



# Prescriptive Duct Sealing [Español? Mira aquí.](#)

## QUALIFICATIONS

- This applies to repairing and sealing existing ductwork in Single-family homes and manufactured homes, heated with an electric forced air furnace and/or a heat pump.
- Prescriptive duct sealing shall be performed by a technician certified in prescriptive duct sealing or an approved alternative. [Prescriptive duct sealing program requirements](#), and technicians shall be listed as active in the [PTCS Online Registry](#).
- At least 30% of the supply ducts must be in unconditioned space unless there is a high-pressure leak within 15 feet of an air handler in an unconditioned space.
- The presence of insulation alone shall not be considered a barrier to accessibility unless the contractor suspects asbestos may be present. In this case, the contractor shall stop work immediately and notify the homeowner that the site requires professional assessment, and possibly remediation prior to duct sealing.
- Ducts must not have been previously sealed through the PTCS or BPA's Prescriptive Duct Sealing program unless a utility pre-inspection confirms additional duct sealing is required.

## Specification Checklist

[Download Checklist](#)

Your project might have unique requirements. [See the BPA Prescriptive Duct Sealing Specifications for additional details.](#)

- All accessible portions of the duct system shall be repaired and mechanically fastened where needed and properly supported.
  - Interior sections of ineffective or damaged ducts shall be repaired or replaced before duct sealing.
- All accessible portions of the duct which require sealing shall be exposed and sealed with approved materials. The following are examples of sealing opportunities: plenum; air-handler cabinet to plenum; plenum-to-takeoff connections; finger/dovetail joints; branch T's, Y's and L's; supply-and-return boots; duct-to-duct connections; gores on adjustable elbows; end caps.
- Large gaps in ducts should be repaired with sheet metal and sheet metal screws or mesh-reinforced tape and mastic.
  - All metal ducts shall be secured with at least three screws at each connection.
  - All flexible ducts connections to rigid ducts shall be tightly fastened at both inner and outer lining using a compression (Panduit or equivalent) strap tightened with a manufacturer-approved tensioning tool.
- Loose tape shall be removed from rigid metal ducts prior to sealing. Secured tape that remains must be completely covered with mastic, which shall extend at least 1/2 inch beyond the tape edge on either side and be at least 1/8 inch thick.
- Cloth-backed duct tape shall not be used to seal, secure or fasten ducts.
- All rigid duct joints shall be sealed with UL-181 listed mastic, applied per manufacturer specifications.

**Connect with the local serving utility to confirm pre- and post-condition requirements.**



**Pre-Condition:**

Unsealed and accessible ductwork.



### MINIMUM REQUIRED DOCUMENTATION

You can use the [Optional Weatherization Data Collection Form](#) to collect this information. Contact the serving [utility](#) for specifics on required documentation.

1. Invoice showing order or purchase date and cost.
2. [Prescriptive Duct Sealing Form](#).
3. If entered into the PTCS registry, the printed Registry Installation Report.

### PAIRS WELL WITH

- Duct Insulation.
- Home Insulation.
- Prescriptive Air Sealing.
- Air Source Heat Pump.

## Installation Examples



**Duct properly supported.**

*Courtesy of Advanced Energy*



**Duct is not properly supported.**

*Courtesy of Advanced Energy*



**Plenum sealed with water based, fiber embedded duct sealing mastic.**

*Courtesy of Advanced Energy*



**Unsealed duct plenum.**

*Courtesy of Advanced Energy*



**Flex duct is properly fastened to metal duct with mechanically tightened strap.**

*Courtesy of Advanced Energy*



**Flex duct is not mechanically fastened to metal duct.**

*Courtesy of Advanced Energy*