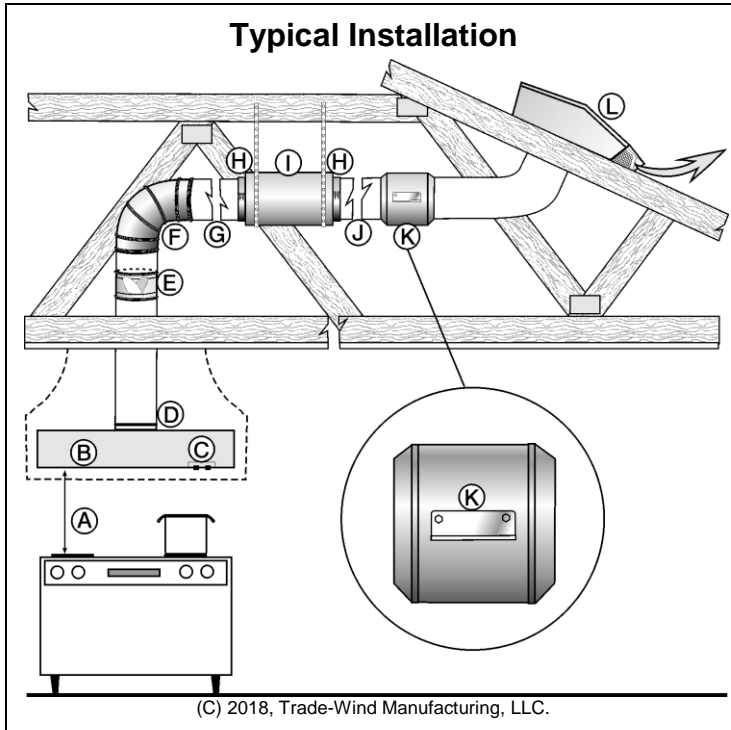


# TRADE-WIND

## Typical Installation & Parts Selection List

For Trade-Wind® VSL Series Liners *Connected to In-Line or Remote Blowers\**



### Installation Considerations

The following installation considerations pertain only to Trade-Wind® liners connected to in-line or remote (roof top or wall mounted) blowers. For exact details, see the Installation Instructions included with each product. Trade-Wind® also has a complete line of models with internal blowers delivering from 390 to 1200 CFM (see your dealer for details).

Trade-Wind® ventilation systems for in-line and remote blowers can be installed in a variety of configurations. Although the in-line blower (see Item K) and duct silencer (I) shown in this example are drawn horizontally, they can be installed at any angle.

### Seven Recommendations for Quietest Possible Installation

1. Include a Duct Silencer to absorb up to 70% of the motor noise transmitted inside the duct (Item I).
2. Include Fast Clamps to absorb most motor vibration noise transmitted by the metal walls of the duct (Item H).
3. Include a Damper with Neoprene® seal to avoid metal "clatter" when damper closes.
4. Trade-Wind's® Full-size Filters reduce air movement sound (Item B)
5. Consider the distance Blower is from Liner (see Item K or L)
6. Variable Speed Control reduces motor sound (see Item C)
7. Consider the Duct Configuration (see Items F, G & J)

## Item Installation Guide & Parts Selection List

<b>A</b>	<b>Distance from VSL Liner to Cooking Surface</b> Bottom of Liner should be 30" – 36" from cooking surface. Island installations should be no more than 30" if possible.
<b>B</b>	<b>VSL400 Series Liners</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> VSL430-0-BF &amp; VSL 430-0-22-BF, designed for 8" Duct &amp; Accessories</li> <li><input type="checkbox"/> VSL436-0-BF &amp; VSL 436-0-22-BF, designed for 8" Duct &amp; Accessories</li> <li><input type="checkbox"/> VSL442-0-BF &amp; VSL 442-0-22-BF, designed for 10" Duct &amp; Accessories</li> <li><input type="checkbox"/> VSL448-0-BF &amp; VSL 448-0-22-BF, designed for 10" Duct &amp; Accessories</li> <li><input type="checkbox"/> VSL454-0-BF &amp; VSL 454-0-22-BF, designed for 10" Duct &amp; Accessories</li> <li><input type="checkbox"/> VSL460-0-BF &amp; VSL 460-0-22-BF, designed for 10" Duct &amp; Accessories</li> </ul> (\$ _____ )
<b>C</b>	<b>Fan Control Selection</b> <input type="checkbox"/> Variable-Speed Fan Control (\$ <u>No Charge</u> ) ALL Trade-Wind® liners include a factory installed variable-speed fan control on new BF models that are designed for use with ALL Trade-Wind® PSD in-line Blowers.
<b>D</b>	<b>Start Collar (Included)</b> All Trade-Wind® liners include a factory installed start collar pre-welded to the liner. (\$ <u>No Charge</u> )
<b>E</b>	<b>Damper Selection</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> DPR006, 6" butterfly damper with seal (\$ _____ )</li> <li><input type="checkbox"/> DPR008, 8" butterfly damper with seal (\$ _____ )</li> <li><input type="checkbox"/> DPR010, 10" butterfly damper with seal (\$ _____ )</li> </ul> The damper should be installed just above the perimeter of the heated space (the ceiling). This reduces the amount of cold or hot air traveling down the duct into the kitchen.

<b>F</b>	<b>Duct Fittings (Duct Configuration)</b> For best performance, duct pipe and fittings should be rigid metal and the same diameter as the duct pipe. Some installations may require small sections of metal flex duct. If possible, avoid “S” or back-to-back elbows. If multiple elbows must be used, work to place at least 24” between elbows. Duct fittings are typically supplied and installed by HVAC subcontractors.
<b>G</b>	<b>Distance Between Elbow and Duct Silencer (Duct Configuration)</b> To reduce turbulence and air-noise, the silencer should be installed at least twice the diameter of the duct from any elbow. - If using 8” duct, this length of duct should be at least 16”. - If using 10” duct, this length of duct should be at least 20”.
<b>H</b>	<b>Fast Clamps</b> <input type="checkbox"/> FC6, 6” Neoprene Lined Metal Clamp (\$ _____ ) <input type="checkbox"/> FC8, 8” Neoprene Lined Metal Clamp (\$ _____ ) <input type="checkbox"/> FC10, 10” Neoprene Lined Metal Clamp (\$ _____ ) The purpose of Fast Clamps is to reduce the motor vibration sound transmitted through the metal duct by replacing a small section of the duct with a section of vibration-absorbing Neoprene. Fast Clamps are sold in pairs and for best sound reduction, install one on each side of the blower or duct silencer. Attach the Fast Clamp to the blower with sheet-metal screws and tape. However, it is best to NOT screw the Fast Clamp to the duct pipe as this will create a continuous metal-to-metal contact. Also, for best sound reduction, the duct pipe should NOT touch the blower inlet collar inside of the Fast Clamp. This would also create metal-to-metal contact. If a duct silencer is included, it can be installed in the same manner.
<b>I</b>	<b>Duct Silencer</b> <input type="checkbox"/> PSS008, 8” Duct Silencer (\$ _____ ) <input type="checkbox"/> PSS010, 10” Duct Silencer (\$ _____ ) Duct silencers reduce the motor sound inside the duct by 65-80%! Although not required, if there is sufficient space, it is highly recommended that EVERY INSTALLATION include a duct silencer. For additional sound reduction, two silencers can be installed end-to-end. In installations requiring the blower be in a chase or wood-type hood over the range (e.g., no attic above the kitchen), the duct silencer will not be as effective in absorbing motor noise. In addition, there will likely be motor sound transmitted through the walls of the chase, bypassing the duct silencer. <i>Where possible—attic or remote installations are always recommended.</i> Duct silencers have no moving parts and can be attached with pipe strap to a structural support.
<b>J</b>	<b>Duct Length between Duct Silencer and Blower (Duct Configuration)</b> It is best to place the duct silencer within 2 - 4 feet of the blower for maximum noise reduction. For best sound reduction, do not fasten the silencer directly to inlet of the blower.
<b>K</b>	<b>In-Line Blower</b> (use only if roof or wall mounted remote blower is not used) <input type="checkbox"/> PSX006, 392 CFM, 6” Blower, Variable Speed Fan (will also need a 6” x 8” duct transition piece) (\$ _____ ) <input type="checkbox"/> PSD008, 836 CFM, 8” Blower, Variable Speed Fan (\$ _____ ) <input type="checkbox"/> PSD010, 1266 CFM, 10” Blower, Variable Speed Fan (\$ _____ ) <input type="checkbox"/> _____ (other UL listed model). (\$ _____ ) For best efficiency, the in-line blower should be installed near or slightly beyond the mid-point of the overall venting system. However, the further the in-line blower is installed from the liner, the quieter the installation will be. DO NOT attach the blower directly to the liner. If a 3-speed blower is used, the variable-speed control should be replaced with a 3-speed switch provided by others (Item C). Trade-Wind® variable-speed, in-line blowers are to be wired directly to the liner’s variable-speed fan control.  The in-line blower’s mounting brackets are designed for flexible and easy installation at any angle—horizontal, vertical or diagonal. The brackets should be bolted directly to a 2” x 4” type wood framing structure (e.g., an attic truss) or suspended by threaded rod or angle iron. The installation should be sufficient to support the blower’s weight.
<b>L</b>	<b>Roof or Wall Mounted Remote Blower</b> (include ONLY if in-line blower is not used) <input type="checkbox"/> _____ (Other UL listed brand) (\$ _____ ) If a 3-speed roof or wall-mounted blower is used, it is necessary to use a 3-speed fan control (Item C). <input type="checkbox"/> <b>Roof Cap or Wall Cap</b> (Supplied by others) Use an 8” or 10” roof or wall cap, if remote blower is not used. (\$ _____ )

These guidelines are the manufacturer’s suggestions. Always observe local municipal and state building codes. Trade-Wind Manufacturing, LLC® has a policy of continuous improvements and reserves the right to modify (at any time and without notice) any or all of its products, features, designs, components and specifications. *For exact dimensions, see the Installation Instructions included with each product.* Some features may be slightly different than shown on product literature.



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