



Munck Cranes Inc.
403 Dewitt Rd.
Stoney Creek, ON
L8E 4B9

Phone: (905) 561-2100
Toll Free: 1-800-461-4509
Fax: (905) 561-1238

sales@munckcranes.com
service@munckcranes.com
engineering@munckcranes.com

www.munckcranes.com



Request for Quotation

Company Name:

Address:

City, Province:

Contact Name:

Postal Code:

Phone:

Fax:

Job Reference:

E-Mail Address:

- | | | | |
|-----------------|------------------------|--------------------------|--------------------|
| Equipment Type: | ' T/R D/G Bridge Crane | ' D/G Trolley Hoist | ' D/G Gantry Crane |
| | ' T/R S/G Bridge Crane | ' S/G Trolley Hoist | ' S/G Gantry Crane |
| | ' U/R S/G Bridge Crane | ' Monorail Trolley Hoist | ' Chain Hoist |
| | ' Jib Crane | ' Radio Control Unit | ' Other: |

Main Hoist

Auxiliary Hoist (if applicable)

Bridge (if applicable)

Lifting Capacity:

Lifting Capacity:

Capacity:

Lift Height:

Lift Height:

Span:

- Lift Speeds:
- ' Single Speed
 - ' Two Speed
 - ' VFD

- Lift Speeds:
- ' Single Speed
 - ' Two Speed
 - ' VFD

- Travel speeds:
- ' Single Speed
 - ' Two Speed
 - ' VFD

- Trolley Speeds:
- ' Single Speed
 - ' Two Speed
 - ' VFD

- Trolley Speeds:
- ' Single Speed
 - ' Two Speed
 - ' VFD

If there are two hoists on this equipment, are they to be on separate trolleys or one common trolley? ' Separate ' Common

Control

Other

- ' Pendant on Track
- ' Pendant from Hoist

Power Supply:

- ' Radio Control with Pendant Back-Up

- Enclosures: ' CEMA 1 ' CEMA 12 ' CEMA 4

Runway

Do you require a runway system for this equipment? ' Yes ' No

If yes, please check all the components you require. ' Conductor ' Beam ' Columns ' Rail

What is the required length of the runway?

If new columns are required, will they be ' free standing ' tied back to existing structure

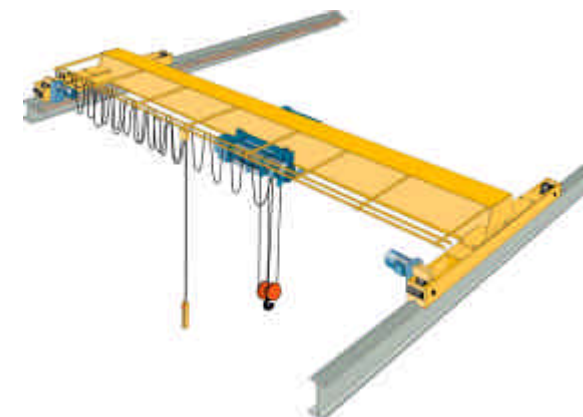
What is or what will be the down shop center to center spacing between them?

Do you require installation of this equipment? ' Yes ' No

Do you require freight to the job site? ' Yes ' No If yes, what is the location?



Guide to Overhead Cranes



Your Overhead Crane Specialists

- ! Standard Overhead, Jib and Gantry Cranes
- ! Custom Cranes
- ! Heavy Duty Cranes
- ! Runway Systems and Monorail Systems
- ! Installations by Factory Trained Personnel
- ! Rebuilds, Upgrades and Modifications of Existing Systems
- ! Parts for All Cranes and Related Equipment for All Manufacturers
- ! Service - Emergency 24 Hour Service
 - Equipment Inspections
 - Inspection Certificates (Ministry of Labour Accepted)
- ! Non-destructive Testing for All Types of Lifting Attachments
- ! Training Seminars in Crane Operation
- ! Chain Hoists and Lifting Attachments

This pamphlet is intended to give a general understanding of the terminology used in the overhead crane industry. The following explanation of terms should provide you with the information you will need to make an informed decision when purchasing material handling equipment. On the reverse side of this pamphlet, you will find an easy to use **Request for Quotation** form which can be faxed to our office. If you have any questions regarding this brochure or any of the products or services we provide, please contact us.

Crane Components

Bridge - The main travelling structure of the crane which spans the width of the bay. The bridge consists of two end trucks and one or two bridge girders depending on the **Equipment Type**.

End trucks - Located on either side of the span, the end trucks house the wheels on which the entire crane travels. These wheels ride on the runway beam allowing access to the entire length of the bay.

Bridge Girder(s) - The principal horizontal beam of the crane bridge which supports the trolley and is supported by the endtrucks.

Trolley Hoist - The unit consisting of both the hoist and the trolley frame. In situations where more than one hoist is required on one crane, both hoists can be supplied on a single trolley or on separate trolleys.

Trolley - The trolley carries the hoist across the bay along the bridge girder(s) traversing the span.

Hoist - The hoist is mounted to the trolley and performs the actual lifting function via a hook or lifting attachment. There are two basic types of hoist. The **Munck** brand is a **Wire Rope Hoist** which is very durable and will provide long term, reliable usage. The other type of hoist is the **Chain Hoist**. These hoists are used for lower capacity, lighter duty applications and for projects in which cost is a primary deciding factor.

Basic Terminology

Capacity - The maximum weight the crane will be required to lift.

Span - The horizontal distance between the rails of the runway on which the crane is to travel.

Lift or Hook Height - The required distance from the floor to the crane hook. This dimension is critical in most applications as it determines the height of the runway from the floor and is dependent on the clear inside height of the building.

Bridge, Trolley and Lift Speeds - The rate at which the bridge or trolley travels, or at which the hoist lifts, usually in **feet per minute** or **FPM**. You may specify either **Single Speed** or **Two Speed** travel/lift or a specific rate of speed, (i.e. 120 & 30 FPM bridge travel). Another option as far as motion speeds are concerned is a **Variable Frequency Drive**. See the **Control** section for more information.

Equipment Types

This section specifies the kind of equipment you require. Overhead cranes come in four basic configurations;

Top Running (T/R) - The crane bridge travels on top of rails mounted on a runway beam supported by either the building columns or columns specifically engineered for the crane. (See the first and second graphics on the front of this pamphlet.)

Under Running (U/R) - The crane bridge travels on the bottom flange of the runway beam which is usually supported by the roof structure. (See the third graphic on the front of this pamphlet.)

Single Girder (S/G) - The crane consists of two end trucks, a single bridge girder and the trolley hoist unit. The trolley runs on the bottom flange of the bridge girder. (See the second and third graphics on the front of this pamphlet.)

Double Girder (D/G) - The crane consists of two end trucks, two bridge girders and the trolley hoist unit. The trolley runs on rails on top of the bridge girders. (See the first graphic on the front of this pamphlet.)

A variation on these types of overhead crane are **Gantry Cranes**. These cranes are essentially the same as the regular overhead cranes, however, the bridge girder(s) are connected to "legs" on either side of the span. These "legs" eliminate the supporting runway and column system and connect to end trucks which run on a rail either embedded in, or laid on top of, the floor.

For some applications only a **Trolley Hoist** is required. For instance, in the case of a monorail system a **Trolley Hoist** unit similar to the one used on single girder cranes is mounted on a beam which might be used to service an assembly line within the clients facility. Other clients may have an existing single or double girder crane bridge and may just want to replace the hoisting unit. In most of these situations, capacity permitting, we can provide either a **Wire Rope** or **Chain Hoist**.

Another solution which may fit your needs is a **Jib Crane**. A **Jib Crane** basically consists of a boom which is supported as a cantilever on a column. A **Trolley Hoist** travels along the boom which can rotate up to 360E.

Control

Pendant - The pendant gives the operator precise control over the motions of the crane. There are many configurations of pendant depending on the functions of the equipment being controlled. Each pushbutton on the pendant controls an operating function of the crane.

The pendant may be suspended from the **Trolley Hoist**, requiring the operator to walk with and beside the load, or on a separate sliding track system allowing the operator to move independently of the load.

VFD - A pendant can also be used in conjunction with a **Variable Frequency Drive**. A **VFD** is used to vary the frequency of the motors controlling the motions allowing for smooth acceleration and deceleration. The buttons on the pendant operate a **VFD** unit operated in much the same way as **Two Speed** control. The first step is held to maintain the current speed while the second step is used for acceleration. Deceleration is achieved by releasing the button entirely. Pressing the button back to the first step will maintain the new slower speed. It should be noted that the deceleration is not achieved through uncontrolled coasting but through a programable dynamic braking system. The control provided by a **VFD** allows for a high level of customization.

Radio Control - The radio control performs exactly like the pendant but operates using a radio frequency. The radio control incorporates numerous safety features and allows the operator a greater range of operator motion than a pendant.

Power Supply - The electrical service available in the building for which the crane is being designed (i.e. 575 Volt, 3 phase, 60 Hertz).

Enclosures - The enclosures house all of the electrical components on the crane and are rated by the **National Electrical Manufacturers Association (NEMA)** or the **Canadian Electrical Manufacturers Association** as to the level of protection they provide from the conditions in the surrounding environment. There are three basic levels of protection.

CEMA/NEMA 1 - Provides protection against accidental contact with, and electrical shock from, enclosed equipment.

CEMA/NEMA 12 - Provides indoor protection against falling dirt, dust, oil and water.

CEMA/NEMA 4 - Provides indoor protection in hosed down, very wet or outdoor environments, as well as falling dirt, dust, oil and water.

Runway

The rails, beams and columns on which the crane operates. The rail, on which the endtrucks run, is fastened to the runway beam. This beam is then supported on columns (**Top Running**) or from the roof structure (**Under Running**). The existing building columns can be used or new ones can be supplied with the system. New columns can either be completely **Free Standing** or **Tied Back** to the existing building structure for additional lateral support. When designing a runway system that is to use existing building columns, it is important to provide the down shop center to center spacing between them. **Conductors** supply power to the crane and are mounted on the runway beam.