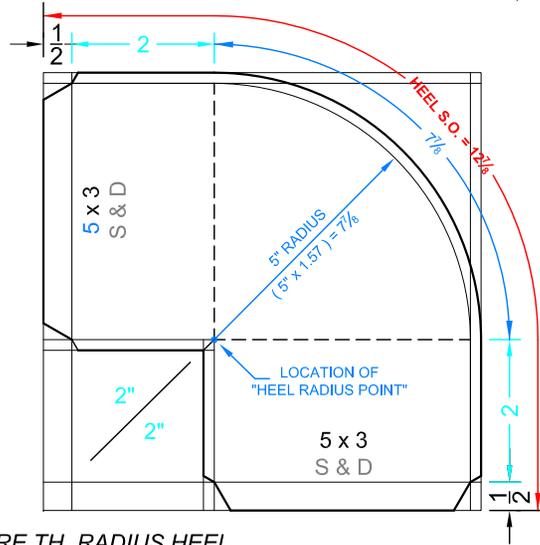


- KEY NOTES:
 1) RADIUS POINT (CHEEK OPENING)
 2) S.O. (STRETCH OUT)

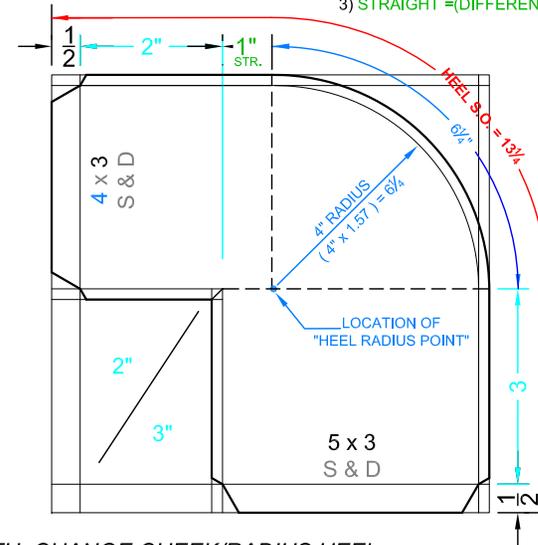


90° SQUARE TH. RADIUS HEEL

HEEL S.O. = (RADIUS x 1.57) + (THROATS) + CONNECTIONS (S & D)

HEEL S.O. = (5" x 1.57) + (4") + (1") = **12 7/8" ANS.**

- KEY NOTES:
 1) RADIUS POINT = (SMALL CHEEK OPENING SIZE)
 2) S.O. = (STRETCH OUT)
 3) STRAIGHT = (DIFFERENCES BTWN. THE TWO OPENING'S.)

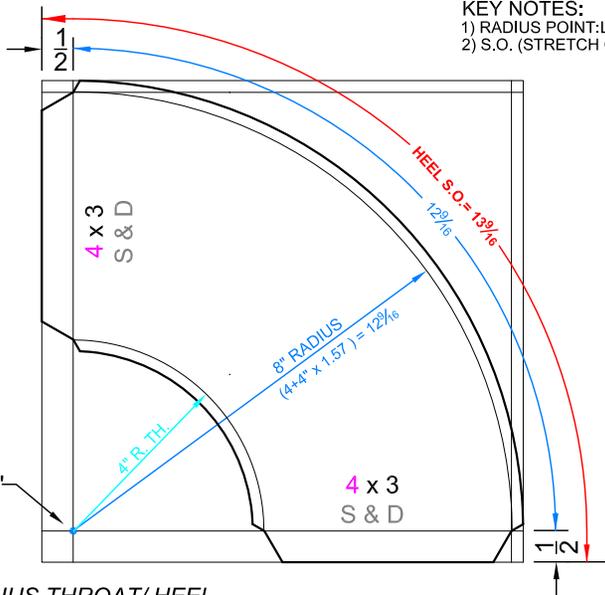


90° SQUARE TH. CHANGE CHEEK/RADIUS HEEL

HEEL S.O. = (RADIUS x 1.57) + (THROATS) + (STRAIGHT) + CONNECTIONS (S & D)

HEEL S.O. = (4" x 1.57) + (5") + (1") + (1") = **13 1/4" (ANS.)**

- KEY NOTES:
 1) RADIUS POINT: LOCATED AT S&D BASE LINE
 2) S.O. (STRETCH OUT)



TH. & HL. 'R.P'

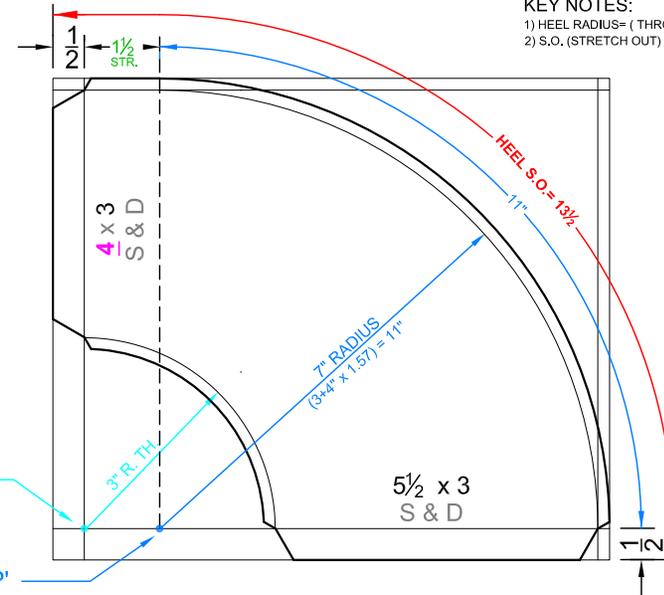
90° RADIUS THROAT/HEEL

THROAT S.O. = (THROAT "R" x 1.57) + CONNECTIONS (S & D)

HEEL S.O. = (THROAT "R" + CHEEK OPEN'G. x 1.57) + CONNECTIONS (S & D)

HEEL S.O. = (8" x 1.57) + (1") = **13 9/16" ANS.**

- KEY NOTES:
 1) HEEL RADIUS = (THROAT RAD. + SMALL OPENING)
 2) S.O. (STRETCH OUT)



TH. 'R.P'

HL. 'R.P'

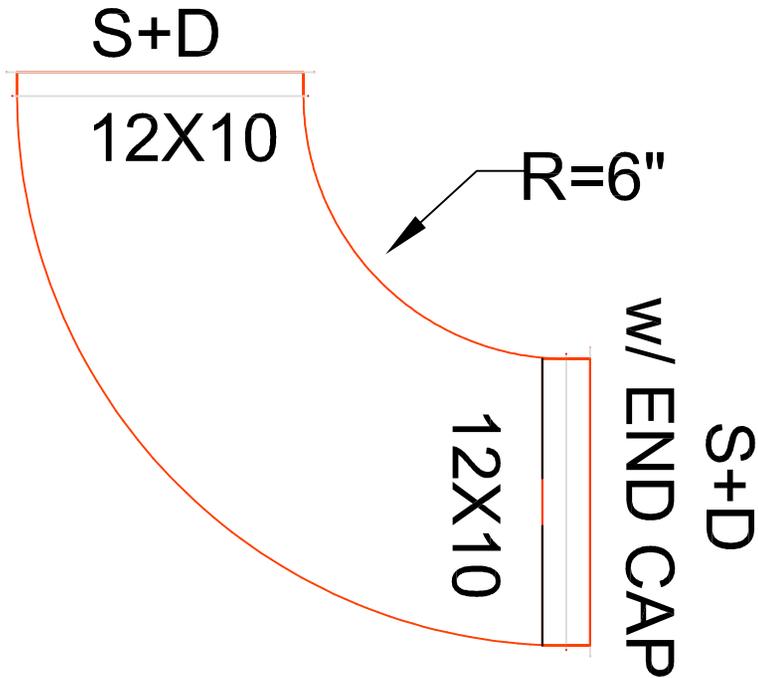
90° CHANGE CHEEK/RADIUS HEEL

THROAT S.O. = (THROAT "R" x 1.57) + CONNECTIONS (S & D)

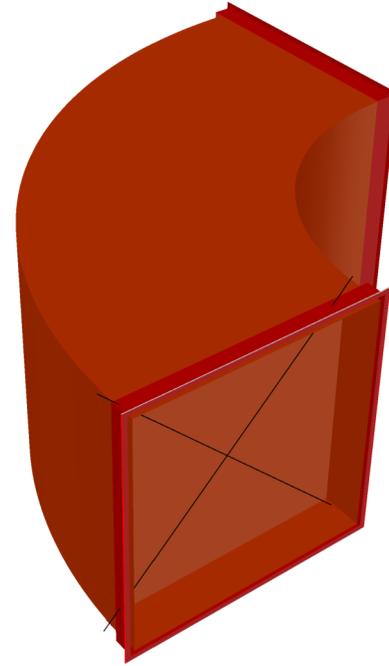
HEEL S.O. = (TH. "R" + SMALL OPEN'G.) x (1.57) + STRAIGHT + CONNECTIONS (S & D)

HEEL S.O. = (7" x 1.57) + (1/2") + (1") = **13 1/2" ANS.**

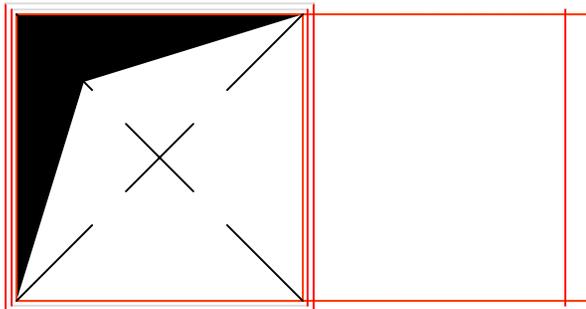
TOP VIEW



SE ISOMETRIC VIEW



RIGHT ELEVATION VIEW



Instruction: Fabricate the fitting in the views above. All seams to be Pittsburgh. All connections to be Slip & Drive with the Drives being on the side of the fitting. Please ask the Proctors any questions you may have.

Drawing is 3" = 1' Scale