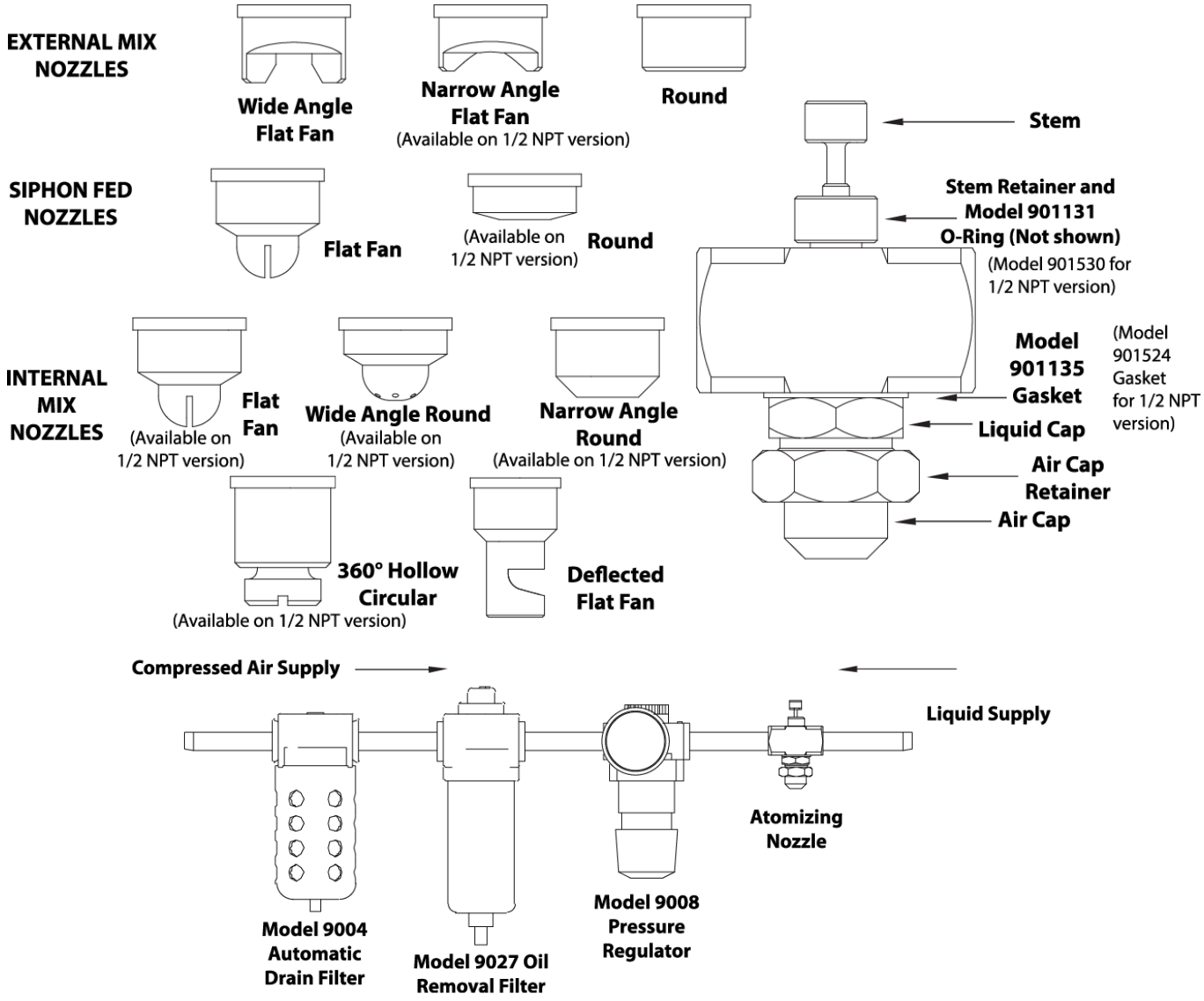
EXAIR® CE EXAIR TECHELP 1-800-903-9247

1/4 and 1/2 NPT AIR ATOMIZING NOZZLE INSTALLATION & MAINTENANCE



COMPRESSED AIR REQUIREMENTS AND SUPPLY

For all products covered in this literature, EXAIR recommends the compressed air supply include pressure relieving regulators, filter separators and oil removal filters rated for a pressure of at least 250 PSIG (17.2 BAR, 1.72 MPa). EXAIR recommends the following:

- Model 9008 (Model 9033 for ½ NPT version) Pressure Regulator or equivalent with operating pressure of 5 – 125 PSIG (0.3-8.6 BAR, 34-862 kPa) and minimum flow of 24 SCFM (680 SLPM) (100 SCFM (2,832 SLPM) for ½ NPT version).
- Model 9004 (Model 9032 for ½ NPT version) Automatic Drain Filter or equivalent with a minimum of 25 micron filtration and minimum flow of 24 SCFM (680 SLPM) (90 SCFM (2,549 SLPM) for ½ NPT version).
- Model 9027 (Model 9006 for ½ NPT version) Oil Removing Filter or equivalent with a minimum of 0.03 micron filtration and minimum flow of 24 SCFM (680 SLPM) (50-150 SCFM (1,416-4,248 SLPM) for ½ NPT version).

For all models, use 3/8" pipe or 1/2" hose for runs up to 25' (7.6m) long. For runs up to 50' (15.2m), use 1/2" pipe or 3/4" hose and for runs over 50' (15.2m), use 3/4" pipe or larger. Do not use restrictive fittings that can “starve” the Atomizing Nozzles by causing excessive line pressure drop, i.e. quick disconnects.

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LIQUID SUPPLY

For all products covered in this literature, EXAIR recommends the liquid be filtered with a #100 mesh or finer. As with the compressed air supply, quick connects, elbows and other potential pressure drops should be kept to a minimum. Maximum liquid pressure is 250 PSIG (17.2 BAR, 1.72 MPa). EXAIR liquid nozzles are not suitable for use with low flashpoint liquids.

USING ATOMIZING NOZZLES

In most cases, the Atomizing Nozzle can be supported by the compressed air and liquid supply pipes. Make sure that the force generated by the liquid and air coming out of the nozzle does not move it from the desired position. For rigid mounting, use Model 901318 (Mounting bracket for ¼ NPT version) or Model 901556 (Mounting bracket for the ½ NPT version). For models equipped with the adjustment valve, the stem can be used to adjust the flow of liquid through the nozzle from fully open to completely closed (no liquid flow). No drip and fixed nozzles cannot be adjusted.

Nozzles are shipped with the stem in the fully open position, about 3-4 turns out from completely closed. To reduce flow, turn the stem clockwise until desired flow is reached. DO NOT OVERTIGHTEN STEM. This will result in damage to the stem and the liquid cap. Note that as liquid flow is reduced, the pattern may get slightly larger at first, and then will diminish in size. Also, atomization will be increased, resulting in smaller droplet size.

SAFE OPERATING PRACTICES

The following is a safety checklist to encourage proper use of Atomizing Nozzles.

1. Inspect all of the components used in the compressed air and liquid supply systems to make sure that all connections (fittings) are tightened properly.
2. Inspect the Atomizing Nozzle to make sure there is nothing attached to the end that might become a flying projectile.
3. Inspect the stem to make sure it is threaded no more than 4 turns out from the closed position.
4. Always wear OSHA approved PPE, such as safety glasses with side shields, when working in close proximity of the spraying operation.
5. Always consider the direction you will be spraying to make sure any loose debris flies in a safe direction.
6. Always depressurize a compressed air or liquid supply line before attaching an Atomizing Nozzle. Repressurize the line once connected.
7. Never use compressed air or the Atomizing Nozzle to clean your clothing or dislodge particles. These particles can be embedded in your skin. High pressure air can also penetrate the skin and reach the bloodstream which can produce a serious or fatal injury.
8. Never engage in horseplay or point an Atomizing Nozzle at someone.

TROUBLESHOOTING & MAINTENANCE

If there is a reduction in flow or force from the Atomizing Nozzle, check the pressure by installing a gauge at the compressed air inlet of the Atomizing Nozzle. 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 techelp@exair.com. Call (513) 671-3322 for outside the US and Canada.

CLEANING

If contaminants have clogged the Atomizing Nozzle, inspect the unit by disassembling. Position body securely between the soft jaws of a vise. Use a wrench to unscrew the Air Cap Retainer (counter-clockwise) from the liquid cap. It may be necessary to use a backing wrench to prevent the liquid cap from unscrewing from the body. If the Air Cap is stuck on due to dried paint, etc. a soft jawed pair of pliers or gentle tapping from a rubber mallet on the air cap might be necessary. The Liquid Cap can then be removed using a wrench (counter-clockwise). If necessary, the Stem Retainer can be unscrewed (counter-clockwise) with the Stem in place. The Stem can then be unscrewed (counter-clockwise). Take care not to lose the o-ring.

Inspect each part for dirt contamination and a possible oil film in the area of the slotted nozzle. Clean each part and reassemble. Use a soft bristle brush or toothpick, never anything sharp or abrasive such as a paper clip or knife.

MOUNTING

Order Model 901318 (1/4 NPT Atomizing Nozzle Bracket) or Model 901556 (1/2 NPT Atomizing Nozzle Bracket) for rigid mounting.

If you have any questions or problems, please contact an EXAIR Application Engineer at:

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