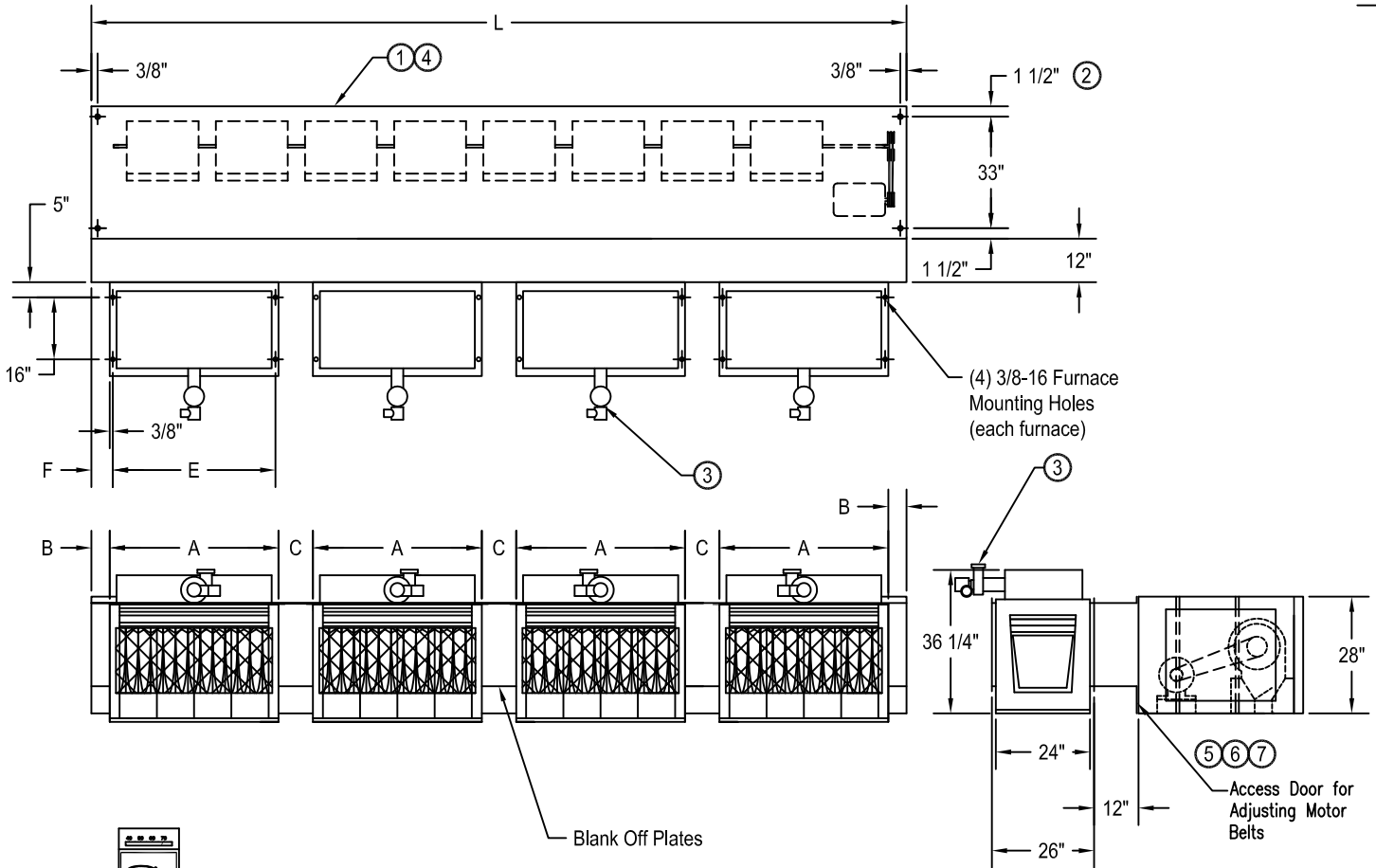


NOTES:

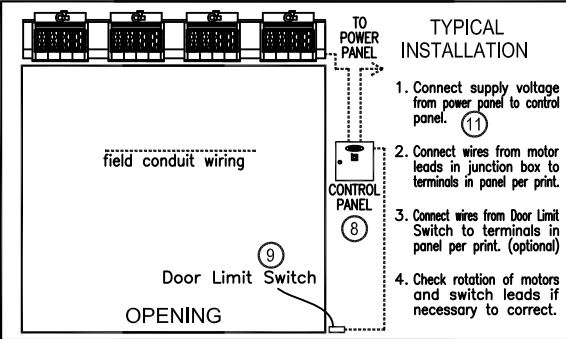
- ① This product is designed to comply with the National Electric Code (NEC). Duct furnace designed is certified by CSA International for use with natural and LP (propane) gases. Furnaces have a Single Stage Gas Valve and Aluminized Heat Exchanger and Burners.
- ② (4) 3/4" Mounting holes provided. (2) each end.
- ③ Standard Power Venter. Flue connection field adjustable. Horizontal or Vertical flue.
- ④ 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.
- ⑤ Unit provided with adjustable sheaves and pulleys, field adjustable to suit varying conditions.
- ⑥ Adjustable perforated volume dampers (2). Capable of reducing air velocity up to 50%.
- ⑦ Unit is to be installed such that air flow is not obstructed. Air discharge nozzle is adjustable with 40° sweep front to back.
- ⑧ Standard motor control panel, overloads are factory preset. Burner controls are interlocked with motor control panel. Standard procedure is to ship panel loose for remote mount.
- ⑨ Optional door limit switch is field installed and is to be wired to the control panel. Switch to be mounted such that the air curtain turns on when door begins to open.
- ⑩ Remote mounted thermostat field installed. Thermostat to regulate furnaces operation, must be located in area which senses either the intake or discharge temperature. (Max. output 90°F)
- ⑪ Circuit protection as per (NEC) by others.



Remote Thermostat Shipped Loose

⑩

MODEL NUMBER	OVERALL WIDTH L	FURNACE WIDTH A	END SPACE B	CENTER SPACE C	FLUE SIZE D ③	MOUNTING DISTANCE E	DIM F	FURNACE SIZE (MBH)
BD22 96-11	107"	48 1/8"	2 11/16"	5 3/8"	6" ROUND	47 3/8"	3 1/16"	(2) @ 400
BD22 120-11	131"	48 1/8"	8 11/16"	17 3/8"	6" ROUND	47 3/8"	9 1/16"	(2) @ 400
BD22 144-11	155"	48 1/8"	2"	3 5/16"	6" ROUND	47 3/8"	2 3/8"	(3) @ 400
BD22 168-11	179"	48 1/8"	5 3/4"	11 9/16"	6" ROUND	47 3/8"	6 1/8"	(3) @ 400
BD22 192-11	203"	48 1/8"	1 7/8"	2 1/4"	6" ROUND	47 3/8"	2 3/8"	(4) @ 400



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

MARS[®]
AIR SYSTEMS

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

JOB: _____ **ARCHITECT/ENGINEER:** _____ **DRWG.:** _____
CONTRACTOR: _____ **SHEET** ____ **of** ____ **DATE:** _____

MARK	INDIRECT FIRED GAS MODEL NUMBER	NO. REQ'D	LENGTH	TOTAL WEIGHT LBS	FURNACE DATA			MOTOR FAN DATA						dBA Measured 10 ft. from Nozzle	REMARKS	
					MBH INPUT MAX	TEMP. RISE °F MIN	NATURAL GAS (NPT) CONN.	MOTOR HP @ 1750 RPM**	VOLTS & PHASE	FLA * THREE PHASE		MAX** CFM @ NOZZLE	AVG** FPM @ NOZZLE			MAX** FPM @ NOZZLE
										208/230V	460V					
	BD22 96-11		107	1500	(2) @ 400	46	3/4"	10		28.0/26.0	13.0	16250	4700	6000	75	
	BD22 120-11		131	1700	(2) @ 400	37	3/4"	15		42.0/40.0	20.0	20300	4700	6000	76	
	BD22 144-11		155	1900	(3) @ 400	46	3/4"	15		42.0/40.0	20.0	24350	4700	6000	76	
	BD22 168-11		179	2300	(3) @ 400	39	3/4"	20		55.0/51.0	25.5	28400	4700	6000	77	
	BD22 192-11		203	2700	(4) @ 400	46	3/4"	20		55.0/51.0	25.5	32500	4700	6000	77	

EQUIPMENT SPECIFICATIONS – Standard Features

GENERAL

Air curtain shall be a Mars Air Doors® brand air curtain: Type Windguard® Heavy Duty Indirect Fired Gas Industrial Air Curtain.

APPROVALS

The Air Curtain shall meet the requirements of the National Electric Code. (NEC).
 The Duct Furnace shall be approved by the American Gas Association (AGA) and Canadian Gas Association (CGA).

CABINET AND TRANSITION

Cabinet shall be a self contained one piece housing with sufficient strength for suspending with threaded rods on both ends without intermediate support. Transition(s) shipped assembled for field installation. Cabinet and Transition constructed of fire retardant, corrosion proof paint lock metal and double protected with gray baked rust preventative, electrostatic polyurethane powder coating. Discharge air outlet nozzle shall be wedge shaped containing adjustable air directional vanes with 40° sweep front to back. Motor/Fan assembly to be easily accessible, through bottom of transition, for maintenance.

INDIRECT FIRED, GAS HEATED FURNACES

Heat exchanger shall be Indirect Natural Gas Fired, Gravity Vented Duct Furnace. Heat Exchanger and Die-formed Burners shall be constructed of Aluminized Steel with Stainless Steel Insert Burners. Manifold, Orifices, Flame Sensor and Ignitor shall be easily removable as an assembly.

FURNACE CONTROLS

Unit shall include a 24 Volt Control Transformer, Combination Single-Stage Gas Control System with a Regulated Combination Redundant Gas Valve and an Intermittent Spark Pilot with Electric Flame Supervision. The unit also includes a remote mounted 24 Volt Thermostat with a Heat & Fan, Off and Fan Only Selector Switch. The Panel includes a built-in 30 Second Fan Time Delay and HOA Switch on control panel door. The unit is to include all required limit and safety controls.

MOTOR AND BLOWER HOUSINGS

Motor(s) shall be totally enclosed fan cooled (TEFC) 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 watertight junction box shall be mounted on motor end unless otherwise specified.

GUARANTEE

Shall be 18 months on all parts.

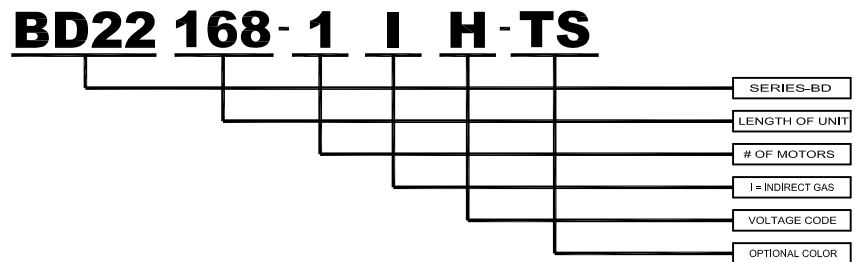
* - For Ampacity Multiply FLA X 1.25

** - 17% Reduction In Performance on units with 50Hz.

ACCESSORIES

Refer to the optional features and accessories page.

EXAMPLE



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.