



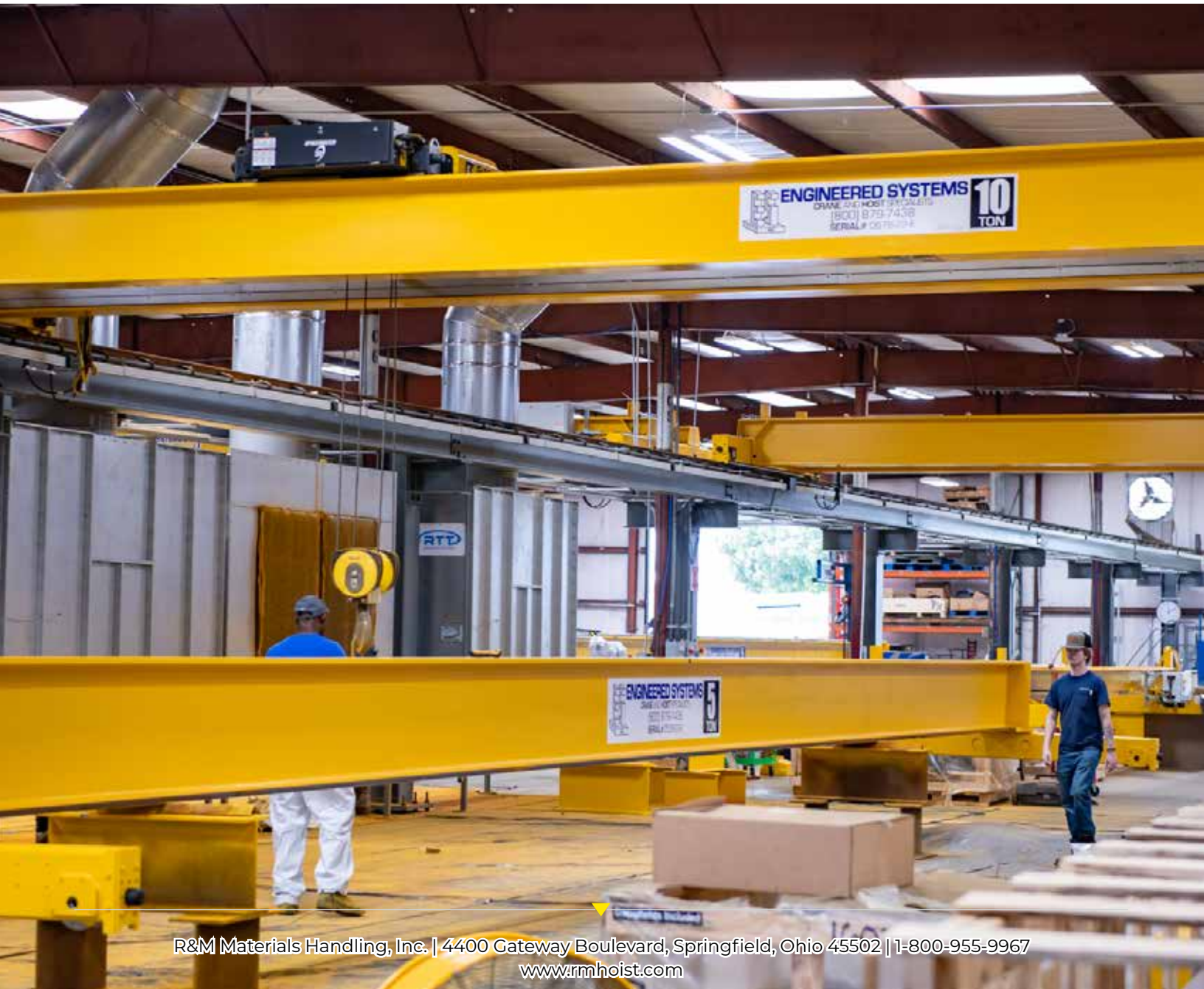
ENGINEERED SYSTEMS, INC | CRANE MANUFACTURING

STEEL GIRDER FABRICATION

CASE STUDY

ENGINEERED SYSTEMS INSTALLS R&M CRANES, HOISTS AT NEW FACILITY

Engineered Systems, Inc. has installed lifting equipment from R&M Materials Handling, Inc. at its new facility in Duncan, S.C. Engineered Systems is an R&M distributor, supplying a range of wire rope hoists, crane kits and replacement parts. It is a full-service crane and hoist provider with approximately 200 employees across five states, which includes crane maintenance, operator training and engineering services.





THE APPLICATION

Engineered Systems, Inc. looked no further than its trusted manufacturing partner, R&M Materials Handling, when it required new lifting equipment to facilitate increased capacity for crane building—growing from three lines to five lines of production.

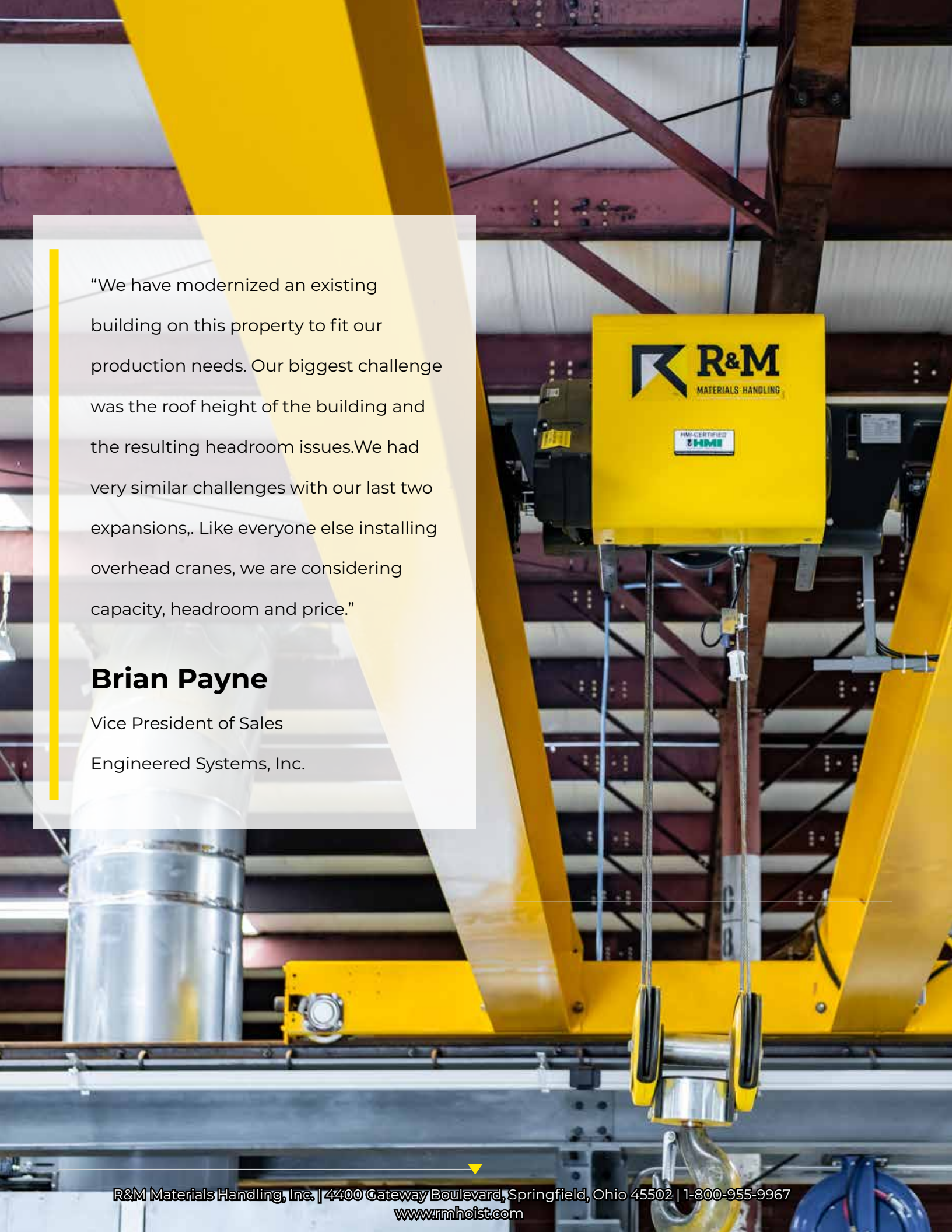
The new site, which was fully operational on June 26, 2023, is located in Duncan, S.C., near three other properties the company owns. Covering 43,000 sq. ft., 12 welders, painters and electricians will support the new lines, including three new recruits.

THE CHALLENGE

Engineered Systems needed a solution that gave them the best headroom in the industry. Engineered Systems was also interested in bringing in the most advanced monitoring technology and remote connectivity to give them the biggest return on investment possible.

The two, new production lines span 300 ft. and will be exclusively used to make profile cranes. The crane support structure, box girder cranes and V-girders will be produced at one of Engineered Systems' different facilities. The new lines needed to be served by six, 10-ton capacity double girder cranes.



A yellow overhead crane is the central focus of the image. The crane's main beam is a thick, bright yellow I-beam. A yellow control box is mounted on the beam, featuring the R&M logo and the text 'R&M MATERIALS HANDLING'. Below the control box, a vertical steel cable runs down to a hook assembly. The background shows the dark red steel truss structure of a large industrial building. The lighting is bright, highlighting the yellow of the crane against the darker background.

“We have modernized an existing building on this property to fit our production needs. Our biggest challenge was the roof height of the building and the resulting headroom issues. We had very similar challenges with our last two expansions. Like everyone else installing overhead cranes, we are considering capacity, headroom and price.”

Brian Payne

Vice President of Sales
Engineered Systems, Inc.



THE SOLUTION

Engineered Systems selected standard R&M Spacemaster® SX crane kits. Payne pointed to the range's "excellent headroom," which was a driving factor in the selection, but the hoist monitoring and remote access, plus other features, were also important considerations.

All of the cranes span 48ft., with 10 tons of lifting capacity and feature R&M's industry-leading remote monitoring system, "Overhead Lifting Information" (OLI), which will be used to maximize return on investment and equipment performance by providing essential information so they can implement predictive maintenance and diagnose issues onsite and remotely.



Engineered Systems chose R&M's NRCmaster energy chain which enhances the cranes' headroom by removing the traditional festoon and placing the track inside the web of the bridge beam, giving the cranes an overall cleaner appearance, and protecting the wires from accidental contact with equipment or objects in the area.

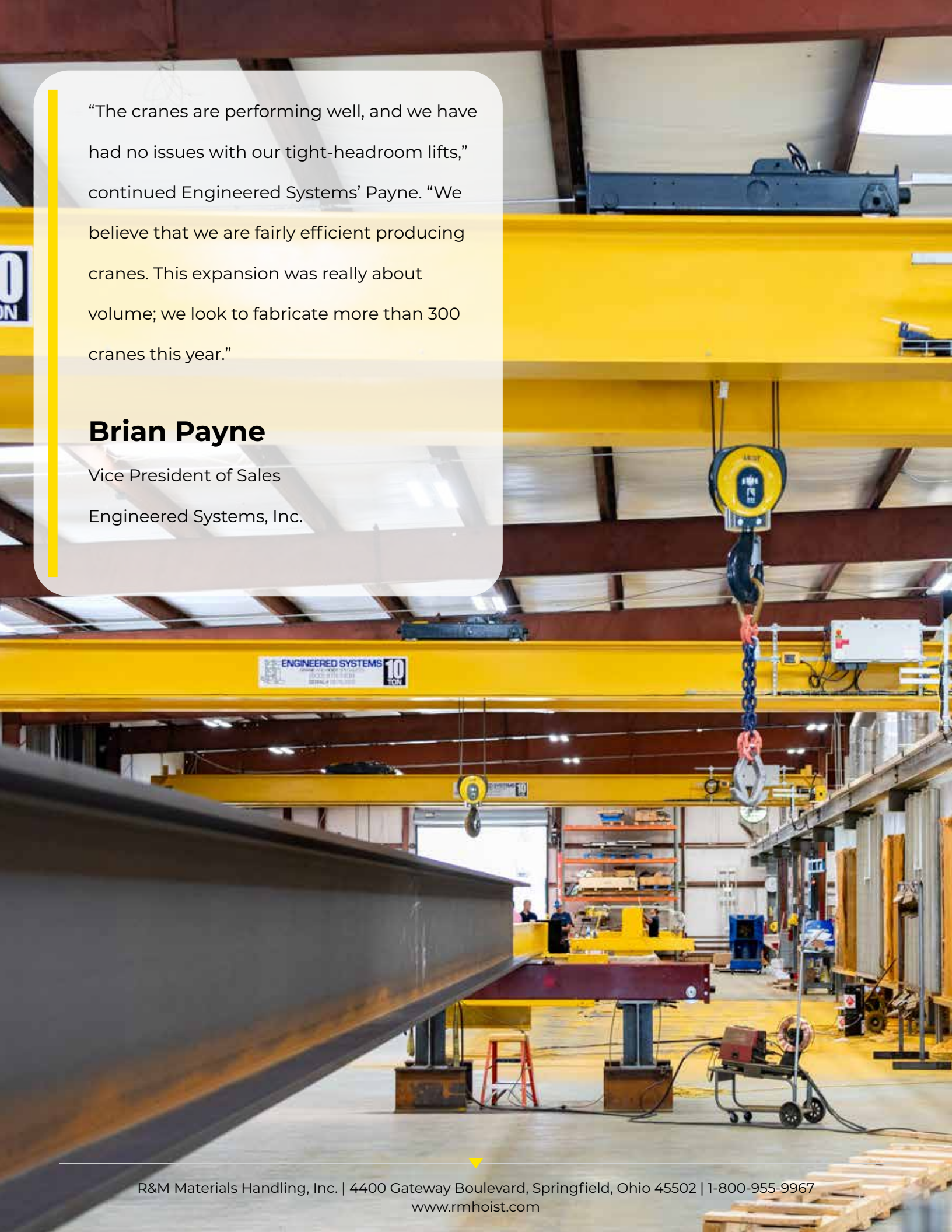
The SX wire rope hoist features a large drum diameter that creates near true vertical lift; this design allows Engineered Systems to use the largest area under the crane, allowing them to use the complete production area and not sacrifice the areas near the walls. The SX end approach is better than most other hoists on the market.

“The cranes are performing well, and we have had no issues with our tight-headroom lifts,” continued Engineered Systems’ Payne. “We believe that we are fairly efficient producing cranes. This expansion was really about volume; we look to fabricate more than 300 cranes this year.”

Brian Payne

Vice President of Sales

Engineered Systems, Inc.





THE RESULTS

The expansion, uplifted by its new cranes and hoists, will position Engineered Systems for continued growth, especially as dedicated crane builders will be in high demand as consolidation of the wider market is driven by investment banking groups, for example, Payne suggested.

“We are growing at about 22% annually,” beamed Payne. “There are multiple sectors driving demand. Existing manufacturing facilities in our region are expanding, while manufacturing facilities [are] moving into the Southeast from other parts of the U.S. and the world.”

“Automotive manufacturers and their suppliers, agricultural equipment manufacturers, and the aviation industry, are all keeping us busy.”