



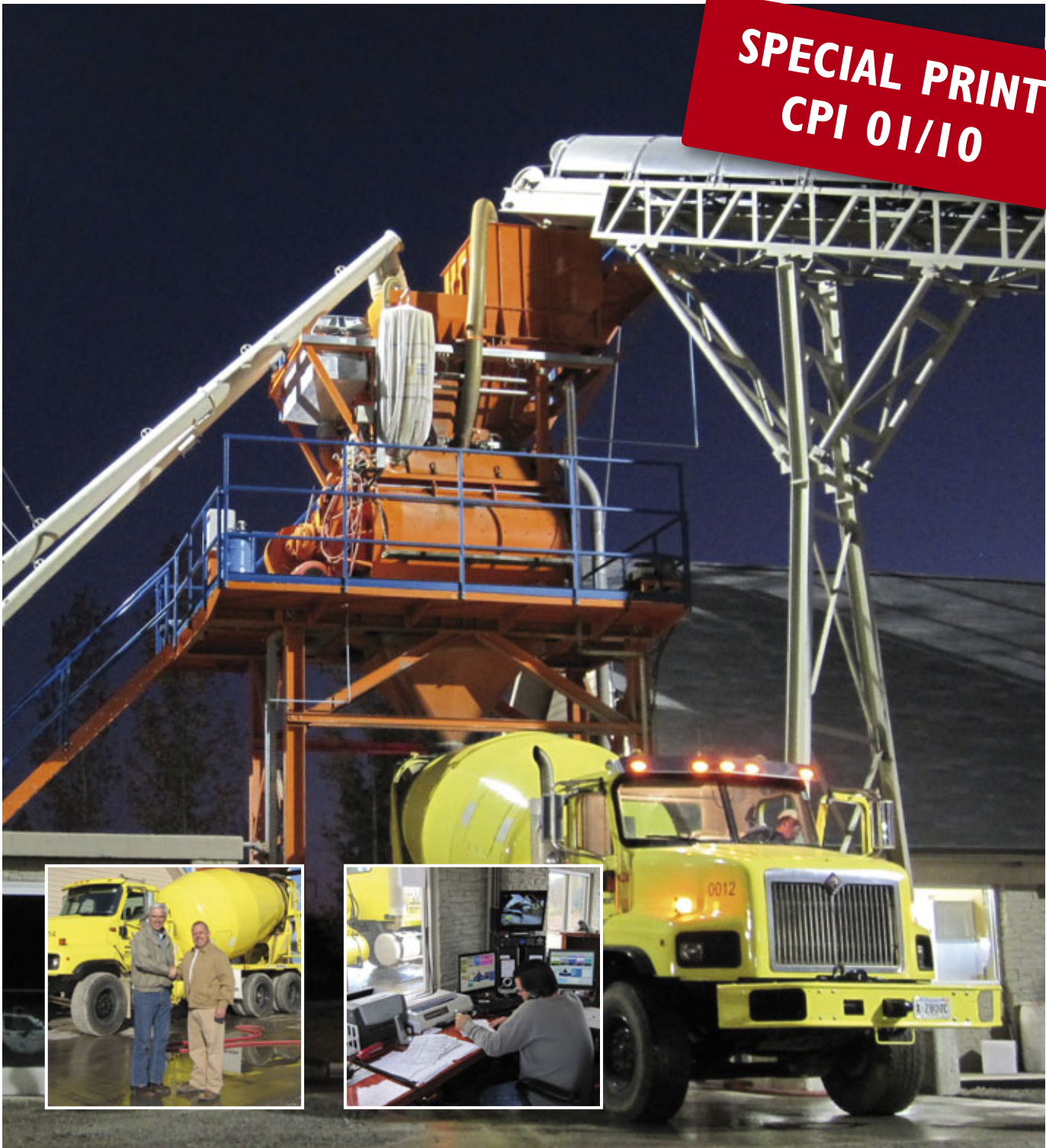
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SPECIAL PRINT | READYMIX CONCRETE

Ready-mix - an important part of TN precaster's new business

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Ready-mix – an important part of TN precaster’s new business

Jeff VanHoose has learned the concrete business, literally from the ground up. Beginning as a concrete contractor in the Knoxville, Tennessee area he learned the hard way that truck mixed ready-mix concrete (RMC) was not the most reliable way to produce this important building material. Now, on his second precast products plant (he sold the first to Hanson Pipe & Precast) he knows that if you want it done right you have to do it yourself. “I poured concrete for many years using hundreds of different ready-mix producers and I can tell you that one load of truck-mixed RMC could be very different from the next, on the same job,” he recalls. “There was no real consistency from load to load. One might be rocky and stiff, for instance, and next was not.”

When he founded East Tennessee Precast in 1998, VanHoose initially relied on truck-mixed RMC to fill forms for his sanitary sewer and drainage products, including manholes, catch basins and utility structures.

Buyout leads to new enterprise

“I used to order self compacting concrete (SCC) from a local RMC supplier, but they couldn’t keep it consistent enough for me,”

VanHoose, 46, says. “So, I put in my own batching plant to produce my own SCC mix. That batch plant was a SmartMix plant from Advanced Concrete Technologies (ACT). We were able to produce SCC consistently and exactly the way I wanted it. We were double pouring molds working only one shift up until we sold out to Hanson.”

That was in the fall of 2007. Ever the entrepreneur, VanHoose began immediately searching for a new business to start. Due to an agreement he signed with Hanson at the time of the buyout, his next business could not include precast sewer and drainage products. He attended the World of Concrete in Las Vegas in the winter of 2008 and found something that interested him – tilt-up walls.

On his way to establishing the newly founded VanHooseCo Precast Tilt-Wall Division in 2008 and 2009, something got in the way: the worst recession in living memory. “I knew I wanted the best batching system I could find, but in the current economy, I couldn’t really justify the investment on the tilt-wall business alone,” VanHoose explains. “I decided early on that our new business would also sell high quality ready-mix to the public. We would operate a central mix plant, which means we output fully mixed concrete into the delivery vehicle, be it a standard concrete truck or a dump truck.”

Site with a view... and a new batching plant

“I purchased a 33-acre site with river and rail access to accommodate both my ready-mix and precast operations,” VanHoose notes. “ACT president Max Hoene made several visits to the site and consulted via conference calls to help us design our layout. We feel all of that planning is really paying off through a smooth and efficient operation.”



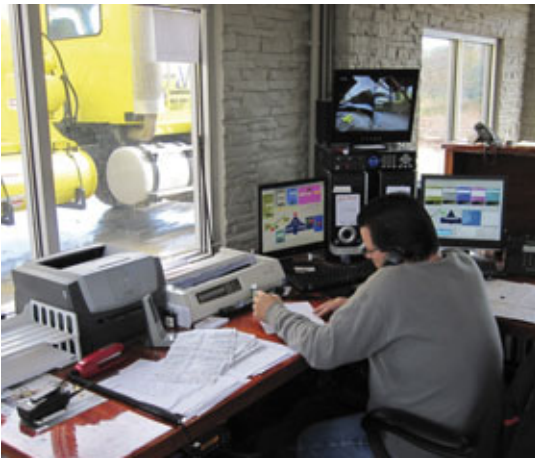
The power of automated high pressure washout system – after 3 weeks of use without manual cleaning, this Wiggert DWM 4500 twin shaft mixer, the heart of VanHooseCo’s central mix batching plant, is fitted with an automatic mixer cleaning system.

Based on his earlier positive experience with the ACT SmartMix batching plant, VanHoose again chose ACT to provide equipment for his new central mix plant. This time he selected a high volume ACT MobilMat Mo120DB/F-PCS turnkey batch plant equipped with:

- In-ground truck dump hopper allows aggregate deliveries to be transferred via 300 ton-per-hour conveyor from ground level to the aggregate storage bins without a front-end loader – a 5-way turn head directs different aggregates into appropriate storage bins;
- 300-ton five-compartment aggregate storage bin system with steel rain roof and four cubic yard weigh batcher includes 600 ton-per-hour conveyor to transport aggregate batch to holding hopper above mixer;



Jeff VanHoose (right), Founder and President of VanHooseCo LLC greets Max Hoene, President of Advanced Concrete Technologies (ACT).



One-man operations – Dispatcher and plant operator Tony Sommo enters orders into the ACT PCS Control System (screens in background). Every aspect of batching operations can be monitored and controlled from this central location.

- Hydrotester moisture probes in the sand bins enable the system to automatically compensate batch yield for moisture content in sand;

- Wiggert DWM 4500 twin-shaft mixer with an output of four cubic yards per batch in just 30 seconds mixing time and equipped with an automatic mixer cleaning system;
- In-mixer Hydromat microwave moisture probe that automatically adjusts final batch water to exactly achieve the target water/cement ratio;



The new VanHooseCo combination ready-mix and precast tilt-up wall operation on 33-acre site in Loudon, TN. At right, 300-ton 5-compartment aggregate storage and in the back are cement silos and orange twin-shaft mixer platform.



Like night and day – Centrally mixed RMC produced in VanHooseCo’s new ACT MobilMat batching plant provides superior consistency over dry batched RMC.



Two trucks queue up to be loaded from the ACT MobilMat Mo120 batch plant at VanHooseCo's RMC and precast tilt-up wall operation in Loudon, TN.

- PCS Control System features both touch screen control and mouse/keyboard navigation using the Microsoft Windows operating system – provides automatic order tracking, automatic in-flight correction of all components; production statistics, inventory administration and alerts, automatic diagnostics, and remote diagnostics and updates;
- Two cement silos – 125-ton are equipped with radar silo probes for accurate level indication and user definable alarms for “low” and “high” silo levels; and
- Site design engineering & commissioning – ACT helped VanHoose design his plant layout for optimal performance and pro-

fitability, including on-site visits, plan review, pre-delivery preparation (prewired, preplumbed, and pretested at factory), installation and start-up.

The automatic aggregate handling capabilities of the new plant enable VanHooseCo to function without a full-time loader operator on duty, saving on labor costs. Loads of aggregate are simply dumped into a ground level compartment and automatically conveyed to the main aggregate storage bins where the turn-head chute directs the aggregate into the correct compartment. The Wiggert DWM 4500 twin shaft mixer's automatic high pressure washout system re-

duces clean up time to once-a-month removal of the minimal build-up that the cleaning system misses. “This saves approximately 40 minutes per day in clean-up time, and also reduces the need for a worker to physically climb into the mixer every day to keep it clean,” VanHoose notes. “When manual cleaning is required, the mixer’s safety interlocks prevent operation with the doors open.”

A new way to deliver RMC

VanHooseCo's Ready-Mix Division is quickly building a loyal following of contractors and experiences output days of 280 cubic yards or more, and manages this volume with just



In-ground truck dump hopper allows aggregate deliveries to be transferred via 300 ton-per-hour conveyor from ground level to the aggregate storage bins (at left) without a front-end loader – a 5-way turn head directs different aggregates into appropriate storage bins.

seven delivery trucks. VanHoose is quick to note that at first many contractors in this rural market were not familiar with the advantages of a central mix plant in which the concrete is fully mixed before it's loaded into the delivery vehicle versus conventional dry batch plants where the concrete is mixed in the truck.

The advantages of centrally mixed RMC to the customer include higher quality concrete due to the total accuracy provided by the precision mixing and batching system, accurate moisture control resulting in consistent slump every time, and improved finishing ease.

"The finishers we hear from really love our central mix concrete," VanHoose emphasizes. "With central mix, our customer always get the highest quality concrete and we can produce specialty mixes that traditional dry mix RMC plants can't provide, such as precision SCC or roller compacted concrete (RCC) for large paving projects."

For the producer, because the concrete is fully mixed in the central mixer, it requires only

slow-speed in-truck agitation which dramatically reduces mixer truck drum wear. The ACT central mix plant also enables the producer to provide batching accuracy that can't be matched by dry batch operations, as well as detailed documentation of every batch.

VanHoose is currently working to achieve Tennessee DOT certification and will also seek out NPCA (National Precast Concrete Association) certification. "I went through both DOT and NPCA certification successfully with my last business, East Tennessee Precast, where we used an ACT batch plant. I know we'll be successful this time as well. The ACT plant provides the highest level of batching accuracy and recordkeeping. Every detail of the batching process is captured on the batch ticket, which the DOT in particular looks for. In fact we are adding a couple more trucks to our fleet soon to continue building and servicing our market." ■

FURTHER INFORMATION



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