

Application brief

Eclipse Product: 67IR Infra Red Burners

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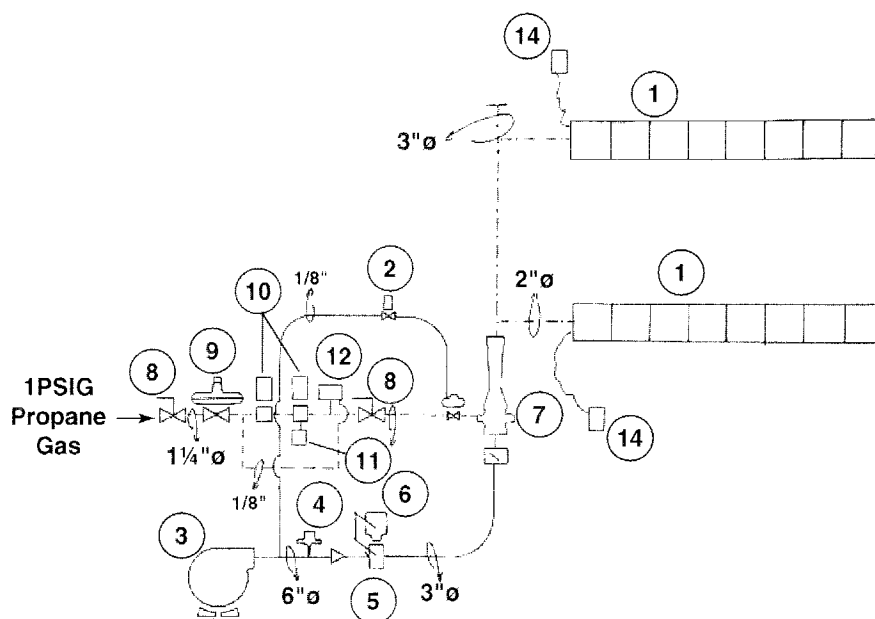
Application: Paint Finishing (Powder Coating)

Description:

The customers need was to heat larger gauge aluminum castings (larger than previous run) to gel powder onto parts before the convection oven. The expectation was that the heat would be uniform over random shaped castings. The solution was to add (2) 48" long 67IR burners (one on each side) in an added oven section prior to the convection oven. The (2) 48" sections were placed on the floor facing up at a 45° angle.

The benefits were:

- Uniform heating of large random shaped castings.
- Better product quality (better coated parts).
- Increased line speed.
- Combustion gasses from the IR system were fed into the convection oven decreasing the burner load (AH) in the convection oven.



System schematic – See page 2 for equipment list

Equipment List

<u>Item</u>	<u>Qty</u>	<u>Description</u>
1	2	113008-8 67 IR-8 (8) 6" sections of 67 IR 48" long 2" NPT pipe. Feed with #113009 plain end plate, #113013 spark ignitor and flame rod end plate.
2	1	113500 cross load assembly for ignition of the burner with soleniod / low fire light off.
3	1	SMJ-6621-3 combustion air blower with 3 H.P. T.E.F.C. motor 230/460/3/60 AC for 31.0" w.c. at 18,300 SCFM
4	1	JD-2 air proving switch
5	1	501229 12 BV-AB 3" air control butterfly valve with connecting bracket for Item #6.
6	1	43158-4 EMP-423-4 control motor 4-20 mA
7	1	126-38 #300615 LPBG air-gas mixing tube with regulator, 3" locking trim butterfly valve, mixing tube, and shut off cock.
8	2	1-1/4" inlet and outlet gas shut off cocks #48601-6
9	1	1-1/4" RV-61 main gas regulator
10	2	1-1/4" MVD main gas solenoid valves 120/60 AC
11	1	D224253 CPT-400 proff of closure switch
12	1	RHLGP-A high-low gas pressure switch
13	1	62021X-unified control panel flame safeguard for 2 burner system with enclosure, flame on light and burner off/run ignition switch and purge timer.
14	2	Spark ignition transformers
15	75'	High temp. ignition and flame rod wire (550° F)
16	2	MIC 11603000 Temp Controllers 4-20 mA output signal
17	1	MIC 11611000 High Temp limit controller
18	2	J49012-G-00-32 Type "J" thermocouple with 100" of wire