Forklifts Buying Guide

How heavy and what size are your typical loads? How high to you need to lift a load and which tires you will need for the terrain you'll be working on ? How many hours per day will it be used?

Forklift trucks are rated according to how much weight they can lift, starting at 3,000 lbs and going up to 35,000 lbs and more. 5,000 lb forklifts are the industry standard. Have in mind that the size of your typical load will affect the capacity you need.

If you primarily use forklifts to load and unload trucks, you may not need much height; if your warehouse has shelves 30 feet high, your forklift will need to reach them. Unlike load capacity, your height needs are unlikely to change over time barring new construction or major renovations. Buy for the height you need now.

Forklifts should have tires that work best in your location.

Cushion tires:

Cushion tires made of solid rubber work best for internal applications. Electric forklifts designed for inside work typically have cushion tires.

Pneumatic tires:

Pneumatic tires inflated with compressed air cost more than cushion tires, but make a better choice for outdoor work. For heavy-duty lifting outdoors on uneven terrain, you'll commonly find gasoline or diesel forklifts with pneumatic tires.

Solid pneumatic tires:

Solid pneumatic tires are ideal for outdoor environments where there's a high risk of popping regular pneumatic tires, such as lumber yards or recycling centers where glass or nails can be scattered. Solid pneumatic tires combine the solid-rubber construction of cushion tires with the rough terrain capabilities of pneumatic tires, and typically cost more.

Fuel for your Forklifts:

You'll find two main types of forklifts: Electric forklifts powered solely by an on-board battery and internal combustion (IC) forklifts, which use a traditional engine that runs on one of several types of fuel. In most cases an electric forklift will be more expensive than an identically-rated IC lift. Operating costs per hour are critical to determining the real cost of your forklift. This includes the cost of fuel, maintenance, supplies like oil, batteries, and filters, and the time required to take care of the truck.

Look into electric forklifts

Electric forklifts are well-suited for indoor use and use in well-paved parking lots (not in the rain). They're powered by large, heavy lead-acid batteries — the same kind found in

your car, but considerably bigger and more powerful. Electric forklifts have several advantages.

- **Zero emissions**: Electric forklifts produce zero emissions, an important consideration if you plan to use your forklift indoors. Of the internal combustion models, only propane-fueled lifts can be used indoors, and they require very good ventilation. Gas and diesel-powered models can't be used inside at all.
- **Low fuel cost**: Although electric forklifts have a higher initial cost than internal combustion forklifts (new electric forklifts can cost 20% to 40% more than similarly rated IC forklifts), they have a lower cost per hour of operation.
- **Quieter operation**: Electric forklifts produce less noise than IC forklifts, a big plus indoors.
- **Long lifespan**: Because electric forklifts have fewer moving parts and are often used in cleaner environments than IC forklifts, they also tend to have a longer life span.

Electric forklifts have no fuel storage requirements and the batteries typically provide enough power for one standard eight-hour shift, which translates into five or six hours of constant usage. Keep battery downtime in mind. Charging a forklift battery takes eight hours, plus eight hours of cooling time before it can be used. Due to this slow charging speed, if you need forklifts for two or three-shift operations, you will have to buy extra batteries so you can always charge the next one. You'll also need a battery charging station. Chargers should be located in a dry, ventilated, and temperature-controlled location. If you have multiple batteries, you will also need special cranes to change them.

Choose internal combustion (IC) forklifts

Internal combustion (IC) forklifts can handle the largest loads and are the only choice if you require greater than 15,000 lbs capacity. They typically stand up to certain types of abuse better than electric forklifts — specifically, using a forklift to push or tow loads, instead of lifting and driving — and usually have better acceleration and top speeds. IC forklifts have a lower initial price point, but cost more per hour to run than electric forklifts.

Forklifts with internal combustion engines run on a variety of fuels: gasoline, diesel fuel, liquid propane gas (LPG), or compressed natural gas (CNG). For indoor/outdoor use, duel fuel systems are available that let you switch between LPG and gasoline. You can refuel internal combustion (IC) forklifts on the fly: simply fill them up at a gas pump or load on new LPG canisters and your forklifts are ready to continue working in no time. Of the types of IC engines, fuel costs generally are highest for gasoline and lowest for diesel, with LPG in the middle. Fuel costs vary considerably from state to state, so you should investigate this cost in your area before deciding which option is best for you.

With some IC equipment, you will have to buy refueling equipment. For example, gasoline and diesel fuel require you to have storage tanks and pumps. LPG requires only space for spare tank storage, which is usually managed by a propane vendor. The choice between gas, diesel, and propane is often made based on existing vehicles and equipment.

	Internal combustion (IC) forklifts	Electric forklifts
Maximum available capacity	35,000 lbs. or more	10,000-15,000 lbs.
Power source	Gasoline, diesel fuel, liquid propane gas, or compressed natural gas engine	Battery
Costs	Lower purchase price; Higher operating costs	Higher purchase price; Lower operating costs
Best used	Gasoline, diesel: outdoors; Propane: indoors or outdoors	Indoors
Typical applications	Lumber yards, construction, loading docks	Indoor warehouses, manufacturing locations
Refueling time	5-15 minutes	