



**High-level
efficiency**

Demag Universal Cranes

DEMAG

The right crane for every application

Single-girder overhead travelling cranes



Crane type	EKKE	EVKE	EPKE	EPKE-O
Profile-section girder	Box-section girder	V-type girder	Rolled profile girder	Rolled profile girder
Load capacity*	12.5 t			
Span*	30 m	30 m	18 m	17.8 m
Travel speed	40 m/min			
Cross-travel speed	30 m/min			
Lifting speed	12.5 m/min			

Types	Crane types			
	EKKE	EVKE	EPKE	EPKE-O
1				
2				
3				
4				
5				
6				

* Other specifications on request

Double-girder overhead travelling cranes

Single-girder suspension cranes



ZKKE

ZVKE

EKDE

EPDE

Box-section girder

V-type girder

Box-section girder

Rolled profile girder

50 t

8 t

35 m

24 m

17 m

40 m/min

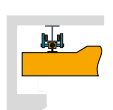
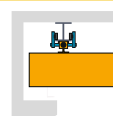
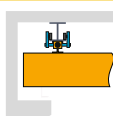
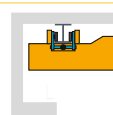
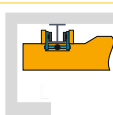
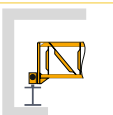
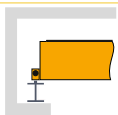
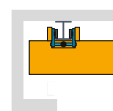
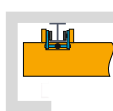
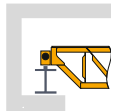
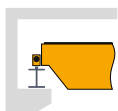
40 m/min

25 m/min

30 m/min

12.5 m/min

12.5 m/min



Variable-speed motions: 3 axes (lifting, long and cross travel)



41485-1

**Maximum stability.
Optimum design.**

Demag EKKE and EPKE single-girder overhead travelling cranes

Single-girder overhead travelling cranes provide you with proven Demag technology at a particularly attractive price.

Their excellent crane geometry ensures outstanding travel characteristics and reduces the load on building structures. We offer Demag single-girder overhead travelling cranes with solid girders in two variants:

- EKKE overhead travelling cranes with welded box-section girders
- EPKE overhead travelling cranes with rolled-profile girders

You also have the choice of controls: besides cable-connected control pendants, our new D3 generation of radio controls offers safety, reliability and convenient operation. The cranes also offer outstanding design geometry, resulting in exceptional travel characteristics. Our Demag DMR modular rope hoist, for example, is designed for crane applications. The entire crane installation meets your demands for improved efficiency.

YOUR BENEFITS

- Crane girders made of computer-optimised box sections or rolled sections
- End carriages of torsionally rigid, welded box-section design
- Travel wheels of highly wear-resistant GGG 70 spheroidal-graphite 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 by means of highly flexible flat cable with protective earth conductor
- The crane is equipped with a trailing cable arrangement as standard when radio control is used
- Control pendant suspended for separate travel on the crane girder, with display for installation monitoring
- Optimum anti-corrosion protection of all parts thanks to pre-treatment of steel components to industry standard

Demag EPKE-O single-girder overhead travelling cranes

Are you looking for a crane solution that matches your standardised workshop architecture? A solution that can be supplied with a short lead time and which offers better value than the usual standard solutions? Then the Demag EPKE-O single-girder overhead travelling crane is the right choice. It meets your high expectations for quality, reliability and performance. EPKE-O is available as a crane or crane set.

TRIED AND TESTED, UNCOMPROMISING DEMAG QUALITY

The top-connected rolled-profile girder offers optimum value with genuine Demag quality components for a wide range of options to choose from. EPKE-O cranes can be supplied as complete cranes or as crane sets, which only contain the main components. A crane set allows you to select your own crane girder.

Demag EPKE-O provides you with a crane installation that can be supplied more quickly, more easily and more cost-effectively to meet your application needs thanks to its basic design. Perfectly matching components, such as the new Demag DMR rope hoist, and tried-and-tested sub-assemblies give you the certainty of a long service life. The cranes also offer outstanding design geometry, resulting in exceptional travel characteristics.





Less is more.



41475

Demag EVKE V-type cranes

The Demag V-type girder lays the foundations for a completely new generation of crane girders. The girder design concept offers significantly improved precision and flexibility.

REDUCED OSCILLATION – IMPROVED HANDLING RATES

Tapered diaphragm joints are specially designed to accommodate pressure and tensile forces and reduce resonance frequency by up to 30%.

LOWER DEADWEIGHT – IMPROVED EFFICIENCY

The light-weight design of the V-type crane cuts its deadweight by an average of 17 % compared with conventional box-section girders. This reduces the forces transmitted to the existing support superstructure and gives architects greater freedom for planning new building layouts.

REDUCED LOADS – LONGER SERVICE LIFE

The crane and its components are subjected to lower loads thanks to reduced oscillation characteristics. The resulting lower wear pays off in the long term: with 500,000 changes of load, a V-type crane will deliver double the service life of a comparable crane that has a box-section girder.

FURTHER REASONS FOR V-TYPE CRANES

- **Stability** – Maximum stability thanks to stiffeners on components subjected to high loads
- **Versatility** – Precise adaptation to match building geometry
- **Flexibility** – Lower forces transmitted to the existing support superstructure afford greater freedom for planning new building layouts
- **Wind resistance** – Optimised design makes V-type cranes ideally suited for outdoor operation: 55% less wind resistance
- **More light** – Girder design based on bionic principles allows up to 30% more light to pass through
- **Service friendly** – Securely held for transport thanks to many clamping and attachment points
- **Ease of maintenance** – Weld seams are not concealed and can be easily inspected for safe operation
- **BlueEngineering**
 - Careful use of resources by employing less material
 - Reduction of required drive output thanks to lower deadweight
 - Plate metal parts are cleaned with dry ice
 - Eco-friendly use of water-based paints



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Demag ZKKE double-girder overhead travelling cranes

Demag double-girder overhead travelling cranes for heavy loads weighing up to 50 t feature excellent crane geometry. Wear is reduced to a minimum thanks to their very good travel characteristics.

The load hook can be raised between the two crane girders for a particularly large lifting height.

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 make it easier for you to maintain the crane, but also ensure that your building features such as lamps, heating elements or supply lines can be quickly and safely reached.

YOUR BENEFITS

- Consistently high Demag quality and all the benefits offered by single-girder overhead travelling cranes
- The double-girder design enables particularly high load capacities and sensitive load handling thanks to variable speed control in three motion axes, also for tandem operation.
- Particularly high performance thanks to double-girder design for high long and cross-travel speeds
- Possible arrangements
 - Optional maintenance platform for building repairs
 - Operator cab control as a further crane control variant



**High load capacity.
Large span dimensions.**

Demag ZVKE double-girder V-type cranes

LOWER WEIGHT

A significant feature of the V-type crane is the reduced weight of the crane girder compared with cranes that have box-section girders. This results in potential load capacity gains for overhead travelling cranes which can be equipped with rope hoists that have higher load capacities. This means that a ZVKE double-girder crane can transport heavier unit loads than a crane which has a box-section girder – without exerting a higher load on the crane runway and building superstructure, which enables existing buildings to be utilised even better.

EXACT ADAPTATION TO MATCH BUILDING GEOMETRY

V-type double-girder cranes are offered in four different designs. The side connection of the end carriages to the girder is a feature that they all share. The crane can be adapted in the best possible way to match the volume of existing buildings. For new buildings, the space between the crane and building roof can be reduced. This factor saves costs for the building structure and for its upkeep and maintenance.

PRECISE CRAB RUNWAYS AND TORSION-FREE CRANE GIRDERS

The ZVKE offers even more precision with reference to its crab runway. Placing the crab rail in the middle of the V-type crane girders also results in a balanced distribution of forces and the crane girder remains free of any torsion. Thanks to its V-type design with vertical struts, the load-dependent forces exerted by the rope hoist crab are transferred vertically to the girders. This minimises wear on the crab travel rails and trolleys – and the V-type double-girder crane ensures that the track gauge of the crab runway is precisely maintained.

MORE LIGHT – IMPROVED SAFETY

Thanks to its girder design, which is based on bionic principles, the V-type crane, particularly in the double-girder variant, affords a better view for improved safety. It also allows much more light to pass compared with solid crane girders.





**Heavy loads –
high performance**

The alternative without any columns



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MAXIMUM UTILISATION OF SPACE WITHOUT ANY COLUMNS FOR LOADS UP TO 8 TONS

Our EPDE and EKDE suspension cranes leave your entire workshop area available for production. The cranes are simply attached to the existing roof structure – columns to support the crane runway are not needed. This solution saves time and cuts costs. Alternatively, the installation of stand-alone steel superstructures also enables the solution to be adapted to changed production requirements.

Demag EPDE and EKDE suspension cranes

Demag suspension cranes run on tracks that are attached to the existing roof structure. You do not need to install additional columns to support the crane runway. In this way, the entire workshop area is available for production.

The lateral overhangs can be used to extend the travel path of the hoist unit beyond the edge of the runway. 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.

YOUR BENEFITS

- Crane bridge made of either computer-optimised box-section profile (EKDE) or rigid I-beam girder (EPDE) for optimum load distribution
- Specific sections of the workshop can be served
- Loads can be handled close to the building wall thanks to girder ends tailored to your application requirements, which extends the hoist unit travel path beyond the runway
- Equipped with DMR rope hoist or DC chain hoist



Choose your own configuration: Demag crane sets

An EPKE-O crane set is a fast and cost-effective solution for a crane manufacturer to complete a crane. It contains all main components, from the drive and rope hoist to the electric equipment. You only have to add the crane girder.

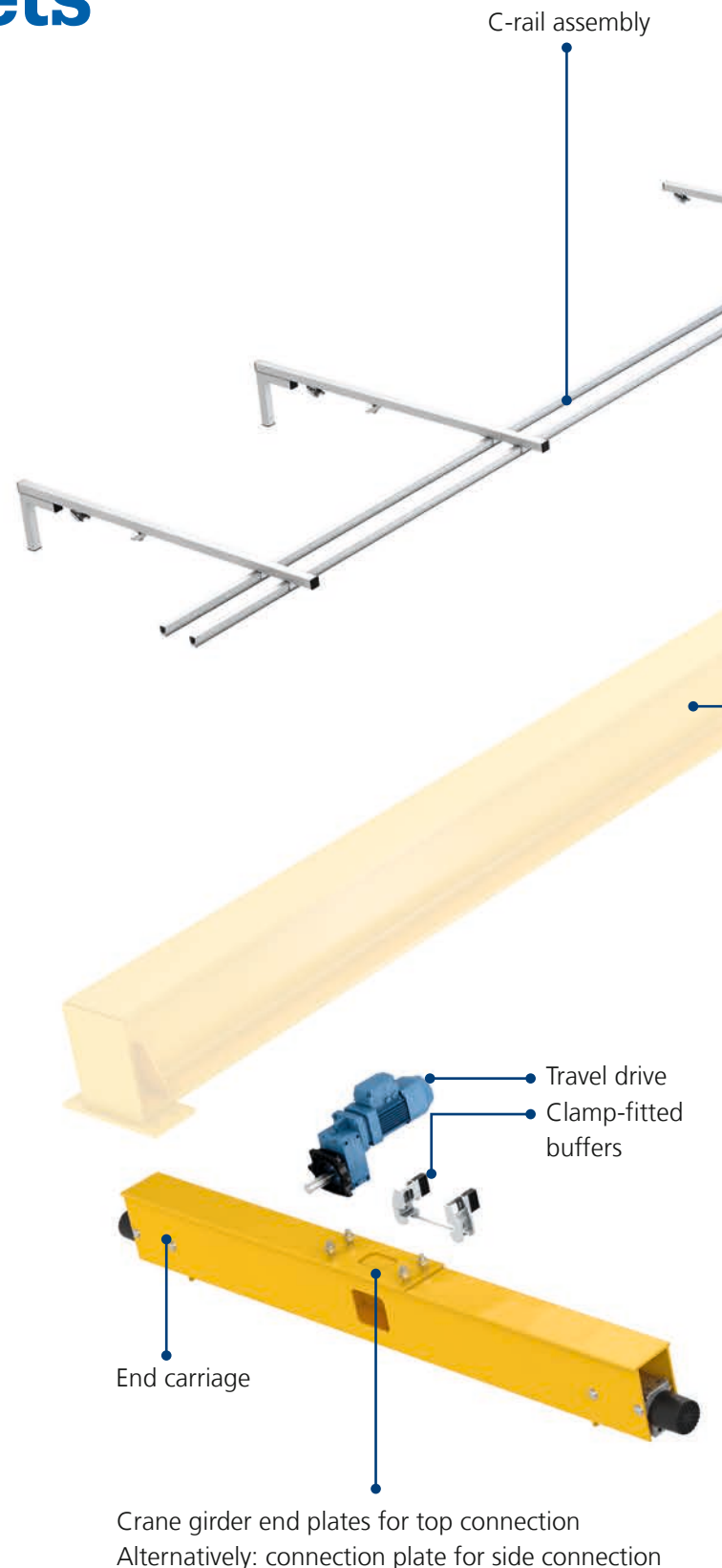
A Demag crane set can be configured to meet individual needs to complete cranes and material handling systems. If required, we can supply the structural calculation for the crane girder, which you can simply integrate into your documentation. This saves you time and makes it easy for you to co-ordinate delivery with your supplier.

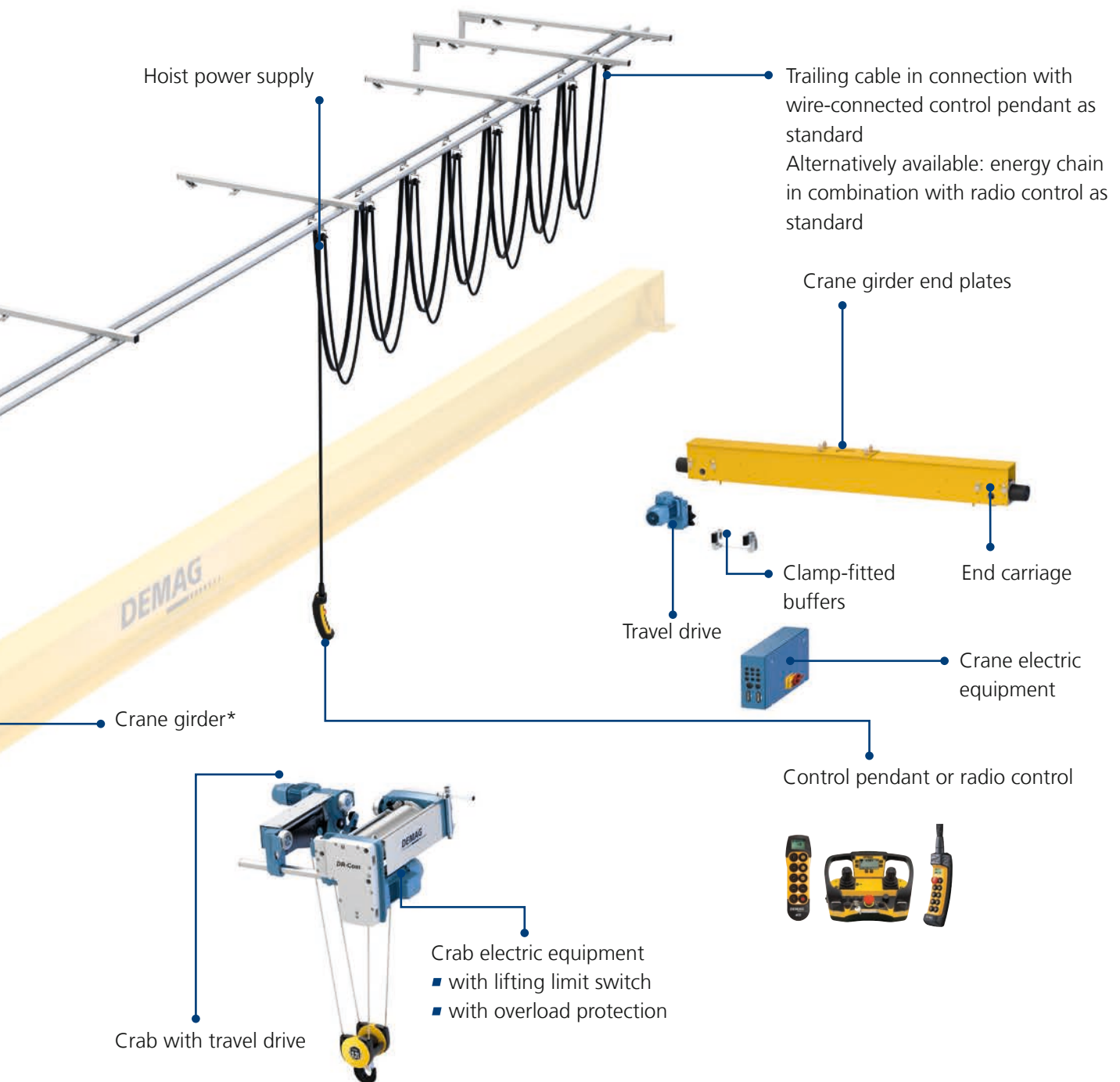
LOCAL PROCUREMENT – FAST DELIVERY

The opportunity to procure the crane girder locally and to install it direct on site, makes it possible to cut delivery times and save transport costs. At the same time, you benefit from immediate availability of the components. Crane manufacturers can easily integrate our newly developed crane set into their own steel superstructure. Ultimately, our pre-assembled product packages provide for efficient crane production.

FEATURES

- Load capacity up to 12.5 t
- Spans up to 17.8 m
- Two-stage long-travel, cross-travel and lifting speeds
- Optional variable long-travel speeds
- Electric components
 - Smart SafeControl system or contactor control
 - IP 55 enclosure
 - Ergonomic control pendant with emergency stop
 - Switchgear cabinet with safety switch





YOUR BENEFITS

- High safety standard
- Configurations to meet your specific needs
- Local procurement of the crane girder
- Box-section, rolled-profile or V-type girder
- Short delivery lead time
- Crane girder structural calculation, if required
- Proven Demag brand quality

* not included in the crane set

Demag DMR modular rope hoist



**One rope hoist.
Two designs.
Many possibilities.**

Choose between three control concepts.

SMART SAFE CONTROL SYSTEM

High operating safety and reliability and efficient production – for example with these functions:



Slack-rope monitoring

Continuous monitoring of the rope tension



Remote diagnostics with Demag StatusControl

All relevant operating data available anywhere



Area-specific load reduction

Definition of blocked areas depending on given load



Tandem operation

Safe and reliable load handling with two or four DMR rope hoists

CONVENTIONAL CONTACTOR CONTROL

Optional contactor control

Selection table

Range	Load capacity [t]	Hook path [m]	Lifting speed [m/min]			Group of mechanisms [FEM/ISO]	Range	Load capacity [t]	Hook path [m]	Lifting speed [m/min]			Group of mechanisms [FEM/ISO]					
			2-stage	Variable	ProHub*					2-stage	Variable	ProHub*						
DMR 3	2/1																	
	1	12	1.4/8	0.32-6.4	9.6	4m/M7												
	1.25		2/12	0.64-12.5	19	3m/M6												
	1.6		2.6/16	1-25	38	2m/M5												
	2		1.4/8	0.32-6.4	9.6	1Am/M4												
	4/1																	
	2	6	0.7/4	0.16-3.2	4.8	4m/M7												
	2.5		1/6	0.32-6.4	9.6	3m/M6												
3.2	1.3/8		0.5-12.5	19	2m/M5													
4	0.7/4		0.16-3.2	4.8	1Am/M4													
DMR 5	2/1																	
	1.6	12	1.4/8	0.32-6.4	9.6	4m/M7												
	2		2/12	0.64-12.5	19	3m/M6												
	2.5		2.6/16	1-25	38	2m/M5												
	3.2		1.4/8	0.32-6.4	9.6	1Am/M4												
	4/1																	
	3.2	6	0.7/4	0.16-3.2	4.8	4m/M7												
	4		1/6	0.32-6.4	9.6	3m/M6												
	5		1.3/8	0.5-12.5	19	2m/M5												
	6.3		1.4/8	0.16-3.2	4.8	1Am/M4												
	4/2																	
	1.6	9.9	1.4/8	0.32-6.4	9.6	4m/M7												
2	2/12		0.64-12.5	19	3m/M6													
2.5	2.6/16		1-25	38	2m/M5													
3.2	1.4/8		0.32-6.4	9.6	1Am/M4													
DMR 10	2/1																	
	3.2	12	1.4/8	0.32-6.4	9.6	4m/M7												
	4		2/12	0.64-12.5	19	3m/M6												
	5		2.6/16	1-25	38	2m/M5												
	6.3		1.4/8	0.32-6.4	9.6	1Am/M4												
	4/1																	
	6.3	6	0.7/4	0.16-3.2	4.8	4m/M7												
	8		1/6	0.32-6.4	9.6	3m/M6												
	10		1.3/8	0.5-12.5	19	2m/M5												
	12.5		0.7/4	0.16-3.2	4.8	1Am/M4												
	4/2																	
	3.2	5.8	1.4/8	0.32-6.4	9.6	4m/M7												
4	2/12		0.64-12.5	19	3m/M6													
5	2.6/16		1-25	38	2m/M5													
6.3	1.4/8		0.32-6.4	9.6	1Am/M4													
DMR 16	4/1																	
	16	6	0.7/4	0.16-3.2	4.8	18m/M3												
		10																
		15																
		20																
	6/1																	
12.5	6.7	0.7/4	0.22-4.3	6.4	3m/M6													
16	13.3	0.9/5.3	0.42-8.3	12.5	2m/M5													
DMR 20	2/1																	
	5	20	1.4/8	0.32-6.4	9.6	4m/M7												
	6.3		2/12			3m/M6												
	10		2.6/16			2m/M5												
	12.5		1/6			1Am/M4												
	4/1																	
	10	10	0.7/4	0.16-3.2	4.8	4m/M7												
	12.5		1/6			3m/M6												
	20		1.3/8			2m/M5												
	25		0.5/3			1Am/M4												
	4/2																	
	5	7.6	1.4/8	0.32-6.4	9.6	4m/M7												
	6.3		2/12			3m/M6												
	10		2.6/16			2m/M5												
	12.5		1/6			1Am/M4												
	6/1																	
	16	6.7	0.7/4	0.22-4.3	6.4	4m/M7												
	20		0.9/5.3			3m/M6												
	32		0.26-5.3			2m/M5												
	40		0.7/4			1Am/M4												
8/1																		
20	7.5	0.5/3	0.16-3.2	4.8	4m/M7													
25		0.7/4			3m/M6													
40		0.2-4			2m/M5													
50		0.5/3			1Am/M4													
8/2																		
10	7.8	0.7/4	0.16-3.2	4.8	4m/M7													
12.5		1/6			3m/M6													
20		1.3/8			2m/M5													
25		0.5/3			1Am/M4													
12/2																		
16	8	0.7/4	0.22-4.3	6.4	4m/M7													
20		0.9/5.3			3m/M6													
32		0.26-5.3			2m/M5													
40		0.7/4			1Am/M4													

* ProHub: 50% higher lifting speed for up to 30% of rated load capacity.

Demag DC chain hoist

Chain hoist	Load capacity	Reeving	Lifting speed	Cross-travel speed	Lifting height	Group of mechanisms
Type/size	[kg]		[m/min]	[m/min]	[m]	FEM
EU DC-Com 10	1,000	1/1	4/1	24/6	4, 5, 8, 11	2m
	1,250	2/1	4/1	24/6	4, 5, 8, 11	3m
	1,600	2/1	4/1	24/6	4, 5, 8, 11	2m
	2,000	2/1	4/1	24/6	4, 5, 8, 10	2m
EU DC-Pro 10	1,000	1/1	6/1.5	24/6	5, 8, 11	2m+
	1,250	1/1	8/2	24/6	5, 8, 11	1Am
	1,250	2/1	6/1.5	24/6	5, 8, 11	4m
	1,600	2/1	6/1.5	24/6	5, 8, 11	3m
	2,000	2/1	6/1.5	24/6	5, 8, 10	2m+
	2,500	2/1	4/1	14/3.5	5, 8, 10	1Am
EU DC-Pro 15	1,000	1/1	8/2	24/6	5, 8, 11	4m
	1,250	1/1	8/2	24/6	5, 8, 11	3m
	1,600	1/1	8/2	24/6	5, 8, 11	2m+
	2,000	2/1	4/1	24/6	5, 8, 11	4m
	2,500	2/1	4/1	14/3.5	5, 8, 11	3m
	3,200	2/1	4/1	14/3.5	5, 8, 11	2m+
EU DC-Pro 16	1,250	1/1	12/3	24/6	5, 8, 11	3m
	1,600	1/1	12/3	24/6	5, 8, 11	2m+
	2,500	2/1	6/1.5	14/3.5	5, 8, 11	3m
	3,200	2/1	6/1.5	14/3.5	5, 8, 11	1Am
EU DC-Pro 25	2,000	1/1	8/2	14/3.5	5, 8, 11	2m+
	2,500	2/1	4/1	14/3.5	5, 8, 11	1Am
	4,000	2/1	4/1	24/6	5, 8, 11	2m+
	5,000	2/1	4/1	24/6	5, 8, 10	1Am



For your applications up to 5 t

40053-9



5 days without interruption

DEMAG D3 RADIO CONTROLS

D3, the latest generation of our radio controls, is an efficient man/machine interface for manually controlled crane installations. With many new functions and practical features, our D3 is the ideal control system for your cranes and hoists.

The radio transmission method used for D3 meets the most demanding requirements in terms of transmitter density and co-existence with other equipment that operates in the 2.4 GHz ISM band and combines various transmission mechanisms (frequency hopping, listen before talk).

EFFECTIVE

Up to three transmitters can be simultaneously paired, control can be transferred from one point to another at the push of a button

ERGONOMIC

Reliable operation with large buttons for good grip, choice of 2-stage or variable button types

STRONG

5 days of uninterrupted hand-held transmitter operation thanks to state-of-the-art power management

FOR INDIVIDUAL NEEDS

Speed limit function for variable-speed transmitters. Fine control thanks to zoom function.

Ergonomic design for full control

DEMAG CONTROL PENDANTS

Control pendants precisely interpret control commands in any situation. They enable fatigue-free operation for right and left-handed operators – both with and without gloves. Demag control pendants are characterised by their optimised ergonomic sloping design for convenient operation. They are extremely robust and well equipped for demanding applications.



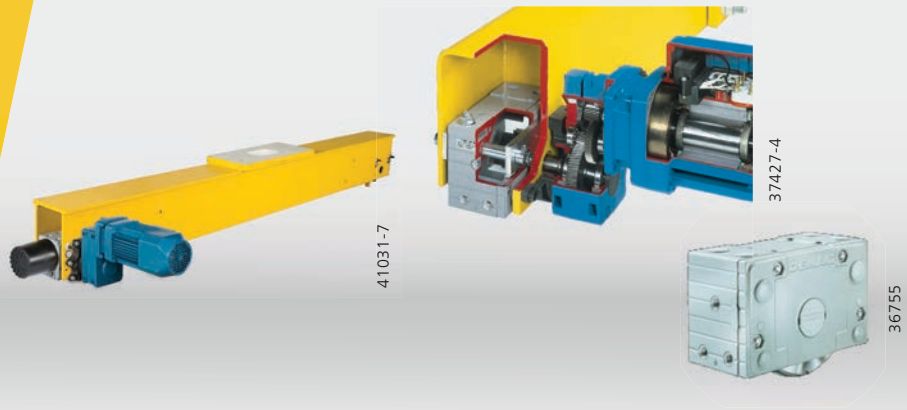
DST-7

DST-9

DSE-10

Demag components:

**Benefit
from our
comprehen-
sive range**



MINIMUM APPROACH DIMENSIONS: DFW-S END CARRIAGES

- Crane end carriage with top-mounted arrangement of the crane girder and conventional bolted connection
- Torsionally rigid, welded box-section girder, with diaphragm plates, computer-assisted design optimised for crane applications
- Crane end carriage wheel base for extremely compact crane approach dimensions: 1,500, 2,000, 2,500 mm
- Integrated derailment guard fitted as standard for additional safety

IDEAL COMBINATION: DRIVES

- Demag travel units equipped with perfectly matching components: geared motor and wheel block system
- High-performance ZBL long-travel motors in four sizes
 - Integrated plug-and-socket connections
 - Temperature monitoring
 - Space-saving drive design with offset gearbox
 - Travel wheel diameters: 112, 125, 160 or 200 mm
 - Choice of travel wheel treads
 - Wheel block with proven, high-precision pin connection (does not need to be re-aligned)
 - Wheel block can be moved in the axial direction (simple installation, flexible track gauge adjustment)
 - Tried-and-tested, comprehensive range of DRS accessories: e.g. buffers, horizontal guide rollers



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AT A GLANCE: DEMAG STATUSBOARD

Demag StatusBoard always shows crane operators the most important data at a glance.

The multi-colour, high-contrast display provides information, such as

- the weight of the suspended load
- the current long-travel direction
- status messages

Further information as well as freely programmable scrolling text messages can be generated, as required by the customer.

SAFE AND RELIABLE POWER SUPPLY: DCL-PRO COMPACT CONDUCTOR LINE

- Housing with honeycomb profile section: high rigidity with a low deadweight
- Reliable expansion compensation at each joint
- Long service life thanks to optimised current collector trolley design
- Up to seven conductors to supply power and control signals
- Up to 200 A in continuous operation
- Fast installation thanks to pre-assembled connection system
- Less time needed for assembly thanks to quickly aligned suspensions

DEMAG ENERGY CHAIN SYSTEM – IMPROVED CABLE PROTECTION, REDUCED WEAR

- For radio-controlled cranes
- No obstacles resulting from cable sag
- Higher safety near obstacles
- Improved area covered by the crane
- Minimised wear
- Quiet running characteristics
- Use of conventional round cables
- Easy assembly
- Reduced life-cycle costs

Excellent advice – perfect planning

Right from the start of the planning stage, we will apply our expertise to provide you with an innovative crane solution.

THIS MEANS:

- We focus on your needs
 - Logistical interfaces are defined at an early stage
- This approach ensures a reliable solution for the complete project and for every detail.

USE OF CAD SYSTEMS

When designing Demag Universal cranes, we make full use of state-of-the-art CAD systems. The parameters specific to each project are used to generate the necessary documents using CAD systems:

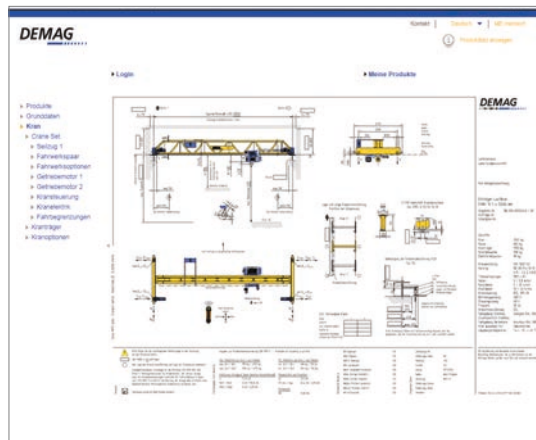
- Layout drawing
- Project drawing
- Assembly and component part drawings

WE PLAN – YOU BENEFIT

PROJECT ENGINEERING AND DESIGN work for the crane installation are both simplified and accelerated by the use of our planning tool, which also verifies the plausibility of the data. Rather than find out during installation whether the design and layout are correct, we check in advance using simulation, which ensures engineering accuracy and adherence to budgets.



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The site situation can be simulated to allow the plans to be verified in advance

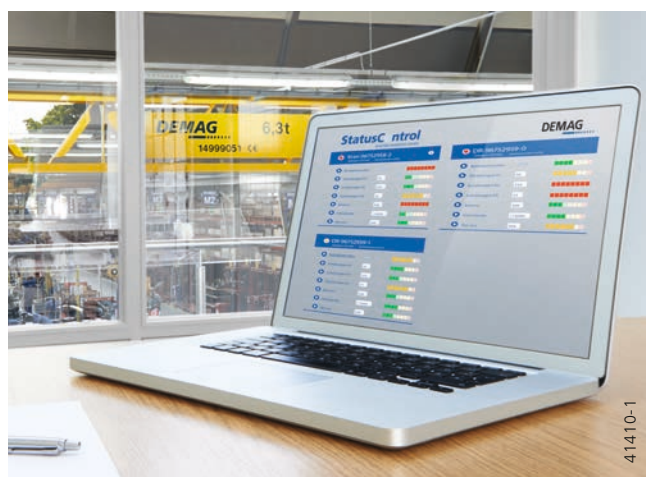
Professional installation management

Challenges also grow in line with the size and complexity of your machinery and equipment: you need to meet your maintenance schedules and have direct access to a wealth of data.

We provide you with innovative solutions for all current and relevant operating data and their analysis at a glance. You can then plan your annual safety inspection in advance and operate your equipment even more efficiently.

DEMAG STATUSCONTROL: REMOTE ACCESS IN REAL TIME

Keep an overview of the current status of your installations at all times. Demag StatusControl is a wireless remote access system for cranes and hoists that delivers, analyses and evaluates data for an overview in real time. Regardless of the brand of your installations. Whether you are in the factory, in your office or on the road: Demag StatusControl supplies you with all relevant operating data at a glance. The intuitive user interface always keeps you up to date on the risk of any possible downtime and enables you to schedule any necessary maintenance work in advance.



DEMAG SERVICE PLATFORM: ONE SOLUTION FOR ALL YOUR EQUIPMENT

Our Demag Service Platform combines all information on equipment, service work and events. It provides you with a clear overview of not only cranes, but also other technical equipment, regardless of their brand or location. From safety officers to factory management – everybody involved in your service activities has the same information at all times.

Our Demag Service Platform enables you to co-ordinate your deadlines efficiently and gives you direct access to a verifiable history of inspection work – including all documents relevant to your service activities.



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