



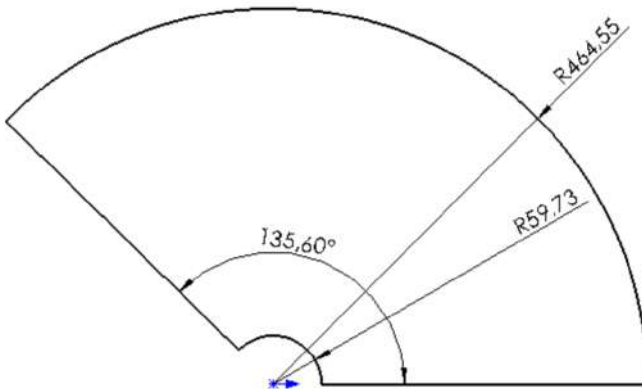
HOW TO BUILD THE CONE HOPPER

MATERIAL

- 500 X 1000 mm steel sheet 0.5mm Thickness
- Wooden bar, 2 screws, a protractor, a drilling machine, a hammer
- Jigsaw or cutting plier
- Sanding machine
- 8 rivets $\varnothing 2$ / $\varnothing 2.5$ for 1mm thickness and riveting pliers

SHEET CUTTING

We need to cut this pattern to obtain the cone hopper :



The easiest way to mark and cut it is to use a wooden bar as a compass. You can mark the two diameter using two screw.

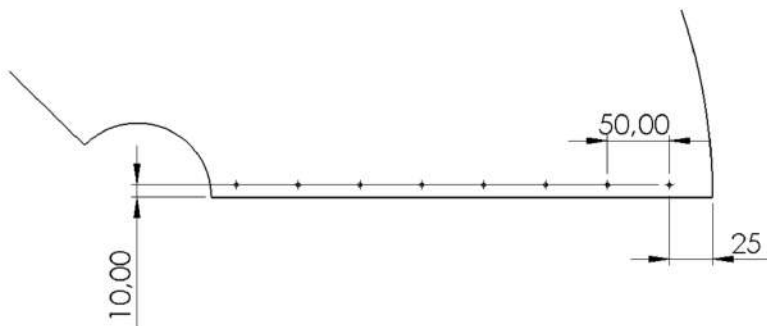


- 1) Tighten the two screws in the center of the wooden bar at a distance of 464.5 mm from each other
- 2) Hammer the first screw for the center of the cone at the extremity of the sheet
- 3) Rotate the wooden bar to mark the plate with the tip of the second screw.
- 4) Repeat for the inner diameter of 59.7 mm.
- 5) Use a protractor to determine the angle of 135.6°.
- 6) Use a Jigsaw or cutting plier to cut the sheet.
- 7) Use your sanding machine for finishing touch and polish it to clear imperfections.

SHEET BENDING

Before bending the cone :

- Draw 2 lines with a pencil 10 mm from the edge on both side
- Then drill ONE side of the sheet according to the drawing below (8 holes / the drilling diameter is determined by the diameter of your rivets.)



Then you can start to bend manually to make the shape of the cone and get help with a conical shaped object and roll the sheet. When you have reached a sufficient form, you can overlap both parts, be careful to overlap the 2 lines located at 10 mm from the edge.

Start to make the first hole on the top of the cone to drill the bottom sheet. You can put your first rivet.

Then drill the second hole while maintaining the overlap of the lines. Put the second rivet and so on.

Finally the last folding is done after finishing the cone and putting the rivets. The folding consists in completing the hollow shape of the EXTPRO-V1 1200.01-A Top part

This folding is done manually using the barrel inlet part (EXTPRO-V1 1200.01-A Top) and copy the same hollow shape in order to weld the two parts more easily.

Caution when welding, the cone is very thin.



OPTIONS

You can change the dimension of your cone hopper (length B and C) as your convenience :

Cone calculator :

http://craig-russell.co.uk/demos/cone_calculator/

Calculates the measurements for the pattern to construct a flat top cone.

Length A

45

(mm)

Length B

350

(mm)

Length C

375

(mm)

