September 2, 2025

Mr. Glenn May, P.G.
Professional Geologist 1
New York State Department of Environmental Conservation
Division of Environmental Remediation
700 Delaware Avenue
Buffalo, NY 14209

Re: 1485-1491 Niagara Street Site
Brownfield Cleanup Program Site No. C915330
Building 2 Active Sub-slab Depressurization System Installation Report

Dear Mr. May:

On behalf of 1485 Niagara LLC, Roux Environmental Engineering and Geology, DPC (Roux) has prepared this Active Sub-slab Depressurization System (ASD) Installation Report for Building 2 at the 1485-1491 Niagara Street Brownfield Cleanup Program (BCP) Site (Figure 1).

Background

Benchmark Environmental Engineering and Geology, PLLC (who merged with Roux in July 2023) prepared and submitted an Interim Remedial Measures Work Plan (IRM WP) Preliminary Active Sub-slab Depressurization System Design dated August 2019 (ASD Work Plan). The ASD Work Plan was approved by NYSDEC on April 19, 2019 to address soil vapor intrusion (SVI) within the two (2) Site buildings. Two ASD systems were installed in Building 1 in conjunction with the redevelopment of Building 1 in 2020 and have been in operation since that time.

Building 2 ASD System Installation

The ASD system within Building 2 was installed, similar to the Building 1 systems, using a design-build approach that allowed the ASD system to be tested in real time during installation. The ASD system was installed between June 25, 2025 and July 9, 2025. The ADS system installed in Building 2 consisting of one suction point in the central portion of the building (see Figure 2).

The suction point was created by cutting an approximate 4-inch diameter concrete core in the floor and removing bedding beneath the concrete slab to create a 6-inch by 6-inch by 12-inch-deep cavity below the concrete slab at the core location. Soil spoils and concrete that were generated to create the suction point were containerized in a 5-gallon bucket and staged on-site for future disposal.

A 4-inch diameter PVC vertical riser pipe was installed into the suction point and sealed in place at the floor surface. The 4-inch riser pipe was connected to 4-inch diameter horizontal pipe runs that exit the northern side of Building 2 in the northeastern corner. After exiting the building, a Fantech Model Rn4EC-4 inline fan (vacuum fan) was installed to generate the required vacuum/negative pressure beneath the building slab. A 4-inch PVC vertical stack pipe extends from the fan units above the roof

2558 Hamburg Turnpike, Suite 300 ■ Buffalo, New York 14218 ■ +1.716.856.0599 ■ www.rouxinc.com
California ■ Illinois ■ Massachusetts ■ New Jersey ■ New York ■ Texas ■ Virginia

line. A specification sheet for the fan unit is included in Attachment 1. The system was fitted with a RadonAway U-tube vacuum gauge on the vertical PVC suction point riser which is marked with the operating vacuum of the system (4.8 inches of water).

Vacuum monitoring points were drilled in the four corners of the building, and a digital manometer was used to measure the vacuum created beneath the slab. The vacuum measurements meet the minimum requirement of -0.004 inches of water for the footprint of Building 2. The table below summarizes the manometer readings at the vacuum monitoring points using the installed vacuum fan to generate the vacuum:

Location	Manometer Reading (inches of water)
Northeastern corner of the building	-0.008
Southeastern corner of the building	-0.020
Northwestern corner of the building	-0.007 to -0.030
Southwestern corner of the building	-0.018

The post installation vacuum monitoring points, ASD extraction point, vertical and horizontal piping runs, U-Tube vacuum manometer gauge, and building penetration locations are shown on Figure 2. Photographs of the ASD System are included in Attachment 2.

Vacuum monitoring at the four corners of the building measure greater than -0.004 inches of water at the monitoring locations. The ASD system is operating as designed.

Sincerely,

ROUX ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

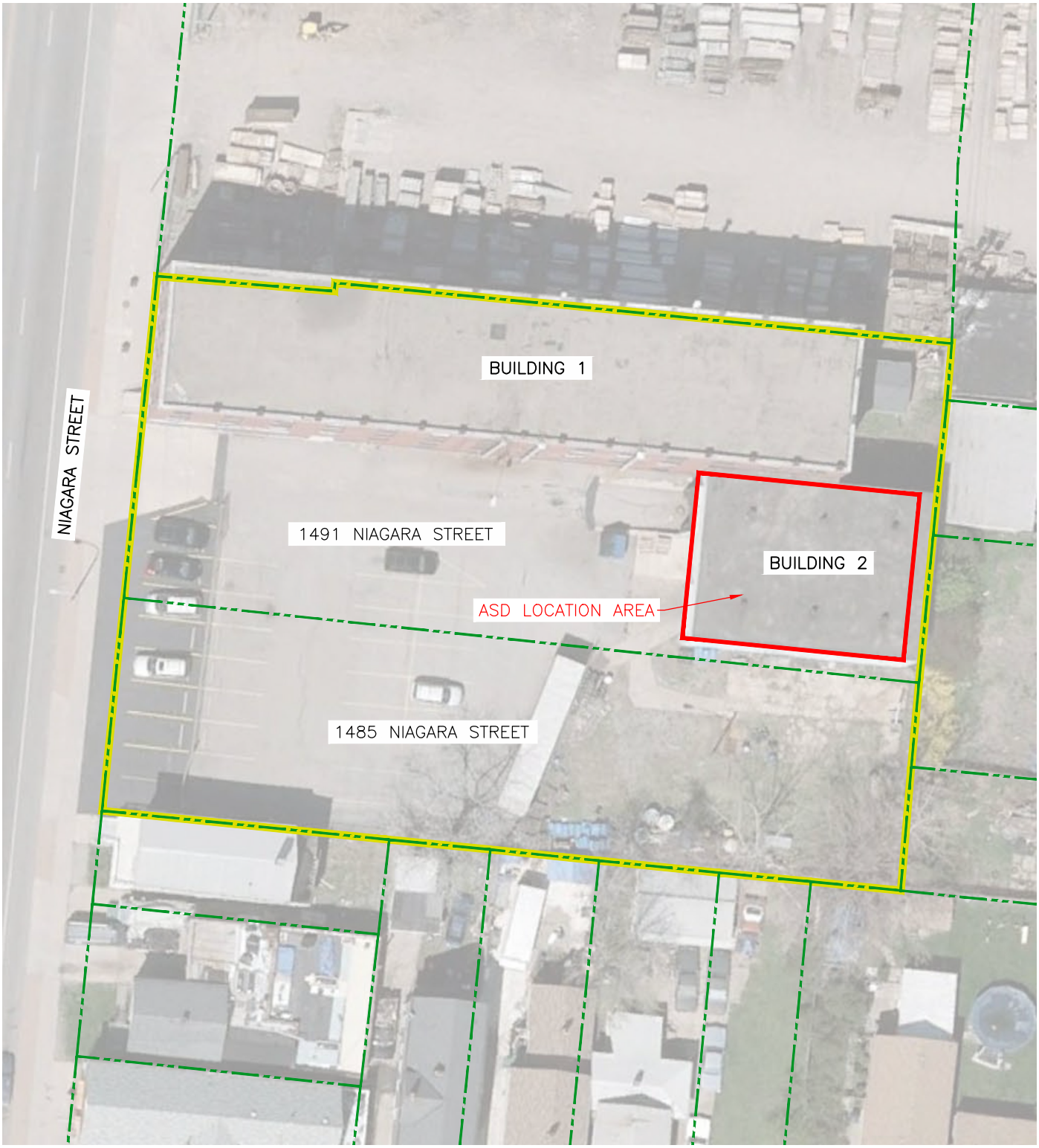
Andrew Koons
Project Geologist

Christopher Boron P.G.
Principal Geologist

Attachments

FIGURES

1. Site Plan (Aerial)
2. ASD System Piping Layout with Verification Testing Locations and Results



LEGEND

BCP SITE BOUNDARY

PARCEL BOUNDARY

N

40' 0 40'

Title:

SITE PLAN (AERIAL)

ACTIVE SUB-SLAB DEPRESSURIZATION INSTALLATION REPORT

1485-1491 NIAGARA STREET SITE (C915330)
BUFFALO, NEW YORK

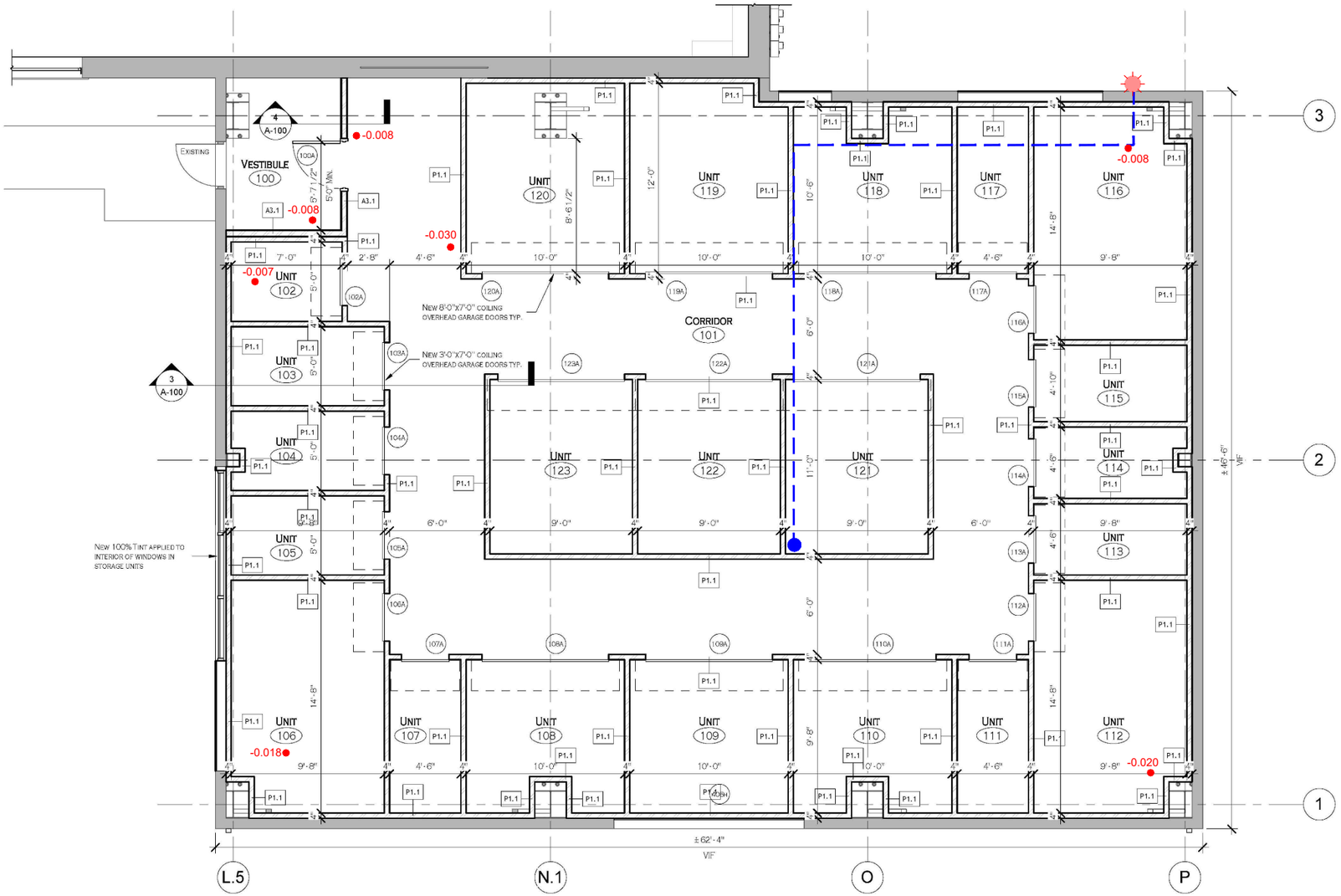
Prepared for:

1485 NIAGARA, LLC

ROUX

Compiled by: AJK	Date: JULY 2025	FIGURE
Prepared by: CNK	Scale: AS SHOWN	1
Project Mgr: CZB	Project: 4509.0003B000	
File: FIGURE 1; SITE PLAN (AERIAL).DWG		

F:\CAD\BENCHMARK\NATALE DEVELOPMENT COMPANY\BUILDING 2 ASD INSTALLATION REPORT\FIGURE 1; SITE PLAN (AERIAL).DWG



LEGEND

- ASD EXTRACTION POINT AND MANOMETER LOCATION
- ASD SYSTEM PIPING
- -0.054 POST–INSTALLATION VACUUM READING
- ASD IN–LINE FAN

N

8' 0 8'

Title:

ASD SYSTEM PIPING LAYOUT

ACTIVE SUB-SLAB DEPRESSURIZATION INSTALLATION REPORT

1485-1491 NIAGARA STREET SITE (C915330)
BUFFALO, NEW YORK

Prepared for:

1485 NIAGARA, LLC

ROUX

Compiled by: AJK	Date: JULY 2025	FIGURE
Prepared by: CNK	Scale: AS SHOWN	2
Project Mgr: CZB	Project: 4509.0003B000	
File: FIGURE 2; ASD SYSTEM PIPING LAYOUT.DWG		

F:\CAD\BENCHMARK\NATALE DEVELOPMENT COMPANY\BUILDING 2 ASD INSTALLATION REPORT\FIGURE 2; ASD SYSTEM PIPING LAYOUT.DWG

APPENDICES

1. In-Line Fan Specifications
2. Photographic Log

APPENDIX A

In-Line Fan Specifications

Rn 4EC-4 Inline Radon Fan

Art. no.: 99923
Version: 120V 1~ 60Hz

- Use for **High Suction, High Airflow** applications
- Equipped with EC Motor
- Speed Control Included
- LDVI™ Couplings Included
- Airtight Housing Guaranteed
- Large Electrical Box
- Zero Leakage

Active radon mitigation systems employ specialized fans to exhaust radioactive radon gas from underneath building structures via a sealed pipe system. These systems are designed to remove radon gas before it migrates into the building envelope.

As the most powerful model in Fantech's family of Radon Mitigation fans, the **Rn4EC** can create 4.3" of suction while moving 20 cfm, as well as move 490 cfm when operating at only 0.5" of suction. High air flow, high suction.

Rn4EC features an electronically commutated (EC) motor. Inherently efficient and operationally stable at full and reduced speeds, the EC motor arms the radon professional with installation methods not previously practical. Integrated control system allows for "dialling in" the fan speed necessary to achieve either the required sub-slab depressurization or required system air flow rate. For demand-controlled systems, the potentiometer can be removed from the wiring terminal block to accommodate an externally-provided 0-10Vdc speed command.

The **Rn 4-4EC** is constructed with UL certified, UV protected polycarbonate material. The inlet and outlet pieces of the fan's housing are vibration welded for 100% leak-proof housing construction. Totally enclosed motors are designed with extra moisture protection in various radon applications.

Performance certified by **HVI**; safety certified by **UL**.

NOTE:

Installations that will result in condensate forming in the outlet ducting should have a condensate bypass installed to route the condensate outside of the fan housing. Conditions that are likely to produce condensate include but are not limited to: outdoor installations in cold climates, long lengths of outlet ducting, high moisture content in soil and thin wall or aluminum outlet ducting. Failure to install a proper condensate bypass may void any warranty claims

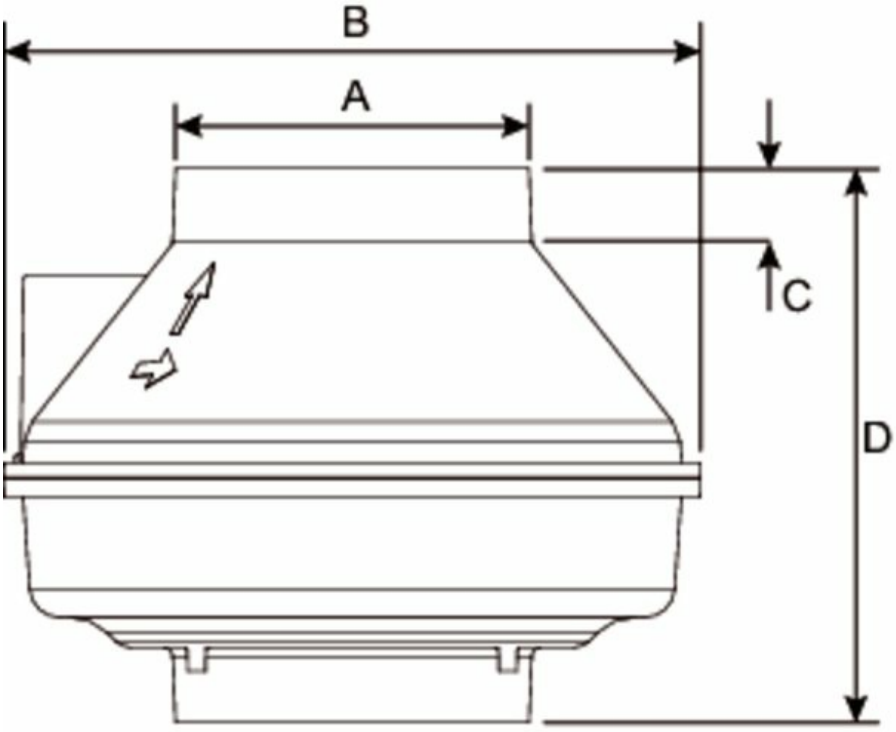
Technical parameter

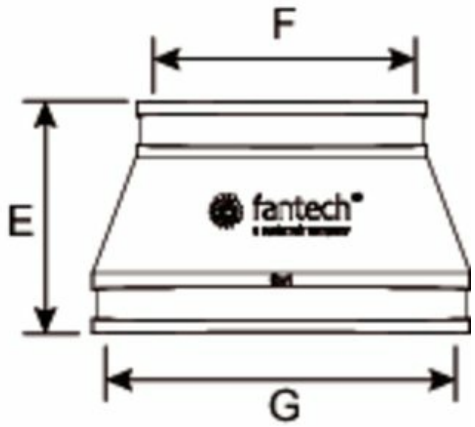
Norminal data		
Voltage (Nominal)	120	V
Frequency	60	Hz
Phase(s)	1~	
Input power	169	W
Input current	2.1	A
Impeller speed	4,084	r.p.m.
Air flow	max 555.0	cfm
Temperature of transported air	max 122	°F
Max temperature of transported air, when speed controlled	122	°F

Protection/Classification		
Enclosure class, motor	IP54	
Insulation class	B	
Certificate	HVI, cULus	

Dimensions and weights		
Weight	7.3	lb

Dimension

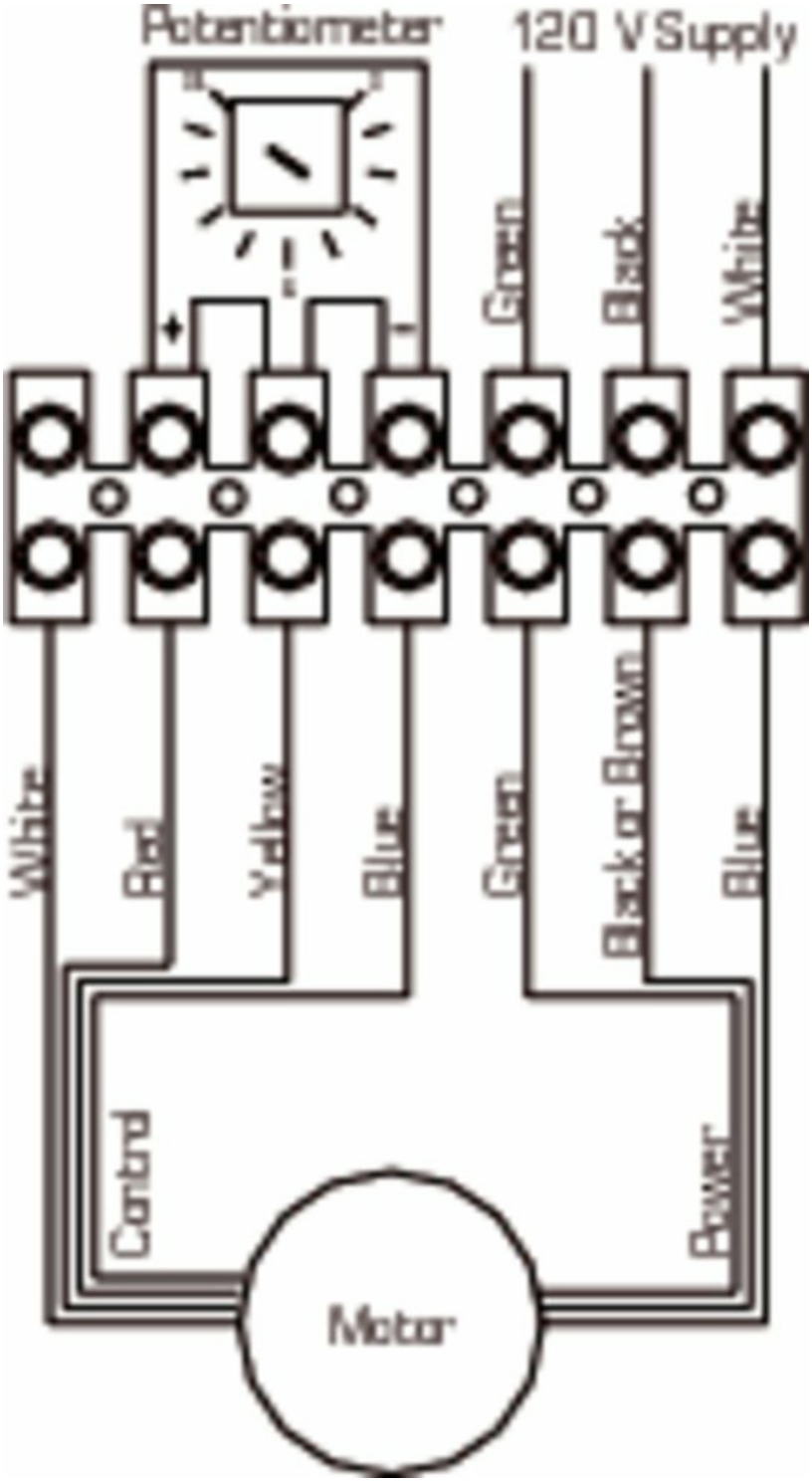




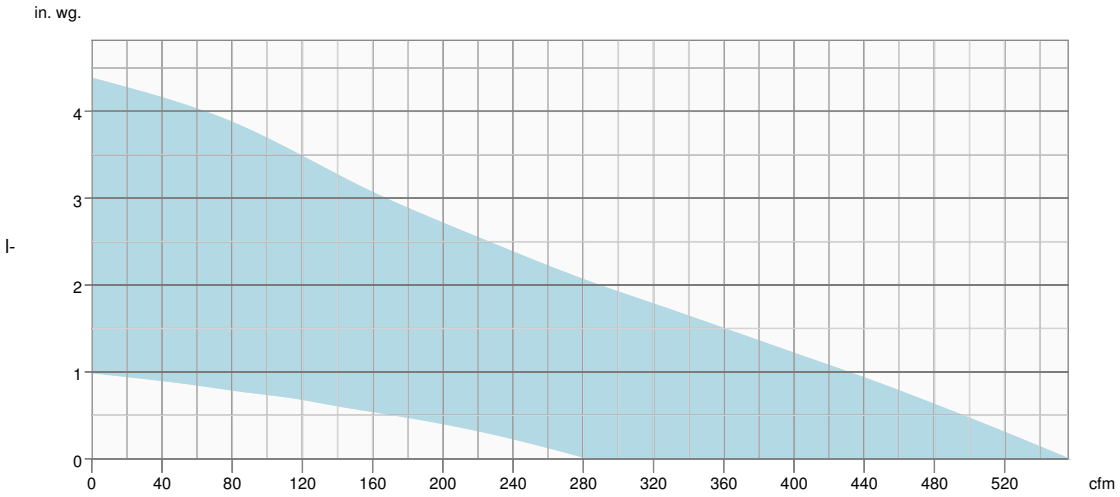
Model	A	B	C	D	E	F	G
Rn4-3	5 7/8 (149)	11 1/2 (292)	1 1/4 (32)	9 1/4 (235)	4 (102)	3 1/2 (89)	6 (152)
Rn4-4	5 7/8 (149)	11 1/2 (292)	1 1/4 (32)	9 1/4 (235)	4 (102)	4 1/2 (114)	6 (152)

Dimensions in inches (mm).

Wiring


Potentiometer
120 V Supply
Green
Black
White
White
Red
Yellow
Blue
Green
Black or Brown
Blue
Control
Power
Motor

Performance curve



Hydraulic data	
Required air flow	-
Required static pressure	-
Working air flow	-
Working static pressure	-
Air density	0.075 lb/ft³
Power	-
Fan control - RPM	-
Current	-
SFP	-
Control voltage	-
Supply voltage	-

Documents

- 142001 Rn2EC-Rn4-EC OIPM EN FR.PDF

APPENDIX B

Photographic Log

Photograph 1: Extraction point and Riser

Photograph 2: Riser to north-south horizontal run

Photograph 3: North-south horizontal run to east-west horizontal run

Photograph 4: Horizontal run exiting the north wall of buidling

Photograph 5: Exterior exhaust stack with inline fan

Photograph 6: U-manometer on interior suction point riser