



**INNOVATIVE.
SUSTAINABLE.**

**Technology
for a better
future.**

**Demag Zero Emission
V-type crane**

DEMAG



New power concepts for Demag cranes

We develop and implement innovative ideas – to provide you with sustainable solutions and improved productivity.

Our Zero Emission V-type crane is the first overhead travelling crane that can be operated with regenerative energy: zero emission for excellent life cycle performance.

THE BENEFITS AT A GLANCE:

- Self-sufficient operation: crane can operate without connection to existing power grids
- Eco-friendly operation: maximum performance through the use of regenerative energy
- High availability: backed up by the crane's own energy management system
- Process reliability: crane built with proven Demag components



The Demag Zero Emission V-type crane combines pioneering technology:

- Thanks to our state-of-the-art V-type crane girder design with its diaphragm joints, the deadweight compared with conventional box-section girders has been significantly reduced: on average by 17%.
- Solar chargers and the crane's own battery management system enable sustainable use of resources for best possible life cycle performance.

SELF-SUFFICIENT CRANE

Our Zero Emission V-type crane uses regenerative energy. With its own rechargeable buffer batteries, your crane installation operates as a self-sufficient unit. This principle unleashes new opportunities for additional for industrial crane applications:

- As self-sufficient cranes with their own power supply
- For use with critical power supplies
- For operation where the grid is unstable

OPTIMISED POWER EFFICIENCY: CHARGING MANAGEMENT SYSTEM

A smart charging management system controls the charging process, converts solar energy into electrical energy and stores this energy in the rechargeable battery cells. Charging processes can be optimised allowing for the local situation.

OPTIONS

Energy can be fed back into the existing power grid from our Zero Emission V-type crane's solar power system or electric power can be fed to the crane installation via an optional supply line. Power can also be recovered from the Zero Emission Crane by storing the energy gained from its lowering motions and the charging process can be fully automated.





Components

SOLAR PANELS

The solar panels are designed to match the installation location and the required capacity. They can be connected to an existing solar power system.

STATIONARY BUFFER AND CHARGING STATION

with gel rechargeable batteries. To determine the required battery capacity, the load spectrum is calculated based on the load to be lifted, the lifting paths and cross-travel and long-travel paths.



A DOCKING STATION

forms the interface between the optional rechargeable battery unit with the solar panels and the Zero Emission Crane. The charging process can be automatically started.



THE CRANE INSTALLATION USES IT OWN RECHARGEABLE BATTERIES

based on rugged lithium technology and an integrated battery management system. Thanks to these specially designed components, the crane battery pack can be fully recharged in approximately 2½ hours.



Delivers the goods – the new Demag V-type girder.

Better precision, greater flexibility, improved quality – the requirements to be met by a materials handling solution also grow in line with increasingly globalised markets and ever new technical possibilities. The Demag V-type girder meets these demands with ease: its revolutionary design enables sensitive loads to be positioned more precisely, carefully and also more quickly. This improves the efficiency of your load handling operations – and raises your competitive edge to a completely new level.



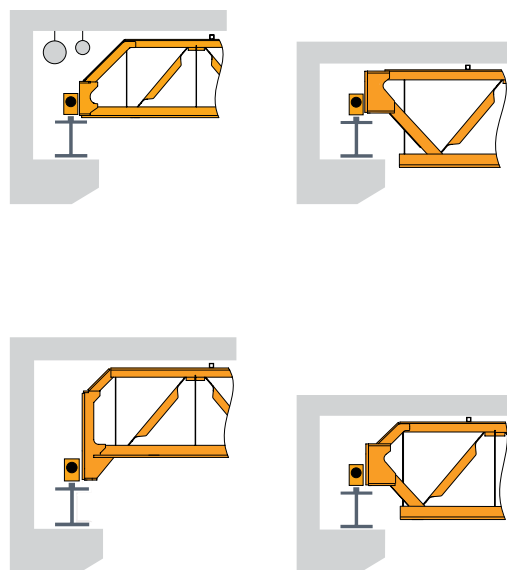
30

REDUCED OSCILLATION – BETTER PRECISION.

Tapered diaphragm joints accommodate pressure and tensile forces more effectively to reduce resonant frequency by 30%.

- Quicker steadying of loads
- Increased precision for transport and positioning operations
- Shorter cycle times
- Higher handling rates

EVKE SINGLE-GIRDER V-TYPE CRANE: MODELS



500,000

REDUCED LOADS – IMPROVED QUALITY.

Thanks to its innovative design principle, which is optimised for load distribution, our new crane girder can handle up to 500,000 changes of load with ease.

- Extended service life
- Reduced loads on crane runway and components
- Reduced wear
- Improved efficiency



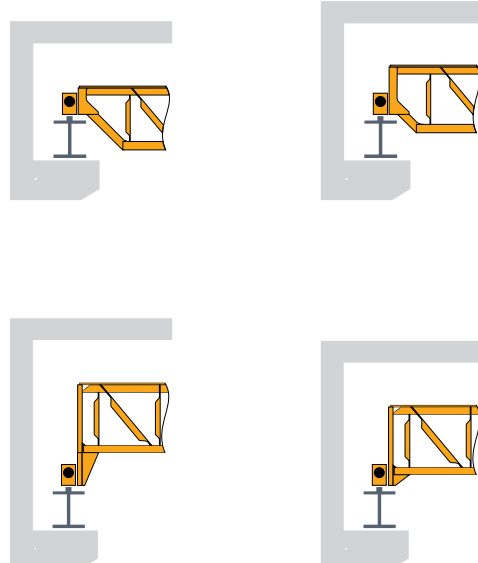
17

LOWER DEADWEIGHT – GREATER FLEXIBILITY.

17% less crane girder weight thanks to a weight-optimised design with fewer non-load-bearing surfaces.

- Improved deadweight-to-load capacity ratio
- Lower forces transmitted to the existing support superstructure
- Greater freedom for architects when planning new buildings
- Outstanding strength and light-weight design

ZVKE DOUBLE-GIRDER V-TYPE CRANE: MODELS





High level of transparency thanks to StatusControl

StatusControl can give you a complete real time overview of your crane from one central location – no matter where you are.

The wireless remote access system enables you to combine all operating data and status reports into a single system – for your peace of mind.

100% TRANSPARENCY THANKS TO STATUS MONITORING:

- Battery voltage
- Charging and discharge current
- Last full charge X minutes ago
- Battery charge level in %

This solution provides additional operating safety and reliability and can enhance the availability of your crane installation.



Load capacity	up to 50 t
Span	up to 35 m
Long-travel speed	up to 60 m/min
Cross-travel speed	up to 30 m/min
Lifting speed	up to 12.5 m/min
Other specifications on request	

Terex MHPS GmbH

Wetter Site

Ruhrstrasse 28 · 58300 Wetter, Germany

Phone: +49 (0) 2335 92-0

Fax: +49 (0) 2335 92-7676

Email: demag-info@terex.com