

information bulletin

S-SERIES SELECTION / PLACEMENT / INSTALLATION VERTICAL OUTDOOR UPBLAST STAND MOUNTING

Cambridge S-Series heaters can be installed in a variety of configurations. When considering industrial retrofit projects, there are several considerations that should be taken into account.

VERTICAL OUTDOOR UPBLAST STAND UNITS

Outdoor vertical upblast stand units can be an excellent choice in plants where overhead cranes are in use. The unit can be mounted close to the exterior wall to minimize infringement into crane space. Consideration should be given to vehicle traffic along the exterior wall. In snow country, it is important that the intake not be blocked by piles of snow from snow plows, front end loaders or drifting snow.

If an overhead crane or a gantry crane is present, the clearance required at the side wall must be considered to determine whether there is adequate room to install the discharge accessories inside the building. If a jib crane is present near the exterior wall, the radius of the boom must be considered to prevent the boom from striking the discharge accessories.

The heater will have an external gas train. It is recommended that the gas train be positioned such that the equivalent distance from the outlet of the gas train to the inlet of the heater does not exceed 4 feet. Usually the best location is to place the gas train perpendicular to the side of the heater, so it can be piped directly into the heater's gas inlet, as illustrated in the S-Series Technical Manual.

Servicing the unit is a potential problem if the unit is not located on a paved surface. Accessing the unit via a boom lift or scissor lift on an unpaved surface may result in the lift getting stuck in a rut, in the mud, or unable to maneuver across ice or snow.

Servicing the units utilizing a ladder is frequently not an option due to requirements for safe ladder use. In addition, it is difficult, if not impossible, to access several of the heater's parts from a ladder.

If a location for an outdoor vertical unit is found, then consideration should be given to the impact on local work stations. What will the mounting height of the heater be? How will the air be distributed? Double deflection grilles are extremely effective when fine tuning air flow.

Since plant production can be affected, scheduling the installation for the installing crew can be problematic. Although the installing crew may be coordinating closely with the production crew, there may still be a potential for cancelling the scheduled crane lock out due to a last minute change of the production schedule. Another potential problem is coordinating the work with the area supervisor. If the supervisor doesn't communicate the need for a crane lock out with the floor personnel, then the installation work may be delayed or postponed, resulting in additional for the installation.

Installing the unit may require barricading the area where the installing crew is working. Plant vehicle & pedestrian control must be considered. Flag men may be required. These aspects will need to be included in the safe work plan.

Supporting the heater on a four-legged stand such as Cambridge's mounting stand provides a solid support. We recommend that concrete piers be installed if a suitable concrete pavement is not available. The legs of the stand should be secured to the concrete base.

The Cambridge mounting stand provides 6" of vertical height adjustment, from 4'0" to 4'6" high. This provides excellent access for most of the service functions from the floor without requiring a lift.

Choosing to utilize a stand higher than the Cambridge stand can significantly impact the serviceability of the heater. The higher the heater is above grade, the greater the reliance on accessing the unit with a lift. Maneuvering the lift and positioning the lift to gain ready access to the heater components greatly increases the time, effort and expense required to service the heater.

Below are installations of outdoor vertical upblast units that were installed several years ago. The stands shown were fabricated by Cambridge from 2" square tubing. They became the prototypes for the current adjustable stands supplied by Cambridge. As always with retrofit installations, final mounting configuration and placement depends on "what the building gives you" with which to work.

Note: The gas trains are located inside the gas train enclosure mounted on the downturn. If this method is used, the support for the gas train should strut attached to the sides of the downturn. Penetrating the top of the downturn may result in leakage into the heater.

