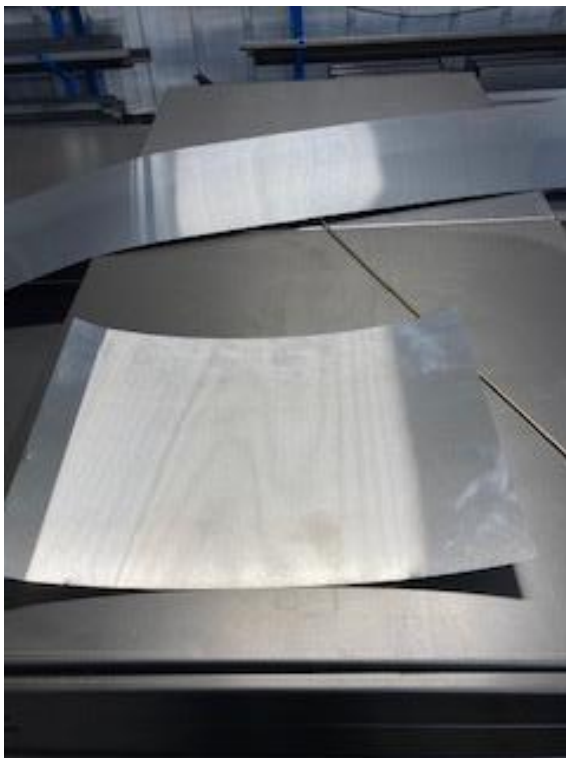


How to fabricate a one-way check flap for Vapor-fire 100 ducting

1. Purchase some roofing flashing material (very thin aluminum) from your local hardware store. Usually comes in small rolls.



2. Cut a length that is roughly 1" shorter than the width of the duct you will be installing this into. (We want to design a small amount of leak on the VF100 in case of a power outage – we need heat to be able to gravity feed up through the ducting.)



3. Bend a section roughly 2" wide along one edge of the flashing. Fold this over a small rod (in picture I have a 1/8" brass rod, but I normally use a 3/16" for a little more rigidity).



4. Once the flashing is folded over the rod, drill and pip-rivet this flap together around the small rod.



5. I like to bend a $\frac{1}{2}$ " fold at the bottom of the flap to provide a little extra stiffness as this aluminum is very light and flexible.



6. Drill a hole in the rectangular ducting 1" down from the top of the duct. Note – this is to create an additional leak at the top of the ducting – see info about leak in item "2" above.
7. Pull the rod out of the flap. Install the flap into the duct and insert the rod from one side of the duct through the hole you drilled and through the flap and out the hole on the other side. The tightness of the bent flap will keep the rod in place through simple friction.
8. Finally cut a small 1" wide strip of stiffer metal and bend it in an "L" shape. Drill 2 holes and position this at the bottom of the duct in the center and pop-rivit in place as a back-stop for the flap so that it can only swing one way.



9. Now go ahead and complete your ducting.