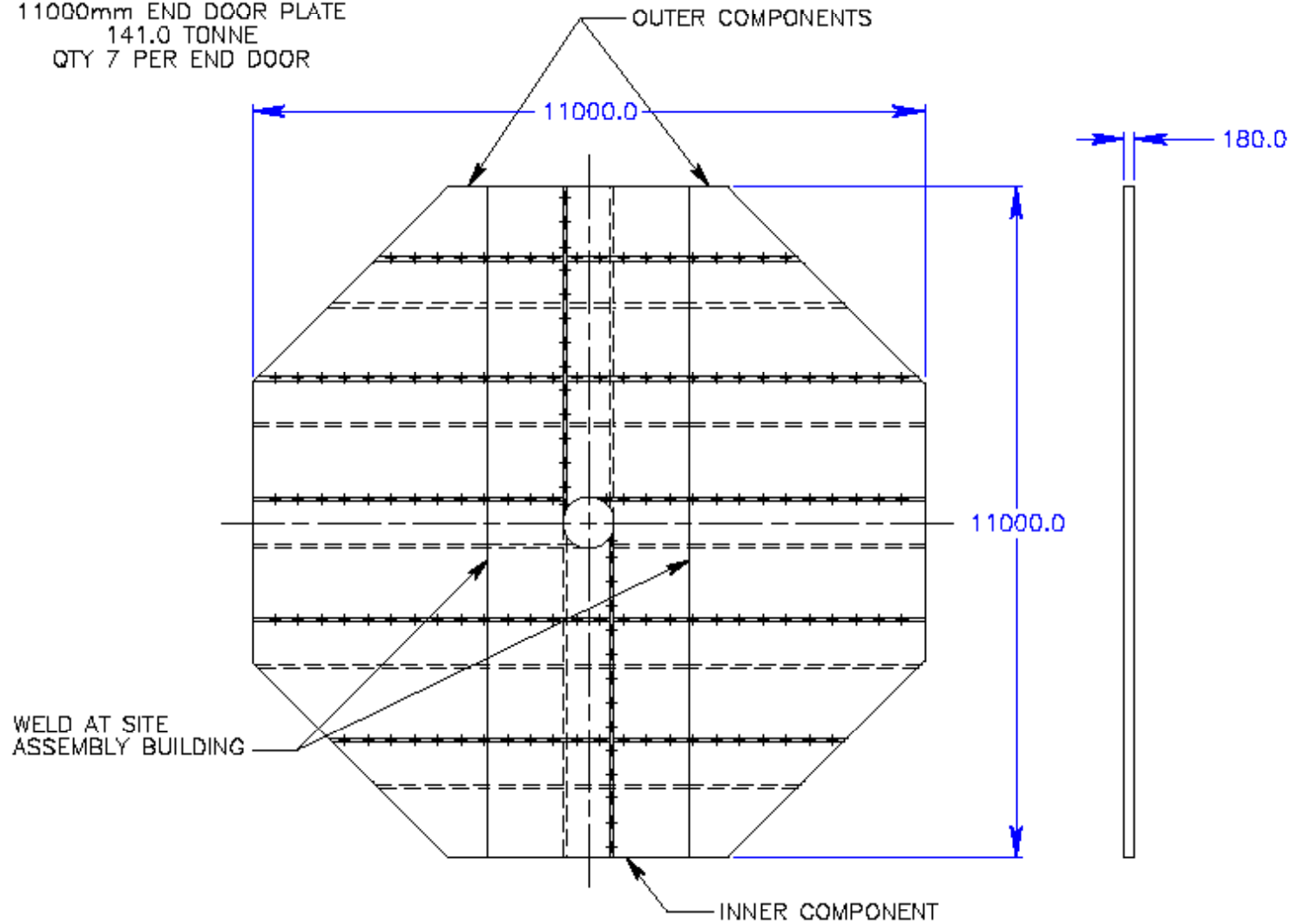


## Add Slots & Holes After Welding at Fabricator's Plant

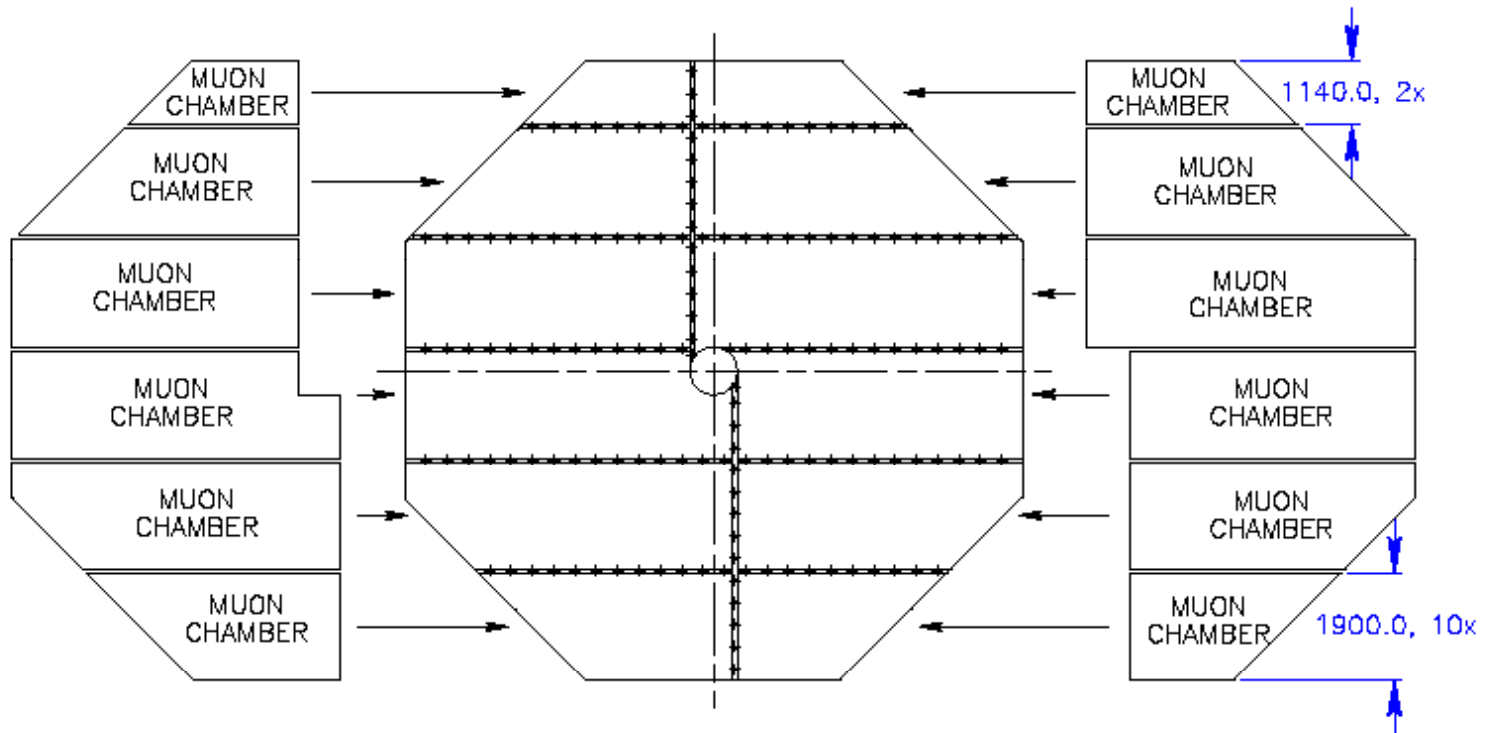


# Create Finished Plate at Assembly Site

11000mm END DOOR PLATE  
141.0 TONNE  
QTY 7 PER END DOOR



# Muon Chamber Installation/Replacement



## Comments

- Cannot perform a trial assembly of entire end door at fabricator's plant
- Time consuming tasks at site assembly building
  - Much fit-up and welding time
  - Plate-to-plate bolt-up
- Presently working on bolted connection to replace welding at site assembly building