



Building Performance Equipment, Inc.[®]

Product Information Bulletin (PIB)

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Subject: BPE Bypass Damper

Condition: Integral to custom Unitary Energy Recovery Ventilation (ERV) systems such as the BPE-SC-UNI-1000 or 2000 for the purpose of regulating excess air pressure as is called for in ASHRAE Standard _90.1_2019. Code requires over 5000 cfm.

Action: Explanation of where the Bypass Damper is positioned in an Energy Recovery Module (ERM) via diagrams and description of its function.

1. The BPE Bypass Damper can be integral to the following custom BPE unitary models:

- BPE-SC-UNI-1000
- BPE-SC-UNI-2000
- Unitary models up to 20,000 cfm

Only used when mild outside. When indoor and outdoor temps are similar.
Much more expensive.



2. The Bypass Damper flap can be opened or closed as needed.

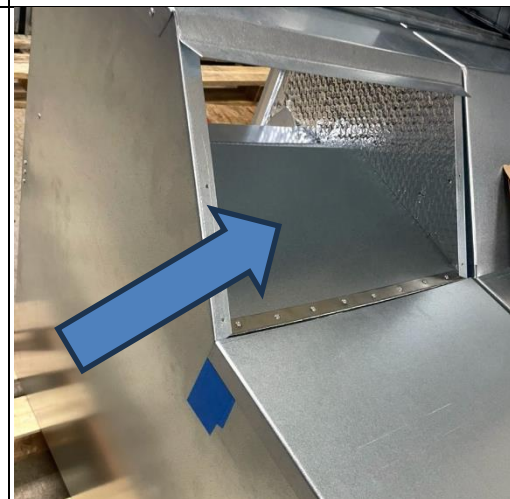
The Bypass Damper serves the following purposes:

Opens...

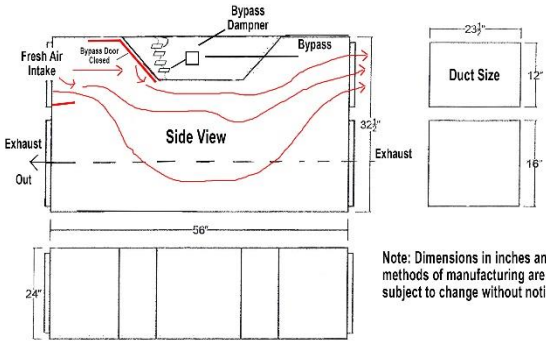
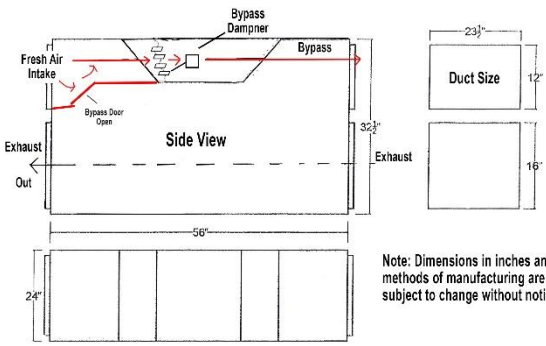
- To allow free cooling.
- When outdoor air is above building equilibrium, just bring in cool outdoor air.

Closes...

- To provide over 90% thermal preconditioning of hot or cold outdoor air.



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<p>3.</p>	<p>When the Bypass Door is CLOSED...</p> <ul style="list-style-type: none"> • The outdoor air is directed down into the heat exchanger and the air is tempered 70 to 95% thermally. • BACnet senses $OA < 55^{\circ}F$ and $OA > 75^{\circ}F$ and closes the bypass door. 	 <p>Note: Dimensions in inches and methods of manufacturing are subject to change without notice.</p>
<p>4.</p>	<p>Bypass Door OPEN:</p> <ul style="list-style-type: none"> • Fresh air skips the ERV's core. • BACnet OA temperature sensor senses $-55^{\circ}F < OA < 75^{\circ}F$ and building gets free cooling. • The system is engineered so OA cfm is maintained. • Free cooling during the shoulder months (Spring/Fall). 	 <p>Note: Dimensions in inches and methods of manufacturing are subject to change without notice.</p>