



SPACE-RAY®
RADIANT GAS BROODERS

Space-Ray SRB40 Tips For Cleaning & Maintenance



Flame Pattern Seen On A Brooder That Needs To Be Cleaned

The above photo shows the flame pattern on a dirty brooder that was returned from the field with a complaint that it was not turning red and there were large black spots on the emitter and the emitter was buckling.



Flames Seeking Oxygen Will Buckle An Emitter

As can be seen above when a brooder is dirty there will be large yellow flames that will burn on the outside of the emitter. This comes from the flame seeking oxygen. When a flame seeks oxygen like the one above it can burn on the outside of the perforated metal emitter which will overheat the material and cause buckling and premature emitter failure.



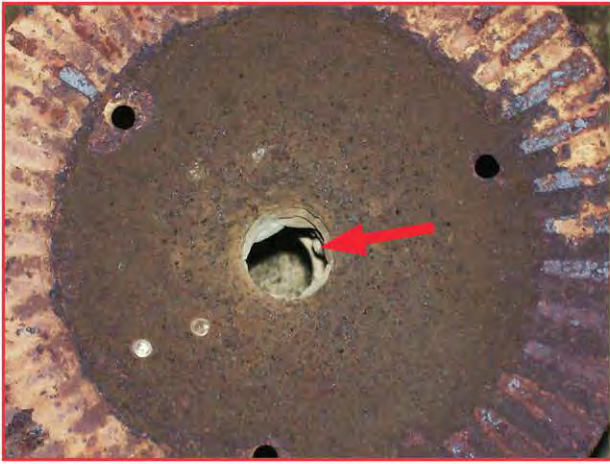
Blocked Main Burner Orifice

As can be see above the main burner orifice is blocked and needs to be cleaned. The best way to clean an orifice is to insert the proper sized orifice drill into the orifice and remove all foreign matter.



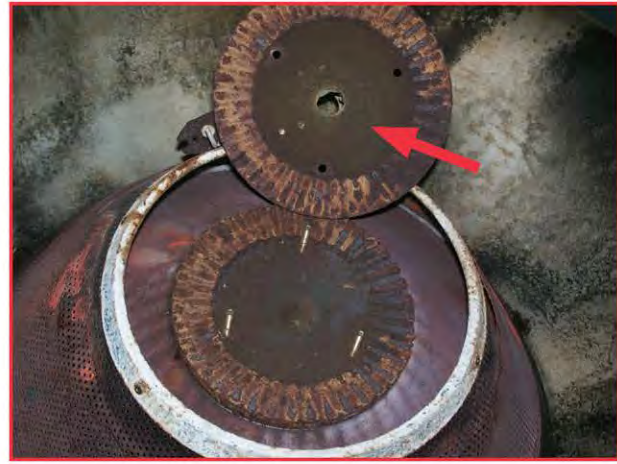
Close Up Of Blocked Venturi-Bottom Up View

As can be seen in the center of the above photo there is a lot of foreign matter caking the inside of the venturi tube. This needs to be brushed out with a hard brush or a toothbrush and then blown out. When the venturi is blocked it stops the correct amount of oxygen from mixing with the gas and gives a burn pattern with a yellow flame.



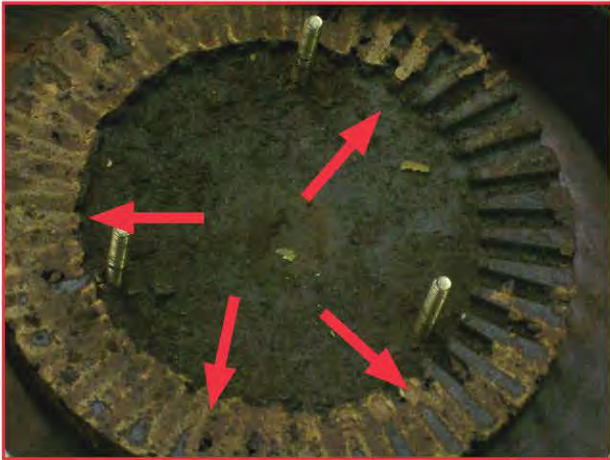
Top Down View Of A Blocked Venturi Tube

Again this is the same brooder and as can be seen above it has caked matter on the inside of the venturi. This needs to be cleaned with a hard brush or tooth brush and then blown out.



Close Up Of The Brooder Showing The Blocked Venturi Tube & Blocked Burner Cap

Above is a photo of the same brooder with the blocked venturi but also shown is the burner cap. The burner cap also needs to be brushed out and cleaned and then all foreign matter blown out.



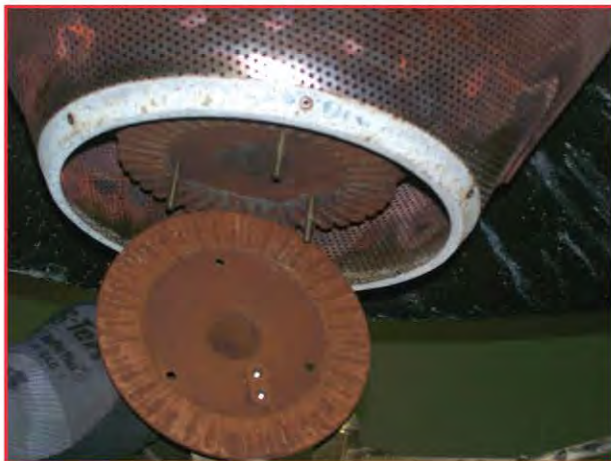
Close Up Of Blocked Burner Cap

This photo of the same brooder shows the burner cap with the foreign matter blocking the ports. This needs to be brushed out with a hard brush and then blown out so the gas and air can move through the ports.



This Is The Burner Flame Pattern Before Cleaning

This photo shows the flame pattern looking up into the brooder before any cleaning. Note the large yellow flames.



Burner & Burner Cap After Cleaning

This photo shows the burner base and venturi along with the burner cap after they have been cleaned and blown out.



Burner Flame Pattern After Cleaning

This is the same brooder and shows the brooder flame pattern after cleaning. Just clean your brooders on an annual basis or when yellow flames are detected and they can give you many years of service.