# AFX-OHACB

## Overhead Active Chilled Beam

AirFixture®

AirFixture Overhead Active Chilled Beam (OHACB) systems are designed to maintain a comfortable indoor climate, and engineered for low energy consumption and compatability in a low-height ceiling void. These systems provide full cooling, heating, ventilation and humidity control – all with near-silent operation and minimal maintenance requirements.

## CONCEPT

The principle of the active chilled beam system is to use terminal chilled water heat exchangers in the ceiling to offset the room sensible cooling loads or to provide sensible heating. The ventilation and humidity control requirements are taken care of using a separate primary conditioned air supplied by a central air handling unit.

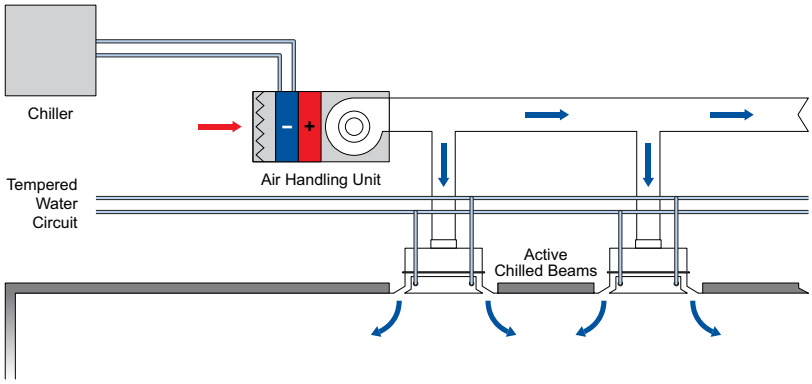



FIGURE 1: Overhead Active Chilled Beam System

Due to the relatively high supply chilled water temperatures – approximately 57°F (14°C) – the heat exchangers operate dry avoiding many of the maintenance and health concerns that are associated with other systems that use terminal heat exchangers such as fan coil units.

The system provides large energy savings primarily because the amount of air circulated throughout the building can be reduced very close to the ventilation and humidity control requirements. This will result in large reductions in air handling unit fan power and energy consumption.

Further energy savings result from the use of high chilled water temperatures serving the heat exchangers. This can allow the water chiller to operate at higher water temperatures improving chiller operating efficiency and energy consumption.

## TECHNOLOGY

AirFixture Overhead Active Chilled Beams integrate the primary air distribution function with the secondary air heat exchange using a proprietary air nozzle technology to induce secondary room air into the unit and through the heat exchanger before mixing with the primary air. The resulting mixture of primary air and induced secondary room air is then supplied to the room through the contoured diffusers which are designed to keep the air close to the ceiling using the Coanda effect.

AirFixture's AFX-OHACB series units are designed with a nominal width of 24" (600mm) to integrate with the ceiling grids of the most common ceiling configurations. Standard nominal unit lengths are 48"–120" (1200mm–3000mm) in 12" (300mm) increments; special lengths are also available to satisfy specific ceiling requirements.

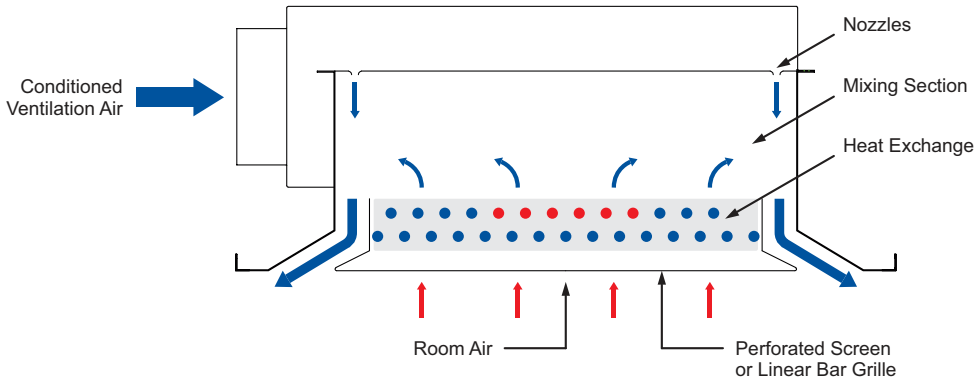



FIGURE 2: Operating Principle of the Active Chilled Beam

## AIR DISTRIBUTION

The shape of the supply slot diffusers are specifically designed to create two opposing discharge air flows from the active chilled beam, which travel along the suspended ceiling. The velocity of the supply air along the suspended ceiling creates a Coandă effect, whereby velocity differences in cool air flow press the air stream against the suspended ceiling, extending air throw and preventing cool air from dropping into the comfort zone prematurely. It is necessary for the suspended ceiling to be flat and free of any obstacles, such as light fixtures situated close to the supply slots, as any obstructions can interfere with the Coandă effect.

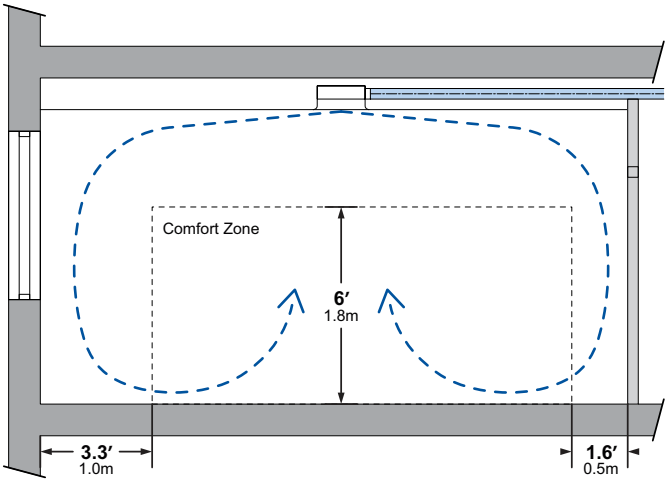



FIGURE 3: Air Distribution Pattern Based on Coandă Effect

## FACADE ORIENTATION

Orientation of the active chilled beam in relation to the facade has no influence on operation. The choice between the two most common installation arrangements, perpendicular and parallel, is generally determined by:

- Aesthetics (fitting into the pattern of the suspended ceiling)
- Level of flexibility to create offices within the floor plan
- Number of active chilled beams required to condition the space
- Available distance for air throw – the air must have the opportunity to mix with room air before intersecting a wall or an opposing air stream from another chilled beam
- Obstructions in the suspended ceiling that might interfere with air flow, such as lighting fixtures
- Obstructions in the facade or floor that might interfere with air flow, such as radiators or floor convectors

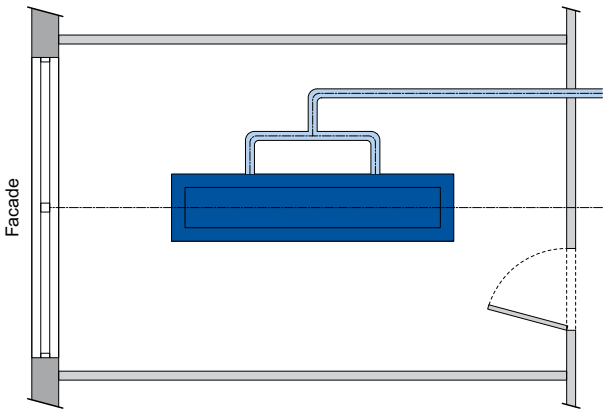



FIGURE 4A: Perpendicular to Facade

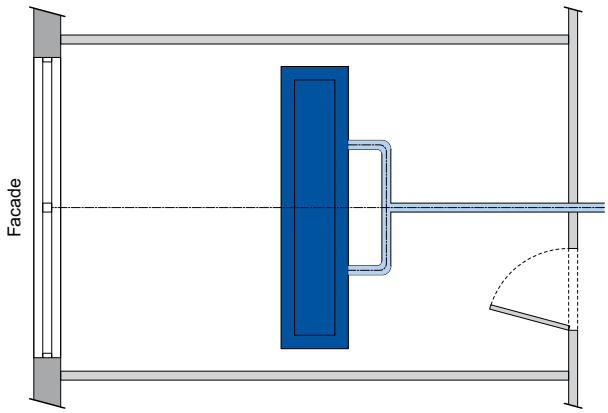



FIGURE 4B: Parallel to Facade

# PRODUCT FEATURES

## High Capacity Nozzle Configurations

AFX-OHACB series active chilled beams are available with eight (8) optional nozzle configurations. Each is designed to provide high induction rates for secondary room air, resulting in high cooling and heating capacities. This makes them suitable for applications in building perimeter zones with higher loads, as well as internal zones. Nozzles are factory installed and can be blanked if single-side discharge is required.

FIGURE 5: High Efficiency Air Nozzles

## Low Height

The AFX-OHACB series is available up to a maximum height of 8-1/4" (210mm), providing compatibility with reduced height ceiling voids to maximize ceiling heights. Alternatively the building slab-to-slab height can be reduced, allowing more floors in a given building height.

## Flexible Sizes

Units are available in lengths between 48"–120" (1200mm–3000mm), providing compatibility with most common ceiling configurations. Unit lengths can be also be custom tailored to match specific installation requirements.

## Diffuser Options

The AFX-OHACB series is available with either perforated return air diffusers or linear blade diffusers. Performance is identical for both configurations; options are offered to best match the aesthetic requirements of the building. Exposed metal surfaces are powder coated with a standard finish color RAL 9010 (20% gloss); other RAL colors are available to match project requirements. Units can also be supplied with either perforated or linear blade center diffusers.

FIGURE 6A: Perforated Return Diffuser

FIGURE 6B: Linear Blade Return Diffuser

## Simple Mounting

Units can be easily suspended from the overhead concrete slab, using threaded rod or hanging wire support systems to match with metal panel, fiber board or plaster ceilings. Units can also be installed without false ceilings.

## Minimal Noise

Efficiently shaped nozzles create maximum induction at a minimum sound level.

## Low Maintenance

AFX-OHACB series active chilled beams include no filter, fan, drain pan or any other moving parts. As a result, maintenance is limited to cleaning exposed metal surfaces and using a standard vacuum hose to remove dust from the heat exchanger every 2–5 years, depending on the cleanliness of the supply air. The heat exchanger can be easily accessed by releasing the center diffuser, which is equipped with safety hanging wires.

## Controls

The AFX-OHACB can be supplied with constant air volume controllers for primary air, water control valves with room control sensors, as well as balancing and isolation valves and condensation sensors.

### Air Distribution Control (Optional)

AFX-OHACB series units can be supplied with optional air discharge deflectors, which create a variable air discharge pattern. These deflectors can be independently adjusted to provide an array of distribution patterns.

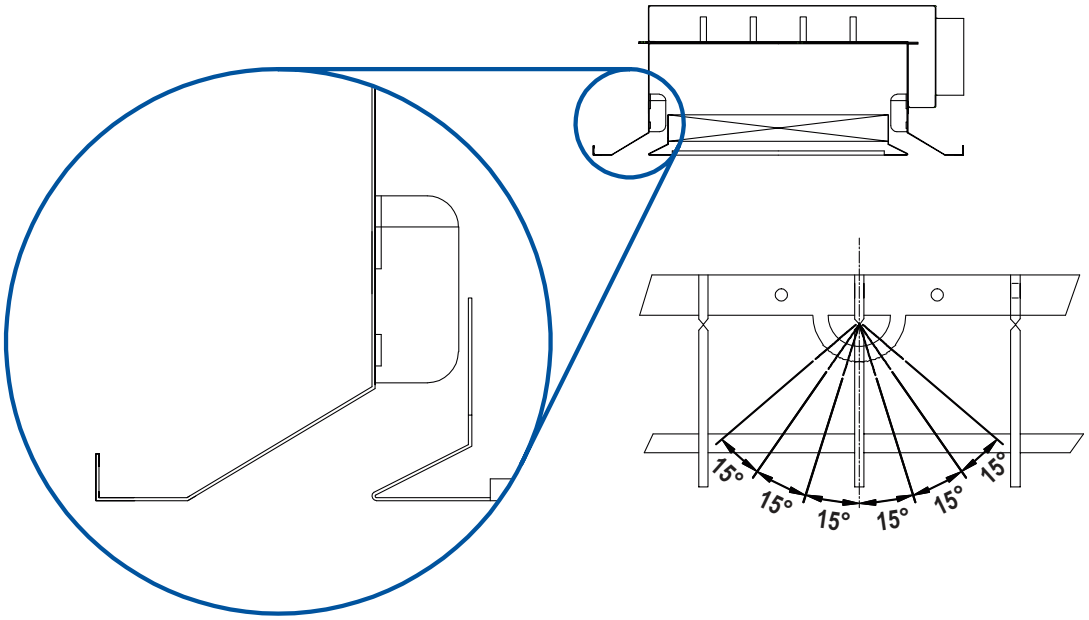
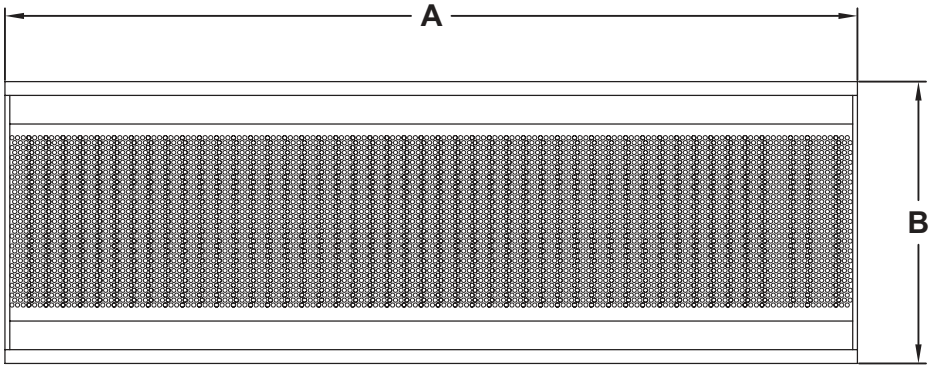
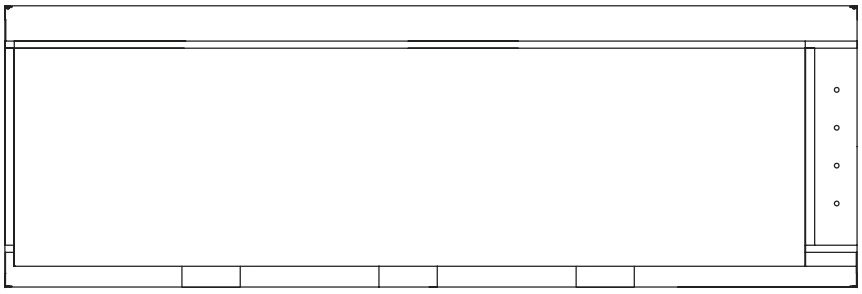


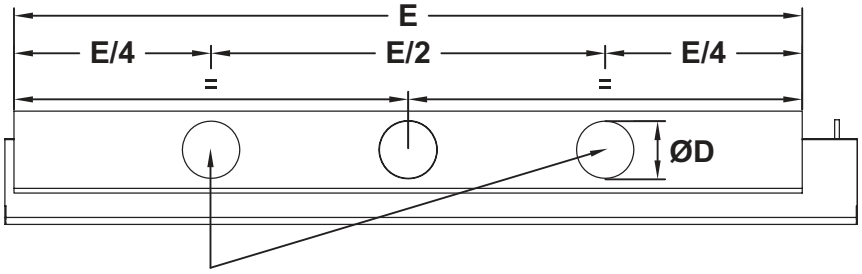

FIGURE 7: Air Discharge Deflectors for Distribution Control

# DIMENSIONS

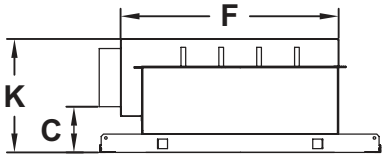
## Side Duct Connection



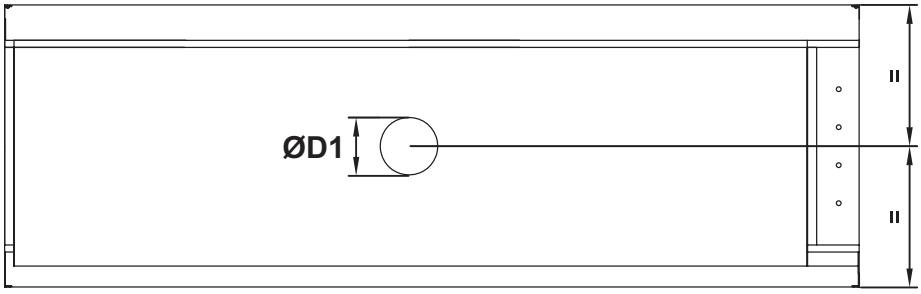



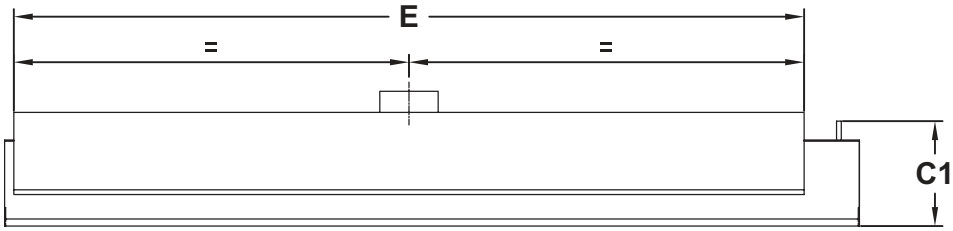


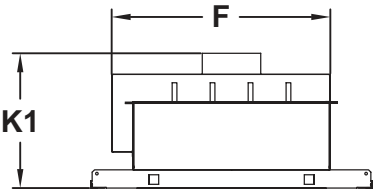

2 Duct Connections
(Models AFX-OHACB-8/10)




## Top Duct Connection



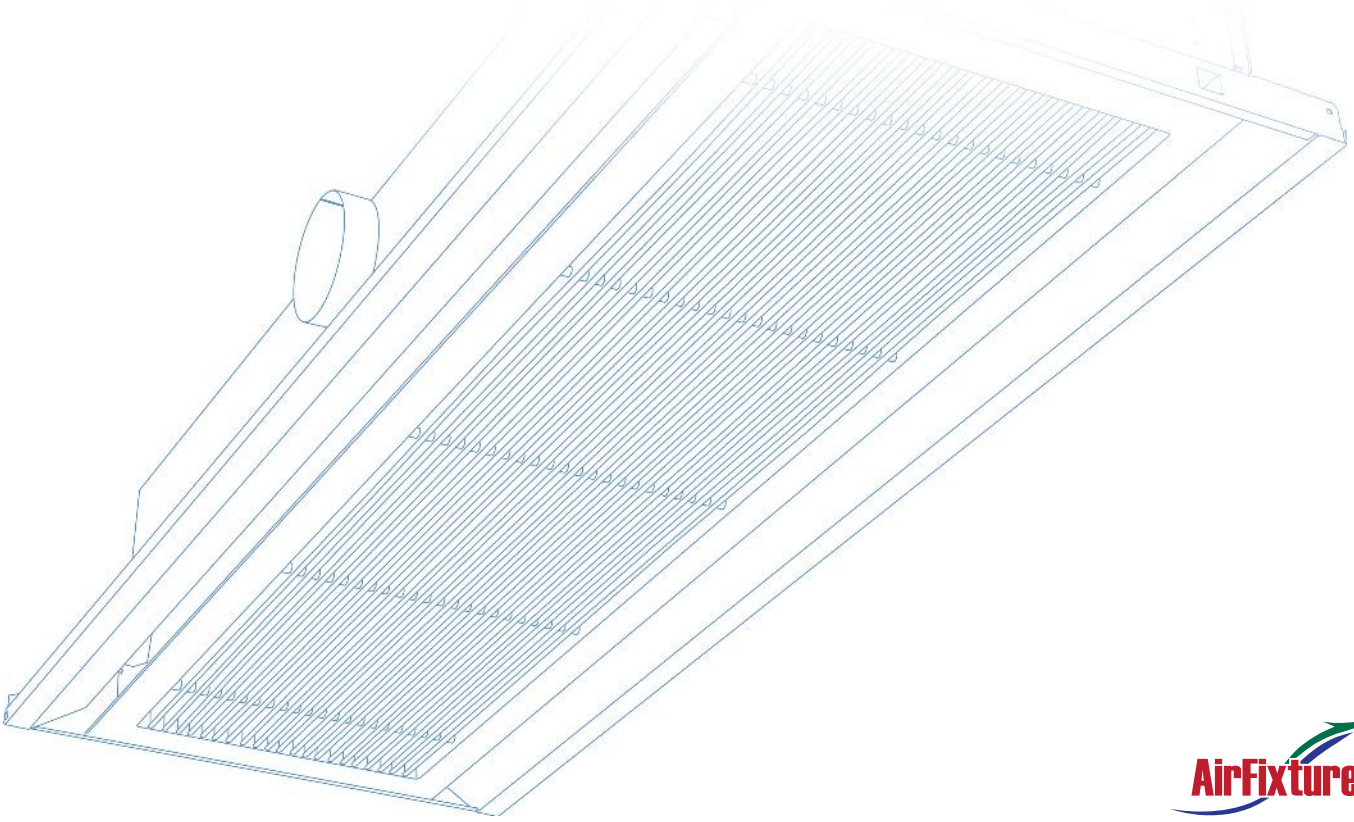



## Water Connections (Nominal Diameter)

| UNIT SIZE | 4'–6' (1.2m–1.8m) | 7'–10' (2.4m–3.0m) |
|---|---|---|
| CHILLED WATER | 1/2" (12mm) | 5/8" (15mm) |
| HOT WATER | 1/2" (12mm) | 1/2" (12mm) |

## Dimensional Data (Nominal)

| UNIT SIZE | 48" (1200mm) | 60" (1500mm) | 72" (1800mm) | 96" (2400mm) | 120" (3000mm) |
|---|---|---|---|---|---|
| A | 47-3/4" (1195mm) | 59-3/4" (1495mm) | 71-3/4" (1795mm) | 95-3/4" (2395mm) | 119-3/4" (2995mm) |
| B | 23-3/4" (595mm) | 23-3/4" (595mm) | 23-3/4" (595mm) | 23-3/4" (595mm) | 23-3/4" (595mm) |
| C | 3-3/4" (96mm) | 3-3/4" (96mm) | 3-3/4" (96mm) | 3-3/4" (96mm) | 3-3/4" (96mm) |
| C1 | 8-5/8" (221mm) | 8-5/8" (221mm) | 8-5/8" (221mm) | 8-5/8" (221mm) | 8-5/8" (221mm) |
| D | (1x) Ø 5" (123mm) | (1x) Ø 5" (123mm) | (1x) Ø 5" (123mm) | (2x) Ø 5" (123mm) | (2x) Ø 5" (123mm) |
| D1 | (1x) Ø 5" (123mm) | (1x) Ø 5" (123mm) | (1x) Ø 5" (123mm) | (1x) Ø 6" (158mm) | (1x) Ø 8" (198mm) |
| E | 41-7/8" (1064mm) | 53-11/16" (1364mm) | 65-1/2" (1664mm) | 89-1/8" (2264mm) | 112-3/4" (2864mm) |
| F | 18-1/16" (460mm) | 18-1/16" (460mm) | 18-1/16" (460mm) | 18-1/16" (460mm) | 18-1/16" (460mm) |
| K | 8-1/4" (210mm) | 8-1/4" (210mm) | 8-1/4" (210mm) | 8-1/4" (210mm) | 8-1/4" (210mm) |
| K1 | 11-1/4" (285mm) | 11-1/4" (285mm) | 11-1/4" (285mm) | 11-1/4" (285mm) | 11-1/4" (285mm) |
| UNIT WEIGHT | 55lb (25 kg) | 66lb (30kg) | 75lb (34kg) | 97lb (44kg) | 119lb (54kg) |



# PERFORMANCE DATA

## 2-Way Air Flow / 4-Pipe

**YK-OHACB-4 (4')**

| NOZZLE | PRIMARY AIRFLOW | PLENUM PRESSURE | NOISE CRITERIA | AIR COOLING CAPACITY ΔT=20°F | COOLING ($T_{RC}$ - $T_{CHS}$ = 18°F) | | | | | | | | | | | | HEATING ($T_{HWS}$ - $T_{RH}$ = 70°F) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | COOLING WATER FLOW 1 | | | | COOLING WATER FLOW 2 | | | | COOLING WATER FLOW 3 | | | | HEATING WATER FLOW 1 | | | | HEATING WATER FLOW 2 | | | | HEATING WATER FLOW 3 | | | |
| | | | | | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER |
| | (cfm) | (in. w.c.) | (NC) | (Btu/hr) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) |
| A0 | 13 | 0.14 | ≤15 | 282 | 0.63 | 1.17 | 1297 | 36 | 0.95 | 2.64 | 1467 | 35 | 1.27 | 4.68 | 1570 | 35 | 0.32 | 0.50 | 2500 | 46 | 0.48 | 1.17 | 3184 | 44 | 0.63 | 2.04 | 3526 | 42 |
| | 17 | 0.26 | ≤15 | 369 | 0.63 | 1.17 | 1604 | 37 | 0.95 | 2.64 | 1808 | 36 | 1.27 | 4.68 | 1945 | 35 | 0.32 | 0.50 | 3333 | 51 | 0.48 | 1.17 | 4246 | 48 | 0.63 | 2.04 | 4663 | 45 |
| | 21 | 0.40 | ≤15 | 456 | 0.63 | 1.17 | 1843 | 38 | 0.95 | 2.64 | 2081 | 36 | 1.27 | 4.68 | 2218 | 35 | 0.32 | 0.50 | 4015 | 55 | 0.48 | 1.17 | 5080 | 51 | 0.63 | 2.04 | 5573 | 48 |
| | 25 | 0.58 | ≤15 | 543 | 0.63 | 1.17 | 2013 | 38 | 0.95 | 2.64 | 2320 | 37 | 1.27 | 4.68 | 2457 | 36 | 0.32 | 0.50 | 4545 | 58 | 0.48 | 1.17 | 5762 | 54 | 0.63 | 2.04 | 6331 | 50 |
| | 30 | 0.79 | 17 | 651 | 0.63 | 1.17 | 2184 | 39 | 0.95 | 2.64 | 2491 | 37 | 1.27 | 4.68 | 2661 | 36 | 0.32 | 0.50 | 4999 | 60 | 0.48 | 1.17 | 6331 | 56 | 0.63 | 2.04 | 6975 | 52 |
| A1 | 17 | 0.17 | ≤15 | 369 | 0.63 | 1.17 | 1399 | 36 | 0.95 | 2.64 | 1570 | 35 | 1.27 | 4.68 | 1672 | 35 | 0.32 | 0.50 | 3144 | 50 | 0.48 | 1.17 | 3943 | 47 | 0.63 | 2.04 | 4360 | 44 |
| | 21 | 0.26 | ≤15 | 456 | 0.63 | 1.17 | 1672 | 37 | 0.95 | 2.64 | 1945 | 36 | 1.27 | 4.68 | 2047 | 35 | 0.32 | 0.50 | 3787 | 53 | 0.48 | 1.17 | 4777 | 50 | 0.63 | 2.04 | 5269 | 47 |
| | 25 | 0.38 | ≤15 | 543 | 0.63 | 1.17 | 1945 | 38 | 0.95 | 2.64 | 2218 | 37 | 1.27 | 4.68 | 2354 | 36 | 0.32 | 0.50 | 4318 | 56 | 0.48 | 1.17 | 5459 | 53 | 0.63 | 2.04 | 5990 | 49 |
| | 30 | 0.52 | ≤15 | 651 | 0.63 | 1.17 | 2150 | 39 | 0.95 | 2.64 | 2457 | 37 | 1.27 | 4.68 | 2593 | 36 | 0.32 | 0.50 | 4772 | 59 | 0.48 | 1.17 | 6028 | 55 | 0.63 | 2.04 | 6634 | 51 |
| | 34 | 0.68 | 18 | 738 | 0.63 | 1.17 | 2320 | 39 | 0.95 | 2.64 | 2661 | 38 | 1.27 | 4.68 | 2832 | 37 | 0.32 | 0.50 | 5151 | 61 | 0.48 | 1.17 | 6520 | 57 | 0.63 | 2.04 | 7203 | 52 |
| B1 | 25 | 0.19 | ≤15 | 543 | 0.63 | 1.17 | 1501 | 37 | 0.95 | 2.64 | 1740 | 36 | 1.27 | 4.68 | 1843 | 35 | 0.32 | 0.50 | 3447 | 52 | 0.48 | 1.17 | 4360 | 49 | 0.63 | 2.04 | 4814 | 46 |
| | 32 | 0.29 | ≤15 | 694 | 0.63 | 1.17 | 1774 | 38 | 0.95 | 2.64 | 2047 | 36 | 1.27 | 4.68 | 2184 | 35 | 0.32 | 0.50 | 3977 | 55 | 0.48 | 1.17 | 5042 | 51 | 0.63 | 2.04 | 5573 | 48 |
| | 38 | 0.42 | 18 | 825 | 0.63 | 1.17 | 2013 | 38 | 0.95 | 2.64 | 2320 | 37 | 1.27 | 4.68 | 2457 | 36 | 0.32 | 0.50 | 4431 | 57 | 0.48 | 1.17 | 5648 | 53 | 0.63 | 2.04 | 6179 | 50 |
| | 44 | 0.57 | 22 | 955 | 0.63 | 1.17 | 2218 | 39 | 0.95 | 2.64 | 2525 | 37 | 1.27 | 4.68 | 2696 | 36 | 0.32 | 0.50 | 4848 | 60 | 0.48 | 1.17 | 6141 | 55 | 0.63 | 2.04 | 6748 | 51 |
| | 51 | 0.75 | 26 | 1107 | 0.63 | 1.17 | 2388 | 40 | 0.95 | 2.64 | 2730 | 38 | 1.27 | 4.68 | 2900 | 37 | 0.32 | 0.50 | 5189 | 62 | 0.48 | 1.17 | 6596 | 57 | 0.63 | 2.04 | 7241 | 53 |
| C1 | 38 | 0.23 | ≤15 | 825 | 0.63 | 1.17 | 1740 | 38 | 0.95 | 2.64 | 2013 | 36 | 1.27 | 4.68 | 2116 | 35 | 0.32 | 0.50 | 3598 | 53 | 0.48 | 1.17 | 4587 | 49 | 0.63 | 2.04 | 5042 | 46 |
| | 47 | 0.34 | 20 | 1020 | 0.63 | 1.17 | 1979 | 38 | 0.95 | 2.64 | 2252 | 37 | 1.27 | 4.68 | 2423 | 36 | 0.32 | 0.50 | 4090 | 55 | 0.48 | 1.17 | 5194 | 52 | 0.63 | 2.04 | 5724 | 48 |
| | 55 | 0.48 | 25 | 1194 | 0.63 | 1.17 | 2150 | 39 | 0.95 | 2.64 | 2491 | 37 | 1.27 | 4.68 | 2627 | 36 | 0.32 | 0.50 | 4507 | 58 | 0.48 | 1.17 | 5724 | 54 | 0.63 | 2.04 | 6293 | 50 |
| | 64 | 0.63 | 28 | 1389 | 0.63 | 1.17 | 2320 | 39 | 0.95 | 2.64 | 2661 | 38 | 1.27 | 4.68 | 2832 | 37 | 0.32 | 0.50 | 4848 | 60 | 0.48 | 1.17 | 6179 | 55 | 0.63 | 2.04 | 6786 | 51 |
| | 72 | 0.81 | 31 | 1562 | 0.63 | 1.17 | 2457 | 40 | 0.95 | 2.64 | 2832 | 38 | 1.27 | 4.68 | 3003 | 37 | 0.32 | 0.50 | 5189 | 61 | 0.48 | 1.17 | 6558 | 57 | 0.63 | 2.04 | 7241 | 53 |
| E1 | 51 | 0.23 | 20 | 1107 | 0.63 | 1.17 | 1911 | 38 | 0.95 | 2.64 | 2184 | 37 | 1.27 | 4.68 | 2320 | 36 | 0.32 | 0.50 | 4053 | 55 | 0.48 | 1.17 | 5156 | 51 | 0.63 | 2.04 | 5648 | 48 |
| | 59 | 0.32 | 24 | 1280 | 0.63 | 1.17 | 2081 | 38 | 0.95 | 2.64 | 2388 | 37 | 1.27 | 4.68 | 2525 | 36 | 0.32 | 0.50 | 4431 | 57 | 0.48 | 1.17 | 5611 | 53 | 0.63 | 2.04 | 6179 | 49 |
| | 68 | 0.41 | 28 | 1476 | 0.63 | 1.17 | 2218 | 39 | 0.95 | 2.64 | 2559 | 37 | 1.27 | 4.68 | 2730 | 36 | 0.32 | 0.50 | 4772 | 59 | 0.48 | 1.17 | 6028 | 55 | 0.63 | 2.04 | 6634 | 51 |
| | 76 | 0.52 | 31 | 1649 | 0.63 | 1.17 | 2354 | 39 | 0.95 | 2.64 | 2696 | 38 | 1.27 | 4.68 | 2866 | 37 | 0.32 | 0.50 | 5075 | 61 | 0.48 | 1.17 | 6407 | 56 | 0.63 | 2.04 | 7051 | 52 |
| | 85 | 0.64 | 33 | 1845 | 0.63 | 1.17 | 2491 | 40 | 0.95 | 2.64 | 2832 | 38 | 1.27 | 4.68 | 3037 | 37 | 0.32 | 0.50 | 5340 | 62 | 0.48 | 1.17 | 6748 | 58 | 0.63 | 2.04 | 7430 | 53 |
| F1 | 59 | 0.20 | 22 | 1280 | 0.63 | 1.17 | 1911 | 38 | 0.95 | 2.64 | 2218 | 37 | 1.27 | 4.68 | 2354 | 36 | 0.32 | 0.50 | 4090 | 55 | 0.48 | 1.17 | 5194 | 52 | 0.63 | 2.04 | 5724 | 48 |
| | 70 | 0.28 | 27 | 1519 | 0.63 | 1.17 | 2081 | 39 | 0.95 | 2.64 | 2388 | 37 | 1.27 | 4.68 | 2559 | 36 | 0.32 | 0.50 | 4469 | 57 | 0.48 | 1.17 | 5686 | 53 | 0.63 | 2.04 | 6255 | 50 |
| | 81 | 0.37 | 30 | 1758 | 0.63 | 1.17 | 2252 | 39 | 0.95 | 2.64 | 2559 | 37 | 1.27 | 4.68 | 2730 | 36 | 0.32 | 0.50 | 4810 | 59 | 0.48 | 1.17 | 6103 | 55 | 0.63 | 2.04 | 6710 | 51 |
| | 91 | 0.48 | 34 | 1975 | 0.63 | 1.17 | 2388 | 40 | 0.95 | 2.64 | 2730 | 38 | 1.27 | 4.68 | 2900 | 37 | 0.32 | 0.50 | 5113 | 61 | 0.48 | 1.17 | 6482 | 56 | 0.63 | 2.04 | 7127 | 52 |
| | 102 | 0.59 | 37 | 2213 | 0.63 | 1.17 | 2491 | 40 | 0.95 | 2.64 | 2866 | 38 | 1.27 | 4.68 | 3037 | 37 | 0.32 | 0.50 | 5378 | 62 | 0.48 | 1.17 | 6786 | 58 | 0.63 | 2.04 | 7468 | 53 |
| G1 | 68 | 0.21 | 25 | 1476 | 0.63 | 1.17 | 1945 | 38 | 0.95 | 2.64 | 2218 | 37 | 1.27 | 4.68 | 2354 | 36 | 0.32 | 0.50 | 4204 | 56 | 0.48 | 1.17 | 5345 | 52 | 0.63 | 2.04 | 5876 | 49 |
| | 81 | 0.29 | 30 | 1758 | 0.63 | 1.17 | 2116 | 39 | 0.95 | 2.64 | 2423 | 37 | 1.27 | 4.68 | 2593 | 36 | 0.32 | 0.50 | 4507 | 58 | 0.48 | 1.17 | 5724 | 54 | 0.63 | 2.04 | 6293 | 50 |
| | 93 | 0.39 | 34 | 2018 | 0.63 | 1.17 | 2286 | 39 | 0.95 | 2.64 | 2627 | 38 | 1.27 | 4.68 | 2798 | 36 | 0.32 | 0.50 | 4810 | 59 | 0.48 | 1.17 | 6065 | 55 | 0.63 | 2.04 | 6672 | 51 |
| | 106 | 0.51 | 38 | 2300 | 0.63 | 1.17 | 2423 | 40 | 0.95 | 2.64 | 2764 | 38 | 1.27 | 4.68 | 2969 | 37 | 0.32 | 0.50 | 5037 | 61 | 0.48 | 1.17 | 6369 | 56 | 0.63 | 2.04 | 7013 | 52 |
| | 119 | 0.63 | 41 | 2582 | 0.63 | 1.17 | 2559 | 40 | 0.95 | 2.64 | 2934 | 38 | 1.27 | 4.68 | 3105 | 37 | 0.32 | 0.50 | 5265 | 62 | 0.48 | 1.17 | 6634 | 57 | 0.63 | 2.04 | 7316 | 53 |
| H1 | 93 | 0.19 | 31 | 2018 | 0.63 | 1.17 | 2184 | 39 | 0.95 | 2.64 | 2491 | 37 | 1.27 | 4.68 | 2661 | 36 | 0.32 | 0.50 | 4393 | 57 | 0.48 | 1.17 | 5573 | 53 | 0.63 | 2.04 | 6141 | 49 |
| | 110 | 0.26 | 37 | 2387 | 0.63 | 1.17 | 2286 | 39 | 0.95 | 2.64 | 2627 | 38 | 1.27 | 4.68 | 2798 | 36 | 0.32 | 0.50 | 4659 | 58 | 0.48 | 1.17 | 5914 | 54 | 0.63 | 2.04 | 6482 | 50 |
| | 127 | 0.35 | 41 | 2756 | 0.63 | 1.17 | 2388 | 40 | 0.95 | 2.64 | 2764 | 38 | 1.27 | 4.68 | 2934 | 37 | 0.32 | 0.50 | 4886 | 60 | 0.48 | 1.17 | 6217 | 55 | 0.63 | 2.04 | 6824 | 51 |
| | 144 | 0.45 | 43 | 3125 | 0.63 | 1.17 | 2491 | 40 | 0.95 | 2.64 | 2866 | 38 | 1.27 | 4.68 | 3037 | 37 | 0.32 | 0.50 | 5113 | 61 | 0.48 | 1.17 | 6482 | 56 | 0.63 | 2.04 | 7127 | 52 |
| | 161 | 0.57 | 46 | 3494 | 0.63 | 1.17 | 2559 | 40 | 0.95 | 2.64 | 2934 | 38 | 1.27 | 4.68 | 3139 | 37 | 0.32 | 0.50 | 5302 | 62 | 0.48 | 1.17 | 6710 | 57 | 0.63 | 2.04 | 7392 | 53 |

1) Air cooling capacities are based on $\Delta T_{AC} = T_{RC}-T_{CSA} = 20°F$. For other conditions, multiply the table air cooling capacity by the required ($T_{RC}-T_{CSA}$) divided by 20°F. Alternatively, air cooling capacity can be calculated from the formula: Air cooling capacity $Q_S$ = 1.085 x Airflow (cfm) x ($T_{RC}-T_{CSA}$).

2) Water cooling capacities are based on $T_{RC}-T_{CHS} = 18°F$. For other conditions multiply the table water cooling capacity by the required ($T_{RC}-T_{CHS}$) divided by 18°F.

3) Water heating capacities are based on 4-pipe chilled beams with $T_{HWS}-T_{RW} = 70°F$. For other conditions, multiply the table water heating capacity by the required ($T_{HWS}-T_{RW}$) divided by 70°F.

4) Performance ratings are subject to tolerances of plus/minus 5%.

## YK-OHACB-4 (1200mm)

| NOZZLE | PRIMARY AIRFLOW | PLENUM PRESSURE | NOISE CRITERIA | AIR COOLING CAPACITY ΔT=10°C | COOLING ($T_{RC}$ - $T_{CHS}$ = 10°C) | | | | | | | | | | | | HEATING ($T_{HWS}$ - $T_{RH}$ = 35°C) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | COOLING WATER FLOW 1 | | | | COOLING WATER FLOW 2 | | | | COOLING WATER FLOW 3 | | | | HEATING WATER FLOW 1 | | | | HEATING WATER FLOW 2 | | | | HEATING WATER FLOW 3 | | | |
| | | | | | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER |
| | (l/s) | (Pa) | (NC) | (W) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) |
| A0 | 6 | 36 | ≤15 | 73 | 0.04 | 3.5 | 380 | 2.2 | 0.06 | 7.9 | 430 | 1.7 | 0.08 | 14 | 460 | 1.4 | 0.02 | 1.5 | 660 | 7.9 | 0.03 | 3.5 | 840 | 6.7 | 0.04 | 6.1 | 930 | 5.5 |
| | 8 | 64 | ≤15 | 97 | 0.04 | 3.5 | 470 | 2.8 | 0.06 | 7.9 | 530 | 2.1 | 0.08 | 14 | 570 | 1.7 | 0.02 | 1.5 | 880 | 10.6 | 0.03 | 3.5 | 1120 | 8.9 | 0.04 | 6.1 | 1230 | 7.3 |
| | 10 | 100 | ≤15 | 121 | 0.04 | 3.5 | 540 | 3.2 | 0.06 | 7.9 | 610 | 2.4 | 0.08 | 14 | 650 | 1.9 | 0.02 | 1.5 | 1060 | 12.6 | 0.03 | 3.5 | 1340 | 10.7 | 0.04 | 6.1 | 1470 | 8.8 |
| | 12 | 144 | ≤15 | 146 | 0.04 | 3.5 | 590 | 3.5 | 0.06 | 7.9 | 680 | 2.7 | 0.08 | 14 | 720 | 2.2 | 0.02 | 1.5 | 1200 | 14.3 | 0.03 | 3.5 | 1520 | 12.1 | 0.04 | 6.1 | 1670 | 10.0 |
| | 14 | 196 | 17 | 170 | 0.04 | 3.5 | 640 | 3.8 | 0.06 | 7.9 | 730 | 2.9 | 0.08 | 14 | 780 | 2.3 | 0.02 | 1.5 | 1320 | 15.8 | 0.03 | 3.5 | 1670 | 13.3 | 0.04 | 6.1 | 1840 | 11.0 |
| A1 | 8 | 42 | ≤15 | 97 | 0.04 | 3.5 | 410 | 2.4 | 0.06 | 7.9 | 460 | 1.8 | 0.08 | 14 | 490 | 1.5 | 0.02 | 1.5 | 830 | 9.9 | 0.03 | 3.5 | 1040 | 8.3 | 0.04 | 6.1 | 1150 | 6.9 |
| | 10 | 66 | ≤15 | 121 | 0.04 | 3.5 | 490 | 2.9 | 0.06 | 7.9 | 570 | 2.3 | 0.08 | 14 | 600 | 1.8 | 0.02 | 1.5 | 1000 | 11.9 | 0.03 | 3.5 | 1260 | 10.0 | 0.04 | 6.1 | 1390 | 8.3 |
| | 12 | 95 | ≤15 | 146 | 0.04 | 3.5 | 570 | 3.4 | 0.06 | 7.9 | 650 | 2.6 | 0.08 | 14 | 690 | 2.1 | 0.02 | 1.5 | 1140 | 13.6 | 0.03 | 3.5 | 1440 | 11.5 | 0.04 | 6.1 | 1580 | 9.4 |
| | 14 | 129 | ≤15 | 170 | 0.04 | 3.5 | 630 | 3.7 | 0.06 | 7.9 | 720 | 2.9 | 0.08 | 14 | 760 | 2.3 | 0.02 | 1.5 | 1260 | 15.0 | 0.03 | 3.5 | 1590 | 12.7 | 0.04 | 6.1 | 1750 | 10.4 |
| | 16 | 169 | 18 | 194 | 0.04 | 3.5 | 680 | 4.1 | 0.06 | 7.9 | 780 | 3.1 | 0.08 | 14 | 830 | 2.5 | 0.02 | 1.5 | 1360 | 16.3 | 0.03 | 3.5 | 1720 | 13.7 | 0.04 | 6.1 | 1900 | 11.3 |
| B1 | 12 | 47 | ≤15 | 146 | 0.04 | 3.5 | 440 | 2.6 | 0.06 | 7.9 | 510 | 2.0 | 0.08 | 14 | 540 | 1.6 | 0.02 | 1.5 | 910 | 10.9 | 0.03 | 3.5 | 1150 | 9.2 | 0.04 | 6.1 | 1270 | 7.6 |
| | 15 | 73 | ≤15 | 182 | 0.04 | 3.5 | 520 | 3.1 | 0.06 | 7.9 | 600 | 2.4 | 0.08 | 14 | 640 | 1.9 | 0.02 | 1.5 | 1050 | 12.6 | 0.03 | 3.5 | 1330 | 10.6 | 0.04 | 6.1 | 1470 | 8.8 |
| | 18 | 105 | 18 | 218 | 0.04 | 3.5 | 590 | 3.5 | 0.06 | 7.9 | 680 | 2.7 | 0.08 | 14 | 720 | 2.2 | 0.02 | 1.5 | 1170 | 14.0 | 0.03 | 3.5 | 1490 | 11.8 | 0.04 | 6.1 | 1630 | 9.8 |
| | 21 | 143 | 22 | 255 | 0.04 | 3.5 | 650 | 3.9 | 0.06 | 7.9 | 740 | 3.0 | 0.08 | 14 | 790 | 2.4 | 0.02 | 1.5 | 1280 | 15.3 | 0.03 | 3.5 | 1620 | 12.9 | 0.04 | 6.1 | 1780 | 10.6 |
| | 24 | 186 | 26 | 291 | 0.04 | 3.5 | 700 | 4.2 | 0.06 | 7.9 | 800 | 3.2 | 0.08 | 14 | 850 | 2.5 | 0.02 | 1.5 | 1370 | 16.4 | 0.03 | 3.5 | 1740 | 13.8 | 0.04 | 6.1 | 1910 | 11.4 |
| C1 | 18 | 57 | ≤15 | 218 | 0.04 | 3.5 | 510 | 3.1 | 0.06 | 7.9 | 590 | 2.3 | 0.08 | 14 | 620 | 1.9 | 0.02 | 1.5 | 950 | 11.4 | 0.03 | 3.5 | 1210 | 9.6 | 0.04 | 6.1 | 1330 | 7.9 |
| | 22 | 85 | 20 | 267 | 0.04 | 3.5 | 580 | 3.5 | 0.06 | 7.9 | 660 | 2.6 | 0.08 | 14 | 710 | 2.1 | 0.02 | 1.5 | 1080 | 12.9 | 0.03 | 3.5 | 1370 | 10.9 | 0.04 | 6.1 | 1510 | 9.0 |
| | 26 | 119 | 25 | 315 | 0.04 | 3.5 | 630 | 3.8 | 0.06 | 7.9 | 730 | 2.9 | 0.08 | 14 | 770 | 2.3 | 0.02 | 1.5 | 1190 | 14.2 | 0.03 | 3.5 | 1510 | 12.0 | 0.04 | 6.1 | 1660 | 9.9 |
| | 30 | 158 | 28 | 364 | 0.04 | 3.5 | 680 | 4.1 | 0.06 | 7.9 | 780 | 3.1 | 0.08 | 14 | 830 | 2.5 | 0.02 | 1.5 | 1280 | 15.3 | 0.03 | 3.5 | 1630 | 12.9 | 0.04 | 6.1 | 1790 | 10.7 |
| | 34 | 203 | 31 | 412 | 0.04 | 3.5 | 720 | 4.3 | 0.06 | 7.9 | 830 | 3.3 | 0.08 | 14 | 880 | 2.6 | 0.02 | 1.5 | 1370 | 16.3 | 0.03 | 3.5 | 1730 | 13.8 | 0.04 | 6.1 | 1910 | 11.4 |
| E1 | 24 | 58 | 20 | 291 | 0.04 | 3.5 | 560 | 3.3 | 0.06 | 7.9 | 640 | 2.6 | 0.08 | 14 | 680 | 2.0 | 0.02 | 1.5 | 1070 | 12.8 | 0.03 | 3.5 | 1360 | 10.8 | 0.04 | 6.1 | 1490 | 8.9 |
| | 28 | 79 | 24 | 340 | 0.04 | 3.5 | 610 | 3.6 | 0.06 | 7.9 | 700 | 2.8 | 0.08 | 14 | 740 | 2.2 | 0.02 | 1.5 | 1170 | 14.0 | 0.03 | 3.5 | 1480 | 11.8 | 0.04 | 6.1 | 1630 | 9.7 |
| | 32 | 103 | 28 | 388 | 0.04 | 3.5 | 650 | 3.9 | 0.06 | 7.9 | 750 | 3.0 | 0.08 | 14 | 800 | 2.4 | 0.02 | 1.5 | 1260 | 15.0 | 0.03 | 3.5 | 1590 | 12.7 | 0.04 | 6.1 | 1750 | 10.5 |
| | 36 | 130 | 31 | 437 | 0.04 | 3.5 | 690 | 4.1 | 0.06 | 7.9 | 790 | 3.2 | 0.08 | 14 | 840 | 2.5 | 0.02 | 1.5 | 1340 | 16.0 | 0.03 | 3.5 | 1690 | 13.5 | 0.04 | 6.1 | 1860 | 11.1 |
| | 40 | 160 | 33 | 485 | 0.04 | 3.5 | 730 | 4.3 | 0.06 | 7.9 | 830 | 3.3 | 0.08 | 14 | 890 | 2.6 | 0.02 | 1.5 | 1410 | 16.8 | 0.03 | 3.5 | 1780 | 14.2 | 0.04 | 6.1 | 1960 | 11.7 |
| F1 | 28 | 50 | 22 | 340 | 0.04 | 3.5 | 560 | 3.4 | 0.06 | 7.9 | 650 | 2.6 | 0.08 | 14 | 690 | 2.0 | 0.02 | 1.5 | 1080 | 12.9 | 0.03 | 3.5 | 1370 | 10.9 | 0.04 | 6.1 | 1510 | 9.0 |
| | 33 | 70 | 27 | 400 | 0.04 | 3.5 | 610 | 3.7 | 0.06 | 7.9 | 700 | 2.8 | 0.08 | 14 | 750 | 2.2 | 0.02 | 1.5 | 1180 | 14.1 | 0.03 | 3.5 | 1500 | 11.9 | 0.04 | 6.1 | 1650 | 9.8 |
| | 38 | 93 | 30 | 461 | 0.04 | 3.5 | 660 | 3.9 | 0.06 | 7.9 | 750 | 3.0 | 0.08 | 14 | 800 | 2.4 | 0.02 | 1.5 | 1270 | 15.2 | 0.03 | 3.5 | 1610 | 12.8 | 0.04 | 6.1 | 1770 | 10.6 |
| | 43 | 119 | 34 | 522 | 0.04 | 3.5 | 700 | 4.2 | 0.06 | 7.9 | 800 | 3.2 | 0.08 | 14 | 850 | 2.5 | 0.02 | 1.5 | 1350 | 16.1 | 0.03 | 3.5 | 1710 | 13.6 | 0.04 | 6.1 | 1880 | 11.2 |
| | 48 | 148 | 37 | 582 | 0.04 | 3.5 | 730 | 4.4 | 0.06 | 7.9 | 840 | 3.3 | 0.08 | 14 | 890 | 2.7 | 0.02 | 1.5 | 1420 | 16.9 | 0.03 | 3.5 | 1790 | 14.3 | 0.04 | 6.1 | 1970 | 11.8 |
| G1 | 32 | 52 | 25 | 388 | 0.04 | 3.5 | 570 | 3.4 | 0.06 | 7.9 | 650 | 2.6 | 0.08 | 14 | 690 | 2.1 | 0.02 | 1.5 | 1110 | 13.3 | 0.03 | 3.5 | 1410 | 11.2 | 0.04 | 6.1 | 1550 | 9.3 |
| | 38 | 73 | 30 | 461 | 0.04 | 3.5 | 620 | 3.7 | 0.06 | 7.9 | 710 | 2.8 | 0.08 | 14 | 760 | 2.3 | 0.02 | 1.5 | 1190 | 14.3 | 0.03 | 3.5 | 1510 | 12.0 | 0.04 | 6.1 | 1660 | 9.9 |
| | 44 | 97 | 34 | 534 | 0.04 | 3.5 | 670 | 4.0 | 0.06 | 7.9 | 770 | 3.1 | 0.08 | 14 | 820 | 2.4 | 0.02 | 1.5 | 1270 | 15.1 | 0.03 | 3.5 | 1600 | 12.8 | 0.04 | 6.1 | 1760 | 10.5 |
| | 50 | 126 | 38 | 607 | 0.04 | 3.5 | 710 | 4.2 | 0.06 | 7.9 | 810 | 3.2 | 0.08 | 14 | 870 | 2.6 | 0.02 | 1.5 | 1330 | 15.9 | 0.03 | 3.5 | 1680 | 13.4 | 0.04 | 6.1 | 1850 | 11.0 |
| | 56 | 158 | 41 | 679 | 0.04 | 3.5 | 750 | 4.5 | 0.06 | 7.9 | 860 | 3.4 | 0.08 | 14 | 910 | 2.7 | 0.02 | 1.5 | 1390 | 16.5 | 0.03 | 3.5 | 1750 | 14.0 | 0.04 | 6.1 | 1930 | 11.5 |
| H1 | 44 | 47 | 31 | 534 | 0.04 | 3.5 | 640 | 3.8 | 0.06 | 7.9 | 730 | 2.9 | 0.08 | 14 | 780 | 2.3 | 0.02 | 1.5 | 1160 | 13.9 | 0.03 | 3.5 | 1470 | 11.7 | 0.04 | 6.1 | 1620 | 9.6 |
| | 52 | 66 | 37 | 631 | 0.04 | 3.5 | 670 | 4.0 | 0.06 | 7.9 | 770 | 3.1 | 0.08 | 14 | 820 | 2.4 | 0.02 | 1.5 | 1230 | 14.7 | 0.03 | 3.5 | 1560 | 12.4 | 0.04 | 6.1 | 1710 | 10.2 |
| | 60 | 88 | 41 | 728 | 0.04 | 3.5 | 700 | 4.2 | 0.06 | 7.9 | 810 | 3.2 | 0.08 | 14 | 860 | 2.6 | 0.02 | 1.5 | 1290 | 15.4 | 0.03 | 3.5 | 1640 | 13.0 | 0.04 | 6.1 | 1800 | 10.8 |
| | 68 | 113 | 43 | 825 | 0.04 | 3.5 | 730 | 4.4 | 0.06 | 7.9 | 840 | 3.3 | 0.08 | 14 | 890 | 2.7 | 0.02 | 1.5 | 1350 | 16.1 | 0.03 | 3.5 | 1710 | 13.6 | 0.04 | 6.1 | 1880 | 11.2 |
| | 76 | 142 | 46 | 922 | 0.04 | 3.5 | 750 | 4.5 | 0.06 | 7.9 | 860 | 3.4 | 0.08 | 14 | 920 | 2.7 | 0.02 | 1.5 | 1400 | 16.7 | 0.03 | 3.5 | 1770 | 14.1 | 0.04 | 6.1 | 1950 | 11.6 |

1) Air cooling capacities are based on $\Delta T_{AC} = T_{RC}-T_{CSA} = 10°C$. For other conditions, multiply the table air cooling capacity by the required ($T_{RC}-T_{CSA}$) divided by 10°C.
Alternatively, air cooling capacity can be calculated from the formula: Air cooling capacity W = 1.213 x Airflow (l/s) x ($T_{RC}-T_{CSA}$).

2) Water cooling capacities are based on $T_{RC}-T_{CHS} = 10°C$. For other conditions multiply the table water cooling capacity by the required ($T_{RC}-T_{CHS}$) divided by 10°C.

3) Water heating capacities are based on 4-pipe chilled beams with $T_{HWS}-T_{RW} = 35°C$. For other conditions, multiply the table water heating capacity by the required ($T_{HWS}-T_{RW}$) divided by 35°C.

4) Performance ratings are subject to tolerances of plus/minus 5%.

# PERFORMANCE DATA

## 2-Way Air Flow / 4-Pipe

**YK-OHACB-6 (6')**

| NOZZLE | PRIMARY AIRFLOW | PLENUM PRESSURE | NOISE CRITERIA | AIR COOLING CAPACITY ΔT=20°F | COOLING ($T_{RC}$ - $T_{CHS}$ = 18°F) | | | | | | | | | | | | HEATING ($T_{HWS}$ - $T_{RH}$ = 70°F) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | COOLING WATER FLOW 1 | | | | COOLING WATER FLOW 2 | | | | COOLING WATER FLOW 3 | | | | HEATING WATER FLOW 1 | | | | HEATING WATER FLOW 2 | | | | HEATING WATER FLOW 3 | | | |
| | | | | | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER |
| | (cfm) | (in. w.c.) | (NC) | (Btu/hr) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) |
| A0 | 21 | 0.16 | ≤15 | 460 | 0.63 | 1.61 | 1945 | 6 | 0.95 | 3.61 | 2252 | 5 | 1.27 | 6.46 | 2388 | 4 | 0.48 | 1.47 | 3977 | 17 | 0.63 | 2.61 | 5037 | 16 | 0.79 | 4.05 | 5530 | 14 |
| | 28 | 0.27 | ≤15 | 598 | 0.63 | 1.61 | 2354 | 7 | 0.95 | 3.61 | 2696 | 6 | 1.27 | 6.46 | 2866 | 5 | 0.48 | 1.47 | 5265 | 22 | 0.63 | 2.61 | 6666 | 21 | 0.79 | 4.05 | 7348 | 19 |
| | 34 | 0.41 | ≤15 | 736 | 0.63 | 1.61 | 2696 | 9 | 0.95 | 3.61 | 3071 | 6 | 1.27 | 6.46 | 3276 | 5 | 0.48 | 1.47 | 6325 | 27 | 0.63 | 2.61 | 7992 | 25 | 0.79 | 4.05 | 8787 | 22 |
| | 40 | 0.58 | ≤15 | 874 | 0.63 | 1.61 | 2934 | 9 | 0.95 | 3.61 | 3378 | 7 | 1.27 | 6.46 | 3583 | 6 | 0.48 | 1.47 | 7158 | 30 | 0.63 | 2.61 | 9090 | 29 | 0.79 | 4.05 | 9999 | 25 |
| | 47 | 0.78 | 17 | 1012 | 0.63 | 1.61 | 3173 | 10 | 0.95 | 3.61 | 3651 | 8 | 1.27 | 6.46 | 3856 | 6 | 0.48 | 1.47 | 7916 | 33 | 0.63 | 2.61 | 9999 | 32 | 0.79 | 4.05 | 10984 | 28 |
| A1 | 28 | 0.18 | ≤15 | 598 | 0.63 | 1.61 | 2081 | 7 | 0.95 | 3.61 | 2388 | 5 | 1.27 | 6.46 | 2525 | 4 | 0.48 | 1.47 | 4924 | 21 | 0.63 | 2.61 | 6249 | 20 | 0.79 | 4.05 | 6855 | 17 |
| | 34 | 0.27 | ≤15 | 736 | 0.63 | 1.61 | 2491 | 8 | 0.95 | 3.61 | 2832 | 6 | 1.27 | 6.46 | 3037 | 5 | 0.48 | 1.47 | 5946 | 25 | 0.63 | 2.61 | 7537 | 24 | 0.79 | 4.05 | 8295 | 21 |
| | 40 | 0.39 | ≤15 | 874 | 0.63 | 1.61 | 2832 | 9 | 0.95 | 3.61 | 3242 | 7 | 1.27 | 6.46 | 3446 | 5 | 0.48 | 1.47 | 6780 | 29 | 0.63 | 2.61 | 8598 | 27 | 0.79 | 4.05 | 9469 | 24 |
| | 47 | 0.52 | ≤15 | 1012 | 0.63 | 1.61 | 3105 | 10 | 0.95 | 3.61 | 3583 | 8 | 1.27 | 6.46 | 3787 | 6 | 0.48 | 1.47 | 7499 | 32 | 0.63 | 2.61 | 9507 | 30 | 0.79 | 4.05 | 10453 | 26 |
| | 53 | 0.67 | 18 | 1150 | 0.63 | 1.61 | 3378 | 11 | 0.95 | 3.61 | 3856 | 8 | 1.27 | 6.46 | 4095 | 6 | 0.48 | 1.47 | 8143 | 34 | 0.63 | 2.61 | 10302 | 32 | 0.79 | 4.05 | 11325 | 29 |
| B1 | 42 | 0.21 | ≤15 | 920 | 0.63 | 1.61 | 2491 | 8 | 0.95 | 3.61 | 2866 | 6 | 1.27 | 6.46 | 3037 | 5 | 0.48 | 1.47 | 5643 | 24 | 0.63 | 2.61 | 7158 | 23 | 0.79 | 4.05 | 7878 | 20 |
| | 51 | 0.30 | ≤15 | 1104 | 0.63 | 1.61 | 2764 | 9 | 0.95 | 3.61 | 3173 | 7 | 1.27 | 6.46 | 3378 | 5 | 0.48 | 1.47 | 6401 | 27 | 0.63 | 2.61 | 8105 | 26 | 0.79 | 4.05 | 8901 | 22 |
| | 59 | 0.41 | 18 | 1287 | 0.63 | 1.61 | 3003 | 9 | 0.95 | 3.61 | 3446 | 7 | 1.27 | 6.46 | 3651 | 6 | 0.48 | 1.47 | 7045 | 30 | 0.63 | 2.61 | 8901 | 28 | 0.79 | 4.05 | 9810 | 25 |
| | 68 | 0.53 | 22 | 1471 | 0.63 | 1.61 | 3207 | 10 | 0.95 | 3.61 | 3651 | 8 | 1.27 | 6.46 | 3890 | 6 | 0.48 | 1.47 | 7613 | 32 | 0.63 | 2.61 | 9620 | 30 | 0.79 | 4.05 | 10567 | 27 |
| | 76 | 0.67 | 26 | 1655 | 0.63 | 1.61 | 3378 | 11 | 0.95 | 3.61 | 3856 | 8 | 1.27 | 6.46 | 4129 | 7 | 0.48 | 1.47 | 8105 | 34 | 0.63 | 2.61 | 10264 | 32 | 0.79 | 4.05 | 11287 | 28 |
| C1 | 117 | 0.22 | ≤15 | 2529 | 0.63 | 1.61 | 2730 | 9 | 0.95 | 3.61 | 3139 | 7 | 1.27 | 6.46 | 3344 | 5 | 0.48 | 1.47 | 6325 | 27 | 0.63 | 2.61 | 7992 | 25 | 0.79 | 4.05 | 8787 | 22 |
| | 163 | 0.31 | 20 | 3541 | 0.63 | 1.61 | 2969 | 9 | 0.95 | 3.61 | 3412 | 7 | 1.27 | 6.46 | 3617 | 6 | 0.48 | 1.47 | 6893 | 29 | 0.63 | 2.61 | 8711 | 27 | 0.79 | 4.05 | 9582 | 24 |
| | 216 | 0.41 | 25 | 4690 | 0.63 | 1.61 | 3173 | 10 | 0.95 | 3.61 | 3651 | 8 | 1.27 | 6.46 | 3890 | 6 | 0.48 | 1.47 | 7423 | 31 | 0.63 | 2.61 | 9393 | 30 | 0.79 | 4.05 | 10302 | 26 |
| | 278 | 0.53 | 28 | 6024 | 0.63 | 1.61 | 3378 | 11 | 0.95 | 3.61 | 3856 | 8 | 1.27 | 6.46 | 4095 | 6 | 0.48 | 1.47 | 7878 | 33 | 0.63 | 2.61 | 9961 | 31 | 0.79 | 4.05 | 10946 | 28 |
| | 345 | 0.65 | 31 | 7495 | 0.63 | 1.61 | 3549 | 11 | 0.95 | 3.61 | 4060 | 9 | 1.27 | 6.46 | 4299 | 7 | 0.48 | 1.47 | 8257 | 35 | 0.63 | 2.61 | 10453 | 33 | 0.79 | 4.05 | 11514 | 29 |
| E1 | 81 | 0.23 | 20 | 1747 | 0.63 | 1.61 | 2798 | 9 | 0.95 | 3.61 | 3207 | 7 | 1.27 | 6.46 | 3378 | 5 | 0.48 | 1.47 | 6401 | 27 | 0.63 | 2.61 | 8105 | 26 | 0.79 | 4.05 | 8901 | 22 |
| | 93 | 0.31 | 24 | 2023 | 0.63 | 1.61 | 3037 | 10 | 0.95 | 3.61 | 3480 | 7 | 1.27 | 6.46 | 3685 | 6 | 0.48 | 1.47 | 7007 | 29 | 0.63 | 2.61 | 8863 | 28 | 0.79 | 4.05 | 9734 | 25 |
| | 106 | 0.41 | 28 | 2299 | 0.63 | 1.61 | 3242 | 10 | 0.95 | 3.61 | 3719 | 8 | 1.27 | 6.46 | 3958 | 6 | 0.48 | 1.47 | 7537 | 32 | 0.63 | 2.61 | 9507 | 30 | 0.79 | 4.05 | 10453 | 26 |
| | 119 | 0.51 | 31 | 2575 | 0.63 | 1.61 | 3412 | 11 | 0.95 | 3.61 | 3924 | 8 | 1.27 | 6.46 | 4163 | 7 | 0.48 | 1.47 | 7992 | 34 | 0.63 | 2.61 | 10113 | 32 | 0.79 | 4.05 | 11097 | 28 |
| | 131 | 0.62 | 33 | 2851 | 0.63 | 1.61 | 3583 | 11 | 0.95 | 3.61 | 4129 | 9 | 1.27 | 6.46 | 4368 | 7 | 0.48 | 1.47 | 8408 | 35 | 0.63 | 2.61 | 10643 | 34 | 0.79 | 4.05 | 11703 | 30 |
| F1 | 93 | 0.20 | 22 | 2023 | 0.63 | 1.61 | 2798 | 9 | 0.95 | 3.61 | 3207 | 7 | 1.27 | 6.46 | 3753 | 6 | 0.48 | 1.47 | 6477 | 27 | 0.63 | 2.61 | 8181 | 26 | 0.79 | 4.05 | 9014 | 23 |
| | 110 | 0.28 | 27 | 2391 | 0.63 | 1.61 | 3037 | 10 | 0.95 | 3.61 | 3515 | 7 | 1.27 | 6.46 | 3719 | 6 | 0.48 | 1.47 | 7083 | 30 | 0.63 | 2.61 | 8938 | 28 | 0.79 | 4.05 | 9847 | 25 |
| | 127 | 0.37 | 30 | 2759 | 0.63 | 1.61 | 3276 | 10 | 0.95 | 3.61 | 3753 | 8 | 1.27 | 6.46 | 3992 | 6 | 0.48 | 1.47 | 7613 | 32 | 0.63 | 2.61 | 9620 | 30 | 0.79 | 4.05 | 10567 | 27 |
| | 144 | 0.48 | 34 | 3127 | 0.63 | 1.61 | 3446 | 11 | 0.95 | 3.61 | 3958 | 8 | 1.27 | 6.46 | 4231 | 7 | 0.48 | 1.47 | 8067 | 34 | 0.63 | 2.61 | 10188 | 32 | 0.79 | 4.05 | 11211 | 28 |
| | 161 | 0.59 | 37 | 3495 | 0.63 | 1.61 | 3617 | 11 | 0.95 | 3.61 | 4163 | 9 | 1.27 | 6.46 | 4436 | 7 | 0.48 | 1.47 | 8446 | 36 | 0.63 | 2.61 | 10681 | 34 | 0.79 | 4.05 | 11779 | 30 |
| G1 | 114 | 0.24 | 25 | 2483 | 0.63 | 1.61 | 2934 | 9 | 0.95 | 3.61 | 3344 | 7 | 1.27 | 6.46 | 3583 | 6 | 0.48 | 1.47 | 6666 | 28 | 0.63 | 2.61 | 8408 | 27 | 0.79 | 4.05 | 9279 | 23 |
| | 131 | 0.31 | 30 | 2851 | 0.63 | 1.61 | 3139 | 10 | 0.95 | 3.61 | 3617 | 8 | 1.27 | 6.46 | 3822 | 6 | 0.48 | 1.47 | 7120 | 30 | 0.63 | 2.61 | 9014 | 28 | 0.79 | 4.05 | 9923 | 25 |
| | 148 | 0.39 | 34 | 3219 | 0.63 | 1.61 | 3344 | 11 | 0.95 | 3.61 | 3822 | 8 | 1.27 | 6.46 | 4060 | 6 | 0.48 | 1.47 | 7575 | 32 | 0.63 | 2.61 | 9582 | 30 | 0.79 | 4.05 | 10529 | 27 |
| | 165 | 0.49 | 38 | 3587 | 0.63 | 1.61 | 3515 | 11 | 0.95 | 3.61 | 4026 | 8 | 1.27 | 6.46 | 4265 | 7 | 0.48 | 1.47 | 7916 | 33 | 0.63 | 2.61 | 10037 | 32 | 0.79 | 4.05 | 11059 | 28 |
| | 182 | 0.60 | 41 | 3954 | 0.63 | 1.61 | 3685 | 12 | 0.95 | 3.61 | 4197 | 9 | 1.27 | 6.46 | 4470 | 7 | 0.48 | 1.47 | 8257 | 35 | 0.63 | 2.61 | 10453 | 33 | 0.79 | 4.05 | 11514 | 29 |
| H1 | 153 | 0.20 | 31 | 3311 | 0.63 | 1.61 | 3207 | 10 | 0.95 | 3.61 | 3685 | 8 | 1.27 | 6.46 | 3924 | 6 | 0.48 | 1.47 | 6931 | 29 | 0.63 | 2.61 | 8787 | 28 | 0.79 | 4.05 | 9658 | 24 |
| | 178 | 0.28 | 37 | 3862 | 0.63 | 1.61 | 3378 | 11 | 0.95 | 3.61 | 3856 | 8 | 1.27 | 6.46 | 4095 | 6 | 0.48 | 1.47 | 7348 | 31 | 0.63 | 2.61 | 9317 | 29 | 0.79 | 4.05 | 10226 | 26 |
| | 203 | 0.36 | 41 | 4414 | 0.63 | 1.61 | 3515 | 11 | 0.95 | 3.61 | 4026 | 8 | 1.27 | 6.46 | 4265 | 7 | 0.48 | 1.47 | 7726 | 32 | 0.63 | 2.61 | 9772 | 31 | 0.79 | 4.05 | 10756 | 27 |
| | 229 | 0.46 | 43 | 4966 | 0.63 | 1.61 | 3617 | 11 | 0.95 | 3.61 | 4163 | 9 | 1.27 | 6.46 | 4436 | 7 | 0.48 | 1.47 | 8067 | 34 | 0.63 | 2.61 | 10188 | 32 | 0.79 | 4.05 | 11211 | 28 |
| | 254 | 0.57 | 46 | 5518 | 0.63 | 1.61 | 3753 | 12 | 0.95 | 3.61 | 4299 | 9 | 1.27 | 6.46 | 4572 | 7 | 0.48 | 1.47 | 8332 | 35 | 0.63 | 2.61 | 10567 | 33 | 0.79 | 4.05 | 11628 | 29 |

1) Air cooling capacities are based on $\Delta T_{AC} = T_{RC}-T_{CSA} = 20°F$. For other conditions, multiply the table air cooling capacity by the required ($T_{RC}-T_{CSA}$) divided by 20°F. Alternatively, air cooling capacity can be calculated from the formula: Air cooling capacity $Q_S$ = 1.085 x Airflow (cfm) x ($T_{RC}-T_{CSA}$).

2) Water cooling capacities are based on $T_{RC}-T_{CHS} = 18°F$. For other conditions multiply the table water cooling capacity by the required ($T_{RC}-T_{CHS}$) divided by 18°F.

3) Water heating capacities are based on 4-pipe chilled beams with $T_{HWS}-T_{RW} = 70°F$. For other conditions, multiply the table water heating capacity by the required ($T_{HWS}-T_{RW}$) divided by 70°F.

4) Performance ratings are subject to tolerances of plus/minus 5%.

## YK-OHACB-6 (1800mm)

| NOZZLE | PRIMARY AIRFLOW | PLENUM PRESSURE | NOISE CRITERIA | AIR COOLING CAPACITY ΔT=10°C | COOLING ($T_{RC}$ - $T_{CHS}$ = 10°C) | | | | | | | | | | | | HEATING ($T_{HWS}$ - $T_{RH}$ = 35°C) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | COOLING WATER FLOW 1 | | | | COOLING WATER FLOW 2 | | | | COOLING WATER FLOW 3 | | | | HEATING WATER FLOW 1 | | | | HEATING WATER FLOW 2 | | | | HEATING WATER FLOW 3 | | | |
| | | | | | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER |
| | (l/s) | (Pa) | (NC) | (W) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) |
| A0 | 10 | 40 | ≤15 | 121 | 0.04 | 4.8 | 570 | 3.4 | 0.06 | 10.8 | 660 | 2.6 | 0.08 | 19.3 | 700 | 2.1 | 0.03 | 4.4 | 1050 | 8.3 | 0.04 | 7.8 | 1330 | 7.9 | 0.05 | 12.1 | 1460 | 7.0 |
| | 13 | 68 | ≤15 | 158 | 0.04 | 4.8 | 690 | 4.1 | 0.06 | 10.8 | 790 | 3.2 | 0.08 | 19.3 | 840 | 2.5 | 0.03 | 4.4 | 1390 | 11.1 | 0.04 | 7.8 | 1760 | 10.5 | 0.05 | 12.1 | 1940 | 9.3 |
| | 16 | 103 | ≤15 | 194 | 0.04 | 4.8 | 790 | 4.7 | 0.06 | 10.8 | 900 | 3.6 | 0.08 | 19.3 | 960 | 2.9 | 0.03 | 4.4 | 1670 | 13.3 | 0.04 | 7.8 | 2110 | 12.6 | 0.05 | 12.1 | 2320 | 11.1 |
| | 19 | 145 | 21 | 230 | 0.04 | 4.8 | 860 | 5.2 | 0.06 | 10.8 | 990 | 3.9 | 0.08 | 19.3 | 1050 | 3.1 | 0.03 | 4.4 | 1890 | 15.1 | 0.04 | 7.8 | 2400 | 14.3 | 0.05 | 12.1 | 2640 | 12.6 |
| | 22 | 195 | 24 | 267 | 0.04 | 4.8 | 930 | 5.6 | 0.06 | 10.8 | 1070 | 4.2 | 0.08 | 19.3 | 1130 | 3.4 | 0.03 | 4.4 | 2090 | 16.6 | 0.04 | 7.8 | 2640 | 15.8 | 0.05 | 12.1 | 2900 | 13.9 |
| A1 | 13 | 45 | ≤15 | 158 | 0.04 | 4.8 | 610 | 3.6 | 0.06 | 10.8 | 700 | 2.8 | 0.08 | 19.3 | 740 | 2.2 | 0.03 | 4.4 | 1300 | 10.4 | 0.04 | 7.8 | 1650 | 9.8 | 0.05 | 12.1 | 1810 | 8.7 |
| | 16 | 68 | ≤15 | 194 | 0.04 | 4.8 | 730 | 4.3 | 0.06 | 10.8 | 830 | 3.3 | 0.08 | 19.3 | 890 | 2.6 | 0.03 | 4.4 | 1570 | 12.5 | 0.04 | 7.8 | 1990 | 11.9 | 0.05 | 12.1 | 2190 | 10.4 |
| | 19 | 96 | 18 | 230 | 0.04 | 4.8 | 830 | 4.9 | 0.06 | 10.8 | 950 | 3.8 | 0.08 | 19.3 | 1010 | 3.0 | 0.03 | 4.4 | 1790 | 14.3 | 0.04 | 7.8 | 2270 | 13.5 | 0.05 | 12.1 | 2500 | 11.9 |
| | 22 | 129 | 22 | 267 | 0.04 | 4.8 | 910 | 5.4 | 0.06 | 10.8 | 1050 | 4.2 | 0.08 | 19.3 | 1110 | 3.3 | 0.03 | 4.4 | 1980 | 15.8 | 0.04 | 7.8 | 2510 | 15.0 | 0.05 | 12.1 | 2760 | 13.2 |
| | 25 | 166 | 26 | 303 | 0.04 | 4.8 | 990 | 5.9 | 0.06 | 10.8 | 1130 | 4.5 | 0.08 | 19.3 | 1200 | 3.6 | 0.03 | 4.4 | 2150 | 17.1 | 0.04 | 7.8 | 2720 | 16.2 | 0.05 | 12.1 | 2990 | 14.3 |
| B1 | 20 | 52 | 16 | 243 | 0.04 | 4.8 | 730 | 4.4 | 0.06 | 10.8 | 840 | 3.3 | 0.08 | 19.3 | 890 | 2.7 | 0.03 | 4.4 | 1490 | 11.9 | 0.04 | 7.8 | 1890 | 11.3 | 0.05 | 12.1 | 2080 | 9.9 |
| | 24 | 75 | 21 | 291 | 0.04 | 4.8 | 810 | 4.8 | 0.06 | 10.8 | 930 | 3.7 | 0.08 | 19.3 | 990 | 2.9 | 0.03 | 4.4 | 1690 | 13.4 | 0.04 | 7.8 | 2140 | 12.8 | 0.05 | 12.1 | 2350 | 11.2 |
| | 28 | 102 | 25 | 340 | 0.04 | 4.8 | 880 | 5.2 | 0.06 | 10.8 | 1010 | 4.0 | 0.08 | 19.3 | 1070 | 3.2 | 0.03 | 4.4 | 1860 | 14.8 | 0.04 | 7.8 | 2350 | 14.0 | 0.05 | 12.1 | 2590 | 12.3 |
| | 32 | 133 | 29 | 388 | 0.04 | 4.8 | 940 | 5.6 | 0.06 | 10.8 | 1070 | 4.3 | 0.08 | 19.3 | 1140 | 3.4 | 0.03 | 4.4 | 2010 | 16.0 | 0.04 | 7.8 | 2540 | 15.2 | 0.05 | 12.1 | 2790 | 13.3 |
| | 36 | 168 | 32 | 437 | 0.04 | 4.8 | 990 | 5.9 | 0.06 | 10.8 | 1130 | 4.5 | 0.08 | 19.3 | 1210 | 3.6 | 0.03 | 4.4 | 2140 | 17.0 | 0.04 | 7.8 | 2710 | 16.2 | 0.05 | 12.1 | 2980 | 14.2 |
| C1 | 55 | 55 | 23 | 340 | 0.04 | 4.8 | 800 | 4.8 | 0.06 | 10.8 | 920 | 3.7 | 0.08 | 19.3 | 980 | 2.9 | 0.03 | 4.4 | 1670 | 13.3 | 0.04 | 7.8 | 2110 | 12.6 | 0.05 | 12.1 | 2320 | 11.1 |
| | 77 | 77 | 27 | 400 | 0.04 | 4.8 | 870 | 5.2 | 0.06 | 10.8 | 1000 | 4.0 | 0.08 | 19.3 | 1060 | 3.2 | 0.03 | 4.4 | 1820 | 14.5 | 0.04 | 7.8 | 2300 | 13.8 | 0.05 | 12.1 | 2530 | 12.1 |
| | 102 | 102 | 31 | 461 | 0.04 | 4.8 | 930 | 5.6 | 0.06 | 10.8 | 1070 | 4.3 | 0.08 | 19.3 | 1140 | 3.4 | 0.03 | 4.4 | 1960 | 15.6 | 0.04 | 7.8 | 2480 | 14.8 | 0.05 | 12.1 | 2720 | 13.0 |
| | 131 | 131 | 34 | 522 | 0.04 | 4.8 | 990 | 5.9 | 0.06 | 10.8 | 1130 | 4.5 | 0.08 | 19.3 | 1200 | 3.6 | 0.03 | 4.4 | 2080 | 16.5 | 0.04 | 7.8 | 2630 | 15.7 | 0.05 | 12.1 | 2890 | 13.8 |
| | 163 | 163 | 36 | 582 | 0.04 | 4.8 | 1040 | 6.2 | 0.06 | 10.8 | 1190 | 4.7 | 0.08 | 19.3 | 1260 | 3.8 | 0.03 | 4.4 | 2180 | 17.4 | 0.04 | 7.8 | 2760 | 16.5 | 0.05 | 12.1 | 3040 | 14.5 |
| E1 | 38 | 58 | 29 | 461 | 0.04 | 4.8 | 820 | 4.9 | 0.06 | 10.8 | 940 | 3.7 | 0.08 | 19.3 | 990 | 3.0 | 0.03 | 4.4 | 1690 | 13.5 | 0.04 | 7.8 | 2140 | 12.8 | 0.05 | 12.1 | 2350 | 11.2 |
| | 44 | 78 | 33 | 534 | 0.04 | 4.8 | 890 | 5.3 | 0.06 | 10.8 | 1020 | 4.0 | 0.08 | 19.3 | 1080 | 3.2 | 0.03 | 4.4 | 1850 | 14.7 | 0.04 | 7.8 | 2340 | 14.0 | 0.05 | 12.1 | 2570 | 12.3 |
| | 50 | 101 | 35 | 607 | 0.04 | 4.8 | 950 | 5.7 | 0.06 | 10.8 | 1090 | 4.3 | 0.08 | 19.3 | 1160 | 3.4 | 0.03 | 4.4 | 1990 | 15.8 | 0.04 | 7.8 | 2510 | 15.0 | 0.05 | 12.1 | 2760 | 13.2 |
| | 56 | 126 | 39 | 679 | 0.04 | 4.8 | 1000 | 6.0 | 0.06 | 10.8 | 1150 | 4.6 | 0.08 | 19.3 | 1220 | 3.6 | 0.03 | 4.4 | 2110 | 16.8 | 0.04 | 7.8 | 2670 | 15.9 | 0.05 | 12.1 | 2930 | 14.0 |
| | 62 | 155 | 42 | 752 | 0.04 | 4.8 | 1050 | 6.3 | 0.06 | 10.8 | 1210 | 4.8 | 0.08 | 19.3 | 1280 | 3.8 | 0.03 | 4.4 | 2220 | 17.6 | 0.04 | 7.8 | 2810 | 16.8 | 0.05 | 12.1 | 3090 | 14.7 |
| F1 | 44 | 50 | 31 | 534 | 0.04 | 4.8 | 820 | 4.9 | 0.06 | 10.8 | 940 | 3.7 | 0.08 | 19.3 | 1100 | 3.0 | 0.03 | 4.4 | 1710 | 13.6 | 0.04 | 7.8 | 2160 | 12.9 | 0.05 | 12.1 | 2380 | 11.4 |
| | 52 | 69 | 35 | 631 | 0.04 | 4.8 | 890 | 5.3 | 0.06 | 10.8 | 1030 | 4.1 | 0.08 | 19.3 | 1090 | 3.3 | 0.03 | 4.4 | 1870 | 14.9 | 0.04 | 7.8 | 2360 | 14.1 | 0.05 | 12.1 | 2600 | 12.4 |
| | 60 | 93 | 39 | 728 | 0.04 | 4.8 | 960 | 5.7 | 0.06 | 10.8 | 1100 | 4.4 | 0.08 | 19.3 | 1170 | 3.5 | 0.03 | 4.4 | 2010 | 16.0 | 0.04 | 7.8 | 2540 | 15.2 | 0.05 | 12.1 | 2790 | 13.3 |
| | 68 | 119 | 42 | 825 | 0.04 | 4.8 | 1010 | 6.1 | 0.06 | 10.8 | 1160 | 4.6 | 0.08 | 19.3 | 1240 | 3.7 | 0.03 | 4.4 | 2130 | 16.9 | 0.04 | 7.8 | 2690 | 16.1 | 0.05 | 12.1 | 2960 | 14.1 |
| | 76 | 148 | 45 | 922 | 0.04 | 4.8 | 1060 | 6.4 | 0.06 | 10.8 | 1220 | 4.9 | 0.08 | 19.3 | 1300 | 3.9 | 0.03 | 4.4 | 2230 | 17.8 | 0.04 | 7.8 | 2820 | 16.9 | 0.05 | 12.1 | 3110 | 14.8 |
| G1 | 54 | 59 | 35 | 655 | 0.04 | 4.8 | 860 | 5.1 | 0.06 | 10.8 | 980 | 3.9 | 0.08 | 19.3 | 1050 | 3.1 | 0.03 | 4.4 | 1760 | 14.0 | 0.04 | 7.8 | 2220 | 13.3 | 0.05 | 12.1 | 2450 | 11.7 |
| | 62 | 77 | 39 | 752 | 0.04 | 4.8 | 920 | 5.5 | 0.06 | 10.8 | 1060 | 4.2 | 0.08 | 19.3 | 1120 | 3.4 | 0.03 | 4.4 | 1880 | 15.0 | 0.04 | 7.8 | 2380 | 14.2 | 0.05 | 12.1 | 2620 | 12.5 |
| | 70 | 98 | 42 | 849 | 0.04 | 4.8 | 980 | 5.8 | 0.06 | 10.8 | 1120 | 4.5 | 0.08 | 19.3 | 1190 | 3.6 | 0.03 | 4.4 | 2000 | 15.9 | 0.04 | 7.8 | 2530 | 15.1 | 0.05 | 12.1 | 2780 | 13.3 |
| | 78 | 122 | 44 | 946 | 0.04 | 4.8 | 1030 | 6.1 | 0.06 | 10.8 | 1180 | 4.7 | 0.08 | 19.3 | 1250 | 3.7 | 0.03 | 4.4 | 2090 | 16.7 | 0.04 | 7.8 | 2650 | 15.8 | 0.05 | 12.1 | 2920 | 13.9 |
| | 86 | 149 | 46 | 1043 | 0.04 | 4.8 | 1080 | 6.4 | 0.06 | 10.8 | 1230 | 4.9 | 0.08 | 19.3 | 1310 | 3.9 | 0.03 | 4.4 | 2180 | 17.4 | 0.04 | 7.8 | 2760 | 16.5 | 0.05 | 12.1 | 3040 | 14.5 |
| H1 | 72 | 51 | 41 | 873 | 0.04 | 4.8 | 940 | 5.6 | 0.06 | 10.8 | 1080 | 4.3 | 0.08 | 19.3 | 1150 | 3.4 | 0.03 | 4.4 | 1830 | 14.6 | 0.04 | 7.8 | 2320 | 13.8 | 0.05 | 12.1 | 2550 | 12.2 |
| | 84 | 69 | 43 | 1019 | 0.04 | 4.8 | 990 | 5.9 | 0.06 | 10.8 | 1130 | 4.5 | 0.08 | 19.3 | 1200 | 3.6 | 0.03 | 4.4 | 1940 | 15.5 | 0.04 | 7.8 | 2460 | 14.7 | 0.05 | 12.1 | 2700 | 12.9 |
| | 96 | 90 | 46 | 1164 | 0.04 | 4.8 | 1030 | 6.1 | 0.06 | 10.8 | 1180 | 4.7 | 0.08 | 19.3 | 1250 | 3.7 | 0.03 | 4.4 | 2040 | 16.2 | 0.04 | 7.8 | 2580 | 15.4 | 0.05 | 12.1 | 2840 | 13.6 |
| | 108 | 114 | 48 | 1310 | 0.04 | 4.8 | 1060 | 6.4 | 0.06 | 10.8 | 1220 | 4.9 | 0.08 | 19.3 | 1300 | 3.9 | 0.03 | 4.4 | 2130 | 16.9 | 0.04 | 7.8 | 2690 | 16.1 | 0.05 | 12.1 | 2960 | 14.1 |
| | 120 | 141 | 51 | 1456 | 0.04 | 4.8 | 1100 | 6.6 | 0.06 | 10.8 | 1260 | 5.0 | 0.08 | 19.3 | 1340 | 4.0 | 0.03 | 4.4 | 2200 | 17.5 | 0.04 | 7.8 | 2790 | 16.6 | 0.05 | 12.1 | 3070 | 14.7 |

1) Air cooling capacities are based on $\Delta T_{AC} = T_{RC}-T_{CSA} = 10°C$. For other conditions, multiply the table air cooling capacity by the required ($T_{RC}-T_{CSA}$) divided by 10°C.
Alternatively, air cooling capacity can be calculated from the formula: Air cooling capacity W = 1.213 x Airflow (l/s) x ($T_{RC}-T_{CSA}$).

2) Water cooling capacities are based on $T_{RC}-T_{CHS} = 10°C$. For other conditions multiply the table water cooling capacity by the required ($T_{RC}-T_{CHS}$) divided by 10°C.

3) Water heating capacities are based on 4-pipe chilled beams with $T_{HWS}-T_{RW} = 35°C$. For other conditions, multiply the table water heating capacity by the required ($T_{HWS}-T_{RW}$) divided by 35°C.

4) Performance ratings are subject to tolerances of plus/minus 5%.

# PERFORMANCE DATA

## 2-Way Air Flow / 4-Pipe

YK-OHACB-8 (8')

| NOZZLE | PRIMARY AIRFLOW | PLENUM PRESSURE | Noise Criteria | AIR COOLING CAPACITY ΔT=20°F | COOLING ($T_{RC}$ - $T_{CHS}$ = 18°F) | | | | | | | | | | | | HEATING ($T_{HWS}$ - $T_{RH}$ = 70°F) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | COOLING WATER FLOW 1 | | | | COOLING WATER FLOW 2 | | | | COOLING WATER FLOW 3 | | | | HEATING WATER FLOW 1 | | | | HEATING WATER FLOW 2 | | | | HEATING WATER FLOW 3 | | | |
| | | | | | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER |
| | (cfm) | (in. w.c.) | (NC) | (Btu/hr) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) |
| A0 | 30 | 0.17 | ≤15 | 644 | 0.95 | 1.14 | 2832 | 6 | 1.43 | 2.58 | 3207 | 4 | 1.90 | 4.62 | 3344 | 4 | 0.63 | 1.77 | 5416 | 17 | 0.79 | 3.14 | 6855 | 17 | 0.95 | 4.92 | 7537 | 16 |
| | 38 | 0.28 | ≤15 | 828 | 0.95 | 1.14 | 3378 | 7 | 1.43 | 2.58 | 3822 | 5 | 1.90 | 4.62 | 3992 | 4 | 0.63 | 1.77 | 7196 | 23 | 0.79 | 3.14 | 9128 | 23 | 0.95 | 4.92 | 10037 | 21 |
| | 47 | 0.42 | ≤15 | 1012 | 0.95 | 1.14 | 3787 | 8 | 1.43 | 2.58 | 4333 | 6 | 1.90 | 4.62 | 4504 | 5 | 0.63 | 1.77 | 8635 | 27 | 0.79 | 3.14 | 10908 | 28 | 0.95 | 4.92 | 12006 | 25 |
| | 55 | 0.59 | ≤15 | 1196 | 0.95 | 1.14 | 4163 | 9 | 1.43 | 2.58 | 4743 | 7 | 1.90 | 4.62 | 4948 | 5 | 0.63 | 1.77 | 9810 | 31 | 0.79 | 3.14 | 12385 | 31 | 0.95 | 4.92 | 13635 | 29 |
| | 64 | 0.79 | 17 | 1379 | 0.95 | 1.14 | 4470 | 9 | 1.43 | 2.58 | 5084 | 7 | 1.90 | 4.62 | 5323 | 6 | 0.63 | 1.77 | 10794 | 34 | 0.79 | 3.14 | 13673 | 35 | 0.95 | 4.92 | 15036 | 32 |
| A1 | 40 | 0.20 | ≤15 | 874 | 0.95 | 1.14 | 3105 | 7 | 1.43 | 2.58 | 3549 | 5 | 1.90 | 4.62 | 3685 | 4 | 0.63 | 1.77 | 6742 | 21 | 0.79 | 3.14 | 8522 | 22 | 0.95 | 4.92 | 9355 | 20 |
| | 49 | 0.30 | ≤15 | 1058 | 0.95 | 1.14 | 3651 | 8 | 1.43 | 2.58 | 4163 | 6 | 1.90 | 4.62 | 4333 | 5 | 0.63 | 1.77 | 8105 | 26 | 0.79 | 3.14 | 10264 | 26 | 0.95 | 4.92 | 11325 | 24 |
| | 57 | 0.42 | ≤15 | 1241 | 0.95 | 1.14 | 4095 | 9 | 1.43 | 2.58 | 4641 | 7 | 1.90 | 4.62 | 4845 | 5 | 0.63 | 1.77 | 9279 | 29 | 0.79 | 3.14 | 11741 | 30 | 0.95 | 4.92 | 12915 | 27 |
| | 66 | 0.55 | ≤15 | 1425 | 0.95 | 1.14 | 4470 | 9 | 1.43 | 2.58 | 5084 | 7 | 1.90 | 4.62 | 5323 | 6 | 0.63 | 1.77 | 10264 | 32 | 0.79 | 3.14 | 12991 | 33 | 0.95 | 4.92 | 14279 | 30 |
| | 74 | 0.70 | 18 | 1609 | 0.95 | 1.14 | 4811 | 10 | 1.43 | 2.58 | 5494 | 8 | 1.90 | 4.62 | 5698 | 6 | 0.63 | 1.77 | 11097 | 35 | 0.79 | 3.14 | 14052 | 35 | 0.95 | 4.92 | 15453 | 32 |
| B1 | 59 | 0.22 | ≤15 | 1287 | 0.95 | 1.14 | 3446 | 7 | 1.43 | 2.58 | 3924 | 6 | 1.90 | 4.62 | 4095 | 4 | 0.63 | 1.77 | 7726 | 24 | 0.79 | 3.14 | 9772 | 25 | 0.95 | 4.92 | 10719 | 23 |
| | 70 | 0.31 | ≤15 | 1517 | 0.95 | 1.14 | 3856 | 8 | 1.43 | 2.58 | 4368 | 6 | 1.90 | 4.62 | 4572 | 5 | 0.63 | 1.77 | 8711 | 27 | 0.79 | 3.14 | 11059 | 28 | 0.95 | 4.92 | 12158 | 26 |
| | 81 | 0.41 | 18 | 1747 | 0.95 | 1.14 | 4197 | 9 | 1.43 | 2.58 | 4777 | 7 | 1.90 | 4.62 | 4982 | 5 | 0.63 | 1.77 | 9620 | 30 | 0.79 | 3.14 | 12158 | 31 | 0.95 | 4.92 | 13370 | 28 |
| | 91 | 0.52 | 22 | 1977 | 0.95 | 1.14 | 4504 | 9 | 1.43 | 2.58 | 5084 | 7 | 1.90 | 4.62 | 5323 | 6 | 0.63 | 1.77 | 10378 | 33 | 0.79 | 3.14 | 13143 | 33 | 0.95 | 4.92 | 14430 | 30 |
| | 102 | 0.65 | 26 | 2207 | 0.95 | 1.14 | 4743 | 10 | 1.43 | 2.58 | 5391 | 8 | 1.90 | 4.62 | 5630 | 6 | 0.63 | 1.77 | 11059 | 35 | 0.79 | 3.14 | 13976 | 35 | 0.95 | 4.92 | 15377 | 32 |
| C1 | 78 | 0.21 | ≤15 | 1701 | 0.95 | 1.14 | 3685 | 8 | 1.43 | 2.58 | 4197 | 6 | 1.90 | 4.62 | 4368 | 5 | 0.63 | 1.77 | 8598 | 27 | 0.79 | 3.14 | 10908 | 28 | 0.95 | 4.92 | 12006 | 25 |
| | 93 | 0.29 | 20 | 2023 | 0.95 | 1.14 | 4129 | 9 | 1.43 | 2.58 | 4675 | 7 | 1.90 | 4.62 | 4879 | 5 | 0.63 | 1.77 | 9431 | 30 | 0.79 | 3.14 | 11931 | 30 | 0.95 | 4.92 | 13105 | 28 |
| | 108 | 0.40 | 25 | 2345 | 0.95 | 1.14 | 4504 | 9 | 1.43 | 2.58 | 5118 | 7 | 1.90 | 4.62 | 5323 | 6 | 0.63 | 1.77 | 10113 | 32 | 0.79 | 3.14 | 12802 | 32 | 0.95 | 4.92 | 14089 | 30 |
| | 123 | 0.51 | 28 | 2667 | 0.95 | 1.14 | 4811 | 10 | 1.43 | 2.58 | 5459 | 8 | 1.90 | 4.62 | 5698 | 6 | 0.63 | 1.77 | 10756 | 34 | 0.79 | 3.14 | 13597 | 34 | 0.95 | 4.92 | 14961 | 31 |
| | 138 | 0.64 | 31 | 2989 | 0.95 | 1.14 | 5084 | 11 | 1.43 | 2.58 | 5767 | 8 | 1.90 | 4.62 | 6039 | 6 | 0.63 | 1.77 | 11287 | 36 | 0.79 | 3.14 | 14317 | 36 | 0.95 | 4.92 | 15718 | 33 |
| E1 | 102 | 0.20 | 20 | 2207 | 0.95 | 1.14 | 3753 | 8 | 1.43 | 2.58 | 4265 | 6 | 1.90 | 4.62 | 4436 | 5 | 0.63 | 1.77 | 8749 | 28 | 0.79 | 3.14 | 11059 | 28 | 0.95 | 4.92 | 12158 | 26 |
| | 123 | 0.29 | 24 | 2667 | 0.95 | 1.14 | 4197 | 9 | 1.43 | 2.58 | 4777 | 7 | 1.90 | 4.62 | 4982 | 5 | 0.63 | 1.77 | 9544 | 30 | 0.79 | 3.14 | 12120 | 31 | 0.95 | 4.92 | 13294 | 28 |
| | 144 | 0.40 | 28 | 3127 | 0.95 | 1.14 | 4572 | 10 | 1.43 | 2.58 | 5186 | 7 | 1.90 | 4.62 | 5391 | 6 | 0.63 | 1.77 | 10264 | 32 | 0.79 | 3.14 | 12991 | 33 | 0.95 | 4.92 | 14317 | 30 |
| | 161 | 0.53 | 31 | 3495 | 0.95 | 1.14 | 4879 | 10 | 1.43 | 2.58 | 5528 | 8 | 1.90 | 4.62 | 5767 | 6 | 0.63 | 1.77 | 10908 | 34 | 0.79 | 3.14 | 13786 | 35 | 0.95 | 4.92 | 15188 | 32 |
| | 186 | 0.67 | 33 | 4046 | 0.95 | 1.14 | 5152 | 11 | 1.43 | 2.58 | 5869 | 8 | 1.90 | 4.62 | 6108 | 6 | 0.63 | 1.77 | 11476 | 36 | 0.79 | 3.14 | 14506 | 37 | 0.95 | 4.92 | 15983 | 34 |
| F1 | 127 | 0.20 | 22 | 2759 | 0.95 | 1.14 | 3958 | 8 | 1.43 | 2.58 | 4470 | 6 | 1.90 | 4.62 | 4675 | 5 | 0.63 | 1.77 | 8825 | 28 | 0.79 | 3.14 | 11173 | 28 | 0.95 | 4.92 | 12309 | 26 |
| | 153 | 0.29 | 27 | 3311 | 0.95 | 1.14 | 4333 | 9 | 1.43 | 2.58 | 4948 | 7 | 1.90 | 4.62 | 5152 | 5 | 0.63 | 1.77 | 9658 | 30 | 0.79 | 3.14 | 12234 | 31 | 0.95 | 4.92 | 13446 | 28 |
| | 178 | 0.39 | 30 | 3862 | 0.95 | 1.14 | 4675 | 10 | 1.43 | 2.58 | 5323 | 7 | 1.90 | 4.62 | 5528 | 6 | 0.63 | 1.77 | 10378 | 33 | 0.79 | 3.14 | 13143 | 33 | 0.95 | 4.92 | 14430 | 30 |
| | 203 | 0.51 | 34 | 4414 | 0.95 | 1.14 | 4982 | 10 | 1.43 | 2.58 | 5630 | 8 | 1.90 | 4.62 | 5869 | 6 | 0.63 | 1.77 | 10984 | 35 | 0.79 | 3.14 | 13900 | 35 | 0.95 | 4.92 | 15301 | 32 |
| | 229 | 0.65 | 37 | 4966 | 0.95 | 1.14 | 5221 | 11 | 1.43 | 2.58 | 5937 | 8 | 1.90 | 4.62 | 6176 | 6 | 0.63 | 1.77 | 11552 | 36 | 0.79 | 3.14 | 14620 | 37 | 0.95 | 4.92 | 16059 | 34 |
| G1 | 148 | 0.21 | 25 | 3219 | 0.95 | 1.14 | 4026 | 8 | 1.43 | 2.58 | 4572 | 6 | 1.90 | 4.62 | 4777 | 5 | 0.63 | 1.77 | 9090 | 29 | 0.79 | 3.14 | 11514 | 29 | 0.95 | 4.92 | 12650 | 27 |
| | 174 | 0.29 | 30 | 3770 | 0.95 | 1.14 | 4368 | 9 | 1.43 | 2.58 | 4982 | 7 | 1.90 | 4.62 | 5186 | 5 | 0.63 | 1.77 | 9734 | 31 | 0.79 | 3.14 | 12347 | 31 | 0.95 | 4.92 | 13559 | 29 |
| | 199 | 0.38 | 34 | 4322 | 0.95 | 1.14 | 4675 | 10 | 1.43 | 2.58 | 5323 | 7 | 1.90 | 4.62 | 5562 | 6 | 0.63 | 1.77 | 10340 | 33 | 0.79 | 3.14 | 13067 | 33 | 0.95 | 4.92 | 14355 | 30 |
| | 225 | 0.49 | 38 | 4874 | 0.95 | 1.14 | 4948 | 10 | 1.43 | 2.58 | 5630 | 8 | 1.90 | 4.62 | 5869 | 6 | 0.63 | 1.77 | 10832 | 34 | 0.79 | 3.14 | 13711 | 35 | 0.95 | 4.92 | 15074 | 32 |
| | 250 | 0.60 | 41 | 5426 | 0.95 | 1.14 | 5186 | 11 | 1.43 | 2.58 | 5903 | 8 | 1.90 | 4.62 | 6142 | 6 | 0.63 | 1.77 | 11287 | 36 | 0.79 | 3.14 | 14317 | 36 | 0.95 | 4.92 | 15718 | 33 |
| H1 | 191 | 0.17 | 31 | 4138 | 0.95 | 1.14 | 4402 | 9 | 1.43 | 2.58 | 5016 | 7 | 1.90 | 4.62 | 5221 | 5 | 0.63 | 1.77 | 9469 | 30 | 0.79 | 3.14 | 11968 | 30 | 0.95 | 4.92 | 13180 | 28 |
| | 233 | 0.26 | 37 | 5058 | 0.95 | 1.14 | 4709 | 10 | 1.43 | 2.58 | 5323 | 7 | 1.90 | 4.62 | 5562 | 6 | 0.63 | 1.77 | 10037 | 32 | 0.79 | 3.14 | 12726 | 32 | 0.95 | 4.92 | 13976 | 29 |
| | 275 | 0.36 | 41 | 5978 | 0.95 | 1.14 | 4948 | 10 | 1.43 | 2.58 | 5630 | 8 | 1.90 | 4.62 | 5869 | 6 | 0.63 | 1.77 | 10567 | 33 | 0.79 | 3.14 | 13370 | 34 | 0.95 | 4.92 | 14695 | 31 |
| | 318 | 0.48 | 43 | 6897 | 0.95 | 1.14 | 5152 | 11 | 1.43 | 2.58 | 5869 | 8 | 1.90 | 4.62 | 6108 | 6 | 0.63 | 1.77 | 10984 | 35 | 0.79 | 3.14 | 13938 | 35 | 0.95 | 4.92 | 15301 | 32 |
| | 360 | 0.61 | 46 | 7817 | 0.95 | 1.14 | 5357 | 11 | 1.43 | 2.58 | 6074 | 9 | 1.90 | 4.62 | 6347 | 7 | 0.63 | 1.77 | 11400 | 36 | 0.79 | 3.14 | 14430 | 36 | 0.95 | 4.92 | 15870 | 33 |

1) Air cooling capacities are based on $\Delta T_{AC} = T_{RC}-T_{CSA} = 20°F$. For other conditions, multiply the table air cooling capacity by the required ($T_{RC}-T_{CSA}$) divided by 20°F. Alternatively, air cooling capacity can be calculated from the formula: Air cooling capacity $Q_S$ = 1.085 x Airflow (cfm) x ($T_{RC}-T_{CSA}$).

2) Water cooling capacities are based on $T_{RC}-T_{CHS} = 18°F$. For other conditions multiply the table water cooling capacity by the required ($T_{RC}-T_{CHS}$) divided by 18°F.

3) Water heating capacities are based on 4-pipe chilled beams with $T_{HWS}-T_{RW} = 70°F$. For other conditions, multiply the table water heating capacity by the required ($T_{HWS}-T_{RW}$) divided by 70°F.

4) Performance ratings are subject to tolerances of plus/minus 5%.

## YK-OHACB-8 (2400mm)

| NOZZLE | PRIMARY AIRFLOW | PLENUM PRESSURE | Noise Criteria | AIR COOLING CAPACITY ΔT=10°C | COOLING ($T_{RC}$ - $T_{CHS}$ = 18°F) | | | | | | | | | | | | HEATING ($T_{HWS}$ - $T_{RH}$ = 70°F) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | COOLING WATER FLOW 1 | | | | COOLING WATER FLOW 2 | | | | COOLING WATER FLOW 3 | | | | HEATING WATER FLOW 1 | | | | HEATING WATER FLOW 2 | | | | HEATING WATER FLOW 3 | | | |
| | | | | | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER |
| | (l/s) | (Pa) | (NC) | (W) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) |
| A0 | 14 | 43 | ≤15 | 170 | 0.06 | 3.4 | 830 | 3.3 | 0.09 | 7.7 | 940 | 2.5 | 0.12 | 13.8 | 980 | 1.9 | 0.04 | 5.3 | 1430 | 8.6 | 0.05 | 9.4 | 1810 | 8.7 | 0.06 | 14.7 | 1990 | 7.9 |
| | 18 | 70 | ≤15 | 218 | 0.06 | 3.4 | 990 | 4.0 | 0.09 | 7.7 | 1120 | 3.0 | 0.12 | 13.8 | 1170 | 2.3 | 0.04 | 5.3 | 1900 | 11.4 | 0.05 | 9.4 | 2410 | 11.5 | 0.06 | 14.7 | 2650 | 10.6 |
| | 22 | 105 | 16 | 267 | 0.06 | 3.4 | 1110 | 4.5 | 0.09 | 7.7 | 1270 | 3.4 | 0.12 | 13.8 | 1320 | 2.6 | 0.04 | 5.3 | 2280 | 13.6 | 0.05 | 9.4 | 2880 | 13.8 | 0.06 | 14.7 | 3170 | 12.6 |
| | 26 | 147 | 20 | 315 | 0.06 | 3.4 | 1220 | 5.0 | 0.09 | 7.7 | 1390 | 3.8 | 0.12 | 13.8 | 1450 | 2.9 | 0.04 | 5.3 | 2590 | 15.4 | 0.05 | 9.4 | 3270 | 15.6 | 0.06 | 14.7 | 3600 | 14.3 |
| | 30 | 196 | 24 | 364 | 0.06 | 3.4 | 1310 | 5.3 | 0.09 | 7.7 | 1490 | 4.0 | 0.12 | 13.8 | 1560 | 3.1 | 0.04 | 5.3 | 2850 | 17.0 | 0.05 | 9.4 | 3610 | 17.2 | 0.06 | 14.7 | 3970 | 15.8 |
| A1 | 19 | 51 | ≤15 | 230 | 0.06 | 3.4 | 910 | 3.7 | 0.09 | 7.7 | 1040 | 2.8 | 0.12 | 13.8 | 1080 | 2.2 | 0.04 | 5.3 | 1780 | 10.6 | 0.05 | 9.4 | 2250 | 10.7 | 0.06 | 14.7 | 2470 | 9.8 |
| | 23 | 75 | ≤15 | 379 | 0.06 | 3.4 | 1070 | 4.4 | 0.09 | 7.7 | 1220 | 3.3 | 0.12 | 13.8 | 1270 | 2.5 | 0.04 | 5.3 | 2140 | 12.8 | 0.05 | 9.4 | 2710 | 13.0 | 0.06 | 14.7 | 2990 | 11.9 |
| | 27 | 104 | 20 | 328 | 0.06 | 3.4 | 1200 | 4.9 | 0.09 | 7.7 | 1360 | 3.7 | 0.12 | 13.8 | 1420 | 2.8 | 0.04 | 5.3 | 2450 | 14.6 | 0.05 | 9.4 | 3100 | 14.8 | 0.06 | 14.7 | 3410 | 13.6 |
| | 31 | 137 | 23 | 376 | 0.06 | 3.4 | 1310 | 5.4 | 0.09 | 7.7 | 1490 | 4.1 | 0.12 | 13.8 | 1560 | 3.1 | 0.04 | 5.3 | 2710 | 16.2 | 0.05 | 9.4 | 3430 | 16.4 | 0.06 | 14.7 | 3770 | 15.0 |
| | 35 | 174 | 27 | 425 | 0.06 | 3.4 | 1410 | 5.8 | 0.09 | 7.7 | 1610 | 4.4 | 0.12 | 13.8 | 1670 | 3.3 | 0.04 | 5.3 | 2930 | 17.5 | 0.05 | 9.4 | 3710 | 17.7 | 0.06 | 14.7 | 4080 | 16.3 |
| B1 | 28 | 55 | 17 | 340 | 0.06 | 3.4 | 1010 | 3.9 | 0.09 | 7.7 | 1150 | 3.0 | 0.12 | 13.8 | 1200 | 2.4 | 0.04 | 5.3 | 2040 | 12.2 | 0.05 | 9.4 | 2580 | 12.3 | 0.06 | 14.7 | 2830 | 11.3 |
| | 33 | 76 | 21 | 400 | 0.06 | 3.4 | 1130 | 4.5 | 0.09 | 7.7 | 1280 | 3.4 | 0.12 | 13.8 | 1340 | 2.7 | 0.04 | 5.3 | 2300 | 13.8 | 0.05 | 9.4 | 2920 | 13.9 | 0.06 | 14.7 | 3210 | 12.8 |
| | 38 | 101 | 25 | 461 | 0.06 | 3.4 | 1230 | 4.9 | 0.09 | 7.7 | 1400 | 3.7 | 0.12 | 13.8 | 1460 | 2.9 | 0.04 | 5.3 | 2540 | 15.1 | 0.05 | 9.4 | 3210 | 15.3 | 0.06 | 14.7 | 3530 | 14.1 |
| | 43 | 129 | 28 | 522 | 0.06 | 3.4 | 1320 | 5.3 | 0.09 | 7.7 | 1490 | 4.0 | 0.12 | 13.8 | 1560 | 3.1 | 0.04 | 5.3 | 2740 | 16.4 | 0.05 | 9.4 | 3470 | 16.6 | 0.06 | 14.7 | 3810 | 15.2 |
| | 48 | 161 | 31 | 582 | 0.06 | 3.4 | 1390 | 5.6 | 0.09 | 7.7 | 1580 | 4.2 | 0.12 | 13.8 | 1650 | 3.3 | 0.04 | 5.3 | 2920 | 17.4 | 0.05 | 9.4 | 3690 | 17.6 | 0.06 | 14.7 | 4060 | 16.2 |
| C1 | 37 | 52 | 22 | 449 | 0.06 | 3.4 | 1080 | 4.1 | 0.09 | 7.7 | 1230 | 3.1 | 0.12 | 13.8 | 1280 | 2.6 | 0.04 | 5.3 | 2270 | 13.6 | 0.05 | 9.4 | 2880 | 13.8 | 0.06 | 14.7 | 3170 | 12.6 |
| | 44 | 73 | 27 | 534 | 0.06 | 3.4 | 1210 | 4.6 | 0.09 | 7.7 | 1370 | 3.5 | 0.12 | 13.8 | 1430 | 2.9 | 0.04 | 5.3 | 2490 | 14.8 | 0.05 | 9.4 | 3150 | 15.0 | 0.06 | 14.7 | 3460 | 13.8 |
| | 51 | 99 | 30 | 619 | 0.06 | 3.4 | 1320 | 5.0 | 0.09 | 7.7 | 1500 | 3.8 | 0.12 | 13.8 | 1560 | 3.1 | 0.04 | 5.3 | 2670 | 16.0 | 0.05 | 9.4 | 3380 | 16.2 | 0.06 | 14.7 | 3720 | 14.8 |
| | 58 | 127 | 34 | 704 | 0.06 | 3.4 | 1410 | 5.3 | 0.09 | 7.7 | 1600 | 4.1 | 0.12 | 13.8 | 1670 | 3.3 | 0.04 | 5.3 | 2840 | 16.9 | 0.05 | 9.4 | 3590 | 17.1 | 0.06 | 14.7 | 3950 | 15.7 |
| | 65 | 160 | 37 | 788 | 0.06 | 3.4 | 1490 | 5.7 | 0.09 | 7.7 | 1690 | 4.3 | 0.12 | 13.8 | 1770 | 3.5 | 0.04 | 5.3 | 2980 | 17.8 | 0.05 | 9.4 | 3780 | 18.0 | 0.06 | 14.7 | 4150 | 16.5 |
| E1 | 48 | 50 | 26 | 582 | 0.06 | 3.4 | 1100 | 4.3 | 0.09 | 7.7 | 1250 | 3.3 | 0.12 | 13.8 | 1300 | 2.6 | 0.04 | 5.3 | 2310 | 13.8 | 0.05 | 9.4 | 2920 | 14.0 | 0.06 | 14.7 | 3210 | 12.8 |
| | 58 | 72 | 31 | 704 | 0.06 | 3.4 | 1230 | 4.9 | 0.09 | 7.7 | 1400 | 3.7 | 0.12 | 13.8 | 1460 | 2.9 | 0.04 | 5.3 | 2520 | 15.1 | 0.05 | 9.4 | 3200 | 15.3 | 0.06 | 14.7 | 3510 | 14.0 |
| | 68 | 99 | 35 | 825 | 0.06 | 3.4 | 1340 | 5.3 | 0.09 | 7.7 | 1520 | 4.0 | 0.12 | 13.8 | 1580 | 3.2 | 0.04 | 5.3 | 2710 | 16.2 | 0.05 | 9.4 | 3430 | 16.4 | 0.06 | 14.7 | 3780 | 15.0 |
| | 76 | 131 | 39 | 946 | 0.06 | 3.4 | 1430 | 5.7 | 0.09 | 7.7 | 1620 | 4.3 | 0.12 | 13.8 | 1690 | 3.4 | 0.04 | 5.3 | 2880 | 17.2 | 0.05 | 9.4 | 3640 | 17.4 | 0.06 | 14.7 | 4010 | 16.0 |
| | 88 | 166 | 42 | 1067 | 0.06 | 3.4 | 1510 | 6.0 | 0.09 | 7.7 | 1720 | 4.5 | 0.12 | 13.8 | 1790 | 3.6 | 0.04 | 5.3 | 3030 | 18.1 | 0.05 | 9.4 | 3830 | 18.3 | 0.06 | 14.7 | 4220 | 16.8 |
| F1 | 60 | 50 | 30 | 728 | 0.06 | 3.4 | 1160 | 4.6 | 0.09 | 7.7 | 1310 | 3.4 | 0.12 | 13.8 | 1370 | 2.7 | 0.04 | 5.3 | 2330 | 13.9 | 0.05 | 9.4 | 2950 | 14.1 | 0.06 | 14.7 | 3250 | 12.9 |
| | 72 | 72 | 35 | 873 | 0.06 | 3.4 | 1270 | 5.0 | 0.09 | 7.7 | 1450 | 3.8 | 0.12 | 13.8 | 1510 | 3.0 | 0.04 | 5.3 | 2550 | 15.2 | 0.05 | 9.4 | 3230 | 15.4 | 0.06 | 14.7 | 3550 | 14.1 |
| | 84 | 97 | 39 | 1019 | 0.06 | 3.4 | 1370 | 5.4 | 0.09 | 7.7 | 1560 | 4.1 | 0.12 | 13.8 | 1620 | 3.2 | 0.04 | 5.3 | 2740 | 16.4 | 0.05 | 9.4 | 3470 | 16.6 | 0.06 | 14.7 | 3810 | 15.2 |
| | 96 | 127 | 42 | 1164 | 0.06 | 3.4 | 1460 | 5.7 | 0.09 | 7.7 | 1650 | 4.4 | 0.12 | 13.8 | 1720 | 3.4 | 0.04 | 5.3 | 2900 | 17.3 | 0.05 | 9.4 | 3670 | 17.6 | 0.06 | 14.7 | 4040 | 16.1 |
| | 108 | 161 | 46 | 1310 | 0.06 | 3.4 | 1530 | 6.0 | 0.09 | 7.7 | 1740 | 4.6 | 0.12 | 13.8 | 1810 | 3.6 | 0.04 | 5.3 | 3050 | 18.2 | 0.05 | 9.4 | 3860 | 18.4 | 0.06 | 14.7 | 4240 | 16.9 |
| G1 | 70 | 53 | 34 | 849 | 0.06 | 3.4 | 1180 | 4.7 | 0.09 | 7.7 | 1340 | 3.5 | 0.12 | 13.8 | 1400 | 2.8 | 0.04 | 5.3 | 2400 | 14.3 | 0.05 | 9.4 | 3040 | 14.5 | 0.06 | 14.7 | 3340 | 13.3 |
| | 82 | 73 | 38 | 995 | 0.06 | 3.4 | 1280 | 5.1 | 0.09 | 7.7 | 1460 | 3.8 | 0.12 | 13.8 | 1520 | 3.0 | 0.04 | 5.3 | 2570 | 15.4 | 0.05 | 9.4 | 3260 | 15.6 | 0.06 | 14.7 | 3580 | 14.3 |
| | 94 | 95 | 41 | 1140 | 0.06 | 3.4 | 1370 | 5.4 | 0.09 | 7.7 | 1560 | 4.1 | 0.12 | 13.8 | 1630 | 3.2 | 0.04 | 5.3 | 2730 | 16.3 | 0.05 | 9.4 | 3450 | 16.5 | 0.06 | 14.7 | 3790 | 15.1 |
| | 106 | 121 | 44 | 1286 | 0.06 | 3.4 | 1450 | 5.7 | 0.09 | 7.7 | 1650 | 4.3 | 0.12 | 13.8 | 1720 | 3.4 | 0.04 | 5.3 | 2860 | 17.1 | 0.05 | 9.4 | 3620 | 17.3 | 0.06 | 14.7 | 3980 | 15.9 |
| | 118 | 150 | 47 | 1431 | 0.06 | 3.4 | 1520 | 6.0 | 0.09 | 7.7 | 1730 | 4.5 | 0.12 | 13.8 | 1800 | 3.6 | 0.04 | 5.3 | 2980 | 17.8 | 0.05 | 9.4 | 3780 | 18.0 | 0.06 | 14.7 | 4150 | 16.5 |
| H1 | 90 | 43 | 37 | 1092 | 0.06 | 3.4 | 1290 | 5.2 | 0.09 | 7.7 | 1470 | 3.9 | 0.12 | 13.8 | 1530 | 3.0 | 0.04 | 5.3 | 2500 | 14.9 | 0.05 | 9.4 | 3160 | 15.1 | 0.06 | 14.7 | 3480 | 13.8 |
| | 110 | 64 | 42 | 1334 | 0.06 | 3.4 | 1380 | 5.5 | 0.09 | 7.7 | 1560 | 4.2 | 0.12 | 13.8 | 1630 | 3.2 | 0.04 | 5.3 | 2650 | 15.8 | 0.05 | 9.4 | 3360 | 16.0 | 0.06 | 14.7 | 3690 | 14.7 |
| | 130 | 90 | 46 | 1577 | 0.06 | 3.4 | 1450 | 5.8 | 0.09 | 7.7 | 1650 | 4.4 | 0.12 | 13.8 | 1720 | 3.4 | 0.04 | 5.3 | 2790 | 16.6 | 0.05 | 9.4 | 3530 | 16.8 | 0.06 | 14.7 | 3880 | 15.4 |
| | 150 | 119 | 50 | 1820 | 0.06 | 3.4 | 1510 | 6.1 | 0.09 | 7.7 | 1720 | 4.6 | 0.12 | 13.8 | 1790 | 3.6 | 0.04 | 5.3 | 2900 | 17.3 | 0.05 | 9.4 | 3680 | 17.6 | 0.06 | 14.7 | 4040 | 16.1 |
| | 170 | 153 | 55 | 2062 | 0.06 | 3.4 | 1570 | 6.2 | 0.09 | 7.7 | 1780 | 4.8 | 0.12 | 13.8 | 1860 | 3.7 | 0.04 | 5.3 | 3010 | 18.0 | 0.05 | 9.4 | 3810 | 18.2 | 0.06 | 14.7 | 4190 | 16.7 |

1) Air cooling capacities are based on $\Delta T_{AC} = T_{RC}-T_{CSA} = 10°C$. For other conditions, multiply the table air cooling capacity by the required ($T_{RC}-T_{CSA}$) divided by 10°C.
   Alternatively, air cooling capacity can be calculated from the formula: Air cooling capacity W = 1.213 x Airflow (l/s) x ($T_{RC}-T_{CSA}$).
2) Water cooling capacities are based on $T_{RC}-T_{CHS} = 10°C$. For other conditions multiply the table water cooling capacity by the required ($T_{RC}-T_{CHS}$) divided by 10°C.
3) Water heating capacities are based on 4-pipe chilled beams with $T_{HWS}-T_{RW} = 35°C$. For other conditions, multiply the table water heating capacity by the required ($T_{HWS}-T_{RW}$) divided by 35°C.
4) Performance ratings are subject to tolerances of plus/minus 5%.

# PERFORMANCE DATA

## 2-Way Air Flow / 4-Pipe

**YK-OHACB-10 (10')**

| NOZZLE | PRIMARY AIRFLOW | PLENUM PRESSURE | NOISE CRITERIA | AIR COOLING CAPACITY ΔT=50°F | COOLING ($T_{RC}$ - $T_{CHS}$ = 18°F) | | | | | | | | | | | | HEATING ($T_{HWS}$ - $T_{RH}$ = 70°F) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | COOLING WATER FLOW 1 | | | | COOLING WATER FLOW 2 | | | | COOLING WATER FLOW 3 | | | | HEATING WATER FLOW 1 | | | | HEATING WATER FLOW 2 | | | | HEATING WATER FLOW 3 | | | |
| | | | | | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER |
| | (cfm) | (in. w.c.) | (NC) | (Btu/hr) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) | (gpm) | (ft. w.c.) | (Btu/hr) | (°F) |
| A0 | 36 | 0.16 | ≤15 | 703 | 0.95 | 1.41 | 3173 | 7 | 1.43 | 3.14 | 3651 | 5 | 1.90 | 5.59 | 3958 | 4 | 0.63 | 2.07 | 6893 | 22 | 0.79 | 3.68 | 8711 | 22 | 0.95 | 5.75 | 9582 | 20 |
| | 47 | 0.26 | ≤15 | 911 | 0.95 | 1.41 | 3822 | 8 | 1.43 | 3.14 | 4402 | 6 | 1.90 | 5.59 | 4777 | 5 | 0.63 | 2.07 | 9128 | 29 | 0.79 | 3.68 | 11590 | 29 | 0.95 | 5.75 | 12726 | 27 |
| | 57 | 0.39 | ≤15 | 1119 | 0.95 | 1.41 | 4333 | 9 | 1.43 | 3.14 | 5016 | 7 | 1.90 | 5.59 | 5425 | 6 | 0.63 | 2.07 | 10946 | 35 | 0.79 | 3.68 | 13824 | 35 | 0.95 | 5.75 | 15226 | 32 |
| | 68 | 0.55 | ≤15 | 1324 | 0.95 | 1.41 | 4777 | 10 | 1.43 | 3.14 | 5528 | 8 | 1.90 | 5.59 | 5971 | 6 | 0.63 | 2.07 | 12423 | 39 | 0.79 | 3.68 | 15718 | 40 | 0.95 | 5.75 | 17309 | 36 |
| | 78 | 0.74 | 17 | 1532 | 0.95 | 1.41 | 5152 | 11 | 1.43 | 3.14 | 5937 | 8 | 1.90 | 5.59 | 6449 | 7 | 0.63 | 2.07 | 13673 | 43 | 0.79 | 3.68 | 17309 | 44 | 0.95 | 5.75 | 19051 | 40 |
| A1 | 51 | 0.20 | ≤15 | 993 | 0.95 | 1.41 | 3617 | 8 | 1.43 | 3.14 | 4163 | 6 | 1.90 | 5.59 | 4538 | 5 | 0.63 | 2.07 | 8522 | 27 | 0.79 | 3.68 | 10794 | 27 | 0.95 | 5.75 | 11893 | 25 |
| | 61 | 0.30 | ≤15 | 1201 | 0.95 | 1.41 | 4231 | 9 | 1.43 | 3.14 | 4879 | 7 | 1.90 | 5.59 | 5289 | 6 | 0.63 | 2.07 | 10302 | 32 | 0.79 | 3.68 | 13029 | 33 | 0.95 | 5.75 | 14317 | 30 |
| | 72 | 0.41 | ≤15 | 1406 | 0.95 | 1.41 | 4743 | 10 | 1.43 | 3.14 | 5494 | 8 | 1.90 | 5.59 | 5937 | 6 | 0.63 | 2.07 | 11741 | 37 | 0.79 | 3.68 | 14885 | 38 | 0.95 | 5.75 | 16362 | 34 |
| | 83 | 0.54 | ≤15 | 1614 | 0.95 | 1.41 | 5186 | 11 | 1.43 | 3.14 | 6005 | 8 | 1.90 | 5.59 | 6483 | 7 | 0.63 | 2.07 | 12991 | 41 | 0.79 | 3.68 | 16438 | 41 | 0.95 | 5.75 | 18104 | 38 |
| | 93 | 0.69 | 18 | 1822 | 0.95 | 1.41 | 5562 | 12 | 1.43 | 3.14 | 6449 | 9 | 1.90 | 5.59 | 6995 | 7 | 0.63 | 2.07 | 14089 | 44 | 0.79 | 3.68 | 17839 | 45 | 0.95 | 5.75 | 19619 | 41 |
| B1 | 72 | 0.20 | ≤15 | 1406 | 0.95 | 1.41 | 4197 | 9 | 1.43 | 3.14 | 4845 | 7 | 1.90 | 5.59 | 5255 | 6 | 0.63 | 2.07 | 9772 | 31 | 0.79 | 3.68 | 12385 | 31 | 0.95 | 5.75 | 13597 | 29 |
| | 87 | 0.29 | ≤15 | 1696 | 0.95 | 1.41 | 4572 | 10 | 1.43 | 3.14 | 5289 | 7 | 1.90 | 5.59 | 5732 | 6 | 0.63 | 2.07 | 11059 | 35 | 0.79 | 3.68 | 14014 | 35 | 0.95 | 5.75 | 15415 | 32 |
| | 102 | 0.40 | 18 | 1986 | 0.95 | 1.41 | 4913 | 10 | 1.43 | 3.14 | 5698 | 8 | 1.90 | 5.59 | 6176 | 6 | 0.63 | 2.07 | 12196 | 38 | 0.79 | 3.68 | 15415 | 39 | 0.95 | 5.75 | 16968 | 36 |
| | 117 | 0.53 | 22 | 2276 | 0.95 | 1.41 | 5221 | 11 | 1.43 | 3.14 | 6039 | 8 | 1.90 | 5.59 | 6551 | 7 | 0.63 | 2.07 | 13143 | 41 | 0.79 | 3.68 | 16665 | 42 | 0.95 | 5.75 | 18294 | 38 |
| | 131 | 0.67 | 26 | 2566 | 0.95 | 1.41 | 5494 | 12 | 1.43 | 3.14 | 6381 | 9 | 1.90 | 5.59 | 6893 | 7 | 0.63 | 2.07 | 14014 | 44 | 0.79 | 3.68 | 17725 | 45 | 0.95 | 5.75 | 19506 | 41 |
| C1 | 106 | 0.24 | ≤15 | 2071 | 0.95 | 1.41 | 4333 | 9 | 1.43 | 3.14 | 5016 | 7 | 1.90 | 5.59 | 5459 | 6 | 0.63 | 2.07 | 10908 | 34 | 0.79 | 3.68 | 13824 | 35 | 0.95 | 5.75 | 15188 | 32 |
| | 123 | 0.32 | 20 | 2402 | 0.95 | 1.41 | 4811 | 10 | 1.43 | 3.14 | 5562 | 8 | 1.90 | 5.59 | 6039 | 6 | 0.63 | 2.07 | 11931 | 38 | 0.79 | 3.68 | 15112 | 38 | 0.95 | 5.75 | 16627 | 35 |
| | 140 | 0.41 | 25 | 2733 | 0.95 | 1.41 | 5221 | 11 | 1.43 | 3.14 | 6039 | 8 | 1.90 | 5.59 | 6551 | 7 | 0.63 | 2.07 | 12840 | 41 | 0.79 | 3.68 | 16248 | 41 | 0.95 | 5.75 | 17877 | 38 |
| | 157 | 0.52 | 28 | 3064 | 0.95 | 1.41 | 5562 | 12 | 1.43 | 3.14 | 6449 | 9 | 1.90 | 5.59 | 6961 | 7 | 0.63 | 2.07 | 13597 | 43 | 0.79 | 3.68 | 17233 | 43 | 0.95 | 5.75 | 18975 | 40 |
| | 174 | 0.64 | 31 | 3395 | 0.95 | 1.41 | 5869 | 12 | 1.43 | 3.14 | 6790 | 10 | 1.90 | 5.59 | 7370 | 8 | 0.63 | 2.07 | 14317 | 45 | 0.79 | 3.68 | 18142 | 46 | 0.95 | 5.75 | 19960 | 42 |
| E1 | 131 | 0.21 | 20 | 2566 | 0.95 | 1.41 | 4402 | 9 | 1.43 | 3.14 | 5084 | 7 | 1.90 | 5.59 | 5528 | 6 | 0.63 | 2.07 | 11097 | 35 | 0.79 | 3.68 | 14052 | 35 | 0.95 | 5.75 | 15453 | 32 |
| | 157 | 0.29 | 24 | 3064 | 0.95 | 1.41 | 4879 | 10 | 1.43 | 3.14 | 5664 | 8 | 1.90 | 5.59 | 6142 | 6 | 0.63 | 2.07 | 12120 | 38 | 0.79 | 3.68 | 15339 | 39 | 0.95 | 5.75 | 16892 | 36 |
| | 182 | 0.40 | 28 | 3559 | 0.95 | 1.41 | 5289 | 11 | 1.43 | 3.14 | 6108 | 9 | 1.90 | 5.59 | 6654 | 7 | 0.63 | 2.07 | 13029 | 41 | 0.79 | 3.68 | 16476 | 42 | 0.95 | 5.75 | 18142 | 38 |
| | 208 | 0.52 | 31 | 4057 | 0.95 | 1.41 | 5630 | 12 | 1.43 | 3.14 | 6517 | 9 | 1.90 | 5.59 | 7097 | 7 | 0.63 | 2.07 | 13824 | 44 | 0.79 | 3.68 | 17498 | 44 | 0.95 | 5.75 | 19240 | 40 |
| | 233 | 0.65 | 33 | 4552 | 0.95 | 1.41 | 5971 | 13 | 1.43 | 3.14 | 6893 | 10 | 1.90 | 5.59 | 7473 | 8 | 0.63 | 2.07 | 14544 | 46 | 0.79 | 3.68 | 18407 | 46 | 0.95 | 5.75 | 20263 | 43 |
| F1 | 159 | 0.19 | 22 | 3105 | 0.95 | 1.41 | 4538 | 10 | 1.43 | 3.14 | 5255 | 7 | 1.90 | 5.59 | 5698 | 6 | 0.63 | 2.07 | 11211 | 35 | 0.79 | 3.68 | 14165 | 36 | 0.95 | 5.75 | 15604 | 33 |
| | 191 | 0.28 | 27 | 3726 | 0.95 | 1.41 | 5016 | 11 | 1.43 | 3.14 | 5801 | 8 | 1.90 | 5.59 | 6278 | 7 | 0.63 | 2.07 | 12271 | 39 | 0.79 | 3.68 | 15529 | 39 | 0.95 | 5.75 | 17044 | 36 |
| | 222 | 0.38 | 30 | 4347 | 0.95 | 1.41 | 5391 | 11 | 1.43 | 3.14 | 6244 | 9 | 1.90 | 5.59 | 6756 | 7 | 0.63 | 2.07 | 13143 | 41 | 0.79 | 3.68 | 16665 | 42 | 0.95 | 5.75 | 18331 | 39 |
| | 254 | 0.50 | 34 | 4968 | 0.95 | 1.41 | 5732 | 12 | 1.43 | 3.14 | 6620 | 9 | 1.90 | 5.59 | 7200 | 8 | 0.63 | 2.07 | 13938 | 44 | 0.79 | 3.68 | 17650 | 45 | 0.95 | 5.75 | 19392 | 41 |
| | 286 | 0.63 | 37 | 5589 | 0.95 | 1.41 | 6039 | 13 | 1.43 | 3.14 | 6961 | 10 | 1.90 | 5.59 | 7575 | 8 | 0.63 | 2.07 | 14620 | 46 | 0.79 | 3.68 | 18521 | 47 | 0.95 | 5.75 | 20377 | 43 |
| G1 | 182 | 0.20 | 25 | 3559 | 0.95 | 1.41 | 4572 | 10 | 1.43 | 3.14 | 5323 | 7 | 1.90 | 5.59 | 5767 | 6 | 0.63 | 2.07 | 11514 | 36 | 0.79 | 3.68 | 14582 | 37 | 0.95 | 5.75 | 16059 | 34 |
| | 220 | 0.29 | 30 | 4306 | 0.95 | 1.41 | 5084 | 11 | 1.43 | 3.14 | 5869 | 8 | 1.90 | 5.59 | 6381 | 7 | 0.63 | 2.07 | 12347 | 39 | 0.79 | 3.68 | 15642 | 39 | 0.95 | 5.75 | 17195 | 36 |
| | 259 | 0.40 | 34 | 5050 | 0.95 | 1.41 | 5494 | 12 | 1.43 | 3.14 | 6381 | 9 | 1.90 | 5.59 | 6893 | 7 | 0.63 | 2.07 | 13105 | 41 | 0.79 | 3.68 | 16551 | 42 | 0.95 | 5.75 | 18218 | 38 |
| | 297 | 0.53 | 38 | 5794 | 0.95 | 1.41 | 5869 | 12 | 1.43 | 3.14 | 6790 | 10 | 1.90 | 5.59 | 7370 | 8 | 0.63 | 2.07 | 13749 | 43 | 0.79 | 3.68 | 17385 | 44 | 0.95 | 5.75 | 19127 | 40 |
| | 335 | 0.67 | 41 | 6541 | 0.95 | 1.41 | 6176 | 13 | 1.43 | 3.14 | 7131 | 10 | 1.90 | 5.59 | 7746 | 8 | 0.63 | 2.07 | 14317 | 45 | 0.79 | 3.68 | 18142 | 46 | 0.95 | 5.75 | 17982 | 70 |
| H1 | 254 | 0.19 | 31 | 4968 | 0.95 | 1.41 | 5186 | 11 | 1.43 | 3.14 | 6005 | 8 | 1.90 | 5.59 | 6517 | 7 | 0.63 | 2.07 | 12006 | 38 | 0.79 | 3.68 | 15188 | 38 | 0.95 | 5.75 | 16703 | 35 |
| | 307 | 0.28 | 37 | 6002 | 0.95 | 1.41 | 5528 | 12 | 1.43 | 3.14 | 6381 | 9 | 1.90 | 5.59 | 6927 | 7 | 0.63 | 2.07 | 12726 | 40 | 0.79 | 3.68 | 16135 | 41 | 0.95 | 5.75 | 17725 | 37 |
| | 360 | 0.38 | 41 | 7036 | 0.95 | 1.41 | 5801 | 12 | 1.43 | 3.14 | 6722 | 9 | 1.90 | 5.59 | 7268 | 8 | 0.63 | 2.07 | 13370 | 42 | 0.79 | 3.68 | 16930 | 43 | 0.95 | 5.75 | 18634 | 39 |
| | 413 | 0.50 | 43 | 8070 | 0.95 | 1.41 | 6039 | 13 | 1.43 | 3.14 | 6995 | 10 | 1.90 | 5.59 | 7575 | 8 | 0.63 | 2.07 | 13938 | 44 | 0.79 | 3.68 | 17650 | 45 | 0.95 | 5.75 | 19430 | 41 |
| | 466 | 0.64 | 46 | 9107 | 0.95 | 1.41 | 6244 | 13 | 1.43 | 3.14 | 7234 | 10 | 1.90 | 5.59 | 7848 | 8 | 0.63 | 2.07 | 14430 | 46 | 0.79 | 3.68 | 18294 | 46 | 0.95 | 5.75 | 20112 | 42 |

1) Air cooling capacities are based on $\Delta T_{AC} = T_{RC}-T_{CSA} = 20°F$. For other conditions, multiply the table air cooling capacity by the required ($T_{RC}-T_{CSA}$) divided by 20°F. Alternatively, air cooling capacity can be calculated from the formula: Air cooling capacity $Q_S$ = 1.085 x Airflow (cfm) x ($T_{RC}-T_{CSA}$).

2) Water cooling capacities are based on $T_{RC}-T_{CHS} = 18°F$. For other conditions multiply the table water cooling capacity by the required ($T_{RC}-T_{CHS}$) divided by 18°F.

3) Water heating capacities are based on 4-pipe chilled beams with $T_{HWS}-T_{RW} = 70°F$. For other conditions, multiply the table water heating capacity by the required ($T_{HWS}-T_{RW}$) divided by 70°F.

4) Performance ratings are subject to tolerances of plus/minus 5%.

## YK-OHACB-10 (3000mm)

| NOZZLE | PRIMARY AIRFLOW | PLENUM PRESSURE | NOISE CRITERIA | AIR COOLING CAPACITY ΔT=10°C | COOLING ($T_{RC}$ - $T_{CHS}$ = 10°C) | | | | | | | | | | | | HEATING ($T_{HWS}$ - $T_{RH}$ = 35°C) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | COOLING WATER FLOW 1 | | | | COOLING WATER FLOW 2 | | | | COOLING WATER FLOW 3 | | | | HEATING WATER FLOW 1 | | | | HEATING WATER FLOW 2 | | | | HEATING WATER FLOW 3 | | | |
| | | | | | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER COOLING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER | WATER FLOW | WATER ΔP | WATER HEATING CAPACITY | ΔT WATER |
| | (l/s) | (Pa) | (NC) | (W) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) | (l/s) | (KPa) | (W) | (°C) |
| A0 | 17 | 39 | ≤15 | 206 | 0.06 | 4.2 | 930 | 3.7 | 0.09 | 9.4 | 1070 | 2.8 | 0.12 | 16.7 | 1160 | 2.3 | 0.04 | 6.2 | 1820 | 10.8 | 0.05 | 11 | 2300 | 11.0 | 0.06 | 17.2 | 2530 | 10.1 |
| | 22 | 65 | ≤15 | 267 | 0.06 | 4.2 | 1120 | 4.5 | 0.09 | 9.4 | 1290 | 3.4 | 0.12 | 16.7 | 1400 | 2.8 | 0.04 | 6.2 | 2410 | 14.4 | 0.05 | 11 | 3060 | 14.6 | 0.06 | 17.2 | 3360 | 13.4 |
| | 27 | 98 | 19 | 328 | 0.06 | 4.2 | 1270 | 5.1 | 0.09 | 9.4 | 1470 | 3.9 | 0.12 | 16.7 | 1590 | 3.2 | 0.04 | 6.2 | 2890 | 17.2 | 0.05 | 11 | 3650 | 17.5 | 0.06 | 17.2 | 4020 | 16.0 |
| | 32 | 138 | 24 | 388 | 0.06 | 4.2 | 1400 | 5.6 | 0.09 | 9.4 | 1620 | 4.3 | 0.12 | 16.7 | 1750 | 3.5 | 0.04 | 6.2 | 3280 | 19.6 | 0.05 | 11 | 4150 | 19.8 | 0.06 | 17.2 | 4570 | 18.2 |
| | 37 | 185 | 28 | 449 | 0.06 | 4.2 | 1510 | 6.0 | 0.09 | 9.4 | 1740 | 4.6 | 0.12 | 16.7 | 1890 | 3.8 | 0.04 | 6.2 | 3610 | 21.6 | 0.05 | 11 | 4570 | 21.8 | 0.06 | 17.2 | 5030 | 20.0 |
| A1 | 24 | 51 | ≤15 | 291 | 0.06 | 4.2 | 1060 | 4.2 | 0.09 | 9.4 | 1220 | 3.2 | 0.12 | 16.7 | 1330 | 2.6 | 0.04 | 6.2 | 2250 | 13.5 | 0.05 | 11 | 2850 | 13.6 | 0.06 | 17.2 | 3140 | 12.5 |
| | 29 | 75 | 19 | 352 | 0.06 | 4.2 | 1240 | 4.9 | 0.09 | 9.4 | 1430 | 3.8 | 0.12 | 16.7 | 1550 | 3.1 | 0.04 | 6.2 | 2720 | 16.2 | 0.05 | 11 | 3440 | 16.4 | 0.06 | 17.2 | 3780 | 15.1 |
| | 34 | 102 | 23 | 412 | 0.06 | 4.2 | 1390 | 5.5 | 0.09 | 9.4 | 1610 | 4.3 | 0.12 | 16.7 | 1740 | 3.5 | 0.04 | 6.2 | 3100 | 18.5 | 0.05 | 11 | 3930 | 18.8 | 0.06 | 17.2 | 4320 | 17.2 |
| | 39 | 135 | 27 | 473 | 0.06 | 4.2 | 1520 | 6.0 | 0.09 | 9.4 | 1760 | 4.7 | 0.12 | 16.7 | 1900 | 3.8 | 0.04 | 6.2 | 3430 | 20.5 | 0.05 | 11 | 4340 | 20.8 | 0.06 | 17.2 | 4780 | 19.0 |
| | 44 | 172 | 30 | 534 | 0.06 | 4.2 | 1630 | 6.5 | 0.09 | 9.4 | 1890 | 5.0 | 0.12 | 16.7 | 2050 | 4.1 | 0.04 | 6.2 | 3720 | 22.2 | 0.05 | 11 | 4710 | 22.5 | 0.06 | 17.2 | 5180 | 20.6 |
| B1 | 34 | 50 | 20 | 412 | 0.06 | 4.2 | 1230 | 4.9 | 0.09 | 9.4 | 1420 | 3.8 | 0.12 | 16.7 | 1540 | 3.1 | 0.04 | 6.2 | 2580 | 15.4 | 0.05 | 11 | 3270 | 15.6 | 0.06 | 17.2 | 3590 | 14.3 |
| | 41 | 73 | 25 | 497 | 0.06 | 4.2 | 1340 | 5.3 | 0.09 | 9.4 | 1550 | 4.1 | 0.12 | 16.7 | 1680 | 3.4 | 0.04 | 6.2 | 2920 | 17.4 | 0.05 | 11 | 3700 | 17.7 | 0.06 | 17.2 | 4070 | 16.2 |
| | 48 | 100 | 29 | 582 | 0.06 | 4.2 | 1440 | 5.7 | 0.09 | 9.4 | 1670 | 4.4 | 0.12 | 16.7 | 1810 | 3.6 | 0.04 | 6.2 | 3220 | 19.2 | 0.05 | 11 | 4070 | 19.4 | 0.06 | 17.2 | 4480 | 17.8 |
| | 55 | 131 | 32 | 667 | 0.06 | 4.2 | 1530 | 6.1 | 0.09 | 9.4 | 1770 | 4.7 | 0.12 | 16.7 | 1920 | 3.8 | 0.04 | 6.2 | 3470 | 20.7 | 0.05 | 11 | 4400 | 21.0 | 0.06 | 17.2 | 4830 | 19.2 |
| | 62 | 167 | 36 | 752 | 0.06 | 4.2 | 1610 | 6.4 | 0.09 | 9.4 | 1870 | 5.0 | 0.12 | 16.7 | 2020 | 4.0 | 0.04 | 6.2 | 3700 | 22.1 | 0.05 | 11 | 4680 | 22.4 | 0.06 | 17.2 | 5150 | 20.5 |
| C1 | 50 | 59 | 28 | 607 | 0.06 | 4.2 | 1270 | 5.1 | 0.09 | 9.4 | 1470 | 3.9 | 0.12 | 16.7 | 1600 | 3.2 | 0.04 | 6.2 | 2880 | 17.2 | 0.05 | 11 | 3650 | 17.4 | 0.06 | 17.2 | 4010 | 16.0 |
| | 58 | 79 | 31 | 704 | 0.06 | 4.2 | 1410 | 5.6 | 0.09 | 9.4 | 1630 | 4.3 | 0.12 | 16.7 | 1770 | 3.5 | 0.04 | 6.2 | 3150 | 18.8 | 0.05 | 11 | 3990 | 19.1 | 0.06 | 17.2 | 4390 | 17.5 |
| | 66 | 103 | 35 | 801 | 0.06 | 4.2 | 1530 | 6.1 | 0.09 | 9.4 | 1770 | 4.7 | 0.12 | 16.7 | 1920 | 3.8 | 0.04 | 6.2 | 3390 | 20.2 | 0.05 | 11 | 4290 | 20.5 | 0.06 | 17.2 | 4720 | 18.8 |
| | 74 | 129 | 38 | 898 | 0.06 | 4.2 | 1630 | 6.5 | 0.09 | 9.4 | 1890 | 5.0 | 0.12 | 16.7 | 2040 | 4.1 | 0.04 | 6.2 | 3590 | 21.5 | 0.05 | 11 | 4550 | 21.7 | 0.06 | 17.2 | 5010 | 19.9 |
| | 82 | 159 | 42 | 995 | 0.06 | 4.2 | 1720 | 6.8 | 0.09 | 9.4 | 1990 | 5.3 | 0.12 | 16.7 | 2160 | 4.3 | 0.04 | 6.2 | 3780 | 22.6 | 0.05 | 11 | 4790 | 22.9 | 0.06 | 17.2 | 5270 | 21.0 |
| E1 | 62 | 52 | 30 | 752 | 0.06 | 4.2 | 1290 | 5.1 | 0.09 | 9.4 | 1490 | 4.0 | 0.12 | 16.7 | 1620 | 3.2 | 0.04 | 6.2 | 2930 | 17.5 | 0.05 | 11 | 3710 | 17.7 | 0.06 | 17.2 | 4080 | 16.2 |
| | 74 | 73 | 36 | 898 | 0.06 | 4.2 | 1430 | 5.7 | 0.09 | 9.4 | 1660 | 4.4 | 0.12 | 16.7 | 1800 | 3.6 | 0.04 | 6.2 | 3200 | 19.1 | 0.05 | 11 | 4050 | 19.3 | 0.06 | 17.2 | 4460 | 17.7 |
| | 86 | 99 | 40 | 1043 | 0.06 | 4.2 | 1550 | 6.2 | 0.09 | 9.4 | 1790 | 4.8 | 0.12 | 16.7 | 1950 | 3.9 | 0.04 | 6.2 | 3440 | 20.5 | 0.05 | 11 | 4350 | 20.8 | 0.06 | 17.2 | 4790 | 19.1 |
| | 98 | 129 | 44 | 1189 | 0.06 | 4.2 | 1650 | 6.6 | 0.09 | 9.4 | 1910 | 5.1 | 0.12 | 16.7 | 2080 | 4.1 | 0.04 | 6.2 | 3650 | 21.8 | 0.05 | 11 | 4620 | 22.1 | 0.06 | 17.2 | 5080 | 20.2 |
| | 110 | 162 | 47 | 1334 | 0.06 | 4.2 | 1750 | 7.0 | 0.09 | 9.4 | 2020 | 5.4 | 0.12 | 16.7 | 2190 | 4.4 | 0.04 | 6.2 | 3840 | 22.9 | 0.05 | 11 | 4860 | 23.2 | 0.06 | 17.2 | 5350 | 21.3 |
| F1 | 75 | 48 | 34 | 910 | 0.06 | 4.2 | 1330 | 5.3 | 0.09 | 9.4 | 1540 | 4.1 | 0.12 | 16.7 | 1670 | 3.3 | 0.04 | 6.2 | 2960 | 17.7 | 0.05 | 11 | 3740 | 17.9 | 0.06 | 17.2 | 4120 | 16.4 |
| | 90 | 70 | 40 | 1092 | 0.06 | 4.2 | 1470 | 5.8 | 0.09 | 9.4 | 1700 | 4.5 | 0.12 | 16.7 | 1840 | 3.7 | 0.04 | 6.2 | 3240 | 19.3 | 0.05 | 11 | 4100 | 19.6 | 0.06 | 17.2 | 4500 | 17.9 |
| | 105 | 95 | 44 | 1274 | 0.06 | 4.2 | 1580 | 6.3 | 0.09 | 9.4 | 1830 | 4.9 | 0.12 | 16.7 | 1980 | 3.9 | 0.04 | 6.2 | 3470 | 20.7 | 0.05 | 11 | 4400 | 21.0 | 0.06 | 17.2 | 4840 | 19.2 |
| | 120 | 124 | 47 | 1456 | 0.06 | 4.2 | 1680 | 6.7 | 0.09 | 9.4 | 1940 | 5.2 | 0.12 | 16.7 | 2110 | 4.2 | 0.04 | 6.2 | 3680 | 22.0 | 0.05 | 11 | 4660 | 22.3 | 0.06 | 17.2 | 5120 | 20.4 |
| | 135 | 157 | 50 | 1638 | 0.06 | 4.2 | 1770 | 7.0 | 0.09 | 9.4 | 2040 | 5.4 | 0.12 | 16.7 | 2220 | 4.4 | 0.04 | 6.2 | 3860 | 23.1 | 0.05 | 11 | 4890 | 23.4 | 0.06 | 17.2 | 5380 | 21.4 |
| G1 | 86 | 50 | 36 | 1043 | 0.06 | 4.2 | 1340 | 5.4 | 0.09 | 9.4 | 1560 | 4.1 | 0.12 | 16.7 | 1690 | 3.4 | 0.04 | 6.2 | 3040 | 18.2 | 0.05 | 11 | 3850 | 18.4 | 0.06 | 17.2 | 4240 | 16.9 |
| | 104 | 72 | 42 | 1262 | 0.06 | 4.2 | 1490 | 5.9 | 0.09 | 9.4 | 1720 | 4.6 | 0.12 | 16.7 | 1870 | 3.7 | 0.04 | 6.2 | 3260 | 19.5 | 0.05 | 11 | 4130 | 19.7 | 0.06 | 17.2 | 4540 | 18.1 |
| | 122 | 100 | 46 | 1480 | 0.06 | 4.2 | 1610 | 6.4 | 0.09 | 9.4 | 1870 | 5.0 | 0.12 | 16.7 | 2020 | 4.0 | 0.04 | 6.2 | 3460 | 20.6 | 0.05 | 11 | 4370 | 20.9 | 0.06 | 17.2 | 4810 | 19.2 |
| | 140 | 131 | 49 | 1698 | 0.06 | 4.2 | 1720 | 6.8 | 0.09 | 9.4 | 1990 | 5.3 | 0.12 | 16.7 | 2160 | 4.3 | 0.04 | 6.2 | 3630 | 21.7 | 0.05 | 11 | 4590 | 21.9 | 0.06 | 17.2 | 5050 | 20.1 |
| | 158 | 167 | 53 | 1917 | 0.06 | 4.2 | 1810 | 7.2 | 0.09 | 9.4 | 2090 | 5.6 | 0.12 | 16.7 | 2270 | 4.5 | 0.04 | 6.2 | 3780 | 22.6 | 0.05 | 11 | 4790 | 22.9 | 0.06 | 17.2 | 5270 | 21.0 |
| H1 | 120 | 48 | 44 | 1456 | 0.06 | 4.2 | 1520 | 6.1 | 0.09 | 9.4 | 1760 | 4.7 | 0.12 | 16.7 | 1910 | 3.8 | 0.04 | 6.2 | 3170 | 18.9 | 0.05 | 11 | 4010 | 19.2 | 0.06 | 17.2 | 4410 | 17.6 |
| | 145 | 69 | 48 | 1759 | 0.06 | 4.2 | 1620 | 6.4 | 0.09 | 9.4 | 1870 | 5.0 | 0.12 | 16.7 | 2030 | 4.0 | 0.04 | 6.2 | 3360 | 20.1 | 0.05 | 11 | 4260 | 20.3 | 0.06 | 17.2 | 4680 | 18.6 |
| | 170 | 95 | 51 | 2062 | 0.06 | 4.2 | 1700 | 6.8 | 0.09 | 9.4 | 1970 | 5.2 | 0.12 | 16.7 | 2130 | 4.2 | 0.04 | 6.2 | 3530 | 21.1 | 0.05 | 11 | 4470 | 21.4 | 0.06 | 17.2 | 4920 | 19.6 |
| | 195 | 125 | 53 | 2365 | 0.06 | 4.2 | 1770 | 7.0 | 0.09 | 9.4 | 2050 | 5.4 | 0.12 | 16.7 | 2220 | 4.4 | 0.04 | 6.2 | 3680 | 22.0 | 0.05 | 11 | 4660 | 22.3 | 0.06 | 17.2 | 5130 | 20.4 |
| | 220 | 160 | 58 | 2669 | 0.06 | 4.2 | 1830 | 7.3 | 0.09 | 9.4 | 2120 | 5.6 | 0.12 | 16.7 | 2300 | 4.6 | 0.04 | 6.2 | 3810 | 22.8 | 0.05 | 11 | 4830 | 23.1 | 0.06 | 17.2 | 5310 | 21.1 |

1) Air cooling capacities are based on $\Delta T_{AC} = T_{RC}-T_{CSA} = 10°C$. For other conditions, multiply the table air cooling capacity by the required ($T_{RC}-T_{CSA}$) divided by 10°C.
   Alternatively, air cooling capacity can be calculated from the formula: Air cooling capacity W = 1.213 x Airflow (l/s) x ($T_{RC}-T_{CSA}$).
2) Water cooling capacities are based on $T_{RC}-T_{CHS} = 10°C$. For other conditions multiply the table water cooling capacity by the required ($T_{RC}-T_{CHS}$) divided by 10°C.
3) Water heating capacities are based on 4-pipe chilled beams with $T_{HWS}-T_{RW} = 35°C$. For other conditions, multiply the table water heating capacity by the required ($T_{HWS}-T_{RW}$) divided by 35°C.
4) Performance ratings are subject to tolerances of plus/minus 5%.

# SELECTION EXAMPLE

## Specified Data

| | |
|---|---|
| Office (LxWxH): | 25' x 20' x 9' Area = 500 $ft^2$ |
| Occupants: | 4 |
| Occupant Load Per Person: | 250 Btu/h Sensible / 155 Btu/h Latent |
| Summer Room Design Condition ($T_{RS}$): | 75°F db / 50% RH / 55°F dp / W=0.00924 lbs/lb |
| Summer Primary Air Temperature ($T_{CSA}$): | 55°F db / 51°F dp / W=0.00793 lbs/lb |
| Chilled Water Supply Temperature ($T_{CHS}$): | 57°F |
| Summer Room Sensible Load: | 8189 Btu/h |
| Winter Room Design Condition ($T_{RW}$): | 70°F db / 50% RH |
| Heating Water Supply Temperature ($T_{HWS}$): | 140°F db |
| Winter Supply Air Temperature ($T_{AIR,H}$): | 55°F db |
| Winter Room Heating Requirement: | 9212 Btu/h |

## Cooling Calculations

**1.** Quantify ventilation requirements according to ASHRAE 62-2010:

- (4 people x 5 cfm) + (0.06 cfm/ft2 x 500 $ft^2$) = 50 cfm

**2.** Calculate primary airflow rate to handle the latent cooling demand:

- $Q_{Latent}$ = Primary Air CFM (4840)($W_{Room}$ - $W_{Primary}$)
- Primary Air CFM = $\dfrac{Q_{Latent}}{4840 \times (W_{Room} - W_{Primary})}$
- $\dfrac{q = 500 \text{ gpm } \Delta T}{500 \text{ (gpm)}} = \dfrac{620 \text{ Btu/h}}{4840 \times (0.00924 - 0.00793)} = 97.8 \text{ cfm}$

Primary air flow rate needed to condition latent load = 98 cfm.

**3.** Sensible load of primary air:

- $Q_S$ = 1.085 (98) (75F - 55F) = 2126 Btu/h

**4.** Temperature differences required to make cooling selection:

- $\Delta T_{AC} = T_{RC} - T_{CHS}$ = 75F - 55F = 20F
- $\Delta T_{WC} = T_{RC} - T_{CHS}$ = 75F - 57F = 18F

**5.** Capacities needed (two (2) units):

- Primary Air = 49 cfm ea.
- Total Capacity Needed = 8189 Btu/h / 2 = 4049 Btu/h ea.
- Air Sensible Cooling = 2126 Btu/h / 2 = 1063 Btu/h ea.

## Heating Calculations

**1.** Using two (2) 8’ units:

- Primary Air = 49 cfm ea. @ 55°F db
- Total Heating Needed = 9212 Btu/h / 2 = 4606 Btu/h

**2.** Deficit due to primary air:

- $Q_S$ = 1.085 (49 cfm)(55-70) = -797 Btu/h

**3.** Total heating needed from chilled beam:

- $Q_T$ = 4606 Btu/h + 797 Btu/h = 5403 Btu/h

**4.** Unit selection:

- AFX-OHACB-8 with A1 air nozzle will deliver cooling capacity of:
  1241 Btu/h air side @ 57 cfm / 4095 Btu/h water side @ 0.95 gpm
- AFX-OHACB-8 with A1 air nozzle will deliver heating capacity of:
  8105 Btu/h water side @ 0.95 gpm

# SELECTION SUMMARY

## AFX-OHACB-8

### Unit Size

| | |
|---|---|
| Length x Width: | 8' x 24" / (2) 5"Ø Connection |

### Room Conditions

| | |
|---|---|
| Cooling: | 75°F db / 50% RH |
| Heating: | 70°F db / 50% RH |

### Primary Air

| | |
|---|---|
| Cooling EAT: | 55°F db / 55°F dp |
| Heating EAT: | 55 F db |
| Air Volume Needed: | 98 cfm total / 49 cfm ea. unit |
| Unit Air Pressure Drop: | 0.3 in. w.g. |
| Sound Level: | ≤ 15 NC |

### Cooling

| | |
|---|---|
| Chilled Water EWT: | 57°F |
| Chilled Water LWT: | 66°F |
| Water Volume: | 0.95 gpm |
| Water Pressure Drop: | 1.14 ft. w.g. |
| Air Sensible Cooling: | 1214 Btu/h |
| Water Sensible Cooling: | 4095 Btu/h |
| Total Sensible Cooling: | 5336 Btu/h |

### Heating

| | |
|---|---|
| Hot Water EWT: | 140°F |
| Hot Water LWT: | 111°F |
| Water Flow: | 0.63 gpm |
| Water Pressure Drop: | 1.8 ft. w.g. |
| Air Heating Capacity: | -797 Btu/h |
| Water Heating Capacity: | 9279 Btu/h |
| Total Heating Capacity: | 8482 Btu/h |

# GUIDE SPECIFICATIONS

AirFixture AFX-OHACB series active chilled beams shall be used to compensate for external and internal heat loads of a building, and shall maintain thermal comfort in a room within specified comfort and noise criteria.

## Functional Description

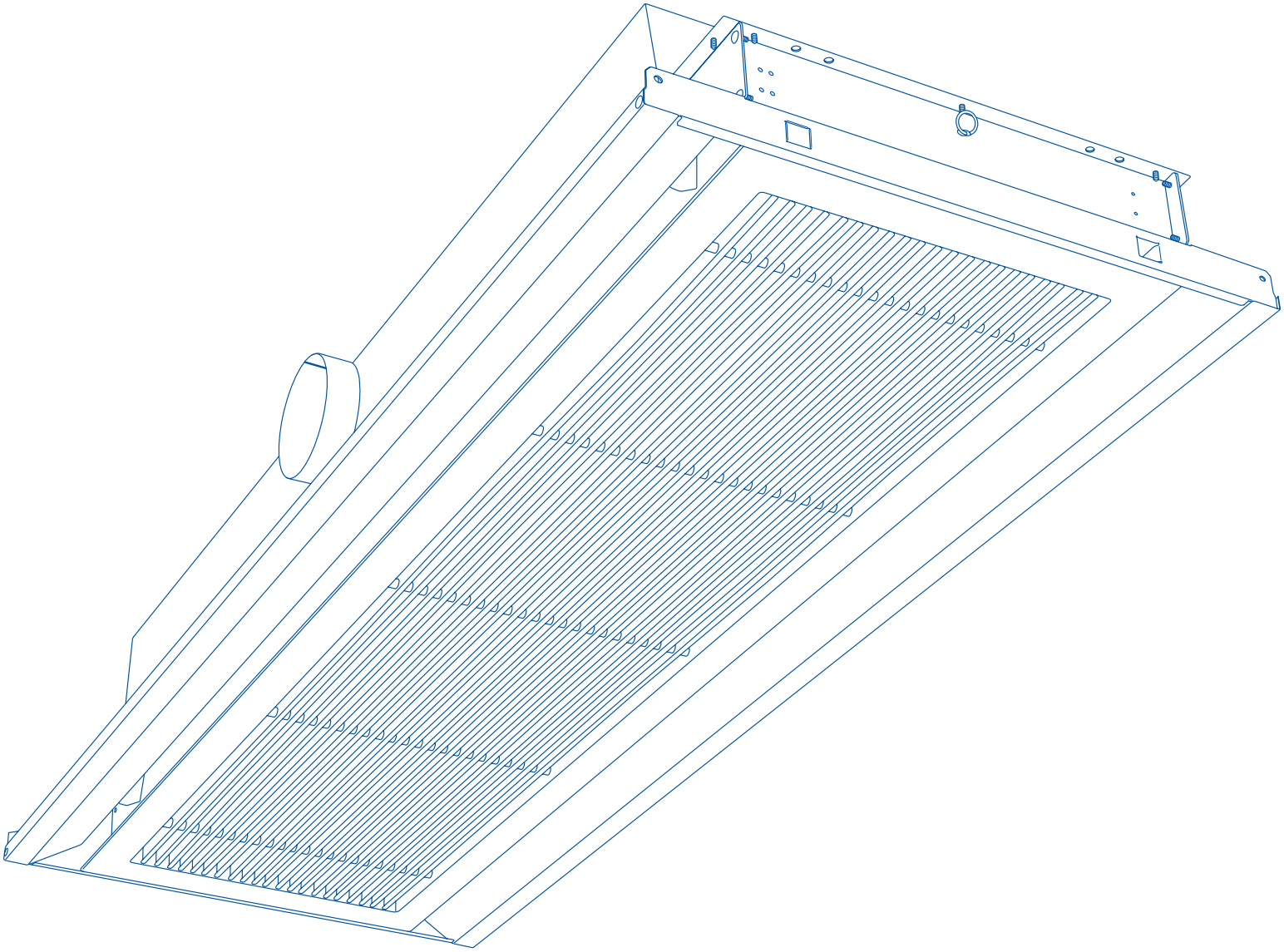
- Primary air will be supplied by the central air handling unit to the chilled beam air plenum box. The primary air shall then pass through the induction nozzles into the mixing section to mix with the induced room air before being distributed into the room by two slot supply diffusers.
- Induction nozzles shall induce air from the room through the inlet air diffuser and then through the fin and tube cooling/heating exchanger before mixing with the primary air and being supplied to the room. The size and quantity of induction nozzles shall be factory installed to provide the required unit capacity with the specified primary air flow, air inlet pressure and noise level.
- Heat exchangers shall be 2-pipe type for cooling only or cooling/heating changeover systems or 4 pipe type for systems with separate cooling and heating circuits.
- The units shall incorporate two linear slot air supply diffusers and shall be designed so that the supply air is discharged horizontally across the ceiling using the Coandă effect to increase air throw of the units and ensure air mixing with the room air above the occupied zone. The inlet air diffuser for the room air shall be perforated or provided with linear bar air inlet grille and shall be easily removable for cleaning the heat exchanger and shall be provided with safety hanging wires.

## Construction of the Chilled Beam

- The primary air plenum box shall be manufactured from galvanized sheet steel and shall have one or more round air connections. The plenum should be internally insulated to prevent condensation if the primary supply air temperature is less than the surrounding air dew point.
- The nozzle plate and chilled beam body shall be manufactured from galvanized steel with a minimum thickness of 22 ga. (0.8mm).
- The heat exchangers shall be made from seamless copper tubes with aluminum fins and shall have 1/2" or 5/8" (12mm or 15mm) diameter water connections depending on unit size and connections. Heat exchangers shall be suitable to operate at 250 psi working pressure and shall be factory pressure tested at 300 psi pressure.
- The supply air diffuser and room air inlet diffuser shall be manufactured from galvanized steel with a minimum thickness of 20 ga. (1mm) and shall be finished with polyester powder paint to RAL9010 with 20% gloss or with an alternative finish to be specified.
- **The active chilled beams shall be tested and rated in accordance with Standard EN15116.**

## Installation

The active chilled beam shall include 9/32" (7mm) diameter mounting holes for suspension by 1/4" (6mm) diameter threaded rod or suspension wires.



AirFixture®


51 Kansas Avenue | Kansas City, KS 66105 | P: 913.312.1100 | F: 913.312.1105 | www.airfixture.com