

20ft Transfer Vehicle (TV)

Features:

- Fully automatic, semi-automatic or one-manoperated, complete with an operator platform, chassis base frame including wheel drives, supporting a superstructure with powered full width roller deck
- BDP bespoke control systems, available to suit the operation.
- Safe Working Load (SWL) of up to 14,000kgs.
- Incorporates a powered, full width roller deck, friction drives, and pallet sensors to accommodate air cargo pallets and containers.



Description:

The 20ft Transfer Vehicle (TV) is designed to run in an enclosed track area, interfacing on both sides with system equipment. The TV provides a semi-automatic and local manned operation. They are typically used for single level storage and retrieval of freight.

Specifications:

The TV powered deck comprises two independently powered 10ft sections, integrated and interlocked, for independent or joint operation. Surface mounted rails: S14 crane rails to DIN 5901 having a minimum tensile of 500N/mm squared, normally supplied in lengths of 6 or 12 meters. Three control modes: maintenance, manual control and semi-automatic control. The powered roller bed deck is supported on a Roller Bed Carriage with full width folded steel walkway plates between each roller for operator access with a walkway on each side complete with hand rail. The rollers are powered by electric motors, and driven via interconnecting 180-degree wrap around chain on double simplex sprockets. TV roller beds are fitted with 4 drive motors, two on the powered 20ft deck and one on each end roller for the friction drive operation.

Conductor Rail:

Insulated conductor rail and double spring operated power collectors. This rail can be mounted above or below the TV

Technical Data:

Load Capacity	<14,000kgs
TV Travelling Speed	<100 meters per minute
Creep Speed	3 meters per minute
Acceleration	0.35m/sec/sec
Roller bed Transfer Speed	18 metres per minute
Roller plane height	508mm above floor level
Maximum Load Height	<3000mm
Maximum TV width	7200mm
Travelling Aisle Width	7300mm
TV Roller Deck Width, Inside Guides	2540mm
TV Roller Deck Length	7200mm
Side guide height above roller plane	50mm
Docking accuracy	±3mm
Roller surface level error	1mm
Ground Rail Linearity	± 1mm
Ground Rail Parallelism	± 1mm
Lateral Deviation of Ground Rail	± 3mm over total length of installed rail
Vertical Deviation of Ground Rail	± 3mm over total length of installed rail
Safety Sensors	Overhanging containers from storage racks Overhanging containers from TV deck Over height control Track obstruction Pallet sensors
Safety Systems	End of Aisle Automatic Slow Down Emergency Stop buttons Audible and visible (flashing beacon) alarms
Emergency Fall Back	Traction drive brake releases Deck drive brake releases Auxiliary towing bars