

AIR REPLACEMENT ENGINEERED SYSTEMS



Job Name T.G.I. Fridays and the Ambassador Hotel
Amarillo, Texas

Applications This application has two commercial kitchens back to back in a hotel (Ambassador) and major chain restaurant (T.G.I. Fridays). The two kitchens total require approximately 16,500 CFM of tempered make-up air to replace air removed by 4 kitchen exhaust hoods.

Industry The Ambassador Hotel requires two (2) kitchens, one for the morning breakfast meals for its guests and a 500 people banquet facility for special events. The second kitchen is a mirror of the other kitchen and is the T.G.I. Fridays chain which is able to seat 227 seat restaurant and a 36 seat bar. The T.G.I. Fridays serves the general public and the hotel guests for lunch through the late evening crowd.

Goal Replace exhausted kitchen cooking, smells, grease laden air, and smoke from the kitchens, with fresh 100% make-up air in the summer and clean indirect fired heated air in the winter months.



Design Specific Application

This facility was required to use power exhaust air to face complex problems such as: loss of temperature control, removal of kitchen cooking fumes, negative pressure, excessive drafts, and infusion of dirt and insects.

Allen's Tristate Mechanical of Amarillo, Texas responded to specifications developed by *Campos Engineering, Inc.* of Dallas, Texas to provide four (4) ARES model 300 NCSS indirect fired gas heated make-up air units. The equipment is set on roof curbs over four (4) kitchen exhaust hoods. *J.D. Higgins Company* the ARES manufacture representative worked with the mechanical engineer at job conception to assist in selection of equipment that would allow the most economical system to satisfy the job requirements.

The ARES make-up air unit will replace exhaust air with clean, filtered-comfort tempered air for every minimum energy consumption at maximum efficiencies.

Benefits

- **Low Equipment Cost**
- **Low Operational Costs**
- **2 Stage Gas Valve for Economical Comfort Control**
- **Power Vented Guarantees Clean Operation**
- **Hot Surface Ignition for Trouble Free Operation**
- **5 Year Heat Stainless Steel Exchanger Warranty**
- **Large Diameter Blowers Mean Lower Horsepowers, Slower RPM and Quiet Operation**

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Engineering Information



T.G.I. Fridays and the Ambassador Hotel
Amarillo, Texas

Building Data

300' L x 125' W x 45' H

16,500 CFM exhaust air
from 4 kitchen hoods each
with a make-up air system

Equipment Selected

(3) 800 NCSS SH 2

BTU/Input 300,000 Natural Gas
Temperature Rise 57°F
CFM 4,200 100% Make-up Air

Optional Accessories

- Inlet Hood with 2" Filters
- Down Turn Discharge Plenum
- Roof Curb
- Fused Disconnect
- Exhaust Fan Interlock

(1) 225 NCSS SH 1

BTU/Input 300,000 Natural Gas
Temperature Rise 64°F
CFM 5,000 100% Make-up Air

Optional Accessories

- Inlet Hood with 2" Filters
- Down Turn Discharge Plenum
- Roof Curb
- Fused Disconnect
- Exhaust Fan Interlock

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