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Crystal Achievement Awards

AN INSIDE LOOK AT INNOVATION

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Notable Products
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Most Innovative Machine

AKS 8400NA-Vario PVC Welding Machine by [Urban Machinery](http://UrbanMachinery.com)

u-r-b-a-n.com

“The old saying is time is money. The Urban machine is very fast and that means greater throughput, more production, lower per unit costs and, ultimately, higher profits.”

—Crystal Achievement Award judge

“Machines are the heart of manufacturing,” says one of our Crystal Achievement Award judges. “The more innovative they become the more cost effective, quality and better looking product a fabricator can offer the end user.”

Case in point is this year’s Most Innovative Machine, the AKS 8400NA-Vario. According to Urban Machinery, it is the first high-speed four-point vertical PVC welder. It features 11 servo axes, eight of which drive the welding tables in a true parallel motion.

“Fabricators are always looking for improvements in efficiency and quality,” says another judge. “Urban has shown that its PVC welder offers outstanding weld times with a better quality weld.”

Innovative Elements

A common problem for manufacturers is to get machine cycle time below the 60-seconds-per-cycle barrier. According to Urban, this new technology allows the machine to produce frames and sashes below the 60 second cycle time threshold.

The feedback from the servos allows all heads to move with a high degree of precision creating a very consistent weld quality in both final size and weld strength, according to the company. Additionally, the burn off can be adjusted to each profile type and is controlled exclusively by servo position. All motors are

synchronized using new software programming to ensure proper weld consistency. Software logs the actual feedback from the servos, allowing the quality of the final product to be confirmed.

“Due to the stable construction and special functions, the machine achieves the highest possible dimension accuracy and adapts perfectly to user requirements,” company literature says. Additionally, the company says its convenient access to the single modules allows a fast and easy maintenance and cleaning of the machine. The automatic unlocking device of the locking bolts, which is optionally available, helps to save additional time when changing and adjusting the outside fixtures. And, it’s no longer necessary to change the back stop for straight overlap sash profiles from 40 mm to 200 mm.

The IPC-controller is integrated in a clearly-arranged terminal and equipped with an online connection facility. This not only guarantees convenient machine operation, but an uncomplicated integration with other machines and production units, according to company literature.

“Urban fills a need, affordably,” says one judge. “Over-engineered and expensive machines are not on anyone’s target list for equipment. Sometimes simple is the best practice, especially when it comes to cost.”

Keeping Up with the Joneses

60%

of surveyed manufacturers report that they plan to modernize and increase efficiency in 2015. Second on the priority list, 47 percent of manufacturers want to expand production capacity.

**Source: Window & Door’s annual Industry Pulse Survey, 2015*