

VECTOR

Vector Compressor and Vacuum System Installation & Maintenance Guide



VECTOR
VORTEX

Compressors

Dual 1HP VS2



3-4 User
2 - 1hp Head
W29 x D20.5 x H33.5
4.95 CFM @ 72.5 psi
refresh < 210s
Tank Size = 13.2 gallon

Dual 2HP VS4



6-8 User
2 - 2hp Head
W29 x D20.5 x H35.19
9.9 CFM @ 72.5 psi
refresh < 130s Tank Size = 19.8 gallon

Triple 6HP VS6



10-12 User
3 - 2hp Head
W42.7 x D20.9 x H34.8
14.85 CFM @ 72.5 psi refresh < 105s
Tank Size = 29 gallon

Vector Vortex Dry Vacuums

Dry Vacuum (Up to 7 Users)

- Single Head, 1-7 Users Fully Adjustable
- 220V - 20 AMP 2.3 HP
- No Maintenance - Lube-Free
- Easily Expand with Just a Simple
- Adjustment to up to 7 Users
- Single Stack Tank for ultimate Space Saving



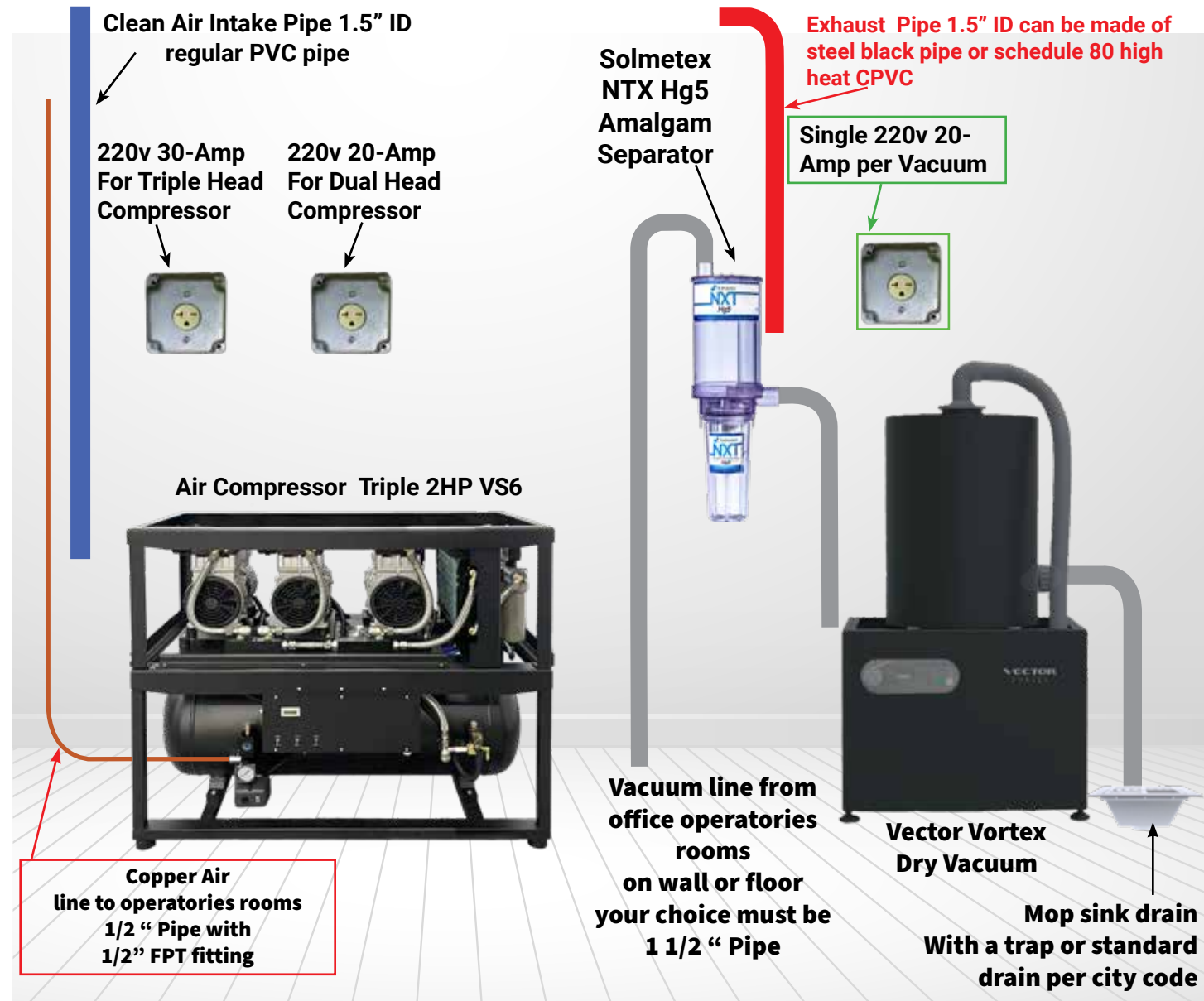
Automatically adjusts power to match demand—more when you need it, less when you don't.

Dry Vacuum (Up to 15 Users)

- 4.6 Horsepower
- Dual Check Valves
- 15 Gallon Tank
- No Maintenance
- Modular Dual Stack
- No Oil Required
- 2 x 220V 20 AMP Circuits
- Low Voltage Switchable
- 8 Users Full Time with up to 15 Users with Both Units at Full Power
- Automatically Senses Flow and Increases Power when you need it!
- Dimensions: 24W x 18D x 65H



Specifications



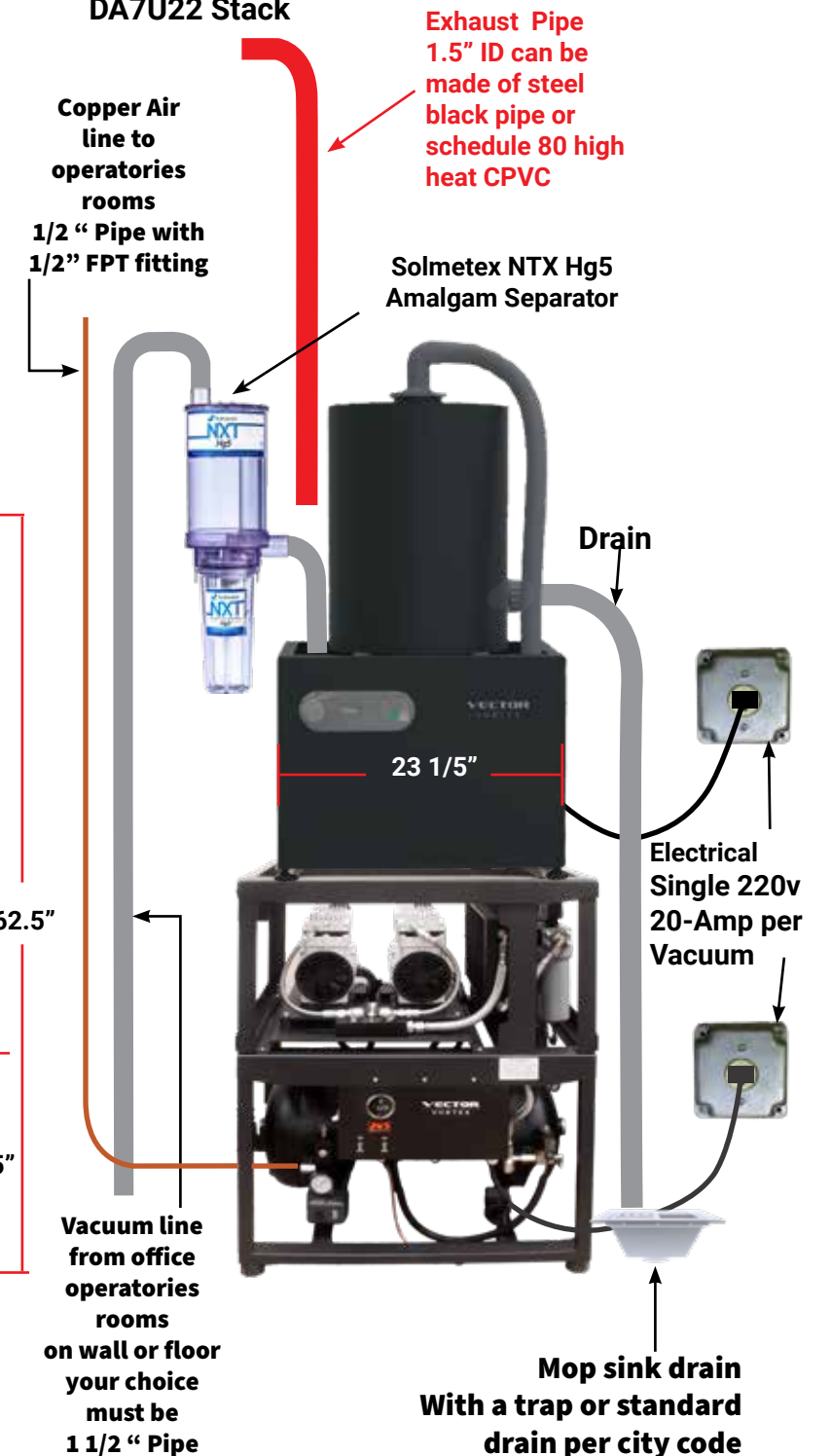
All Power outlets 220V -30Amp are dedicated circuits

Specifications for Stack Options

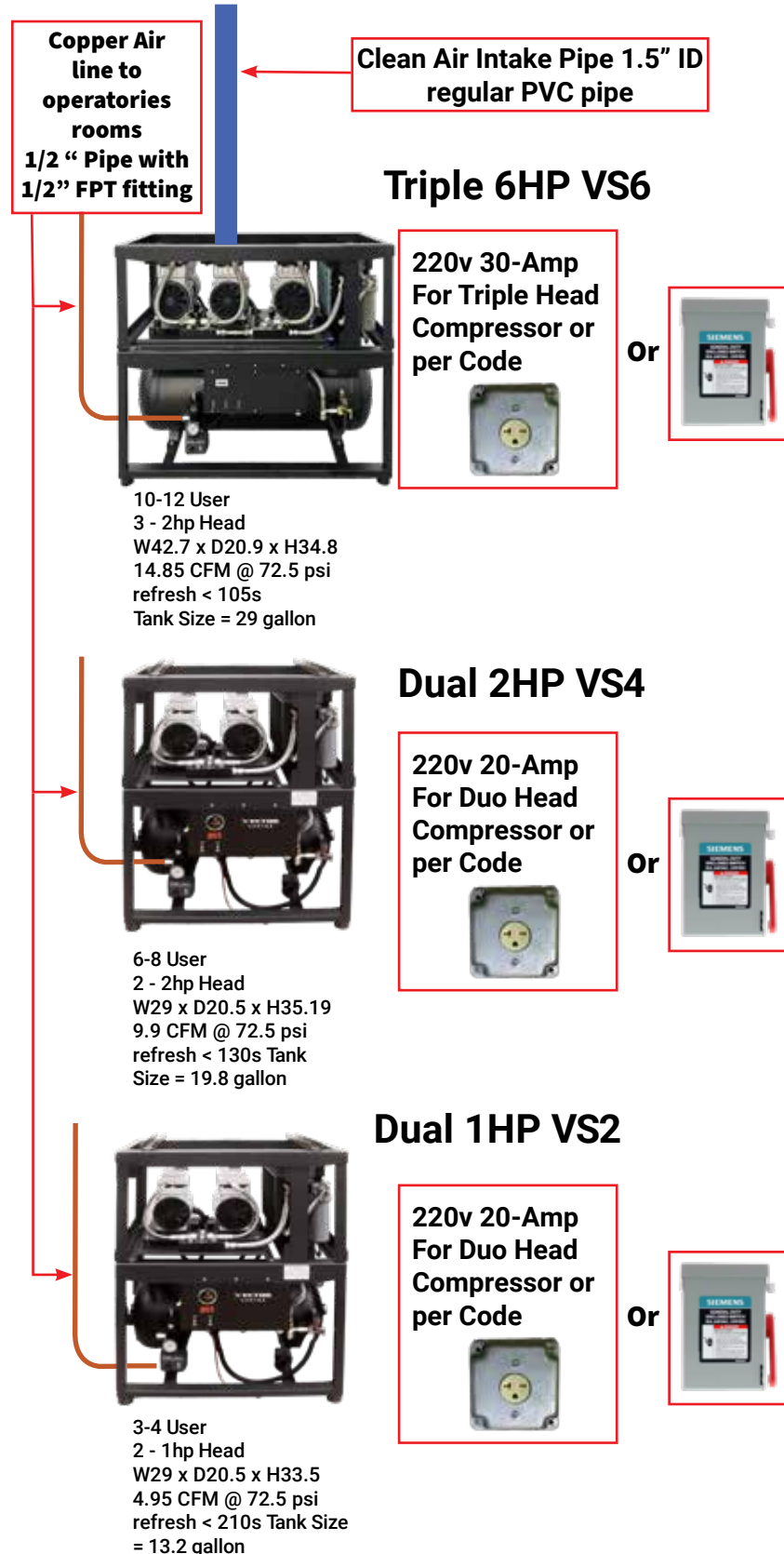
Dual Vector Vortex Dry Vacuum Stack



Vector Vortex Dry Vacuum & Dual 2 HP DA7U22 Stack



Specifications



WARNINGS

If a stacked double electrical outlet is required, provide one per item.

Minimum Voltage 215V
Maximum Voltage 230V
Any variance will need a BUCK BOOST Transformer to Regulate Power

Office Air should always be 1/2" Copper throughout the office.
DO NOT GO LARGER OR SMALLER

Pre-Wire Buck Transformer

Transformer designed to reduce incoming line voltage to the appropriate level required by electrical equipment.



Pre-Wire Boost Transformer

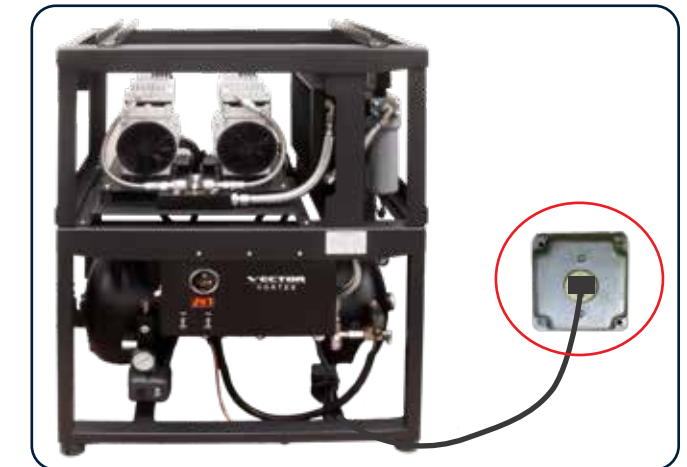
Transformer is designed to raise incoming line voltage to the correct operating level required by electrical equipment.



General Filter Replacement Procedure on a Vortex Compressor

1

Power Down the Compressor: Ensure the compressor is turned off and unplugged to prevent any accidental startups.



2

Locate the Filter Housing:

- Identify the filter housing unit, which is typically integrated into the air dryer and triple filter system. This system ensures the delivery of clean, dry air.

Check the Filter Gauge

- Inspect the pressure gauge attached to the filter. Ensure that the indicator is not in the red zone.

Monitor Monthly

- Check the filter gauge once a month to ensure optimal performance.

Replace Filters Promptly

- If the gauge indicator approaches or enters the red zone, replace the filters immediately to maintain air quality and equipment efficiency.



Filter Housing



Filter Gauge

General Filter Replacement Procedure on a Vortex Compressor

3 Remove the Old Filter: Open the filter housing according to the manufacturer's guidelines and carefully remove the old filter element.



Filters Housing



Turn Left to Open
Turn Right to Close



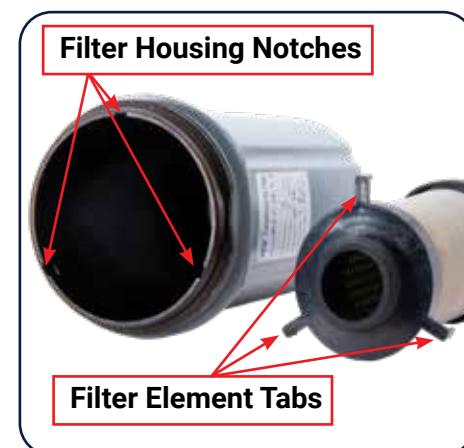
Open Filter Housing
Displaying Internal Filter



Remove the Old Filter Element Inspect and Clean: Check the filter housing for any debris or contaminants and clean it if necessary to ensure optimal performance of the new filter



Install the New Filter: Insert the new filter element into the housing, ensuring it is seated correctly and securely.



Make sure the three filter element tabs are correctly inserted into the housing notches. Filters must be inserted correctly; otherwise, they will be damaged.

General Filter Replacement Procedure on a Vortex Compressor

4 Secure the Housing: Close and secure the filter housing as per the manufacturer's instructions.
Restore Power and Test: Plug in and power up the compressor, then check for proper operation and ensure there are no leaks or issues.



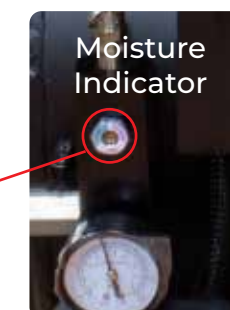
WARNING

Ensure each filter is inserted into its correct housing, as each one is uniquely designed



Element ZC-10 Element ZT-10 Element ZA-10

Moisture Indicator



Moisture Indicator
The moisture indicator on the Vector Dental Compressor provides a quick visual check of air dryness, it changes color to show moisture levels—blue or green means dry air, while dark pink or red signals excess moisture or the need for service. This helps ensure only clean, dry air reaches dental equipment.

Membrane Filter

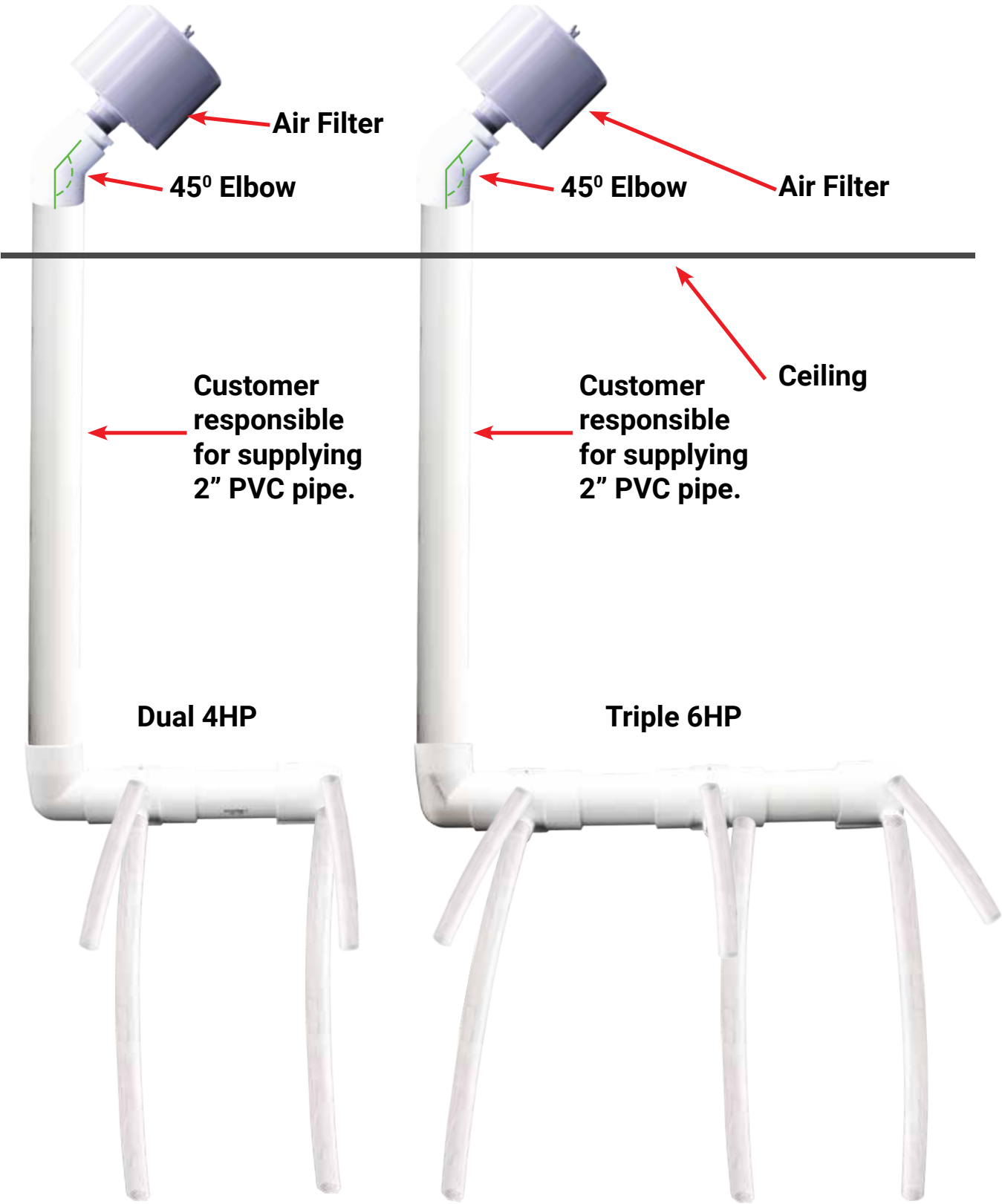


AIRRANE Filter
Model: MMD-1512A For use with
Vector Compressor VS2 – VS4

AIRRANE Filter
Model: MMD-1522A For use with
Vector Compressor VS6

Membrane Filter Recommended Maintenance: Inspect regularly and replace the membrane cartridge every 1–2 years, depending on operating conditions and usage.

Clean Air System Intake Kit



Clean Air System Intake Kit

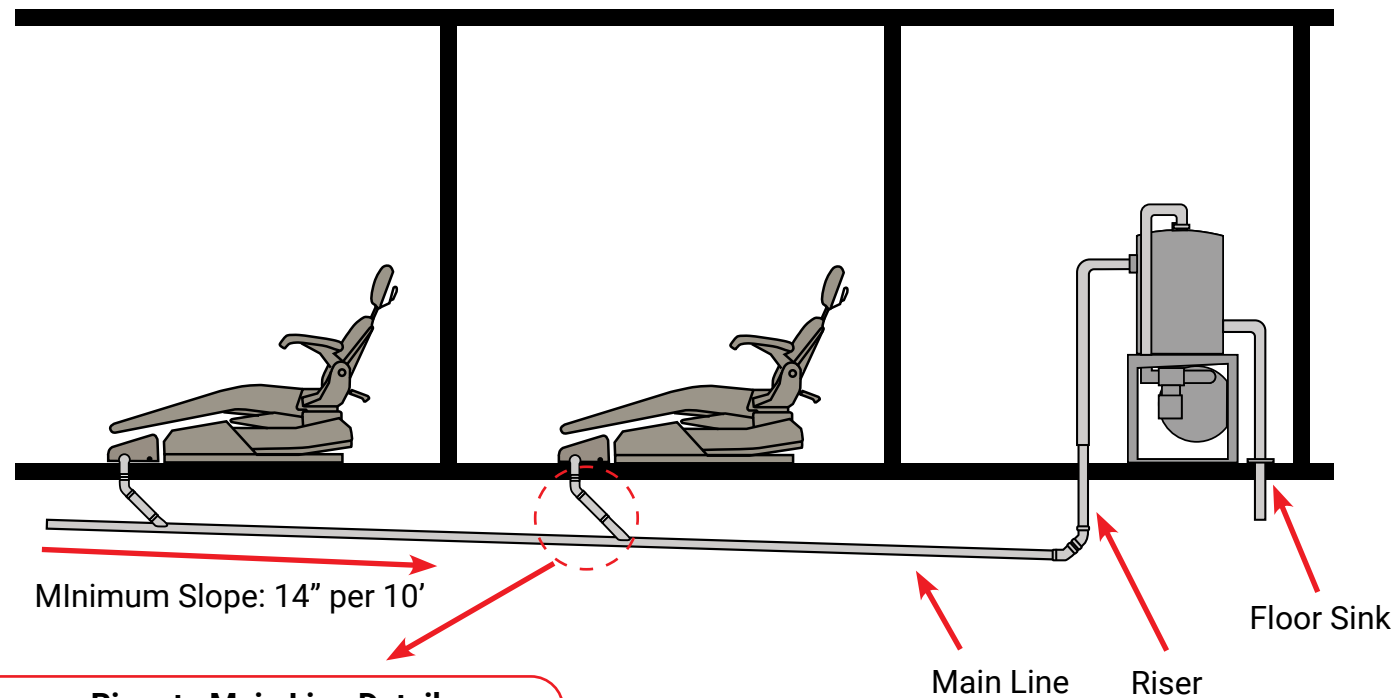


Part Numbers	
Vector Vortex Clean Air Kit for Dual Head (VS4/VS2)#	VV-C4
Vector Vortex Clean Air Kit for Triple Head (VS6)#.	VV-WPS
Vector Vortex Low Head Small Tube Conversion#	VV-C2

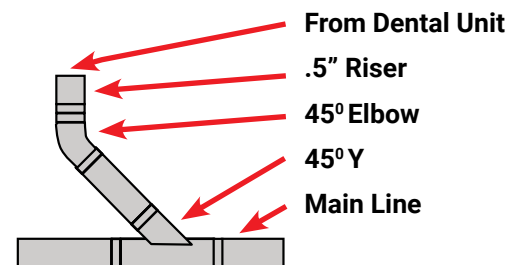
Dry Vacuum Plumbing

Example under the "This is preferred Method"

Sub-Floor Installation: The sub-floor plumbing layout illustrated below represents the recommended configuration for system installations and should be followed whenever possible.



Riser to Main Line Detail



Plumbing Recommendations

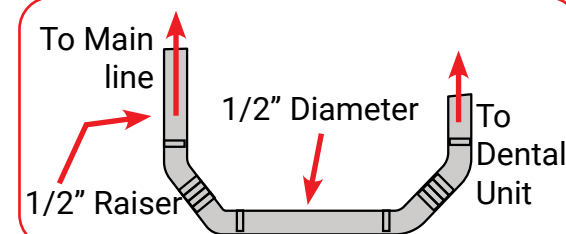
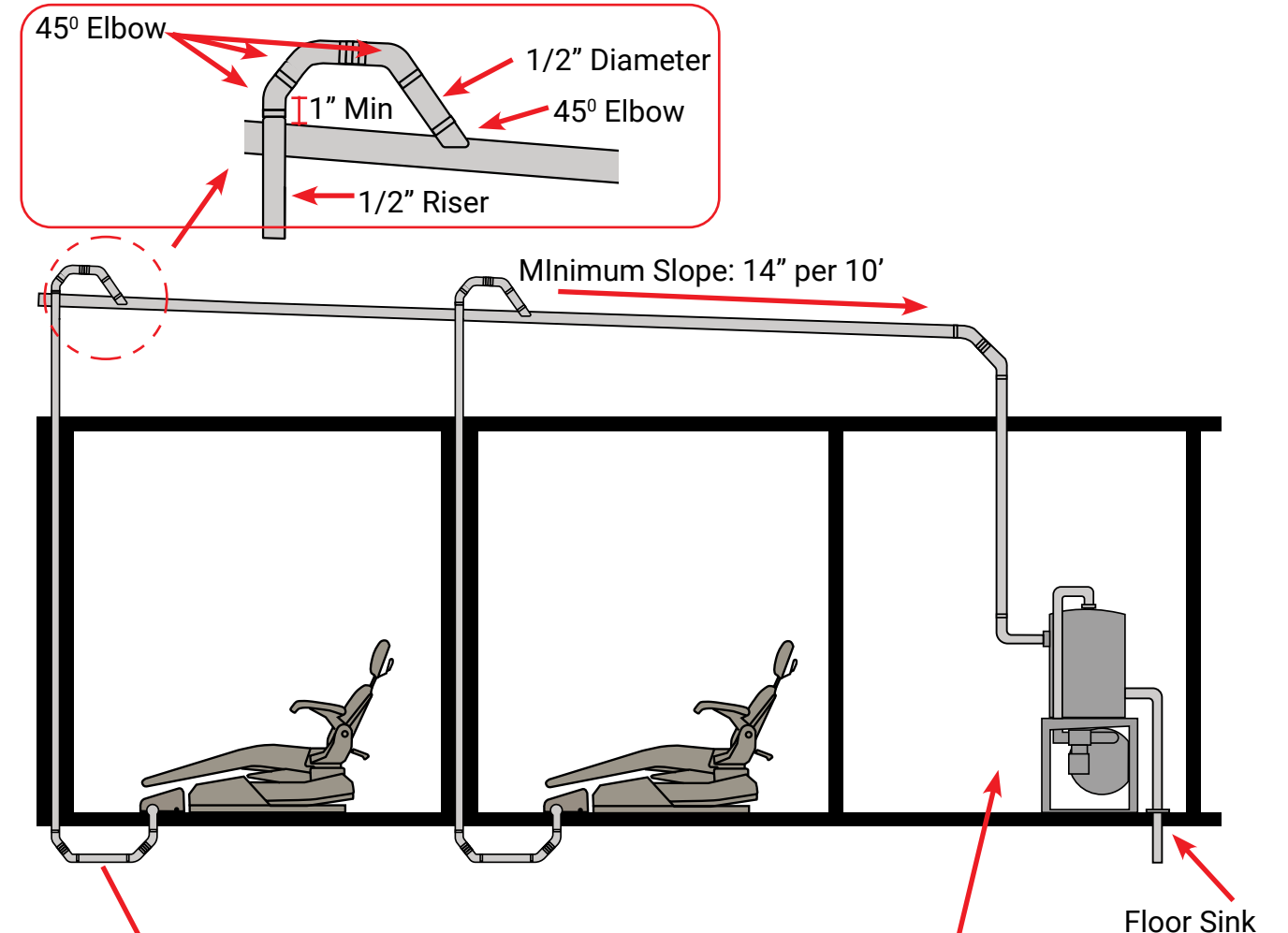
- 9' maximum height from main line to tank
- If using 1 1/2" ID or larger, use 45 degree Y and elbows only
- Long radius 90° elbows can be used as alternates to 45° elbows

Any vacuum plumbing above the concrete level must follow this tubing size requirement for overhead, even if the tubing is only run along the wall.

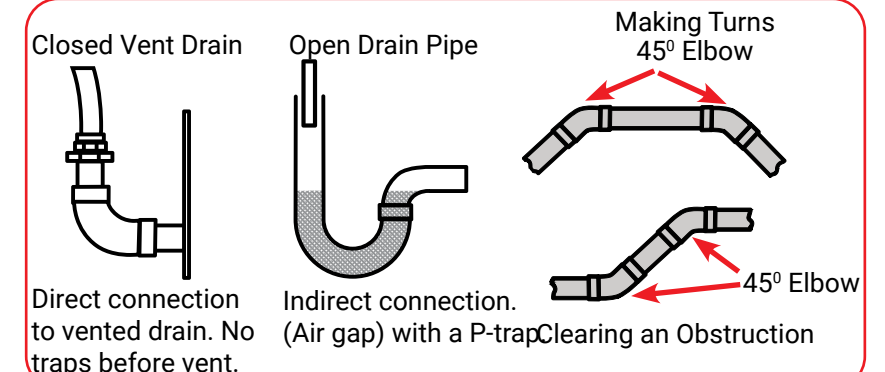
Operatories	PVC sch 40	Copper
1	3/4"	3/4"
2	1"	1"
3	1 1/4"	1"
4	1 1/4"	1 1/4"
4	1 1/4"	1 1/2"
6	1 1/2"	1 1/2"
7	1 1/2"	2"
8	2"	2"

Dry Vacuum Overhead

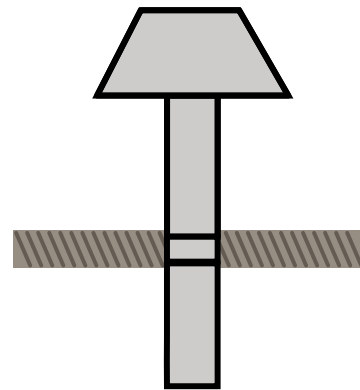
Overhead Installation: The overhead plumbing layout illustrated below is the designated alternate configuration for system installation. This layout should only be implemented when the sub-floor plumbing layout cannot be utilized.



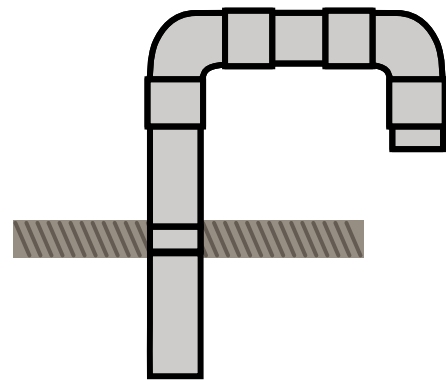
Mechanical Room Drain



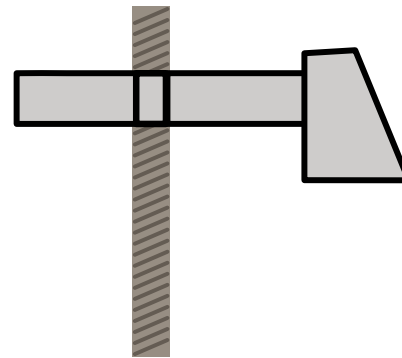
Ventilation Requirements



Roof Exit Example 1



Roof Exit Example 2



Wall Exit



WARNING

Ensure the exhaust pipe is protected from rainwater by terminating it downward or covering it appropriately.

A high-heat pipe is mandatory—only black pipe or CPVC high-heat pipe may be used. **No exceptions.**

WARNING: The room where a vacuum or compressor is installed must be properly ventilated. An air conditioning vent is preferred, or a high-volume exhaust fan must be used.

Temperatures above 110°F *will void the warranty and reduce equipment life.*

Dry Vacuum



Left Side View

Right Side View



Rubber Boot



Steel Exhaust Pipe 1.5"



Drain Line with Swing Check Valve



Suction Hose: Motor to Top of Tank

Low Voltage Wiring

Compressor Voltage Connections

Vector Vacuum Wall Plate



Front



Back



If using a manual switch, connect the black wire to the black wire to use the front switch on the compressor unit

Vacuums Voltage Connections

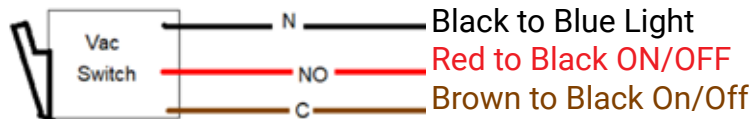
Vector Wall Plate



Front



Back



If using manual switch connect black and red wire together.

Part Numbers

Vector Low Voltage Wall Plate Part # **VV-WP4**

Vector Low Voltage Wall Switch Part # . . . **VV-WPS**

Vector Low Voltage Wall Blank Cover# . . . **VV-WPC**

Vector Low Voltage Wall Plate Kit# **VV-WP-K**
(Plate, 2 Switches, 2 Blank Covers)

Boost Transformer 208 V to 220V **VV-BB.5KVA**

Buck Transformer 240 V to 220V **VV-BB.5KVA-B**