

## Demag DCS-Pro chain hoist Demag DCMS-Pro Manulift

With infinitely variable speed control



## Infinitely variable speed control – for even faster and more precise handling

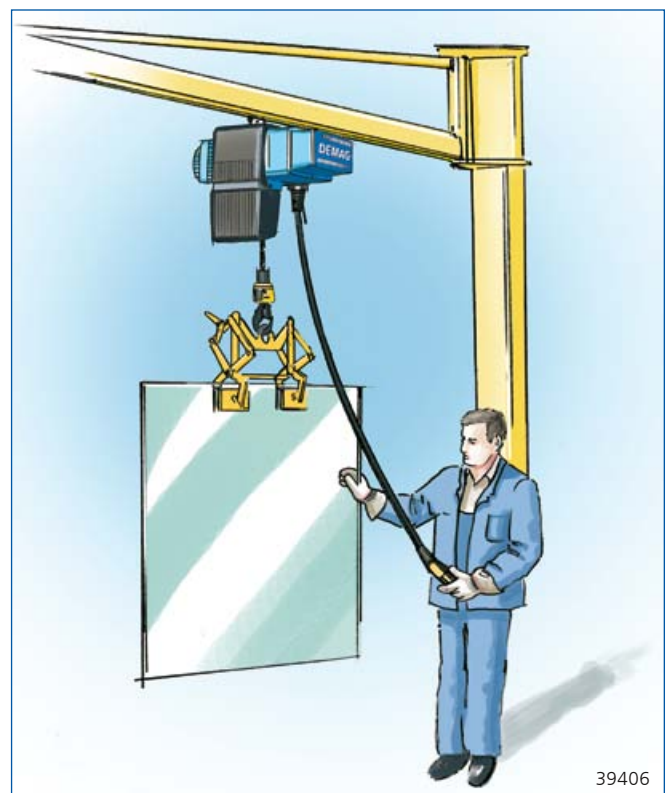


39312

Demag chain hoists with infinitely variable speed control offer outstanding benefits: High-quality and sensitive parts can be lifted, lowered and positioned more smoothly and reliably. Assembly and joining processes can be controlled with greater precision. And lifting motions can be carried out much more quickly thanks to the almost doubled lifting speed in the partial load range thanks to the Pro-HUB function.

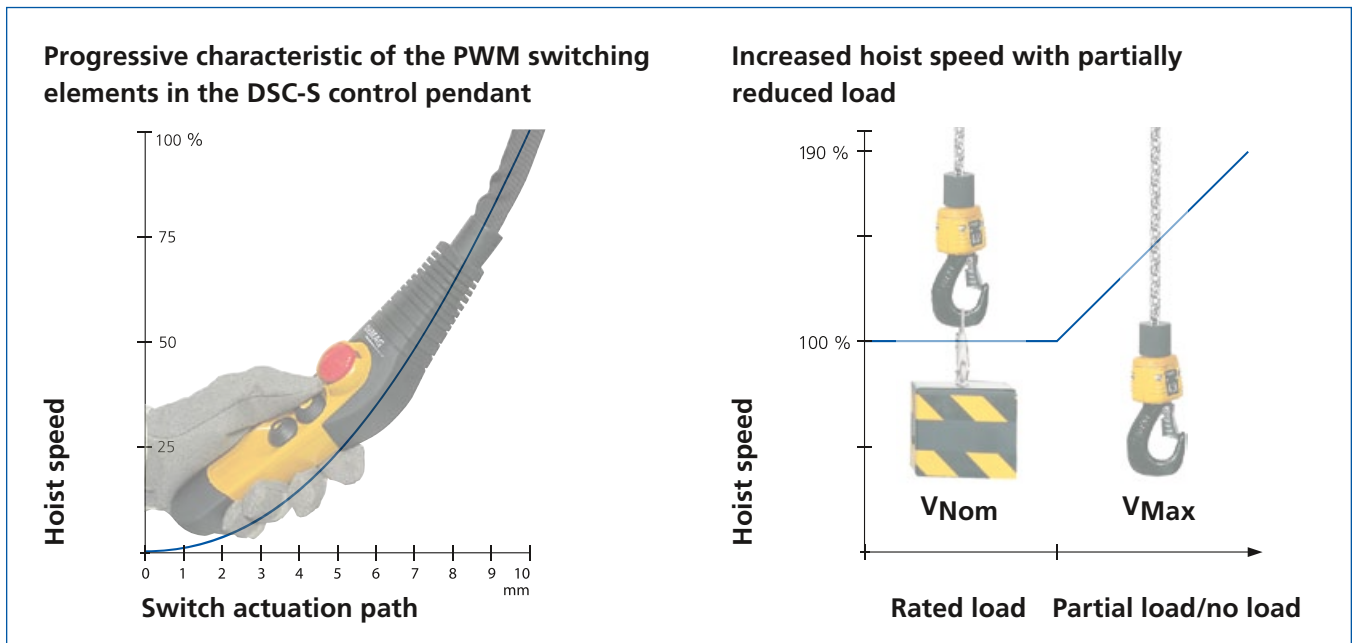
Variable-speed DCS-Pro and DCMS-Pro chain hoists guarantee high efficiency and safety in working processes. The control unit and the frequency inverter are integrated beneath the electrical equipment cover as a compact plug-in modular sub-assembly to save space. Therefore, they require hardly any more space than Demag DC-Pro chain hoist and Demag DCM-Pro Manulift hoist units.

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



39406

## Additional benefits thanks to innovative technology



Compared to the DC-Pro with two lifting speeds, 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 0.04 m/min
- 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 1:100
- 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 E 11 to E 34 travel drives

## Fully featured instead of hidden extra costs

The Demag DCS-Pro chain hoist 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.

An investment with added value made by Demag Cranes & Components:

- 20 % longer service life and higher efficiency thanks to Demag **2m**<sup>®</sup> 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 load cannot drop, as the brake-coupling system ensures that the load is held securely in any operating situation
- Simple commissioning thanks to Plug & Lift and Plug & Drive connections
- Rapid access to all important plug-and-socket connections, height adjustment of the control pendant and chain lubrication thanks to pivoting service cover
- Time-saving and ergonomic height adjustment of the control pendant requiring no additional wiring
- Easy operation owing to ergonomically optimised DSC control pendant with plug-and-socket connection
- Flexibility thanks to two different suspension brackets as standard
- Quick and easy installation by means of infinitely variable adjustment to the flange width on U 11 to U 34 trolleys
- 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
- 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.

Pivoting service cover



Elapsed operating time counter / diagnosis interface

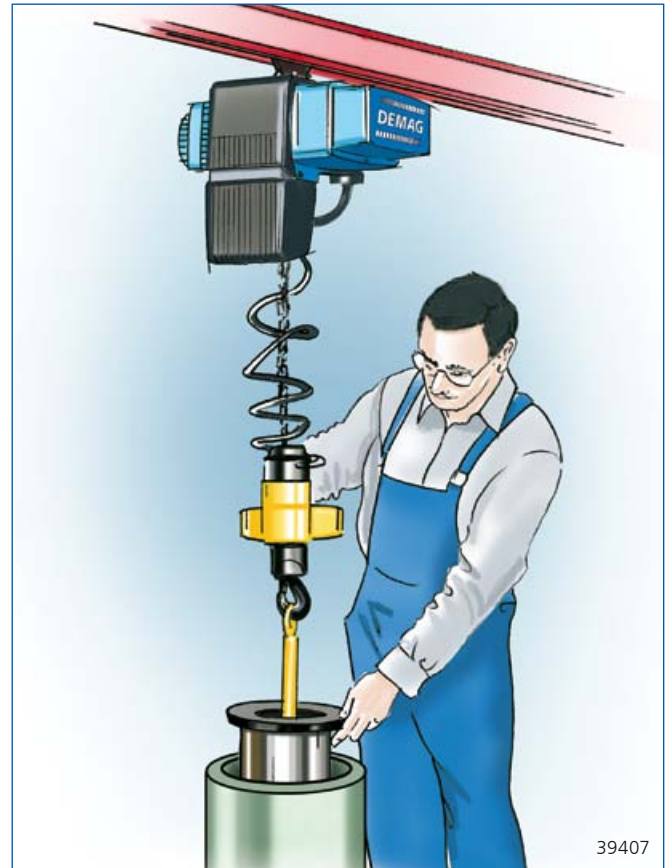


## Safe operation with one hand – Demag DCMS-Pro Manulift

The DCM-Pro Manulift has been developed for safe and fast load handling with one hand. The DCMS-Pro also provides a Demag 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.



Smooth and precise positioning of a coil in a decoiler



39314-2



20119



20120



36514



20118



20117

## Convenient operation and low-sway motions with electric-travel drives



DCS-Pro units can be moved smoothly and easily by hand, either by means of U 11 to U 34 push-travel trolleys or in the KBK rail system. Demag E 11 to E 34 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 RF 125 KBK friction wheel drives.

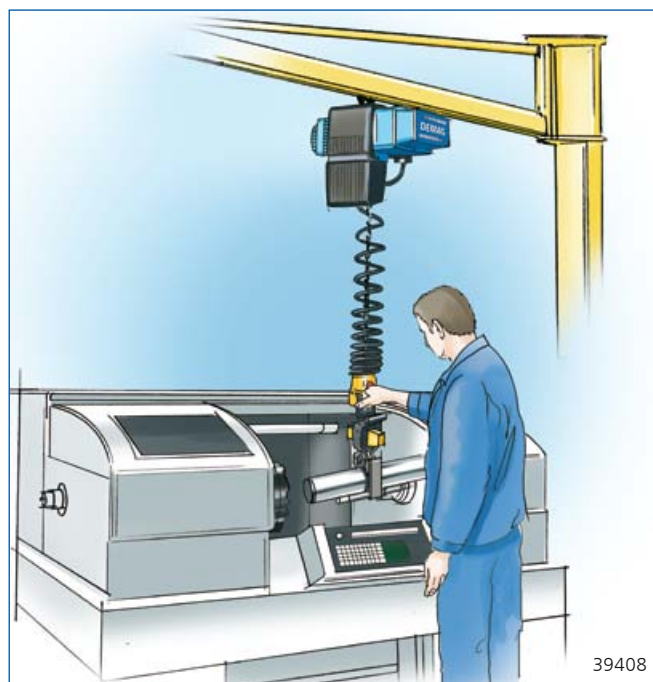
E 11 to E 34 electric travel drives are supplied ready for operation:

- 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

In addition, the following settings can 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



# Selection tables

## Demag DCS-Pro chain hoist

Load capacity 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		
		Min. – Rated –	Max. ~ <sup>1)</sup>				5 m	8 m	
80	DCS-Pro 1	0.15–30	30	5 and 8 <sup>2)</sup>	4m	1/1	25	27	
100									
125									
160	DCS-Pro 2	0.15–16	30		2m+ <sup>3)</sup>		25	27	
200									
250									
315	DCS-Pro 5	0.08–8	15		2m+ <sup>3)</sup>		29	31	
	DCS-Pro 10	0.11–12	22		4m		54	58	
400	DCS-Pro 5	0.08–8	15		2m+ <sup>3)</sup>		29	31	
	DCS-Pro 10	0.11–12	22		4m		54	58	
500	DCS-Pro 10	DCS-Pro 5	0.08–8		15		2m+ <sup>3)</sup>	29	31
		0.11–12	22		4m		54	58	
630		0.06–6	11		4m		54	58	
		0.11–12	22				59	63	
		800	0.06–6		11		3m	54	58
0.11–12			22	59	63				
1000		0.06–6	11	2m+ <sup>3)</sup>	54	58			
		0.11–12	22		59	63			
1250		0.04–4	7	1Am	54	58			
		0.06–6	11	4m	2/1	68	72		
1600		0.06–6	11						
		2000	0.06–6					11	
2500			0.04–4					7	

## Demag DCMS-Pro Manulift

Load capacity in kg	Manulift	Hoist speed in m/min at 50/60 Hz		Hook path in m	FEM	Reeving	Weight in kg for hook path	
		Min. – Rated –	Max. ~ <sup>1)</sup>				2.8 m	4.3 m
80	DCMS-Pro 1-... VS	0.15–30	30	2.8 and 4.3	4m	1/1	25	27
125								
200					DCMS-Pro 2-... VS		0.15–16	30
250	2m+ <sup>3)</sup>	25	27					

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

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

<sup>3)</sup> **2m**<sup>+</sup> 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
- -20°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".**