



Thousands get an inside look at the structural steel industry on the fourth annual SteelDay.

Industry Insight

BY GEOFF WEISENBERGER AND VICTORIA CSERVENYAK

Curtis Williams, M2 Marketing



STEELDAY 2012, the fourth occurrence of the annual nationwide celebration of structural steel and the steel industry's largest networking event, has come and gone. And approximately 10,000 people now have a better idea of how the structural steel industry—or at least a specific part of it—works.

On September 28, attendees were on hand at more than 170 local events across the country, getting a taste of everything from molten steel being cast into structural connections to site tours showcasing innovative steel flooring systems to fabricators demonstrating their design and shop processes.

The day itself even got some competition from a handful of “SteelDay Eve” events. Nearly 6,000 attendees were involved on SteelDay-related events that took place before the 28th, including a continuing education webinar (on 50 Tips for Designing Constructable Steel Buildings) that drew 3,000 viewers, and an

event the weekend prior to SteelDay at AISC member/AISC Certified Fabricator PKM Steel in Salina, Kansas, which brought in more than 2,000. (The latter was held early so as to coincide with other events the town was holding that weekend.)

But Friday was the main attraction, with events taking place at steel industry facilities in almost every state. In AISC's home town of Chicago, staff made visits to engineering and other construction-related businesses around the downtown area. Atlas Tube (an AISC member) hosted an event in downtown Chicago for about 50 attendees, which involved a presentation on hollow structural sections and a BBQ lunch. Also in the Chicago area—in Evanston—75 attendees toured a building using Girder-Slab, a composite steel and precast concrete flooring system that maximizes floor-to-ceiling heights while minimizing total building height. One Northwestern University civil



engineering professor even adjusted her class schedule so that her students could participate in SteelDay. (Girder-Slab is also being used in a hotel project in Boston—near Fenway Park—and that facility was also toured as a SteelDay event.)

Further south in Illinois, in Springfield, Selvaggio Steel (an AISC member fabricator) hosted approximately 150 people. The shop is working on a cancer hospital project for which the steel will be erected in October—Breast Cancer Awareness Month—and in honor of the month have painted the steel for the job pink.

On the East Coast, one of the primary events in Virginia was a combined tour of the Gerdau Steel Mill (AISC member) and SteelFab of Virginia, Inc., fabrication shop (AISC member/AISC Certified Fabricator). Buses were provided, making the event easily accessible for the group of guests which was made up of engineers, contractors and fabricators. In addition

to the tour, past the car shredder and through the mill, Gerdau offered more details on their operations through a virtual tour and a question-and-answer period.

On the West Coast, around 40 attendees were given a tour of Pacific Steel, a foundry in Berkeley, California. Where structural mills focus on the familiar structural shapes of plate and wide-flange steel, foundries tend to be geared to more complex and specialized components, mainly for non-construction industries such as automotive and agricultural. However, Pacific Steel manufactures components for Cast ConneX (AISC associate member), a maker of cast structural steel seismic and aesthetic connections. Around 40 people attended the Pacific-Cast ConneX event, including several students and several people working on the Transbay Transit Center, which will feature Cast ConneX connections when

Insights from a Video Game Guru

PKM Steel Service, Inc., (an AISC member and AISC Certified Fabricator) kicked off SteelDay about a week early, with tours of its Salina, Kan., facility and more than 100 vendor booths. The pre-SteelDay event featured several entrepreneurial speakers, including Nolan Bushnell, founder of the Atari Corporation and known as the "father of the video game industry."

AISC's Victoria Cservenyak and Tasha Weiss had the opportunity to interview Bushnell regarding his views on teamwork, innovation and success, and how they can apply to the structural steel industry.

You spoke about teamwork in your lecture. What are some tips on inspiring teamwork amongst specifiers, fabricators, contractors and the rest of the project team?

Teamwork is really about mutual trust. That's really the glue that lets a team work together. If you're not confident that the other person can do their job, then you don't feel good about delegating that job to them. So the first thing you have to do is build this common glue of trust. Next, nobody needs to be or should be greedy. It turns out that everybody feels good about proper pay for proper work. If somebody is taking all of the margin, then the teamwork fails. You also have to share risk. Every project has some risk and it's important to share that. All of those things, when properly put together, produce some wonderful outputs.

You're writing a book about creativity in business. Can you give examples of your "pongs" (the rules in Bushnell's book are called "pongs" in honor of the classic video game he invented) for business that would apply to the steel industry?

Basically all of them apply. I would say that the most important ones have to do with action. Most companies have a lot of creative people and a lot of people who have

good ideas. But they just never get put into production; they never get used. I think that the more a company tries things, the better.

Look at how can you do five percent of your work, five percent of your research, five percent of design on nutty ideas. New stuff just always seems a little bit nutty because you know what you did last year and you were comfortable with it. Things that are new are a little bit scary. So you have to be willing to face your fears, do things that are a little different, and every once in a while you will be surprised. And that crazy product that you thought was the nutty one becomes the most important part of your business.

Remember, Apple Computer was in the computer business—which led to the iPhone, iPad and a whole ecosystem of iTunes and an app store, which is much bigger than the computer part of their business. The crazy product became the dominant product. And that happens over and over again.

What are your thoughts on Alan Kay's famous quote "The best way to predict the future is to invent it?"

I've lived that quote all my life. It turns out that making the future happen is really, really fun. I'm a big reader of science fiction and I so much want to live there. A lot of times I'm just going to have to invent it.

What advice would you give to young engineers or entrepreneurs?

I think that the best advice is to be active. Do different things, learn different things. Go to different places, different trade shows. Try to be the sponge that soaks up the world and does things differently. The more you do different things, the bigger your brain gets and the more you have this sort of foundation of ideas. That makes you more successful. The most important thing is to be a lifelong learner.



it opens in San Francisco in 2017. On the tour, attendees saw how molds are made, steel being melted in an electric-arc furnace (much smaller than the ones used in structural mills), molten steel (almost 2,900 °F) being poured into molds to be cast into shape and several other operations. The tour was followed by lunch and presentations from Cast ConneX and Pacific Steel. Pacific Steel is next door to a forge and attendees were kept on their toes thanks to the pounding of the hammer forge machine, which rattled the buildings in the immediate area throughout the day. Another Bay Area event took place at ConXtech's (AISC member) facility in Hayward, where around 50 attendees were able to see the machinery the company uses to make their assemblies (described as a full-scale "Erector Set").

Back on the East Coast, near Baltimore, B & B Welding (AISC member) celebrated its 40 years in the steel industry with a SteelDay party. The company demonstrated its 3D modeling process (using SDS/2) to students, architects, engineers and industry representatives, and also gave shop tours. There was even a lunch spread

that included lamb roasted on a spit. About 150 people attended and everyone left full of knowledge, gifts and food.

Not far away in Washington, D.C., several attendees took a tour of the refurbishment of the Smithsonian's Arts and Industries Building, which was the original home of the National Museum. AISC member and Certified Fabricator Superior Iron Works, Inc., fabricated the AESS angles, channels and HSS sections to mimic the original roof of the building; some of the original 130-year-old steel still remains in place after the seismic and blast retrofit (the original steel appears a white/pale yellow). Grunley Construction, the general contractor, coordinated the tour and expressed their appreciation for the great work that Superior Iron had conducted. They noted that the speed at which the steel was fabricated has helped to speed up the other trades on the site as well.

These are just a handful of the dozens of events that made SteelDay 2012 a success. If you happened to miss it, there are structural steel facilities of all types all across the country that would be happy to show you what they do.

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