



# Industrial Manufacturing Case Study

Omega Flex | PA Crane Co.

Ceiling-Mounted Crane Improves Corrugation Workflow at Omega Flex. Demag workstation crane supports larger diameter pipe handling while maximizing floor space.

Pennsylvania Crane, Hoist, and Rigging Company (PA Crane Co.) installed a KBK ceiling-mounted overhead workstation crane from Demag Cranes & Components Corp. at Omega Flex, Inc., to support the handling of larger-diameter pipe at its Exton, Pennsylvania facility.

**DEMAG** .....

## THE COMPANY

Omega Flex, Inc. was established in 1975 and is a leading innovator and manufacturer of flexible metal hose and piping products. Typical applications for its products include flexible piping for fuel gases in residential and commercial construction, semi rigid piping for liquid fuels for automotive, marina and back-up generation, flexible tubing for medical, healthcare facilities, pharmaceutical and pure gases, and flexible hoses for various industrial applications requiring a high degree of flexibility with the ability to carry corrosive substances at cryogenic or very high temperatures. Omega Flex currently has over 100 patents registered worldwide and is a product and engineering driven company committed to meeting its customers' performance requirements.

At its primary manufacturing site in Exton, Pennsylvania, the company already operated multiple cranes. However, the introduction of larger-diameter pipe created the need for an additional material handling solution. Brian Breiting, Engineering Manager at Omega Flex, has overseen material handling installations at the company for nearly two decades.

# THE REQUIREMENT

To support its corrugation process for industrial pipe ranging from 6 to 16 inches in diameter, Omega Flex required a new material handling solution that could safely accommodate increased loads while maintaining production efficiency.

The corrugation process transforms smooth metal tubing into a flexible structure capable of absorbing movement and handling pressure. As pipe length increased, so did its weight, making efficient and reliable lifting critical to maintaining cycle time.

The installation environment presented additional challenges. The facility featured ceiling-supporting steel with a compound pitch in two directions, requiring a solution that would integrate seamlessly without compromising available floor space.

Breitinger and his engineering team worked closely with PA Crane Co. to develop a solution that met both structural and operational requirements.





# THE SOLUTION

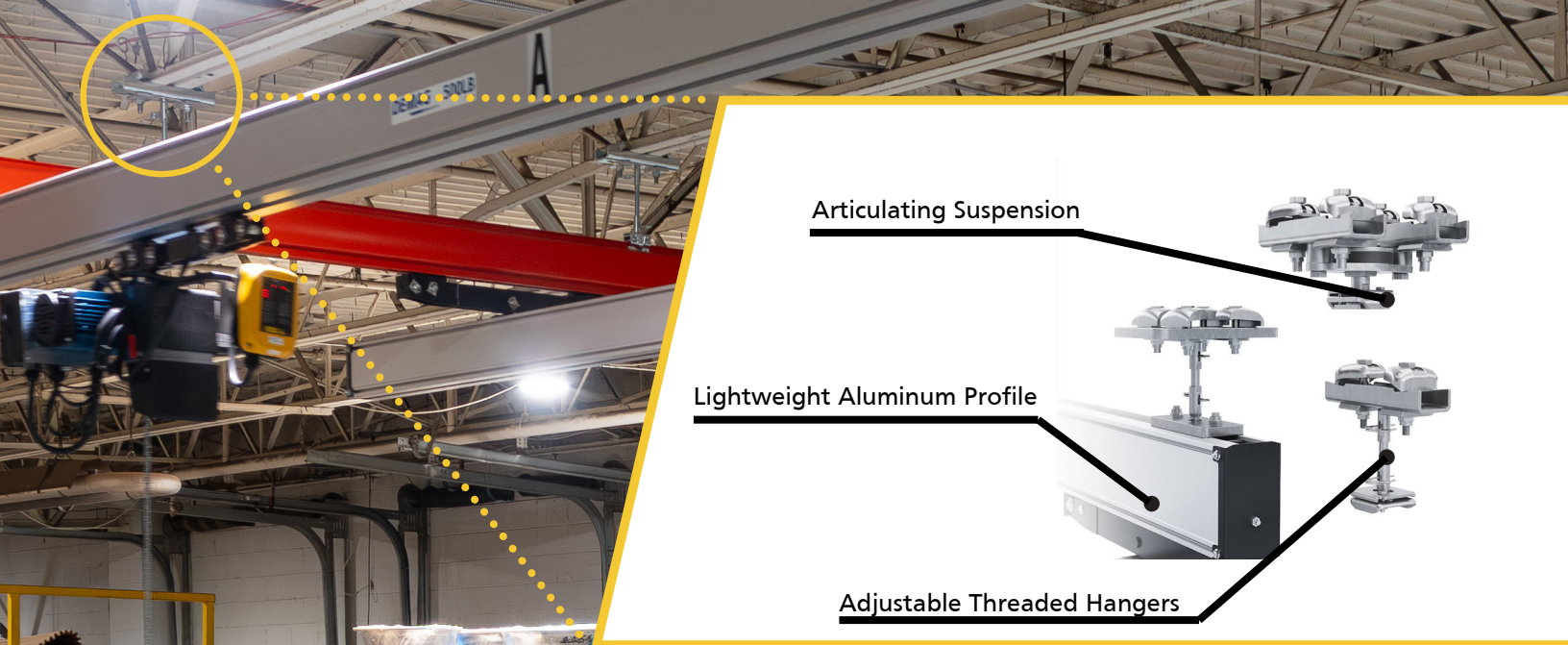
Demag's KBK ceiling-mounted overhead workstation crane was selected to meet Omega Flex's material handling needs while maximizing available workspace. The KBK crane system's articulating suspension hangers were able to fit to the roof's slope during installation because the threaded rods that attach them to the ceiling allow for adjustment and fine tuning.

Ryan Galer, Light Lifting Regional Sales Manager for the Northeast Region at Demag Cranes & Components Corp., explained that the roof sloped down from one end of the runway to the other, and also sloped across the span of the crane. "We accommodated this by using our articulating suspension hangers with threaded suspension rods of various lengths," he said.

The installation includes 100 feet of runway across three bridges, 20-foot spans, and a 16-foot height of lift. Each KBK bridge is equipped with a two-speed, 500-lb. capacity Demag electric chain hoist, providing precise load control and reliable performance for corrugation operations. The system utilizes Demag DC-Com electric chain hoists, selected for their reliability, control precision, and suitability for light lifting applications.

PA Crane Co. evaluated multiple configuration options before recommending the ceiling-mounted solution, which offered the most flexibility for corrugation operations while preserving valuable floor space.

"We couldn't be doing what we are in the corrugation or manufacturing process without this crane," Breiting said.



Articulating Suspension

Lightweight Aluminum Profile

Adjustable Threaded Hangers

Galer explained that the roof sloped down from one end of the runway to the other, and also sloped across the span of the crane. "We accommodated this by using our articulating suspension hangers with threaded suspension rods of various lengths," he said.

**Ryan Galer**  
**Light Lifting Regional Sales**  
**Manager at Demag Cranes &**  
**Components Corp.**





## SPECIAL FEATURES AND BENEFITS

Demag's KBK ceiling-mounted overhead workstation crane had to deliver low rolling resistance for easier and more ergonomic movement of the load, which would supersede existing material handling installations that didn't offer the required manual bridge movement, for example. As explored, articulating hangers had to help prevent binding of the bridge, while reliable, cost-efficient hoisting was in the hands of the Demag DC-Com, designed to easily integrate with KBK workstation cranes.

Notably, Omega Flex was initially considering an alternative motorized system, before George Hoagland, PA Crane Co.'s Lead Technician for the project, suggested the manual KBK system.

Hoagland said: "The industry-leading ergonomic features of the Demag KBK system allowed us to offer a manual system, which also represented a cost-effective and easy-to-install solution, since there aren't any expensive motors or controls involved. The system checked all the boxes for ease of bridge movement, while many competitors would have recommended motorizing their bridges at such spans and capacities. Due to the nature of their design, such bridges are heavier, and their trolleys have the tendency to bind, so manual bridge movement becomes much less feasible."

He added: "Demag's KBK design engineer, Matthew Hoffman, was absolutely integral to making this solution possible with his hard work and efforts."

The KBK product allows unrivalled ease of manual bridge movement, where others wouldn't consider it possible.

"The industry-leading ergonomic features of the Demag KBK system allowed us to offer a manual system, which also represented a cost-effective and easy-to-install solution."

**George Hoagland,  
PA Crane Co.'s Lead  
Technician for the  
project**



**DEMAG** 500LB  
CAPACITY

**C**



## THE DEMAG PARTNER

This latest installation takes PA Crane Co.'s total number of crane installations at Omega Flex to five. The KBK crane system was fully operational by the end of December 2025.

In addition to ceiling-mounted overhead workstation cranes, PA Crane Co. delivers a broad range of overhead lifting and rigging solutions, including underhung bridge cranes, stacker cranes, hot metal ladle cranes, and jib cranes. The company also provides operator training programs to support safe and efficient crane use.

"We started using them a couple of years back; they've put in a number of cranes recently," Breitinger said. "We've had no issues with any of these - sourcing or installation processes."

As Omega Flex continues to expand, particularly at its Houston, Texas facility, additional crane installations are anticipated.

PA Crane Co. is a full-service crane provider, including top-running and mobile cranes, in addition to offering industry operators and riggers that deliver around-the-clock expertise. It is responsible for 6,000 tons in capacity of land-based solutions for clients, plus related engineering, installation, and certification / testing.