OPPOSED BLADE - PARALLEL BLADE DAMPER

Suggested Specifications:
Furnish and install at location shown on drawing or in accordance with schedules dampers meeting the following specifications: Rectangular damper shall have 16 gauge galvanized steel blades with galvanized steel frame. Damper to be equal to United Enertech MODEL CD-120 or CD-121.

Ratings:
Pressure - up to 12" [305mm] w.g. - See pressure limit table

Standard Features:
Frame: 4-1/2" [114mm] deep, 16ga. Formed Galv. Steel
Blades: 6" [152mm] wide, 16ga. Formed Galv. Steel
Bearing: Bronze Oilite
Linkage: Concealed in frame
Axles: Ø1/2" [13mm] plated steel
Control Shaft: Ø1/2" x 6" [13mm x 152mm] long shaft supplied with all single section dampers for field mounted actuators. Factory-installed jackshaft supplied with all multiple section dampers

Options:
- □ Blade Seals PVC (180° F) [82°C]
- □ Compression Jamb Seals (stainless steel)
- □ Hand Quadrant
- □ Chain Operate
- □ Factory Installed Pneumatic or Electric Actuators (see cat. sheet K-1)
- □ Stand Off Bracket, 2" [51mm]
- □ Header Plates (end flange)
- □ Position Switch
- □ Single Flange
- □ Double Flange
- □ Bolt holes in flange
- □ Heresite coated (air dry)
- □ Epoxy coated (powder coated)
- □ Stainless Steel Bushings

- □ 304 stainless steel construction
- □ 304L stainless steel construction*
- □ 316 stainless steel construction*
- □ 316L stainless steel construction*
- □ 14ga. construction
- □ 12ga. construction
- □ 10ga. construction
- □ 6-1/2" [165mm] deep frame
- □ Face and Bypass Damper
 (*304 stainless steel linkage)

Job Name: 
Location: 
Architect: 
Engineer: 
Contractor: 

□ MODEL CD-120 (Opposed)
□ MODEL CD-121 (Parallel)

DRAWN BY: CLJ
DATE: August 2008
REV. NO. 9

APPROVED BY: BGT
REV. DATE: November 2014
DWG. NO.: A-6
MODEL CD-120 PERFORMANCE DATA

Imperial Units  (Forward Flow)

<table>
<thead>
<tr>
<th>Damper Width X Height</th>
<th>1 in. w.g. Class</th>
<th>4 in. w.g. Class</th>
<th>8 in. w.g. Class</th>
<th>*Torque (per sq. ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12&quot; X 48&quot;</td>
<td>Class 1A</td>
<td>Class 1</td>
<td>Class 1</td>
<td>11.5 lbs-in</td>
</tr>
<tr>
<td>48&quot; X 36&quot;</td>
<td>Class 1A</td>
<td>Class 1</td>
<td>Class 1</td>
<td>11.33 lbs-in</td>
</tr>
</tbody>
</table>

Air leakage is based on operation between 50° F to 104° F. All data corrected to represent air density of 0.075 lbs/ft³.

Imperial Units  (Reverse Flow)

<table>
<thead>
<tr>
<th>Damper Width X Height</th>
<th>1 in. w.g. Class</th>
<th>4 in. w.g. Class</th>
<th>8 in. w.g. Class</th>
<th>*Torque (per sq. ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12&quot; X 48&quot;</td>
<td>Class 1A</td>
<td>Class 1</td>
<td>Class 1</td>
<td>11.5 lbs-in</td>
</tr>
<tr>
<td>48&quot; X 36&quot;</td>
<td>Class 1A</td>
<td>Class 1</td>
<td>Class 2</td>
<td>11.33 lbs-in</td>
</tr>
</tbody>
</table>

*Torque applied to hold damper in closed position.

Standard International Units  (Forward Flow)

<table>
<thead>
<tr>
<th>Damper Width X Height (mm)</th>
<th>250 Pa Class</th>
<th>1 KPa Class</th>
<th>2 KPa Class</th>
<th>*Torque (per sq. m.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>305 X 1220</td>
<td>Class 1A</td>
<td>Class 1</td>
<td>Class 1</td>
<td>13.97 N-m</td>
</tr>
<tr>
<td>1220 X 915</td>
<td>Class 1A</td>
<td>Class 1</td>
<td>Class 1</td>
<td>13.77 N-m</td>
</tr>
</tbody>
</table>

Air leakage is based on operation between 10° C to 40° C. All data corrected to represent air density of 1.201 kg/m³.

Standard International Units  (Reverse Flow)

<table>
<thead>
<tr>
<th>Damper Width X Height (mm)</th>
<th>250 Pa Class</th>
<th>1 KPa Class</th>
<th>2 KPa Class</th>
<th>*Torque (per sq. m.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>305 X 1220</td>
<td>Class 1A</td>
<td>Class 1</td>
<td>Class 1</td>
<td>13.97 N-m</td>
</tr>
<tr>
<td>1220 X 915</td>
<td>Class 1A</td>
<td>Class 1</td>
<td>Class 2</td>
<td>13.77 N-m</td>
</tr>
</tbody>
</table>

*Torque applied to hold damper in closed position.

United Enertech certifies that the CD-120 is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Rating Seal applies to Air Performance and Air Leakage ratings.

Leakage, ft³/min/ft²

<table>
<thead>
<tr>
<th>Pressure Class</th>
<th>Required Rating</th>
<th>1&quot;</th>
<th>4&quot;</th>
<th>6&quot;</th>
<th>12&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>8</td>
<td>11</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>20</td>
<td>28</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>40</td>
<td>60</td>
<td>112</td>
<td>140</td>
<td></td>
</tr>
</tbody>
</table>

All data corrected to represent standard air at a density of 0.075 lbs/ft³.

AMCA Standard 500-D (leakage), figure 5.4 Alternate.
UNITED ENERTECH CERTIFIES THAT THE CD-120 IS LICENSED TO BEAR THE AMCA SEAL. THE RATING SHOWN ARE BASED ON TESTS AND PROCEDURES PERFORMED IN ACCORDANCE WITH AMCA PUBLICATION 511 AND COMPLY WITH THE REQUIREMENTS OF THE AMCA CERTIFIED RATINGS PROGRAM. THE AMCA CERTIFIED RATINGS SEAL APPLIES TO AIR PERFORMANCE AND AIR LEAKAGE RATINGS.

UNITED ENERTECH CERTIFIES THAT THE CD-121 IS LICENSED TO BEAR THE AMCA SEAL. THE RATING SHOWN ARE BASED ON TESTS AND PROCEDURES PERFORMED IN ACCORDANCE WITH AMCA PUBLICATION 511 AND COMPLY WITH THE REQUIREMENTS OF THE AMCA CERTIFIED RATINGS PROGRAM. THE AMCA CERTIFIED RATINGS SEAL APPLIES TO AIR PERFORMANCE RATINGS ONLY.