

## Very Narrow Aisle Forklift

Used Very Narrow Aisle Forklift El Cajon - Warehousing needs greatly focus on space-saving techniques and layout to maximize expensive square footage and decrease travel time needed to get goods from the loading docks and from point A to point B. Extremely narrow aisles offer more storage space since there is less space needed for aisle access. Configuring the warehouse is known as warehouse optimization. Warehouse Optimization Several benefits can be enjoyed for adding very narrow aisle warehouse optimization such as more storage space for the facility. Using narrow forklift trucks instead of traditional forklifts can enable the warehouse width of the aisles can be lessened to half. 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. Square footage is costly in urban areas and any way to reduce warehousing costs can save a company money. Adding a very narrow aisle width system can increase storage up to eighty percent when planned properly. 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. Warehouse layouts usually utilize a narrow aisle or very narrow aisle plan. 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. Either of these widths drastically increases storage potential. Standard forklifts can have issues with turning in these aisle widths. These challenges are met by using very narrow forklifts to gain access and complete tasks. It is necessary to know the dimensions of the aisle when selecting a forklift for a certain job. It is important to have the correct aisle dimensions before forklift shopping to avoid securing a machine that won't fit its' intended location. 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. 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 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 functions by lowering and raising the carriage and the operator. The moving mast raises and lowers the forks as the operator remains at ground level. The moving reach truck is typically considered the safest out of the two kinds of reach trucks. These machines rely on a kind of jointed framework known as a pantograph system that enables the operator to place a load or reach the load without moving the machine. Order Pickers Order pickers were created to specifically pick orders from difficult-to-access racks. These machines are used for picking up lighter stock that can be 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 machines that pick loads up at floor level and move the items horizontally as opposed to lowering or lifting over numerous heights. Turret or Swing-Mast Forklift Turret or swing-mast very narrow aisle forklift have a pivoting articulating swivel mast. The mast swivels to enable pallets to be positioned on the right or left side of the forklift. Guided Very Narrow Aisle Trucks Many very narrow aisle forklift trucks are able to be guided down aisles by wire or rail. Since the forklift truck is guided, the chance of colliding with racks while traversing down the aisles is very low. Rail-guided applications use special rails set into the floor on either side of the aisle, funning the length of the location and curving around the edge. Wheel guides on the forklift slide into the floor rails to stop the machine from traveling out of bounds. The wire-guidance system requires that the wires be installed into the floor, along

the center 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

To use a narrow aisle configuration, there are some key considerations that need to be made. 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. 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

Minimum flooring requirements must be met before considering a narrow aisle installation. The floor should have three thousand psi concrete minimum and contain evenly distributed rebar at three to four inches under the surface. Depending on the configuration and load requirements, extra reinforcements may be necessary.

#### 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 can help the rack stay plumb to one inch at the height of thirty feet. Dangerous racking failure can occur if the above steps are not taken. 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.