

Modules for engineered solutions

Components for process cranes and process applications



Components for process cranes: modular – high performance – efficient

Demag components for process cranes turn a crane into a fully fledged process crane. Without the need for any additional design or development work. Fast, safe and reliable. And without any problems caused by additional interfaces.

Not only our customers appreciate these benefits – these components are extremely reliable elements of the Demag process crane engineering product line. The variety of possible applications is virtually unlimited.

The individual components – MPW open winch units, MPW open winch crabs and corner-bearing end carriages – are proven components that have been tried and tested all over the world. They are individually configured to meet the specific requirements of your process crane.

What requirements do you have? We develop solutions to meet your planned needs and supply components that are configured precisely to meet your application requirements.



40899-1

MPW open winch units



Frequency inverters



MPW crabs



Bottom blocks

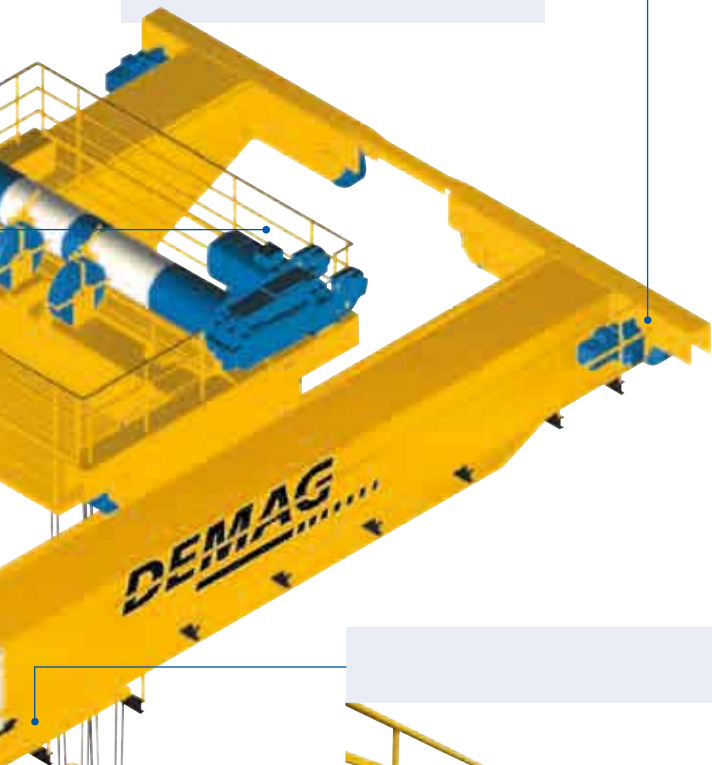
38956-1

38546-8



38174-5

Corner-bearing end carriages



38196

Main girders and walkways



Strong performance ...

Our MPW (Multi Purpose Winch) open winch crabs are as variable as the needs that they have to meet. Individually configured from reliable system components, they also satisfy the most demanding quality requirements. Their variable configuration makes it possible to implement the most efficient technical solution for your application. MPW open winch units can also be used for a wide variety of needs beyond typical crane applications. They feature wear-resistant components and optimum accessibility for service and maintenance.



Process crane equipped with a 250-tonne MPW double hoist unit on a crab and a 100-tonne MPW open winch unit

Benefits of MPW open winch units:

- True vertical lift reeving arrangements from 2/2 to 24/2
- Compact dimensions:
 - Reduced drum lengths thanks to rope end attachment to side flanges
- Optimised rope drum
 - Minimum drum wear thanks to enlarged rope groove opening angle
 - Long rope service life – also under arduous conditions – thanks to plastic filling between the strands

Handling equipment for storing long material: the lifting motions are provided by MPW open winch units

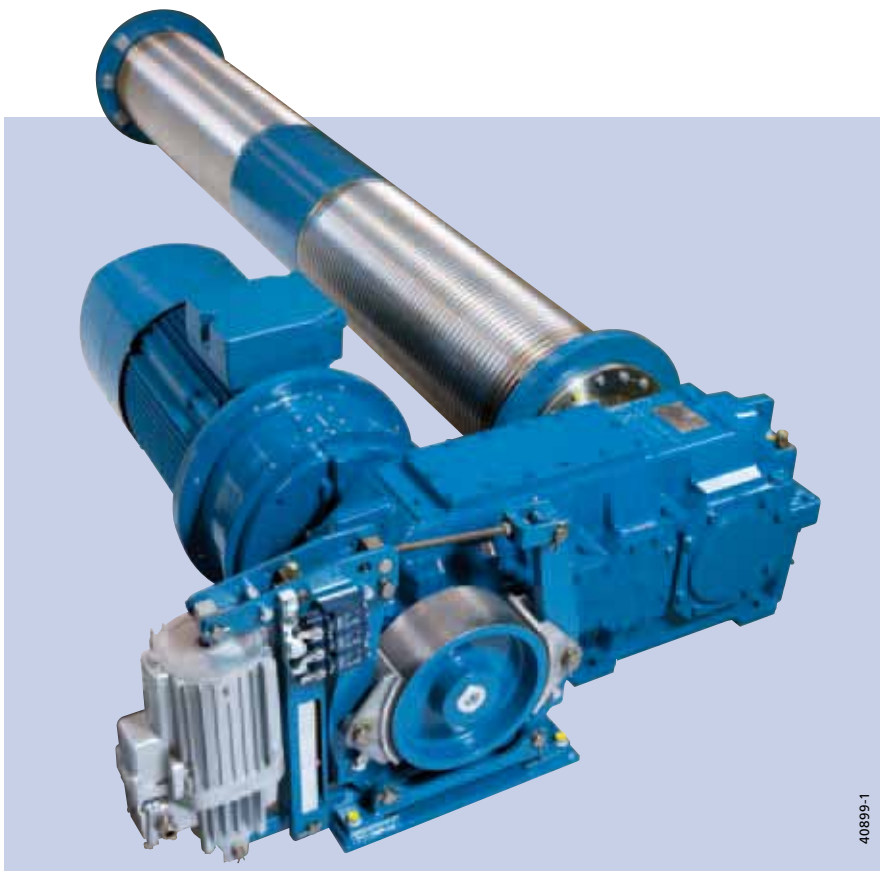


- Optimum crane approach dimensions in combination with high lifting performance: large drum diameters and small crab track gauges can be achieved thanks to hoist gearboxes with a large shaft centre distance
- Safe operation thanks to an optional second hoist brake
- Clear interfaces for ease of assembly and maintenance
- Minimum maintenance requirement and easy to service
- Short installation times thanks to pre-assembled solutions



Europe's largest video module in a multi-purpose arena in Istanbul – safely held by two MPW open winch units

... and fully versatile

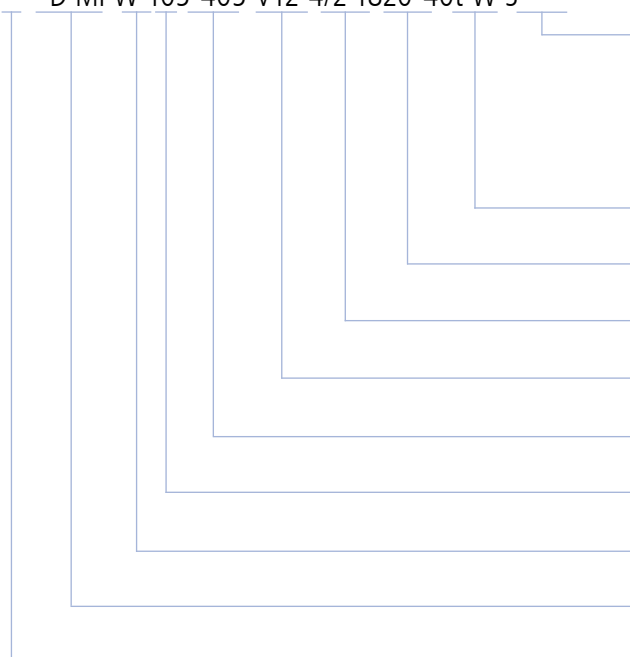


For special requirements

- Multi-groove rope drums
- Rope lead-offs possible in many directions
- Multiple rope return arrangements
- Double hoist units
- Twin rope guide
- Rope overrun detection
- Disc brake
- Motor-driven rotating bottom blocks and much more

Explanation of the model code

D MPW 105-405-V12-4/2-1820-40t-W-S



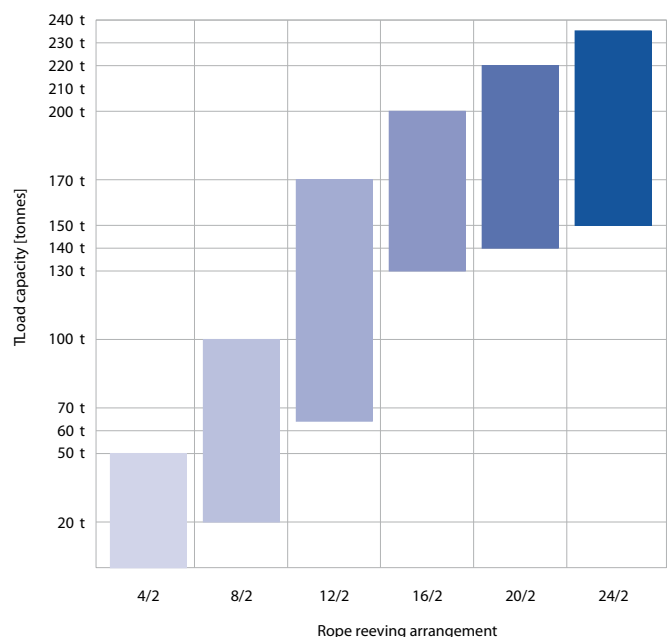
MPW open winch unit range

| | |
|--|---|
| W ... open winch unit / C ... crab / S ... special | |
| Hoist output [kW] | 20 - 250 |
| Max. hook path [m] | 160 |
| Load capacity [t] | 5 - 235 470 (as a double hoist unit) |
| Distance between bearings or crab track gauge [mm] | Drum length up to 6,000 |
| Reeving arrangements | 2/2; 4/2; 8/2; 12/2; 16/2; 20/2; 24/2 |
| Max. lifting speeds [m/min] | 80 (full load) 112 (partial load) |
| Max. drum diameter [mm] | 1.200 |
| FEM/ISO classification | 1Bm-5m / M3-M8 |
| Gearbox size | 05 - 14 |
| Multi Purpose Winch | |
| Demag open winch | |

For crab designs ready for installation

Fully equipped and assembled: you can eliminate any delivery time and interface problems with our MPW (Multi Purpose Winch) open winch crabs, which are ready to be installed. Precisely designed to meet the customer's specific requirements, MPW open winch crabs feature outstanding benefits:

- Few connection interfaces (drum, gearbox, motor and brake and steelwork form a unit)
- Crab frame of welded steel design
- Optimum weight and torsionally rigid design
- Travel wheels largely wear-free
- Proven travel unit design used in our crane and crab end carriages
- Minimised transport costs thanks to modular design
- Bolted crossbeam connection
- Can be shipped as a complete unit by container



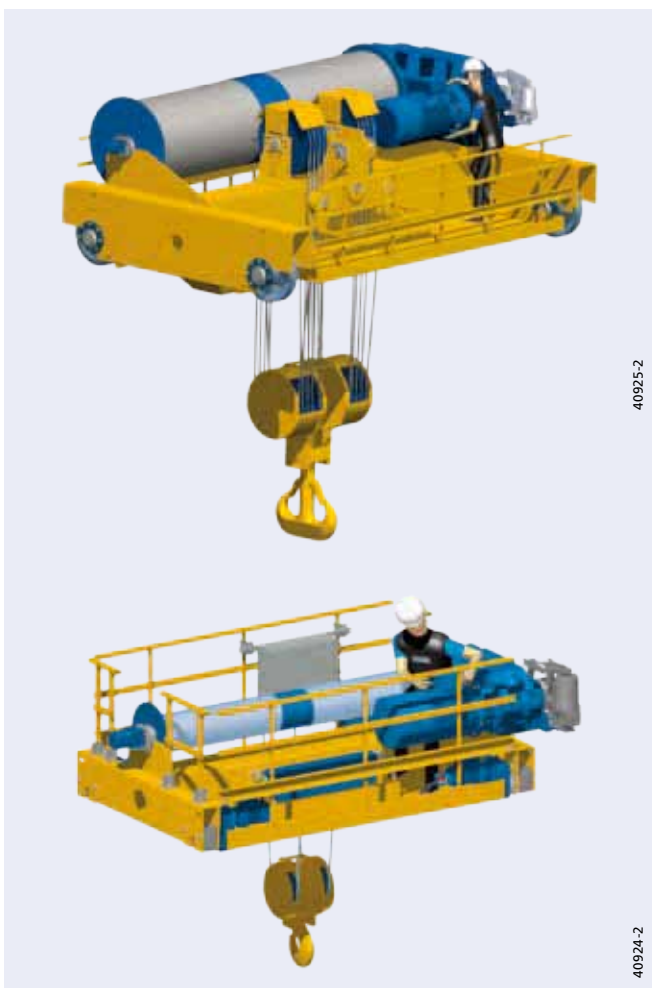
Simple assembly, convenient maintenance

- Mechanically fully pre-assembled for immediate commissioning
- Minimum assembly requirement
- Maintenance-friendly design thanks to good accessibility to the individual components
- Accessible crab frame with foot rails and railing



40893

32-t-MPW auxiliary hoist on a 120-t crab for a casting crane



40925-2

40924-2



40894

32-tonne MPW crab with special switchgear cabinet fitting



40963-4

Order-specific design with 3D CAD tools: a wealth of experience in reliable order processing and project engineering to meet individual requirements

You need more than just wheels ...

Our corner-bearing end carriages are versatile, modular rail-mounted travel units of torsionally rigid box-section design. They can be connected direct to load-bearing superstructures – for cranes or crabs. Further benefits:

- precise single or double-girder design with up to four travel wheels
- can be configured for all load capacity ranges
- optimised design of the entire crane system
- convenient adjustment and maintenance
- save time for handling during assembly

Outstanding performance

- Travel wheels made of high-quality spheroidal-graphite cast iron for low operating noise
- High resistance to wear
- Buffer options (hydraulic, cellular plastic and rubber buffers)
- Tandem end carriages with diaphragm joint

Individual solutions

- Drive option with two or four driven travel wheels
- Wheel solutions with diameters from 250 to 630 mm

Convenient assembly

- Direct connection to the crane girder – with one or two machined connection surfaces depending on the design
- Simple maintenance and adjustment thanks to corner-bearing wheel sets that can be rolled out of the girder
- No additional components need to be removed and no special tools are needed

Low-maintenance drives

- Compact, matching ZBA motors and A gearboxes
- Direct splined-profile connection to the travel wheel shaft (easy to remove)
- Flexible torque-load connection to the end carriage thanks to elastic torque arm
- Low-noise operation thanks to ground helical gear wheels running in an oil bath



Power and precision: Demag drives to meet the most demanding quality requirements. Space-saving combination of Demag angular geared motor and DWS wheel set

KTL end carriages

| End carriage types | Travel wheel type | Travel wheel dia. | Inside wheel base [mm] | | Outside wheel base [mm] | |
|--------------------|-------------------|--------------------------|------------------------|-------|-------------------------|--------|
| | | | min. | max. | min. | max. |
| KTL-RE | DRS wheel blocks | 160 200 250 315 | 1,500 | 7,000 | – | – |
| KTL-RZ | | | 2,500 | 7,000 | – | – |
| KTL-RT | | | 690 | 2,500 | 4,345 | 18,000 |
| KTL-EE | DWS wheel sets | 400 500 630 | 1,500 | 7,000 | – | – |
| KTL-EZ | | | 2,500 | 7,000 | – | – |
| KTL-ET | | | 1,100 | 4,000 | 4,800 | 18,000 |

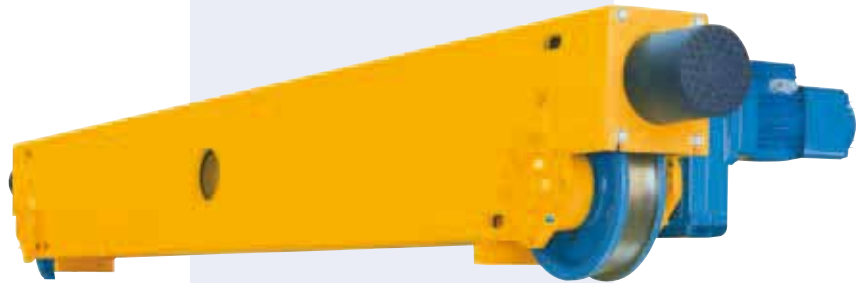
40072-1

... our KTL end carriages offer you outstanding solutions

Corner-bearing end carriages provide flexibility. Two or four wheels can be driven, as required. You also have the same flexible choice between cellular foam, rubber or hydraulic buffers.

KTL-EE end carriage

Single-girder end carriage
with two travel wheels



38373-2

KTL-EZ end carriage

Double-girder end carriage
with two travel wheels



38373-1

KTL-ET end carriage

Double-girder end carriage with four
travel wheels and guide rollers. The
two travel units are connected to each
other by means of a diaphragm joint.



38373-3

Engineered solutions: components from a single source

Reliable components are essential for the smooth operation of an integrated system. Demag components for process cranes are tried-and-tested modules used in thousands of installations for solutions engineered to meet specific requirements. On the basis of standardised sub-assemblies, we develop and supply you with pre-assembled modules

from a single source that are ready to be installed – from single components to complete mechanical sets. You can depend on our in-depth analysis and consultation, short response times and high delivery performance.



Inverter systems for drive solutions tailored to meet your needs

38956-1



Demag travel units equipped with perfectly matching system components

37470-1



MPW open winch unit bottom block

40985



Wheels for load capacities up to 60 tonnes per wheel

39399-1



39339-1



40970-5

Installations built with Demag engineering



Safety at the highest level:
an MPW hoist unit lifts the gondola of a carousel



Fully pre-assembled MPW crab
with a telescoping gripper for handling tools



Two 125-tonne MPW crabs for quayside handling with
weather-protection equipment for operation outdoors



MPW open winch unit employed
in a gripper system for transporting steel slabs

- ◀ Perfectly prepared: 32-tonne MPW open winch units
as solo components used in OEM crabs

