

WORKSTATION BRIDGE CRANES

KIT FORM CRANES MANUFACTURED TO YOUR SPECIFICATION



FREE STANDING & CEILING MOUNTED

CAPACITIES UP TO 4000 LBS

SPANS UP TO 30'

www.metreel.com

MET-TRACK[®]
ENCLOSED TRACK LIFTING

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WORKSTATION CRANES

INTRODUCTION



WORKSTATION CRANES

SIMPLY EFFORTLESS!

MET-TRACK® Workstation Bridge Cranes enable you to achieve effortless and reliable area-serving overhead handling for a wide variety of applications. Each system is configured with the operator in mind and includes the principle feature of ease of movement, designed to reduce fatigue and ensure accurate load positioning.

Our range include both ceiling and floor mounted workstation bridge cranes, monorails and jib cranes.

Quality materials and construction ensure operational reliability and safety and facilitate long life combined with minimum maintenance.

SPECIAL DESIGNED SOLUTIONS

As a supplier of major materials handling projects worldwide, we are well experienced in dealing with turnkey installations where standard cranes are not considered ideal. We believe that providing the customer with all the required systems configured exactly to their needs is essential to ensure the installed project is 'fit for purpose'. If you have a materials handling project and would like to take advantage of our experience then simply contact your dealer for further information.

SYSTEM FEATURES

- Loads up to 4000lbs
- Bridge lengths up to 34'
- Runway supports up to 30'
- Ceiling & Floor Mount Options
- Modular Design
- Simple to install and extend
- Low cost
- Mixed capacity systems
- Motorized tractor units
- Telescopic bridges
- Cantilever bridges
- Track transfer units

WORKSTATION CRANES

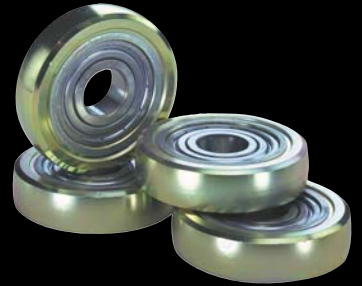
FEATURES



ENCLOSED TRACK PROFILES MAKE FOR AN ERGONOMIC DESIGN

The **MET-TRACK®** steel track design is one of high strength and low weight by combining the running track profile with standoff reinforcement to considerably increase span distances. The 'V' shaped profile of the running track ensures alignment of the trolleys and end truck and prevent dirt accumulation inside the tracks.

Machined wheels with crowned tread and precision sealed bearings fitted ensure absolute minimum rolling resistance and provide long operational life.



SYSTEM FEATURES:

- Four running track profiles to select from – 400, 500, 600 and 700 Series
- Long spans of up to 30' allow systems to be installed with the minimum of supports, maximizing the work cell layout
- Enclosed track bridge cranes are up to three times easier to move than traditional bridge cranes

SIMPLE INSTALLATION AND MODULAR DESIGN

The **MET-TRACK®** pre-engineered modular design allows for easy relocation and/or expansion by simply adding runway sections and/or additional bridges.

Splice joints connect the track sections and are complete with vertical and horizontal adjustment screws, facilitating precise alignment of the track sections.

Floor mounted cranes can be installed on any normal 6" reinforced concrete floor. Support columns are designed to AISC specifications. If no movement of the support assembly is preferred then we recommend the use of bracing (not included). For further details contact your dealer.

For ceiling mounted cranes it is imperative that you seek professional advice on whether your building structure is capable of withstanding the forces generated by the workstation crane. A data sheet giving details on the applied forces relative to a crane system is available please contact your dealer for further information.



RUNWAY PROFILES



PLAIN RUNWAY



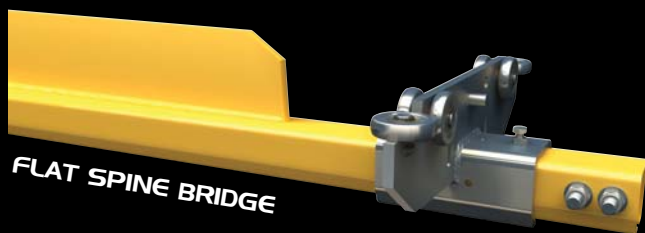
TRUSSED RUNWAY

Capacity (lbs)	Profile	Spine Style	Maximum Span (ft)	Running Track	Height x Width (ins)	Weight (lbs/ft)
250	400M	Plain	6	400	1 3/4 x 2	2.40
	CIAB420	Trussed	20	400	9 1/4 x 2	5.15
	CIAB425	Trussed	25	400	11 1/4 x 2	5.35
	CIAB430	Trussed	30	400	13 1/4 x 2	5.53
500	500M	Plain	6	500	2 3/8 x 2 1/2	3.80
	CIAB520	Trussed	20	500	9 3/8 x 2 1/2	8.20
	CIAB525	Trussed	25	500	12 3/8 x 2 1/2	8.55
	CIAB530	Trussed	30	500	14 3/8 x 2 1/2	8.70
1000	600M	Plain	6	600	3 x 3 1/8	5.90
	CIAB620	Trussed	20	600	10 1/2 x 3 1/8	12.15
	CIAB625	Trussed	25	600	13 1/2 x 3 1/8	12.60
	CIAB630	Trussed	30	600	16 1/2 x 3 1/8	12.95
2000	700M	Plain	6	700	4 3/8 x 3 1/2	11.10
	CIAB720	Trussed	20	700	14 3/8 x 3 1/2	21.90
	CIAB725	Trussed	25	700	15 3/8 x 3 1/2	22.20
	CIAB730	Trussed	30	700	19 3/8 x 3 1/2	23.10
4000	CIAB820	Trussed	20	700	18 7/8 x 3 1/2	25.70
	CIAB825	Trussed	25	700	19 7/8 x 3 1/2	26.05
	CIAB830	Trussed	30	700	23 22/64 x 3 1/2	26.75

BRIDGE PROFILES



PLAIN BRIDGE



FLAT SPINE BRIDGE



TRUSSED BRIDGE

Capacity (lbs)	Profile	Profile	Max CBL (ft)	Running Track	Height x Width (ins)	Weight (lbs/ft)
250	400M	Plain	6	400	1 3/4 x 2	2.40
	400F	Flat Spine	10	400	4 7/32 x 2	6.50
	BR401	Trussed	15	400	6 3/4 x 2	4.40
	BR402	Trussed	20	400	8 1/4 x 2	4.70
	BR403	Trussed	23	400	9 1/4 x 2	4.85
	BR404	Trussed	28	400	11 1/4 x 2	6.20
500	BR405	Trussed	34	400	13 1/8 x 2	6.51
	500M	Plain	6	500	2 3/8 x 2 1/2	3.80
	500F	Flat Spine	10	500	4 7/8 x 2 1/2	7.95
	BR501	Trussed	15	500	8 3/8 x 2 1/2	7.25
	BR502	Trussed	20	500	9 7/8 x 2 1/2	7.60
	BR503	Trussed	23	500	10 7/8 x 2 1/2	7.80
1000	BR504	Trussed	28	500	10 7/8 x 2 1/2	8.10
	BR505	Trussed	34	500	13 3/8 x 2 1/2	9.85
	600M	Plain	6	600	3 x 3 1/8	5.90
	600F	Flat Spine	10	600	7 1/2 x 3 1/8	10.10
	BR601	Trussed	15	600	9 x 3 1/8	10.75
	BR602	Trussed	20	600	10 1/2 x 3 1/8	11.30
2000	BR603	Trussed	23	600	11 1/2 x 3 1/8	11.55
	BR604	Trussed	28	600	14 x 3 1/8	12.00
	BR605	Trussed	34	600	16 x 3 1/8	16.00
	700M	Plain	6	700	4 3/8 x 3 1/2	11.10
	700F	Flat Spine	10	700	8 7/8 x 3 1/2	15.40
	BR701	Trussed	15	700	10 7/8 x 3 1/2	19.60
4000	BR702	Trussed	20	700	12 3/8 x 3 1/2	20.50
	BR703	Trussed	23	700	13 3/8 x 3 1/2	20.95
	BR704	Trussed	28	700	15 3/8 x 3 1/2	21.75
	BR705	Trussed	34	700	17 3/8 x 3 1/2	22.45
	BR801	Trussed	15	700	11 7/8 x 3 1/2	21.40
	BR802	Trussed	20	700	15 7/8 x 3 1/2	23.30
4000	BR803	Trussed	23	700	15 7/8 x 3 1/2	23.50
	BR804	Trussed	28	700	20 3/8 x 3 1/2	26.60
	BR805	Trussed	34	700	21 22/64 x 3 1/2	27.60

WORKSTATION CRANES

DESIGN & ERGONOMICS

BRIDGE LENGTH...

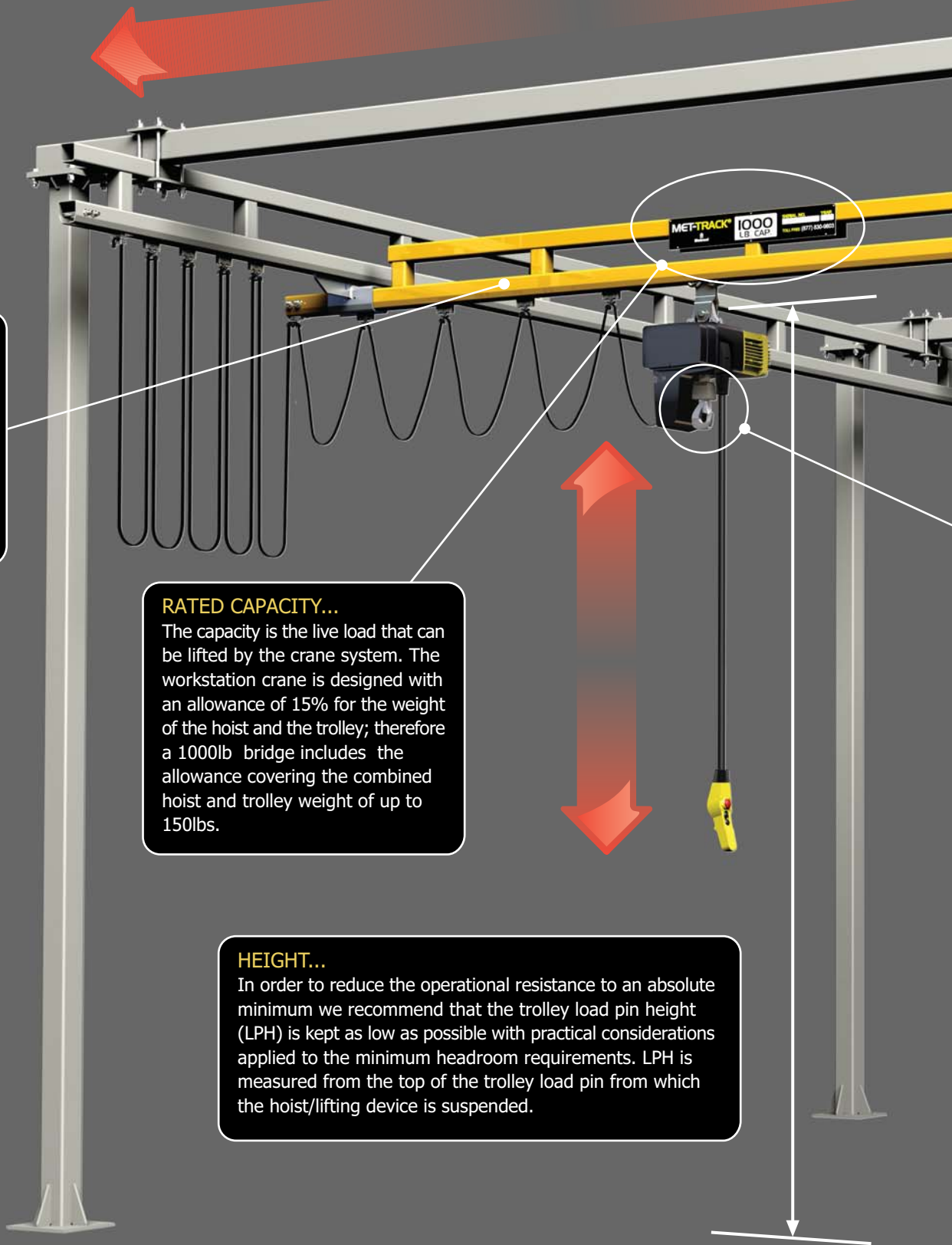
Keep the bridge length to a minimum, but bare in mind that the active travel for each bridge length is restricted due to the end stops and trolley lengths. Ensure your selected kit provides you with required active travel.

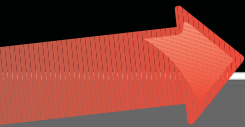
RATED CAPACITY...

The capacity is the live load that can be lifted by the crane system. The workstation crane is designed with an allowance of 15% for the weight of the hoist and the trolley; therefore a 1000lb bridge includes the allowance covering the combined hoist and trolley weight of up to 150lbs.

HEIGHT...

In order to reduce the operational resistance to an absolute minimum we recommend that the trolley load pin height (LPH) is kept as low as possible with practical considerations applied to the minimum headroom requirements. LPH is measured from the top of the trolley load pin from which the hoist/lifting device is suspended.





DUTY...

Operational time up to 100% of the work period and loads being lifted up to 50%, or below, the rated capacity or operational time less than 50% of the work period and loads being lifted are greater than 50% of the rated capacity.

WORKING LOAD...

The working load must be selected according to each application task. Although the effort to move the crane bridge is small it can be further reduced by selecting the lightest size / weight of the system to suit the application i.e. for a 400lb maximum load select a 500lb capacity and not 1000lb.

RUNWAY LENGTH...

The length of the runway is generally unlimited and solutions can be provided for supports of 20', 25' and 30'.

For ceiling mounted systems 6' supports are also available.

WORKSTATION CRANES

TYPICAL CRANES

CONFIGURATIONS



BASIC CRANE

The **MET-TRACK**® crane system consists of bridges, runways, runway joint kits, end trucks, hoist trolleys and end bolts. These basic components can then be supported by standard floor mounted structures, ceiling mounted assemblies or special arrangements according to the application requirements. In addition it is possible to add either festoons or conductor systems to enable powerfeed for the chosen lifting device.



FLOOR MOUNTED

Floor mounted systems are not a permanent part of your factory and therefore can easily be relocated in the future. The installation is often much simpler and does not apply stresses to the building roof structure.



MONORAIL SYSTEMS

Using the same profiles as the crane runways we also have available a complete range of monorail capacities. We can offer either a single line configured monorail or one with curves, switches and turntables to form a closed loop facility for such as paint lines etc. Again these can either be floor or ceiling mount.



CEILING MOUNTED

Ceiling mounted systems are ideal when floor space is limited or where floor support steelwork would normally cause an obstruction for other equipment.



WORKSTATION CRANES

HANGER ASSEMBLIES

FLOOR MOUNT ASSEMBLIES

- Four bolt runway fix kits for increased rigidity and simple installation
- Adjustment both laterally and longitudinally
- Low weight headers for easier handling during installation



CEILING MOUNT ASSEMBLIES

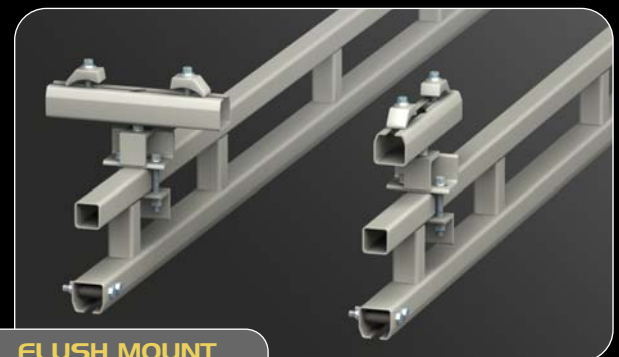
- Flush mount hanger assemblies
- Adjustment both laterally and longitudinally



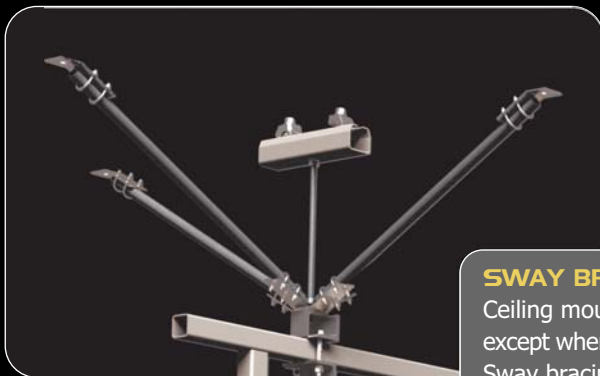
DROP ROD
- Plain / Trussed Runway
Parallel or Perpendicular 20" or 72"



FLUSH MOUNT
- Plain Runway
Parallel or Perpendicular



FLUSH MOUNT
- Trussed Runway
Parallel or Perpendicular



SWAY BRACING

Ceiling mounted kits require sway bracing in all circumstances except where the runway is flush mounted to the support steelwork. Sway bracing kits are available, please refer to your dealer.

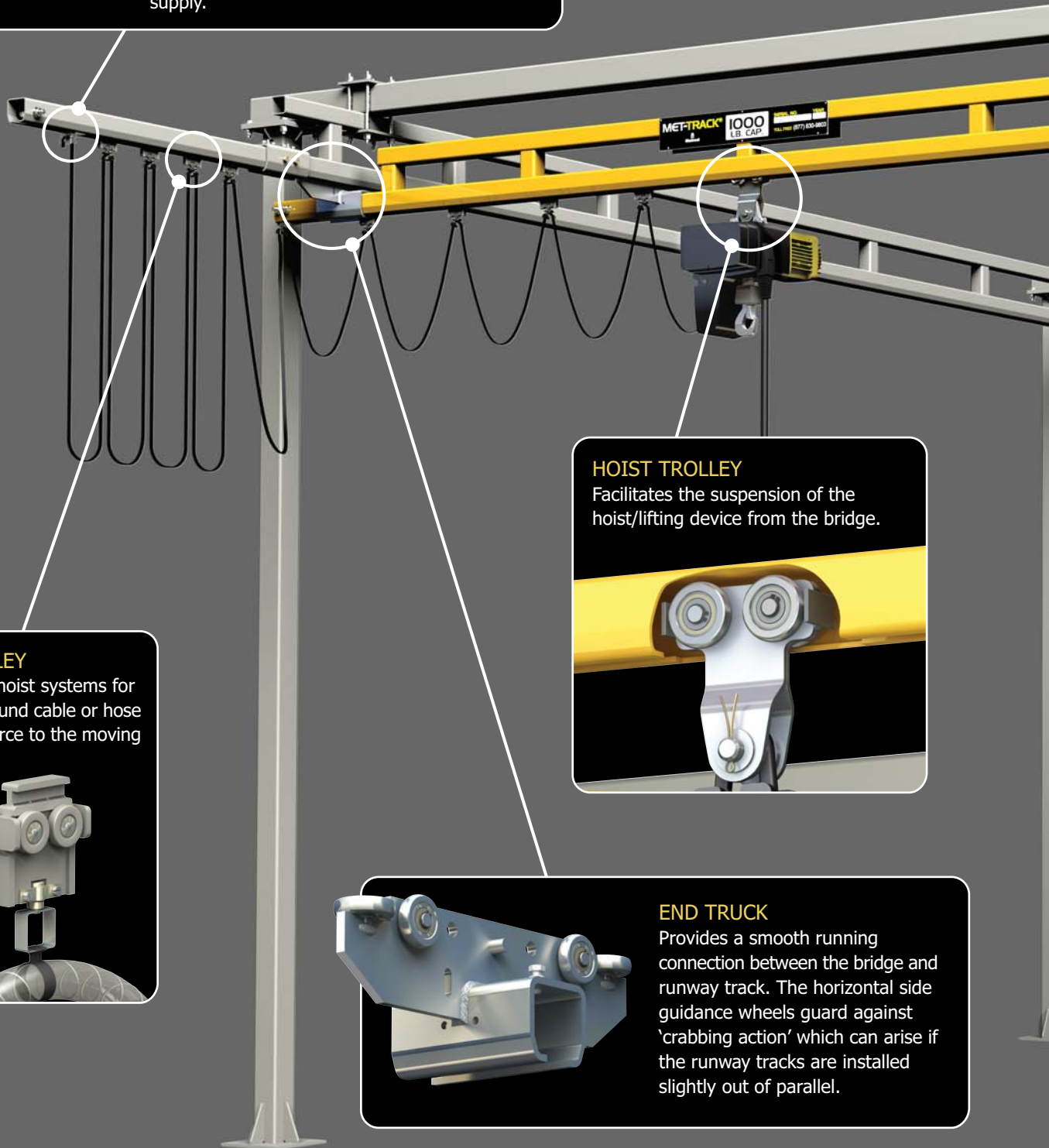
WORKSTATION CRANES

CRANE COMPONENTS



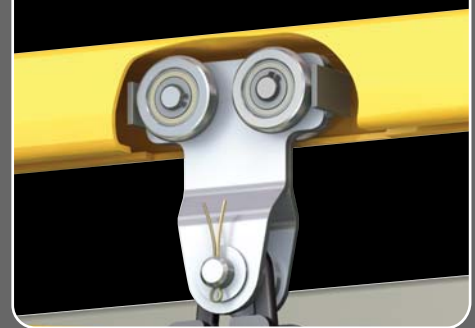
END CLAMP

Fitted at the end of the crane bridge and at the end of the runway festoon section. Utilized as standard on all systems with festoon power supply.



HOIST TROLLEY

Facilitates the suspension of the hoist/lifting device from the bridge.



FESTOON TROLLEY

Utilized on power hoist systems for carrying the flat/round cable or hose from the static source to the moving hoist or bridge

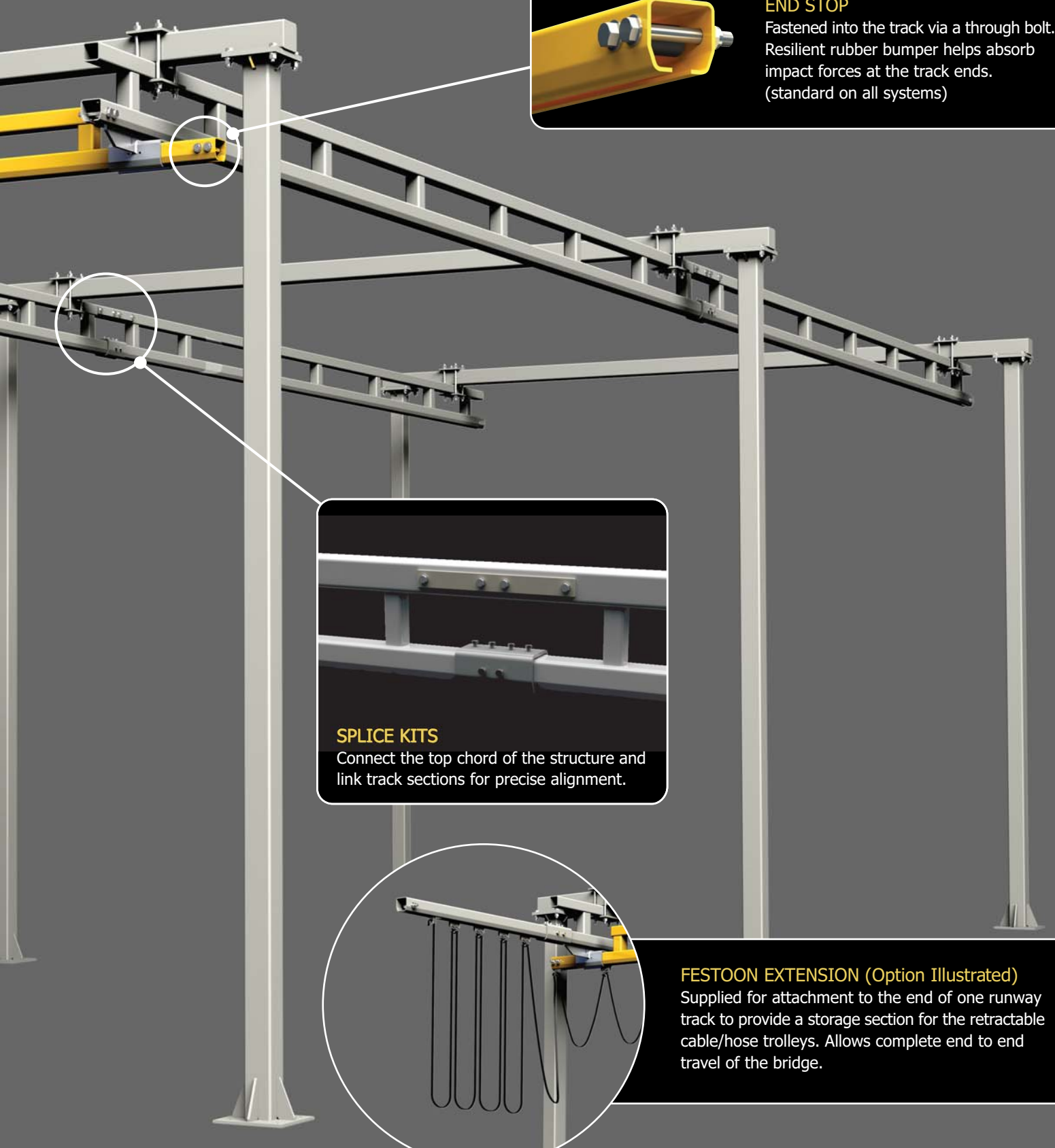


END TRUCK

Provides a smooth running connection between the bridge and runway track. The horizontal side guidance wheels guard against 'crabbing action' which can arise if the runway tracks are installed slightly out of parallel.

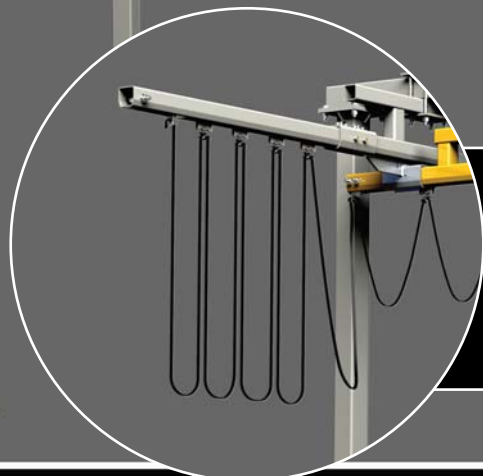


OPTIONAL CONDUCTOR SYSTEM - PLEASE SEE PAGE 12



END STOP
Fastened into the track via a through bolt. Resilient rubber bumper helps absorb impact forces at the track ends. (standard on all systems)

SPLICE KITS
Connect the top chord of the structure and link track sections for precise alignment.



FESTOON EXTENSION (Option Illustrated)
Supplied for attachment to the end of one runway track to provide a storage section for the retractable cable/hose trolleys. Allows complete end to end travel of the bridge.

WORKSTATION CRANES

OPTIONAL FEATURES

RUNWAY & BRIDGE CONDUCTOR SYSTEMS

The principle of a workstation bridge crane is to make the work of a user easier by designing the system to move freely. When power is required to the lifting device, traditional festoon systems can provide this function. However, in certain scenarios where festoons may not be ideal for the application due to the need to maximize bridge or trolley travel or needing to eliminate the cable loops for maximum under clearance, an upgrade option is the **MET-TRACK®** enclosed conductor system, 4Ductor. 4Ductor can be fitted to the runway and/or bridge if festoon loops or trolley/bridge travel would pose a problem. This simple to add system offers no resistance to the easy movement of a workstation crane.

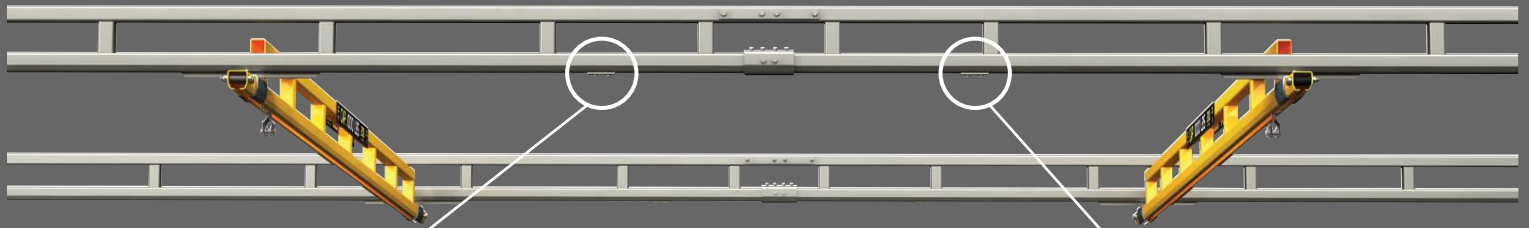
FEATURES OF 4DUCTOR:

- Continuous Copper Conductors
- Range of Standard Capacities
- Minimum Brush Wear
- Simple to Install & Maintain

Conductor Capacity	up to 4
Current Capacities	50, 80, 125A
Protection:	IP65
Housing Lengths:	6.5ft and 13ft
Temperature Range:	-30°C to +60°C
Maximum Speed:	200ft/min

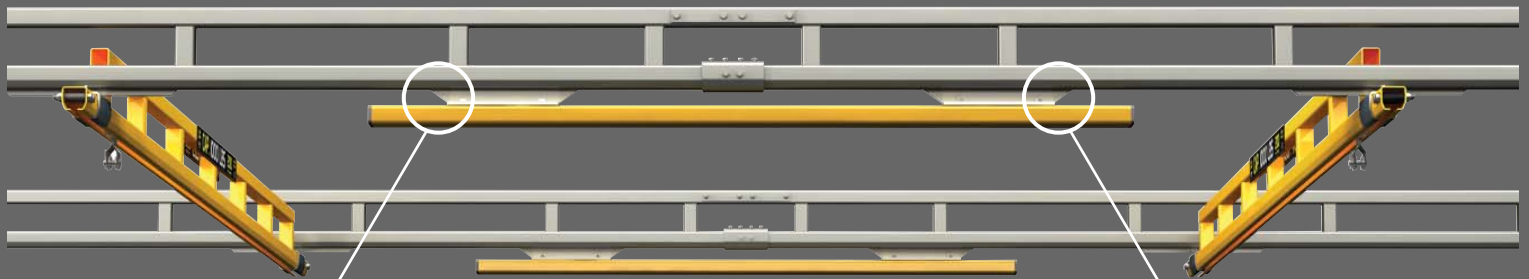
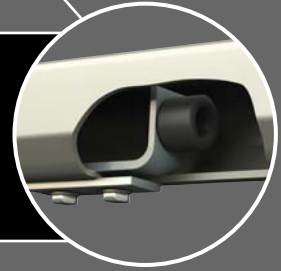
BRIDGE TRAVEL WITH 4-DUCTOR® COMPARED TO FESTOON SYSTEM





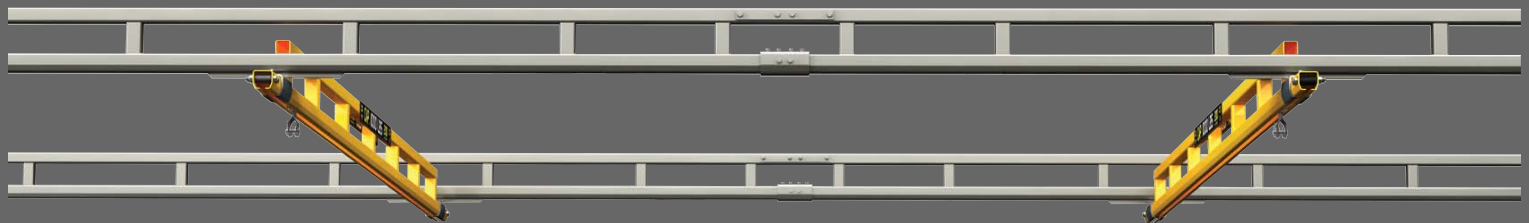
INTERMEDIATE STOPS

These can be placed inside the runway tracks to allow each bridge an independent working area. This means each bridge is isolated into a separate span which minimizes the runway track capacity.



BRIDGE BUFFERS

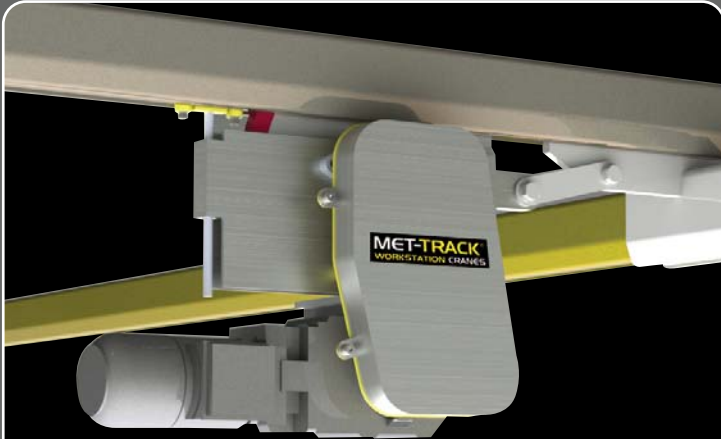
Bridge buffers are suspended from two trolleys in the runway to create a predetermined minimum distance the bridges can operate from each other.



MIXED CAPACITY

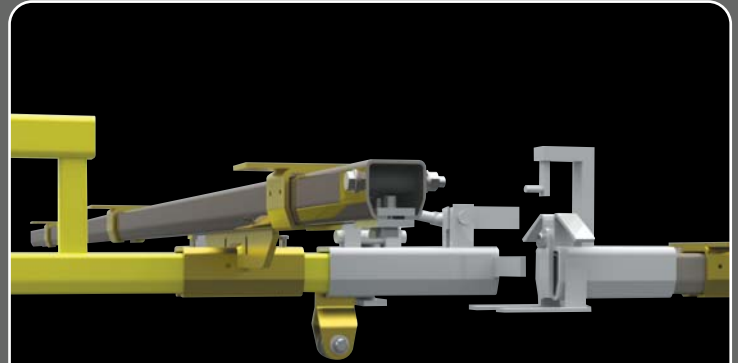
Multiple bridges can be used with mixed capacities with only the runway steelwork having to be of a heavier design i.e. a 250lb bridge and a 1000lb bridge can work anywhere when installed on 2000lb runway kits.

WORKSTATION CRANES OPTIONS



TRACTOR DRIVES

A standard range of tractor drives are available for applications where powered traveling of the crane bridge and/or hoist trolley is required.



TRANSFER UNITS

Designed to provide a safe, efficient, and easy to operate transfer of a hoist trolley from the bridge to an adjacent bridge or monorail system.



TELESCOPIC BRIDGES

Designed to run within a standard bridge and their extension facilitates working outside the normal crane working area.



CANTILEVER BRIDGE

Where required one or both ends of a bridge can be cantilevered beyond the standard 12" overhang in order to stop the bridge festoon trolleys reducing the available hoist trolley travel.

Please fill out the various dimensional data options below to help us with your quotation.

1 **MOUNTING ORIENTATION**

Floor Mounted Crane System Ceiling Mounted Crane System

2 **BRIDGE CONFIGURATION**

Bridge Length (Max 34') feet inches **OR** Room Width feet inches

Bridge Capacity: Choose 250 / 500 / 1000 / 2000 or 4000 lbs

Bridge #1 lbs, Bridge #2 lbs, Bridge #2 lbs, Bridge #2 lbs, Bridge #2 lbs

3 **RUNWAY CONFIGURATION**

Standard Runway Configuration:

Bridge #1 lbs, Options: 250 / 500 / 1000 / 2000 / 4000 lbs

Runway Length: feet inches **OR** Room length: feet inches

Cantilever Options: 18 / 24 / 30 / 36 / 42 / 48" Front inches Back inches

Special Runway Configuration:

Bridge #1 lbs, Bridge #2 lbs, Bridge #2 lbs, Bridge #2 lbs, Bridge #2 lbs

Cantilever Options: 18 / 24 / 30 / 36 / 42 / 48" Front inches Back inches

4 **SUPPORT STEEL WORK - FLOOR MOUNTED SYSTEMS**

Load Pin Height (LPH): feet inches (Max 20') **OR**

Overall System Height: feet inches (Max 22')

5 **SUPPORT STEEL WORK - CEILING MOUNTED SYSTEMS**

Bracket Type Options: Flush Mount 2' Dropper 6' Dropper Bar Joist Bar Joist Angle Size

Sway Bracing - Recommended on all drop systems: Yes No

6 **POWERFEED**

None:

Electric Festoon: Bridge Runway

Air Festoon: Bridge Runway Air Festoon Hose Diameter:

Conductor: Bridge Runway

7 **POWERED DRIVES**

No:

Yes: If Yes, the sales office will send you a spec sheet to select your powered drive requirements



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