



RETROFIT APPLICATION GUIDE

VENTED ATTICS

The following are suggestions for best practices from various sources. Each Company is responsible for its own individual Safety, HCP and PPE programs. Always follow all fire and building codes and equipment manufacturer's manuals, labels, and listings.

OBJECTIVE

To air seal and add insulation to a conventional vented attic.

This application particularly benefits:

- Homes without adequate insulation and air-sealing.
- Homes without extensive ductwork / HVAC equipment in the attic space.

Huntsman Building Solutions' (HBS) spray polyurethane foam (SPF) has been used in vented attic assemblies for over 40 years. These systems continue to perform very well and generate substantial energy savings. For best results and consideration of specific issues with respect to your building, it is recommended that you consult a trained BPI or RESNET rater before and after the retrofit.

AutoCAD drawings for these assemblies are attached. If there are any questions regarding the retrofit application, please contact the Huntsman Building Solutions Building Science/Engineering Department.

Set Customer's Expectation Early

Vacate occupants and pets during and after application according to Product Specific Re-Occupancy times. These guidelines require specific ventilation rates (air changes per hour) for a minimum time after the completed application, before the building can be safely reoccupied. The guidelines can be found on the HBS website.

Before beginning, discuss the project with the homeowner including all health and safety considerations (see below for guidelines). Instruct the homeowner to remove all portable personal belongings from the work area. Verify that there are no moisture problems in the space. If in doubt have the area reviewed by a Professional Engineer.

Removal of Existing Insulation

HBS spray foam insulation shall be spray applied directly to the attic floor/ceiling (e.g., drywall) and in direct contact with framing materials. HBS spray foam should not be applied over existing insulation materials.

To Ensure a Proper Air Seal

SPF is not only insulating the building envelope but is air sealing the structure as well. Existing insulation on the floor of the attic can impede achieving a proper air seal across the entire floor area.

STEP-BY-STEP GUIDELINES for the Huntsman Building Solutions Contractor

1. Prior to removal of existing insulation, ensure all workers are wearing proper PPE as set up by your company's Safety and PPE Guidelines.
2. Existing insulation must be removed from the floor of the attic before spray foam is applied. The area can be vacuumed or, if contaminated/hazardous, cleaned using method(s) specified by an occupational hygienist.
3. Make sure all exhaust fans are ducted to the outside of the area to be sealed with spray foam.
4. Care should be taken not to block the vents at the perimeter of the attic. Install new attic baffles slightly beyond eave / wall plate to ensure spray foam creates a proper seal while allowing proper air flow through eave vent.
5. Can Lights, exhaust fan housings need to be protected to allow a 3" air space between the foam insulation and can light and exhaust fan housings.
6. Place tarps or polyethylene on floors leading to the work area. Remember to consider the area the spray rig is going to be located (Spill Hazard). Seal any openings to separate the work area from the rest of the building. Typical methods could include taping polyethylene tarps over the openings with overlapping flaps that permit access by laborers.
7. Place warning signs on the attic access door (hatch), restricting entry to the attic space to workers wearing the prescribed full PPE. At a minimum, warning signage should state: "CAUTION: Spray foam is being applied, personal protective equipment required, otherwise do not enter – No Smoking – No Eating").
8. Shut down and seal off HVAC openings in the work area to prevent migration of contaminants to other areas of the building. Don't forget to unseal and restart the HVAC system prior to re-occupancy after the SPF has fully cured and the work area has been ventilated according to the products specific ventilation rates.
9. Place a suitably sized exhaust fan capable of providing required Air Changes per Hour from the work area, such that it vents directly to the exterior away from the building and begin exhausting air from the space.
10. Ensure Sprayer and Helper are wearing full Personal Protective Equipment (PPE) including a Supply-Air Respirator (SAR) with full-face protection (hood or full- facepiece type) and chemically resistant gloves and full-body protection to prevent skin contact as directed by the company's Safety and Hazard Communication Program.
11. After testing spray equipment outside the building, bring hose and gun into the work area by a direct route.
12. Apply spray foam as required (as per contract) to:
 - Provide specified thickness to attic floor.
 - Provide insulation to ensure continuous contact to the top plate of exterior walls for continuity of the air barrier.
 - Seal rough openings around attic access door (hatch) and other penetrations. Use kit foam if required.
13. Apply Ignition Barrier/ Thermal Barrier coating on areas required by Code.
14. Clean up any debris in the work area and remove surplus material and all spray equipment (guns, hoses, coating sprayers etc.) while wearing PPE.

NOTES:

Refer to product specific code compliance reports for thermal barrier, ignition barrier and exposed film requirements

For additional information contact the HBS building science / engineering department.

