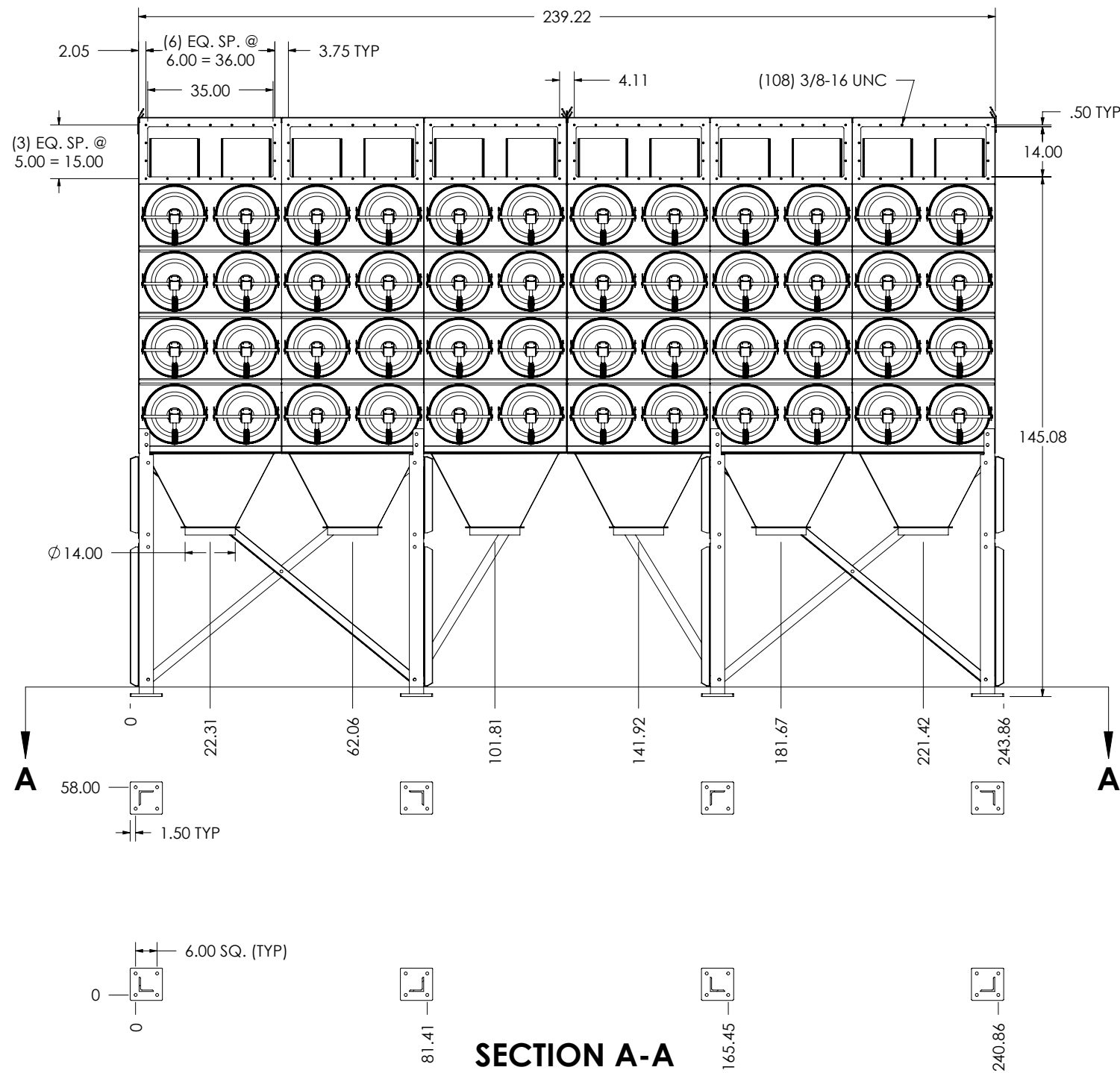
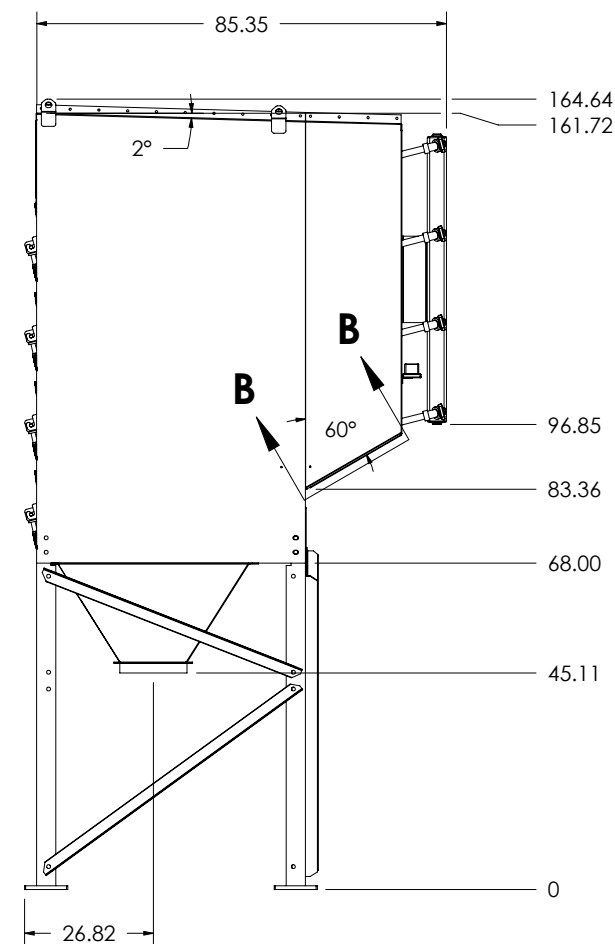


SECTION B-B




SECTION A-A



ACCESSORIES:

1. FAN BLOWER: TCF 330 BCS CL14 CW UBD ARR-4
2. FAN OUTLET DAMPER & SILENCER
3. ALL-IN-ONE CONTROLS W/ VFD (60HP/460V)

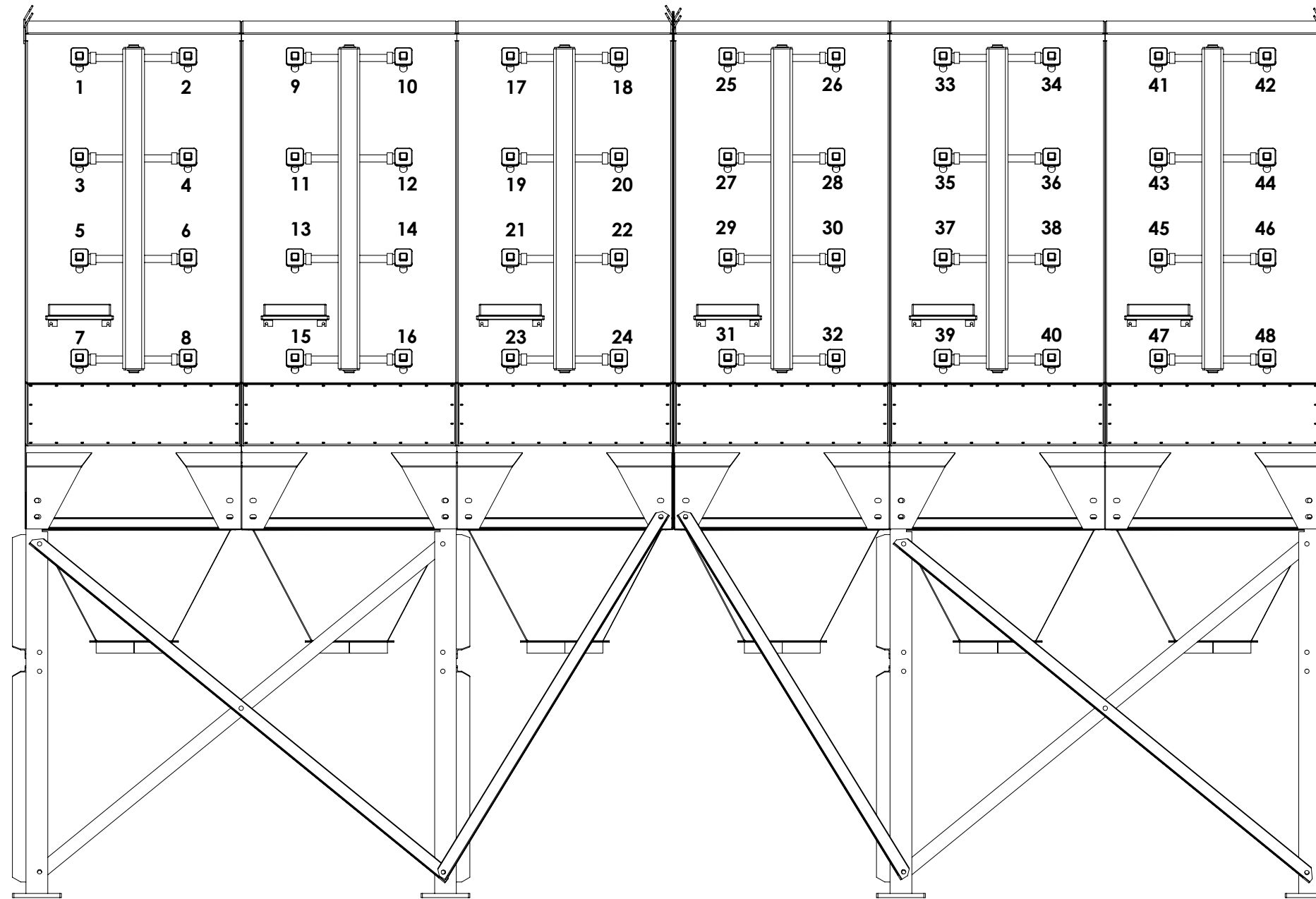
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|-----|-----|------|----|-----|-------------|
| - | - | - | - | - | - |



avani
environmental®

95 Cypress Dr.
Youngsville, NC 27597
Phone: 919-570-2862
www.avanienvironmental.com

| | | | | | |
|----------------------|-----------------|--------------|--------------------------|-----------------------|---------------|
| DRAWN BY JX | DATE 7/25/14 | CHKD BY - | DATE - | SHOP NO. 15673-001 | SCALE 1:40 |
| TITLE SDC-AT-4-96 | | | DRAWING NO. BC 500018 | | |
| SHEET 1 OF 1 | | ITEM - | REV. - | | |



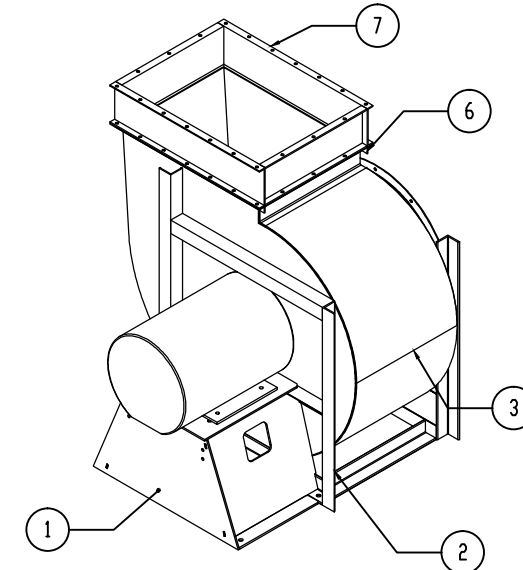
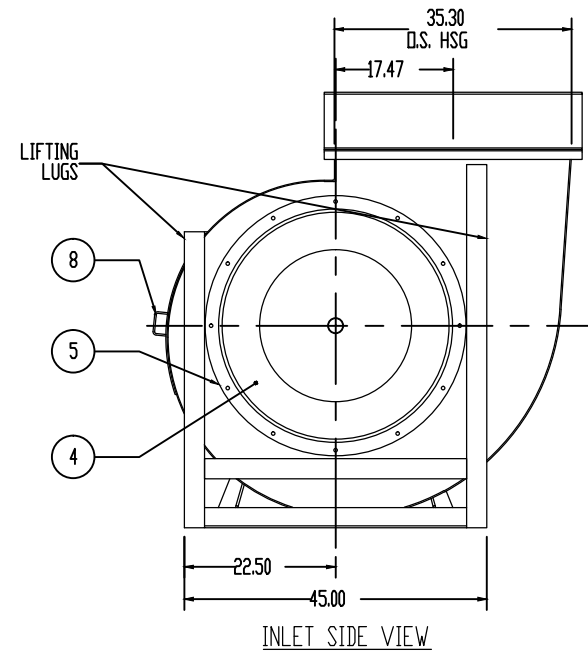
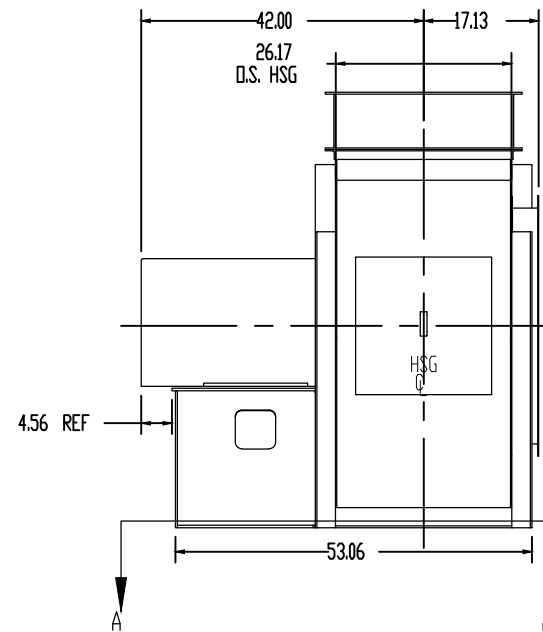
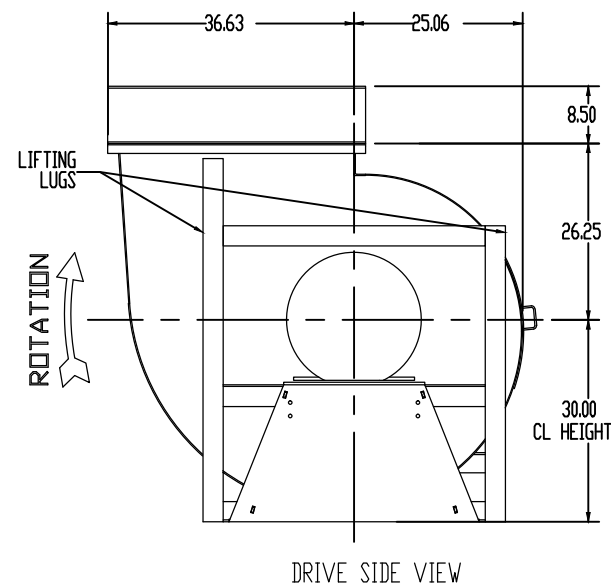
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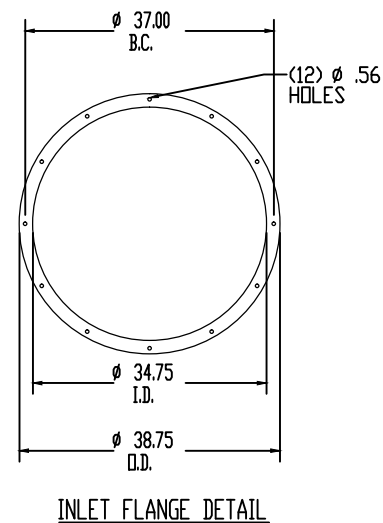
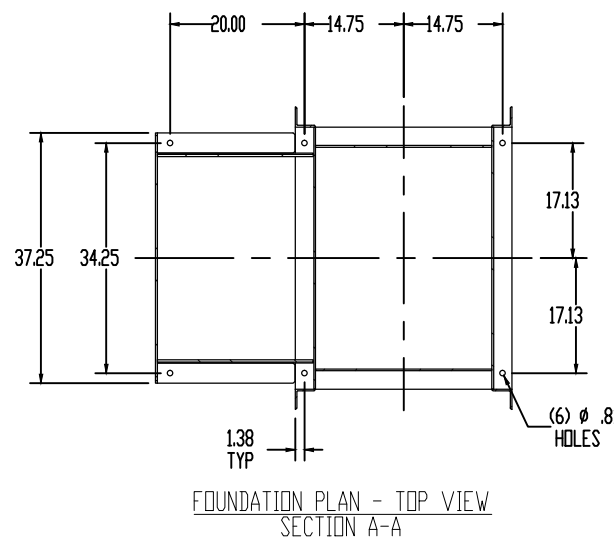
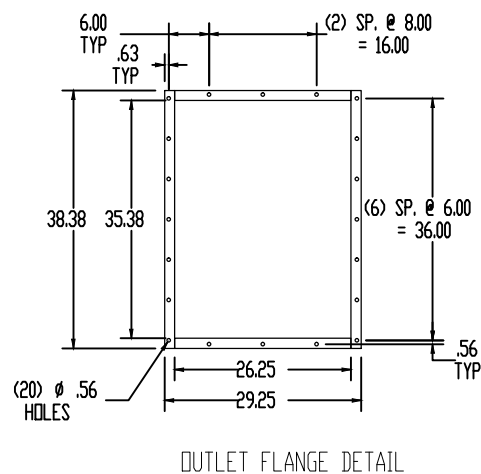
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| | |
|----------|-----------|
| DRAWN BY | JX |
| DATE | 7/25/14 |
| CHKD BY | - |
| DATE | - |
| SHOP NO. | 15673-001 |
| SCALE | 1:25 |

| | | | | | |
|---------------------------|--|--|--------|------|------|
| TITLE | | | | | |
| SDC-AT-4-96 | | | | | |
| DIAPHRAGM VALVE LOCATIONS | | | | | |
| DRAWING NO. | | | SHEET | ITEM | REV. |
| BC 500042 | | | 1 OF 1 | - | - |



- ACCESSORIES:
 1. DRAIN - 3/4" NPT W/PLUG
 2. SHAFT SEAL - STD TYPE
 3. COATING: ENTIRE FAN; ENAMEL - STD.; ENAMEL-AEROVENT GRAY INCLUDING DAMPER; PREP: TOOL CLEAN & WASH; CURING: PLANT DISCRETION



| ITEM | DESCRIPTION | QTY | NOTES |
|------|-------------------|-----|--|
| 10 | WHEEL (NOT SHOWN) | 1 | |
| 9 | MOTOR | 1 | 60 HP, 1800 RPM, 3/60/230-460V., TEFC, PREM., EFF., 364T FRAME FURN & MTD BY TCF |
| 8 | ACCESS DOOR | 1 | BOLTED |
| 7 | DISCHARGE DAMPER | 1 | PARALLEL BLADE (STD TYPE) W/D STUFFING BOX PER AS14941 |
| 6 | OUTLET FLANGE | 1 | 1.5" x 1.5" x .25" ANGLE, PUNCHED PER DETAIL |
| 5 | INLET FLANGE | 1 | 7 GA THK FLANGE, PUNCHED PER DETAIL |
| 4 | INLET CONE | 1 | |
| 3 | HOUSING ASSEMBLY | 1 | HSG SIDE = 7 GA., SCROLL = 7 GA. |
| 2 | FRAME | 1 | |
| 1 | PEDESTAL | 1 | |

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| JOB AND LOCATION | |
|------------------|----------------|
| CUSTOMER NAME | |
| JOB NAME | 94AVANI |
| JOB ID | 94AVANI |
| SOL NUMBER | 516982 |
| TAG UNIT | BCS 330 -24000 |

| PERFORMANCE 'A' | |
|-----------------|-------|
| TEMP. | 70°F |
| ELEVATION | 0 FT |
| DENSITY | 0.075 |
| CFM | 24000 |
| SP. | 12 |
| RPM | 1773 |
| BHP. | 57.15 |
| T.S. | 15623 |
| D.V. | 3834 |

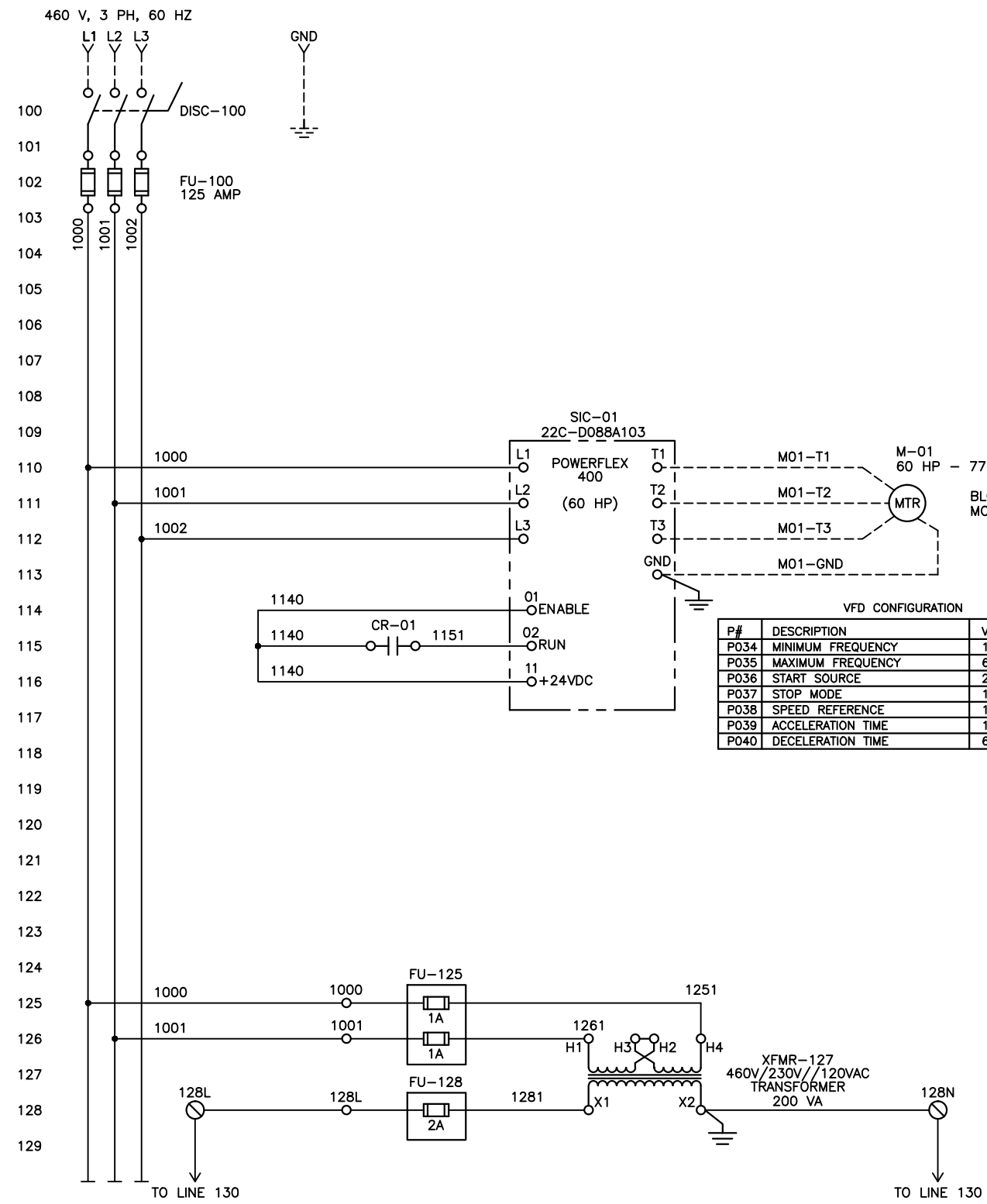
| REV | REV BY | REV DATE | CHK BY | CHK DATE | DESCRIPTION |
|-----|--------|----------|--------|----------|-------------|
| - | - | - | - | - | - |

Twin City Fans & Blowers

5959 Trenton Lane N | Minneapolis, MN 55442
ISO-9001:2008 Registered

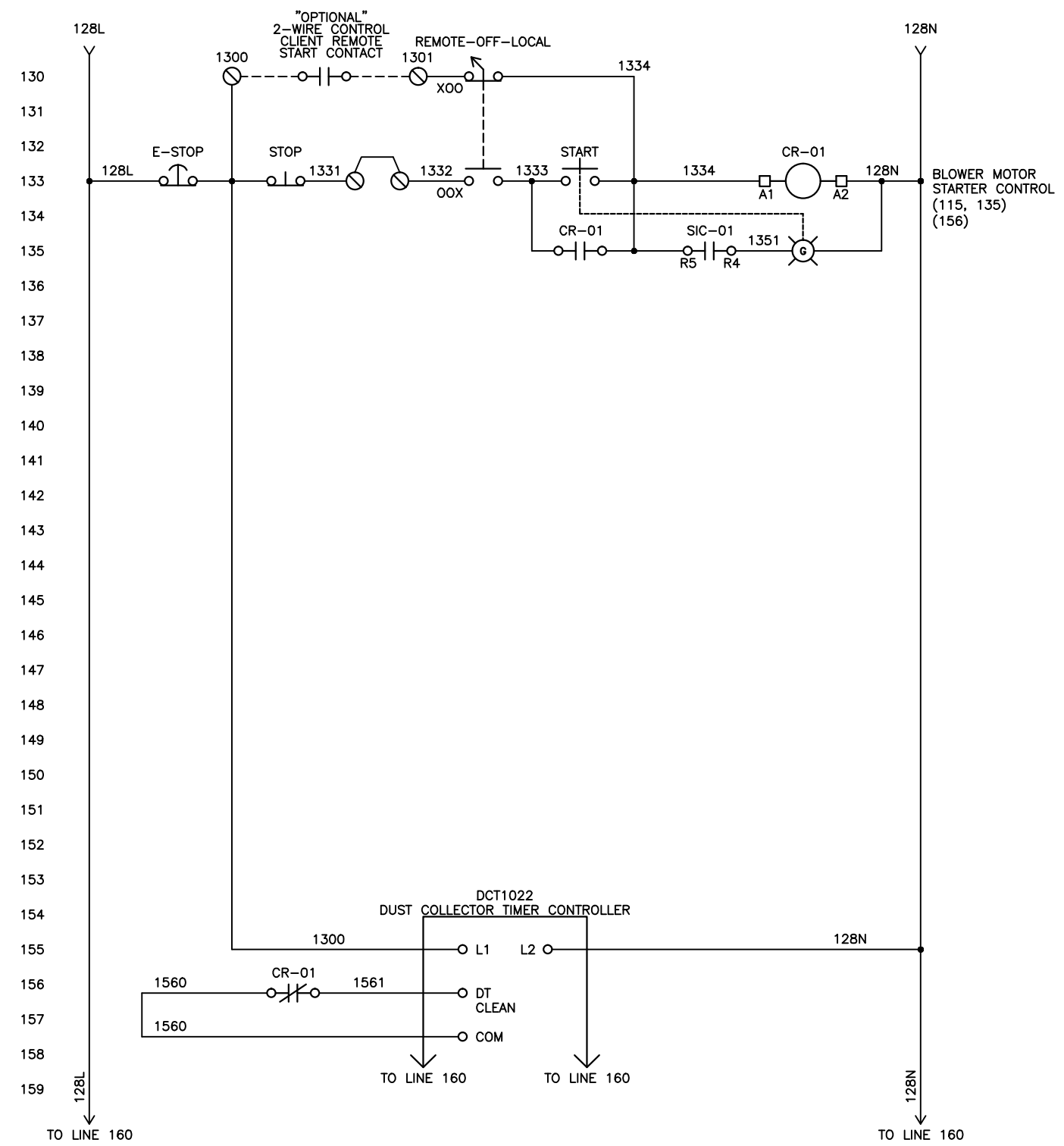
TITLE
 SIZE 330, TYPE BCS, CL 17, CW RDT, UBD
 ARR-4, NON-RDT (105% WD.)X(102% DIA)

| | | | | |
|-------------|-----|------|--------|------|
| DRAWING NO. | ROW | ITEM | SHEET | REV. |
| BC 516982 | 004 | 00 | 1 OF 1 | |



VFD CONFIGURATION

| P# | DESCRIPTION | VALUE | UNITS |
|------|-------------------|-------|--------|
| P034 | MINIMUM FREQUENCY | 15 | HZ |
| P035 | MAXIMUM FREQUENCY | 60 | HZ |
| P036 | START SOURCE | 2 | 2-WIRE |
| P037 | STOP MODE | 1 | COAST |
| P038 | SPEED REFERENCE | 1 | KEYPAD |
| P039 | ACCELERATION TIME | 15 | SEC |
| P040 | DECELERATION TIME | 60 | SEC |



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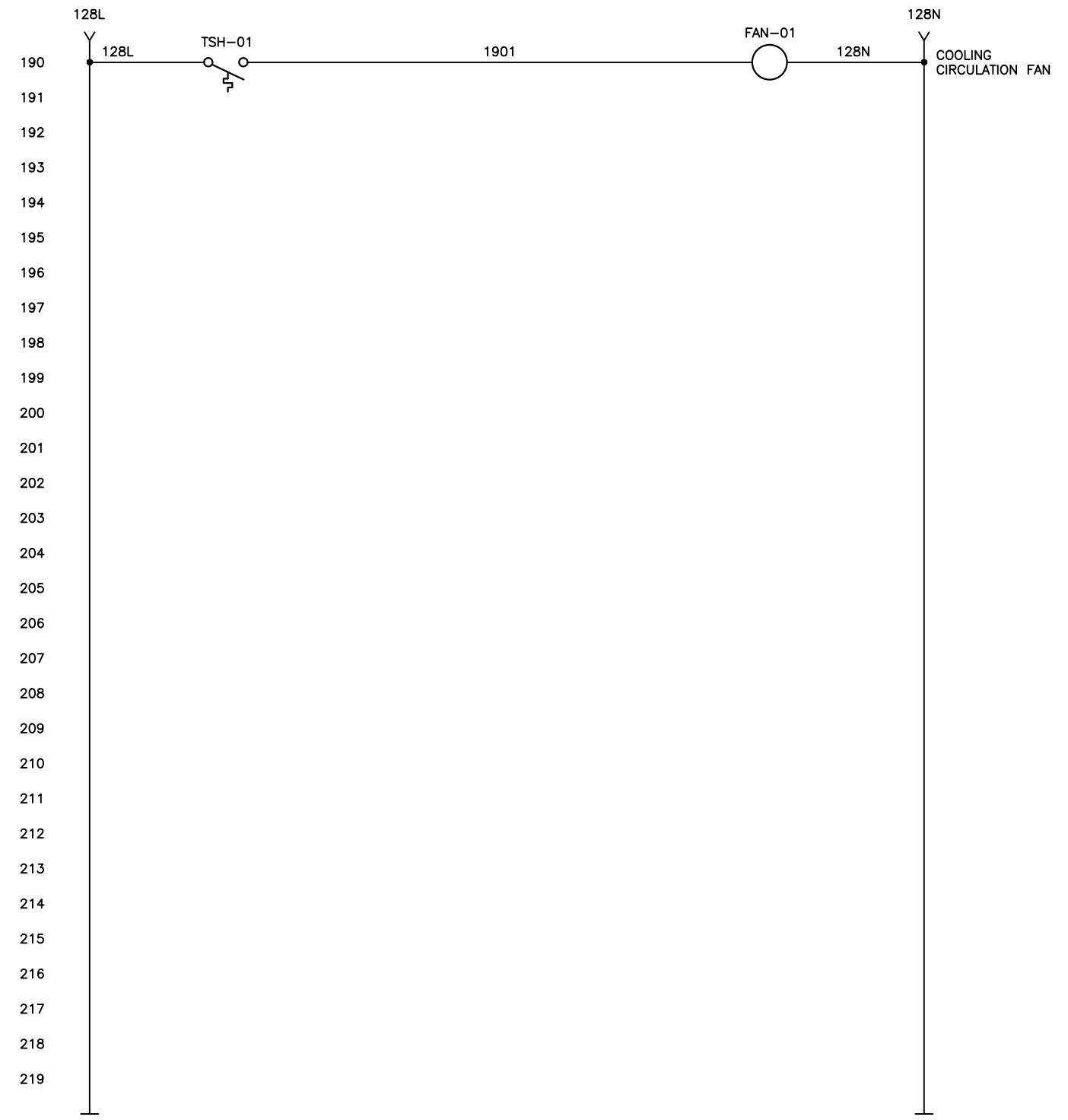
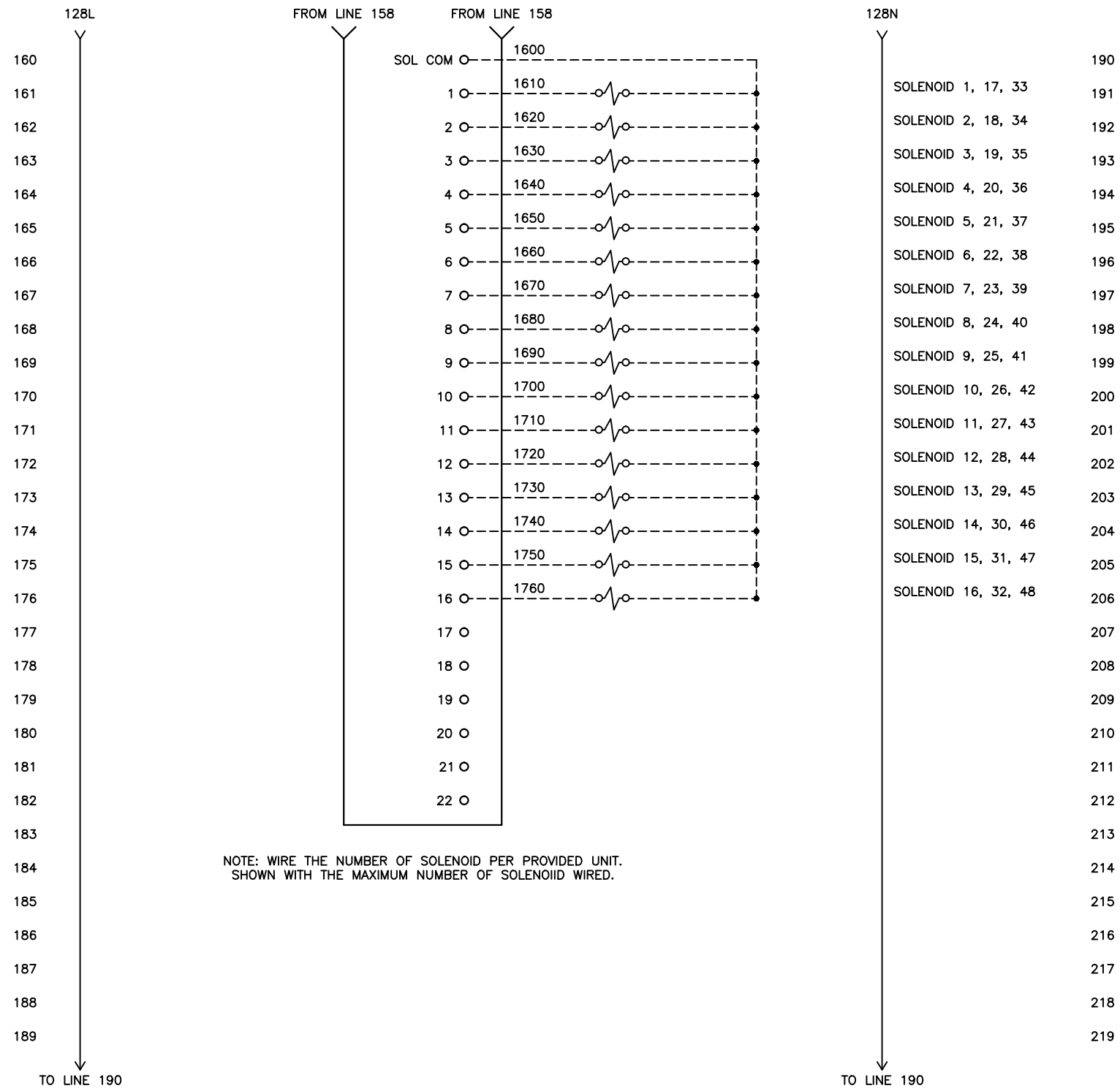
DUST COLLECTOR
BLOWER PACKAGE W/ ROTARY FEEDERS
460V - 60 HP PF400 VFD + FAN + 22XV
WITH DUST COLLECTOR TIMER CONTROLLER

| REV. | DESCRIPTION | DATE | FILE PATH: C:\Clients\ | CLIENT NAME | PROJECT NUMBER |
|------|-------------|--------|------------------------|-------------|----------------|
| 1 | CREATED | 9/3/14 | | | |

| | | | | |
|--------------------|-----------------|------------------------|----------------|--|
| DRAWN BY: CCI | DATE: 9/3/14 | DRAWING SCALE: NONE | CLIENT NAME | DRAWING NUMBER: 60HP PF400 VFD-1 |
| CHECKED BY: CCI | DATE: 9/3/14 | | PROJECT NUMBER | |

PLOT DATE: 7/1/14

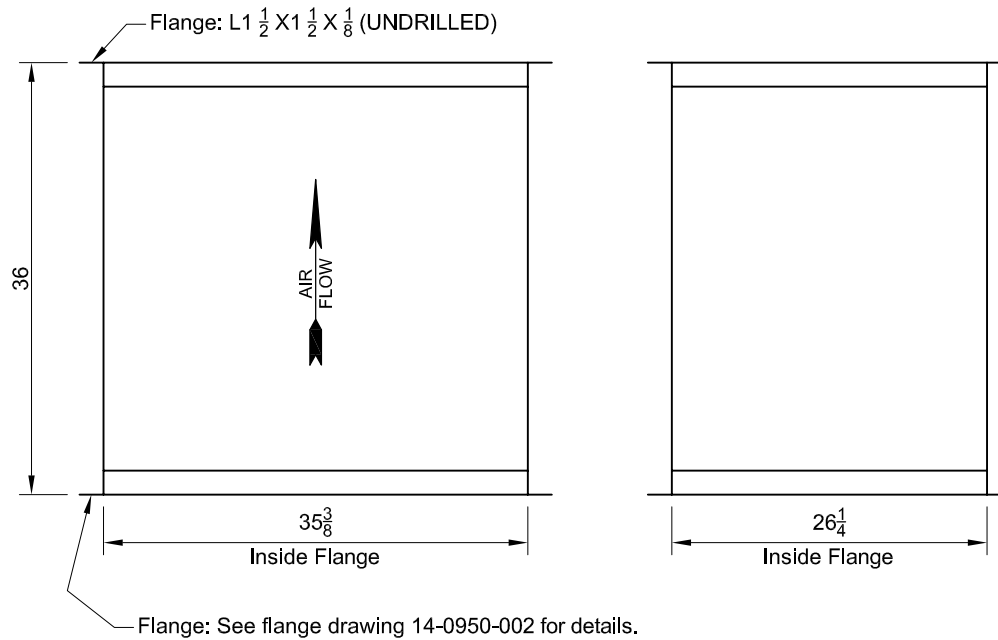
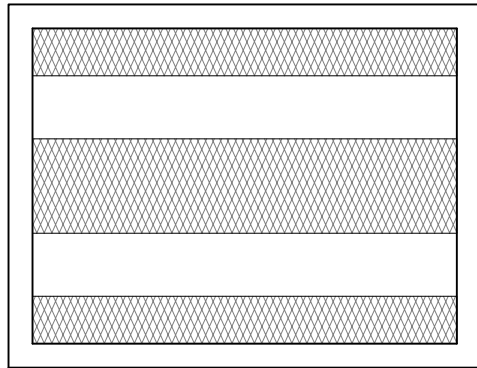
DCT1010
DUST COLLECTOR TIMER CONTROLLER
CONTINUED



NOTE: WIRE THE NUMBER OF SOLENOID PER PROVIDED UNIT.
SHOWN WITH THE MAXIMUM NUMBER OF SOLENOID WIRED.

| | | | | | | |
|---|-------------|--------|---|-----------------|------------------------|--|
| <small>THIS DRAWING IS CONFIDENTIAL PROPERTY OF ENGINEERING FIRM DO NOT DUPLICATE IN ANY TYPE WITHOUT PROPER WRITTEN PERMISSION. IF YOU ARE NOT THE INTENDED CLIENT PLEASE DESTROY THIS DOCUMENT.</small> | | | DUST COLLECTOR BLOWER PACKAGE W/ ROTARY FEEDERS 460V - 60 HP PF400 VFD + FAN + 22XV WITH DUST COLLECTOR TIMER CONTROLLER | | | |
| REV. | DESCRIPTION | DATE | FILE PATH: C:\Clients\ | CLIENT NAME | PROJECT NUMBER | PLOT DATE: 7/1/14 |
| 1 | CREATED | 9/3/14 | | | | |
| | | | DRAWN BY: CCI | DATE: 9/3/14 | DRAWING SCALE: NONE | DRAWING NUMBER: 60HP PF400 VFD-2 |
| | | | CHECKED BY: CCI | DATE: 9/3/14 | | |

Note: The baffles are not drawn to scale.



Silencer Information

Silencer Tag: SA-1
 Model: 26VRDS-S21
 Quantity: 1
 Unit Weight: 269 lbs
 Pressure Drop: 0.52 in WG

Fan Information

Fan Tag: FAN-1
 Rating: 20000 cfm at 0.075 lb/ft³
 Design Temp: 70 °F
 Operating Temp: 70 °F
 Width: Single Width

Noise Criterion

Required: 85dBA
 Position No.: 1 (0° from Silencer Openings)
 Distance: 3ft
 Location: Inside - Large Space

| | | | | | | | | |
|----------------|-----|-----|-----|-----|----|----|----|----|
| Frequency (Hz) | 63 | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
| Fan Lw (dB) | 107 | 102 | 99 | 97 | 96 | 94 | 90 | 84 |
| Net IL (dB) | 3 | 6 | 7 | 12 | 14 | 11 | 9 | 8 |

Exterior Coating System

System: Direct to Metal Enamel
 Colour Code: aerovent grey
 Surface Prep: SP 2
 Coat 1: Interlac 789 DTM Enamel (2-4 mils)
 Coat 2:
 Coat 3:

Construction

- 14GA Hot Rolled Steel Casing
- Galvanized Internals
- Acoustic Media with Fiberglass Cloth Media Protection

Accessories

-

Notes

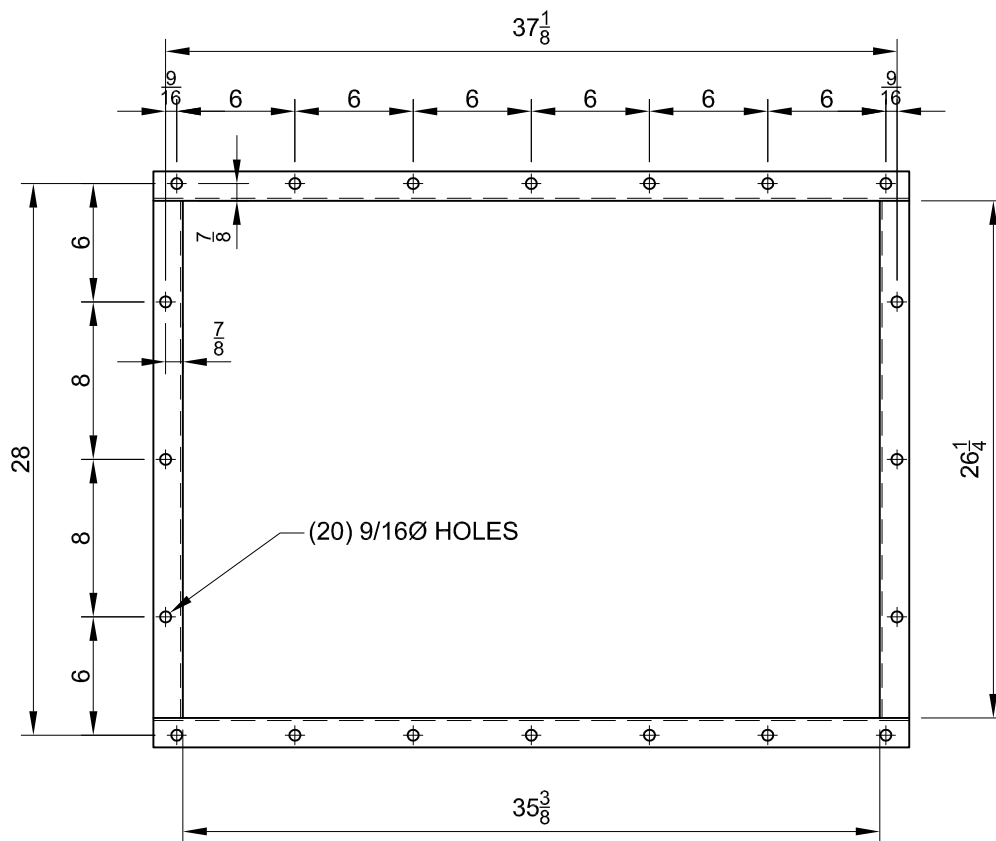
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The silencer selection is based on the input fan sound data provided by the fan manufacturer. It does not take into consideration other factors which may contribute to the over all sound level. This may include noise from the motor, casing, duct, or other equipment. The silencer construction is valid for temperatures equal to or less than 500 °F (260 °C). The standard coating is valid for temperatures equal to or less than 200 °F (93 °C).

| | | | | | | | | |
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| | | | | | | | 1300 Inkster Blvd., Winnipeg, Manitoba, Canada | www.vawsystems.com |
| | | | | | | | CUSTOMER AIR CLEANING TECHNOLOGY | |
| | | | | | | | PROJECT AVANI 9500 | |
| A | CERTIFIED FOR CONSTRUCTION | 02-OCT-2014 | MH | MH | | | DWG TITLE RDS - RECTANGULAR DISCHARGE SILENCER | |
| REV | DESCRIPTION | DATE ISSUED | BY | APR. BY | | | GENERAL DESIGN & PERFORMANCE | |
| | REVISIONS | | | | | | SIZE A | DWG No. 14-0950-001 |
| | | | | | | | | REV A SHT 1 OF 1 |

SHEAR LIST

| ITEM | QTY TOTAL REQ'D | QTY PER ASS'Y | PART NUMBER | PART DESCRIPTION | MATERIAL COMP. | MATERIAL DESCRIPTION | CUTTING SIZE | | FORM / NOTES |
|------|-----------------|---------------|-------------|------------------|----------------|-----------------------|--------------|--------|--------------|
| | | | | | | | WIDTH | LENGTH | |
| 01 | 1 | | -01 | INLET FLANGE | | | | | |
| 02 | 2 | 2 | -02 | SIDES | HRS | L 1 1/2 x 1 1/2 x 1/8 | | 26 1/8 | |
| 03 | 2 | 2 | -03 | TOP & BOTTOM | HRS | L 1 1/2 x 1 1/2 x 1/8 | | 38 3/8 | |



| | | | | | | | | | | | | |
|-----------|----------------------------|-------------|----|---------|---|-----|--|-------------|---|-----|---|-----|
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| A | CERTIFIED FOR CONSTRUCTION | 02-OCT-2014 | MH | MH | SCALE | NTS | DATE | 02-OCT-2014 | | | | |
| REV | DESCRIPTION | DATE ISSUED | BY | APR. BY | DWN BY | MH | MODEL No. | 26VRDS-S21 | | | | |
| REVISIONS | | | | | SIZE | A | DWG No. | 14-0950-002 | | REV | A | SHT |