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Success soars from Air Net's new facility

olumbus, Ohio-based AirNet Express is the nation's leader in the critical-time air delivery business. Though much smaller than FedEx or UPS, they're geared for faster, more nimble service. The fleet of 125 aircraft fly from major airports nationwide with more that 500,000 air-miles weekly, guaranteeing that if tomorrow is just too late, their sameday service will get the delivery there



AirNet Express, the nation's leader in the critical-time air delivery, can't allow cold weather to slow down activities. Radiant floors in its new Rickenbacker International facility provides employee comfort and rapid recovery.

today — anytime, anywhere, 365 days a year.

The firm specializes in time-sensitive cargo deliveries, though charter passengers, radioactive payloads, donor organs, five-star generals, CEOs and Hollywood stars are also



Muetzel Plumbing & Heating Co., Columbus, Ohio, performed the mechanical work, installing two stacked 1.5 million BTU Pennant boilers by Laars Heating Systems. Here, Hanse Cromer, Steffens-Shulz, visits the installation.

whisked to destinations swiftly.

When they made plans to grow their hub facility operations in Columbus, Ohio, Air Net managers envisioned a new hangar for the air transport service firm. It would need to accommodate growth, be comfortable, energy-efficient and highly functional.

Their vision came to fruition after years of planning and two years of construction, enabling AirNet to consolidate the operations of three smaller facilities and to relocate its operations from Columbus' main airport to Rickenbacker International, 15 miles to the south. The project offered several advantages, including radiant heat for employee comfort and a wide, snow-melted skirt around the perimeter of the building for ease of mobility during the winter season.

The new, 148,000 sq.-ft.-facility doubled their hangar space — now with an open area 350 feet by 150 feet in size — permitting larger aircraft to be loaded and unloaded inside and provides valuable sorting space to ease congestion under-roof.

Radiant heat and mechanical system work was performed by Columbus-based Muetzel Plumbing & Heating Co.

"Fortunately, the owners were predisposed to radiant for one key reason — comfort," said Hanse Cromer, a heating expert with the manufacturer's rep firm, Steffens-Shulz. "The rapid pace that their people work at is stressful enough. Warm floors and heat that would also gently warm the aircraft, as well, was perfectly suited to the need.

"With large sliding doors, and the possibility of more than one of them being opened at one time, heat within

the facility will be flushed out quickly," added Cromer. "But with radiant the recovery time is fast, and most of the heat stays in the high-mass floor. It also stays in the mass on the floor, such as the aircraft and stacked cargo. For an application like this, radiant's the only way to go."

For the extensive 1-zone, 7-manifold system, the project's radiant design team prescribed the use of 55,000 lineal feet of ³/4" RadiantPEX tubing manufactured by Watts Radiant.





Ten thousand square feet of snowmelted concrete slab outside the hangar's four large bay doors slashes maintenance and provides easier maneuverability of taxiing jets and planes, even during the worst winter weather.

The system was designed to provide up to 25 BTUs per square foot. Each slab would have accessible, recessed sensors and the entire system would be responsive to outdoor reset controls.

And, outside the hangar's four large bay doors, Muetzel crews also

installed tubing for 10,000 s.f. of snowmelted concrete slab to streamline maintenance of the area immediately beyond the doors, and for easier maneuverability of taxiing jets and planes, even in the midst of winter's worst.

All arteries of the extensive heating system lead to and from the strategicallylocated mechanical room where two stacked 1.5 million BTU Pennant boilers by Laars Heating Systems provide heat for the system. "The system was

"The system was designed so that, at full heat load, all eight stages of firing would be used," added Cromer. "And because the fully-automated, idling radiant and snowmelt system would be in some stage of operation throughout the entire winter season, we pretty much eliminated the possibility of some unexpected winter condition catching them by surprise."

The single floor sensor, embedded in the slab, and snow melt controls, are handled by a simple microprocessor control which was set to maintain a floor temperature of 80-82°F. This approach was chosen because the large, opposing bay doors would occasionally be open at the same time during the winter season, making it difficult to maintain a specific air temperature.

The 40/60 mix glycol snow melt



where two stacked 1.5 million BTU Pennant boilers by Laars Heating Systems provide heat for the system. BTUs per square foot. A large, 1-zone, 7-manifold system employs some 55,000 lineal feet of 3/4" RadiantPEX tubing from Watts Radiant. The system will provide as much as 25

system was separated from the main indoor heating system through the use of a heat exchanger. An outdoorreset system sets system temperatures. For the most part, the hydronic system is set to idle throughout the winter months, with programmed instructions to keep outdoor slab surface temperatures at a steady 35° F.

Employees love the comfort, and managers of the firm are delighted with its performance and energy savings. Radiant warmth makes for friendlier skies.