



PENN BARRY™

Inlet Box Application

Inlet Box Use

Fan inlet boxes are special elbows with a principal purpose to turn the air. Inlet boxes can be used when installation in a tight space is necessary. The inlet boxes do not eliminate the adverse affects of the elbow, but make the best of a bad situation.

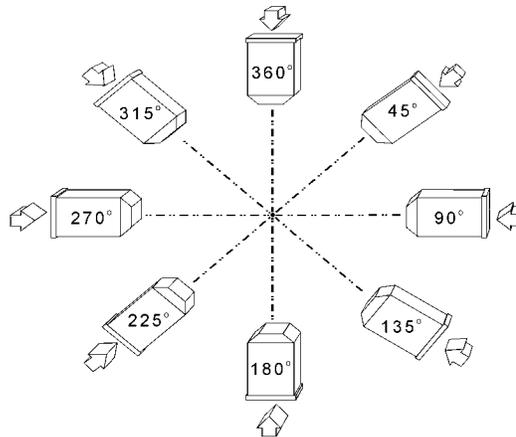
Inlet Box Design

A good inlet box is a complicated design. It is offered as a solution to an inlet flow problem. When fan inlet space is limited and inlet box is required, please contact the factory for the loss factor and prints for your specific installation.

The inlet boxes are designed to be removable and attached to the fan's inlet flange for Arrangements 1, 8, 9 and 10 with an access door and drain connection.

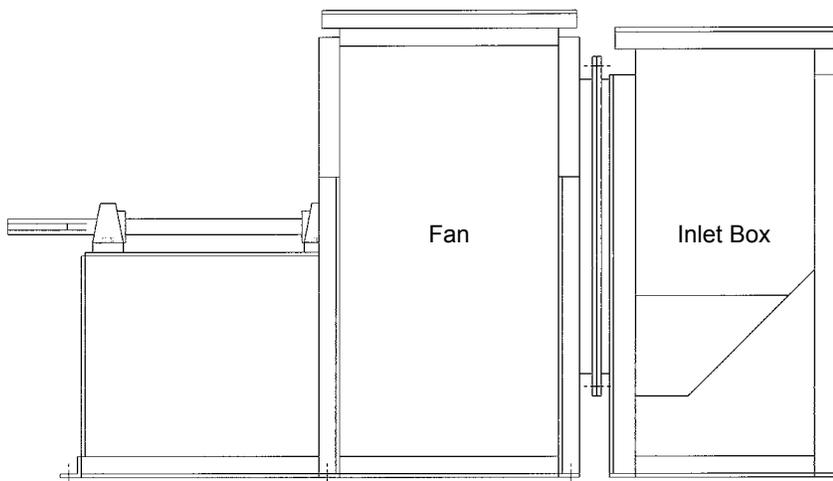
Inlet Box Position

The direction the air enters the inlet box is available in eight standard positions. The position of the inlet box is determined from the drive side of the fan. Inlet box positions 135°, 180° and 225° often require special construction to avoid interference with the fan support structure. See figure below.



In accordance with AMCA Standard 99-2405-83

Standard Inlet Box Construction



Performance Data

Fan performance data are generally based on tests in which the air approaches the fan with a uniform velocity free of swirl. Duct element losses and ducted inlet fan tests are based on similar flow conditions. Remember that ducted fans need a straight run of duct upstream of the inlet; a minimum of three duct diameters is recommended.