

HSS[®] AIR HANDLER

BY B&D MFG., INC.

Up Flow / Down Flow / Horizontal Configurations

Plug & Play Heat Strip Options 3KW 5KW 10KW 15KW

Pair with Any of the Following Hydronic Applications

- Water-to-Water geothermal heat pump applications.
- Air-to-Water heat pump applications
- Boiler applications
- Utilize with tank less water heaters for Space Heating applications
- Utilize with High-Efficiency hot water tanks for Space Heating applications
- Commercial Chiller applications

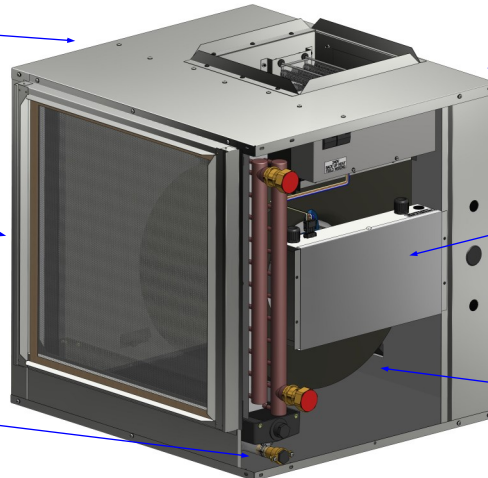


HSS[®] Air Handler Features & Benefits

Built with Heavy Gauge White Steel
Durable ArmorGuard™ Baked on Finish

Uses Standard Air Filter
Easy Access & Removable from Both Sides

Polyethylene Drain Pan
Primary & Secondary Connections



Optional Heat Strip Enclosure
No Heat Strip Offered on Horizontal Units

B&D Designed Controls
Wiring Decal Provided with All Units

Multi-Speed ECM Motor
Smooth & Quiet Running Blower

- ETL Listed / CSA Certified
- Fully insulated compact cabinet design
- Low temperature design starting at 105° up to 180° E.W.T. for Heating and 40° to 50° E.W.T. for Cooling
- Built in 24V Isolation relay to eliminate voltage feedback
- Factory programmed motors that are field adjustable to fine tune your desired CFM
- Programmable, 30 Seconds to 35 minute time-delay on Blower Start-up to delay hot or cold start up
- Programmable, 30 Seconds to 35 minute time-delay for Strip Heat activation.
- 5 Year Warranty on all Components

Scranton, IA 51462
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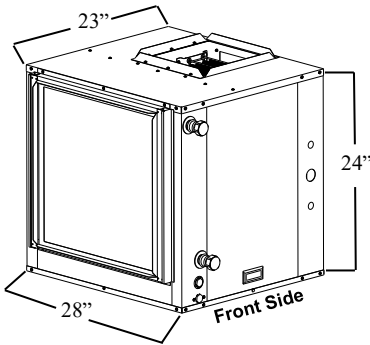


Air Handler Specifications

| Unit Specs. | 1 Ton Unit | 2 Ton Unit | 3 Ton Unit | 4 Ton Unit | 5 Ton unit |
|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Fan Coil Size (Excludes Flanges) | 23"W x 24"H x 28"D | 23"W x 24"H x 28"D | 28"W x 30"H x 31"D | 28"W x 30"H x 31"D | 28"W x 30"H x 31"D |
| Largest KW | 3 KW | 5 KW | 10 KW | 15 KW | 15 KW |
| Air Filter Size | 18" x 22" x 1" | 18" x 22" x 1" | 25" x 25" x 1" | 25" x 25" x 1" | 25" x 25" x 1" |
| Supply Air Size | 12" x 12" (1" Flange) | 12" x 12" (1" Flange) | 14" x 14" (1" Flange) | 14" x 14" (1" Flange) | 14" x 14" (1" Flange) |
| Return Air Size | 17" x 21" (1" Flange) | 17" x 21" (1" Flange) | 24" x 24" (1" Flange) | 24" x 24" (1" Flange) | 24" x 24" (1" Flange) |
| Swivel Connections Inlet / Outlet | 1" FPT | 1" FPT | 1" FPT | 1-1/4" FPT | 1-1/4" FPT |
| Primary & Secondary Drain | 3/4" FPT | 3/4" FPT | 3/4" FPT | 3/4" FPT | 3/4" FPT |
| Unit Weight (lbs.) | 100 | 105 | 136 | 146 | 165 |

Electrical Information

| Electrical Specs. | 1 Ton Unit | 2 Ton Unit | 3 Ton Unit | 4 Ton Unit | 5 Ton unit |
|---|-------------|-------------|-------------|-------------|-------------|
| Blower Motor HP | 1/3 HP | 1/3 HP | 1/2 HP | 1/2 HP | 1 HP |
| Amps | 2.6 | 2.6 | 4.6 | 4.6 | 7 |
| Voltage | 208V / 240V | 208V / 240V | 208V / 240V | 208V / 240V | 208V / 240V |
| MCA (Minimum Circuit Ampacity) | 3.25 | 3.25 | 5.75 | 5.75 | 8.75 |
| MOP (Maximum Overcurrent Protection) | 15 | 15 | 15 | 15 | 15 |
| Min C.F.M Rated @ 0.5 E.S.P | 270 | 600 | 1000 | 1400 | 1800 |
| Max C.F.M Rated @ 0.5 E.S.P | 440 | 950 | 1350 | 1750 | 2150 |

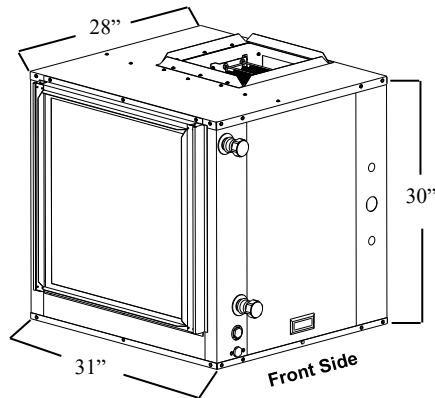


1-2 Ton Left Side Return / Up Flow Configuration Shown

Heating Data

| Heating/Hr & Entering Water Temperatures | 1 Ton Unit (CFM 500) (4 GPM) | 2 Ton Unit (CFM 950) (6 GPM) | 3 Ton Unit (CFM 1350) (8 GPM) | 4 Ton Unit (CFM 1750) (10 GPM) | 5 Ton unit (CFM 2150) (12 GPM) |
|--|------------------------------------|------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|
| MB/H Heating @ 180° E.W.T | 48.1 | 95.1 | 134.7 | 172.5 | 209.5 |
| MB/H Heating @ 155° E.W.T | 37 | 73.2 | 103.6 | 132.7 | 161.1 |
| MB/H Heating @ 130° E.W.T | 26 | 51.3 | 72.7 | 93.1 | 113 |
| MB/H Heating @ 115° E.W.T | 18.1 | 36.6 | 52.4 | 68.7 | 82.7 |
| MB/H Heating @ 110° E.W.T | 16.1 | 32.5 | 46.5 | 60.8 | 73.9 |
| MB/H Heating @ 105° E.W.T | 14 | 28.3 | 40.7 | 53.1 | 64.4 |

Note: Heating Capacities are Based on 0% Glycol



3-5 Ton Left Side Return / Up Flow Configuration Shown

Cooling Data

| Cooling/Hr & Entering Water Temperatures | 1 Ton Unit (CFM 500) (4 GPM) | 2 Ton Unit (CFM 950) (6 GPM) | 3 Ton Unit (CFM 1350) (8 GPM) | 4 Ton Unit (CFM 1750) (10 GPM) | 5 Ton unit (CFM 2150) (12 GPM) |
|--|------------------------------------|------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|
| MB/H Cooling @ 50° E.W.T | 10.1 | 20.5 | 30 | 39.2 | 47.5 |
| MB/H Cooling @ 45° E.W.T | 12.8 | 25.8 | 37.7 | 48.9 | 59.4 |
| MB/H Cooling @ 40° E.W.T | 15.6 | 31.4 | 45.7 | 59.2 | 72 |

Note: Cooling Capacities are Based on 0% Glycol

Emergency Heat Strip Data

| Unit Specs. | 1 Ton Unit | 2 Ton Unit | 3 Ton Unit | 4 Ton Unit | 5 Ton unit |
|-------------|------------|------------|------------|------------|------------|
| Max KW | 3 KW | 5 KW | 10 KW | 15 KW | 15 KW |
| Amps | 12.5 | 20.8 | 41.7 | 62.5 | 62.5 |
| MCA | 15.63 | 26 | 52.125 | 78.125 | 78.125 |
| MOP | 20 | 30 | 60 | 80 | 80 |

Note: Backup Heat Not Available On Horizontal Flow Units