

Demag Standard Cranes | Performance and efficiency
at the highest level



Demag sets crane standards for the future

Standard solutions made by Demag offer outstanding quality, efficiency and reliability at the highest level. Every crane and every crane component reflects decades of crane expertise and reliability as a partner for the industry.

Innovation for greater efficiency to benefit our customers

With the new DR rope hoist, Demag Cranes & Components has introduced an extended state-of-the-art for standard crane applications with loads weighing up to 10 t and, at the same time, an entirely new crane philosophy.

The C shape of the Demag DR rope hoist design is ideally suited to crane applications. Thanks to the many benefits offered by the new DR rope hoist, the entire crane operates much more efficiently.

- Reproducible connection geometry and effective spare parts management offer an optimum planning and investment basis
- Proven crane geometry with welded crane girders guarantees high design rigidity, optimum travel characteristics and minimum wear
- Raised crane girders, designs tailored to match the roof structure and compact crabs with minimum approach dimensions facilitate larger hook paths as well as better utilization of the available space and reduce initial construction and subsequent costs
- Ergonomic operating elements and bi-directional radio control with load range display as standard ensure highly convenient operation and safe load handling. The display provides complete transparency for control of the installation.
- Infinitely variable speed control in all motion axes thanks to frequency inverter-fed drives reduces load sway, facilitates exact and gentle positioning and lowers the mechanical load on the crane installation
- High lifting and cross travel speeds provide faster handling rates and greater efficiency
- Revolving guarantee for up to 10 years, optimum monitoring and a closely-knit service network ensure that all legal requirements are met, that the crane is maintained according to the demands of the application and guarantee a high level of availability

Crane type	Suspension cranes	Single-girder overhead travelling crane	Single-girder cantilever overhead travelling crane	Double-girder overhead travelling crane
SWL * up to	10 t	10 t	10 t	80 t
Span * up to	24 m	30 m	35 m	
Long travel speed * up to	40 m/min			
Cross travel speeds * up to	28 m/min	30 m/min	20 m/min	
Lifting speed * up to	12,5 m/min		8,0 m/min	12,5 m/min
Stepless motions	3 axes			

* Other specifications on request



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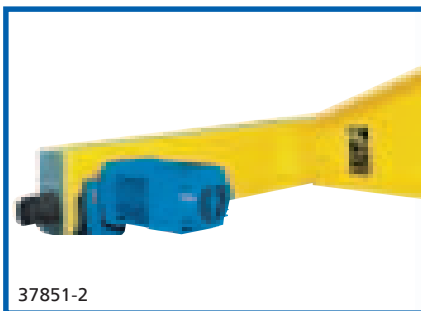
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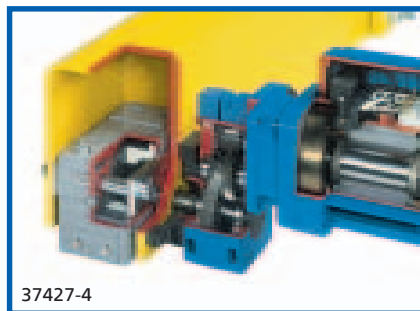
Attention to detail for total quality

Demag cranes are strictly designed to meet your needs. Space-saving designs and travel and hoist motors featuring infinitely variable control with minimum approach dimensions guarantee a solid investment and efficiency.



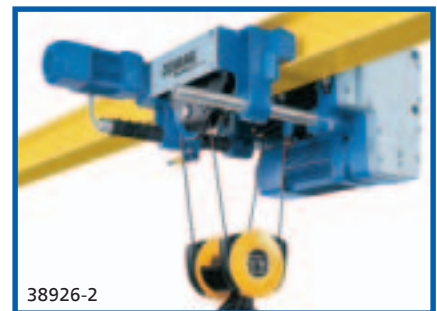
End carriage

- Maximum stability thanks to a rigid box-section design with a reinforced connection featuring a welded diaphragm plate as well as engineering tolerances in the crane girder connection guarantee high inherent rigidity and optimum travel characteristics with minimum wear
- The precise travel wheel arrangement and exact adaptation to the crane span dimension thanks to interchangeable spacer elements ensure optimum travel characteristics and high adaptability
- Crane travel unit design with the aid of in-house static design programs and simple assembly thanks to good accessibility offer safety and efficiency



Travel unit

- Maintenance-free drives with anti-friction bearings lubricated for life, generous bearing arrangement to accommodate horizontal forces and travel wheels made of spheroidal graphite cast iron provide for favourable travel characteristics and minimum crane runway wear
- Infinitely variable travel speeds thanks to frequency inverter-fed drives with speeds up to 80 m/min without the need for any additional cabling and wiring guarantee low-vibration travel as well as precise positioning and reduce the load on the overall installation



Crabs

- New Demag DR rope hoist of C-shaped design optimised for crane applications with higher hoist and cross-travel speeds provides higher handling rates and efficiency for cranes with capacities up to 10t
- Compact designs with minimum approach dimensions and larger hook path guarantee optimum utilization of the available space and height and reduce initial construction and subsequent costs
- Infinitely variable hoist and travel motions guarantee low-sway handling. Precise, gentle positioning provides for greater safety and convenient operation
- CAN Bus technology to meet tomorrow's demands for high data transmission reliability, corresponding to safety class 3 to DIN/EN 954, ensure optimum monitoring for greater efficiency thanks to preventive maintenance



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Power supply line

- Demag DCL compact conductor line for 4 to 7 poles and screw-type connections ensures long-term power supply and minimises unplanned downtime
- Pre-assembled elements for simple assembly or replacement of current collector trolleys or complete straight sections provide optimum serviceability
- IP 23 or IP 24 high protection against accidental contact with sealing lip and integrated expansion compensation for optimum safety



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Bottom block

- New bottom block design with standard load hook for ease of load connection
- Rope lead-in guard eliminates the risk of being caught between the rope and sheave
- Handle recesses on both sides simplify handling of the bottom block and increase operating safety



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Control system

- Ergonomically designed control units for safe, fatigue-free handling. The display provides complete transparency for control of the installation. The CAN Bus control system corresponds to safety category 3 to DIN/EN 954.
- Demag DLC line control
Demag control pendant suspended for separate travel on the crane girder
- Demag DRC radio control
Demag radio remote controls with proportional pushbuttons for wireless control with variable radio frequency operation for unimpeded radio transmission



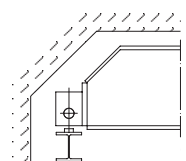
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Single-girder overhead travelling cranes with the new optimised Demag DR rope hoist

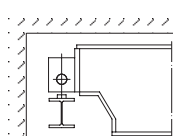
Single-girder overhead travelling cranes provide you with Demag technology at a particularly attractive price. They feature maximum rigidity for a minimum dead-weight. This keeps the load on the crane runway low, and a cost-effective design can be selected for the building. They also offer the benefits of outstanding crane geometry, resulting in exceptional travel characteristics.

The new Demag DR rope hoist is the optimum design for crane applications, enabling the crane to meet your requirements for greater efficiency.

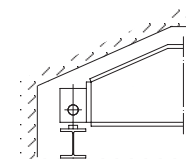
Optimum crane girder designs to match your building dimensions



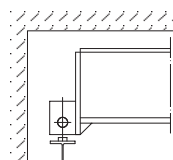
Type 1



Type 2



Type 3



Type 4/5

Single-girder overhead travelling cranes – Benefits and features

- Computer-optimised box section as the main girder
- End carriages of torsionally rigid, welded box girder construction
- Travel wheels of highly wear-resistant GGG 70 spheroidal cast iron with self-lubricating properties
- Connections between the main girder and end carriages manufactured to mechanical engineering tolerances for minimum wear
- Crab of low-headroom design with chain hoist or rope hoist, offering particularly favourable hook approach dimensions to serve the largest possible area
- Power supply to the crab via high-flexibility flat cable with protective earth conductor
- Control pendant suspended for separate travel on the crane girder, with display for installation monitoring
- Optional: radio remote control with display and proportional pushbuttons
- Optimum anti-corrosion protection of all parts thanks to pre-treatment of steel components to industry standard
- Paint finish in semi-matt golden yellow. Travel drives in azure blue. Crab powder-coated in azure blue and silver grey

Your benefits with the new Demag DR rope hoist optimised for crane applications

- Increased efficiency thanks to extended 2m+ service life (1900-hour full load service life)
- Improved load handling due to increased lifting and cross-travel speed
- Low-sway load motions thanks to infinitely variable cross travel speeds
- Monitoring for improved installation transparency
- Improved utilisation of your production area thanks to minimum approach dimensions

Technical data sheet
(new with EKDR travelling hoist)
Ident. no. 203 529 44

EKKE single-girder overhead travelling crane

Technical data

SWL	to 10 t
Span	to 30 m
Long travel speed	to 40 m/min
Cross travel speed	to 30 m/min
Hoist speed	to 12,5 m/min

Other specifications on request

Options

See accessories, page 11



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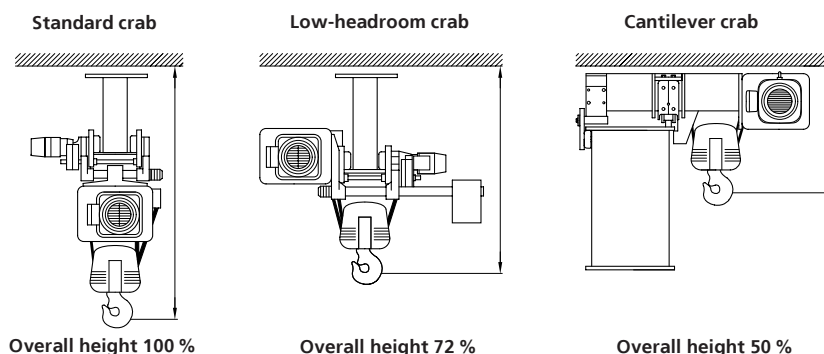
Single-girder overhead travelling cranes with cantilever crabs Maximum utilization of available headroom

With the cantilever crabs used in these cranes, the hoist unit is arranged so that it is laterally offset from the crane girder. This can reduce the overall height by over a quarter, or even half depending on the design, so that the building height available is utilised to maximum effect. In the case of new buildings, Demag single-girder overhead travelling cranes with cantilever crab can enable the requisite structure height to be reduced, often leading to savings up to a 5-figure amount in construction outlay. Moreover: reduced building volumes also mean lower heating and subsequent costs year on year.

Benefits and features

- Consistent quality with overhead travelling crane benefits (page 6)
- Improved hook path thanks to cantilever crab
- Compact overall design reduces building size requirement
- Large spans for optimum utilization of the available space

Technical data sheet
ident. no. 203 407 44



EKWE single-girder overhead travelling crane

Technical data

SWL	to 10 t
Span	to 35 m
Long travel speed	to 40 m/min
Cross travel speed	to 20 m/min
Hoist speed	to 8 m/min

Other specifications on request

Options

See accessories, page 11



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Double-girder overhead travelling cranes High load capacities combined with wide spans

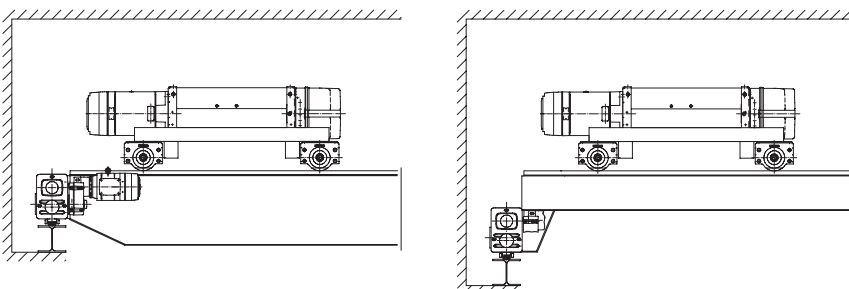
Demag double-girder overhead travelling cranes offer you a virtually unmatched deadweight/load capacity ratio. They are also characterised by their outstanding crane geometry, ensuring extremely favourable travel characteristics and therefore minimising wear. The particularly large lifting height is derived from the fact that the load hook can be raised between the two crane girders. Depending on requirements, our double-girder overhead travelling cranes can also be fitted with radio or operator cab controls. Optional maintenance platforms and accessible crabs not only facilitate crane maintenance but also ensure that your hall fittings such as lamps, heating elements or supply lines can be quickly and easily reached.

Benefits and features

- Consistent quality with overhead travelling crane benefits (page 6)
- High performance thanks to double-girder design, facilitating high long and cross-travel speeds
- Low deadweight reduces investment layout
- Additional fittings
 - Optional maintenance platform for building repairs
 - Operator cab control as a crane control variant

Technical data sheet
Ident. no. 203 375 44

Optimum crane girder designs to match your building dimensions



ZKKE double-girder overhead travelling crane

Technical data

SWL	to 80 t
Span	to 35 m
Long travel speed	to 40 m/min
Cross travel speed	to 20 m/min
Hoist speed	to 12,5 m/min

Other specifications on request

Options

See accessories, page 11



Suspension cranes The column-free alternative

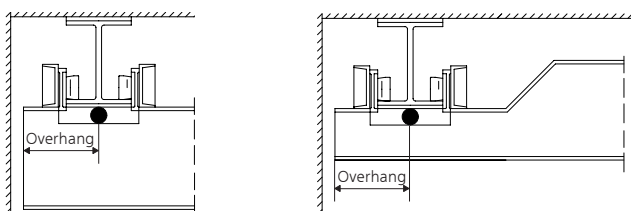
Simply attached to the existing roof structure, Demag suspension cranes save you having to install crane runway pillars. In this way, the entire workshop area is available for production. In addition, any sections of the workshop can be served. The lateral overhangs can be used and they extend the travel path of the travelling hoist beyond the span dimension. Optional latching devices make it possible to transfer the travelling hoist from the crane girder to a branch track and back without having to deposit the load.

Benefits and features

- Consistent quality with overhead travelling crane benefits (page 6)
- End carriages of optimised design to suit structure
- Rigid I-beam girders or welded box section girders for optimum load distribution
- Loads can be handled immediately adjacent to the building wall by means of girder ends tailored to the application requirements

Technical data sheet
Ident. no. 203 141 44

Optimum crane girder designs to match your building dimensions



EDKE suspension crane

Technical data

SWL	to 10 t
Span	to 24 m
Long travel speed	to 40 m/min
Cross travel speed	to 28 m/min
Hoist speed	to 12,5 m/min

Other specifications on request

Options

See accessories, page 11



Portal cranes

Single and double-girder design, full and semi-portal cranes

Demag standard portal cranes are suitable for a wide range of applications and loads. They also contribute towards reducing costs and achieve optimum utilization of the available space. Whether planned from the very beginning or installed at a later date, standard portal cranes also offer outstanding advantages inside buildings or workshops. They can be used inside lightweight buildings where no additional loads are permitted, for example. Semi-portal cranes also only transmit insignificant additional forces to the building structure. In addition, portal cranes can also be installed as workplace or loading cranes under bridge cranes. This solution offers you additional flexibility and increases productivity per square meter – an optimum system solution.

Planning measures

The following factors have to be considered when planning for detailed dimensions:

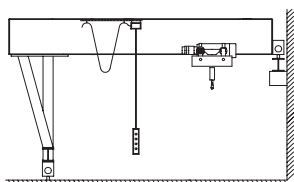
- Anchorage arrangement, limit stops and position of the crane runway rail top edge at floor level and on the runway supports
- Power supply and cable protection for full portal cranes
- Distances to buildings and rail structures
- Distances to travelling cranes operating overhead
- Distances to obstacles beneath or at the side of portal cranes

The Demag standard portal crane range includes:

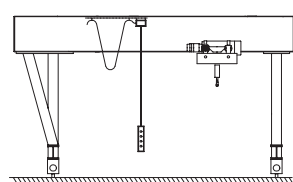
- EVPE single-girder full portal cranes
- EHPE single-girder semi-portal cranes
- ZVPE double-girder full portal cranes
- ZHPE double-girder semi-portal cranes

The bridge supports may also be fitted with struts on one or both sides.

Semi-portal crane



Full portal crane



Technical data

Technical data	Single-girder portal crane	Double-girder portal crane
SWL	to 10 t	to 32 t
Track gauge	to 25 m	to 30 m
Overall height	to 10 m	to 10 m
Long travel speed	to 40 m/min	to 40 m/min
Cross travel speed	to 25 m/min	to 25 m/min
Hoist speed	to 12,5 m/min	to 12,5 m/min
Stepless motion	3 axes	3 axes
Design	Semi-/full portal	Semi-/full portal



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Demag crane accessories and auxiliary equipment

With our wide range of accessories and auxiliary equipment, we are able to adapt our standard cranes to the individual requirements of your application.

- An automatic height adjuster for your control pendant to facilitate load attachment
 - Control by means of a pendant switch or, if required, bi-directional radio control with proportional pushbuttons
 - Smooth starting control or variable speed motors with frequency inverters help to avoid load sway
 - Maintenance platforms and accessible crabs facilitate maintenance of the crane and building interior fittings
 - End carriages with horizontal guide rollers eliminate skewing and thus the side forces which otherwise act on the crane runway
 - Limit switches or slack rope relays protect the hoist and load from damage
- The bypass control system prevents collisions with obstacles along the crab travel path
 - Anti-collision protection and crane speed controls ensure the safe operation of several cranes on one runway
 - Cranes fitted with two crabs make it easy to handle long and awkward loads
 - A comprehensive range of load handling attachments satisfies the most varied requirements



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Planners and plant designers are provided with a full range of technical documentation for each crane type, either as a conventional document or in electronic form on CD-ROM (order no. 227 049 44). This means that you are able to incorporate your Demag Standard Crane solution within your overall plant design right from the start. This helps you to plan reliably and saves you time and money.





Demag Service – ready to help around the clock

All over the world

We offer you service around the clock with our world-wide network of expert service teams. This ensures the highest availability and safety in your installation.

Rapid and reliable spare part supply

Any spare parts needed can be shipped 24 hours a day, 7 days a week.

Effective training of your employees

Your employees learn all they need to know about hoists and crane installations in training courses lasting one or more days. Operator and product training courses increase productivity, familiarisation with the relevant regulations contributes towards maximum safety at the workplace. Training courses can be held at our training centres and at your company.

Comprehensive monitoring reduces downtime

The performance and safety status of your installation are kept under surveillance by the monitoring system. A diagnostics tool constantly shows the operator or maintenance engineer the

relevant status information and any unusual operating status, if applicable. This enables any necessary maintenance and repair work to be identified and carried out in good time, downtime is reduced. Regular monitoring cuts maintenance and operating costs in the long term.

Your individual service package

Demag Service offers a comprehensive portfolio of services to ensure the lasting availability of your installation throughout its entire lifecycle:

- Recurring inspections according to relevant accident prevention regulations
- Inspection and maintenance according to contract schedules
- Fault elimination both with and without an on-call standby agreement
- Crane and crane runway surveys
- Service training for operators and maintenance engineers

On this basis, we can assemble a package tailored to meet your individual production and operating needs.



Demag Designer online – precise planning saves time, space and money

Demag Cranes & Components is not only a strong partner for perfect technical solutions to meet your in-house logistics requirements. We also provide you with support during the planning phase for overhead transport logistics.

One of the first steps towards efficient planning is selection of a crane tailored to meet your needs at the click of a mouse. Demag Crane Designer can be used to configure a crane installation that is tailored to your needs: in just a few minutes using the interactive application at www.demag-cranedesigner.com

You only have to enter a few parameters – the rest is done by the Crane Designer. From the comprehensive Demag product range, it selects a crane with the performance and technical equipment to suit your requirements precisely. Demag Crane Designer completes planning tasks in a minimum of time, for both single and double-girder cranes.

Decisive advantages

- Requires no installation and no hard disk space
- Fast and individual selection
- Latest technical data and dimensions for your specified crane configuration
- Latest documentation in various foreign languages
- All information available round the clock worldwide
- Reliable transmission of your enquiry in the fastest possible way
- Possible connection to our online ordering system (www.demag-shop.de)

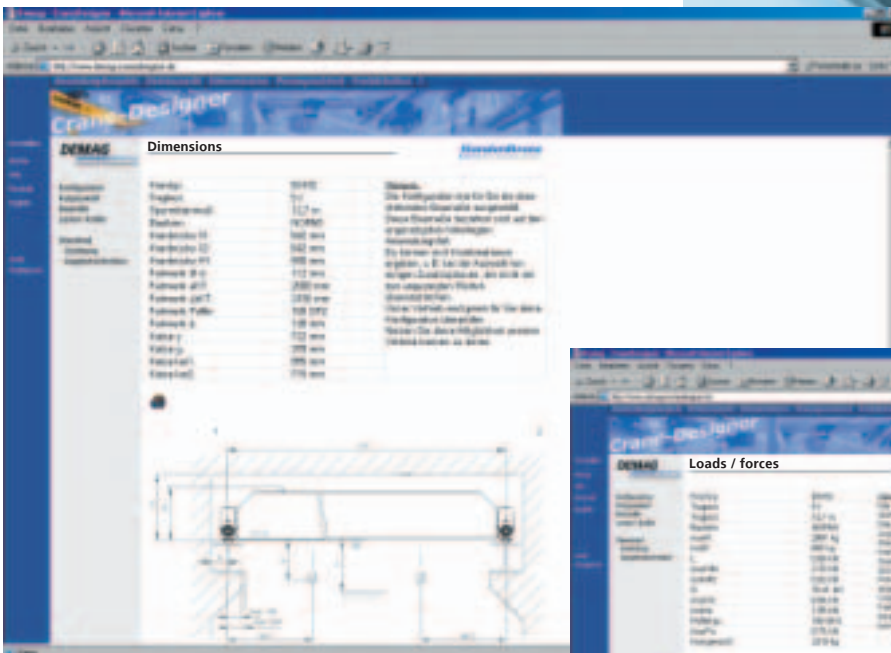
Visit the virtual planning consultant at www.demag-cranedesigner.com

- Application examples with text and illustration
- “How to speak Demag” crane glossary explains technical terms
- Online crane configuration
- Online service:
 - Quotation texts
 - Technical information
 - Static design information
 - Individual CAD file

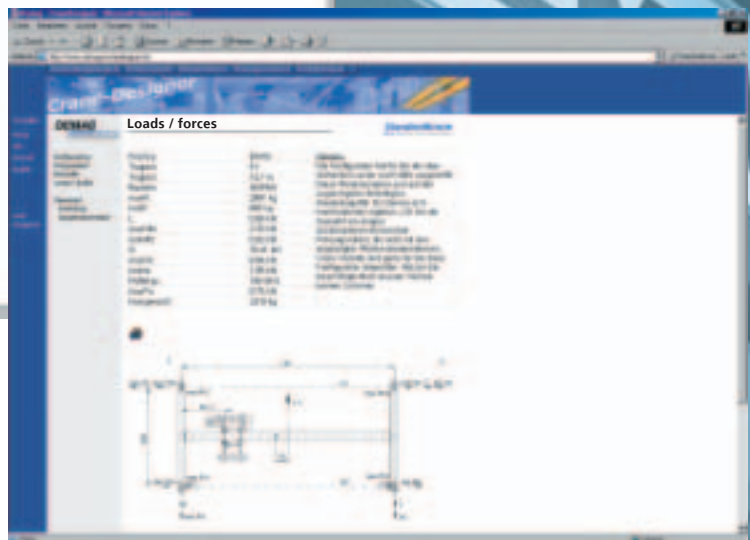


Online planning tool on the Internet.
Configure your crane installations to meet your needs.

The Crane Designer calculates all relevant dimensions for your specific application.



You are provided with information on loads and forces for further planning, e.g. to calculate your factory building dimensions.



You can download the drawing file generated for your application and process all relevant data offline. It's easy – try it out yourself.

Demag – Ideas to take your load.

Demag Cranes & Components GmbH

Cranes

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