“The ACCEL-E panels turned out to be fantastic for us. We could not believe how quick and easy the installation went. ACCEL-E gives us a tremendous insulation material and we saved a lot of money in labor.”

Doug Campbell
Executive Director, StartingGate

**PROJECT PROFILE**

“StartingGate is in the business of helping businesses,” says Doug Campbell, the executive director for a business incubator in Beaver Falls, PA. StartingGate provides start-ups with small business technical assistance programs, as well as a physical space to launch their new venture. The organization assists entrepreneurs, new business start-ups, and existing businesses looking to expand.

Campbell, who has been with the organization since 2005, says he realized several years ago that more space was needed to meet the growing demand. Initially, StartingGate was helping 11 companies in a 30,000-square-foot building. The new facility, called StartingGate Proving Grounds, accommodates 15-20 companies by more than doubling the facility size to 74,000 square feet.

In addition, each tenant suite can be tailored for individual use and can range in size from a single 360 square foot office to a 10,000 square foot suite for manufacturing, research, assembly, laboratory space, or other uses.

The challenge for StartingGate was to build a new structure on a tight budget and with high-performance materials, especially those that achieved energy efficiency to keep costs low. The design/build team – DRS Architects of Pittsburgh and Rycon Construction, Inc. of Beaver Falls – were asked to produce a building with LEED® energy efficiency standards in mind. That’s where the SYNTHEON® ACCEL-E® Steel Thermal Efficient Panel wall system comes in.

**SYNTHEON SOLUTION**

ACCEL-E provided the solution for both the design objectives and cost considerations, and were specified as part of the building envelope for the entire new structure.

“The ACCEL-E panels turned out to be fantastic for us,” says Campbell. “We could not believe how quick and easy the installation went. ACCEL-E gives us a tremendous insulation material and we saved a lot of money in labor. That was a big draw.”

**PROJECT FACTS**

- **SIZE:** 74,000 square feet
- **PURPOSE:** Office, manufacturing, assembly, laboratory, kitchen, and conference spaces
- **MAXIMUM WALL HEIGHT:** 12 feet
- **PANEL DEPTH:** 8 inches
- **WALL TYPE:** Non-load bearing exterior
- **OWNER:** StartingGate Proving Grounds
- **ARCHITECT:** DRS Architects
- **CONTRACTOR:** Rycon Construction, Inc.

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EASY INSTALLATION BACKED BY MANUFACTURER SUPPORT

“The folks from SYNTHEON were a huge help. They jumped in feet first, integrating themselves into the project right from the start.”

HIGH PERFORMANCE EQUALS LOW ENERGY COSTS

ACCEL-E overcomes many common causes of poor energy efficiency by fusing specially designed steel studs and expanded polystyrene (EPS) insulation together into a single continuous panel system. This eliminates air gaps and irregularities that can greatly diminish the performance of conventional framing and insulation.

Slots in the framing members allow insulation to adhere through the steel, which further reduces thermal bridging and heat transference, blocks air intrusion, and adds thermal resistance. As a result, the ACCEL-E panels offer tested insulating values that far surpass traditional framing, sheathing and batt wall assemblies. For its recycled content, minimized waste, and energy performance, ACCEL-E contributes points to as many as four LEED categories.

“The ACCEL-E wall system provides us with an effective R-factor of 17,” Campbell says. “Our tenants consider energy management crucial to their success. We needed a building that keeps energy costs low, which contributes to greater control of production standards, especially for manufacturers.”

Replacing conventional framing, sheathing and insulation with the ACCEL-E wall system streamlines the construction process and reduces labor and onsite disposal costs. Window and door openings are pre-cut, and the open cavity simplifies the installation of electrical, plumbing and mechanical systems.

“The ACCEL-E wall system requires a short learning curve for the installers,” Campbell says. “They picked it up really fast, and the folks from SYNTHEON were a huge help. They jumped in feet first, integrating themselves into the project right from the start.”

PRODUCT PROFILE

The SYNTHEON ACCEL-E Steel Thermal Efficient Panel is a lightweight, easy-to-install, high performance wall system that shortens construction time, optimizes crew use, greatly improves energy efficiency – and does it all in just one step. The secret behind the exceptional construction efficiency of ACCEL-E is an exclusive manufacturing process that combines the strength and performance of cold-formed steel framing with the superior insulation properties of expanded polystyrene (EPS). This unique fusion process provides each panel with the highest levels of engineered performance, yet delivers thermal efficiency so exceptional it exceeds new ASHRAE 2007 90.1 and IECC 2009 requirements for the building envelope. Plus, the materials used in the panels resist mold and mildew. No other wall system combines framing, cavity insulation and continuous rigid foam insulation in such an easy, one-step installation process.

The ACCEL-E panels are produced in thicknesses of 5-1/2, 6 and 8 inches, and can be manufactured in virtually any height, limited only by the mode of transport.