

DEMAG

Cranes & Components

Demag DC-Pro Chain Hoist Demag DCM-Pro Manulift

The New High Performance Hoists



Standard Features

All inclusive: popular options are standard

Many of the most popular features are integrated into the Demag DC-Pro chain hoist as standard; where as in other hoists they are optional.

The DC-Pro chain hoist is a fully featured, highly versatile chain hoist, which can be installed and put into service in a minimal amount of time.

Certified

DC-Pro chain hoists are tested and approved by several standard authorities including CSA. Electromagnetic compatibility is rated according to EN 61000-6-2 to 4 for interference immunity in industrial environments and for interference emissions in commercial and industrial environments.

The hoist motor, chain hoist and travel drive with IP55 enclosure and control pendants with IP65 enclosure to EN 60529 ensure high protection against moisture and dust penetration for outdoor operation.

① Gearbox – maintenance-free for up to 10 years. With an FEM Group of Mechanisms classification of 2m+, the DC-Pro sets a new standard with a rated service life of 1900 full load hours. In practical terms, this means the service life is extended by approx. 20%. The helical gearing inside the gearbox also reduces operating noise and provides smooth operation.



② Brake – maintenance-free for up to 10 years (sizes DC 10–25 up to 5 years). Thanks to minimum wear, adjustment is not necessary. The brake is enclosed in the electrical panel and provides double protection from the elements.

③ Slip clutch – maintenance-free for up to 10 years. Integrated behind the brake in the power drive, it provides reliable protection against overload. Integrated slip clutch monitoring prevents permanent damage to the slip clutch.

④ Height adjustable control pendant cable – The length of the control cable and, therefore, the suspension height of the control pendant can be infinitely varied for a hook path range of 6.5–16ft (2–5m) and 16–26 ft (5–8m). The excess control cable (not required) is accommodated behind the service cover. The control cable is rated for electric travel applications in 3 axes.

⑤ Control – 24 V contactor control, operating limit switches (upper/lower) and elapsed operating time counter are standard on DCI-10. A geared limit switch with four contacts for fast-to-slow and limit cut-off is used as the operating limit switch on sizes DC 16 and 25.

DC-Pro chain hoist selection table

Capacity lb [kg]	Chain hoist		Motor size	Hook path ²⁾ ft [m]	Group of mechanisms FEM	Reeving	Max. weight at H5/H8 respect. H4 lb [kg]	
	Type	ft/min at 60 Hz [m/min at 60 Hz]						
275 (125)	DC-Pro 1 -...	32/8 (9.6/2.4)	ZNK 71 B 8/2	16 & 26 (5 & 8)	4m	1/1	49/53 (22/24)	
	DC-Pro 2 -...	64/16 (19.2/4.8)						
550 (250)	DC-Pro 2 -...	32/8 (9.6/2.4)	ZNK 71 B 8/2		2m+ ¹⁾		49/53 (22/24)	
	DC-Pro 5 -...	64/16 (19.2/4.8)	ZNK 80 A 8/2		4m		62/66 (28/30)	
1100 (500)	DC-Pro 5 -...	32/8 (9.6/2.4)	ZNK 80 A 8/2		2m+ ¹⁾		62/66 (28/30)	
	DC-Pro 10 -...	48/12 (14.4/3.6)	ZNK 100 A 8/2		4m		106/115 (48/52)	
2200 (1000)	DC-Pro 10 -...	24/6 (7.2/1.8)	ZNK 100 A 8/2		2m+ ¹⁾		106/115 (48/52)	
		48/12 (14.4/3.6)	ZNK 100 B 8/2				124/133 (56/60)	
4400 (2000)	DC-Pro 10 -...	24/6 (7.2/1.8)	ZNK 100 B 8/2		2m+ ¹⁾		2/1	144/161 (65/73)
	DC-Pro 25 -...	32/8 (9.6/2.4)	ZNK 100 C 8/2				13 (4)	1/1
5500 (2500)	DC-Pro 10 -...	16/4 (4.8/1.2)	ZNK 100 B 8/2	16 & 26 (5 & 8)	1Am	2/1	144/161 (65/73)	
	DC-Pro 25 -...	32/8 (9.6/2.4)	ZNK 100 C 8/2			13 (4)	1/1	250 (113)
7000 (3200)	DC-Pro 16 -...	16/4 (4.8/1.2)	ZNK 100 B 8/2	13 (4)	2m+ ¹⁾	2/1	243 (110)	
		24/6 (7.2/1.8)	ZNK 100 C 8/2					
8800 (4000)	DC-Pro 25 -...	16/4 (4.8/1.2)		13 (4)	2m+ ¹⁾	2/1	276 (125)	
11000 (5000)					1Am			

⑥ Round steel chain – a special Demag chain of high-strength, hardened age-resistant material. Galvanized and other surface-treatments are available to protect against specific hostile environments.

⑦ Suspension bracket – DC-Pro chain hoists are suspended in pendulum fashion and make optimum use of the available height thanks to their low headroom dimension. DC-Pro units are supplied with short and long suspension brackets as standard and can always be attached to the superstructure with the optimal connection.

⑧ Housing – robust and weight-saving die-cast aluminium housing of compact and modern industrial design. UV-resistant powder-coated finish is resistant to nicks and scratches.

⑨ Hoist motor – high-performance motor with large safety reserves even at high ambient temperatures and in prolonged operation. 2 hoist speeds with 4/1 ratio as standard. (Insulation class F, 360 s/h and 60% CDF)

⑩ Chain drive – The unit is a complete assembly consisting of the chain and chain guide which facilitates quick and easy replacement of the entire chain drive without having to remove the motor or gear parts. Downtime can therefore be reduced significantly. The chain drive consists of highly wear-resistant materials for a long service life.

⑪ Chain collector box – suspended from a pivoting connection, is made of tough, flexible and particularly impact-resistant plastic; capacity for up to 26ft (8m) hook path. A flexible chain container for chain lengths up to 131ft (40m) as well as special lengths up to 393ft (120m).

⑫ Bottom block – hoist up to 2200 lb (1000 kg) are supplied with single chain fall for improved ergonomic handling of the hook. Chain wear is simultaneously reduced, since no chain return arrangement is required. The new, compact and particularly ergonomic DC bottom block is used for 2/1 reeving arrangements. The cut-off springs required for the limit switches are integrated inside the bottom block and therefore save 2.36in (60mm) of the valuable headroom dimension.

1) 2m+ corresponds to 1900 hours at full load 2) Longer hook paths possible, please consult Demag

Demag DC-Pro chain hoist A New Industrial Standard

Sensitive and fast

DC-Pro units can be integrated into your work and production processes flexibly and precisely. While the high lifting speed guarantees fast and effective operation at a minimum of 6 ft/min, the slow lifting speed ensures that loads are placed gently and precisely.

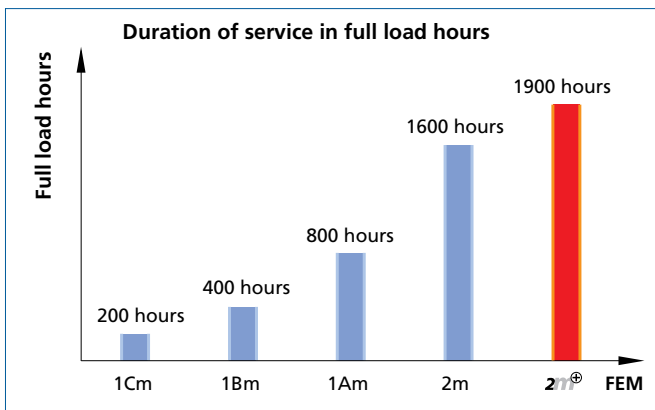
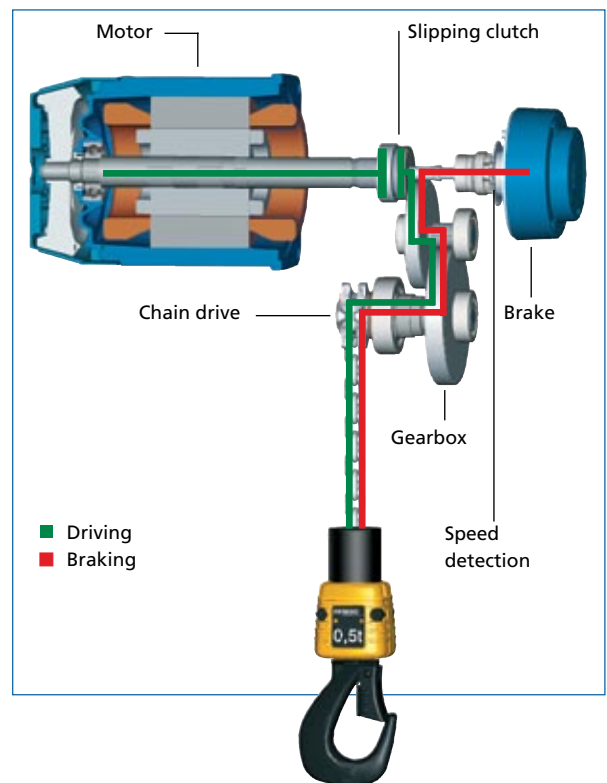
2m[®] – an even longer service life for greater efficiency.

In practical terms, Demag means the service life is extended by approx. 20% in comparison with the conventional 2m classification for chain hoists FEM rating. This results in significantly prolonged time between service intervals and general overhauls. This extra operating life is only offered by the new Demag DC-Pro chain hoist.



Improved safety and reliability

The gearbox, brake and coupling operate maintenance free for up to ten years (brake for sizes DC 10–25 up to 5 years). The brake-coupling system ensures that the load is held securely in any operating situation. The load cannot drop. This is achieved by the arrangement of the brake directly in the power drive chain (red line). Thanks to regenerative braking which minimizes wear, the brake never requires adjustment.



Commissioning/Maintenance

A great benefit offered by the new Demag DC-Pro chain hoist is simple commissioning. The pivoting suspension bracket and infinitely adjustable flange width of the U 11, U 22, U 34 and U 56 trolleys make the mechanical parts easy to install. The plug-in connections beneath the service cover and the power plugs, included in the scope of delivery, make the electrical parts simple to connect. This enables the DC-Pro to be ready for operation in a minimum of time.

Integrated beneath the cover

You have quick access to all important components for service and commissioning beneath the service cover.

- Storage for 10 ft (3 m) of pendant cable
- Plug-in electrical connections for power cable, pendant cable, limit switches and trolley
- Strain relief for power supply and trolley supply cables
- Chain guide
- Chain lubrication



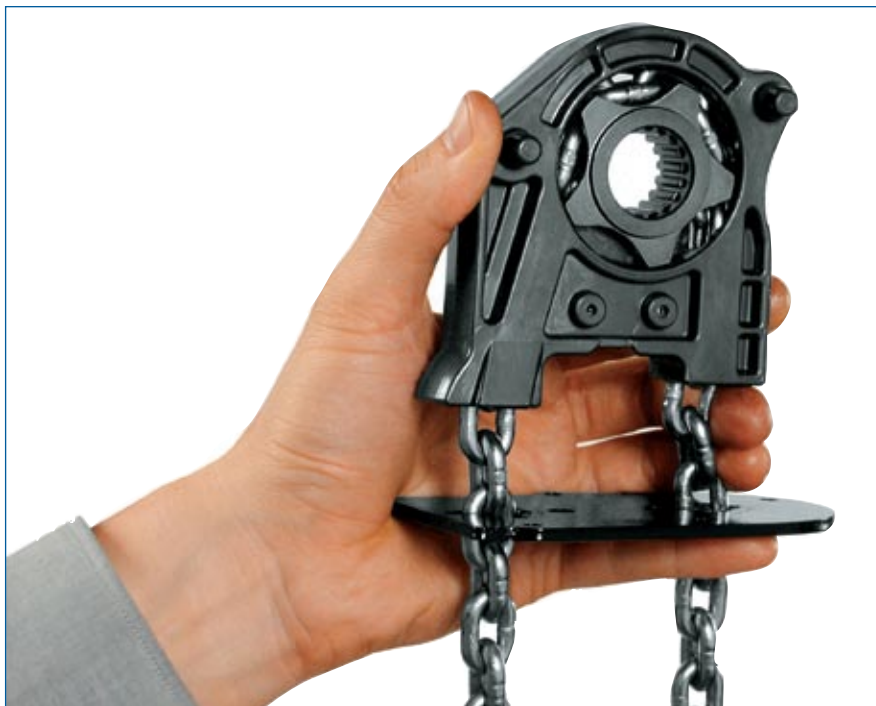
Pivoting service cover

Internal diagnostics

Service technicians can read the standard operating time counter or call up the relevant information on the operating status – from the outside via the display on the base of the chain hoist housing.



Diagnostic display



Chain drive

The chain drive of the DC-Pro is designed as a compact unit which is slid into place and can be replaced in a minimum of time without the need to disassemble motor or gearbox parts. Long downtimes as a result of maintenance work are now a thing of the past.

Demag DCM-Pro Manulift:

Safe, fast and ergonomic single-handed load handling at the workplace

The DCM-Pro Manulift was developed for handling loads quickly and safely with only one hand. The new DCM-Pro is based on the DC-Pro chain hoist and the DSM-C control unit which is connected to it by a helical cable. The control unit is rigidly connected to the load handling attachment for right and left-handed operation, the operator only needs one hand to operate the chain hoist and guide the load.

The quick-disconnect coupling enables a wide variety of load handling attachments to be changed with ease. All Manulift load handling attachments are fitted with a connecting pin with a swivel lock, which snaps into the quick-disconnect coupling. It can be easily removed by lifting the unlocking sleeve.

Manulift units can travel on Demag KBK profile sections and I-beams, which enables them to be flexibly integrated into work and production processes.



Load hook
250 kg



Slewing load hook
250 kg



Open hook
125 kg



Belt sling
125 kg

Versatile adaptability to any task

A variety of proven load handling attachments facilitate optimum and flexible adaptation of the “Manulift” chain hoist to meet your needs. They range from normal load hooks and various pantograph-type tongs to parallel gripper systems. The DCM-Pro Manulift can be used with specially developed load handling attachments. The universal coupling pin is used to connect customer-designed attachments. It is provided with an M12 internal thread for connecting special load handling attachments.

Manulift load handling attachments can also be connected to the DC-Pro chain hoist load hook by means of an adapter. The versatility and flexibility of the new Demag chain hoist provide for improved load handling efficiency at the workplace.



Demag DCM-Pro Manulift selection table

Capacity lb [kg]	Manulift Type	Hoist speed		Motor size	Lift ft [m]	Group of mechanisms FEM	Reeving	Max. weight for 2,8 and 4,3 hook path lb [kg]
		ft/min at 60 Hz	m/min at 60 Hz					
275 (125)	DCM-Pro 1 - ...	32/8	(9.6/2.4)	ZNK 71 B 8/2	9 (2.8) and 14 (4.3)	4m	1/1	49/51 (22 / 23)
	DCM-Pro 2 - ...	64/16	(19.2/4.8)			2m+ ¹⁾		
550 (250)	DCM-Pro 2 - ...	32/8	(9.6/2.4)	ZNK 80 B 8/2		4m		62/64 (28/29)
	DCM-Pro 5 - ...	64/16	(19.2/4.8)					

1) 2m+ corresponds to 1900 hours at full load



PGS-parallel gripper
125 kg



Pantograph tongs for gripping square goods
125 kg



Pantograph tongs for gripping round goods
125 kg



Load hook adapter
up to 250 kg



Load hook adapter with connected PGS shaft gripper

Travel Trolleys



Manual Trolley

The new U style manual trolley generation is available in four sizes for load capacities up to: 2425 lb (1100 kg) (U 11), 4850 lb (2200 kg) (U 22), 7500 lb (3400 kg) (U 34) and 12,125 lb (5600 kg) (U 56). The flange width can be infinitely adjusted and covers a range from 2.28 (58 mm) to 7.87 (200 mm), and 7.91 (201 mm) to 12.20 (310 mm). This facilitates fast and simple installation.

The travel rollers, made of high-strength and wear-resistant Polyamide, provide for smooth operation and low rolling resistance. Optional steel rollers are also available for special ambient conditions, e.g. high temperatures.



Electric Trolley

The E 11, E 22, E 34 and E 56 electric travel drives were specially developed for operation with the new DC-Pro chain hoist. This significantly extends the range of applications of this state-of-the-art hoist.

The same travel drives can be adapted to the U 11 – U 34 trolleys. Particularly short approach dimensions can be achieved when the units are mounted in a vertical arrangement. Fast retro-fitting and commissioning offer further benefits as no changes need to be made to the manual-travel trolleys.

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