

ELECTRIC HOIST AND TROLLEY BUYER'S GUIDE



Preparing a technical specification can be difficult when a variety of disciplines are involved. When a lifting system is required, selection of the right products can be complex for those not familiar with the specifics of the industry. To obtain sustained performance without paying for unnecessary features, you must first understand the application and the environment in which it is used.

Vulcan has been in business for over 50 years and is the only manufacturer of electric hoists, trolleys and winches in Canada. Known for their reliability, our products are designed and custom made for each customer application, all in the Vulcan plant, located in Montreal. So you are dealing directly with the manufacturer and not with an agent, thereby obtaining the best product for the job at a competitive price.

Contact us for more information on the design, installation and use of our products or take a look at our web site at www.vulcanhoist.com.

The Vulcan team

VULCAN HOIST

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FIXED OR ROLLING INSTALLATION

Fixed

The hoist is suspended by a hook to a beam clamp, or another anchored structure.

Rolling

The hoist is suspended from a trolley mounted on an H or I beam. It is important to know the size and profile of the beam at the time of order.

TROLLEY

Manual (push or gear)

Push trolley is moved by pushing the load in the direction of the beam while gear trolley is moved by operation of the hand chain.

Electric

Electric trolley is controlled by the same push-button pendants as the hoists. If the electric trolley has to travel over a long distance, it is recommended to suspend the power cable with a festooned system that includes small trolleys suspended from a steel cable. It is important to specify the length of the beam.

LIFTING CAPACITY

Always establish the maximum load to be lifted. The capacity is clearly indicated on the hoist and the trolley. It is the responsibility of the user to never exceed the maximum load. It is therefore important to specify the maximum possible capacity for all anticipated applications, without exceeding the capacity of the structure.

LIFTING HEIGHT

The required lifting height must also be specified. In a normal application, the height is the distance between the ground and the position of the hook when it is at the upper limit of its travel.

LIFTING SPEED

The lifting speed can vary from 3 ft/min to 50 ft/min. In general, the higher the lift height required, the higher the speed. On the other hand, a lower lifting speed will give more precision when handling a load.

PRECISION ▶ **LOW SPEED**
HEIGHT ▶ **HIGH SPEED**

For optimal performance, 2 speed motors are available on some models.

TYPE OF ELECTRICAL CURRENT

The voltage of the electrical power available must be specified. Greater voltage allows a wider range of capacities and speeds. Most factories use a three-phase, 550 V, 60 Hz power supply. Vulcan offers electric motors with 115 V and 230 V, single phase and 230 V, 460 V and 550 V three-phase, all in 50 or 60 Hz.

TRAVEL SPEED

The motorized trolley can travel at speeds which vary from 18 to 72 ft/min. As for the lifting speed, the travel speed is determined based on the distance to travel and the desired precision when operating.



All chain hoist installations, whether manual, pneumatic or electric, should follow the guidelines of ASME B30.16. It is strongly recommended to read this standard which relates to the design, installation and use of hoists.

HOIST

Capacity (T)		SUSPENSION MODE	Fixed*	Swivel
Lift (ft)			Lug	
Lifting speed (ft/min)			Hook	

* specify parallel or transverse to beam

SPECIAL CONDITIONS

To ensure safe and optimal life of the hoist and trolley, it is important to specify the conditions under which they will be used. Vulcan offers a wide range of options designed to protect the system components from the environment where it is used.

Here are a few situations that come up more frequently. In all situations, the team of experts at Vulcan will make the recommendations for your specific needs.

ENVIRONMENT	Humid/acid	Outdoor	Hot	Dusty
NEMA 4 Pendant	●	●		●
NEMA 4 Trolley Control Box	●	●		●
Epoxy-treated Stator	●	●		
Zinc-plated Hook and Chain	●	●		
Fan-cooled Motor			●	
TEFC Motor		●	●	●
TENV Motor		●		●
Synthetic Oil		●	●	
Rain Cover		●		
Class F Motor			●	

Other available options

- Multiple hoists in tandem
- Wireless remote control
- Custom-made parts for special installations
- Other voltages

ELECTRIC CURRENT	Check (x)
50 Hz	
60 Hz	
2-speed motor	

115 V - 1 phase	
230 V - 1 phase	
230 V - 3 phases	
460 V - 3 phases	
550 V - 3 phases	

TROLLEY

	Check (x)
None	
Manual Push	
Manual Gear	
Electric	

BEAM	Check (x)	DIMENSIONS	Length (in)	Width (in)
I Beam (S Beam)		Flange		
H Beam (W Beam)		Web		

For electric trolley, complete additional info on the beam and lifting required

Speed (ft/min.)	
Beam Length (ft)	
Festooned Cable System	

OPTIONS

	Check (x)
Chain Container	
NEMA 4 Control Pendant	
Fan-cooled Motor	
TEFC Motor	
TENV Motor	
Zinc-plated Hook and Chain	
Epoxy-treated Stator	
Synthetic Oil	
NEMA 4 Electrical Box	
Overload Protection	
Class F Motor	
Rain Cover	
Tandem Installation	
Wireless Remote Control	
Low Headroom	
Roller Chain	
Roller Chain, Stainless Steel	