

Primary membrane stress distribution diagram

Figure-1

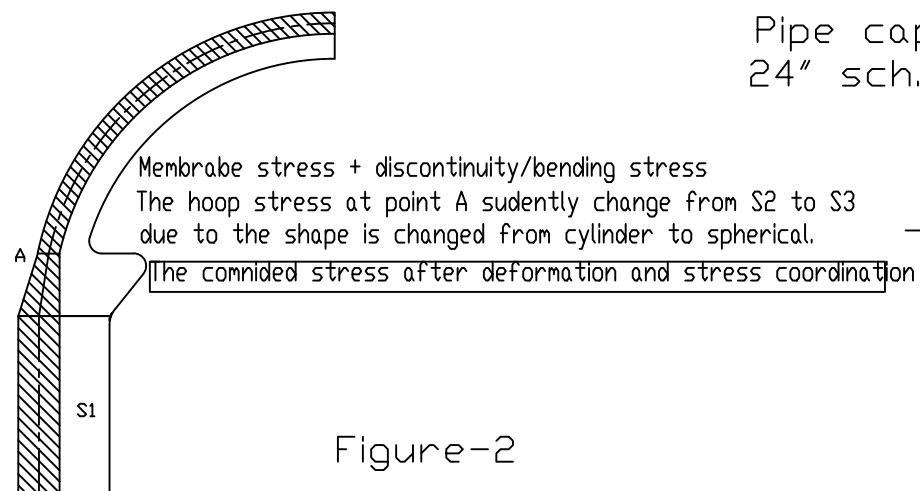


Figure-2

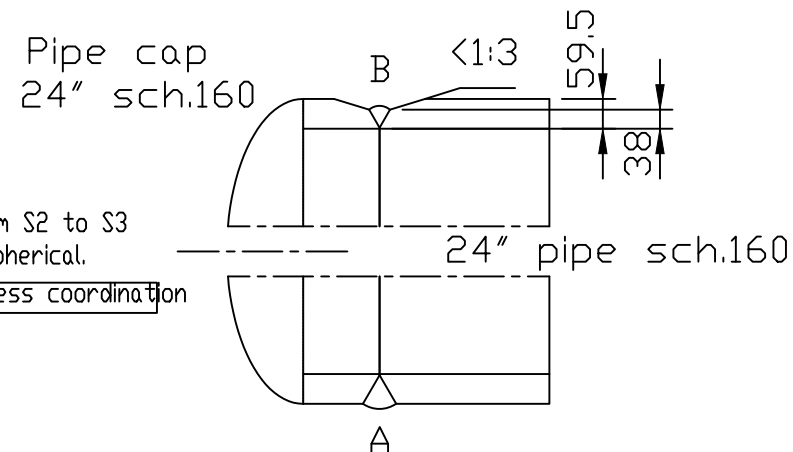


Figure-3

This express that the hoop stress is allowed larger than the S1 in the transition or within the certain range, such as  $2.5(Rt)^{0.5}$  or more less.  
 But S1 is not allowed to be lower than 0.5S1 to ensure the overall axial strength of the cylinder

According to Figure-1 & Figure-2, Figure-3 should be acceptable and much better than Fig-1 & Fig-2 because there is no hoop stress suddenly change at the joint B

The weld B will save the electrode consumable and labor cost 50% compare to weld A in Fig-3