



APPLICATION

Most building codes require a certain amount of fresh air to overcome the effects of CO2 during times when the space is occupied. Use of fresh air dampers on HVAC equipment is an inexpensive way to allow fresh air into the building. McDaniel Metals offers this fresh air damper with a horizontal duct opening to fit Daikin light commercial packaged equipment. The manual fresh air dampers can be adjusted to provide up to 25% fresh air to circulate at all times.

MANUAL FRESH AIR DAMPER INSTALLATION DHZE25FD180300

1. Remove the damper assembly from its container and inspect for damage or shortages
2. Locate and remove the evaporator access panel. Retain the screws for step 3.
3. Attach the damper to the side of the machine using the screws from step 2 and weatherproof with silicone or other approved sealant.
4. Loosen the wing nut on each damper and and rotate the handle to the desired setting.
5. Tighten the wing nut to hold damper position.

DETERMINING DAMPER SET POINT

While it is possible to estimate the amount of fresh air by visually adjusting the manual fresh air damper, a more accurate determination can be made using a digital thermometer and the equation below.

$$(To \times OA) + (Tr \times RA) = Tm$$

To = Outdoor air temperature

OA= Percent of outdoor air

Tr = Return air temperature

RA= Percent of return air

Tm= Resulting mixed air temperature

Example:

Fresh air required is 10% outdoor air.

Outdoor air temperature is 60 degrees F.

Return air temperature is 75 degrees F.

$$(0.1 \times 60) + (0.9 \times 75) =$$

$$6.0 + 67.5 = 73.5$$

Mixed air temperature will be 73.5 degrees F when the OA is 60 degrees F and the RA is 75 degrees F with 10% outdoor air.

