



Illinois mason wins third annual SPEC MIX Bricklayer 500®

Skill. Speed. Stamina. That's what it takes to gain the title "Nation's Best Bricklayer." Twenty masons from across the country vied to be named the best on Wed., Jan. 19 at the Las Vegas Convention Center. The contest was part of the World of Concrete/World of Masonry trade show, which convenes approximately 80,000 attendees in the construction industry.

The 2004 winner Bob Boll of Boll Masonry, Conifer, Co., returned to defend his title. In 2004, Boll placed 765 brick in one hour, but this year, the 51-year-old mason came to match his old world record of 914 bricks.

The competition started at 1:30 p.m. with the Toughest Tender competition in which each mason's tender races to be the first to set up his mason's station, which includes 1,000 brick, 38 8x8x16 CMUs, two 8x8x8 CMUs, five mortarboards and stands, four 16-foot plank, a wheelbarrow and a shovel, two five-gallon pails, two tempering pails, and two brick tongs.

Mason tender Felipe Reyes of F. Monarcha Masonry, Middlefield, Conn., set the pace and finished in 11 minutes and seven seconds to win the \$2,000 prize. Last year's winner Derek Shurke, who came in second one minute and 30 seconds behind Reyes, shook his head and said, "That guy's a machine!"

The SPEC MIX Bricklayer 500 began at 2:30 p.m. Each bricklayer must lay at least 500 brick in one hour to qualify. Each wall is then judged on quality of work (number of voids in mortar joints, level, plumb and height). The mason who lays the most bricks without disqualification receives first place. The mason who lays at least 500 brick and has the cleanest wall is bestowed the Craftsmanship Award.



Craftsmanship Award winner Glenn Houghton Jr. of Five Star Masonry, LeClaire, Iowa, puts his skill to the test at the third annual SPEC MIX Bricklayer 500® in Las Vegas, Nev.

By the 45 minute mark, it was easy to see that this field of competitors had set the bar high. Eighty percent of the masons finished with 600-plus bricks in their walls.

Bob Boll made a good run at his old record, but came up a bit short and was disqualified on plumb. Bob's younger brother Mike Boll of Boll Masonry, Oak Lawn, Ill., came out at the top of the pack and took the title "Nation's Best Bricklayer." (Read an interview with Mike Boll on Page 2.)

With more than 2,000 people watching the competition, the SPEC MIX Bricklayer 500 is steadily becoming THE big event at the World of Concrete/World of Masonry. Brian Carney, general manager of SPEC MIX®, said, "We are proud of this event because it promotes the masonry industry and gives recognition to those who make masonry their life's work. It amazes me how many people pull together to make this contest so awesome for these masons."

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Third annual SPEC MIX Bricklayer 500

(continued from Page 1)

SPEC MIX Bricklayer 500® winners

- 1st place: **Mike Boll** of Boll Masonry, Oak Lawn, Ill.
784 brick.
- 2nd place: **Phillip Veal** of R & G Masonry Contractors Inc., Jonesboro, Ark. 778 brick
- 3rd place: **Glenn Houghton Sr.** of Houghton Masonry, Blue Grass, Iowa. 728 brick

Craftmanship Award winner

Glenn Houghton Jr. of Five Star Masonry, LeClaire, Iowa

Toughest Tender winner

Felipe Reyes, F. Monarca Masonry, Middlefield, Conn.

Also competed:

- Patrick Baxter** of Summit Concrete & Masonry, North Branch, Minn.
- Bob Boll** of Boll Masonry, Conifer, Co.
- Jason Boll** of Boll Masonry, Conifer, Co.
- Michael Bradley** of Masonry Developers Inc., Rochester, Mich.
- Brian Gruenhagen** of Steller Masonry, Burnsville, Minn.
- Greg Haas** of Gresser Companies, Inc., Eagan, Minn.
- Benjamin L. Houghton** of Five Star Masonry, Muscatine, Iowa
- Paul Klein** of New World Construction Corp., Montgomery, NY
- Jeff Lykins** of CM Construction, Elkhart, Ind.
- Roberto Pantoja** of Dave Phillips Masonry, Akron, Ohio
- Pascal Robertson** of Pascal Robertson Masonry Inc., Apopka, Fla.
- Bert Schneider** of Eric Helander Masonry, Dixon, Ill.
- Brian Tuttle** of Quik Trowell Masonry, Elkridge, Utah
- Jaysen Walter** of Kotze Construction, Milwaukee, Wis.
- Wallace Williams** of F. Monarca Masonry, Middlefield, Conn.
- Steve Wooten** of R&G Masonry Contractors Inc., Jonesboro, Ark.

Mike Boll: The Nation's Best Bricklayer

TT: How does it feel to be the new champ?

Mike: It feels great.

TT: What were you thinking during the last few minutes of the competition?

Mike: I was nervous. I had a hard time doing my corners. I was unused to the brick, and I think I took too long with my corners.

TT: Did you think you had won the competition?

Mike: Actually I was a little surprised. I think I had about the third highest wall. The [level of] competition has gotten better. I thought I would come in about second. When I didn't hear my name called for second I was a nervous because that's where I thought I'd place.

TT: Did you have a strategy for the competition?

Mike: I was expecting to lay about 850, but I ended up taking 7-8 minutes extra on my corners. My strategy was to double check during the last three or four minutes and that really paid off.

TT: Will there be a match up with Bob Boll [last year's champion and Mike's older brother] in 2006?

Mike: He'll be coming back. It will be a good battle next year. He'll be sharpening up his trowel and I'll be sharpening up mine.

TT: What did you do with the prize money?

Mike: I bought my wife a minivan.

TT: Do you have any additional thoughts about the competition?

Mike: I thought scheduling was better this year. It was really well-organized. The prizes were great for everybody. The competitors are getting better, and next year they'll be even better. I've got to start practicing on certain areas.



Mike Boll competes to defend his title of "The Nation's Best Bricklayer" on Jan. 18, 2006, at the World of Concrete/World of Masonry in Las Vegas, Nev.

Don't miss it!

Highlights from the SPEC MIX Bricklayer 500®



People filled the stands and stood five deep around the competition perimeter. An estimated crowd of 2,500 watched the SPEC MIX Bricklayer 500 competition on Jan. 19 in Las Vegas, Nev.



SPEC MIX Mudslinger Mike Bowen of Midwest Block and Brick, Kansas City, Mo., hustles back to the mixing station to fill his tub with mortar for waiting tenders.



From left to right: Second-place winner Phillip Veal of R&G Masonry, Jonesboro, Ark.; first-place winner Mike Boll of Boll Masonry, Oak Lawn, Ill.; and third-place winner Glenn Houghton Sr., Houghton Masonry, Blue Grass, Iowa.



Phillip Veal, Glenn Houghton Sr. and Mike Boll (from left to right) put their skill, speed and stamina in action.

SPEC MIX Bricklayer 500® winners cash in

SPEC MIX, along with the generosity of the SPEC MIX Bricklayer 500 co-sponsors, made the following prizes (valued at an estimated \$47,500!) available to the SPEC MIX Bricklayer 500 winners and competitors.

FIRST PLACE

CASH: \$5,000

PRIZES:

Hydro Mobile: P-Series Mast Climber (*\$20,000 retail value!*)

Marshalltown: \$1,250 tool package

Crick: 48-inch teak level and custom teak case

MK Diamond: BX-3 Brick Saw and MK-70 saw & (2) 14-inch diamond blades

CRAFTSMANSHIP AWARD (Sponsored by the SBI)

CASH: \$5,000

PRIZES: Crick: 48-inch teak level and custom teak case

SECOND PLACE

CASH: \$4,000

PRIZES:

MK Diamond: BX-3 saw

Marshalltown: \$1,000 tool package

Crick: 48-inch cherry level and custom cherry case

THIRD PLACE

CASH: \$2,500

PRIZES:

MK Diamond: MK-70 saw and various diamond blades

Marshalltown: \$825 tool package

Crick: 48-inch African walnut level and custom African walnut case

TOUGHEST TENDER

CASH: \$2,000

PRIZES: Crick: 48-inch teak level

All competing bricklayers and tenders received the following:

Cooper Hand Tools: Lufkin 30-foot measuring tape

Ironclad: Extreme Duty® masonry work gloves

Marshalltown: T-shirt, cap, and tool bag with a variety of trowels and tools

SPEC MIX: Competitor t-shirt, gloves and tool bag

Bricklayers only:

Crick: 48-inch wood level

Bocsh: Lasers

Thank you to those who make it all happen

The SPEC MIX Bricklayer 500® event has been the result of a great team effort. And because of that collective energy, the event has quickly become the highlight of the World of Concrete/World of Masonry trade show. We at SPEC MIX® thank the following people and companies for making this year another great success.

Thank you to the competing teams. They really put their skill, speed and stamina to the test and made this race exciting for everyone.

Thank you mudslingers for really hustling and keeping the mortar coming during the competition. And thank you to emcee Jim O'Connor, executive director of the Greater Chicago Mason Contractors Association, for keeping the crowd charged up!

Thank you to Packaged Concrete Inc., QUIKRETE Wisconsin, Gibraltar National, QUIKRETE Denver, QUIKRETE Cleveland and Materials Packaging Salt Lake City for their efforts in organizing regional qualifying events.

And finally, thank you to the following sponsors that make the SPEC MIX Bricklayer 500 what it is. Not only do each of you offer up time, supplies and prizes, but also a genuine interest in the success of the event. We hope to partner with all of you again in 2006.

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Respirable silica in the construction industry

BY MARK LUKKARILA, SPEC MIX® TECHNICAL SERVICES MANAGER

Silica is one of the most abundant minerals on earth. It can be in our children’s sand boxes, dirt roads, beaches, quarries, and yes, construction sites.

There has been a lot of confusion regarding silica and silicosis in the construction industry. The confusion stems from the synonyms for quartz, such as silica, free silica, and SiO₂. To make matters worse quartz can be crystalline and noncrystalline and has up to nine polymorphs (a mineral having the same chemical composition, but a different atomic structure).

Crystalline silica is defined by the National Institute for Occupational Safety and Health (NIOSH) as follows: “Silica refers to the chemical compound silicon dioxide (SiO₂), which occurs in a crystalline or noncrystalline (amorphous) form. Crystalline silica may be found in more than one form (polymorphism). The polymorphic forms of crystalline silica are alpha quartz, beta quartz, tridymite, cristobalite, keatite, coestite, stishovite, and moanite.” Crystalline quartz is the form of silica that is associated with silicosis. Materials such as glass, including volcanic glass, are primarily amorphous, although some glasses can contain minor quantities of the high temperature polymorphs of quartz.

Crystalline refers to the orientation of SiO₂ molecules in a fixed pattern as opposed to a nonperiodic, random molecular arrangement defined as amorphous. The three most common crystalline forms of silica encountered in the workplace environment are quartz, tridymite, and cristobalite. [NIOSH 1974]

Amorphous is a state of matter in which there is no orderly arrangement of atoms. [Leet, L. Don. 1982. Physical Geology, 6th Edition. Englewood Cliffs, NJ: Prentice-Hall]

Chemical analyses expressed as oxides contribute a great deal to the confusion. Table 1 shows oxide analyses for different construction materials. The SiO₂ in these analyses does not always represent the mineral quartz or its polymorphs.

For example, note the percentage of SiO₂ for the portland cement. The SiO₂ in portland cement is not present as crystalline quartz. Portland cement contains only trace quantities of respirable crystalline silica. Typical values for respirable crystalline silica in portland cement are usually

Continued on Page 6

TABLE 1: CHEMICAL ANALYSES OF VARIOUS CONSTRUCTION MATERIALS

Oxide	Sand 1	Sand 2	Portland Cement	Fly Ash	Silica Fume
SiO ₂	96.7	59.4	21.2	37.1	91.7
Al ₂ O ₃	0.64	12.8	4.1	21.1	1.25
Fe ₂ O ₃	1.15	10.3	2.9	5.30	3.50
CaO	0.40	6.27	64.9	23.1	1.0
MgO	0.02	1.70	2.4	4.70	1.25
SO ₃	0.18	1.00	3.1	1.96	0.15
Na ₂ O	0.01	2.52	0.1	4.10	0.15
K ₂ O	0.21	1.42	0.45	0.34	1.50
TiO ₂	0.12	2.29	-	1.21	-
P ₂ O ₅	0.00	0.53	-	0.02	-
Mn ₂ O ₃	0.00	0.16	-	0.48	-
LOI	0.56	1.54	0.8	0.56	0.50

Respirable silica (Continued from Page 5)

less than 0.1 percent. The reason for the lack of crystalline quartz in portland cement is that once the raw materials are in the burning zone of the kiln, SiO_2 combines with CaO to form new water-soluble minerals (i.e., $3\text{CaO}\cdot\text{SiO}_2$ and $2\text{CaO}\cdot\text{SiO}_2$). The exposure hazard with respect to respirable silica in cement comes in the handling of the raw materials used in the manufacture of portland cement.

Now take a look at silica fume in Table 1. The SiO_2 percentage for silica fume is very high, BUT it is noncrystalline, or amorphous. Like portland cement, silica fume contains only trace quantities of respirable crystalline silica.

Sand #1 in the Table 1 is essentially a pure quartz, or silica, sand (Photo #1). The silicon dioxide (SiO_2) in Sand #1 is present primarily as quartz. Sand #2 is a silica sand with more mineral impurities (Photo #2). The silicon dioxide in Sand #2 is combined with aluminum oxide (Al_2O_3), sodium oxide (Na_2O), calcium oxide (CaO), and potassium oxide (K_2O) to form feldspar minerals (Photo #3). The bulk of the crystalline silica in both, however, would not be considered respirable because the quartz grains are too large. Dust from silica sands, however, usually contains a small fraction of silica that is fine enough to be considered respirable.

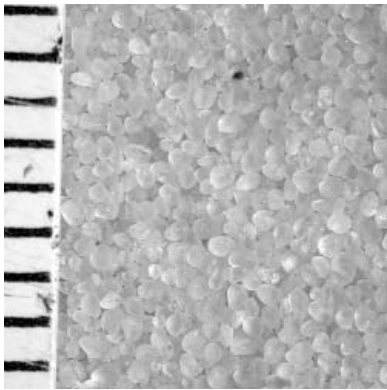


Photo #1: Photomicrograph of a pure silica sand consistent with Sand #1 in Table 1 used in the manufacture of dry-preblended mortar products. Scale: 1 division = 1 mm.

Most construction materials in their raw form contain little respirable silica. Dust generated by crushing, cutting, grinding or any other method of size reduction of construction materials potentially contains more respirable silica than was there in the cement, aggregate or mineral admixtures. The use of proper OSHA approved personal protection devices,

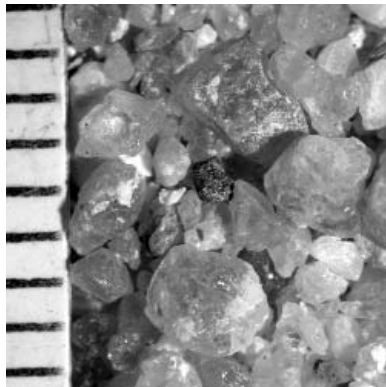


Photo #2: Photomicrograph of a sand consistent with Sand #2 in Table 1.

such as dust masks, should be worn to avoid the inhalation of any dust. SPEC MIX® also has taken steps to reduce dust exposure at the mixing station by configuring the SPEC MIX silo systems with a rotating slide gate, which allows the user to stand clear of dust. We, at SPEC MIX, encourage everyone to “THINK SAFETY.”

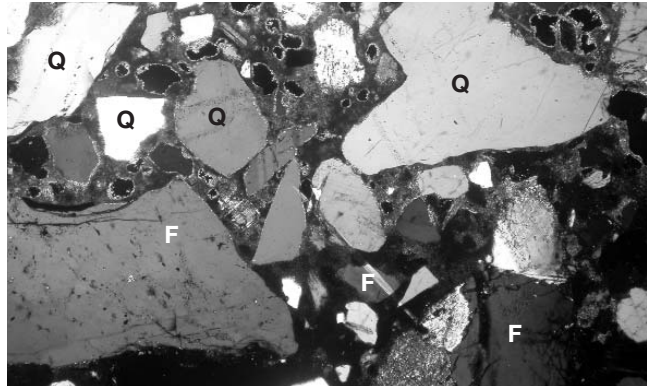


Photo #3: Thin section photomicrograph of the sand in Photo #2 in a hardened mortar sample. The sand is composed of quartz (Q) and feldspar (F) minerals. Cross-polarized light, field length = 1.4 mm.

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IRON OXIDE PIGMENTS FOR THE MASONRY INDUSTRY

Fifth generation mason exels

Joshua Garigali of Mesa, Ariz., is our Masonry Apprentice of the Month. Nominated by his employer, Sunnyside Masonry, Garigali is serious about masonry.

"Masonry has been in my family for generations, but I wouldn't be doing it if I didn't like it myself," Garigali says.

Garigali is a fifth generation mason, and both his father and grandfather work as foremen for construction companies.

Garigali credits his masonry instructor at East Valley Institute of Technology for "taking care and pride in the work I do." In return, his instructor speaks highly of the young mason. "Josh exhibited an excellent work ethic throughout his three-year apprenticeship. His willingness to learn propelled him to the head of his class," says instructor Moroni Mejia II.

A graduate of Dunkirk High School in Dunkirk, NY, where he played varsity football and basketball, Garigali moved to Arizona following graduation and has been working fulltime at Sunnyside for almost six years. Garigali

achieved journeyman status last fall.

Garigali participated in the national masonry competition held in conjunction with the 40th annual SkillsUSA Leadership Conference held last summer at Bartle Hall in Kansas City, Mo.



Joshua Garigali of Mesa, Ariz., builds a block wall. Garigali works as a journeyman mason for Sunnyside Masonry in Mesa, Ariz. Photo Credit: Scott Farence, f2pix, Inc.

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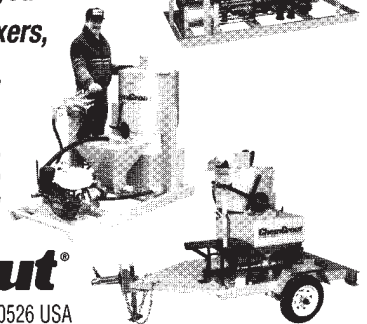
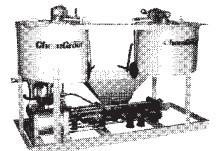
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ASTM Committee E 06 Meetings

April 17-20
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April 22
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PCA Spring Meeting

April 24-26
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No-Dig Show

April 24-27
Orlando, FL

Retail Construction Expo

May 11-15
Atlanta, GA



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