

Demag DFW-L travel units | Cost-effective solution for
driven rail-mounted travel units



Demag DFW-L travel units

Driven rail-mounted travel units

Demag DFW-L travel units for overhead travelling cranes are high-quality components for materials handling and general engineering requirements. Of proven design, efficient and reliable, they are used as travel units for steel structures in crane and hoist applications and related designs in the mechanical engineering sector.

DFW-L travel units are complete, driven rail-mounted travel units and can be connected direct to load-bearing structures. In addition to the steel section, a rigid box girder profile, the travel units feature a driven Demag DRS wheel block, to which a gearbox and motor are fitted, as well as a non-driven DRS wheel block. The travel unit profile section, optimised on the basis of the latest findings in the steelwork sector, displays excellent travel characteristics,

even at high loads due to tight tolerances resulting from differences in the runway gauge, skewing and misalignment. Specially matched motors ensure smooth starting of the travel unit, whether with or without a load, with favourable speed/torque characteristics.

Demag travel units make your installations efficient and reliable

- Proven design for most arduous operating conditions
- Various sizes, suitable for all necessary output requirements
- Pole-changing motors for travel speeds up to 12.5/50.0 m/min
- Indrive travel drives for frequency-regulated travel motions up to 80.0 m/min
- Changes in track gauge can be accommodated using interchangeable spacer elements

- Friction bearings lubricated for life, with large bearing distance to accommodate horizontal forces
- Optimum mounting arrangement for horizontal guide rollers
- Maintenance-free

We offer the following mounting combinations to meet your design needs:

- Travel unit with a side connection, e.g. side crane girder connection (standard)
- Travel unit with a top connection, up to DFW-L 200 (option)

We guarantee comprehensive consultation with our specialists already at the project stage. After the unit has been put into operation, our world-wide after-sales service ensures constant availability of your installation.



Crane end carriage with drive unit (A-type gearbox and Z-type motor) and Demag DPZ cellular foam buffer.

| | Trolley type | Wheel load max. kg | Travel wheel Ø mm | Wheel base ekt mm | Length ¹⁾ mm | Height mm | Width ²⁾ mm |
|------------------------------|--------------|--------------------|-------------------|------------------------------|------------------------------|-------------------------|------------------------|
| for single girder connection | DFW-L-L 112 | 3350 | 112 | 1750 | 1920 | 180 | 214 |
| | DFW-L-E 112 | 3500 | 112 | 2000, 2500 | 2204, 2704 | 243, 247 | 135, 135 |
| | DFW-L-E 125 | 5000 | 125 | 2000, 2500, 3150 | 2224, 2724, 3374 | 281, 285, 289 | 138, 140, 140 |
| | DFW-L-E 160 | 7000 | 160 | 2000, 2500, 3150 | 2280, 2780, 3430 | 353, 357, 361 | 158, 160, 160 |
| | DFW-L-E 200 | 10000 | 200 | 2000, 2500, 3150, 4000 | 2336, 2836, 3486, 4336 | 436, 440, 444, 444 | 183, 185, 185, 185 |
| for double girder connection | DFW-L-Z 160 | 7000 | 160 | 2500, 3150 | 2780, 3430 | 352, 356 | 160 |
| | DFW-L-Z 200 | 10000 | 200 | 2500, 3150, 4000 | 2846, 3446, 4346 | 437, 438, 439 | 185 |
| | DFW-L-Z 250 | 16000 | 250 | 2500, 3150, 4000 | 2890, 3540, 4390 | 470, 473, 472 | 210 |
| | DFW-L-Z 315 | 22000 | 315 | 2500, 3150, 4000, 4200, 5000 | 2975, 3625, 4475, 4675, 5476 | 506, 508, 508, 508, 510 | 250 |
| | DFW-L-Z 400 | 30000 | 400 | 3150, 4000, 4500, 5000 | 3735, 4585, 5085, 5585 | 552, 550, 552, 552 | 285 |

¹⁾ Length without buffer ²⁾ Width without drive

Quality manufactured in series

Optimum travel characteristics and high reliability

The steelwork is specified to DIN 15018, lifting class H2, loading group B3.

Steelwork features:

- Rugged design thanks to rigid, enclosed box girder profile. Optimum arrangement of welded diaphragm plates reinforce the connection area.
- Precise position of the travel wheel axes in relation to the connecting surfaces thanks to machining in an NC machine tool.
- Easy assembly and accessibility. Reliable high-tension bolted connection with the connecting structure.
- Optimum travel characteristics and, if required, reliable replacement thanks to reproducible connection geometry.

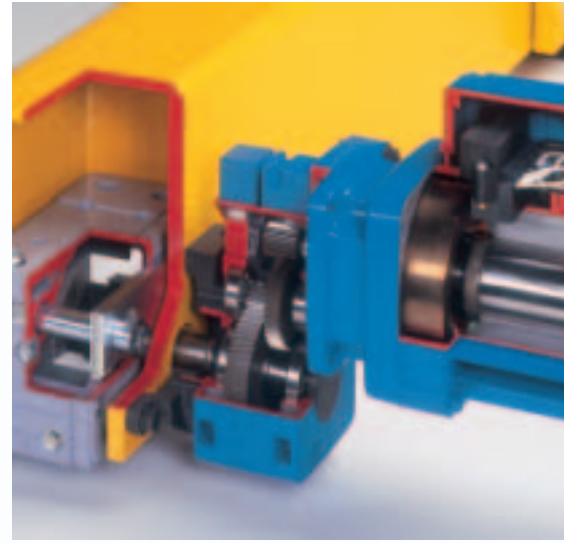
The connecting structure can be mounted on the travel unit:

- flush with the bottom edge (side crane girder connection)
- flush with the top edge (side crane girder connection)

- raised (side crane girder connection)
- lowered (side crane girder connection)
- top-mounted (top crane girder connection)

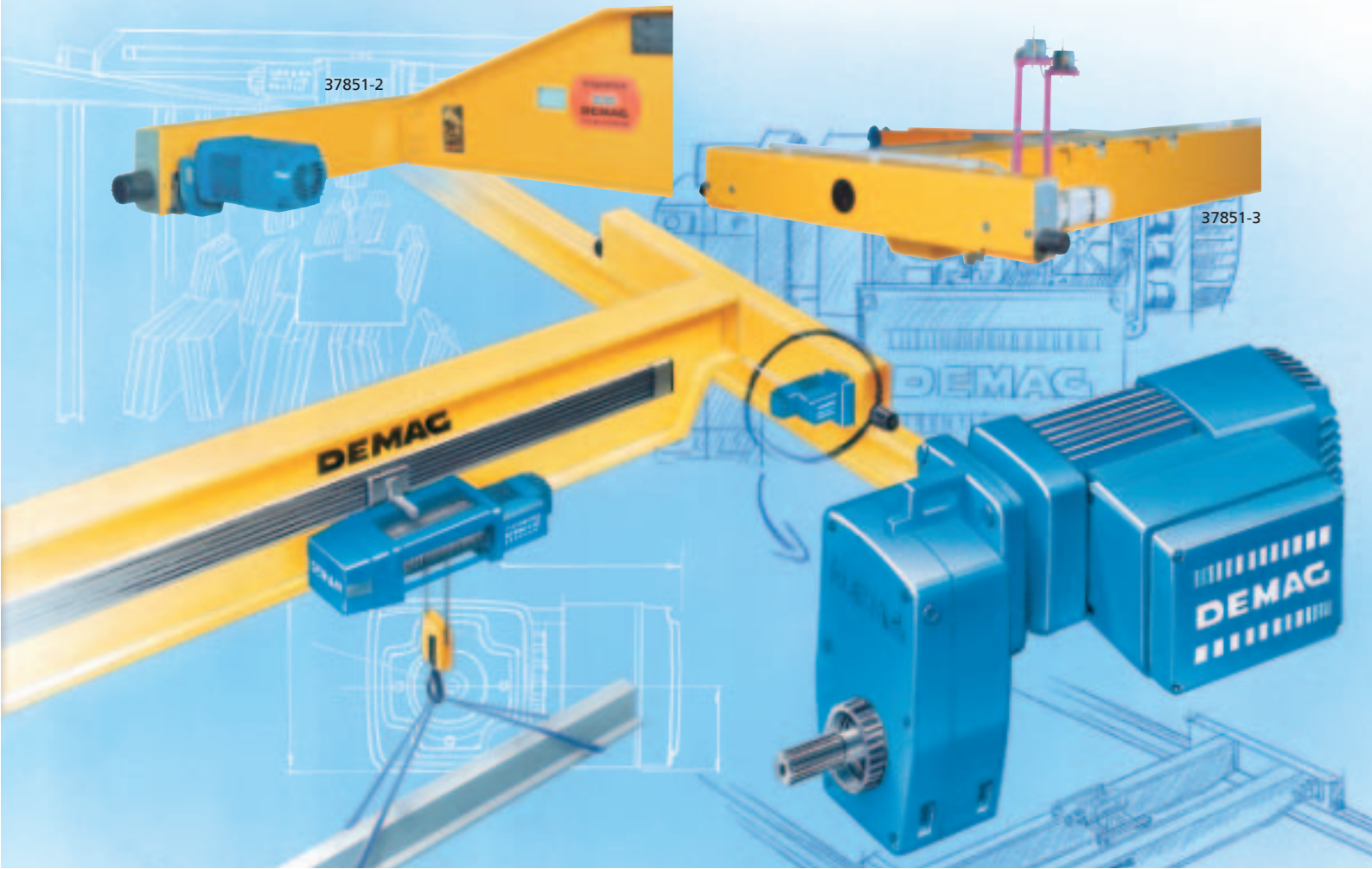
DFW-L travel units are driven by a Demag cylindrical-rotor brake motor. Specially matched and featuring additional flywheel masses, they offer speed/torque properties for favourable starting characteristics. The three-stage offset gearbox is specified for high starting frequencies. The helical gearing of the first two stages and the high-quality gearing components ensure quiet operation.

The drive unit, consisting of a Z-type motor and an A-type gearbox, is perfectly matched to DFW-L travel units and the entire unit is optimised for travel applications. For extremely smooth starting or infinitely variable travel speed control,



Cut-away view of DRS wheel block, gearbox and motor.

we recommend Demag Indrive drives featuring a frequency inverter integrated in the terminal box.

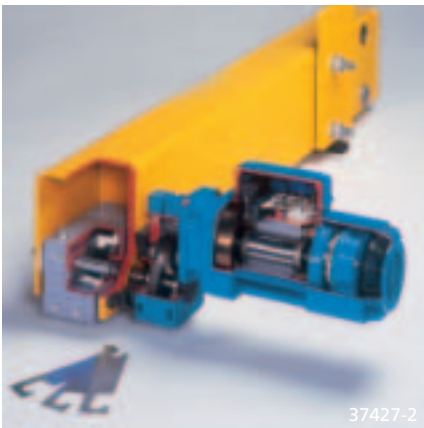


Demag DFW-L travel units

A cost-effective investment for in-house handling requirements



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Travel unit with spacer elements for track gauge adjustment.

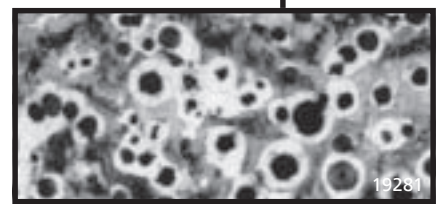
The steel profile is a rigid box girder section with a continuous, heavy gauge side plate, prepared for connection to any load-bearing structure such as a crane girder, sliding roof structure, casting trolley, distribution carriage or similar design.

The crane girder connecting plates are pre-assembled to engineering tolerances (option) and provided with a high-tensile bolt set.

Adjustments to the span (of cranes) can be made by replacing the spacer elements. The travel wheels are made of spheroidal graphite cast iron – a material with a self-lubricating property thanks to encapsulated graphite granules. This keeps crane runway wear to a minimum and enhances the smooth travel characteristics thanks to the inherent shock-absorbing effect.



18000



19281

View of a section through the travel wheel material, section magnified 200. Encapsulated graphite granules (black dots) with ferrite mantle in the pearlite iron structure.

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Cranes

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