

EXHAUST FAN INFORMATION – Job#4392068

FAN UNIT NO	TAG	FAN UNIT MODEL #	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	ø	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1		VXB14	2500	0.500	1196	ODP	1.000	0.5240	3	208	3.1	791 FPM	168	14.8

FAN OPTIONS

FAN UNIT NO	TAG	OPTION (Qty - Descr)
1		1 - Grease Box 1 - Full Crating For Exhaust Fans 1 - Fan Base Ceramic Seal - Installed At Plant - For Grease Ducts 1 - VAV Package w/ Manual Control (VFD Included)

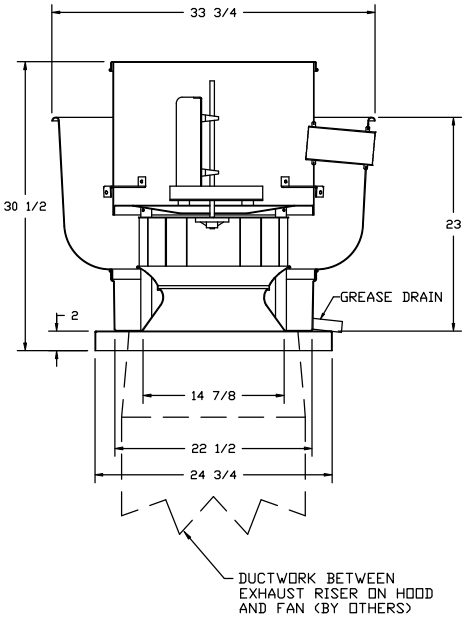
FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1		YES						

CURB ASSEMBLIES

NO	ON FAN	WEIGHT	ITEM	SIZE
1		24 LBS	Exhaust Adapter	From 26.000'sq To 23.000'sq x 24.000'H

FAN #1 VXB14 – EXHAUST FAN



FEATURES:

- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL705 AND UL762 AND ULC-S645
- AMCA SOUND AND AIR CERTIFIED
- WIRING FROM MOTOR TO DISCONNECT SWITCH
- WEATHERPROOF DISCONNECT
- HIGH HEAT OPERATION 300°F (149°C)
- GREASE CLASSIFICATION TESTING

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

GREASE BOX.
FULL CRATING FOR EXHAUST FANS.
FAN BASE CERAMIC SEAL – INSTALLED AT PLANT – FOR GREASE DUCTS.
VAV PACKAGE W/ MANUAL CONTROL (VFD INCLUDED).



Ventilation Direct

JOB The Pony	
LOCATION BURNABY, BC,	
DATE 6/23/2020	JOB # 4392068
DWG # 1	DRAWN BY
REV.	SCALE 3/8" = 1'-0"



GREASE DUCT & CHIMNEY SPECIFICATIONS:

PROVIDE GREASE DUCT EQUAL TO VENTILATION DIRECT MODEL "VDW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "VDW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "VDW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.

PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "VDW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO VENTILATION DIRECT MODEL "VDW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CUSTOMER APPROVAL TO MANUFACTURE:

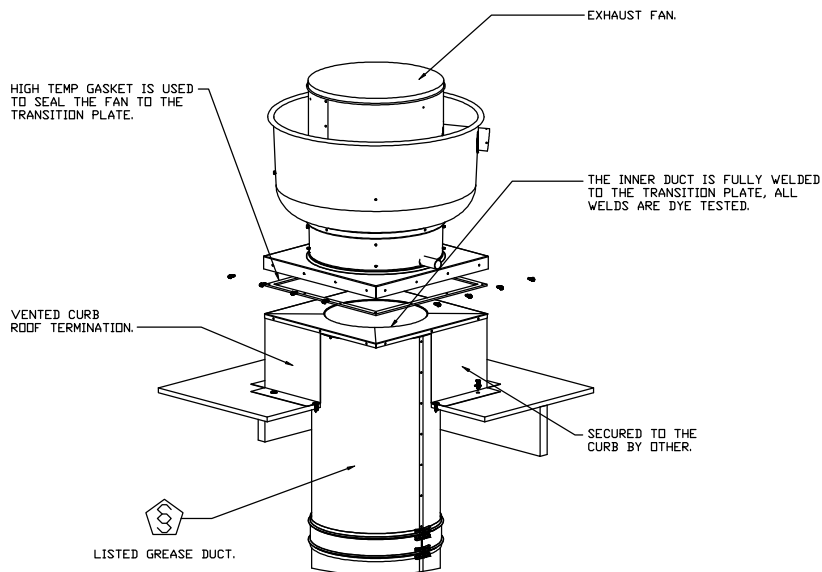
Approved as Noted ☐

Approved with NO Exception Taken ☐

Revise and Resubmit ☐

SIGNATURE _____

Your Title _____ Date _____



Ventilation Direct

JOB The Pony			
LOCATION BURNABY, BC,			
DATE	6/23/2020	JOB #	4392068
DWG #	2	DRAWN BY	
REV.		SCALE	3/8" = 1'-0"

Exhaust Fan Wiring		JOB	4392068 - The P...	
DRAWING NUMBER	EXH4392068-1	SHIP DATE	6/16/2020	MODEL VXB14
<div><div>1</div><div>2</div><div><div><div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div></div><div>SW-01</div><div><div>BK</div><div>BK</div><div>BK</div></div></div></div><div><div>GR</div><div></div></div><div>3</div><div>4</div><div>5</div><div>6</div><div>7</div><div>8</div><div>9</div><div>10</div><div>11</div><div>12</div><div>13</div><div>14</div><div>15</div><div>16</div><div>17</div><div>18</div><div>19</div><div>20</div><div>21</div><div>22</div><div>23</div></div> <div><div><div>Component Identification</div><div>LabelDescriptionLocation</div><div>MT-01Fan Motor[3]</div><div>SW-01Main disconnect switch[3]</div></div></div> <div><div>MOTOR INFO</div><div>EXHAUST 1HP-208V-3P-3.1FLA</div><div>VFD PART: ESV75IN01SXB</div></div> <div><div>ELECTRICAL INFORMATION</div><div>MOTOR/CTRL MCA: 3.9A</div><div>MOTOR/CTRL MOP: 15A</div></div> <div><div>NOTES</div><div>--- DENOTES FIELD WIRING</div><div>--- DENOTES INTERNAL WIRING</div></div> <div><div>WIRE COLOR</div><div>BK - BLACK YW - YELLOW</div><div>BL - BLUE GR - GREEN</div><div>BR - BROWN GY - GRAY</div><div>OR - ORANGE PR - PURPLE</div><div>RD - RED PK - PINK</div><div>WH - WHITE</div></div>				

JOB4392068 - The P...

SHIP DATE6/16/2020MODEL VXB14

VFD Wiring

DRAWING NUMBERVFD4392068-1

Manual Control

Installed Options

Component Identification

SMV SERIES VARIABLE FREQUENCY DRIVE

TERMINAL	FUNCTION
1	Digital Input<Start/Stop>
2	Analog Common
5	Analog Input: 0-10 VDC
6	Internal DC Supply for Speed Pot: +10 VDC
25	Analog Input: 4-20 mA
30	Analog Output
4	Digital Reference/Common
11	Internal DC Supply for External Devices
13A	Digital Input: Configurable with PI21
13B	Digital Input: Configurable with PI22
13C	Digital Input: Configurable with PI23
14	Digital Output: Configurable with PI42
30	Analog Output: Configurable with PI50...PI55
16	Relay Output: Configurable with P140
17	
PE	Ground Terminal
L1	3 Phase Input or Single Phase Input
L2	3 Phase Input or Single Phase Input
L3 (N)	3 Phase Input (Neutral for 120v)
U	3 Phase AC Motor
V	3 Phase AC Motor
W	3 Phase AC Motor

10kΩHM
Speed
Pot
By Others
If Required

NOT USED FOR EXHAUST FANS
OR NON-HEATED SUPPLY FANS

BURNER CIRCUIT CONTACT

TERMINAL BLOCKS
LOCATED IN HEATER UNIT
(IF SINGLE PHASE INPUT, UNIT MAY
NOT CONTAIN ALL TERMINAL BLOCKS)

EXHAUST FANS AND NON-HEATED
UNITS DO NOT HAVE TERMINALS

All external control wires to motor speed control should
be 16-20 AWG shielded multiconductor cables and must not
be run in the same conduit or raceway with any high power
wiring. Ground Shielded Cable at the drive chassis ONLY.

PG. 11 OF THE DRIVE MANUAL DESCRIBES THE PROPER
INSTALLATION PROCEDURE

PG. 19 OF THE DRIVE MANUAL DESCRIBES THE PROGRAMMING
PROCEDURE OF THE DRIVE

PG. 23 OF THE DRIVE MANUAL DESCRIBES THE PARAMETER
SETTINGS OF THE DRIVE

*NOTE: THE DEFAULT PASSWORD FROM THE FACTORY REQUIRED
TO PROGRAM THE DRIVE IS '225'.

SUPPLY DRIVE PARAMETER SETTINGS*

EPM PROGRAM: VAV.MANKUSE LG.HP EPM IF >= 15HP>
PI00 (Start Source) = 01 (Terminal Strip)
PI02 = **Minimum Frequency (Hz)
PI03 = **Maximum Frequency (Hz)
(PI03 Is locked when the Motor RPM
PI10 (Start Method) = 03 (Auto Re-start)
PI14 (Form A LNO Relay) = 01 (Run)
PI44 (Relay Inversion) = 00 (None)
PI66 (Carrier Frequency) = 00 (4 kHz)
PI71 (Current Limit) = 150 (% of Max I)

Adjust manually on all drives
PI07 = 00 (If 120 or 208 VAC)
or 01 (If 230, 480 or 575 VAC)
PI08 = Motor FLA x 100 / Drive Output Rating
PI65 (Base Voltage) = Set to Motor Voltage
(Base=230V). H65 FOR STANDARD DRIVE ONLY
PI67 (Base Frequency) = Calculated Per Fan

FDR KB PCU ONLY: P300 = 0

When Speed POT is Required the Following
Parameters Must be Set:
PI01 (Reference Source) = 01 (0-10 VDC)
PI60 (Speed @ 0 VDC Signal) = Min Frequency
PI61 (Speed @ 10 VDC Signal) = Max Frequency

IT MAY BE REQUIRED TO FULLY POWER DOWN THE DRIVE
AND TURN BACK ON IN ORDER TO INITIATE NEW
PARAMETER SETTINGS.

***Min. and Max. Frequency Settings override all
other Preset speeds/Parameters.

GENERAL NOTES

NOTES

--- DENOTES FIELD WIRING
--- DENOTES INTERNAL WIRING

WIRE COLOR

BK - BLACK YW - YELLOW
BL - BLUE GR - GREEN
BR - BROWN GY - GRAY
DR - RED OR - ORANGE PR - PURPLE
RH - RED PK - PINK
WH - WHITE

ELECTRICAL INFORMATION

MOTOR/CTRL MCA: 3.9A
MOTOR/CTRL MDP: 15A

MOTOR INFO
EXHAUST 1HP-208V-3P-3.1FLA
VFD PART: ESV75IN01SXB