

## ULTRA DUTY LINE VAC™ INSTALLATION & MAINTENANCE

### COMPRESSED AIR LINE SIZES

For Ultra Duty Line Vac Models 170125 use 1/4" pipe or 3/8" hose for runs up to 25' (7.6m) long. For runs up to 50' (15.2m), use 3/8" pipe or 1/2" hose and for runs over 50' (15.2m), use 1/2" pipe or larger. For Ultra Duty Line Vac Models 170150 – 170200 use 1/2" pipe or larger. Do not use restrictive fittings or undersized lines that can “starve” the Ultra Duty Line Vac by causing excessive line pressure drop.

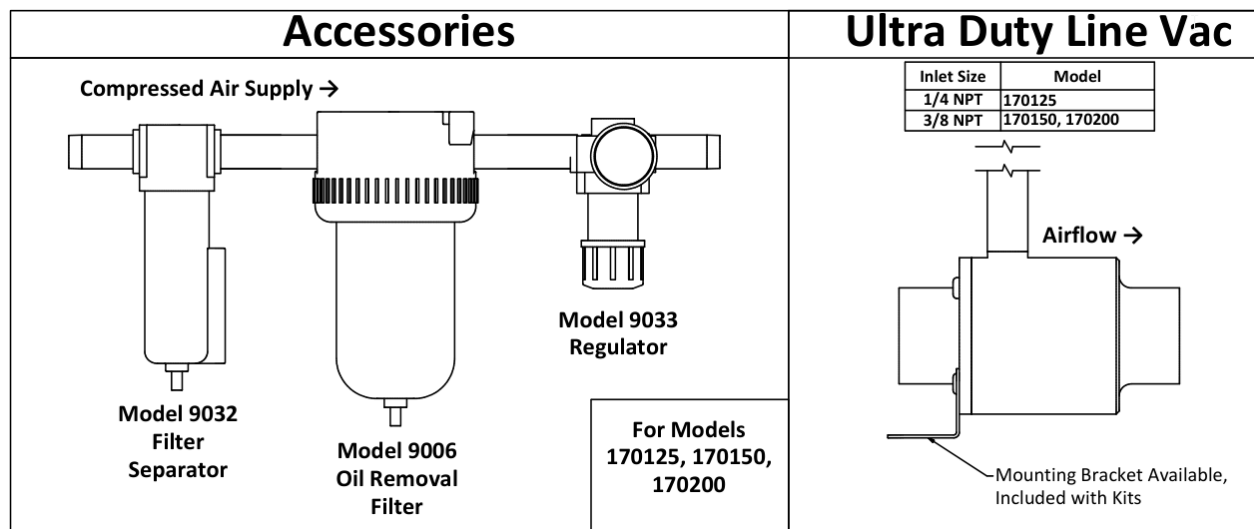
### COMPRESSED AIR SUPPLY

With proper filtration and separation of dirt, moisture and oil from the compressed air supply, the Ultra Duty Line Vac will operate for years with no maintenance required.

Use a 10 micron or smaller filter separator on the compressed air supply (Model 9032 Automatic Drain Filter Separator for Ultra Duty Models 170125 – 170200).

To prevent problems associated with oil, use an oil removal filter (Model 9006 Oil Removal Filter for Ultra Duty Models 170125 – 170200). The oil removal filter should be used downstream from the automatic drain filter separator. Filters should be used close to each Ultra Duty Line Vac, within 10' to 15' (3 to 4.6m) is best.

The Ultra Duty Line Vac is designed to use normal shop air supplies up to 100 PSIG (6.9 BAR, 689 kPa). For infinite control of flow (conveying speed), pressure may be regulated using Model 9033 Pressure Regulator for Ultra Duty Models 170125 – 170200. Maximum pressure is 250 PSIG (17.2 BAR, 1.72 MPa).



If air preparation units other than EXAIR models are being used, please note the following:

- **PRESSURE REGULATORS** – Must be pressure relieving and rated for a supply pressure of 250 PSIG (17.2 BAR, 1.72 MPa). Suggested operating pressure is 5-125 PSIG (0.3-8.6 BAR, 34-862 kPa). For models up to 2" (51mm), regulators must be rated for a minimum flow of 90 SCFM (2,549 SLPM).
- **AUTO DRAIN FILTER SEPARATORS** – Must be rated for a supply pressure of 250 PSIG (17.2 BAR, 1.72 MPa) and have 25-micron filtration. For models up to 2" (51mm), auto drain filters must be rated for a minimum flow of 90 SCFM (2,549 SLPM).
- **OIL REMOVAL FILTERS** – Must be rated for a supply pressure of 250 PSIG (17.2 BAR, 1.72 MPa) and have 0.03-micron filtration. For models up to 2" (51mm), oil removal filters must be rated for a minimum flow of 90 SCFM (2,549 SLPM).

## **USING ULTRA DUTY LINE VAC**

**WARNING: Handle with care. The Ultra Duty Line Vac contains a brittle ceramic insert that can be damaged if dropped or if heavy or sharp objects are conveyed through it.**

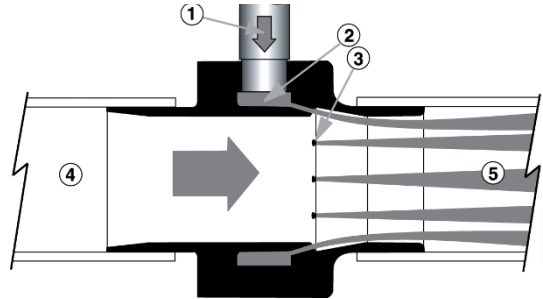
Mounting brackets are available for the Ultra Duty Line Vac (included with kits). In some cases, the Ultra Duty Line Vac will be supported by the compressed air supply pipe.

Ultra Duty Line Vac units are made in various sizes to be used with standard hose, tube or pipe (choose a material that resists wear). They perform best when mounted at the suction point, however, a hose, tube or pipe can be attached to either or both ends of the unit. The hose, tube or pipe should be straight when possible and bends minimized to reduce back pressure.

**WARNING: Do not use with any material that can create an explosive mixture.**

## **HOW THE ULTRA DUTY LINE VAC WORKS**

Compressed air flows through the inlet (1) into an annular plenum chamber (2). It is then injected into the throat through directed jets (3). These jets of air create a vacuum at the intake (4) which draws material in and accelerates it through the unit (5) at long vertical or horizontal distances.



## **ADJUSTING THE ULTRA DUTY LINE VAC**

The generators have a series of holes that exhaust compressed air to induce the vacuum flow for conveying material. These holes should never be drilled out. Performance has already been maximized. Conveying speed can be controlled with a pressure regulator.

## **TROUBLESHOOTING & MAINTENANCE**

**If there is a reduction in flow or vacuum from the Ultra Duty Line Vac**, check the pressure by installing a gauge at the compressed air inlet of the Ultra Duty Line Vac. Large pressure drops are possible due to undersized lines, restrictive fittings and clogged filter elements.

**For replacement or repair filter and regulator parts, contact EXAIR at 1-800-903-9247 or [techhelp@exair.com](mailto:techhelp@exair.com). Call (513) 671-3322 for outside the US and Canada.**

## **CLEANING**

**WARNING: When disassembling handle ceramic piece with care. Use only hand tools to disassemble and reassemble.**

If contaminants have clogged the Ultra Duty Line Vac, remove all screws to disassemble the unit. Inspect each part for dirt contamination and a possible oil film on the flow generator. Clean each part and reassemble. The Ultra Duty Line Vac consists of a body, a flow generator, ceramic insert, two O-rings and a cap that holds the flow generator in place. The screws that hold the assembly together are on the intake side of the unit. When reassembling, the small holes of the flow generator should point to the exhaust end.

Occasionally, there is a buildup which occurs in the throat of the Ultra Duty Line Vac as a result of vapors in the atmosphere or the material being conveyed. Clean the surface with a mild degreaser and a clean rag. To prevent contaminants from getting pushed back into the generator holes, perform this procedure with a small amount of compressed air passing through the Ultra Duty Line Vac.

If you have any questions or problems, please contact:

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