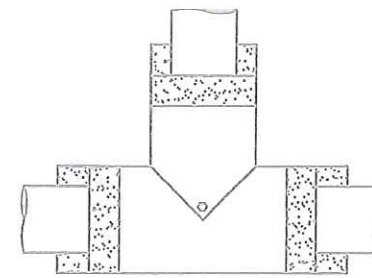


Numbers for aluminum 45's

Pipe	Insulation Thickness					
	1"	1 1/2"	2"	2 1/2"	3"	3 1/2"
1/2"	#1	#3	#5	#7	#8	
3/4"	#1	#3	#5	#7	#8	
1"	#2	#4	#6	#7	#8	
1 1/8"	#2	#5	#6	#7	#8	#9
1 1/2"	#3	#5	#7	#8	#9	#10
2"	#4	#6	#7	#8	#9	#10
2 1/2"	#5	#7	#8	#9	#10	#11
3"	#6	#7	#8	#9	#10	#11
3 1/2"	#7	#8	#9	#10	#11	#12
4"	#7	#8	#9	#10	#11	#12
4 1/2"	#8	#9	#10	#11	#12	#13
5"	#8	#9	#10	#11	#12	#13
6"	#9	#10	#11	#12	#13	#14
7"	#10	#11	#12	#13	#14	#15
8"	#11	#12	#13	#14	#15	#16
9"	#12	#13	#14	#15	#16	#17
10"	#13	#14	#15	#16	#17	#18
11"	#14	#15	#16	#17	#18	#19
12"	#15	#16	#17	#18	#19	#20
14"	#16	#17	#18	#19	#20	#21
15"	#17	#18	#19	#20	#21	#22
16"	#18	#19	#20	#21	#22	Gores
17"	#19	#20	#21	#22	Gores	Gores
18"	#20	#21	#22	Gores	Gores	Gores
19"	#21	#22	Gores	Gores	Gores	Gores
20"	#22	Gores	Gores	Gores	Gores	Gores



TEE

Figure 1:

1. Draw a vertical line on the sheet metal (*Blue line*).
2. Open your divider with the measurement of the radius of the insulation and draw a $\frac{1}{4}$ circle (*Red arc*).
3. Divide the red arc into 4 equal parts (*Green marks*). See the next 3 steps.

Figure 2:

4. Draw a line from one end of red arc to the other (*Purple line*).
5. With the divider still open, start at the bottom right of the red arc and draw a mark on the purple line (*Blue mark*).
6. Using the center and the blue and purple intersection, draw a line that crosses the red arc. This will create your first $\frac{1}{4}$ of the arc (*Blue dotted line*). Use the first $\frac{1}{4}$ to find the rest of the $\frac{1}{4}$ s.

Figure 3:

7. Draw vertical lines in every $\frac{1}{4}$ of the arc (*Green lines*).

Figure 4:

8. With a $\frac{1}{4}$ measurement of the arc, walk the divider up the green lines according to the line number. line 1 = 1 time, line 2 = 2 times, line 3 = 3 times and line 4 = 4 times. Connect all the top marks of each line.

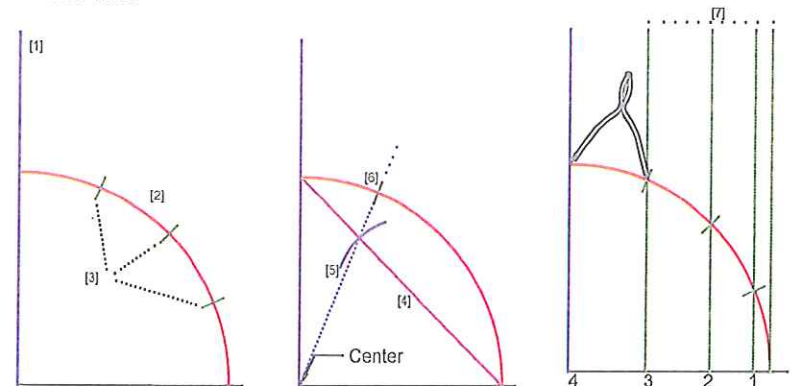


Figure 1

Figure 2

Figure 3

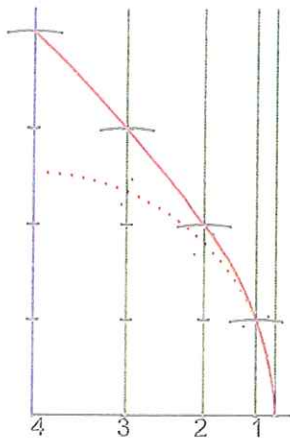
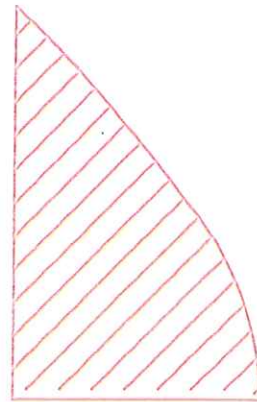


Figure 4



Flat pattern

Figure 5:

9. You can also do the bonnet with the Tee pattern. Grab the sheet metal for the bonnet and clamp the sheet together where both ends of the circumference meet. Figure out what side the lap will go and its orientation (for instance 2 or 10 o'clock).

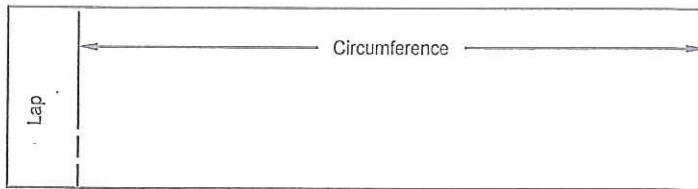


Figure 5

Figure 6:

10. Once you figure out the orientation of the lap, mark the top as a center for the Tee pattern (Blue dashed line).
11. Trace the Tee 4 times just like in figure 6.

Figure 7:

12. You will need to adjust where the tips of the Tee lands otherwise you will have problems at the moment of installation.

Do not cut all the way to the tips.

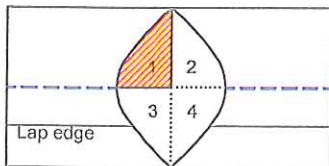


Figure 6

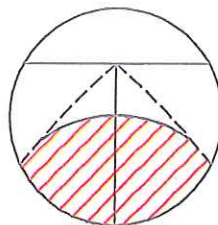
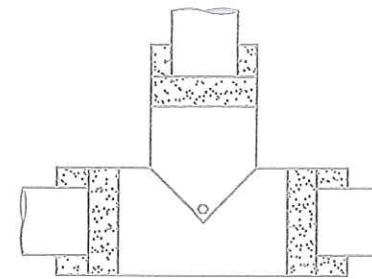


Figure 7



TEE

Figure 1:

1. Draw a vertical line (Blue line).
2. Open your divider with the measurement of the radius of the insulation and draw a $\frac{1}{4}$ circle (Red arc).
3. Find a $\frac{1}{3}$ of the arc (Green mark). See letter "A" in figure 1.

Figure 2:

4. With your divider take the $\frac{1}{3}$ of the arc and draw an arc upward (Blue arc).

Figure 3:

5. With the $\frac{1}{3}$ of the arc, walk the divider up 2 times from the black line (approximately straight under the blue arc) until you intersect the blue arc. Mark the intersection (Green mark).

Note: There is no need to use a square. With or without a square, there should be no more than a hair difference.

6. Starting at the center point, walk the divider up 3 times on the blue line (Red mark). Connect all the marks.

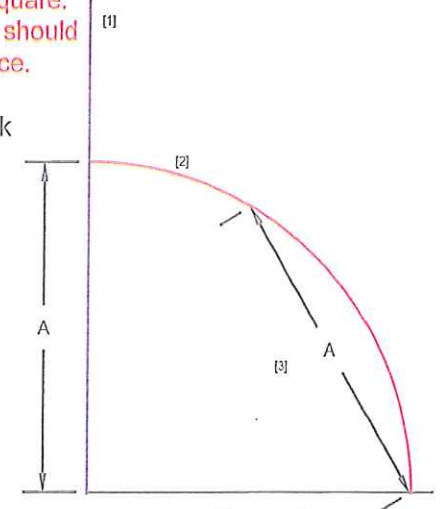


Figure 1