

Quality Assurance is Focus of AWI Certification Program



By Tom Hoffert
Technical Development
Manager

Participation in the Architectural Woodwork Institute (AWI) Quality Certification Program (QCP) is evidence that a manufacturer meets or exceeds industry standards based on an impartial, third party assessment by a national network of industry experts.

'THE QCP IS A VALUABLE QUALITY ASSURANCE TOOL THAT BENEFITS BOTH DESIGN PROFESSIONALS AND OWNERS.'

— AWI

In order to earn certification credentials, manufacturers must demonstrate comprehensive knowledge of the *Architectural Woodwork Quality Standards Illustrated (QSI)*, which has been an authoritative reference for architects and design professionals since 1961. Letters of reference and plant inspections by QCP representatives confirm whether the manufacturer's work is compliant with the *QSI*.

RIGOROUS TESTING

Achieving "Certified Participant" status requires completing a 150-question open-book written exam to demonstrate an understanding of the eighth edition of the *QSI* book published by AWI. Typical test questions specifically related to architectural wood doors and factory finishing are:

- What is the minimum thickness for the vertical edge of an SLC-5 wood passage door?
- How is warp in a 1-3/4" thick architectural flush door defined and tested?
- When is show-through or telegraphing in a passage door face a defect?

- What is the minimum thickness for flat panels in a 1-3/4" Economy Grade stile and rail passage door?
- What is part of the minimum standard for a Premium Grade catalyzed lacquer finish on close grain wood?
- What is the maximum deviation allowed before a stile and rail door is judged warped?

PLANT INSPECTIONS

Another step in the certification process involves plant inspections by QCP representatives to establish that the manufacturer's work complies with the *QSI*. All participating firms are required to be re-inspected every two years.

During the plant inspection, manufacturers are required to have standardized samples of previously completed work in the sections for which participants require certification. Minimum requirements for certification of architectural flush, stile and rail wood doors and factory finishing are:

Section 1300 Architectural Flush Doors — A full size sample plus a corner section of any AWI listed type of door with a veneer face. (If manufacturer is certifying for Plastic Laminate doors only, certification should state so.) Minimum size of 2'-6" x 6'-8". If qualifying for Factory Finishing, QS Section 1500, show all sanding, sealing, and topcoats of one of these items. One piece to be stained. Illustrate a step finish of the stained finish.

Section 1400 Stile and Rail Doors — A full size sample plus a corner section of any style door shown in the AWI QS including either a coped stile and rail or rim raised, raised panel for transparent finish. If qualifying for Factory Finishing, QS Section 1500, show all sanding, sealing and topcoats of one of these items. One piece to be stained. Illustrate a step finish of the stained finish.

Section 1500 Factory Finishing — Finishing of any of the above items, one of which must be a stained finish of any of the listed AWI finishes. A step sample of any of the demonstrated finishes must be included. A step sample of an opaque finish must also be furnished.

'HIGH-PROFILE PROJECTS SUCH AS RECEPTION COUNTERS, BOARDROOMS AND EXECUTIVE AREAS ARE GOOD CANDIDATES FOR PREMIUM GRADE.'

— AWI

QUALITY GRADES

Following the plant tour, the inspector issues a report to the QCP office, which issues a participant certificate for the sections and grades of work that were found compliant. The eighth edition of *QSI* that became effective July 1, 2003 uses three quality grades: Premium, Custom and Economy.

Generally, Economy Grade applies to areas that are out of public view, such as mechanical rooms and utility areas. Premium applies to the most visible projects, while Custom adequately covers most situations. Only finished products and workmanship are defined by *QSI* grade designations.



VT Industries is QCP-certified for premium-grade in the architectural flush doors, stile & rail doors and factory finishing sections. This allows VT to certify that these products are manufactured in accordance with AWI Quality Standards for Premium Grade of interior architectural doors and finishes. Confirmation of certification will be provided by VT Industries upon request. ■■

Reader's Choice in 2006



In the November/December issue of *Architectural Products* magazine, readers selected an advertisement for environmentally friendly architectural wood doors from VT Industries to a list of the 50 "hottest products" of 2006.

The magazine made its selection based on the number of requests readers submitted for further information on reader response postcards for both editorial coverage and advertisements featured in each issue.

The advertisement shown here focuses on ways that VT architectural wood doors can help earn LEED points because "no matter what color you choose, all VT doors are green." ■■

DOOR PRESS TRIVIA QUESTION

Congratulations to David Scott, AHC/CDT, vice president of sales for McCarthy Jones & Woodard in Nashville, Tennessee, for correctly answering the question: "Which Premium Grade veneer has a higher cost: "AA" grade veneer or "A" grade veneer?" David won a VT jacket for coming up with the correct answer, which was "AA" grade veneer.

QUESTION: How often must fire rated door assemblies be inspected under the 2007 edition of NFPA 80?

Answer this question based on this issue of *Door Press* for a chance to win a VT prize. Place your answer on an index card with your complete contact information, or the back of your business card, and mail to the address listed. Entries must be postmarked by April 2, 2007. Limit one entry per person, and one winning per year.

Door Press Trivia
Attn: Amanda Paulsen
VT Industries, Inc.
P.O. Box 490
Holstein, IA 51025

VT employees and sales representatives are excluded from this promotion.



DOOR PRESS

INSIDE THIS ISSUE

Case Study

VT Architectural Wood Doors adorn New Busch Stadium in St. Louis. *Page 3*

The Green Scene

Learn how core materials used in door manufacturing contribute toward LEED (Leadership in Energy and Environmental Design) points. *Page 3*

Tech Talk

Quality Certification Program (QCP) ensures quality standards in architectural woodwork. *Page 4*

Reader's Choice

'Save The Planet' advertisement scores points with readers of *Architectural Products* magazine. *Page 4*

SIDELIGHTS



By Amanda Paulsen
Communications Coordinator

VT Industries has a busy schedule of trade shows planned for 2007, beginning with the AIA National Convention and Design Exposition May 3-5 in San Antonio, Texas. This year's show theme, "Growing Beyond Green", is well-suited to our environmentally responsible door products that can help achieve Leadership in Energy and Environmental Design program (LEED) credits. You'll find us in booth No. 19059.

New architectural door print ad featuring our acoustical rating and fire protection benefits.



On October 15-20, we will be an exhibitor at the Door and Hardware Institute's Conference and Exposition in Nashville, Tennessee. You'll find us in booth No. 115, so stop by and say hello.

We will also exhibit at the Greenbuild Show in Chicago, Illinois, November 6-8. Now in its sixth year, Greenbuild is presented annually by the U.S. Green Building Council (USGBC), a nonprofit coalition of more than 7,200 private companies, nonprofits, educational institutions and government agencies working to transform the building industry.

VT 1-3/4" Thick Stile & Rail Door Is 90-Minute Positive Pressure Fire Rated

A 1-3/4" thick, 90-minute positive pressure fire rated stile and rail architectural interior wood door is now available from VT Industries. The approval granted by Intertek/Warnock Hersey eliminates the need to build these doors as 2-3/4" thick.



"All architectural interior fire rated stile and rail wood doors will now have a uniform thickness," according to Pam Rohlk, customer service center manager. "Instead of having 1-3/4" cores for your non-rated and 20-, 45- and 60-minute fire rated doors, and 2-3/4" cores for 90-minute stile and rail doors, everything is consistent."

CONSTRUCTION FEATURES

"Typically, 90-minute fire rated doors are used in stairwell and corridor applications rather than room entries," Rohlk acknowledged. "We're already producing these doors and have delivered shipments to projects in Denver, Colorado, Omaha, Nebraska and Columbia, Missouri, and various other areas throughout the country."

The 90-minute stile and rail doors are available as 3'-6" x 8'-0" x 1-3/4" for single openings and 7'-0" x 8'-0" x 1-3/4" for pairs with a standard swing. Allowable hardware preps include:

- Standard butt hinges per NFPA 80, as well as continuous and pivot hinges.
- Mortise and cylindrical lock/deadlocks with 2-3/4" backset.
- Surface fire door exit devices or surface vertical rods (4-point latching).

The approval allows for mortise automatic or surface manual flush bolts, surface automatic door bottoms, and surface-mounted closers. Lite cutouts are not allowed.

EASY TO ORDER

"Lead times and the order procedure are the same for all VT stile and rail doors," Rohlk reported. "Our customers can specify their fire rating and door thickness like they normally would using our stile and rail order forms, which are available on

continued on page 2

INDUSTRY UPDATE

Annual Inspections to be Required For Fire Rated Door Assemblies



The 2007 edition of the NFPA 80: Standard for Fire Doors and Other Opening Protectives includes numerous changes and additions to the previous version, including a new requirement for the annual inspection of all fire rated door assemblies. In the following Industry Update, Keith Pardoe, director of education and technical services for the Door and Hardware Institute (DHI), answers questions about the significance of this new standard to the architectural openings industry.

What is the NFPA 80: Standard for Fire Doors and Other Opening Protectives?

The National Fire Protection Association (NFPA) is an international organization of more than 75,000 individuals and more than 80 national trade and professional organizations. NFPA 80 is referenced as the de facto standard for the installation and maintenance of fire rated door assemblies by all of the model building codes, including the ICBO Uniform Building Code (UBC) — 1997, the SBCCI Standard Building Code (SBC) — 1999, the BOCA National Building Code (NBC) — 1999, the ICC International Building Code (IBC) — 2006 and the NFPA 5000 Building Construction and Safety Code — 2006.

What type of doors are covered under the new NFPA 80 standard?

The annual inspection requirement applies to all fire rated door assemblies, including Swinging Doors with Builders Hardware, overhead rolling fire doors, horizontal-sliding fire doors and fire rated access doors.

How is this new requirement different from the previous NFPA 80 standard?

The previous standard required the "frequent" inspection of fire rated doors and their immediate repair, if needed. Under the old requirement, it was nearly impossible to quantify what "frequent" meant, plus the building's owner was charged with performing these inspections. Most owners were not aware of their responsibilities under NFPA 80, which included the maintenance of fire rated openings. If they were aware of their responsibility, they lacked the training to know what to check for when inspecting these openings, or how to evaluate whether these systems were operating effectively.

When will the requirement for annual inspections take effect?

The 2007 edition of NFPA 80 does not become enforceable until it is referenced in the building codes, so annual inspections are still a few years away.

continued on page 2

The new year also brings a new series of architectural door print advertisements, which will target both architect and specifier audiences.

ARCHITECT SPECIFIC

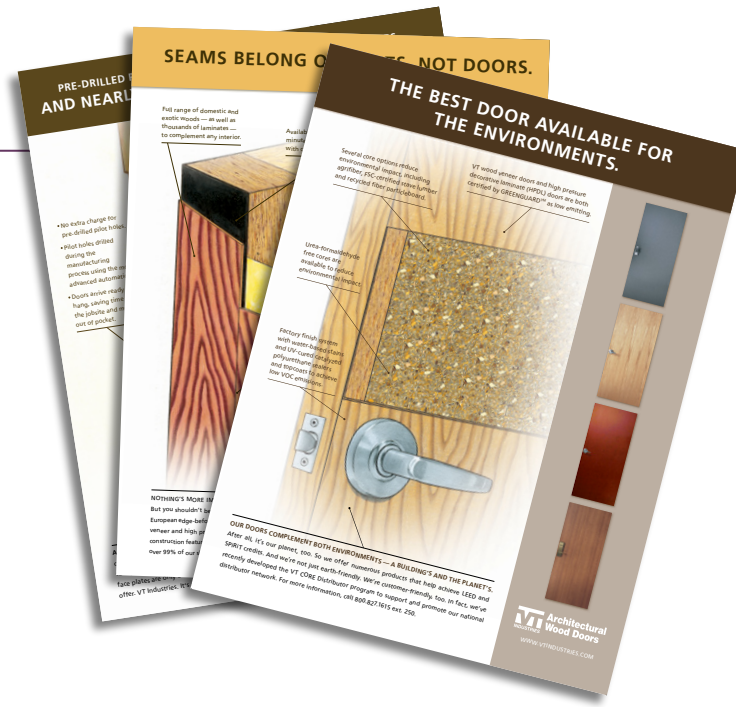
Three full-page print ads intended for architects will appear throughout the year in *Architectural Record*, *Architect* and *GreenSource* magazines. These advertisements are created to have a strong visual impact that connects with architects both emotionally and rationally based on the theme: "Everything you could want in a door."

In one advertisement, the "STC-45 acoustical rating" and "fire protection to 90 minutes" of VT architectural wood doors are depicted by a tuba-playing clown and two fire-eaters in a carnival setting. The "incomparable beauty" and "proven durability" of VT doors are represented by a pageant winner and weight lifter in a second print advertisement.



A third advertisement promoting the "X-ray radiation protection", "domestic hardwood veneers" and "environmentally friendly" features of VT doors portray a man in a hazmat suit surrounded by animals in a forest.

Each full-page advertisement is accompanied by a vertical, one-third page companion ad showing a selection of VT doors with this message: "A full line of doors with a full line of features. We're simply the best of all worlds."



SPECIFIER SPECIFIC

A separate series of print advertisements focusing on the advantages of European edge-before-face design, pre-drilled pilot holes and environmental core materials will appear throughout the year in *Doors and Hardware*, *GreenSource* and *Architectural Products* magazines.

Illustrations showing cross sections of VT doors with descriptive call-outs highlighting engineering and construction features, customer service and our record of 99 percent on-time shipments.

The more technical appearance and content of these advertisements, with their emphasis on product features, is designed to appeal to specifier interests. ■■

THE GREEN SCENE

Understanding Wood Doors and LEED

The December 2006 issue of *Just-InTimes* published by the Great Lakes Chapter of DHI features a lead article authored by VT Industries sales representative Charlie Hart, CSI, CDT, DHI, titled "Understanding Wood Doors and LEED."



Stave Lumber core.

According to Hart, "The intent of LEED (Leadership in Energy and Environmental Design) is to reduce the amount of materials used, lessen environmental impact, reduce waste, incorporate recycled content, use regional materials, encourage responsible forest management, reduce indoor pollutants and contribute to the health and well-being of the occupants."

CORE VALUES

In his article, Hart reviews how different core materials used in door manufacturing contribute toward LEED points, which are based on certain criteria to achieve sustainable design. "To get doors with LEED points, we only care about the core, since the product must be 70 percent 'green' materials by weight," Hart explained. Specific core materials cited by Hart include:

- Particleboard, which can help earn 4 points under LEED.
- Forest Stewardship Council (FSC) certified Stave Lumber core, which can help earn 4 points.
- Agrifiber core which can help earn 6 points.
- Structural Composite Lumber (SCL) core that can help earn 3 points.
- Stile & Rail Doors can help with 3 points.

POINTS LEEDERS

Under LEED-NC (New Construction), there are four levels that a building can achieve: Certified, Silver, Gold and Platinum, Hart explained. Points are awarded based on certain criteria, such as recycled content, regional materials, low emitting materials and rapidly renewable materials. Agrifiber core can help with 6 points based on all of these criteria.

Citing the performance of agrifiber cores in fire door testing, Hart noted, "Certain wood door manufacturers are using it as a standard material in lieu of mineral board in 45- and 60-minute doors."



Agrifiber core.

FSC-certified stave core consisting of wood blocks glued together can help with four points, but Hart cautioned, "These cores are from certified forests, and don't think for a minute that the forest owners aren't charging a hefty premium." Citing the advantages of particleboard core, which can also help with 4 points under LEED, Hart asked, "What could be greener than using sawdust?"



SCS certified core.

CERTIFIED VENEER

Certified veneers are available, but will not assist with LEED points, Hart acknowledged.

Although AA face veneer is often specified on LEED projects, Hart emphasized that, "AA face veneer is not a green product." The same holds true for balance and center matching of veneers. Running match is the "green" way to go.

Hart concluded, "The best environmental statement that wood door manufacturers can make is to produce a durable product that remains functional throughout the life of the building." ■■

Annual Inspections to be Required For Fire Rated Door Assemblies *continued from page 1*

What will be inspected on fire rated openings?

The 2007 edition of NFPA 80 requires the visual inspection of baseline elements which are common to all Swinging Doors with Builders Hardware. Inspectors must verify that doors and hardware are in working order with no visible signs of damage. Doors and assemblies will be checked for missing or broken parts and for field modifications or auxiliary hardware which may interfere or prohibit operation. Inspectors must also verify that self-closing devices and latching hardware are operational and confirm the presence and integrity of gasketing and edge seals where required.

Who will conduct these annual inspections?

The requirement creates an inspection system similar to ones used for elevators, sprinkler systems and fire alarms. Under these systems, third-party inspectors provide a written report of their findings to the building's owner or property manager to keep on file and make available for review by the authority having jurisdiction (AHJ).

What are the qualifications for inspectors?

Although the NFPA 80 does not identify a specific group to perform these annual inspections, qualified individuals will need to have broad product application knowledge and understanding of fire rated door assemblies. Such individuals most likely will have five years of industry experience.

What happens when a fire door assembly fails inspection?

Under NFPA 80, repairs to fire rated door assemblies must be made by the property owner immediately upon learning the results of the inspection.

Do the same requirements for annual inspections apply to large buildings and campus environments where fire rated door assemblies number in the thousands?

Provisions for extended inspection cycles are contained in the standard, conditional upon the approval of the AHJ.

What does this change mean to distributors of fire rated door assemblies?

Distributors need to think in terms of complete fire rated assemblies or systems instead of individual components. Newly installed fire rated openings should be double-checked to ensure all components are in compliance with the specification as a total opening assembly. Inform installers of any issues that could negatively affect the annual inspection under NFPA 80.

What is DHI doing to educate the architectural openings industry about this new requirement?

The DHI Board of Governors has assembled a task force of volunteers to help create a structure for the inspection process. In addition to creating inspection forms, certificates and labels, task force members are designing a model for companies performing these inspections. The task force is also working with Underwriter's Laboratories and Intertek/Warnock Hersey in an outreach effort designed to educate the AHJ community about the annual inspection requirement. Eventually, the DHI plans to provide a new level of certification for individuals who are inspecting Swinging Doors with Builders Hardware. This certification will be based on successfully completing DHI training programs. ■■

Stile & Rail *continued from page 1*

the VT Industries Web site. If we have any questions specific to a particular order, we'll contact the customer for clarification."

The new approval represents an advantage for VT customers, who can specify stile and rail doors to complement their flush wood doors, all with the same 1-3/4" thickness. "We can provide both flush and stile and rail doors that are either non-rated or with positive pressure fire ratings throughout the project," Rohlk noted. "VT's stile and rail product offering is now as complete as our flush door line."

VT Industries' Product Guide Specification for architectural interior stile and rail wood doors is available online at <http://www.vtindustries.com/graphics/08216.pdf>.

DESIGN OPTIONS

With 28 standard elevations to choose from, VT stile and rail doors offer endless design options to fit the aesthetics of any project. All VT stile and rail doors are manufactured using doveled construction for maximum performance. VT stile and rail doors meet WDMA I.S. 6-A Custom Grade quality standards, with Premium Grade Construction available. Each door is factory machined to exacting requirements for hardware and faceplates.

"We are currently in the process of updating our product literature to reflect the new approval," Rohlk added. "The only reference we used to make to 90-minute fire rated stile and rail wood doors was for people to contact the factory or their sales representative for availability, which has now changed since this new approval." ■■

VT Doors Score a Hit at New Home of World Champion St. Louis Cardinals

The fifth game of the 2006 World Series created enough excitement to blow the doors off the new Busch Stadium as the Cardinals beat the Detroit Tigers at home to clinch the world championship. Fortunately, the doors were from VT Industries, so replacement wasn't required.

The new \$365 million stadium was completed in April of 2006 with approximately 600 VT Architectural Wood Doors provided by Negwer Door Systems, a division of Negwer Materials, Inc., a premier supplier of construction products in central and eastern Missouri and central and southern Illinois.



The stands are full of Cardinal fans at the new \$365 million dollar Busch Stadium.

A SUITE DEAL

The white maple wood veneer doors were factory-finished to match color schemes used throughout the stadium, according to Ron Nagel, senior project manager for Negwer. The doors were manufactured from Timberstrand structural composite lumber (SCL) cores that provide

structural integrity for an even, unblemished material that does not swell, twist or warp easily.

The doors were installed throughout the stadium at entrances to luxury suites, party rooms, restaurants and retail shops, as well as in team locker rooms and the press box. "We began delivering the doors in September of 2005, so they started installing them that fall and continued all the way up to opening day," Nagel recalled.

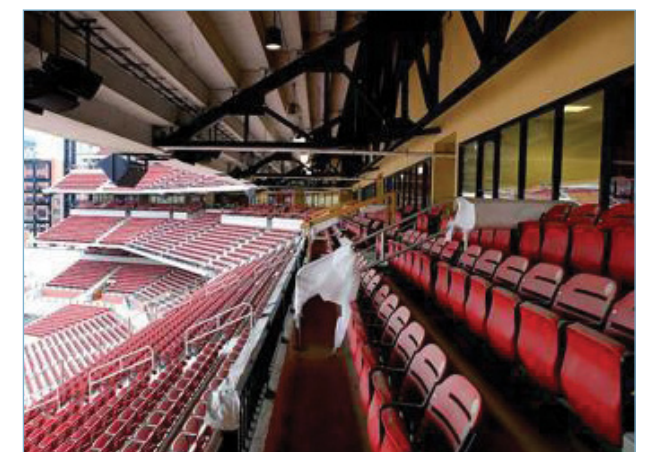
"About 100 of the doors were used in the Cardinals offices, which were done as a separate project as the stadium was being completed," Nagel noted. "They moved into the offices right in the middle of the playoffs."

A TEAM EFFORT

Construction of the new ballpark and demolition of the old stadium was accomplished in less than 27 months, so teamwork was essential to avoid delays. "Because it was a fast-track project and they had such a tight schedule, VT worked with us very well as far as coordinating deliveries," Nagel acknowledged.

The door installation went smoothly, which Nagel attributed to good communication from start to finish and to quality workmanship backed by VT. In addition to supplying VT Architectural Wood Doors, Negwer provided 3,000 hinges, 900 locksets, 200 exit devices, 900 door closers and 500 kick plates for the stadium.

"It doesn't get much better than moving into a new stadium and winning the World Series in the same year," Nagel added.



VT Architectural Wood Doors were installed throughout the stadium, everywhere from luxury suites to locker rooms.

PROJECT FEATURES

- The new Busch Stadium has the capacity for 46,861 fans and includes such amenities as:
- 63 luxury suites built in a double-decker, quarter-circle arrangement.
 - 32 "party rooms" in right field and nine in left field that fans can rent out for game-day special events.
 - Family pavilion with outdoor seating for more than 100 fans.
 - The Cardinals Club, offering a five-star menu and bar for the fans with premium seats behind home plate.
 - Two retail stores, 24 permanent concession stands for fans in general seating, plus 200 carts and smaller refreshment locations.
 - Loge-level Redbird Club, where fans with premium seats can eat and drink in air-conditioned comfort.
 - 1,000 speakers, 528 TV monitors, 13 public elevators, 9 public escalators, 40' x 120' video board. ■■