

**Location:**

Volkswagen Nutzfahrzeugen,
Hannover, Germany

Problem:

Fabricating a long, wide and highly loaded finishing line conveyor. Overall conveyor height cannot exceed 20 inches (500 millimeters), installed directly to the concrete floor with no access pits. The chain must accommodate up to 6,614 pounds (3,000 kilograms) per work zones which are 23 feet (7 meters) long, and meet local fire safety and construction regulations. Material must provide Electrostatic Dissipative (ESD) qualities ensuring worker comfort.

Solution:

Compact conveyor system equipped with Rexnord 6990 Series Hybrid MatTop Chain

Summary:

- Minimum chain elongation allowing compact conveyor design using a roller return
- ESD level over entire chain surface < $10^3 \Omega/\text{sq}$
- Chain meets DIN 4102-B1 specification
- Smooth running chain at 10 feet (3 meters)/min
- Minimized need for brake drive
- Temperature insensitive



Contact your Rexnord
Global Account Manager, or
our FlatTop North American
Applications Engineering
team at:

262-376-4800

Rexnord 6990 Series Hybrid MatTop Chain Breakthrough Automotive Solution

Standard plastic modular chains cannot always offer the desired performance due to their limitations in strength and stiffness. Rexnord recognizes the importance of a smooth running chain and has developed the Rexnord® 6990 Series Hybrid MatTop® Chain that raises the performance levels of plastic modular chains.

Volkswagen has monitored plastic modular chain capabilities for many years. They encountered limitations in building very long conveyors >328 feet (100 meters), while meeting their safety and fire regulations.

Volkswagen faced the challenge of building a highly loaded (6,614 pounds (3,000 kilograms) per work zone) 213-foot (65 meters) long conveyor. The conveyor was mounted directly to the concrete floor and drive/tail access pits were eliminated. To limit the length of the entry and exit ramps, the maximum conveyor height was set at 20 inches (500 millimeters) over the full length of the conveyor.

Volkswagen used FR-PA6995H4 Rexnord Hybrid MatTop Chain, offering three times

higher stiffness compared to standard plastic Rexnord MatTop Chain. By doing so, there was a reduction in the amount of excess chain while under load, minimizing the required conveyor height. High stiffness also contributes to a smooth running chain. The steel grid of the hybrid chain is the conductor of static charges developed on the chain surface, ensuring a very low surface resistivity (< $10^3 \Omega/\text{sq}$), while meeting the DIN 4102-B1 specification.

Volkswagen acknowledged the benefits of the Rexnord 6990 Series Hybrid MatTop Chain and used the results of this project as a benchmark for future floor conveyor projects.

Combining the ease of plastic modular Rexnord MatTop Chain with the patented hybrid structure, limitations with standard plastic chains were resolved, enabling Volkswagen to use Rexnord MatTop Chain on more conveyor applications in their plant.

Contact your local Rexnord Account Executive or your Regional FlatTop Specialist to develop a solution specific to your application needs.



Rexnord 6995 Hybrid MatTop Chain at Volkswagen Nutzfahrzeugen, Hannover, Germany