


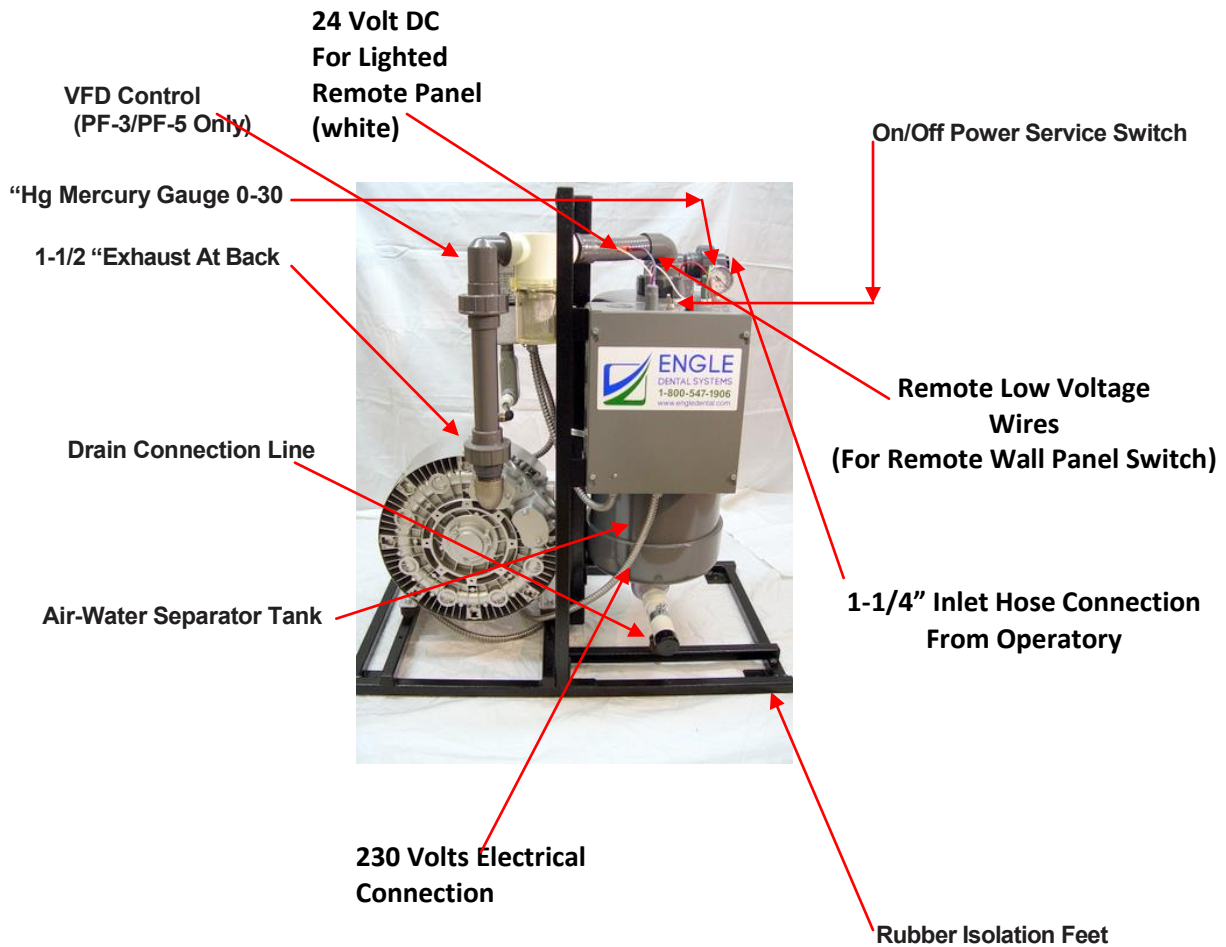
PF-3, PF-5, PF-1, PF-2, Installation Manual

 **WARNING**
Motors are thermally protected with manual reset.

Models: Single & Dual
 PF-3/PF-5 On Demand
 PF-1 Single/PF-2 Dual

 **Equipment Alert**
 Refer to "Site Requirements" in this manual for site restrictions.
 Vacuum system must be installed per local plumbing and electrical codes.
 Allow vacuum to reach room temperature before installing.

 **Caution**
 Use an assistant and care when moving to prevent personal injury.



PF-3, PF-5, PF-1, PF-2 Site Requirements

PLUMBING

• EXHAUST LINE	PF-3, PF-5	PF-1, PF-2
Type	10' Galvanized, Steel or Copper Pipe From unit to CPVC Sch 80	10' Galvanized, Steel or Copper Pipe From unit to CPVC Sch 80
HIGH TEMP FLEXABLE EXHAUST HOSE KIT AVAILABLE (CALL ACME FOR INFORMATION)		
Size	1-1/2" for exhaust line length	1-1/2" for all exhaust line lengths
Termination	1 1/2" pipe elbowed down	
• INTAKE (SUCTION) LINE	PF-3 -PF-5	PF-1, PF-2
Type	PVC Sch 40 Pipe Recommended - for Main Trunk and Branch Lines	
Line Sizing	Refer to: "Site Requirement Layout", located in this document.	
Pump Termination	1" to 1 1/2"	1" to 1 1/2"
• DRAIN	PF-3 -PF-5	PF-1, PF-2
Type	Floor Drain or 1 1/4" PVC Sch 40 P-Trap	
Flow Capacity	5 Gallons per Minute	

ELECTRICAL *Note: All PF-3, PF-1, PF-2 models electrically designed to be sold only in U.S.A. or Canada.*

• BOXES	PF-3 -PF-5	PF-1, PF-2
Supply	208-230 Volt, Single Phase, 60Hz	208-230 Volt, Single Phase, 60Hz
Wire Size to Disconnect Box	#12 for distances Less than 8' (See NEC) #10 for distances up to 15' (See NEC) <i>Note: Avoid long wire runs from Main Breaker in system. Circuit must be PE grounded as per local codes.</i>	
User Supplied Fused Disconnect Switch Box <i>Note: Box(es) to be located within 6' of Vacuum Unit(s).</i>	30 AMP Recommended	30 AMP Recommended

Amalgam Separator (Installed on Intake before Trap) (Available Through Acme MFG)

• SUPPLY LEADS	PF-3 -PF-5	PF-1, PF-2
Leads	6' Supply Conduit Provided	6' Supply Conduits Provided

ENVIRONMENTAL

• TEMPERATURE	PF-3 -PF-5	PF-1, PF-2
Equipment Room Vent	Continuous-run 800 CFM Fan	Continuous-run 1600 CFM Fan
Equipment Room Ambient Temperature	40° to 104° Fahrenheit 4° to 37° Celsius	

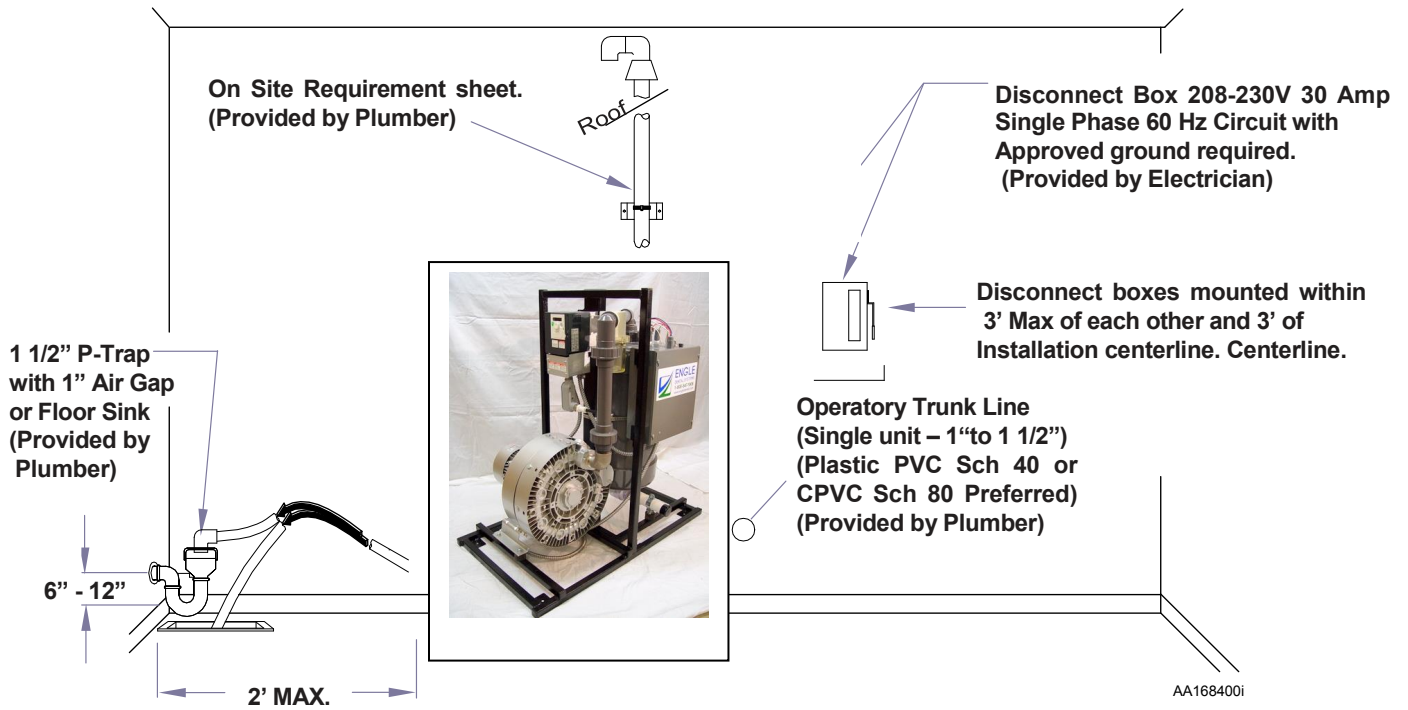
Note: All PF-3, PF-1, PF-2 models are recommended to be installed and operated in a thermostatically or otherwise stable ambient Temperature environment. Forced air and HVAC input should be used in addition to an exhaust fan if normal ambient temperatures Vary from specified operating temperature range.

PF-3, PF-5, PF-1, PF-2 Site Layout

Elevation View

Note

Single Unit Shown, A Dual Unit Requires 2 Disconnect Boxes.

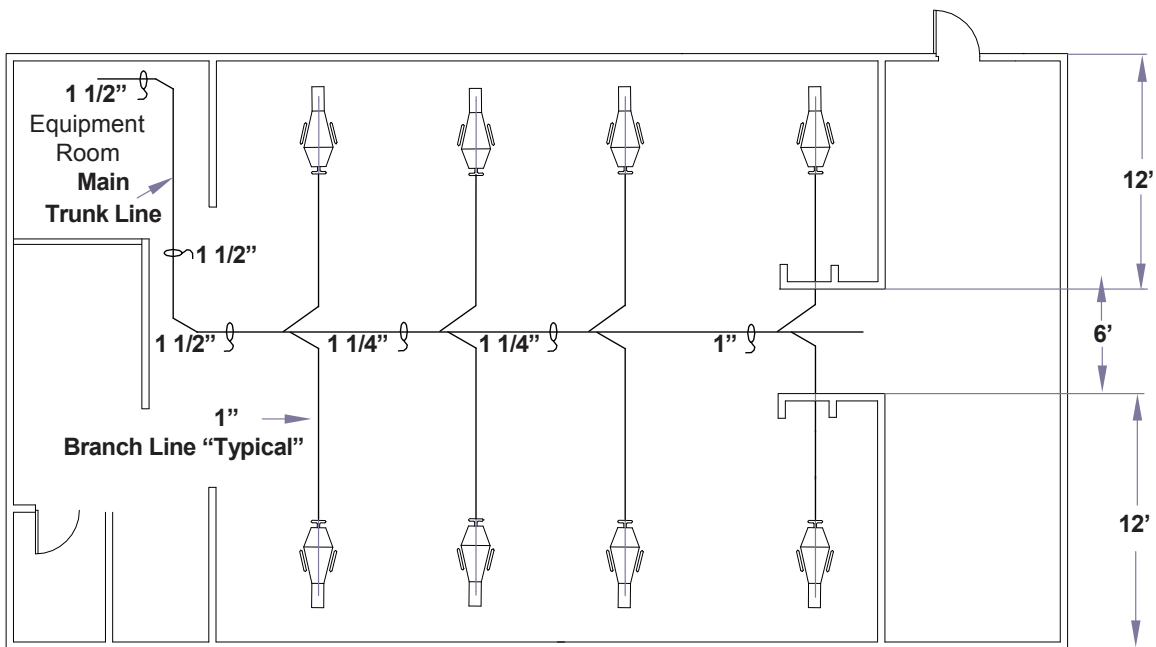
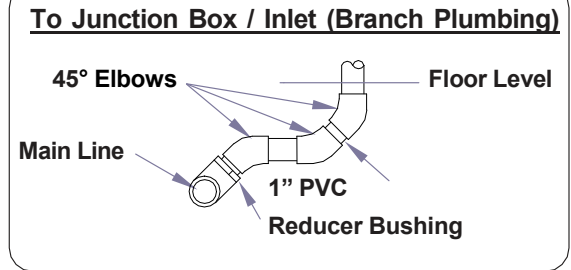
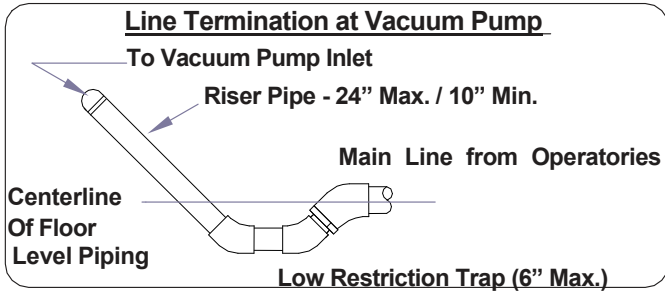


Note

Ventilation required for room to remain in the range of 40° to 104°F or 4° to 37°C with 4500 BTU/HR Equipment heat input.

PF-3, PF-5, PF-1, PF-2 Site Layout

Sample Plumbing Layout



*This drawing is one of many ways a PF-3, PF-5, PF-1, PF-2 could be installed.

AA2382



Equipment Alert

When performing positive pressure leak tests to validate plumbing installation, verify vacuum systems are not connected to office piping.

Important Information

Intended Use

To provide vacuum suction during general examinations and procedures conducted by qualified dental professionals

Disposal of Equipment

At the end of product life, the unit(s), accessory, and other consumable goods may become contaminated from normal use. Consult local codes and ordinances for proper disposal of equipment, accessories and other consumable goods.

Transportation / Storage Conditions

Ambient Temperature Range:0°F to 160°F (-17°C to +71°C)

Relative Humidity..... 10% to 90% (non-condensing)

Atmospheric Pressure500hPa to 1060hPa (0.49atm to 1.05atm)

Safety Symbols



DANGER

Indicates an imminently hazardous situation which will result in serious or fatal injury if not avoided. This symbol is used only in the most extreme conditions.



WARNING

Indicates a potentially hazardous situation which could result in serious injury if not avoided.



CAUTION

Indicates a potentially hazardous situation which may result in minor or moderate injury if not avoided. It may also be used to alert against unsafe practices.



Equipment Alert

Indicates a potentially hazardous situation which could result in equipment damage if not avoided.

Note

Amplifies a procedure, practice, or condition.

Installation for PF-3, PF-5, PF-1, PF-2

Plumbing Connections



Equipment Alert

Verify all local codes before installing Inlet and Drain hoses.
Termination of hoses to be provided by installer.

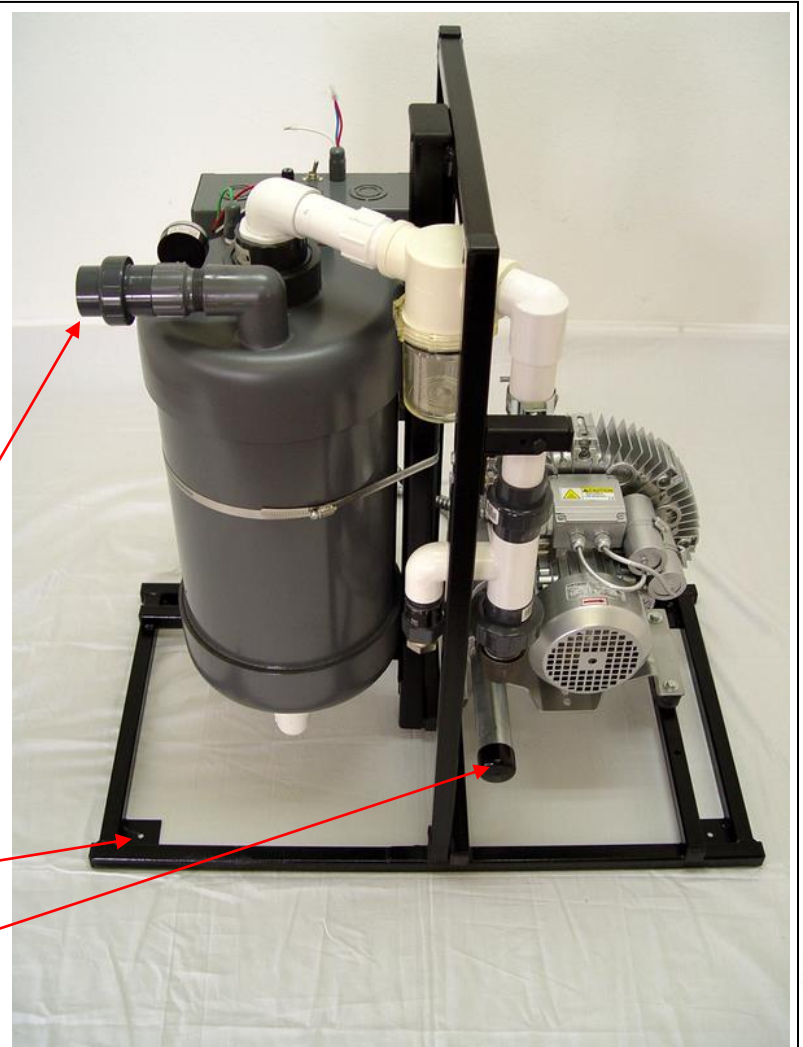
Note

Connections must be hand tight. Do not use glue.
May use mild soap for hose connections.



PF-3, PF-5, PF-1, Pf-2 Unit Plumbing...

- A. Install rubber feet on unit frame
- B. Connect inlet hose to Operator
- C. Connect outlet drain hose from pump out to drain



1-1/4" Pump Drain out to Drain

1-1/4" Inlet Hose to Operator

Rubber Isolation Feet

1-1/2" Exhaust

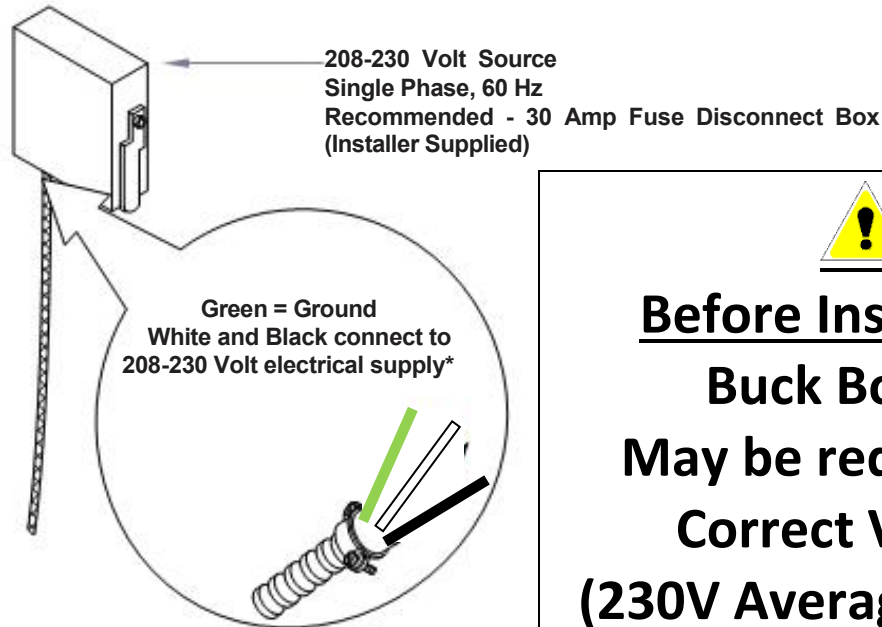
Installation for PF-3, PF-5, PF-1, PF-2

Electrical Connections

Note

All vacuum systems are to be installed according to local electrical codes. Never operate the equipment without complete and proper grounding.

*Refer to Specification Sheet for Electrical Ratings



Before Installation
Buck Booster
May be required for
Correct Voltage
(230V Average Voltage)

Electrical Connections...

- A. Connect conduit cable to user supplied electrical box(s).
- B. Connect remote panel wires to Low Voltage Control wires if applicable.



Control Panel Cross Wiring			
Brand	Wire		
	A	B (Light)	C
EDS PF-3,5, 1 & 2	Blue	White	Red
Air Techniques	Yellow	Brown	Orange
Den-Tal-Ez	Black	Brown	Yellow
Midmark	Blue	White	Red

Low Voltage Control Wires
(For Remote Wall Panel Switch)

White Wire 24V

PF-3 Vacuum On Demand



PF-2 Dual



	PF-3 – PF-5	PF-1 Single PF-2 Dual
Max Users	(1-10) (1-4)	PF-1 Single 1-6 PF-2 Dual 6-10
Base Unit H x W x D	35" x 27" x 21"	PF-1 - 35" x 27" x 21" PF-2 - 41" x 27" x 21"
Actual Weight (lbs.)	150 lbs.	PF-1 - 140 lbs. PF-2 - 195 lbs.
Total HP	(2.75 HP) (2HP)	PF-1 – 1.5HP PF-2 - 3HP
Voltage	230 V	230 V
Amps	7.5 Amp – 6.3 Amp	PF-1 - 12 Amp PF-2 - 24 Amp
Hertz	60 Hz	60 Hz
Recommended Breaker Size (Amps)	30 Amp	30 Amp
Fuses	1/4 A, 250V	1/4 A, 250V
Inlet Connection Size (In.)	1 ¼"	1 ¼"
Drain Connection Size	1 ¼"	1 ¼"