

NEW

Demag chain hoist DCS<sup>PRO</sup> | Infinitely variable  
Demag Manulift DCMS<sup>PRO</sup> | speed control



# Precise and fast with infinitely variable speed control

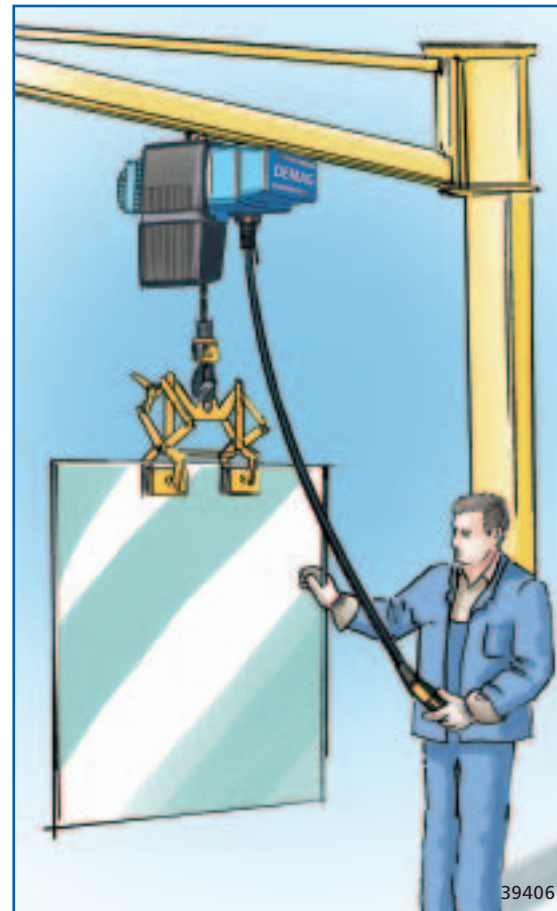
The benefits of chain hoists with infinitely variable speed control are outstanding: High-quality and sensitive parts can be lifted, lowered and positioned more smoothly and safely, mounting and joining processes can be controlled more precisely, lifting motions can be carried out at much faster speed thanks to the Pro-Hub function, which almost doubles the rated speed in the partial load range.

The new DCS-Pro and DCMS-Pro chain hoists with infinitely variable speed control guarantee high efficiency and safety in working processes. The control unit and the inverter are designed as pluggable modular components which are directly integrated beneath the electrical equipment cover. Therefore they require hardly any more space than DC-Pro and Manulift DCM-Pro chain hoists.



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Glass panels are picked up and deposited smoothly and gently with little vibration



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## Fully featured instead of hidden extra costs

The Demag DCS-Pro already offers many features as standard equipment that have to be ordered and paid for as extras from other suppliers. Thanks to its full set of features, the DCS-Pro is extremely versatile and can be installed and put into operation within a very short time.

This is "Standard – Made by Demag", an investment with added value:

- 20 % longer service life and higher efficiency thanks to Demag 2m+ classification (1900-hour full load service life)
- Improved safety thanks to 24 V control voltage and operating limit switch
- Gearbox, brake and coupling maintenance-free for up to 10 years

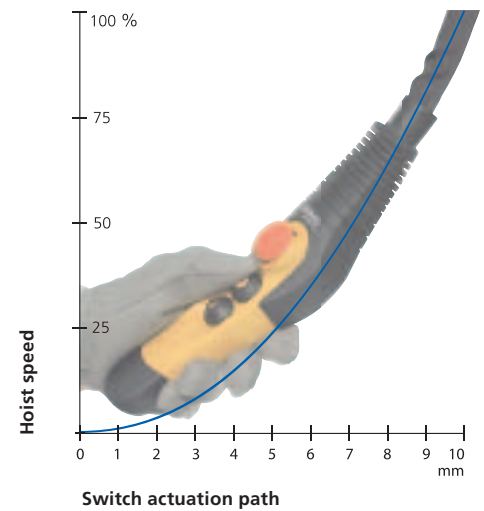
- Safe cut-out in the event of overload due to speed-monitored slipping clutch
- The brake-coupling system ensures that the load is held safely in any operating situation – the load cannot drop
- Simple commissioning thanks to Plug & Lift and Plug & Drive connections.
- Hinged service cover for direct and rapid access to all important plug-and-socket connections, height adjustment of the control pendant and chain lubrication
- Time-saving and ergonomic height adjustment of the control pendant requiring no additional wiring

## Innovative technology with many advantages

Compared to the DC-Pro with two lifting speeds, the new Demag DCS-Pro and DCMS-Pro chain hoists with infinitely variable lifting speed offer further benefits:

- Infinitely variable speed control for lifting and lowering motions over the whole load range
- Creep hoist speed from 0.15 m/min (DCS 1 and 2) and 0.08 m/min (DCS 5)
- Smooth starting and precise positioning owing to particularly fine control at low speeds
- Gentle positioning and fast operation in one unit thanks to a control ratio of 1:200
- Pro-Hub: up to 90 % higher rated speed at partial load or no load operation
- Automatic switchover to creep hoist speed before the upper/lower end positions are reached
- Sensitive operation and optimum ergonomics with a switch actuation path of 10 mm and progressive characteristic offered by the PWM switching elements
- Acceleration and braking ramps prevent excessive load sway
- If required, hoist speed, acceleration and deceleration ramps can be easily modified by means of the control pendant
- Improved safety thanks to motor temperature monitoring device
- 380 - 480 V/50 - 60 Hz wide voltage range input
- Long and cross travel are infinitely variable for DCS-Pro units when they are used with E11/E22 travel drives

**Progressive characteristic of the PWM switching elements in the DSC-5 control pendant**



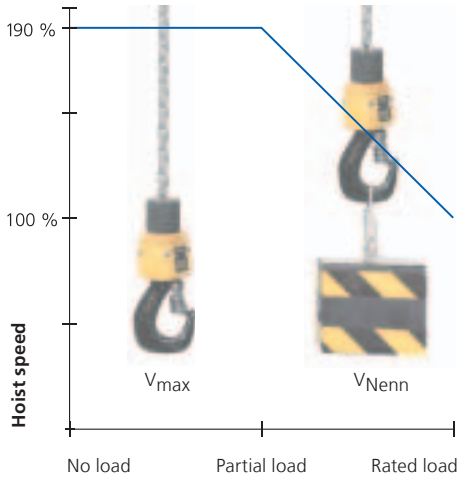
- Easy operation owing to ergonomically optimised and pluggable DSC control pendant
- Flexibility thanks to two different suspension brackets as standard
- Infinitely variable adjustment of the flange width on the U 11/U 22 trolley for quick and easy installation
- Elapsed operating time counter and diagnostics interface provide information on the operating status – downtimes due to maintenance can be planned
- Modular chain drive for quick and easy replacement without having to remove the motor or gearbox parts



### Wireless diagnostics via display or infrared

Service technicians can read the standard elapsed time counter as well as relevant information on operating statuses – from the outside via the display on the base of the chain hoist housing or via the diagnostics interface by means of infrared data transmission.

**Increased hoist speed with partially reduced load**



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Smooth and precise positioning of a coil in a decoiler

## Demag DCMS-Pro Manulift

### Safe handling with one hand

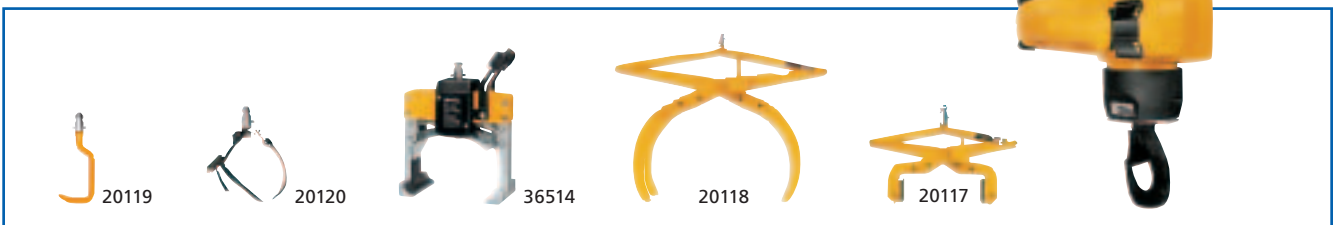
The DCM-Pro Manulift has been developed for safe and fast load handling with one hand. The DCMS-Pro also provides a Manulift unit with infinitely variable speed control. As the DCM-Pro, it is based on the hoist mechanism of the DC-Pro chain hoist and the DSM-CS control unit connected with a helical cable.

Due to the rigid link between the load handling attachment and the control unit, which is suitable for right and left hand operation, the operator only needs one hand to operate the chain hoist and to guide the load.

The quick-change coupling enables the various Manulift load handling attachments to be changed with ease. They engage the quick-change coupling via a coupling pin with a swivel lock and can be disengaged by lifting a locking sleeve.



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# Infinitely variable and low sway with electric travel drive



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DCS-Pro units can be moved smoothly and easily by hand, either by means of the new U 11/U 22 push-travel trolleys or in the KBK rail system. The new E 11/E 22 electric travel drives enable loads to be moved with ease. They are easily attached to the push-travel trolley. The E 22 travel drive is used for the new RF 125 KBK friction wheel drive.

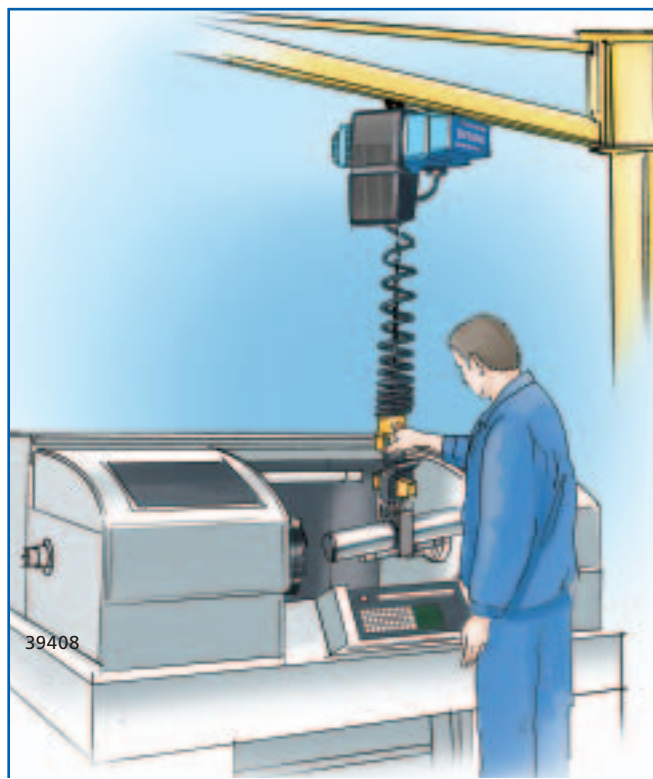
The E 11/E 22 electric travel drive is supplied ready for use:

- Long and cross travel is infinitely variable with the DCS-Pro
- Travel speeds from 0.5 to 24 m/min, up to 30 m/min with partial loads
- 24 V control voltage
- Plug & Drive connections
- Inputs for limit switches and fast-to-slow limit switches integrated on the control card
- Smooth starting and braking via acceleration and deceleration ramps

The following settings can also be made:

- User-specific modification of the parameters for travel speed, acceleration and deceleration via the DSE 10-CS control pendant
- The load sway damping system can be activated for cross travel

A shaft is precisely inserted into the chuck of a lathe with little sway



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# Demag DCS-Pro/DCMS-Pro chain hoists

## Selection tables

### Demag DCS-Pro chain hoist

SWL in kg	Chain hoist	Hoist speed in m/min at 50/60 Hz		Hook path in m	FEM	Reeving	Weight in kg for hook path	
		Rated~	Max. ~ <sup>1)</sup>				5 m	8 m
80	DCS-Pro 1-... VS	0,15-30	30	5 and 8 <sup>2)</sup>	4m	1/1	26	28
100								
125								
160	DCS-Pro 2-... VS	0,15-16	30		2m+ <sup>3)</sup>			
200								
250								
315	DCS-Pro 5-... VS	0,08-8	15				29	31
400								
500								

### Demag DCMS-Pro Manulift

SWL in kg	Manulift	Hoist speed in m/min at 50/60 Hz		Hook path in m	FEM	Reeving	Weight in kg for hook path	
		Rated~	Max. ~ <sup>1)</sup>				2,8 m	4,3 m
80	DCMS-Pro 1-... VS	30	30	2,8 and 4,3	4m	1/1	26	28
125								
250	DCMS-Pro 2-... VS	16			2m+ <sup>3)</sup>			

<sup>1)</sup> max. hoist speed at partial load/at no load

<sup>2)</sup> longer hook path on request

<sup>3)</sup> 2m+ corresponds to a service life of 1900 hours at full load

#### Further technical data

- 380 – 480 V, 3-phase wide voltage range input
- 50 – 60 Hz line frequency
- IP 55 enclosure
- -10°C to + 40° C temperature range
- Cyclic duration factor  
20 % CDF at lowest hoist speed  
or 60% CDF at rated speed and above

For further information please refer to our brochure 213 605 44 "Demag DC-Pro chain hoist and Demag DCM-Pro Manulift".

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