EFFICIENCY PRODUCTS Mojonnier

Mojonnier Bros. Co.

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April 23, 1970

D. E. Roush — St. Louis
Your comments please
J Roder

Monsanto Company
3158 Des Plaines Avenue
Des Plaines, Illinois 60018

Attention: Mr. James J. Roder

Gentlemen:

Sometime ago I requested and received information on your Therminol Fluid Heat Systems.

To bring our potential application into focus, we are interested in analysing the use of this system for process air heating in conjunction with our Spray Dryers.

The spray dryers are used for dry milk production in capacity ranges from 1,000 to 6,000 pounds per hour of production. Process air requirements vary from 7,000 SCFM to 42,000 SCFM, or roughly 7 SCFM per pound of powder. Heating requirements are about 2,500 BTU/HR per pound of powder heating standard air to 400 F - 450 F. Thus, total heat input varies from 2,500 BTU/HR to 15,000,000 BTU/HR. In some instances outside air is used, which increases the heating load.

As a specific example, consider a dryer using 35,000 CFM of air being heated from -20F to 430F. The heating requirement would be about 17-18,000,000 BTU/HR.

On this basis could you review the following points:

1. What supply temperature and temperature drop would be recommended for the Therminol?
2. Are the heating coils of standard construction similar to hot water heating coils?
3. If a manufacturer sizes these coils what information should be supplied to him?

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ALL PROPOSALS ARE MADE OR ORDERS ACCEPTED BY MOJONNIER BROS. CO. SUBJECT TO THE DESCRIPTION, TERMS AND CONDITIONS LISTED ABOVE AND UPON THE BACK HEREOF, WHICH SHALL BE DEEMED ASSENTED TO BY THE BUYER, UNLESS MOJONNIER IS PROMPTLY ADVISED TO THE CONTRARY.

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4. What type of heater would be recommended (presumably natural gas fired with propane stand by)?

5. Are budget costs available for a system of this design?

6. Have such systems been installed for this type of application?

7. If a leak occurred in the coil, could the product (powdered milk) be contaminated, either by fumes or the liquid to such an extent that the powder would be harmful for human consumption?

We should appreciate your review of this application at your earliest convenience.

Very truly yours,

MOJONNIER BROS. CO.

David N. Berks

DNB:lb

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