

# In The Spot Light

## Lowell Concrete Products Company

*Lowell, Indiana*



A long-time pipe and manhole producer, owner Bill Austgen's dream was to one day have a totally automated state-of-the-art pipe plant. And that day has arrived. Lowell Concrete became the first to install and put into operation Hawkeye's new PipePro AutoPlant. Now in full production, Lowell Concrete's plant features pipe making technology and benefits found nowhere else.

This factory includes new automation technology that is the first of its kind. Traditionally, automated pipe factories were designed for longer runs of individual pipe sizes which limited their production flexibility. The new Hawkeye PipePro AutoPlant system at Lowell Concrete Products has the ability to run three different pipe sizes at-a-time and also manhole products. The mold changeover time is less than one hour and the robotic handling

and post-processing equipment requires no changeover as it automatically adjusts to any pipe or manhole size entering the system. This result is total automation with production flexibility.

The Hawkeye PipePro AutoPlant requires just two people to operate. One person monitors the PipePro Machine and places reinforcement on the pallet. A second person monitors the robotic pipe handling and post-processing system. In addition to these two people, other personnel are required in the plant to manufacture reinforcing cages and to transport finished pipe to the yard for storage and truck loading.

All manufacturing, transport, and post-processing operations are fully automated. Pipes are manufactured on a three-station rotary turntable PipePro Machine. The PipePro



**Bill Austgen**  
President of Lowell Concrete Products

Machine produces three concrete pipe sizes at-a-time in sizes from 12" to 72" diameter x 8' long. In addition to pipe, the PipePro is also used to produce 48" diameter manhole riser sections. For maximum output, 12" to 18" diameter pipe is produced in Quadform modules that produce four pipe at-a-time and pipe up to 30" diameter are produced in Duoform modules that produce two pipe at-a-time. This results in a production rate of less than one minute per pipe in certain run combinations.

The finished pipe are automatically off-borne from the PipePro Machine to a moving floor system. The moving floor is part of a circulating kiln system that transports the pipe through curing chambers. The system is designed for any length or continuous production shifts.

After curing, a manipulator retrieves the pipe from the moving floor system and transports it to a depalletizer. The bottom pallet and the top joint ring are automatically removed, cleaned, and stored in an automatic joint ring storage and retrieval area. The pipe is tipped, deburred, vacuum tested, marked, and transported outdoors for yarding. Since three different pipe sizes



The PipePro Machine manufactures three different pipe sizes at-a-time on a rotary turntable.

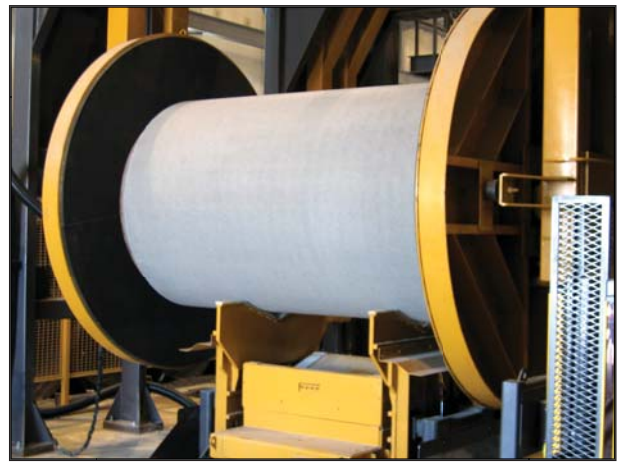


Quadform module is shown offbearing four pipe at-a-time from the PipePro Machine. All pipe sizes up to 18" diameter are produced with Quadform modules for maximum output.

are manufactured at-a-time, there are three separate storage rails. A built-in sorter automatically directs pipe of a given size to each storage rail.

The cleaned joint rings are stored in an automatic storage and retrieval area. The individual pallet and top joint ring manipulators used to store the rings are also used to retrieve and feed rings to the PipePro Machine. If a new mould is put into production, the manipulators automatically retrieve and feed the appropriate size of joint rings to the PipePro Machine.

To produce quality pipe with excellent cosmetics, Hawkeye's new synchronized vibration technology was utilized. This vibration technology assures dense, well compacted concrete. In addition, the form sets were equipped with attachments to enhance pipe cosmetics. These at-



#### AutoPlant Vacuum Tester

Pipe are vacuumed tested during post-processing.

tachments included replaceable, machined jacket and core tops which permit close fits. Also, top spigot forming headers are used and remain on the product throughout the curing process to insure precision joints. Bill Austgen, President of Lowell Concrete Products, reports that his products are receiving top reviews in his market area. He goes on to say that the density of his concrete and the cosmetics of his pipe are excellent and well above his expectations.

In addition to concrete pipe, Lowell Concrete can also manufacture manhole products on their PipePro AutoPlant. The manholes are manufactured right along with concrete pipe on the PipePro's three-station turntable. The AutoPlant's product handling and joint ring removal equipment is all designed so that manhole production seamlessly meshes with pipe production. The same processing equipment used for pipe manufacture is used to remove and handle manhole products and joint rings. A separate post-processing line was supplied to deburr, vacuum test, and mark manhole products.



Pipes are transported to curing chambers with a circulating moving floor system that permits continuous or any length production shift.

For more information about:

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For more information about

The Hawkeye Group

see their ad on page 26 of this month's Concrete Today or at:

<http://www.hawkeye-pipe.com>