

PROFILE

SUMMER
2006

Newsmaker: DURAGRID®

Strongwell's Pultruded Grating Assists a Florida Marina



Strongwell's DURAGRID® T-1700 pultruded grating was recently used to replace wood planks on a large walkway at Dinner Key Marina in Miami, Florida. The wood planks were frequently damaged during large storms and were susceptible to rotting caused by the corrosive salt-water environment.

Dinner Key Marina operators found the corrosion, rot and mildew resistant DURAGRID® pultruded grating to be an ideal replacement for the wood planks. The grating allows for easy accessibility to utilities below the walkway because the lightweight panels can be easily removed for maintenance. The grating also preserves the aesthetic beauty of the surrounding area. The greatest appeal of the T-

1700 grating with 2" T-bars, however, was that spans the wide walkway while maintaining enough stiffness to feel solid to those walking on it.

DURAGRID® pultruded grating brought numerous other advantages to the customer as well. The grating is easy to install and maintain; low in thermal and electrical conductivity; aesthetically pleasing; and available in custom colors.



Rotting wooden planks were a problem at Dinner Key Marina before Strongwell's DURAGRID® pultruded grating was installed.

The Dinner Key Marina installation is just one example of the many applications for pultruded products in the marina and dock industry. Pultruded FRP composites offer an attractive, low-maintenance, durable and increasingly cost-competitive alternative to steel, wood and aluminum, especially in corrosive marine and freshwater environments.

INSIDE:

- DURADEK® makes a splash at Waterpark of America
- DURASHIELD HC™ panel introduced
- Strongwell receives McNichols Platinum Quality Award
- GRIDFORM™ bridge deck system saves time, money
- Floating office is a unique application for COMPOSOLITE® building panel system
- Strongwell people
- New Application Profiles now available

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STRONGWELL

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Case History: DURADEK®

DURADEK® Pultruded Grating Makes a Splash at Waterpark of America

The Waterpark of America in Bloomington, Minnesota, was recently outfitted with Strongwell's pultruded fiberglass grating, stair treads, and stair tread risers.

The new waterpark features a number of platforms and stair towers that are constantly exposed to chlorinated water, so the use of a corrosion resistant material was a must in order to maintain an attractive appearance and reduce maintenance. Strongwell's pultruded fiberglass products met the waterpark's needs perfectly.

Strongwell's DURADEK® pultruded fiberglass grating and stair treads were selected by waterpark's owner based upon experience using the materials in a previous application. DURADEK® I-4000 1-1/2" pultruded grating was installed to serve as flooring on several platforms and 5' wide DURADEK® stair treads were used on staircases throughout the waterpark. EXTREN® 3/16" thick fiberglass plate was also used on the staircases to close the risers.



In addition to corrosion resistance, Strongwell's materials provided much-needed skid resistance. The grating and stair treads feature a fine grit surface that provides a safe, skid resistant walking surface in wet conditions. The open construction of the grating and stair treads also allows water to drain through, eliminating pools of standing water on the walking surfaces.

"The waterpark environment is highly corrosive and metal just would not have worked," said Troy Fountain of ESG Architectural, the Minneapolis-based architectural firm in charge of the waterpark's design. "It was the right solution to use the open fiberglass grating and stair treads." ●

Strongwell Receives McNichols 2005 Platinum Quality Award



Keith Liskey, Strongwell's Executive Vice President & COO, receives the 2005 Platinum Quality Award from Herb Goetschius, the President and COO for McNichols Company.

McNichols Company has named Strongwell as the recipient of its Platinum Quality Award for 2005. The award is given to the supplier that has achieved the highest annual total score on semi-annual supplier scorecards and has not received any Supplier Corrective Action Requests.

According to Scott Hughes, the Vice President of Purchasing for McNichols, the Platinum award is the highest honor given by McNichols to its suppliers in recognition of outstanding service to the company.

McNichols Company supplies perforated and expanded metal, wire cloth, fiberglass and other types of grating and flooring to customers worldwide. ●

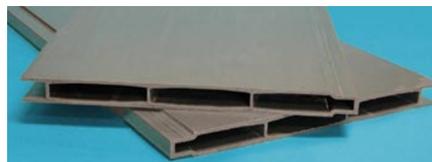
Newsmaker:

DURASHIELD HC™ Introduced

Strongwell is pleased to introduce DURASHIELD HC™ as the newest member of its broad line of problem-solving fiberglass products.

DURASHIELD HC™ is a hollow core pultruded fiberglass panel that features a simple tongue-and-groove construction. The panel is:

- Lightweight
- Easy to install
- Corrosion resistant
- Low in conductivity
- Strong
- Flame retardant
- Transparent to electromagnetic emissions



Typical applications for the DURASHIELD HC™ panel include:

- Cladding
- Cellular screening
- Enclosures
- Covers
- Buildings
- Roofs

Product literature is being developed for DURASHIELD HC™ and will be available soon. If you would like to receive a copy when it becomes available, please email the Strongwell Media Center at mediacenter@strongwell.com or call (276) 645-8094. ●

Case History: GRIDFORM™

New Bridge Deck System Saves Time, Money

GRIDFORM™, an innovative new bridge deck system manufactured by Strongwell, was an integral part of the recent construction of a new bridge in on Farm Road 148 in Springfield, Missouri. Using the GRIDFORM™ system, the bridge deck took only five days to complete as opposed to the two to three weeks normally required for similar steel reinforced decks.

The GRIDFORM™ system, which is designed to replace steel rebar in reinforced concrete bridge decks, is composed of a double layer of pultruded fiberglass grating separated by FRP shear connectors with nylon bolts. The prefabricated system serves as a stay-in-place concrete form.

GRIDFORM™ solves many of the installation and life cycle headaches associated with steel reinforced bridge decks. The lightweight, high strength system eliminates time-consuming and labor-intensive steps such as setting forms and tying rebars. These savings allowed the Springfield bridge deck to be completed in a fraction of the normal

construction time—a critical consideration in areas where traffic disruption is a concern.

Installation of the GRIDFORM™ system is greatly facilitated by the lightweight nature of the panels. Large panels can be lifted with a single pick of a crane. This advantage reduced the construction time for the Springfield bridge by more than 70%. Quicker installation of the panels lead to a much faster rate of placement for the concrete as well, so additional time and labor savings were further realized. Contractors estimate that with the reduced need for manpower and the speed of installation, deck construction labor costs were reduced by more than 75% when compared to steel reinforced decks of similar size.

Another primary advantage of GRIDFORM™ is its resistance to corrosion. Unlike steel rebar, FRP rebar does not corrode when exposed to deicing salts and other corrosive road chemicals.



The noncorrosive FRP will reduce the need for bridge maintenance and will greatly extend the life of the bridge deck.

The GRIDFORM™ system was developed in partnership with professors at the University of Missouri - Rolla and the University of Wisconsin. Last fall the system was named runner-up for the prestigious Charles Pankow Award, which recognizes organizations working collaboratively to bring innovative civil engineering ideas into practice.

For more information about the Springfield installation, check out the August 2006 edition of *Composites Manufacturing* magazine, which contains a feature article on the installation. ●

Case History: COMPOSOLITE® and EXTREN®

Floating Office is One-of-a-Kind

A floating office constructed using Strongwell's COMPOSOLITE® building panel system and EXTREN® structural shapes is a unique sight on the San Francisco Bay. The structure was completely designed and built by businessman Peter Hogg as an alternative to a houseboat, which would face restrictions in the Bay area.

The floating office uses COMPOSOLITE® building panels for the floor, walls and roof. Hogg used EXTREN® angles and channels to finish the corners and tops of the walls. Two EXTREN® I-beams were also used under the floor to minimize deflection.

Additional features of the floating office include window sills that were created by filling the hollow areas of the



COMPOSOLITE® panels with sand below the window line. As an added benefit, the structure needs no buoyancy other than that created by the displacement of the lightweight COMPOSOLITE® hull.

An environmentally-friendly sod roof further adds to the interest of this building.

Hogg chose to use Strongwell's pultruded fiberglass products because the materials were less expensive than building a steel or concrete barge and a conventionally-framed superstructure. The FRP materials were also easy to assemble and Hogg was able to do all the work himself. Additionally, the unfinished slate gray appearance met aesthetic requirements will require minimal maintenance as no exterior paint or marine bottom paint was needed.

"I am very happy with the result," says Hogg. "This project has generated significant local interest from persons who are interested in similar structures." ●

Strongwell People

Terry Smith Technical Sales Manager

Terry Smith has been promoted to Technical Sales Manager for Strongwell - Bristol Division. Terry has been with Strongwell for 12 years and formerly served as a Purchasing Agent.

Terry's new responsibilities now include providing quotes for custom shapes and general technical assistance to customers.

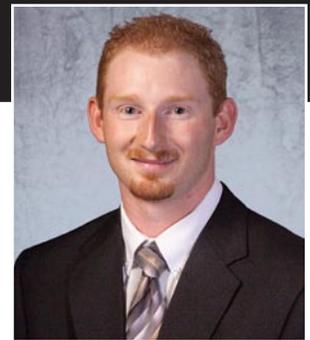
Terry holds a Bachelor of Science in Management and attended both Virginia Tech and East Tennessee State University. He resides in Bristol, Virginia with his wife, Brenda. ●



Chris Green Process Engineer

Chris Green has accepted the position of Process Engineer for Strongwell - Bristol Division. His primary responsibilities include designing the composite makeup and machinery for the pultrusion process, ensuring the proper materials are used and planning for the best product production possible.

Chris came to Strongwell after graduating from Tennessee Technological University with a Bachelor of Science degree in Chemical Engineering. He resides in Greeneville, Tennessee. ●



Jose Nevarez Media Center Administrator

Jose Nevarez has been promoted to the position of Media Center Administrator. Jose most recently served as Strongwell's Media Center Clerk.

Jose's is responsible for the smooth, efficient operation of Strongwell's Media Center. Specific duties include maintaining the inventory of Strongwell's literature, fulfilling literature requests, and processing leads.

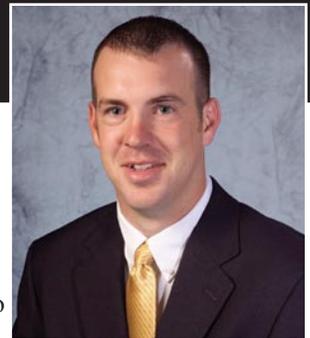
Jose resides in Johnson City, Tennessee, with his wife, Melinda, and two children, Jazmin and Jose Luis. ●



Josh McCroskey Process Engineer

Strongwell welcomes Josh McCroskey as its newest Process Engineer. Josh is responsible for ensuring optimum production methods, troubleshooting mechanical issues and designing pultrusion equipment necessary to produce quality products.

Josh is a graduate of Virginia Commonwealth University. He also worked as an intern at Covalence Coated Products, where he was responsible for technical drawings, continuous plant improvements and implementing production programs. Josh will wed his fiance, Jennifer, October 21, 2006. ●



Lora Hastings Customer Account Specialist

Strongwell welcomes Lora Hastings as the new Customer Account Specialist.

As a Customer Account Specialist, Lora is responsible for positively interacting with customers on a daily basis regarding orders, new products and applications. She also enhances customer relationships by providing excellent service, proactive solutions and efficient account management.

Lora comes to Strongwell from Lopez and Associates, LLC, where she held the position of the Marketing Director. She resides in Marion, Virginia. ●



Literature Update

New Application Profiles

Four new Application Profiles illustrating a range of uses for Strongwell's products are now available through the Media Center. Each Profile includes a photograph of a specific application, a description of the project and supporting technical data. The new Application Profiles are:

- #562 *Oil Containment System*
- #563 *WWTP Structural Components*
- #701 *St. Louis Metro Fencing System*
- #702 *National Park Stair Tread Covers*

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