

Very Narrow Aisle Forklift

Used Very Narrow Aisle Forklift Massachusetts - Getting items from one warehouse location to another and to and from the loading docks is the focus of warehousing. Focus is often on space saving tools and the layout of the building. Narrow aisles need specific solutions to allow goods to be accessed and stored properly. More space can be given to storage as less space is needed for accessing the aisle. These warehouse configurations are often referred to as warehouse optimization. Warehouse Optimization There are several significant benefits of implementing very narrow aisle warehouse optimization. Since very narrow forklift trucks have been designed to take up significantly less space, warehouse aisle widths can be reduced to half the width needed by traditional forklifts. Many very narrow aisle forklifts offer greater stack height capability which further increases the storage capacity per square foot. Very narrow aisle forklifts can greatly reduce costs compared to traditional forklifts since the same amount of stock takes up less space in the warehouse. In most urban areas where square footage is very costly, this is a huge benefit to warehouse operations. When planned carefully and properly, it is possible to increase warehouse storage area by up to 80 percent by implementing a very narrow aisle width configuration. Very narrow aisle design facilitates greater product access and more rack faces. Since greater quantities of products are situated in a more accessible area, there is less travel time needed for gathering and storing items. Very narrow aisle layouts and narrow aisle layouts are popular for warehouses. Narrow aisles are usually those that use less than 11 feet of aisle width. Very narrow aisles usually use an aisle width of approximately 6.5 feet across. Both of these aisle widths provide significantly increased storage opportunities. However, they also create challenges when turning within the aisles using forklifts for stocking and order picking. These challenges are met by using very narrow forklifts to gain access and complete tasks. When selecting a forklift for a job application, it is essential to know the aisle dimensions. Taking note of the proper dimensions will save valuable time and money by avoiding the mistake of acquiring a forklift that will not work in the intended application. It is essential to take any columns, posts or utilities into account before deciding a type of narrow aisle forklift design as these can block access. Very Narrow Aisle Forklift Trucks Rechargeable batteries are typical for powering very narrow aisle forklift trucks and most models are electric. Stand-up riders are a popular design for very narrow aisle forklift trucks. The most commonly used types of very narrow aisle forklift trucks are: 1. Reach trucks 2. Order pickers; 3. End-control riders; and 4. Turret or swing-mast. Reach Forklift Trucks Developed as a kind of rider stacker forklift, the reach forklift trucks can be configured for narrow aisle locations. This machine earned its name by its ability to reach its forks to secure a load. The moving mast and the moving carriage are two types of reach trucks. The moving carriage works by raising and lowering the carriage and the driver. The moving mast works by raising and lowering the forks along the mast, while the operator stays at ground level. Of the two kinds of reach trucks, the moving mast reach truck is the safer of the two varieties. Reach trucks utilize a pantograph system that is a jointed framework design enabling the driver to place and reach loads without moving the forklift. Order Pickers Order pickers have been designed and developed specifically for use in picking orders from high, typically hard-to-reach racks. They are used for smaller picking items that can be lifted and moved by hand. They lift the operator up to reach the goods by identifying and choosing certain items to create an order. End-Control Riders End-control riders are used to pick loads located at floor level and transport the load horizontally, rather than lift or lower loads from various heights. Turret or Swing-Mast Forklift Turret or swing-mast very narrow aisle forklift have a pivoting articulating swivel mast. Pallets can be set on either the right or left side of the forklift due to the machine's ability to use its' swinging mast. Guided Very Narrow Aisle Trucks Very narrow aisle forklift trucks can be guided by rail or wire down the aisles. Thanks to the guide rails, the possibility of crashing into racks is greatly reduced. For rail-guided systems, a series of rails are installed into the floor, on both sides of the aisle, and run along the floor for the length of the aisle, curving around the end of the aisle. The forklift is

fitted with special wheel guides that slide into the rails, preventing the forklift from moving outside the rail guards. Wire-guidance forklift systems install wires on the floor instead of rails and the wires run down the middle of the aisle. The wire-guides function similarly to the rail systems except the forklift has a wire-guide system to prevent the machine from traveling where it is not supposed to.

Work Site Considerations Certain essential considerations need to be dealt with before using a narrow aisle configuration. The floor and the rack construction needs to be evaluated to avoid any issues since the very narrow aisle units have extremely high racking systems. There are four areas which must be meticulously prepared before setting up a racking system and must be continuously monitored and maintained throughout the operation of the warehousing system:

1. The floor must be level;
2. Cracks must be repaired;
3. Load capacity of floor must be appropriate; and
4. The racks must be plumb.

Level Floor Because of the height of the racking systems, any slight slope of the floor is likely to negatively affect the plumbness of the racks, especially over time when loads are continuously placed and removed on the racks. Without a level floor foundation, the rack stability could be compromised.

Crack Repair When there are floor cracks found, they need to be assessed and immediately fixed for safety concerns. The level of the floor can become unstable with cracks when they are only 3/8 inches wide. They will need to be filled properly with material as hard as the rest of the floor.

Floor Load Capacity The floor needs to meet specific minimum requirements prior to a narrow aisle configuration. Minimum flooring requirements include concrete measuring three thousand psi and rebar distributed evenly three to four inches below the surface. Depending on the configuration and load requirements, extra reinforcements may be necessary.

Plumb Racks The racking system is essential to the whole process and needs to be installed properly. If installed improperly, there is a great chance of rack failure. Every rack needs to be plumb to ensure a safe system and work environment. Rack shims are recommended to make sure the racks are plumb within one inch at the thirty-foot rack height. If the above measures are not taken or are improperly implemented, it is likely to cause a racking failure. Such failure is likely to result in costly damage to goods, the warehouse facility, forklifts and, worst of all, employees could be significantly injured or even killed. These measurements are vital to the success of installing a safe and productive narrow aisle configuration.