

# Midvag Kindergarten

The Faroe Islands, located between Iceland and Norway in the North Atlantic, experience some of the world's most severe weather conditions. High winds, low temperatures, and abundant rainfall mean most buildings experience shortened lifespans and high energy costs.

To avoid these problems, the municipality of Vaga was going to build their new elementary school from

concrete. Hans Magnussen of Dalsbo Builders won the job at about the same time he became a qualified Quad-Lock ICF installer. Enthusiastic about the advantages offered by ICFs, Magnussen convinced the decision makers to take a serious look at switching. After hosting the architect and municipal officers on a "see-and-feel trip" to Ireland to experience ICF construction first-hand, they were convinced.

The architect's vision was to design a child-friendly complex that would be functional, blend into the surroundings, and respect the local architectural style. The result: a stylized turtle-shaped complex where five classroom buildings with single-pitch roofs form the sides of the turtle's "shell" and create a wind-protected play-



From left: George Kustermann – Quad-Lock Building Systems, Jakup a Stongum – WestTech, Hans Magnussen – Dalsbo, Poul Arni Jacobsen – WestTech, and Torfinn Johansen – Kubbi qb.

ground/courtyard within.

It is a complex design, especially considering that Magnussen's team was new to ICF construction. Many walls mer at 130 and 115 degree angles, including a few that rise to 38 feet.

Quad-Lock's unique panel ICF system was perfect for the design. Complexities created by odd angles and hexagonal buildings were easily addressed, since the Quad-

Lock system does not require specialized components. Panels and ties were shipped unassembled, which saved significantly on the cost of getting the forms to the isolated location. Finally, the manufacturer offers a four-inch thick outer panel, which ensured exceptional energy performance.

The crew from Dalsbo did an exceptional job with the installation. Work slowed when a series of late fall storms pounded the jobsite with winds in excess of 70 mph. Fortunately, the unpoured walls survived unscathed, secured with turnbuckle bracing and the weight of the rebar.

Karen Bunz, customer care manager at Quad-Lock says, "This highly successful and extensively publicized project has been the 'ignition point' for ICF sales in the region. The project has been a 100% success, on budget, on-time, and architecturally sympathetic to the region."

Torfinn Johansen, the Danish distributor that provided the ICFs, is similarly positive. "All the people involved—architect, administration, superintendent of the kindergarten, etc.—are very pleased with the completed project and the inherent advantages of ICF construction," he reports. "The mayor, Mr. Albert Ellefsen, claims this may be the best kindergarten in the world."







## **Project Statistics**

- · Location: Midvag, Faroe Islands
- + Type: Educational-Kindergarten, Public
- · Cost: \$4.9 million
- Size: 19,400 sq. ft. (floor)
- + ICF Use: 22,100 sq. ft. (all exterior walls)

#### **Project Timeline:**

- · Total Construction: 540 days
- + ICF Start-to-Finish Time: 37 days

## **Construction Team**

- · Owner: Municipality of Vaga
- + Architect/Engineer: Westtech SpF
- · ICF Installer: Dalsbo SpF
- · ICF Distributor: Kubbi qb
- · ICF System: Quad-Lock ICF/Bracing by Monobrace

#### **Fast Facts**

- Remote location; jobsite located halfway between Norway and Iceland
- ICFs chosen to resist some of the world's worst weather conditions
- · Unpoured walls survived 70 mph winds unscathed
- 130 and 115 degree angles throughout, including walls to 38 feet tall.
- 4" outer panel ensures exceptional energy performance
- High-profile job received "extensive, enthusiastic" coverage from print and broadcast media

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