

Leakage Split Kit



Flex-duct for ceiling neutralization



Field Calibration Plate



Raised Floor Adapter Panel

Flex Duct Installation for Ceiling Neutralization

The Retrotec Flex Duct enables you to quickly neutralize the pressure difference across a ceiling. The kit is comprised of a 12 foot, 24 inch diameter flexible foil tube, and a protective case. The Flex Duct is quick to install and is compatible with any Retrotec fan model.

Before You Begin

A Flex Duct test requires that two fans be installed in the door opening. The upper fan measures lower room leaks while the lower fan neutralizes leaks above the ceiling. The photo shown right illustrates a two-fan door opening installation with a Flex Duct attached.



Step 1: Remove the Ceiling Tile

Remove the ceiling tile closest to the door opening where your fan is installed. Ideally, the tile you remove will be slightly to the left or right of the door opening to avoid obstructing air flow to the fan.



Step 2: Unpack and Attach the Flex Duct to the Ceiling

Unpack the Flex Duct from its case. Position the Flex Duct case directly below the ceiling tile opening with the Flange end face up.



Your Flex Duct is designed to fit a standard two-foot square ceiling tile opening. Insert the Flex Duct flange into the T-bar ceiling framework to occupy one half of the opening.



If the ceiling tile opening is larger than the standard two-foot square opening, insert a spacer in the remaining space. The photo shown right shows a Retrotec blanking sheet inserted to fill the remaining space in the ceiling tile opening.



Step 3: Attach the Flex Duct to the Fan

Attach the collar end of the Flex Duct to the lower fan installed in the door opening. Hook the cuff under the lower foot of the fan and over the nylon block on top of the fan Flange.



Tighten and secure the Velcro cinch strap on the Flex Duct collar.



Step 4: Check for Pressure Neutralization

With the pressure test in progress, lift one of the ceiling tiles and use a smoke puffer to test for movement. When the smoke does not move the lower leaks can be measured.



Field Calibration Plate is mounted in the door panel above the fan. A test is conducted on a tight room and the Equivalent Leakage Area (EqLA) measured. A hole is opened in the Plate and EqLA re-measured. The increase in EqLA should be within 15% of the size of the added hole. This is an ideal tool for teaching Door Fan use or for checking your system on a regular basis to ensure it is working correctly.



Raised Floor Adapter Panel is installed over a removed floor tile to measure the leakage of a raised floor. To eliminate the leakage of the “walked on floor”, a second fan in a panel is used to pressurize the room to the same pressure as the floor. Smoke is used to test floor leaks to ensure the pressures are balanced between the room and the under-floor. When they are, the floor fan is measuring the leakage below the floor. An ideal way to measure the Lower Leak Fraction.