

Duct Sealing Worksheet

Maximum of one incentive per home



CUSTOMER INFORMATION

CUSTOMER NAME (as listed on Idaho Power Account)

For Idaho Power Use Only

ID #: _____

INSTALLATION INFORMATION

Date Services Were Performed

Existing Primary Heating System: ● Electric Resistance Forced Air Furnace ● Air Source Heat Pump ● Ground Source Heat Pump
● Open Loop Water Source Heat Pump

Existing Primary Cooling System: ● None ● Central Forced Air ● Evaporative Cooler Window Room Air Conditioner Heat Pump
● Other:

Ducting Qualifier: ● At least 30% of the ducts are located in unconditioned space and are accessible
● There are high pressure leaks in first 15 feet of plenum in unconditional space

Duct Repairs Performed: ■ No repairs Large gaps in sheet metal Rusted portions Missing sections

Metal Ducts Condition: ■ No metal ducts present ■ All metal ducts are secured with 3 sheet metal screws at each connection

Flex Ducts: ■ No flex ducts present ■ All flex ducts are secured to a matching rigid duct diameter
■ All liners are secured with tool tightened nylon straps and/or steel band clamps

Duct Supports: ■ Duct supports were added ■ Ducts do not require support

Ground Contact: ● Ducts do not touch ground ● Closed cell rigid insulation added under ducts where necessary to prevent contact with ground

Boots are fastened to floor? ● Yes ● No

All accessible portions of the ducts are sealed with approved methods/materials? ● Yes ● No

Return Ducts: ● Sealed ● In conditioned space and not sealed ● Were not accessible and not sealed

Duct Insulation: ● Existing duct insulation was re-installed Ducts were not insulated New insulation was installed

Are combustion appliances present in the home or attached structure (e.g., garage)? ● Yes No

Combustion Appliances Present: ■ Fireplace ■ Natural Gas Furnace Gas Water Heater ■ Gas Cook Top Propane Furnace
■ Wood Stove ■ Other:

Was There An Approved Working Carbon Monoxide (CO) Detector in the Home? ● Yes No (A CO detector was provided)

Sealing Methods/Materials Used: ■ Mastic ■ Spray Foam ■ Injected Vapor

DOCUMENT SUBMITTAL CHECKLIST

- Copy of Paid Invoice
- Incentive Application
- Duct Sealing Worksheet

CONTRACTOR INFORMATION

Company Name		Installer Name	
Mailing Address		City	State Zip
Contact Name		Title	
Phone	Fax	Email	

ACCEPTANCE OF TERMS

I hereby certify that all the information on this worksheet is accurate. Services have been performed to program requirements. I certify that we have complied with all the terms outlined in the Idaho Power Heating and Cooling Efficiency Program Contractor Participation Agreement.

Installer Name (Please Print)_____
Signature_____
Date

HEATING AND COOLING EFFICIENCY PROGRAM DUCT SEALING SPECIFICATION

Applicability

1. Qualified homes include existing single family site built, manufactured, duplex, triplex, and fourplex.
2. This specification outlines the requirements for prescriptive duct sealing
3. New or existing ducts for a central forced air heating system with or without cooling. Central forced air heating system can be either electric resistance or a heat pump.
4. A minimum of 30% of the ducts must be in unconditioned space and accessible. This requirement does not apply if there are high pressure leak(s) within the first 15 feet of trunk line in the unconditioned space.
5. For new duct systems in existing houses, the entire system is considered accessible.
6. Ducts in basements are considered to be in conditioned space. Vented crawl spaces, attics with only floor insulation, and unheated garages are considered unconditioned space.
7. The furnace to plenum connection is considered accessible.
8. Insulation alone is not a barrier to accessibility unless the contractor suspects asbestos is present. If asbestos is suspected to be present, the contractor shall stop work immediately and notify the homeowner to seek a professional assessment and remediation before duct sealing can be performed.
9. Ducts must not have been sealed previously through another Idaho Power program, unless it becomes evident that additional duct sealing is required.
10. All work must comply with all applicable codes.
11. Approved sealing methods/materials include mastic, spray foam and injected vapor. Materials must meet applicable UL-181 standards. Material must be applied consistent with manufacturer instructions.
12. Houses with unvented combustion space heating appliances are not qualified.

Duct Repair

1. All accessible portions of duct system shall be repaired where needed.
2. Rusted, crushed, disconnected and other inoperable sections shall be repaired or replaced before duct sealing is performed.
3. Large air gap leaks must be repaired with sheet metal and sheet metal screws, mastic and mesh-reinforcing tape, or spray foam.
4. Metal ducts shall be secured with a minimum of three equally distributed sheet metal screws.
5. Flexible ducts shall be secured to rigid duct of the same diameter including locations where two sections meet. The inner and outer liners shall be fastened using a compression strap and manufacturer-approved tensioning tool. Tape may remain as long as the compression strap can maintain a permanent connection.

DUCT SUPPORT

1. All accessible portions of duct requiring support shall be supported.
2. Supports shall be placed every 4 feet and within 3 feet of any connection to a hard duct. Straps are to be a minimum of 1.5 inches wide.
3. Ducts shall not contact the ground. If unavoidable, R-4 closed cell rigid insulation shall be placed between the duct and ground. Ducts shall not contact ground water.

Duct Sealing

1. Accessible ducts that require sealing shall be exposed and sealed with approved materials. Examples include; plenum, plenum-to-take-off connections, finger/dovetail joints, branch Ts, Ys, Ls, supply and return boots, duct-to-duct connections, gores on adjustable elbows, and end caps.
2. Remove loose tape from rigid ducts if using mastic or spray foam. Cover remaining tape with mastic or spray foam extending 1/2 inch beyond the edge of the tape on both sides. Mastic thickness shall be a minimum of 1/8 inch.
3. Non-flexible ducts, connections, and seams shall be sealed with approved methods / materials.
4. Take offs and crimped fitted joints shall be mechanically secured with sheet metal screws and sealed. Non-leaking type seams such as S drives are exempt from being sealed.
5. On the air handler, only foil or mastic HVAC tape labeled as meeting UL-181 standards may be used.
6. No cloth backed tape shall be used to seal, secure, or fasten ducts.
7. Boots shall be mechanically fastened to the subfloor and properly sealed.
8. Flexible ducts shall have both inner and outer liners secured and air sealed using nylon straps and tightened with a manufacturer-approved tensioning tool. Steel band clamps with worm drive tension adjusters are acceptable.
9. The return should be sealed if accessible and in unconditioned space.
10. End caps must be made of sheet metal or a UL-181 approved rigid product

Insulation

1. When insulation is removed, the insulation shall be re-installed and securely attached to the duct system.

Combustion Appliance Requirement

(Does Not Apply If No Combustion Appliance Is Present)

1. Whenever there is a combustion appliance present in the house, garage, or other attached space, a UL listed C-UL listed, or equivalent carbon monoxide alarm shall be installed. Combustion appliance examples include but are not limited to: supplemental space heaters, water heaters, cook stoves, fireplaces, and pellet stoves. Fuel sources include but are not limited to: split wood, natural gas, propane, oil, wood pellets, etc.
2. A Combustion Area Zone (CAZ) test must be performed after duct sealing. Test to the Building Performance Institute (BPI) standard. Worst Case Depressurization (WCD) must not de-pressurize (make more negative) a CAZ by more than 3 Pascal (Pa) with reference to the outside. Results and remediation (if needed) to be discussed with homeowner