Hot Water/Steam Heated Drawing

BD18
(Belt Driven 18) Series

1 Row Coll – 3"  
2 Row Coll – 4"

Removable Top Access Panels  
(# varies with unit length)

Removable Protective Inlet Screen  
(# varies with unit length)

Return Fitting  
(Hot Water)

1 1/2

2 1/2

Return Fitting  
(Steam)

HW – 7 1/8"  
Steam – 12 1/8" MAX

Recommended Accessories

Variable Frequency Drive  
|Control Panels with Remote Tstat

Notes:
1. This product is designed to meet the National Electric Code (NEC).
2. (4) 3/4" mounting holes provided on for overhead mounting provided, (2) on each end.
3. All units have a self contained one piece cabinet, fire retardant and corrosion proof paint lock metal double protected with baked on Titanium Silver rust preventative electrostatic polyurethane powder coating.
4. Hot Water application shown. For Steam, return fitting is at bottom of manifold and supply is at center of manifold. (2" MPT Typical)
5. Cabinet is to be mounted from overhead and has sufficient strength for suspension from both ends without intermediate support.
6. High efficiency motor and dynamically balanced forward curved centrifugal blowers.
7. Unit is to be installed such that air flow is unobstructed. Unit has a 5" air discharge nozzle containing adjustable air directional vanes with 40° sweep front to back.
8. Unit provided with adjustable sheaves and pulleys field adjustable to suit varying conditions. VFD optional.
9. Adjustable perforated volume dampers (2). Capable of reducing air velocity up to 50%.
10. Circuit protection as per NEC by others.
11. Optional motor control panel and door limit switch are field installed and/or wired by others. The door limit switch is to be mounted such that the air curtain turns on as door begins to open. To prevent unit damage, the air curtain must be installed such that the bottom of the air curtain is not below the door header.

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>NOZZLE LENGTH (in)</th>
<th>AIR CURTAIN LENGTH A (in)</th>
<th>OVERALL LENGTH B (in)</th>
<th>MOUNTING WIDTH C (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BD1896-1**-TS</td>
<td>96</td>
<td>107</td>
<td>117</td>
<td>105 1/2</td>
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<td>153 1/2</td>
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<tr>
<td>BD18168-1**-TS</td>
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<td>189</td>
<td>177 1/2</td>
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<td>203</td>
<td>213</td>
<td>201 1/2</td>
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</table>
**BD18 (Belt Drive) Series**
Hot Water/Steam Heated
Model Lengths 96” – 192”

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**Hot Water/Steam Heated Data Sheet**

**Applications:** Environmental Separation: Max Height 20’ / Insect Control: Max Height 18’

### BD18 (WindGuard)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Nozzle Length (in)</th>
<th>Length (in)</th>
<th>Depth (in)</th>
<th>Height (in)</th>
<th>Motor (hp)</th>
<th>Weight (lbs)</th>
<th>Max Velocity (fpm)</th>
<th>Max Volume (cfm)</th>
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<tbody>
<tr>
<td>BD1896-1**-TS</td>
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<td>117</td>
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<td>1500</td>
<td>5100</td>
<td>24100</td>
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<td>15</td>
<td>1800</td>
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<td>27600</td>
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</table>

* - Use corresponding letters in “Coil Data” then “Electrical Data” columns to complete the model numbers.

Note: Data above is for 60 Hz, 17% reduction in the performance data with 50 Hz.

### Features:
- **Air Curtain**
  - 7 1/2 to 15 HP Heavy Duty Motors
  - Air curtain has a self-contained cabinet with sufficient strength for fastening from overhead on both ends without intermediate support. Top and rear mounting holes provided (4) 3/4”
  - Adjustable air directional nozzle with 40° sweep front to back
  - Standard color is Titanium Silver
  - Rust preventative electrostatic polyurethane powder coating
  - All units are shipped fully assembled ready for installation
  - 12 month parts warranty
  - Freight Not Included (FOB Factory)
  - Proudly Made in the USA

- **Hot Water and Steam Coils**
  - Coil casings shall not be less than 16 gauge galvanized steel with tube holes formed with extruded collars.
  - Fins are die formed .006” aluminum (1 row – 10 FPI, 2 row – 8 FPI)
  - Coils tubes constructed of heavy wall, 5/8” OD seamless copper (Steam - .035 & Hot Water - .025”)
  - Coils arranged in a staggered pattern and mechanically expanded into fins to ensure a uniform pressure bond
  - Manifolds shall be of heavy seamless copper construction
  - All joints shall be brazed with high temperature silver brazing alloy (Steam – 5% & Hot Water – 2%), max steam operating pressure: 30 PSI
  - Fittings shall be of wrought copper or similar construction such that the entire fluid circuit shall be of compatible nonferrous materials.
  - Manifold shall be fitted with 1/4” vent or drain fittings
  - Supply fitting is on the right side of coil. Return fitting is on the left side

### Options and Accessories: (see Accessories Brochure)
- Motor Control Panels with remote mounted t’stat
- Steam distribution, Cupro-Nickel and CRN coils
- Rust resistant epoxy coated or SS coils
- Custom housing and transition colors and finishes (304SS, 316SS, Aluminum)

### Sound Levels: (measured at 10’ in an open field)
7 1/2 HP Motor Unit = 75 dBA, 10 HP Motor Unit = 76 dBA, 15 HP Motor Unit = 76 dBA

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**Note:** MARS AIR SYSTEMS, LLC reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.

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**Example:**

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BD18 96 - 1 X H - TS
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**Series:** BD18
**Length of Unit:**
**10 HP Motors:**
**VOLTAGE CODE:**
**COLOR:**

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