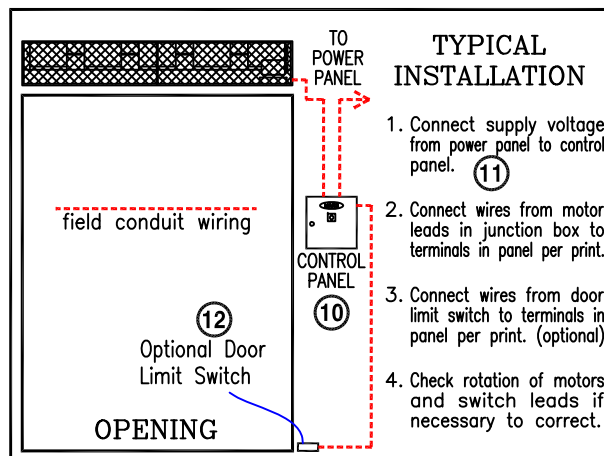



**NOTES:**

- ① This product is designed to comply with the National Electric Code (NEC).
- ② Unit includes a Steam/Hot Water Coil. Supply Fittings are Middle Right (Steam) or Bottom Right for (Hot Water). Return is Bottom Left (Steam) or Top Left (Hot Water).
- ③ High efficiency forward curved centrifugal blowers. ( 1 per 2 linear feet )
- ④ (4) 3/4" mounting holes for top mounting, (2) on each end.
- ⑤ Cabinet is to be mounted from overhead and has sufficient strength for suspension from both ends without intermediate support.
- ⑥ All units have a self contained, one piece cabinet, fire retardant, and corrosion proof paint lock metal, double protected with baked on gray color rust proof electrostatic polyurethane powder coating.
- ⑦ Unit provided with adjustable sheaves and pulleys, field adjustable to suit varying conditions.
- ⑧ Adjustable perforated volume dampers (2). Capable of reducing air velocity up to 50%.
- ⑨ Unit is to be installed such that air flow is not obstructed. Air discharge nozzle is adjustable with 40° sweep front to back.
- ⑩ Optional motor control panel. Overloads are factory preset. Standard procedure is to ship panel loose for remote mount.
- ⑪ Circuit protection as per N.E.C. by others.
- ⑫ Optional door limit switch is field installed and is to be wired to control panel. Switch to be mounted such that air curtain turns on as door begins to open.
- ⑬ \*When specifying one row design, use "Y" for steam and "W" for hot water. For two row design, use "X" for hot water and consult factory for steam. See code chart on second page.

MODEL NUMBER ⑬	NOZZLE WIDTH A	OVERALL WIDTH B	MOUNTING WIDTH C
BD14 96-1*	96"	107"	105 1/2"
BD14 120-1*	120"	131"	129 1/2"
BD14 144-1*	144"	155"	153 1/2"
BD14 168-1*	168"	179"	177 1/2"
BD14 192-1*	192"	203"	201 1/2"



PROJECT	Model No.:
LOCATION	Drawing No.:
ARCHITECT	Date
ENGINEER	Sheet of
	Drawn By:
	Checked By:



**MARS**<sup>®</sup>  
AIR SYSTEMS

14716 S. BROADWAY • GARDENIA, CA 90248 • USA  
TEL: (310) 532-1555 • (800) 421-1266 • FAX: (310) 324-3030  
Web Site: www.marsair.com • E-mail: info@marsair.com

**BD-14 WindGuard® BELT DRIVE INDUSTRIAL STEAM / HOT WATER MODELS**

**JOB:**

**ARCHITECT/ENGINEER:**

**DRWG.:** \_\_\_\_\_

**CONTRACTOR:**

**SHEET** \_\_\_\_\_ **of** \_\_\_\_\_ **DATE:** \_\_\_\_\_

MARK	STANDARD STEAM/ HOT WATER HEATED MODEL NUMBER ①	NO. REQ'D	LENGTH (INCHES)	WEIGHT (LBS)	MOTOR FAN DATA					HEATING CAPACITY OF COILS								dBA Measured 10 ft. from Nozzle	REMARKS	
					MOTOR HP @ 1750 RPM**	VOLTS & PHASE	FLA* THREE PHASE		MAX FPM** @ NOZZLE	MAX CFM** @ NOZZLE	STEAM ②				HOT WATER ②					
							208V/230V	460V			HEAT MBH		TEMP RISE °F		HEAT MBH		TEMP RISE °F			
											ONE ROW	TWO ROW	ONE ROW	TWO ROW	ONE ROW	TWO ROW	ONE ROW			TWO ROW
	BD14 96-1*		107	800	1 @ 5		14.2/13.0	6.5	3400	11700	632	856	50	67	404	517	32	41	73	
	BD14 120-1*		131	875	1 @ 5		14.2/13.0	6.5	3400	14650	711	995	45	63	489	624	31	39	73	
	BD14 144-1*		155	1000	1 @ 7½		21.6/20.0	10.0	3400	17600	848	1189	44	62	570	723	30	38	74	
	BD14 168-1*		179	1125	1 @ 7½		21.6/20.0	10.0	3400	20500	985	1381	44	62	646	816	29	37	74	
	BD14 192-1*		203	1250	1 @ 10		28.0/26.0	13.0	3400	23450	1122	1575	44	62	719	904	28	36	75	

**NOTES:** ① \* When specifying one row design, use "Y" for steam and "W" for hot water. For two row design, use "X" for hot water and consult factory for steam. See code chart below.  
 ② MBH and air temperature rise based on 70°F ambient air and (5 psi steam) or (200°F hot water).

\* - For Ampacity Multiply FLA X 1.25  
 \*\* - 17% Reduction In Performance on units with 50Hz.

**EQUIPMENT SPECIFICATIONS – Standard Features**  
**GENERAL**

Air curtain shall be a Mars® Air Doors brand air curtain: Type WindGuard® Belt Drive Industrial Steam/Hot Water Heated Models.

**APPROVALS**  
 Air curtains, excluding coils, shall meet the requirements of the National Electric Code (NEC).

**CABINET**  
 Cabinets shall be self contained one piece housing with sufficient strength for fastening to wall on both ends without intermediate support. Cabinet constructed of fire retardant, corrosion proof paint lock metal and double protected with gray baked rust preventative electrostatic polyurethane powder coating. Cabinet to have mechanically field adjustable variable air intake louver assembly capable of reducing outlet air velocity up to 50% with louvers in the totally closed position. Discharge air outlet nozzle shall be wedge shape containing adjustable air directional vanes with a 40° sweep front to back. Motor/fan assembly to be easily accessible for maintenance.

**COIL CONSTRUCTION FOR BOTH STEAM & HOT WATER**  
 Single Row Steam Distributing Coils shall be constructed of .035" heavy tube wall x 1" OD seamless copper tubing with die formed aluminum fins. Tubes shall be arranged in a staggered pattern in the direction of air flow.  
 Double Row Steam Distributing Coils (Dual Feed) shall be constructed of .035" heavy tube wall x 5/8" OD seamless copper tubing with die formed aluminum fins. Tubes shall be arranged in a staggered pattern in the direction of air flow.  
 Hot Water Coils One & Two Row shall be constructed of .025" heavy tube wall x 5/8" OD seamless copper tubing with die formed aluminum fins. Tubes shall be arranged in a staggered pattern in the direction of air flow.  
 All casings shall not be less than 16 gauge galvanized steel with tube holes formed with extruded collars. Tube shall be mechanically expanded into fins to ensure a uniform pressure bond throughout the entire length of each tube. Manifolds shall be of heavy seamless copper construction. All joints shall be brazed with high temperature silver brazing alloy. Fittings shall be of wrought copper or similar construction such that the entire fluid circuit shall be of compatible nonferrous materials. Manifold shall be fitted with 1/4" vent or drain fittings. Supply fitting is on the right side of coil. Return fitting is on the left side.

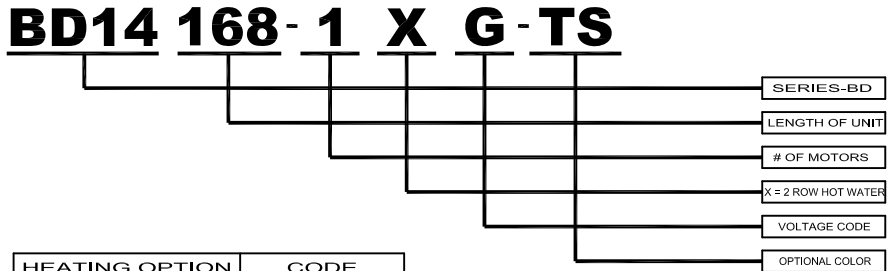
**MOTOR & BLOWER HOUSING**  
 Motors shall be a standard totally enclosed fan cooled type suitable for continuous heavy duty operation. Motor shall be a belt drive type capable of maintaining and adjusting outlet air velocity through the use of an adjustable motor base, sheaves, and pulleys. Motor shall be internally mounted in the air curtain cabinet to prevent damage and to eliminate the need of a belt guard, complying with OSHA requirements. Fixed pulley mechanism and replacement of motor belts. Blower wheel shall be forward curved cold rolled steel, direct coupled, dynamically balanced and furnished with blower wheel housing. Blower wheels shall not exceed 1500 RPM.

**ELECTRICAL WIRING**  
 A 4"x4" watertight junction box shall be mounted on motor end unless otherwise specified.

**GUARANTEE**  
 Shall be 18 months on all parts.

**ACCESSORIES**  
 Refer to the optional features and accessories page.

**EXAMPLE**



HEATING OPTION	CODE
1 ROW HOT WATER	W
2 ROW HOT WATER	X
1 ROW STEAM	Y
2 ROW STEAM	CONSULT FACTORY

SIZE	VOLTAGE	CODE
96"-192"	208-230/3/60	G
96"-192"	460/3/60	H
96"-192"	575/3/60	I

COLOR	CODE
OBSIDIAN BLACK	OB
TITANIUM SILVER	TS
PEARL WHITE	PW
SPARTAN BRONZE	SB
BATTLESHIP GRAY	BG

**MADE WITH PRIDE IN THE U.S.A.**