



Energy Star®-Labeled Modular Homes

Energy Star®, the nationally recognized, voluntary labeling program to identify and promote energy efficient products, was initiated by the U.S. Environmental Protection Agency (EPA) in 1992. While it is now a joint effort of EPA and the U.S. Department of Energy, with each agency taking responsibility for promoting the Energy Star® label in particular product categories, the EPA is responsible for administering Energy Star®-labeled homes.

As stated in *ENERGY STAR® for Homes: Guide for Modular Home Manufacturers* that appears on EPA's web site, www.energystar.gov/homes, "All Energy Star® homes are third-party verified to use at least 30% less energy than a comparable home built to the Model Energy Code (MEC)". This increased level of energy efficiency can be met by integrating the following three components into the manufacturer's specifications:



Fleetwood worker builds a duct to the Energy Star® standard to assure air tightness in the air distribution system.

- (1) Energy efficient building envelope (effective insulation, tight construction, advanced windows).
- (2) Energy efficient air distribution (tight, well-insulated ducts).
- (3) Energy efficient equipment (heating, cooling and hot water).

The manufacturer makes the necessary modifications to the plant in order to produce homes that meet the above Energy Star® requirements before beginning production of Energy Star-ready homes.

All Energy Star®-ready homes must be verified by a third party. Third party verifiers can be either a HERS (Home Energy Rater System) rater or a BOP (Building Options Packages) provider. **PFS IPIA Coordinator, Karl Heilig, is a certified Home Energy Rater Systems (HERS) rater for modular buildings. For information about HERS inspections, call Dick Reinhard at 608.224.5528, or e-mail dreinhard@pfscorporation.com.**

Look for verification of Energy Star®-readiness of the modular home by checking the PFS data plate that is located inside the door of the kitchen sink cabinet.

Plant Quality Assurance Procedures Extend to the Final Product

Multiple energy measures must be accomplished in the field and verified by third party inspection to qualify the home for an Energy Star® label and the ensuing marketing advantages. Modular producers are well advised to be sure their builders are properly trained to complete field installation and verification responsibilities.

Set Details

- (1) Modular units must be sealed to the foundation using foam gaskets and/or sealant.
- (2) Modular units must be sealed to each other. It is preferred that factory installed gaskets and foam sealant are used.

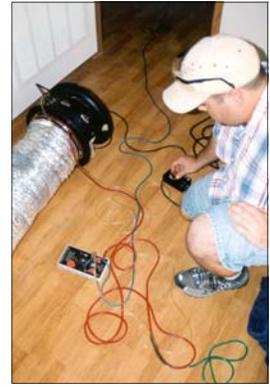
Finish Details

- (1) Foundation insulation (either slab perimeter, crawl or basement walls or ceiling)
- (2) Heating plant required AFUE furnace or boiler, or HSPF heat pump)
- (3) Air conditioning (required SEER)
- (4) Water heater (required Energy Factor)
- (5) Duct sealing and insulation where outside conditioned space (required R-value or tightness).

Field inspection and testing (for air infiltration and duct leakage) are normally required to complete Energy Star® verification. Completed BOP checklists or HERS ratings are needed to document the installation of all energy measures.



Tim Smiley, conducts a blower door test to measure whole home air leakage rate.



Tim Smiley Fleetwood QC, conducts a duct tightness test to check conformance to the Energy Star® standard.

Once field inspection is successfully completed, an Energy Star® label is applied on either the electrical panel and/or next to the manufacturer's label inside the door of the kitchen sink cabinet.

BOP inspectors or the HERS raters are responsible to report these homes back to the EPA so manufacturers and builders get credit for their accomplishments on EPA's web site www.energystar.gov/homes.

For more detailed information regarding Energy Star® labeling for modular homes, visit the EPA web site and download their *Guide for Modular Home Manufacturers*.

For further information on PFS Energy Star® services and HERS inspections, call Dick Reinhard at 608.224.5528 or email dreinhard@pfscorporation.com.

*By Kathleen Blair
Vice President of Administration*

PFS Corporation is a third party evaluation and certification agency that consults with the wood-related construction industry in achieving greater quality and safety. PFS evaluates and certifies a broad range of products and structures, including all types of industrialized building systems, engineered wood products, and wood components.

Assurance You Can Build On®