

Very Narrow Aisle Forklift

Used Very Narrow Aisle Forklift Ohio - 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. Very narrow aisle solutions allow for more space to be dedicated to the storage of goods because less space is required for aisle access. Configuring the warehouse is known as warehouse optimization. Warehouse Optimization Implementing very narrow aisle warehouse optimization is a huge benefit of warehouse optimization. One of the most important benefits is the increased storage space. Because very narrow forklift trucks were developed to take up less space in maneuvering, it is now possible to decrease warehouse aisle width to less than half the width required by standard forklifts. Many very narrow aisle forklifts offer greater stack height capability which further increases the storage capacity per square foot. Costs can be drastically decreased with a narrow aisle forklift compared to a standard aisle configuration as less warehouse space is required for the same quantity of stock. Most urban locations have expensive square footage; therefore, reducing costs is a benefit to warehouses and their business. 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. Reduced travel time for storing items and gathering products are some of the key benefits to this warehouse layout as more products are found in an accessible location. It is common for warehouses to use a very narrow or narrow aisle layout. Less than eleven feet of aisle width is needed by narrow aisles. Very narrow aisles usually use an aisle width of approximately 6.5 feet across. Both of these aisle widths provide significantly increased storage opportunities. Using a forklift for order picking and stocking can be difficult in these aisle widths, especially when turning. These challenges are met by using very narrow forklifts to gain access and complete tasks. Before choosing a forklift for a particular job, it is vital to know the dimensions of the aisle. It is important to have the correct aisle dimensions before forklift shopping to avoid securing a machine that won't fit its' intended location. Finally, it is critical that any utilities, posts or columns are taken into account before settling on a specific narrow aisle forklift design as these may affect access to aisles by some forklifts or prevent warehouse optimization.

Very Narrow Aisle Forklift Trucks

Very narrow aisle forklift trucks are almost always powered electrically, usually by rechargeable battery. Very narrow aisle forklift trucks are popular as stand-up riders to help increase operator comfort and productivity. There are different very narrow aisle forklift designs such as order pickers, reach trucks, wing-mast or turret and end-control riders.

Reach Forklift Trucks

The reach trucks were created as a type of rider stacker forklift but can be modified specifically for narrow aisle usage. 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 functions by lowering and raising the carriage and the operator. 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. These order pickers work by lifting the operator up to the level of goods in order to identify and pick the specific item or items necessary to fill 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

Swing-mast or turret very narrow aisle forklifts feature an articulating swivel mast that pivots. 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

Many very narrow aisle forklift trucks are able to be guided down aisles by wire or rail. Because the forklift is guided, thereby

reducing the possibility of the forklift bumping racks while moving down the aisle, the aisles can be extremely narrow. 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. The wire-guidance system requires that the wires be installed into the floor, along the center of the aisle. These wire-guides work along the same principle as the rail guards except that the narrow aisle forklift is fitted with a wire-guide system that allows it to communicate with the floor wires which effectively steer the forklift, preventing it from straying outside of an allotted range. **Work Site Considerations** Certain essential considerations need to be dealt with before using a narrow aisle configuration. The narrow aisle units feature tall racking systems. The floor construction and the racks need to be carefully taken into account for everyone's safety. Four specific areas need to be perfectly prepared before a racking system can be implemented including a level floor, plumb racks, any floor cracks need to be repaired and the floor's load capacity must be accurate. These locations need to be maintained and monitored continuously. **Level Floor** Due to the racking system height, any minor floor slope can gravely impact how plumb the racks are, particularly over time if loads are placed and removed repeatedly on the racks. The height of the racking system means that any minute floor slope can have a negative impact on how straight the racks are, especially over time when loads are continually removed and placed on the racks. A level floor is vital for the safety and integrity of the operator, employees, stock and the warehouse. **Crack Repair** When there are floor cracks found, they need to be assessed and immediately fixed for safety concerns. Cracks may affect the floor's level and, when they are approximately 3/8 inches wide, will need to be properly filled with a material at least as hard as the surrounding floor. **Floor Load Capacity** The floor should meet certain minimum requirements before considering 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 load requirements and configuration, additional reinforcements may be needed. **Plumb Racks** Installing the racks safely and correctly is vital for the entire system. If installed improperly, there is a great chance of rack failure. One of the most important details to ensure proper installation, is that all racks are plumb. 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. Employees can become hurt or killed in the event that racking failure occurs. Goods can be damaged along with forklifts and other equipment. Due to these potential problems, the most significant part of creating a narrow aisle configuration for warehousing optimization is the initial measurements.