



SPEC MIX Bricklayer 500[®] national event on the horizon

Results of final three regional competitions

It's nearly starting time for the third annual national SPEC MIX Bricklayer 500! Masons across the country didn't hesitate to send in their entry forms, and by December 8, the 20 competition slots were filled. With six regional winners, including last year's national champion, the upcoming competition promises to be THE big event at the World of Concrete/World of Masonry. If you will be in Las Vegas for the trade show, see the action at 3 p.m. Wednesday, January 19 in the Mega Demo section.

The final three regional SPEC MIX Bricklayer 500 competitions took place in late October/early November. The results are as follows:

Salt Lake City SPEC MIX Bricklayer 500 winners

1st place: Brian Tuttle
Tender: Kirk Harpole
Brick Count: 697

2nd place: Von Allen
Tender: Jose Rodriguez

3rd place: Scott Tuttle
Tender: Edwardo

Craftsmanship Award: Von Allen

Denver SPEC MIX Bricklayer 500 winners

1st place: Bob Boll
Tender: Paul Boll
Brick Count: 831

2nd place: Jason Boll
Tender: Brian Boll



Brian Tuttle puts his skill and speed to the test and wins the Utah regional SPEC MIX Bricklayer 500. Tuttle will compete in the 3rd annual event in Las Vegas and is a returning competitor from the 2003 national competition.

3rd place: Gilberto Jierra
Tender: Aaron Arreola

Craftsmanship Award: Gilberto Jierra

Northeast Ohio SPEC MIX Bricklayer 500 winners

1st place: Roberto Pantoja
Tender: Alberto Hernandez
Brick Count: 486

2nd place: Dan Yoder
Tender: Ben White

3rd place: Dave Sykes
Tender: Tony Pryer

Craftsmanship Award: Dan Yoder

EDITOR'S NOTE: In the September/October issue of Trowel Tales, the name of the Michigan regional Craftsmanship and second-place winner was incorrect. Jim Lowe took both awards on October 2.

SPEC MIX® conducts respirable silica testing

Respirable silica is a concern for the construction industry, and the MCAA has reported that OSHA has been issuing citations without test data to back up the violation (see related article below).

In August and September, SPEC MIX contracted ARS Environmental Health, Inc., to conduct tests for respirable silica in connection with our bulk bags and silos. The tests were at four sites across the United States: Albany, NY; Minneapolis, Minn.; Phoenix, Ariz.; and Ontario, Calif.

The air sampling data showed that silica exposure was below the Permissible Exposure Limits (PEL) adopted by state or federal OSHA programs in each of the four states. Because of Santa Ana winds on the day of testing in Ontario, the sample was above the current Threshold Limit Value (TLV) set by the American Conference of Governmental Industrial Hygienists, but PELs were still in the acceptable range. The table below shows the sampling data ranges for all four sites as a percent of the PEL and TLV for crystalline silica and respirable dust.

Test Sampling Data

Material	% of PEL	% of TLV
Respirable Dust	1.2 - 9.6	4.0 - 32.0
Quartz	6.2 - 30.2	16.0 - 114.0
Cristobalite	12.0 - 46.0	17.0 - 20.0

Overall the report on all four sites was favorable, but steps can be taken to further reduce the potential for respirable silica exposure, as follows:

- Place the silo away from buildings where eddy currents can hold the dust near the silo and laborer.
- Position the silo so the laborer stands cross wind or up wind of the silo while mixing mortar and charging silos.
- Use a slide tool when opening the lanyard affixed to the bulk bag
- Step down off the silo while the bag empties.
- Wear a NIOSH-approved dust mask.



Crew members participating in the SPEC MIX study wear a device that measures exposure to respirable dust and quartz.

OSHA cites violations without data

On November 19, the Mason Contractors Association of America (MCAA) reported that several contractors across the United States had been cited by OSHA inspectors for violations of the Permissible Exposure Limit (PEL) for silica, and these citations were issued without any data proving that these violations were in existence.

In one instance, an OSHA inspector went on a jobsite and noticed a lot of dust in the air while a crew member was mixing mortar. The inspector asked the job foreman why the employee was not wearing a mask, thus making the assumption that because there was dust in the air, it was respirable silica dust.

The contractor in this case was not issued a citation because the company had recently completed exposure testing for a number of specific tasks and the results indicated exposures were below the PEL.

It is against OSHA policy to issue a citation unless the agency has solid data backing up its claim, and the MCAA plans to take this issue to Congress.

The MCAA asks that anyone who has had a similar experience to contact Marian Marshall, MCAA director of governmental affairs, via e-mail at mjmarshall@masoncontractors.org.

Minimum Grout Slump

EXCERPTED FROM THE SEPTEMBER 2004 ISSUE OF TMS RESPONDS, PUBLISHED BY THE MASONRY SOCIETY

We have very dense architectural concrete masonry units (CMU) on a large construction project that are required to be grouted. The units tend to absorb moisture very slowly. The contractor repeatedly wants to supply a grout with a slump of 6-8 inches, but our inspector has required the slump to be increased to at least 8 inches that she says is a code requirement. The contractor has complied, but notes that such a high slump is not needed, and may in fact cause problems related to efflorescence, freezing, low grout strengths, etc.

Who is right? I know grout needs more water than concrete because of the absorption of the units, but if, as the contractor says, when the units have low absorption, can we permit low slump grouts? If we use low slump grout, will it still flow appropriately?

Response by David Briggs, Ryan-Briggs Associates

Your inspector is correct that, *unless otherwise required*, a minimum grout slump of 8 inches (203 mm) is currently required by Article 2.6 B2 of the Masonry Standards Joint Committee's (MSJC) *Specification for Masonry Structures* (ACI 530.1-02/ASCE 6-02/TMS 602-02). This criteria has been part of earlier versions of the MSJC also. However, the contractor has an excellent point. Using high slump grouts with low-absorption CMU has created field problems in certain circumstances and accordingly, this may be one of those "unless otherwise required" cases. I have requested that the Masonry Standards Joint Committee consider this issue as they make future revisions to the MSJC *Specification*.

Current practice is to use high slump grout (8 to 11 inches (203-279 mm)) to increase flow so that the grout will readily flow into confined spaces. With typical masonry units, much of the mix water is absorbed by the surrounding masonry, lowering the apparently high water-cement ratios of grout. Adequate grout compressive strengths and bond are achieved provided the grout is adequately consolidated.

When high slump grouts are used with low-absorption units, either clay or CMU, the mix water is not readily

absorbed by the units and several conditions are possible. In some cases, mix water is forced through the mortar joints resulting in increased efflorescence. In addition, the excess water reduces the grout strength somewhat since the water-cement ratio at the time of hydration is higher than for more traditional masonry. In cold weather, that excess water produces a greater chance of freeze damage.

For these reasons, I question whether an 8-inch (203 mm) grout slump is appropriate for low-absorption units. Low-absorption units are clay units with a low IRA (initial rate of absorption less than 5 g/min. x 30 in.²) or concrete masonry units manufactured with integral water repellent admixtures.

When using low absorptive units, I recommend that you reduce the grout slump to 5 to 6 in. (127 to 152 mm) as permitted by the "unless otherwise required" exception in the MSJC *Specification*. In addition, in cold weather, provide protection for 48 hours to prevent freezing. If grout flow is a concern, have the contractor construct a demonstration panel to verify complete filling of the cavities and adjust the maximum lift height accordingly. Grout admixtures are also available to improve the flow of low slump grouts.

apprentice of the month

Jose Treto: Young mason learns fast

Jose Treto of Harlingen, Texas, is our Masonry Apprentice of the month. Treto represented Texas in the national masonry contest held this past June in Kansas City, Mo., as part of the SkillsUSA National Championships. And, he did it by qualifying ahead of a classmate who had been the state representative in 2003.

Victor Santillan, Treto's instructor at Harlingen High School, is rightfully proud of his student. "I met Jose in my

continued on next page

Masonry Technology faces rigorous inspections



Project: Orthopedic Hospital Outpatient Medical Center
Location: Los Angeles, California
SPEC MIX Licensee: EZ Mix Products
Mason Contractor: Masonry Technology, Inc.
Architect: FAIA Architecture and Planning

Joel Guth, owner of Masonry Technology Inc. in Moreno Valley, Calif., says that he had inspectors taking mortar samples every couple of days when working on the

Orthopedic Hospital in Los Angeles. Since it was a public building, standards were very high. “It’s a hospital and it needs to be standing when an earthquake hits,” Guth says.

All these tests could have been very stressful for Guth, but he wasn’t too worried because the mortar he was using was SPEC MIX, which he says gives him a level of comfort. “We use SPEC MIX on all our projects. We wouldn’t use anything else. It’s been proven to us to be the best way over years and years of experience. And it’s been proven to architects, engineers and inspectors.”

Another challenge was the jobsite. The Orthopedic Hospital site had very tight quarters for staging, so Guth used a SPEC MIX G7000 silo and bulk bags to minimize the space needed for the mixing station.

The project required 44 bulk bags of gray PCL Sand mortar and 50 94-pound bags of white mortar with CMU block. It took nine months to complete with a 25-man crew going through an average of 15 batches per day.

Treto (continued from previous page)

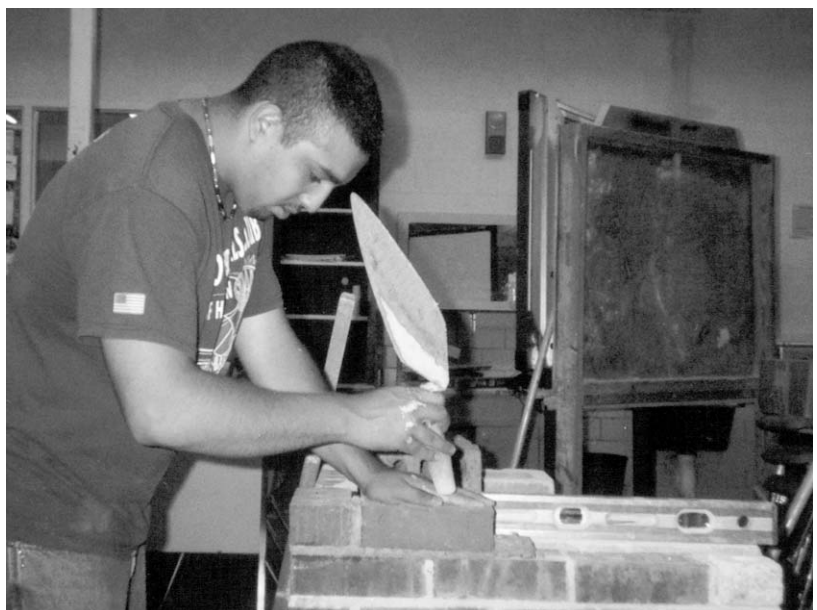
American History class. One day he mentioned that his father had been a masonry student and had won his district championship. It wasn’t hard to interest him in enrolling in my masonry class.

Treto was fortunate to have discovered an outstanding masonry instructor. Santillan’s students have participated in the national masonry competition eight of the last 13 years. Treto took advantage of all Santillan had to teach, and he learned quickly.

“Jose started in my introductory nine-week class and before I knew it he had bested his father by winning the state contest and competing at the national level.”

Looking ahead, Treto is enrolling in a technical school where he can continue to receive technical training.

Treto also claims that when Santillan retires, “I want his job!”



Jose Treto of Harlingen, Texas, practices his newly learned trade in class at Harlingen High School. Treto represented Texas in the national masonry contest held this past June in Kansas City, Mo., as part of the SkillsUSA National Championships.

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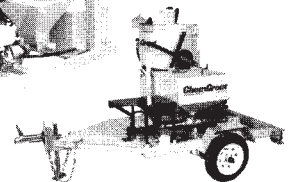
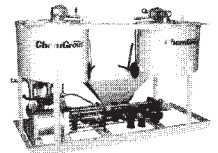
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UPCOMING EVENTS

World of Concrete/World of Masonry

January 17-21
Las Vegas, NV



SPEC MIX Bricklayer 500®

January 19
Las Vegas, NV

NCMA Annual Convention

February 9-13
Indianapolis, IN

Manufactured Concrete Products Exposition (MCPX)

February 11-13
Indianapolis, IN

CONEXPO-CON/AGG 2005

March 15-19
Las Vegas, NV

BIA Brick Show

March 17-19
Hollywood, FL

The International Tile and Stone Show

March 31-April 2
Miami, FL

MCAA Masonry Showcase

April 20-22
Chicago, IL



Fastest Trowel on the Block

April 22
Chicago, IL

No-Dig Show

April 24-27
Orlando, FL

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