

# Dock Planning 101



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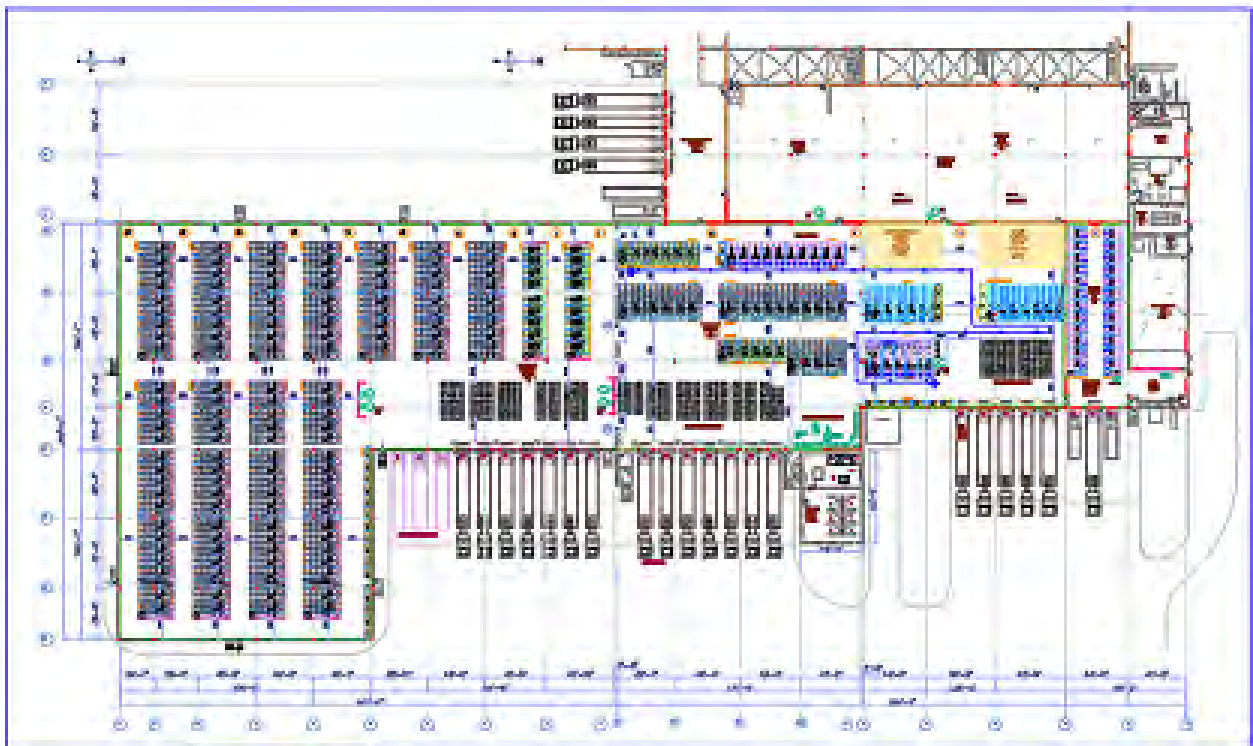
LOADING DOCK EQUIPMENT MANUFACTURERS

A Product Section of Material Handling Industry, MHI

# What You Always Wanted to Know About Dock Planning But Were Afraid to Ask

## *Just what the heck is involved with dock design?*

In the competitive world of logistics, facilities need to be safe, versatile and efficient in overall design. A properly designed dock area can be a huge contributor in productivity or a complete bottleneck for material flow if not given the time it deserves. This guide was created to assist in the basic design of the loading dock and introduce the reader to fundamental concepts of dock design. It is recommended you combine the information contained here with the help of a seasoned professional and/or your local provider of loading dock equipment for mor complete solution.



# Common Terms and Definitions

Activation System: The activation system provides the motive power of the dock leveler. These systems may or may not require external power interfaces. Typical activation systems are mechanical (springs), pneumatic (air bladders) and hydraulic.

Attachments: This term refers to implements that can be added to a fork truck for handling a load. Attachments such as clamps, slip sheet forks and carpet poles can have an effect on capacity and should be considered in selecting a dock leveler.

Automatic Operation: placement of a vehicle restraint device in its operating position by powered means not initiated by the loading dock operating personnel.

Barrier: the portion of a vehicle restraint device that engages the transport vehicle to prevent movement.

Bumpers: These are used to prevent the transport vehicle from contacting and damaging the building, dock leveler or vehicle restraint. They are usually made of rubber. Bumper sizes and projections vary, based on vehicles serviced and other factors such as driveway slope.

Capacity: The manufacturer's capacity tag rating may not reflect the gross roll-over load for a specific dock leveler. Capacity is the rating of the load that the manufacturer of the dock leveler deems to be appropriate for the design, based on considerations of the characteristics of the user's application. The required capacity of a dock leveler for a specific application is usually determined by taking the GVW and applying a complexity factor to it. The complexity factor is typically determined by a set of characteristics that are present at the particular application. These characteristics may include, but are not limited to: the heaviest fork lift and load (GVW) being driven across the dock leveler; the number of fork lift cycles driving across the dock leveler; the speed of fork lift moving across the dock leveler; the life expectation of the dock leveler; the loading slope above or below dock level; the use of three vs four wheel lift trucks; whether there are attachments on the front end of the lift truck; the lip length as well as other considerations. The authorized sales representative of the manufacturer can help determine the capacity of the dock leveler that is required for a specific application.

Communication Lights: colored lights to communicate the status of the loading operation to the dock operator and to the driver of the transport vehicle. Typically one set of lights is visible to the dock operator to indicate whether the restraint is engaged, and another set of lights is visible to the transport vehicle driver to indicate whether it is safe to pull the vehicle away from the dock. The lights are typically green to indicate "GO" and red to indicate "STOP". Amber lights may be used to indicate caution.