

## information bulletin

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# S-SERIES SELECTION / PLACEMENT / INSTALLATION VERTICAL INDOOR DOWNBLAST 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.

### INDOOR VERTICAL DOWNBLAST UNITS

Indoor vertical downblast units can be an appropriate selection when other mounting options are not available due to physical or operational constraints. For example, an upblast unit may not be feasible if the rain hood is positioned where it won't be struck by vehicle traffic along the exterior wall. In another application, the exterior brick wall was 10' high with a 10' high window above it and an overhead crane mounted at 23' AFF. The heater was mounted so that the rain hood extended through the window while being close enough to the wall to maintain crane clearance.

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 and service an indoor vertical downblast unit. If a jib crane is present, the radius of the boom must be considered to prevent the boom from striking the heater or external gas train.

Vertical heaters 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 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 overhead cranes are present. Accessing the unit via a boom lift or scissors lift will entail entering crane space. This usually means that the work cannot take place until the crane(s) is locked out or other measures (such as a blocking crane) are taken. Locking out of cranes may seriously affect production, so it should not be taken lightly.

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 indoor 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 costs for the installation.

Installing the unit may require barricading the floor 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 covered in the safe work plan.

Suspending the heater with threaded rods from knee braces is a common method for installation, especially if overhead cranes are present. Since the base of the heater is the only structural element of the heater's design, it

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is important that the rods be secured to the heater's base as well as to the heater's housing to provide adequate structural support.

Below are installations of indoor vertical downblast units that were installed several years ago. As always with retrofit installations, final mounting configuration and placement depends on "what the building gives you" with which to work.



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