

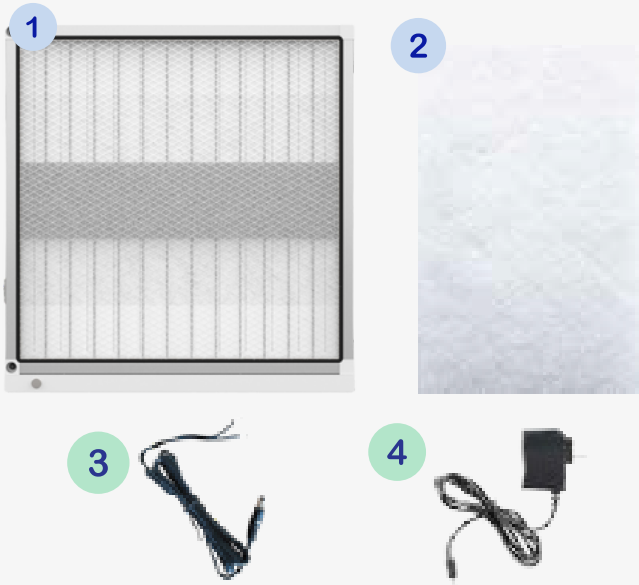


BLADE AIR

User Manual

PRO FILTER PF-1, PF-2

WHATS IN THE BOX?



PROVIDED

- 1 Outer housing
- 2 Filter pad

ACCESSORIES TO BE SELECTED

- 3 24 VAC Power Supply Cable

OR

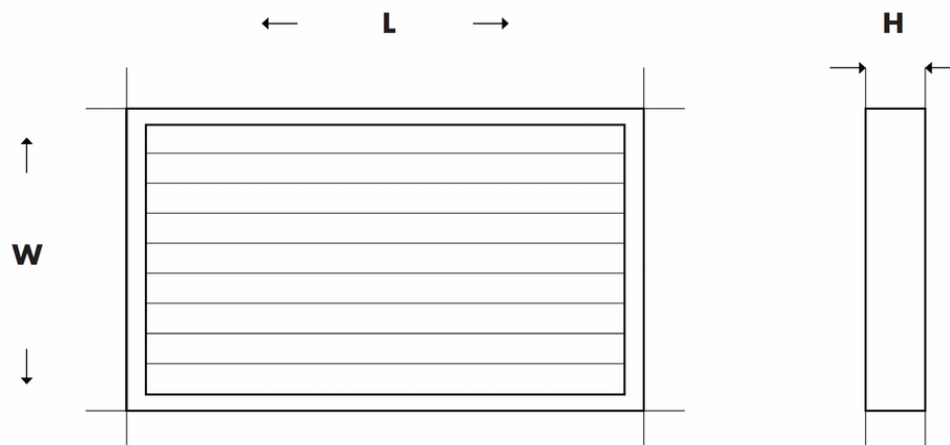
- 4 24 VAC Power Adapter

Please see page 5 for more details

INSTALLATION INSTRUCTIONS

STEP 1: Confirm Filter Sizing

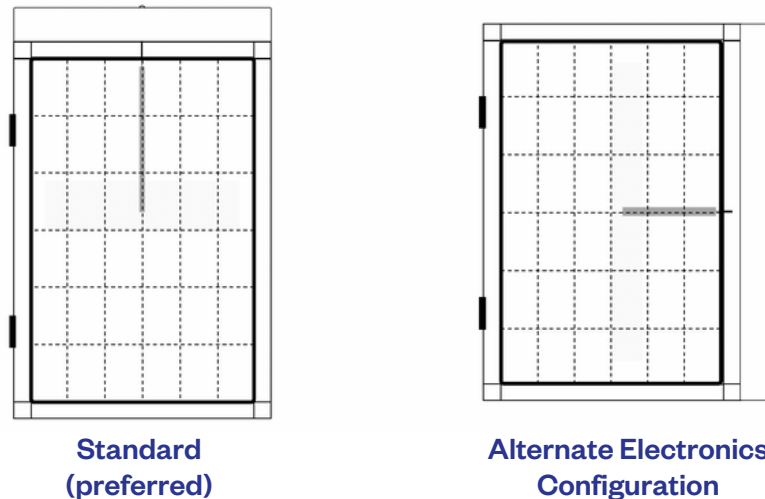
- Confirm filter sizing by taking an exact measurement of the existing filter being replaced. Both standard and non-standard sizes are available. Please refer to sizing and pricing chart to select standard and/or non-standard sizing.
- Blade Air Pro Filters are made from a rigid aluminum frame and cannot be bent to fit into a filter rack. Be sure to verify the sizing of the filter racks and that the Blade Air units can fit.
- Blade Air Pro Filters are designed to be slightly undersized for ease of installation, with specific undersizing based on thickness. For 1" thick filters, the actual length and width are 3/8" smaller than nominal dimensions. For 2" thick filters, the reduction is 5/8". Therefore, a 20" x 20" x 1" filter measures 19.625" x 19.625", and a 20" x 20" x 2" filter measures 19.375" x 19.375". This undersizing applies only to the filter's length and width, not its thickness, ensuring a proper fit within your HVAC system.



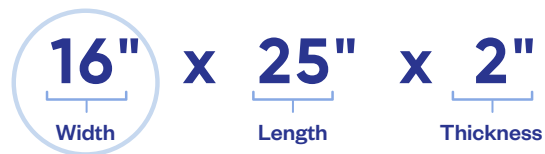
STEP 1a: *Optional: Alternate Electronics Configuration

- In irregular HVAC system arrangements, the Pro Filter configuration may need to be adjusted to fit the application. Blade Air's electronics are built on the first dimension, and can also be built on the adjacent edge as shown below in the alternate section.

Blade Air Pro Filters can be adjusted to accommodate the HVAC system



Electronics will be built on the first dimension listed



STEP 2: Confirm Face Velocity

- Confirm face velocity is less than 500 FPM. If the FPM is above 500 please contact the Blade Air Team (service@bladeair.com).

STEP 3: Determine Electrical Load

- In order to determine the Pro Filter's total electrical load, multiply the number of Blade Air units being installed by 2 Watts. See Fig. 1. for example.

FIGURE 1

Electrical Load = # Blade Units x 2 Watts

Electrical Load = 10 Blade Units x 2 Watts

Electrical Load = 20 Watts

STEP 4: Supplying Power to Filter

STEP 4a: Supplying power to filter via direct wiring to air handler unit

- Most commercial HVAC systems have a 24 VAC control circuit transformer to which Blade Air's Pro Filters can be safely connected. Before connecting the unit to this power source, positively identify that it is a 24 volt (max 30 Volts) AC source. This is usually best accomplished with a test meter. If the existing air handler can handle the additional electrical load, wire the Pro Filter directly into the 24VAC wiring terminal on the air handler using 24 VAC Power Input Cable wire below. See Fig. 2.

FIGURE 2



**24 VAC
Power Supply Cable**

IMPORTANT

This unit is designed to operate from a supply of 24 Volts AC and 2VA

DO NOT CONNECT TO 110 VOLTS AC POWER

Connecting the filter to a higher voltage than specified may cause damage and/or failure of equipment. 110 Volt to 24 Volt adapters or transformers are available from Blade Air.

STEP 4b: Supplying power to filter via transformer

- If a separate transformer is required, or ON-OFF capability is desired, bring 120VAC to the installation point and select a transformer to convert 120VAC to 24VAC. See suggested transformers below.



PSC40AB10



40VA Power Supply
120 to 24 VAC

PSC100AB10



100VA Power Supply
120 to 24 VAC

Number of Blade Air Pro Filters Required	Transformer & Power Supply
1 unit	Plug in filter to 120V receptacle or wire into air handler
2-19 units	Select Model PSC100AB10, 40 watt control box
20-49 units	Select Model PSC40AB10, 100 watt control box
50+ units or another supply voltage other than 120V?	Blade Air Team (service@bladeair.com)

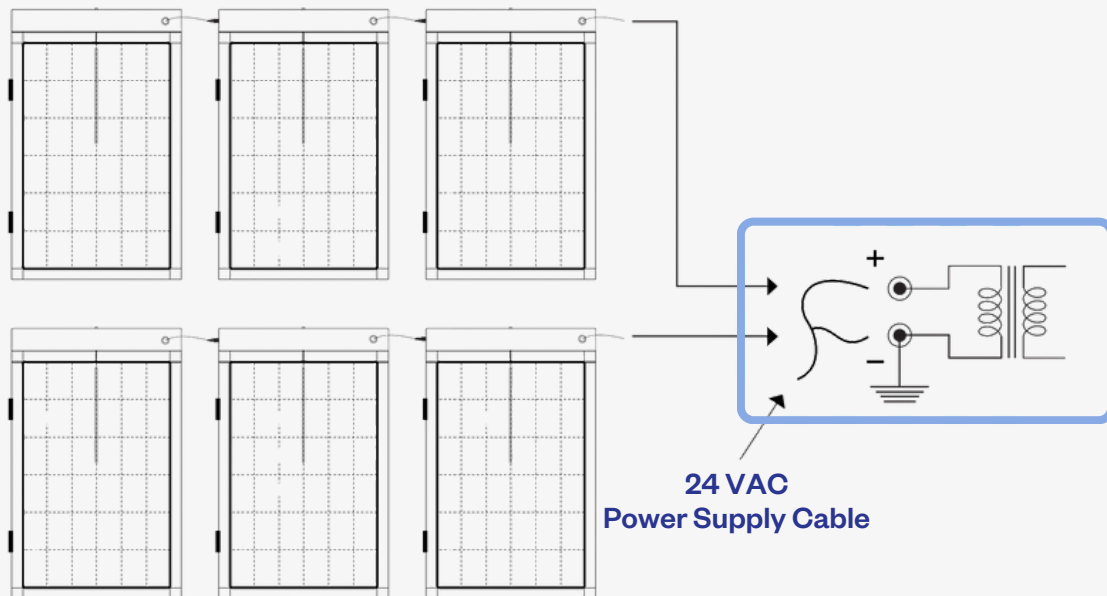
Note: A common/typical selection is one box per air handler

STEP 5: Connecting

STEP 5a: Supplying power to filter via direct wiring to air handler unit

- When installing multiple Blade Air units in the same filter rack, individual filters in a single row should be connected in series with each other using a daisy chain configuration. Each row of Blade Air units should be wired to the power source in parallel to adjacent rows. See Fig. 3.

FIGURE 3



STEP 6: Power On Blade Air Pro Filters

- Power up the Blade Air Pro Filters and ensure that the green power indicator light is on for each filter. Set up is now complete!

GENERAL MAINTENANCE

WARNING: DISCONNECT POWER BEFORE COMPLETING ANY MAINTENANCE

As the air cleaner operates, the glass filter pads in the air cleaner will become embedded with dirt. Approximately every 2-3 months, remove filter from the heating or cooling unit, disconnect the power cord, vacuum any heavy dust accumulation from the outside screens or with a soft brush and wipe clean with a damp cloth. Let the units completely dry before reattaching power. When the time comes to replace the filter pads, contact the Blade Air team (service@bladeair.com)

If the indicator light is not "ON" when the air cleaner is connected, the filter is not working. Check your connections and power source. If these appear correct, contact the Blade Air team (service@bladeair.com). Neither the unit nor filter pads can be cleaned by washing or immersing in water. If you wish to clean the frame, disconnect the power cord and wipe with a damp cloth. Let the units completely dry before reattaching power.

SELECTION AND INCLUSION OF POWER ITEMS

With the purchase of each Pro Filter, we are pleased to offer one power item at no additional cost. Upon placing your order, you have the option to choose between:

1. 24 VAC Power Adapter
2. 24 VAC Power Supply Cable

Additional Power Items

Should you require more than one power item, we can accommodate this request. However, please note that additional items are considered accessory products and are subject to a surcharge.

WARRANTY

Blade Air Inc. warrants the Blade Air Pro Filters for a period of two (2) years from the date of purchase to the original purchaser. Blade Air Inc. will repair free of cost to the customer any part of the product which, after an examination, is found to be defective in workmanship or material. Shipping charges to and from Blade Air Corp. and/or its authorized agent shall be borne by the purchaser. This warranty does not apply to mechanical or structural damage such as may be due to but not limited to dropping, improper handling, misuse, or abuse during installation and usage. No person or representative of the firm is authorized to commit Blade Air Inc. to further liability or obligation.

FOR CUSTOMER SERVICE INQUIRIES

bladeair.com/support

service@bladeair.com

(416) 701 0201

