

Options When Using Multiple Bridges

What are your options when using multiple bridges? This section addresses the advantages and disadvantages of various multiple bridge system designs.

MIXED CAPACITY SYSTEMS

In mixed capacity systems, each bridge is sized for an individual rated load. Runways, on the other hand, are sized for the *combined* weight of all loads, so they use a heavier track series than any individual bridge.

Advantages:

- There are no “dead” coverage areas (areas with no bridge coverage) along the length of the system, so each bridge can travel the length of the system. (See mixed capacity system diagram)
- There are limited “dead” coverage areas between bridges, so bridges can be used side-by-side. (Compare mixed capacity system diagram with bridge buffer system diagram)
- Bridges weigh less, making the system more ergonomically friendly.

Disadvantages:

- Mixed capacity systems use larger sized runways, so they may cost more than bridge buffer systems or systems that use intermediate stops.

BRIDGE BUFFER SYSTEMS

In bridge buffer systems, bridges are sized for each individual rated load. Runways are sized for the heaviest *individual* load, so the runways are the same size as the largest bridge. Bridges are physically separated by wheeled, movable bridge buffers.

Advantages:

- Bridge buffer systems usually cost less than mixed capacity systems because they typically use smaller sized runways.

Disadvantages:

- The bridge buffers take up space (typically half the distance of the support centers), which creates a moving “dead” space between bridges. (See bridge buffer system diagram)

Note: When using two bridges, the dead space equals half the distance between support centers (L1 from the dimensional charts). When adding a third bridge, the dead space occupied by the additional bridge buffers equals the full distance between support centers.

SYSTEMS WITH INTERMEDIATE STOPS

In systems with intermediate stops, bridges are sized for each individual rated load. Runways are sized for the heaviest *individual* load, so the runways are the same size as the largest bridge. Bridges are physically separated by *internal stops or bumpers*. Extra hangers usually are required to eliminate overload. (See intermediate stops system diagram)

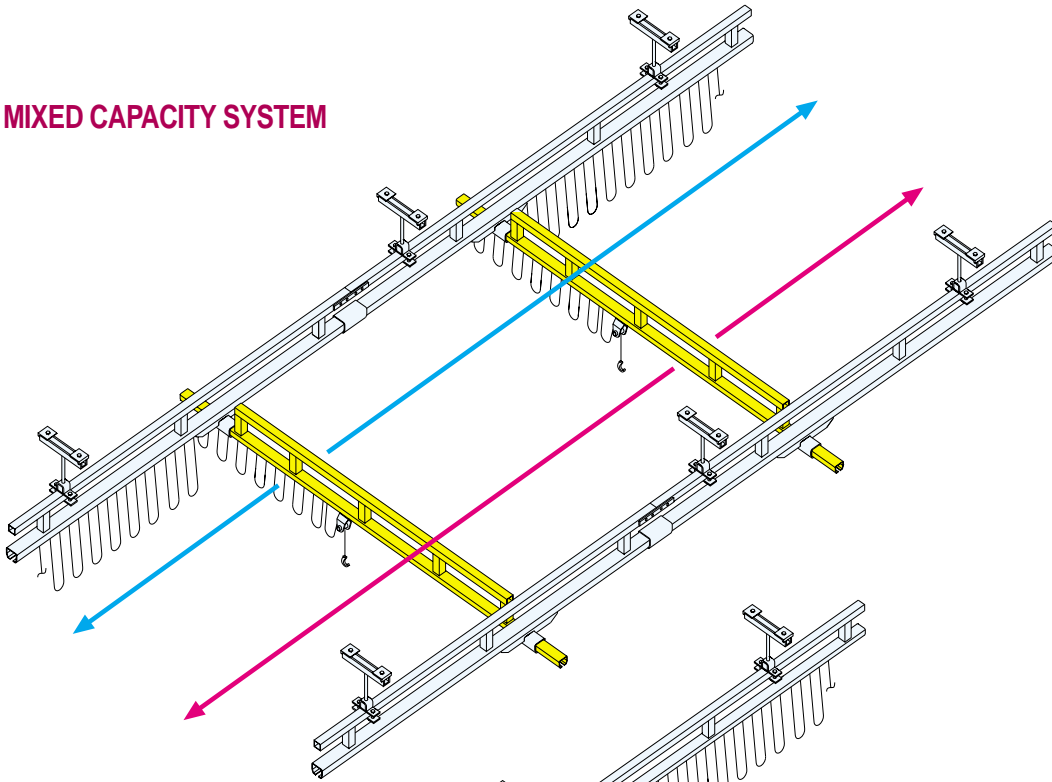
Advantages:

- Systems with intermediate stops use smaller runways, therefore typically cost less than mixed capacity systems.
- There are fewer potential “dead” spots in the system. (Compare intermediate stops system diagram with bridge buffer system diagram)

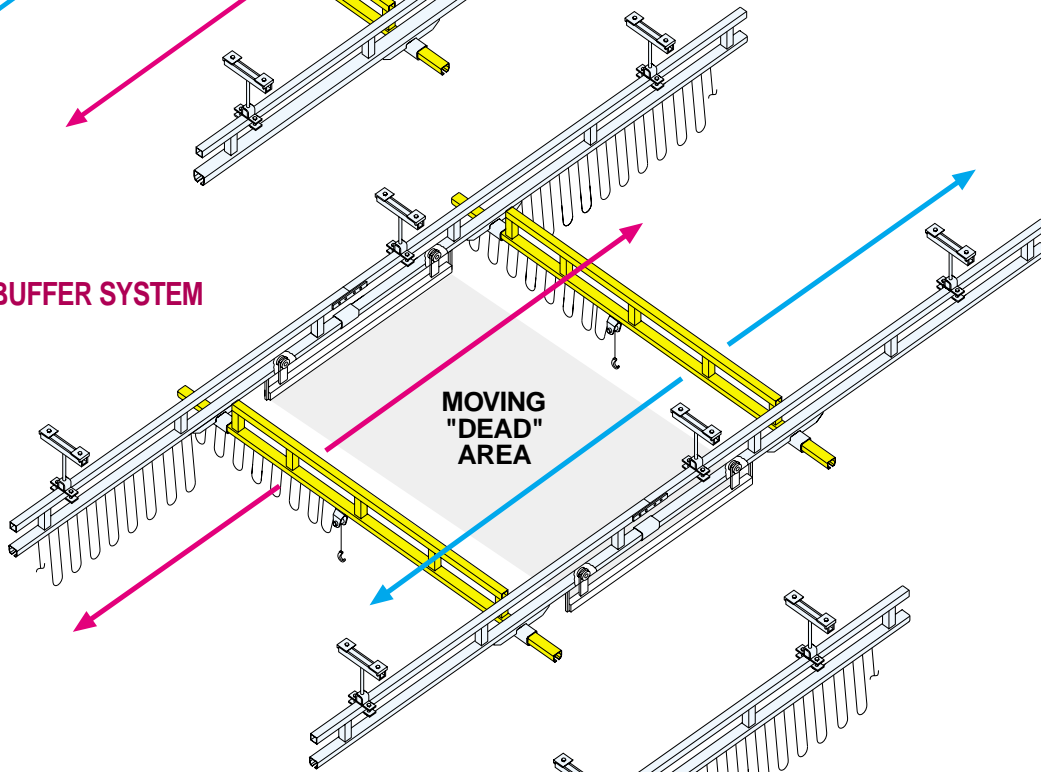
Disadvantages:

- Each bridge on the system can travel only a portion of the length of the system. (See intermediate stops system diagram)
- Systems with intermediate stops may be more difficult to install, as additional ceiling support points must be available to accommodate the additional hangers required to prevent an overload situation.

MIXED CAPACITY SYSTEM



BRIDGE BUFFER SYSTEM



INTERMEDIATE STOPS SYSTEM

