



**ENGINEERED  
LIFTING  
SYSTEMS**  
& EQUIPMENT INC.

Operating as:  
**MENTOR  
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## Transfer Carts – What to Consider When Purchasing?

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### *Will a Transfer Cart be a good solution for your application?*

A good question to ask since there are many material handling solutions on the market! Which one is the right choice? For starters, Transfer Carts are moveable platforms used for the horizontal movement of materials, assemblies, and other items. Consideration must be given to the weight of the load and the travel requirements for the application.

### *What product handling applications use Transfer Carts?*

- Coils (V-Groove deck)
- Tanks (size/stability for uniformly distributed loads)
- Assemblies (fixture cradle) for a complete build or to send a partially completed product to the next station (tractors, heavy equipment machinery)
- Sub-Assembly shuttle from one line to another line
- Maintenance cart for motors and pumps
- Equipment support (stand-off deck) for navigating loads to locations with a plant facility
- Material shuttle for steel tubing (flat decking with guard rails)
- Elevating platform for assembly process (integrated screw-jack table)
- Sand casting (flat decking)

### *What types of Transfer Carts are there?*

There are four types of Transfer Carts, each designed for different applications. They are:

**Manual Type Carts** – For loads up to 10,000 pounds (5 tons). Carts are on casters and are manually moved on smooth to semi-smooth floors. Typically carts of this type are used for short distances and low cycle operations. Carts can be sized according to requirements of work areas with space constraints.

**Towed Type Carts** - For loads up to 60 tons. Carts have casters or crane wheels and are towed behind lift trucks or behind powered carts mounted on rail. They are an economical alternative to purchasing a second powered cart. Winches can also be used to pull carts of this type for on-rail applications.

**On-Rail Type Carts** - For loads up to 100 tons. Carts are mounted on steel rail for shuttling along a fixed path. They can be AC powered or DC battery powered. Typically used for moving materials such as steel or tanks of liquids from one location to another. Larger cart capacities and sizes are available for specific applications. Custom deck frames can be designed for specific assemblies to carry an entire shift of production and even serve as a stable moveable machine base.

**Steerable Type Carts** - For loads up to 45 tons. Carts have two fixed and two swivel casters and are DC battery powered (optional AC powered). Carts are designed to travel on smooth to semi-smooth level floors. Customization is available for specific applications.

### *What surfaces do Transfer Carts travel on?*

The On-rail Transfer Cart is designed with flanged wheels and travels on rail. Most applications are on level surfaces; however, it is possible for carts to travel on inclines not greater than 4°.

With Steerable carts flat tread steel wheels (hardened tread surface) come standard and are fine for most concrete smooth to semi smooth floors. For non-marking epoxy floor systems, optional urethane wheels can be ordered (up to 20 ton capacity). Carts are not designed for uneven surfaces such as gravel, rough terrain, or badly cracked concrete floors.



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### *How fast can carts travel?*

Typically, carts come with drive motor speed of 50 fpm (with brake). Optional consideration can be given to ordering VFD (electric car only) for soft start/stop movement. Faster travel speeds can be ordered.

### *How are carts powered?*

Powered AC carts have power cable connected directly to an electrical panel, typically for carts that travel along a fixed path. Cable reels can be installed for cable management.

Powered DC carts have on-board batteries that have an average running time of 16 hours. DC battery charging units can be installed on-board for convenience. Extended battery life can be accomplished by having four batteries rather than two.

### *How can Transfer Carts be customized?*

#### **Mechanical Options include:**

- Deck Railings
- Wood Decking Material
- Screw-Jack Lift Deck
- Paint Color (*customer specified*)
- Rail Guides
- Floor Rail
- End Stops
- Urethane Wheels (*not available on guided carts*)
- Live Axle

#### **Electrical Options:**

- Two batteries
- Extended Battery Life (*4 batteries instead of 2*)
- Voltage Meter
- DC Battery Charging On-Board Unit
- DC Battery Charger Remote Unit
- AC Power Cable Reel
- Limit Switches (*to limit travel*)
- Remote Radio Control
- Variable Frequency Drive (*electric car only*)
- Soft Start (*DC cart only*)
- Pendant Cable Reel
- Faster Travel Speed
- Emergency Stop Sensor
- Beacon Light
- Warning Alarm

### *What are the advantages of a Transfer Cart?*

For smaller loads, Manual Carts can be dedicated to specific work place activities such as shuttling materials. This often makes the carts more available for use. Transfer carts are more accommodating for moving long loads through restrictive passage ways or doorways. For heavier loads Transfer Carts are an excellent affordable choice for their ability to handle heavy loads. Transfer carts are compact in design and work well in areas with limited floor area. Another advantage over lift trucks is how the cart deck can be customized to suit specific loads.

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