HomeSeal Connect

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PRODUCT INTRODUCTION

1.1 PRODUCT OVERVIEW

The Aeroseal duct sealing system is based upon a patented process for injecting sealant particles into ducts to seal leaks. The patented aerosol injection machine aerosolizes the sealant, evaporates the water in the sealant, and pressurizes the duct system with air that carries the particles to the leaks.

In a properly prepared duct system, the only outlets for the aerosol-laden air are duct leaks. The sealant particles travel to the leaks, attach to the wall at the leaks and then to each other, thereby reducing the size of the duct leaks until they are sealed.

The HomeSeal machine utilizes a patented high-pressure small-angle nozzle with isolated compressed air heating.

1.1.1 PROPRIETARY INFORMATION

All information in this manual is proprietary and is designed to be used by the Dealer providing duct sealing services. Unauthorized release or use of the Technical Manual constitutes a violation of the sublicense agreement.

1.2 QUICK REFERENCE GUIDE

This Quick Reference Guide quickly identifies the steps to perform a residential seal. Please visit the Aeroseal Support Site for more information.

Quick Reference Guide

New to the work site? Use the Quick Reference Guide to set it up for the first time!

Day of the Job

- **Walk-thru** with homeowner and obtain permission to access all rooms for seal preparation.

Site Prep

- **Perform** a Pre-Sealing Combustion Air Zone Safety Test if necessary.
- **Turn off** HVAC system.
- **Stage** the equipment.
- **Cut** injection point.
- **Isolate** HVAC system.
- **Attach** layflat.

Seal Process

- **Set up** sealing equipment.
- **Connect** the laptop computer.
- **Perform 5Fs**: fog it, find it, feel it, fix it, finish it.

Clean Up and Departure

- **Clean** nozzle.
- **Remove** blocking and isolation materials.
- **Turn on** HVAC system and restore home to working order.

1.3 SAFETY

Table 1. Safety Symbols

	**DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
	**WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
	**WARNING** indicates a potential Electric hazard
	**NOTICE** indicates important information that if not followed, may cause damage to equipment.
	Personal protective equipment required: Gloves

Personal protective equipment required: Dust Masks

Personal protective equipment required: Respirator

1.3.1 HOMEOWNER SAFETY PRECAUTIONS

The Dealer is responsible for assuring the safety and well-being of the homeowner and the contents of their houses on all jobs. The dealer should:

- Keep homeowners away from areas where high sealant concentrations may exist.
- Ensure that pets, pregnant women, and people with breathing difficulties are not at home during the injection process.
- Use the provided scrubber fan to ventilate areas that may be exposed to escaping sealant spray.
- Cover homeowner property that might be exposed to high overspray concentrations like attics or basements.
- Keep homeowners away from work areas near ladders, in attics, or in tight workspaces.
- Prevent accidental sealant spills by using a tarp under equipment. If a spill occurs, clean up immediately using Buckeye cleaner or other equivalent solvent(s).
- Use a liquid-tight tarp under the aerosol injector to prevent liquid sealant spills onto finished floors. The tarp should extend at least 6 feet from the injector under the lay-flat tubing.
- Take care when removing the lay flat tubing from the injector to assure that any potential liquid sealant in the tubing or machine does not spill over to homeowner's floors.
- Maintain the equipment following the maintenance schedule.

1.3.2 TECHNICIAN SAFETY PRECAUTIONS

The safety of technicians while performing the sealing work should be always assured. Aeroseal recommends that proper respiratory protection should be worn at all times when in spaces with high aerosol concentrations (e.g. during the injection process in attics, basements or crawl spaces with significant duct leakage) and that technicians be provided with skin protection (gloves) for use with the solvent, and fiber masks or cartridge respirators with organic/particulate canisters for use in duct zones such as attics or basements. Additional recommended safety precautions include:

- Do not overreach when using tall ladders during the diagnostic or sealing process.
- Use only approved electrical connections for the injector machine, including GFCI pigtails if needed.
- Use scrubber fans to ventilate areas where sealant material may escape from leaky duct sections.

- Place walking boards across ceiling joists to prevent stepping through the ceiling when working in an attic.
- Wear protective glasses when removing register grilles.
- Wear liquid-tight gloves when using solvents.
- Wear respiratory protection when working in areas with sealant particles in the air.
- Sensitive individuals or individuals regularly submitted to high sealant particle concentrations should wear cartridge respirators with organic/particulate canisters.

1.3.3 SAFETY PROCEDURES

Operation of the Aeroseal equipment can be hazardous due to mechanical and electrical components. Only trained personnel should operate and service the equipment.

When working on the HSC 4.0, observe standard precautions, on tags, and labels attached or shipped with the equipment. Follow all safety instructions, local and national codes.


CAUTION: ELECTRICAL HAZARD

There are several safety features in the software and hardware to control the sealing process. In case of an emergency the operator should unplug all three power cords into the machine. These safety procedures include:

- The air heaters in the 14-inch diameter heater cylinder are wired through Snap-disk thermostats that cut power to the individual heater circuits if the temperature at the Snap disks reach approximately 93°C.
- The nozzle is fitted with a thermostat that cuts out at approximately 165°C.
- The software provides alarms and warning if the discharge temperature exceeds 65°C.

It is recommended that the operator:

- Do not open any electrical control panel or the heater cylinder while power is applied. Electric shock is possible.
- Use only grounded electrical circuits and cords.
- Use cords with Ground Fault Circuit Interrupters (GFCIs) pigtails.

THE SEALING MACHINE SHOULD NOT BE OPERATED IF THERE IS SEALANT MATERIAL ON THE HEATER-CYLINDER HEATERS OR INSULATORS