



**Economical.  
Durable.  
Easy to operate.**

**DBR rope hoist**

**DEMAG** .....



**As a technology leader, we offer our customers a complete range of cranes, drives and handling technology for every application all over the world – optimized by comprehensive sales and service support.**

Our company was established in Wetter an der Ruhr, Germany, in 1819. Demag has set major milestones in the crane industry for decades. Our expertise gives our customers the certainty of maximum efficiency and reliability, as well as optimum availability and performance – always perfectly matched to their markets and needs.

# Economical. Durable. Easy to operate.

The Demag DBR rope hoist is designed to the specific needs of your market and is the ideal solution for many applications. Thanks to its uncompromising functionality and quality, it meets the high standards that we maintain as a supplier of reliable lifting solutions.

Due to its versatile configuration, the DBR rope hoist is ideally suited to small workshops as well as large industrial companies and can also be installed on existing girders.

Thanks to its advanced drive control and rugged design, the DBR rope hoist is easy to operate. At the same time, the DBR offers high reliability, good functionality and meets demanding safety standards. It is also designed for ease of maintenance – another feature that makes the Demag DBR rope hoist a highly cost-effective solution.



## FOR YOUR SUCCESS:

- Modern, lightweight and compact design
- Optimized load capacities from 2 t up to 40 t
- Versatile trolley for a wide range of monorail profiles and crane girders
- Favourable headroom dimensions
- Two-speed control with smooth starting and stopping

DBR Size	Load capacity [t]								
	2	3.2	5	8	10	16	20	30	40
DBR 3									
DBR 5									
DBR 10									
DBR 20									

- EK-DBR  
low-headroom monorail hoist
- F-DBR  
foot-mounted rope hoist –  
also for double-girder cranes

# DBR rope hoist:

## Features at a glance

### RELIABLE TRANSMISSION:

#### GEARBOX

- Advanced technology, proven all over the world
- Made in Europe, fully enclosed gearbox offers maximum durability
- Hardened & precision-ground gear teeth provide smooth running characteristics and low noise emission
- Virtually maintenance-free: lubricating oil does not need to be replaced during the product's life cycle

### DURABLE LIFTING:

#### EFFICIENT HOIST MOTOR

- Two-speed hoist motor with 6:1 speed ratio
- 60% CDF. Oversized with power reserve
- Class F insulation, IP55 protection
- Rugged aluminium housing
- Bimetal switch to protect the motor against overheating
- Quick-acting disc brake, self-adjusting function, life cycle with 1 million braking operations

### PERFECTLY GUIDED ROPE:

- Protective rope guide
- Precision rope guidance
- Circumferential design
- Heavy-duty material

### OVERSIZED ROPE DRUM

- Rope sheave and rope diameter ratio according to ISO M5 duty class as minimum
- Small horizontal hook travel from upper to lower hook position
- Sheave to rope diameter ratio 20:1

### SAFE HANDLING:

#### STURDY BOTTOM HOOK BLOCK

- Hook forging strength class DIN 15400 / DIN 15401
- Spring-loaded safety catch
- 360° rotating load hook





## ELECTRIC

- Robust contactor control for reliable operation in arduous environments
- Standard 3-phase voltage:  
380-415 V, 50 Hz (440-480 V, 60 Hz)
- Standard control voltage 48 V
- Robust IP54 steel control enclosure for cabling and wiring

## CONTROL SYSTEM:

- Overload protection
  - with reliable stop function
  - Performance level C (ISO 13849-1)
- Condition monitoring
  - Monitoring of machine functions, e.g. motor starts, number of operations, overload, temperature
  - Enables remaining theoretical service life to be calculated according to FEM
- Load monitor
  - Programmable output relay for use with auxiliary signaling device

## CONVENIENT OPERATION:

### DST 7 AND DST 9 CONTROL PENDANTS

- Ergonomic control with user-friendly design
  - DST 7 with 7 control elements (for monorails)
  - DST 9 with 9 control elements (for cranes)
- Fatigue-free operation thanks to ergonomic housing design
- Sloping control pendant design permits operators to work in a natural, comfortable posture
- High operating reliability thanks to additional strain relief elements
- Enclosure made of glass fibre-reinforced polyester with high resistance to impacts (IP 65)



# EK-DBR low-headroom monorail hoist



- Compatible with various types of girders
  - Profile-section girders and monorails
  - Box-section girders
  - LD hybrid girders
- Compact low headroom to maximize hook path
- Optimized weight of hoist

## Compact design and flexible monorail hoist concept

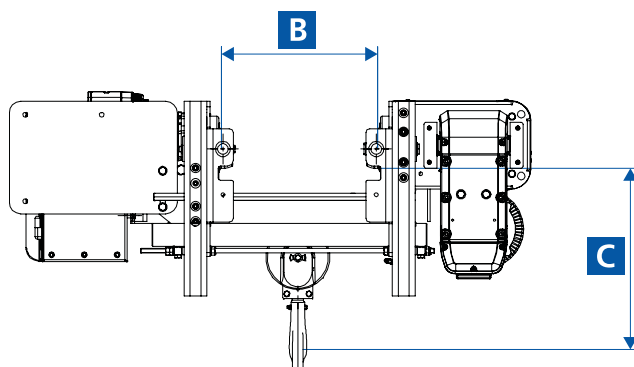
Thanks to its adjustable trolley concept the Demag DBR enables rope hoists to be installed on all popular overhead girders, including monorail I-beams, European box-section girders as well as the Chinese LD hybrid girder. This flexibility ensures favorable headroom dimensions.



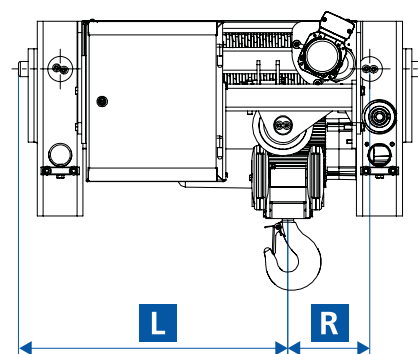
The special trolley configuration is suitable for a variety of girders. It minimizes the overall height of the crane from the top of the crane structure to the lifting hook. This helps to reduce the vertical space needed for crane movement and safety clearances in the building.

#### EXCELLENT APPROACH DIMENSIONS THANKS TO COMPACT DESIGN

- Optimum utilisation of the available space
- Various hook paths for different building heights
- Load capacities up to 10 t



High safety standard: anti-derailment protection and buffers increase the safety of the trolley.



Frame size	Max. load capacity [t]	Lifting height [m]	Dimensions [mm]			
			C	L	R	B
EK-DBR 3	3.2	6	470-520	527	403	116 - 410
		9		709		
EK-DBR 5	5.0	6	540-600	590	428	116 - 410
		9		774		
EK-DBR 10	10.0	12	670-750	958	495	116 - 490
		9		630		
		12		780		

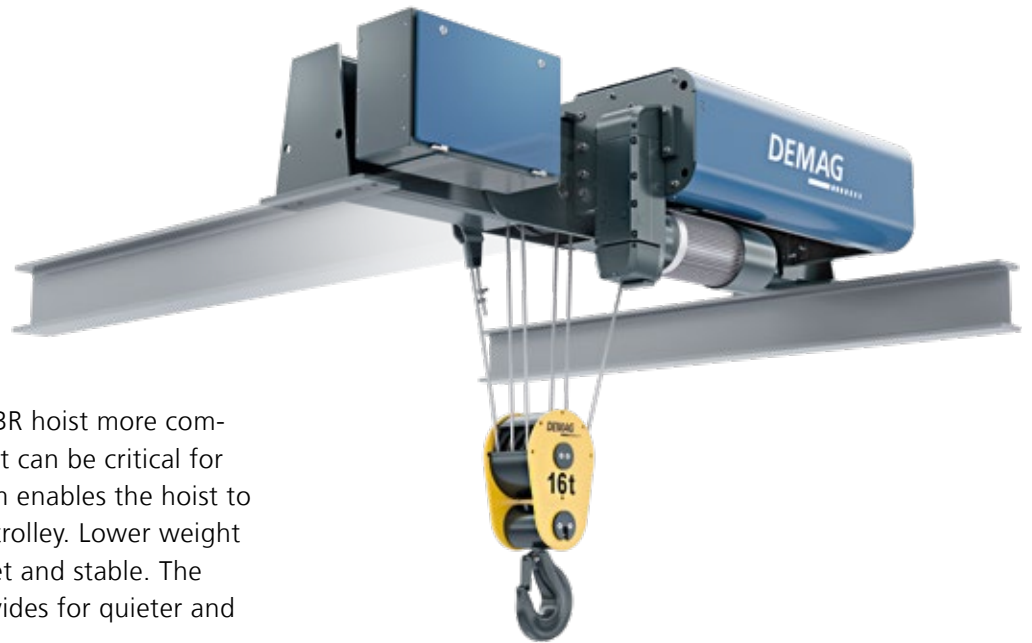
## F-DBR 5 & 10 foot-mounted hoists



## Flexible applications

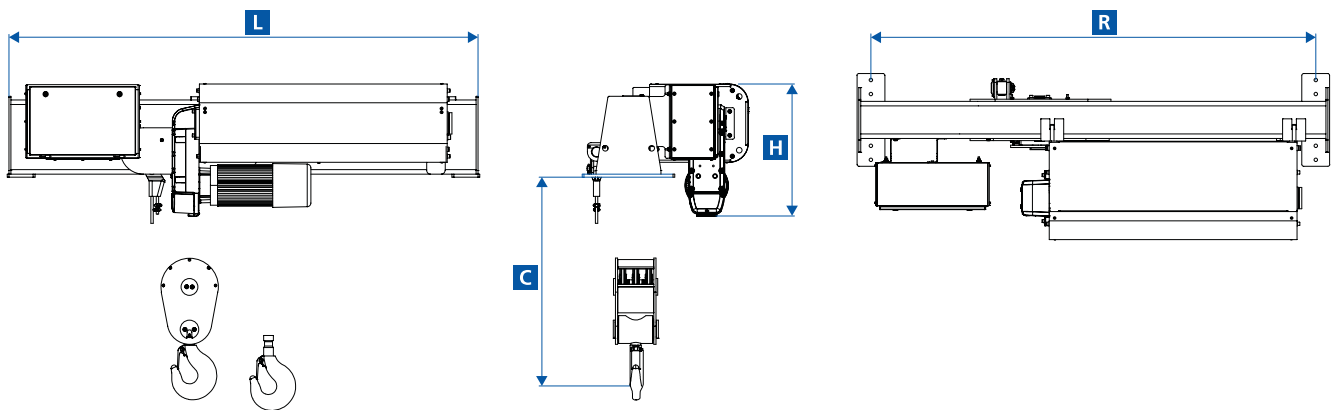
F-DR foot-mounted hoists are the ideal solution for direct installation in cranes and for plant engineering. They can be integrated direct into prepared structures or special crabs with load capacities up to 16 t.





Its unique design makes the F-DBR hoist more compact and optimizes distances that can be critical for specific operations. Its load beam enables the hoist to be connected conveniently to a trolley. Lower weight of hoist make the operation quiet and stable. The reduced weight of the hoist provides for quieter and smoother operation.

- Load beam included for easy and convenient connection to local trolley end carriage structures
- Generously sized control panel allows inverters and other optional components to be added easily
- Equal wheel load distribution on all four wheels thanks to hook centred in upper and lower positions
- Optimized weight, sufficient and stable in operation



Frame size	Max. load capacity [t]	Lifting height [m]	Dimensions [mm]			
			C	L	H	R
F-DBR 5	5.0	6	570	1,250	535	1,150
		9		1,400		1,300
		12		1,600		1,500
F-DBR 10	10.0	9	765	1,250	716	1,150
		12		1,400		1,300
F-DBR 10	16.0	8	1,300	2,150	716	2,000
		15		2,550		2,400

## F-DBR 20 foot-mounted hoist



- Compact design
- Optimized weight
- Space for additional components
- DBR 20 foot-mounted hoists can be installed on double girder cranes thanks to an optional steel frame

## Ready to fit: up to 40 t

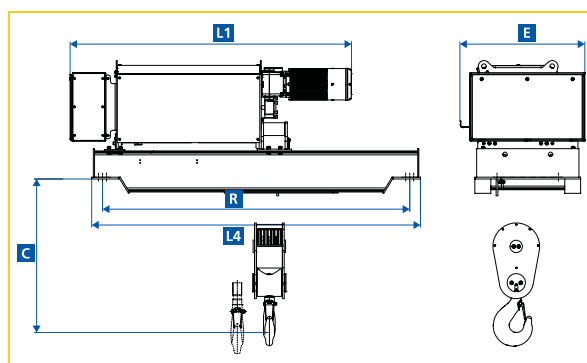
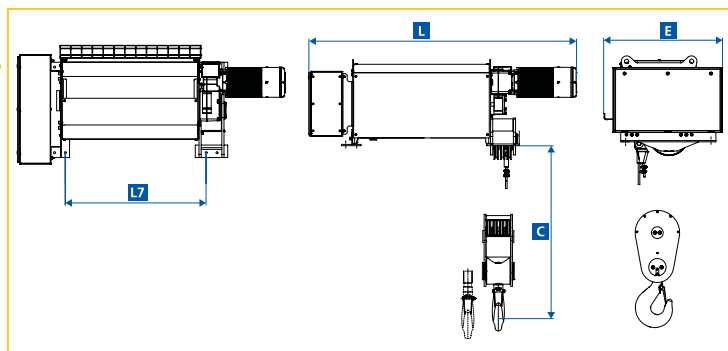
The F-DBR 20 is the strongest member of our DBR rope hoist family: it reliably lifts loads weighing up to 40 t. In addition, we also offer the F-DBR 20 with a matching steel frame, which makes the assembly of crabs easy in conjunction with standard end carriages.

### STRONG ARGUMENTS FOR A STRONG HOIST:

- Load beam included for easy and convenient connection to local trolley end carriage structures
- Generously sized control panel allows cross-travel inverters and other components to be added easily
- Equal wheel load distribution on all four wheels thanks to hook centred in upper and lower positions
- Optimized weight, smooth and quiet in operation



Frame size	Max. load capacity [t]	Reeving	Lifting height [m]	Dimensions [mm]			
				C	L	L7	E
F-DBR 20	20	4/1	10.5	1,306	1,761	591	1,098
			18		2,031	861	
	20 / 25 / 30	6/1	12	1,346	2,031	861	1,098
			15		2,221	1,051	
	32 / 40	8/1	11	1,596	2,221	1,051	1,098
			15		2,471	1,301	



Frame size	Max. load capacity [t]	Reeving	Lifting height [m]	Dimensions [mm]				
				C	L1	L4	R	E
DBR 20	20	4/1	10.5	1,100	1,761	2,590	2,400	1,098
			18		2,031			
	20 / 25 / 30	6/1	12	1,100	2,031	2,590	2,400	1,098
			15		2,221			
	32 / 40	8/1	11	1,350	2,221	2,890	2,700	1,098
			15		2,471			

## DBR LOW HEADROOM MONORAIL HOIST 2-10 t

Hoist specifications									L low headroom trolley					
Hoist model	SWL [t]	Hook path [m]	FEM	Lifting speed [m/min]	Hoist motor type	Hoist motor output [kW]	Rope dia. [mm]	Reeving	Travel motor Type	Travel speed [m/min]	Travel motor output [kW]	C dim. [mm]	Flange width [mm]	Total weight [kg]
EK-DBR 3	2.0	6	2m	5.0/0.8	P2	3.6/0.5	7	4/1	MF06MA104	20/5	1 x 0.3/0.05	470	116	265
		9												280
	3.2	6	2m	5.0/0.8	P2	3.6/0.5	7	4/1	MF06MA104	20/5		520	410	265
		9												280
EK-DBR 5	5.0	6	2m	5.0/0.8	P3	4.5/0.7	9	4/1	MF06LA104	20/5	1 x 0.45/0.1	540 600	116 410	385
		9												400
		12												415
EK-DBR 10	8.0	9	2m	5.0/0.8	P5	9/1.4	12	4/1	MF06LA104	20/5	2 x 0.45/0.1	670	116	670
		12												720
	10.0	9	2m	5.0/0.8	P5	9/1.4	12	4/1	MF06LA104	20/5		750	490	670
		12												720

## DBR FOOT-MOUNTED HOIST 5-16 t

Hoist specifications										F foot-mounted hoist
Hoist model	SWL [t]	Hook path [m]	FEM	Lifting speed [m/min]	Hoist motor type	Hoist motor output [kW]	Rope dia. [mm]	Reeving	Track gauge [mm]	Total weight [kg]
F-DBR 5	5.0	6	2m	5.0/0.8	P3	4.5/0.7	9	4/1	1150	250
		9							1300	265
		12							1500	280
F-DBR 10	8.0	9	2m	5.0/0.8	P5	9/1.4	12	4/1	1150	505
		12							1300	530
	10.0	9	2m	5.0/0.8	P5	9/1.4	12	4/1	1150	505
		12							1300	530
	16.0	8	2m	3.2/0.5	P5	9/1.4	11	6/1	2000	720
		15							2400	815

## DBR ROPE HOIST: PRODUCT RANGE 20-40 t

Hoist specifications									F foot-mounted hoist
Hoist model	SWL [t]	Hook path [m]	FEM	Lifting speed [m/min]	Hoist motor type	Hoist motor output [kW]	Rope dia. [mm]	Reeving	Total weight without / incl. frame [kg]
DBR 20	20	10,5	1m	5/0.8	P7	18/3	15	4/1	980 / 1275
		18							1060 / 1350
		12	3m	4/0.7		15/2.5		6/1	1120 / 1490
		15							1175 / 1550
	25	12	2m	4/0.7	P7	18/3	15	6/1	1120 / 1490
		15							1175 / 1550
	30	12	1Am	3.2/0.5	P7	18/3	15	6/1	1120 / 1490
		15							1175 / 1550
	32	11	2m	3.2/0.5	P7	18/3	15	8/1	1255 / 1670
		15							1330 / 1745
	40	11	1Am	2.5/0.4	P7	18/3	15	8/1	1255 / 1670
		15							1330 / 1745

Aker Solutions Building. Level 3,  
Survey no. 75/2/3,  
Baner, Pune  
411045 Pune,  
Maharashtra  
India

**DEMAG**