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START-UP & TROUBLESHOOTING

1. Prior to Arrival

a. Inform DenTech of start-up schedule
b. Locate and understand the drawings
c. Locate IOM and Job Number
d. Identify field wiring devices and function
e. Find specified airflow requirements

DenTech Contacts:

Jason Hockenberry | Automation Manager
717.989.4133 jason.hockenberry@dentechindustrial.com
Dan Roehm | Automation Specialist
717.454.6462 dan.roehm@dentechindustrial.com

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1. Prior to Arrival

TOOLS REQUIRED:

a. Manometer w/ Pitot tube
b. Basic tool set including
   - Controls screwdriver 1/8" & 3/32"
   - Adjustable wrench
   - Drill with bits
   - Speed screws
c. Standard Digital Multi Meter (DMM)
   - To measure AC and DC volts, continuity and an amp clamp
d. Allen wrench set
e. Tape measure
f. Wire strippers
g. Scrap 16ga wire about 10'

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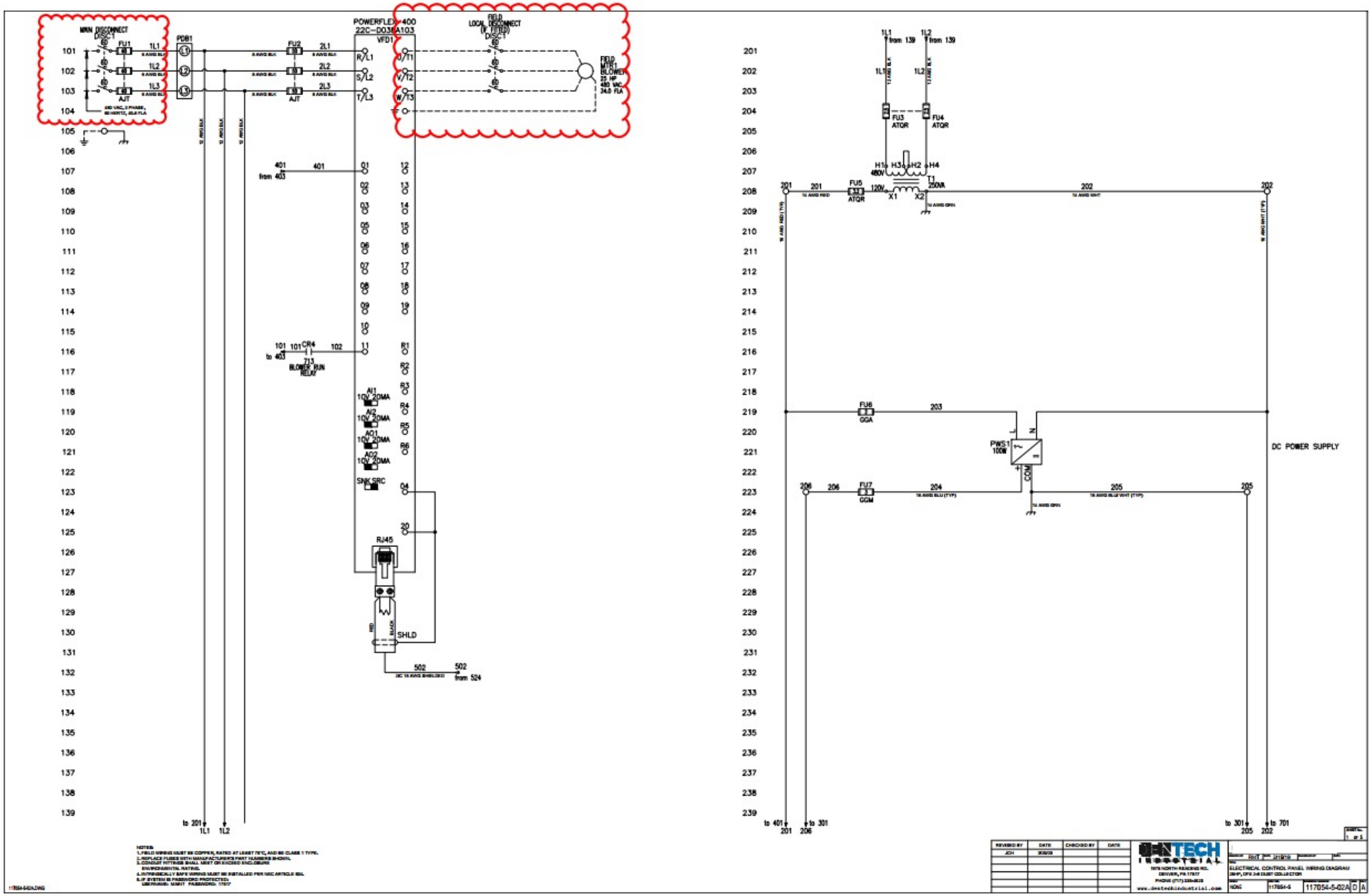


NOTES:
1. FIELD WIRING MUST BE COPPER, RATED AT LEAST 75°C, AND BE CLASS 1 TYPE.
2. REPLACE FUSES WITH MANUFACTURER'S PART NUMBERS SHOWN.
3. CONDUIT FITTINGS SHALL MEET OR EXCEED ENCLOSURE ENVIRONMENTAL RATING.
4. INTRINSICALLY SAFE WIRING MUST BE INSTALLED PER NEC ARTICLE 504.
5. IF SYSTEM IS PASSWORD PROTECTED:
USER MODE: MAINT PASSWORD: 1787

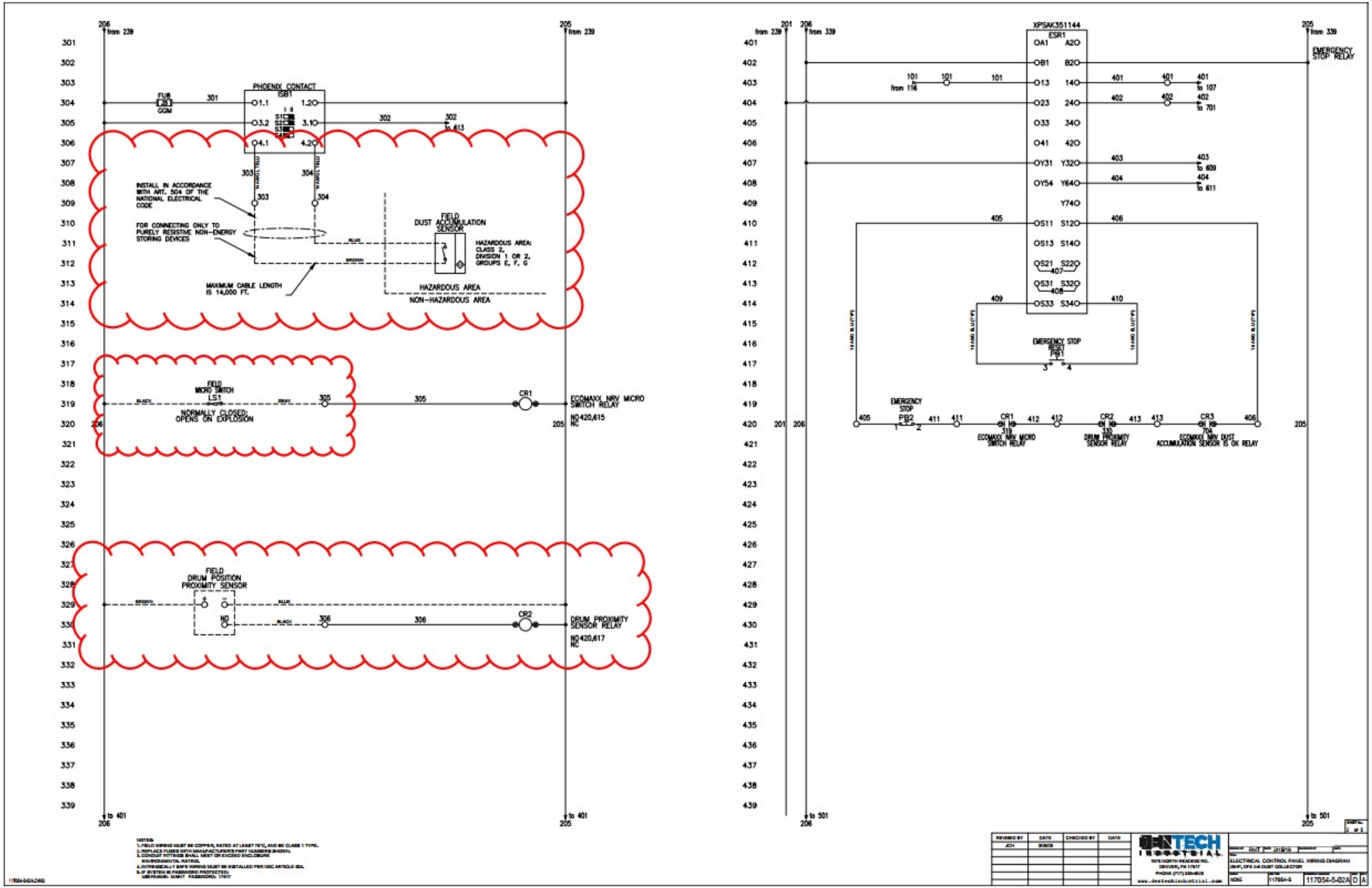
REVISED BY	DATE	CHECKED BY	DATE
JCH	3/28/19		

DESTECH INDUSTRIAL
1978 NORTH READING RD.
DENVER, PA 17517
PHONE (717) 335-3625
www.destechindustrial.com

ELECTRICAL CONTROL PANEL WIRING DIAGRAM
28HP, DFS 3-8 DUST COLLECTOR

DRAWN BY	DATE	JOB NO.	DRAWING NO.	REV
RHT	2/19/19	117854-S	117054-5-02A	D A

SHEET No. 1 of 1



NOTES:
1. FIELD WIRING MUST BE COPPER, RATED AT LEAST 75°C, AND BE CLASS 1 TYPE.
2. REPLACE FUSES WITH MANUFACTURER'S PART NUMBERS SHOWN.
3. CONDUIT FITTINGS SHALL MEET OR EXCEED ENCLOSURE ENVIRONMENTAL RATING.
4. INTRINSICALLY SAFE WIRING MUST BE INSTALLED PER NEC ARTICLE 504.
5. IF SYSTEM IS PASSWORD PROTECTED USER NAME: MAINT PASSWORD: 17817

REVISED BY	DATE	CHECKED BY	DATE
JCH	3/30/09		

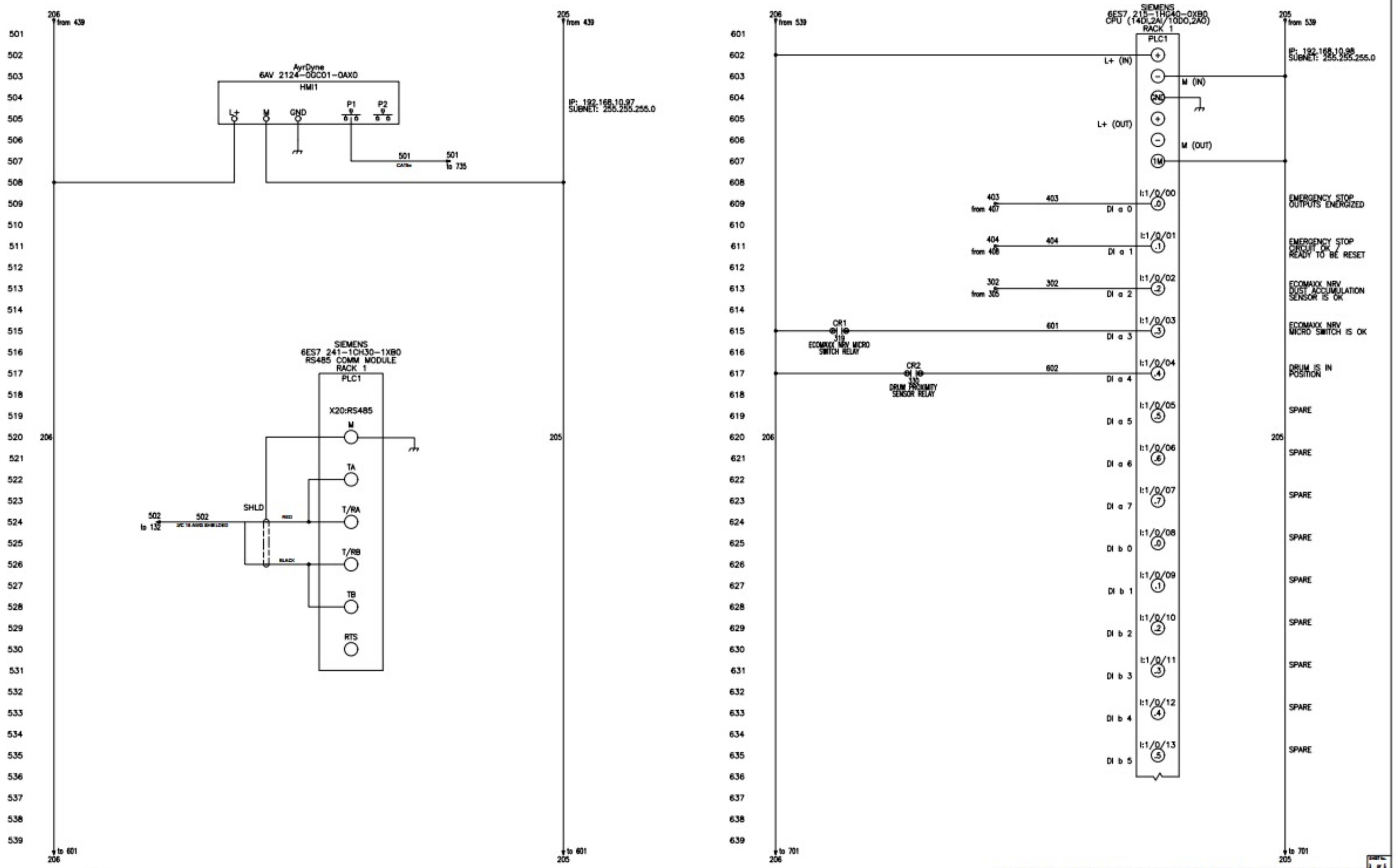
ENTECH INDUSTRIAL
1978 NORTH READING RD.
DENVER, PA 17517
PHONE (717) 336-3619
www.EnTechIndustrial.com

ELECTRICAL CONTROL PANEL WIRING DIAGRAM
20HP, DFE 24 DUST COLLECTOR

DRAWN BY	JOB NO.	DRAWING NO.	REV
NONE	117054-5	117054-5-02A	D A

SHEET 2 OF 5

117054-5-02A.DWG



NOTES:
1. FIELD WIRING MUST BE COPPER, RATED AT LEAST 75°C, AND BE CLASS 1 TYPE.
2. REPLACE FUSES WITH MANUFACTURER'S PART NUMBERS SHOWN.
3. CONDUIT FITTINGS SHALL MEET OR EXCEED ENCLOSURE ENVIRONMENTAL RATING.
4. INTRINSICALLY SAFE WIRING MUST BE INSTALLED PER NEC ARTICLE 504.
5. IF SYSTEM IS PASSWORD PROTECTED:
USERNAME: MAINT PASSWORD: 17517

REVISED BY	DATE	CHECKED BY	DATE
JCH	3/30/20		

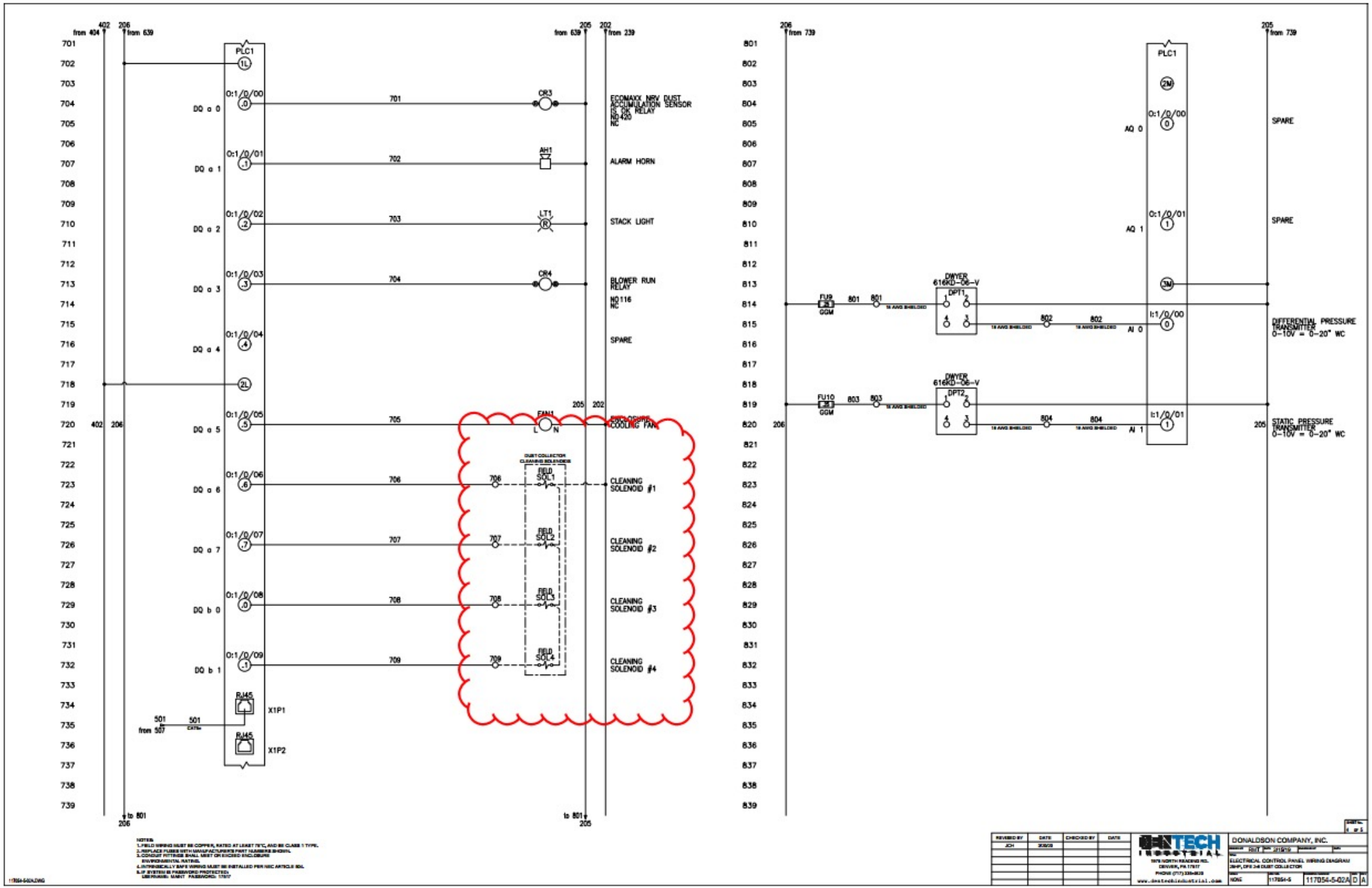
DESTECH INDUSTRIAL
1978 NORTH READING RD.
DENVER, PA 17517
PHONE (717) 336-0520
www.destechindustrial.com

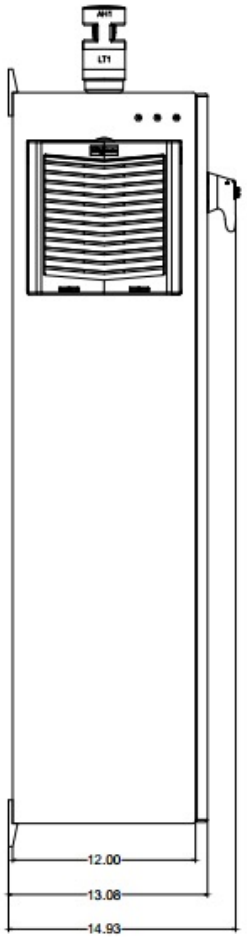
ELECTRICAL CONTROL PANEL WIRING DIAGRAM
25HP, DFE 3-6 DUST COLLECTOR

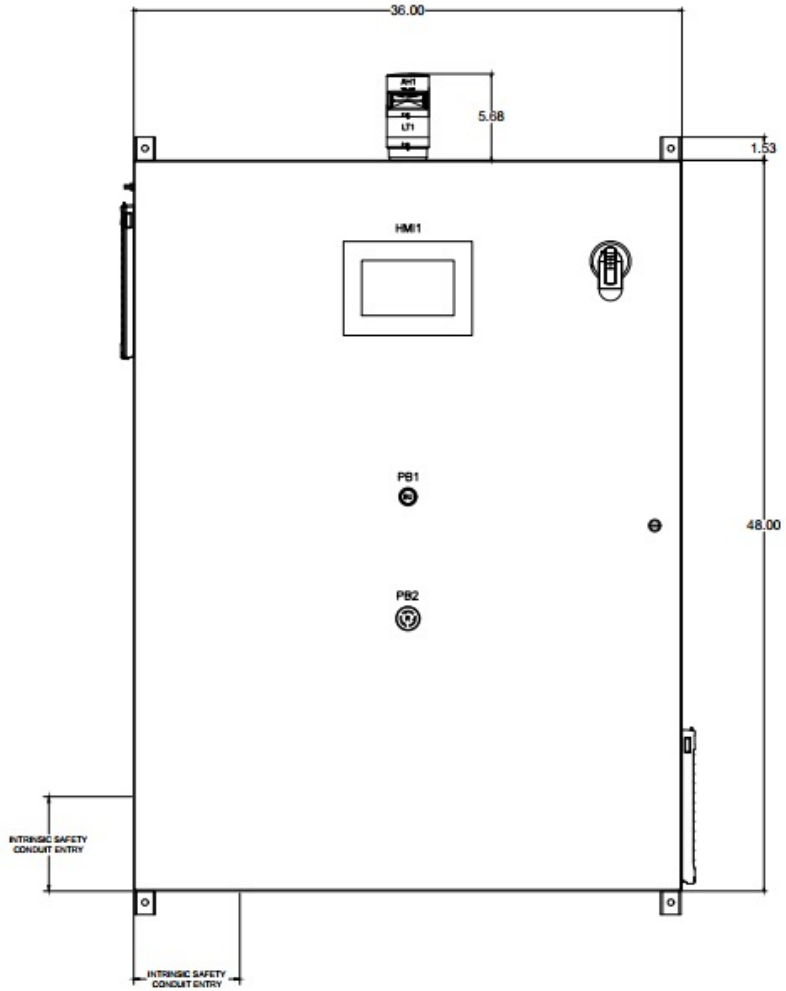
NONE | 117054-5 | 117054-5-02A | D | A

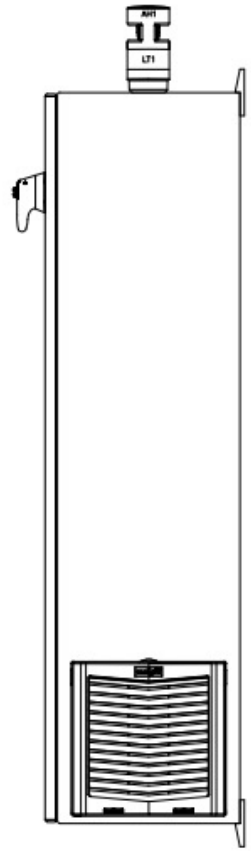
SHEET No. 3 of 5

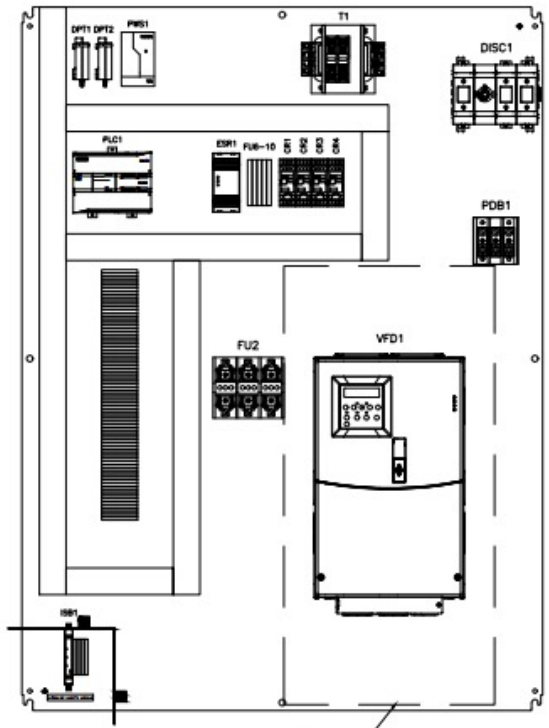
117054-5-02A.DWG


PLC1
ECONAXX NRV DUST ACCUMULATION SENSOR IS OK RELAY ND 420 NC
ALARM HORN
STACK LIGHT
BLOWER RUN RELAY ND 116 NC
SPARE
CLEANING SOLENOID #1
CLEANING SOLENOID #2
CLEANING SOLENOID #3
CLEANING SOLENOID #4
DUST COLLECTOR CLEANING SOLENOIDS
DWYER 616KD-06-V
DPT1
DPT2
DIFFERENTIAL PRESSURE TRANSMITTER 0-10V = 0-20" WC
STATIC PRESSURE TRANSMITTER 0-10V = 0-20" WC
DONALDSON COMPANY, INC.
ELECTRICAL CONTROL PANEL WIRING DIAGRAM
117054-5-02A









NOTES:
1. ALL DIMENSIONS ARE APPROXIMATE AND MAY BE SUBJECT TO CHANGE.
2. ENCLOSURE HAS A NEMA TYPE 12 RATING. INDOOR INSTALLATION ONLY.

REVISED BY	DATE	CHECKED BY	DATE
JCH	3/26/25		

ENTECH INDUSTRIAL
1979 NORTH READING RD.
DENVER, PA 17517
PHONE (717) 335-3232
www.entechindustrial.com

ELECTRICAL CONTROL PANEL LAYOUT DRAWING
36-P1, DFE 24 DUST COLLECTION

DR	117054-5	117054-5-02A	D A

SHEET NO. 5 OF 5

LAYOUTA.DWG

2. Upon Arrival

a. Site Safety – Electrical and Mechanical
b. Verify wiring
    i. Check that all terminals with dashed lines have wires landed

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3. After Power Up

a. Identify faults
   i. Address each fault one at a time
   ii. End with “E-Stop” and “VFD” faults
b. Enter Motor Data
   i. VFD Settings Page
c. Bump Motor(s)
   i. Identify correct direction
   ii. Verify actual direction
d. Pulse Cleaning Solenoids
   i. Use manual pulse screen

e. Test Field Devices
   i. Common things we see

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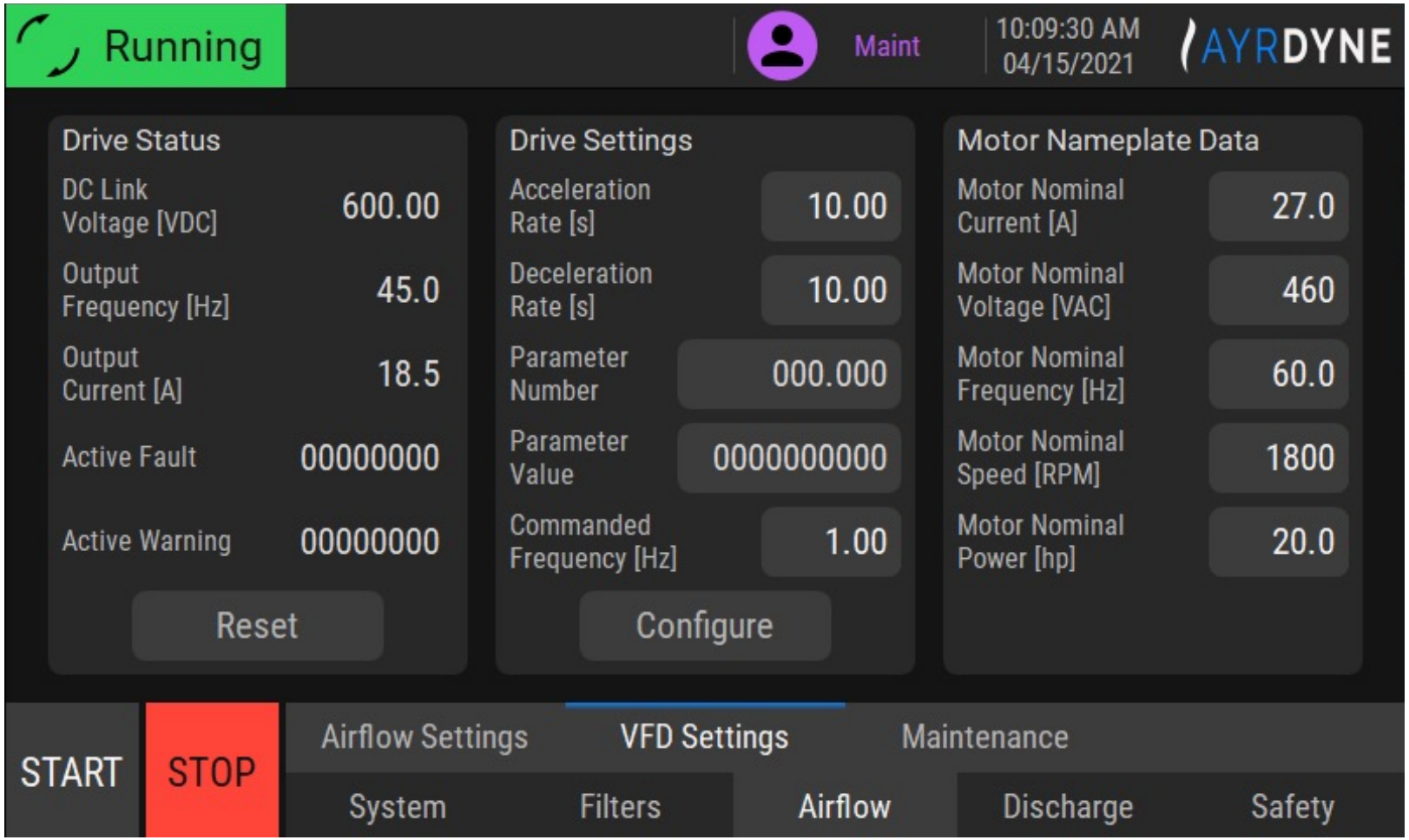
3. After Power Up *[Continued]*



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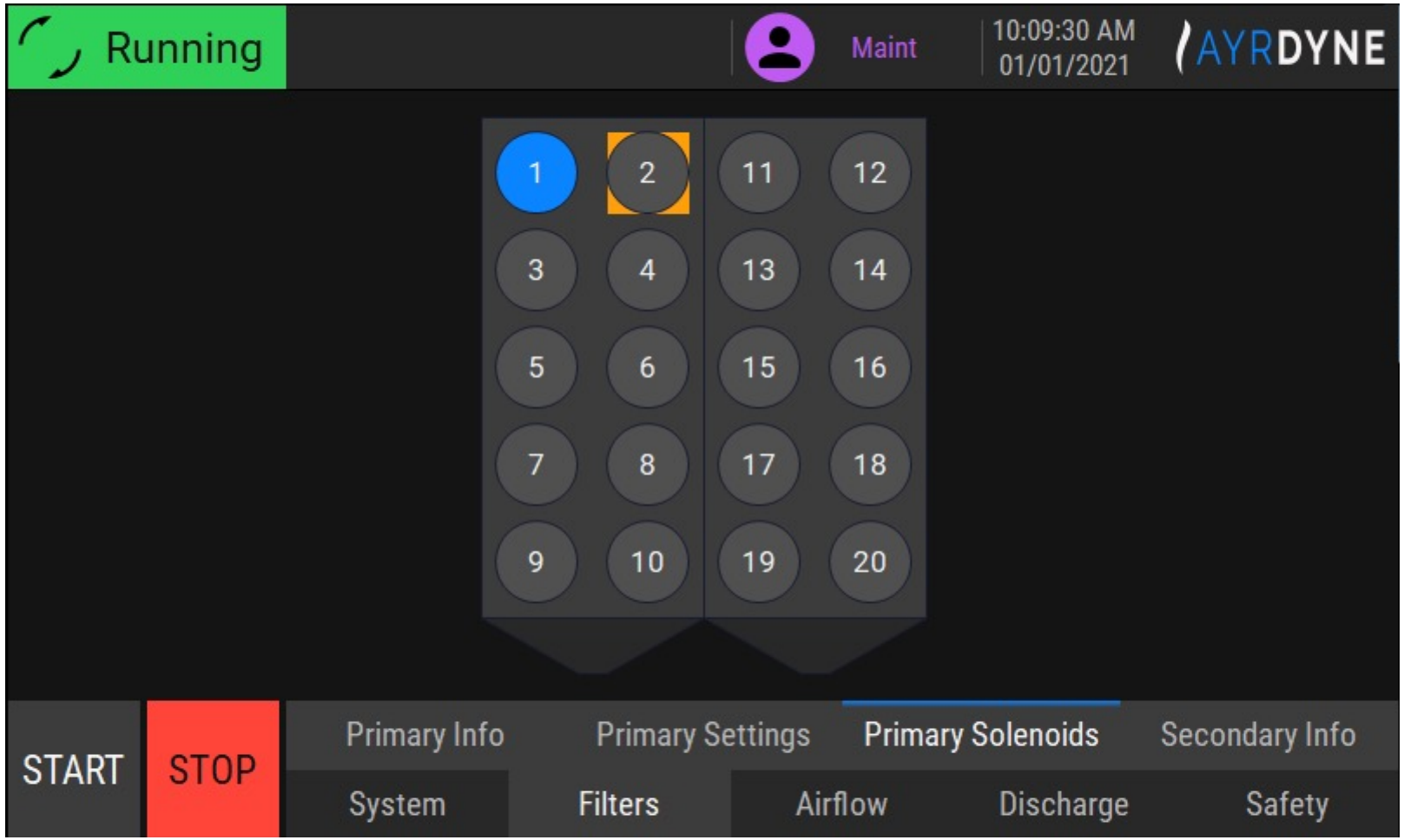
3. After Power Up *[Continued 2]*



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4. Airflow Settings

a. Find suitable measurement location
    a. 8.5+ duct diameter downstream from turns
    b. 1.5+ duct diameter upstream from turns
    c. Reference Dwyer for complete procedure
    https://www.dwyer-inst.com/ApplicationGuides/?ID=16
b. Manually adjust VFD speed to meet requirements
    a. Use Manual Mode to control VFD
c. Enter process set point
    a. Based on measured static pressure
    b. No longer minimum and maximum
d. Set Initialization speed
    a. Based on running frequency

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4. Airflow Settings *[Continued]*

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5. Filter Settings

a. Usually will not need to be adjusted
b. Downtime
c. Downtime cycles

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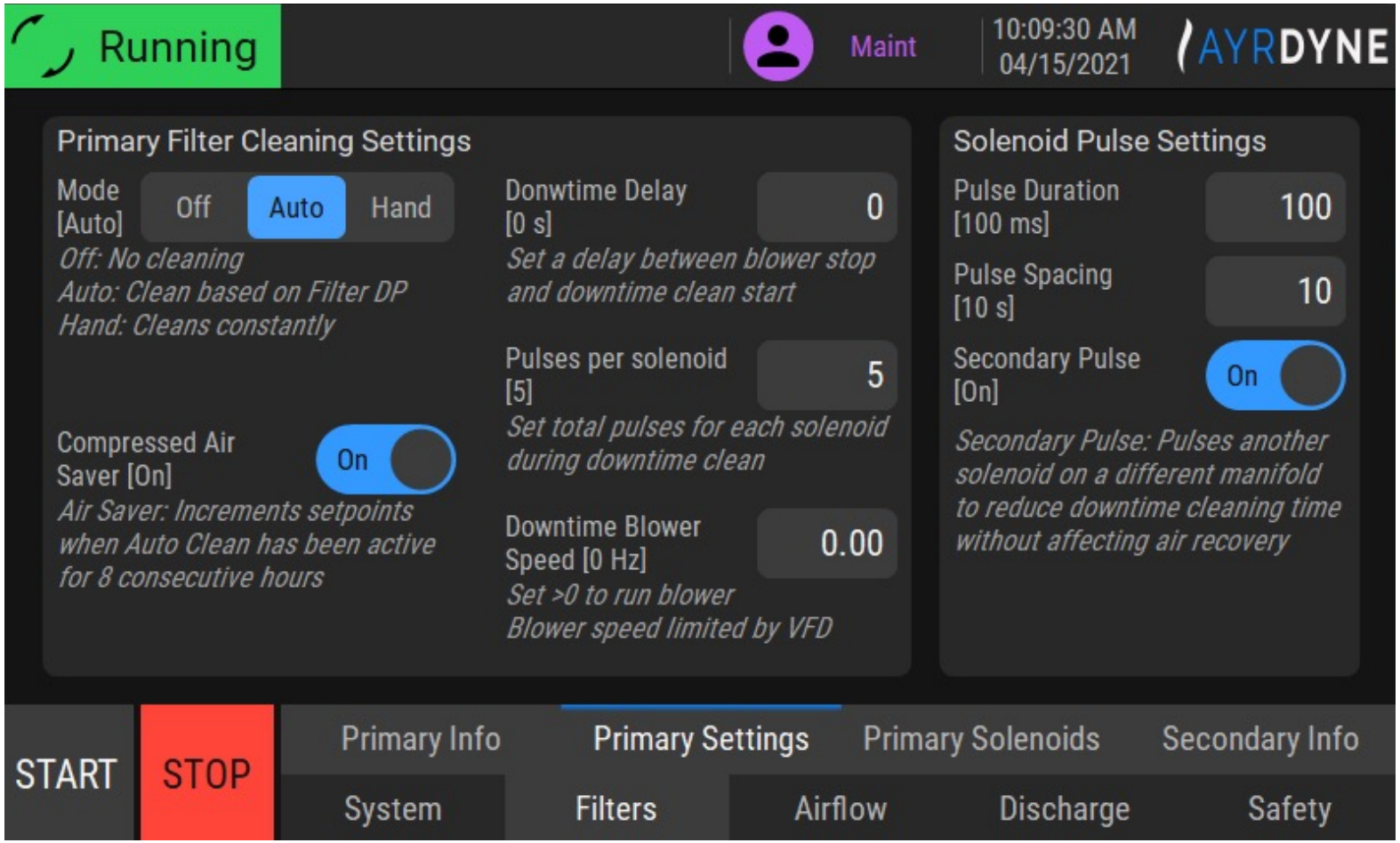
5. Filter Settings



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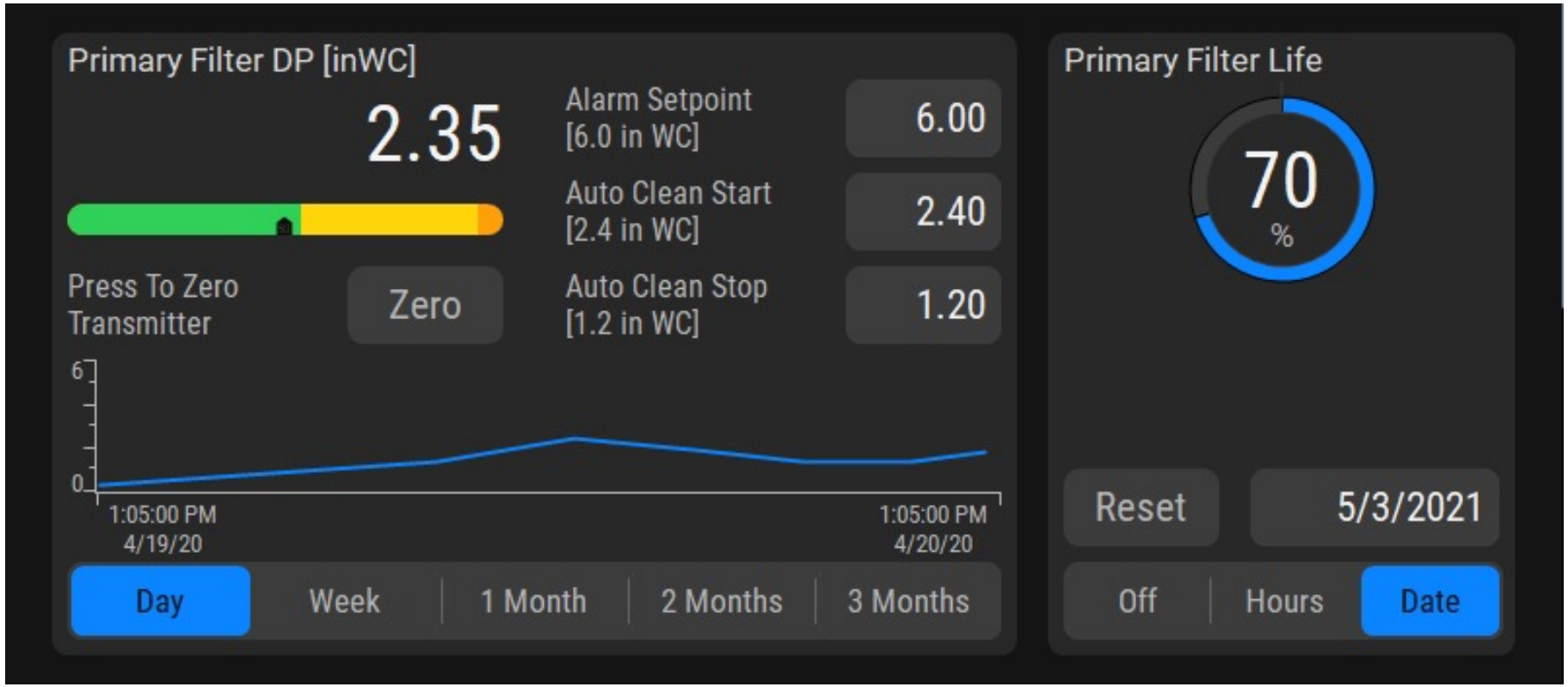
6. Service Reminders



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7. Frequently Asked Questions

a. I cannot reset the E-stop
    a. Look for remote e-stop
b. How do I get more airflow?
c. I have an Accumulation Fault
d. Where do I land these wires?
e. What wire and circuit breaker should I use?

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QUESTIONS?