

## **SPYROCOR**<sup>TM</sup>

## **SILICON-CARBIDE INSERTS for Radiant Tubes**

**AVION Mfg.** is the exclusive supplier of radiant tube inserts made of Silicon-Carbide.

The patented twisted "Y" design produces non-turbulent high convection flow. The subsequent radiated heat from the **SpyroCor**<sup>TM</sup> results in the highest rate of uniform heat transfer possible.

In a traditional radiant tube, 45% more energy is released in the burner leg than the exhaust leg due to the highly luminous flame. Both radiation and convection heat transfer are present in the burner leg. The hot gases in the exhaust leg have an emissivity of less than .05. Thus, convection heat transfer is dominant in the exhaust leg.

Heat transfer is driven by temperature and is limited by heat transfer surface area. The patented multi-fin twist design of the **SpyroCor**™ doubles the amount of surface area available.



FINNED RAD

MUFFLES

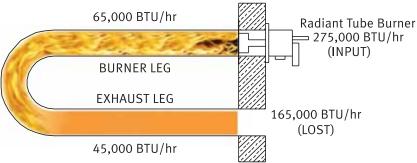
FURNACE CH

VENTILATING

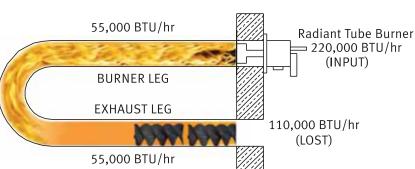
STOP-OFF CG

BURNER TIPE

SPYROCOR™



To Save Fuel, **SpyroCors**™, with an emissivity of .95, are installed in the last 2/3's of the exhaust leg. Radiation and convection heat transfer are now present. The exhaust leg and burner leg are now balanced from a heat transfer standpoint. Input into the radiant tube burner is reduced by 20%. Energy available to the load is maintained.



... prup your furnace!

**AVION** Manufacturing Company 2950 Westway Drive, Suite 106 Brunswick, Ohio 44212

phone (330) 220-2779 fax (330) 220-3709 web www.avionmfg.com e-mail info@avionmfg.com