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Midwest Block, USA, Updates Two  
Facilities with New Generation Machinery

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Pathfinder Systems, Holland, Michigan 49424, USA

# Midwest Block, USA, Updates Two Facilities with New Generation Machinery

Midwest Products Group wanted to explore what to do with the two-machine operation at Midwest Block in Tulsa, OK as both of the production lines required extensive repairs and upgrades. The Production and Operation Task Group toyed with the idea of taking out one line of the multiple machine facility and operating with only one machine to save on maintenance costs, promote operation efficiencies, and train a production crew that focuses on operating and maintaining high production equipment. Ultimately, they ended up choosing a single Tiger Machine Model S-3 Concrete Products Machine to accomplish these goals.

Midwest chose the Model S-3 because it was specifically designed to replace older style block machines fitting in the exact same machine envelope. The existing foundation could be used, as well as the existing pallet handling equipment. Even the concrete hopper charging height remained the same. The Tiger Model S uses the existing molds and vibrators with only minor modifications needed. Vibrator shafts are turned around 180 degrees, so the belts and motors are behind the mold, opening the front of the machine for added

viewing and safety. Mold change times are reduced by automatically clamping the head and mold assembly while delivering the mold into and out of the machine with a simple cradle. Height changes are accomplished quickly by removing and replacing 2 head stops and 2 pallet table stops during the mold change process. Every component on the Model S has been designed for easy access and maintenance, reducing downtime and increasing production efficiency.

The Model S-3 runs at speeds up to 10 cycles/minute while producing a product that is high-quality and consistent. The higher manufacturing speeds and ease of height and mold changes can reduce the need for excess inventory during busy times.

Converting from two machines to one brought about other challenges, one of which was the existing batching and mixing setup. The Task Group believed it would not keep up with the Model S-3 production rate, so they recommended replacing their two old-style ribbon mixers with a new 3-gate Teka turbine mixer and revising their color blending to a 3-hopper system feeding onto a metering conveyor to the Model S-3. They also recommended upgrading the existing controls.



Midwest crew completing a quick mold change on their Model S



Midwest's new RTS (Rack Transport System) in operation

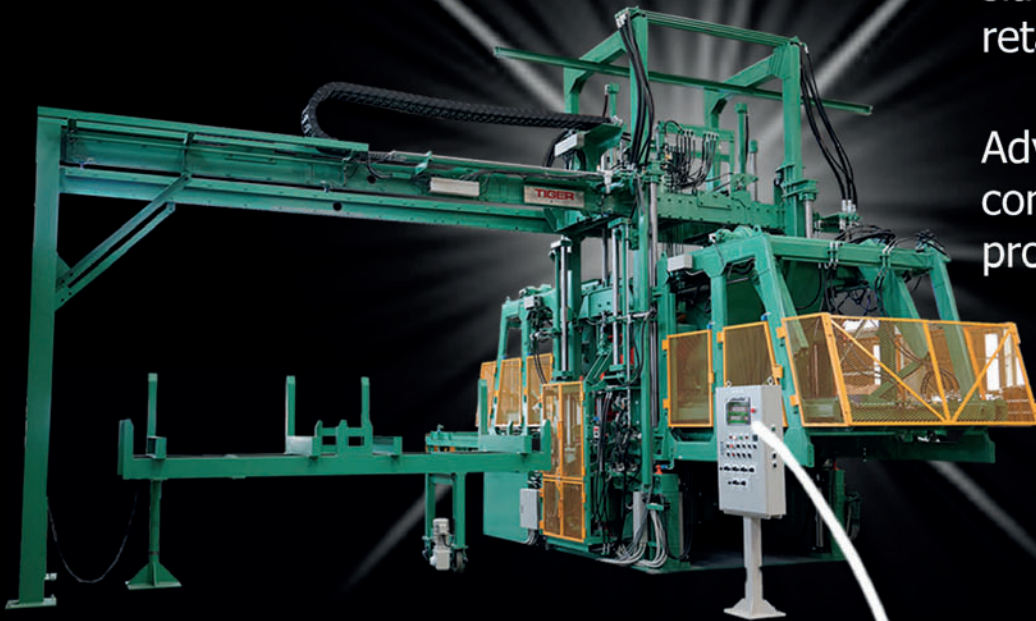
## CONCRETE PRODUCTS MACHINE

Capable of producing pavers, slabs, full height block and retaining wall

Advanced height control for consistency of ANY sized product

Fully Automatic Mold Change

New and improved user-friendly controls



Recently we received this picture from Cambridge Pavers. One of Cambridge's full board PS-100 TIGER plants (an older generation of the PS-1000) has run over **15 million cycles**; making Face Mix Pavers over the past **16 years**.

This is equal to over **180 million square feet of Face Mix Pavers!**  
(while running only 10 months of the year)

Now that's a testament to the integrity and longevity of a TIGER machine!!!

## TIGER PS-1000



**15,000,000  
CYCLES  
AND STILL  
RUNNING!**



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*Tiger and Midwest posing in front of Midwest's new Model S-3 machine*

The Task Group recognized that the existing pallet handling system was designed for a slower production rate. Not wanting to create a bottleneck, the Task Group explored replacing the old hydraulic loader/unloader and transfer cars with a new, completely electric Tiger Rack Handling System. Tiger designed this system to use their existing racks, curing chambers, and transfer car rails. This allowed them to get a modern, efficient, first-in, first-out system without modifying their building. The forward thinking of the Task Group also predicted an increase in sales and how increased production might take place without major renovations to the building structure. Accelerated curing would be the first step and the existing curing would not keep up with the higher production capabilities. They recommended adding a new, high-efficiency CureTec Steam Generator with automatic chamber doors and new curing controls. This would allow them to utilize their existing chambers and racks more efficiently and keep up with the higher production rate of the Model S without the additional cost of building more curing chambers and filling them with racks and pallets.

The Production and Operations Task Group presented all these improvements and modifications to the management team and they agreed to proceed with their plan. In July of 2018, all phases of the project were completed and the Tiger Model S-3 meets or exceeds all of Midwest's expectations.



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*Sam Lock of Midwest Block is happy with their new Model S*

#### FURTHER INFORMATION



[www.midwestblock.com](http://www.midwestblock.com)



Pathfinder Systems  
695 Ottawa Beach Road, Holland, Michigan 49424, USA  
T +1 616 395 8447  
[sales@pathfindersystem.com](mailto:sales@pathfindersystem.com), [www.pathfindersystem.com](http://www.pathfindersystem.com)



CureTec Energietechnik GmbH & Co. KG  
Lehmkuhlen 13, 49757 Vrees, Germany  
T +49 4479 9390600, F +49 4479 9390620  
[info@curetec.de](mailto:info@curetec.de), [www.curetec.de](http://www.curetec.de)



Teka Maschinenbau GmbH  
In den Seewiesen 2, 67480 Edenkoben, Germany  
T +49 6323 8090, F +49 6323 80910  
[info@teka-maschinenbau.de](mailto:info@teka-maschinenbau.de), [www.teka.de](http://www.teka.de)