

# CAR LIFTS

A RESOURCE GUIDE



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# What Is a Lift?

Put simply, a lift is a device that raises and holds vehicles in the air. This makes maintenance easier than the alternative—having people lie down and slide under vehicles to make repairs while on their backs. Jacks and dollies don't qualify as lifts because they're not built to hold vehicles in the air indefinitely. Today, there are many types of lifts to choose from:

- Inground lifts
- Two-post lifts
- Four-post lifts
- Scissor lifts
- Low-rise lifts

# Why Are Lifts Important?

A lift is the centerpiece of most service and repair bays. As an integral part of vehicle maintenance and repair tasks, a lift is used more times every day than just about any other piece of shop equipment. Perhaps because of this universality, there is a general perception that all lifts are pretty much the same, differentiated only by price. But the lift-buying process is about much more than that. The right lift can impact:

- Productivity
- Profitability
- Safety and tech working conditions
- Tech recruitment and retention

## **Improved Productivity**

A lift provides ergonomic, convenient access to all of a vehicle's systems, enabling technicians to work as efficiently as possible for maximum productivity. Bay productivity can be cut in half when a lift is unavailable. If it takes technicians four hours to complete a two-hour job, lost revenue adds up fast. That's why it's important to look at the total cost of ownership when shopping for a new lift, rather than just the purchase price. The high costs of downtime from a cheap lift can more than outweigh any initial price savings.

## **Improved Profitability**

Productivity is the key to shop profitability—the more jobs technicians complete in a timely manner, the higher the revenue. Consider how much productivity decreases if a lift is out of commission. Having the right lifts installed can also enable a shop to increase its service capacity, often without adding technicians or space. A lift added to a flat bay could increase technician productivity enough to double the revenue produced in that bay.

## **Safety and Tech Working Conditions**

Lifts are designed to safely raise vehicles to a comfortable working height and keep them there. Ergonomic working heights and conveniently located tools and controls can lead to less strain on technicians' bodies, as well as fewer injuries and accidents. This results in healthier employees and fewer lost work hours. Over time, many facilities also see their workers' compensation premiums reduced.

## **Tech Recruitment and Retention**

With the technician shortage, everybody's looking for an edge to attract new techs and hold on to existing ones. Given the choice, most technicians would prefer to work on a vehicle standing up with easy access to tools and other equipment. Investing in high-quality shop equipment contributes to good morale, lower absenteeism and a professional attitude.

# How to Choose the Right Lift for You.

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# CHOOSING THE RIGHT LIFT

There are many factors you should consider when choosing vehicle lifts. Consider them all before making your selections.

**Types, sizes and weights of vehicles to lift.** Consider lifting capacity and available accessories. And remember to plan for any new vehicles that might be added to the fleet.

**Services performed.** The style of lift you choose can have a significant impact on the speed and quality of the work you perform. Some lifts will help you get the job done. The right lifts will help you get the job done with little hassle and in the shortest time possible.

**Facility layout.** Major considerations include space availability, traffic flow, concrete and soil quality, vehicle lengths, turning radius and whether the facility is leased or owned. Your goal is to find the optimal design for the available space.

**Budget.** When comparing the cost of lifts, look at the overall cost of ownership, not just the initial purchase price. The costs of repairs and downtime from a low-priced lift can easily outweigh any upfront savings.



# Types of Light-Duty Lifts

As a reminder, there are five main types of lifts used in service and repair bays:

- Inground lifts
- Two-post lifts
- Four-post lifts
- Scissor lifts
- Low-rise lifts

## Inground Lifts

An inground lift is the top choice of car dealers and independent service facilities that want to maximize their space. This design provides the best access to the various maintenance items on a vehicle in the most ergonomic, space-efficient way. It comes with one or two posts and are available with a wide range of vehicle contact configurations, including three-stage arms and pad adapters.

### Typical uses:

Most preventative maintenance and repair tasks; usually an option for new construction or expansions

### Features and benefits:

- Speeds the performance of service and maintenance of components located on the vehicle's undercarriage
- Provides unobstructed access to all vehicle service areas
- Provides more working room around and under the vehicle
- Wheels hang free for wheel, brake, steering and suspension work
- Retracts into the ground when not in use, so the bay is free of obstructions
- Occupies less space than surface lifts
- Immediately frees the wheels once the vehicle is lifted
- Gives the shop an open, clean, streamlined appearance that conveys a "first class" impression on customers
- Easy to move vehicles around
- Most productive lift design
- Eliminates environmental concerns with its modern design
- Lifespan of 30 years or more

### Drawbacks:

- Inground lifts have a higher installation cost than surface lifts
- Location is fixed
- Inground lifts are difficult to relocate
- Posts may get in the way when attempting to remove axles
- Older inground lifts may leak hydraulic oil into the ground and can be harder to maintain and repair

## PRODUCT PROFILE: THE ROTARY SMARTLIFT® SL210SW WITH SHOCKWAVE™



**LEARN MORE ABOUT  
THE SL210SW**

The Rotary SmartLift® SL210SW equipped with Shockwave™ is the industry's only in-ground lift proven to boost productivity and bay revenue for your shop. It's environmentally friendly, it has a capacity of 10,000 pounds and it was designed specifically for bays where speed is paramount.

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**2x faster rise and descent.** Every Shockwave™ equipped SmartLift comes with our patented 110v DC power system, which includes a built-in battery charger for accelerated productivity.

**Spotline™ motion-activated laser.** Spot vehicles correctly the first time. Center vehicles in bays quickly with this laser-guided system.

**Patented Easy Access™ cylinders.** All routine cylinder maintenance can be done at floor level, reducing downtime and preserving bay revenue.

**Versatile TRIO™ arm adapters.** Get three arm configurations in one arm design to accommodate a wide range of vehicles.

**Environmentally friendly design.** No EPA concerns here. SmartLifts are fully contained in a single-piece polymer composite housing.

**Exclusive Smartguard® plungers.** Prevent corrosion and increase the service life of your lift.

**Exclusive locking system.** Get maximum corrosion resistance and service life with this patented polymer and stainless air cylinder.

**ALI Gold Certified.** This lift has been tested to ensure it meets the highest industry safety standards.

## Two-Post Lifts

The most widely used vehicle lift style in the world, the two-post lift features two sets of lifting arms attached to two columns. This style is available in asymmetrical and symmetrical designs. When the vehicle is parked between the columns, you manually position the arms to lift the vehicle at designated pickup points on the frame. Be sure to evenly distribute the weight. For example, a 12,000-pound lift should be carrying 3,000 pounds of weight per arm. Capacities range from 7,000 to 20,000 pounds.

### Typical uses:

Most preventative maintenance and repair tasks

### Features and benefits:

- Lower initial costs, including installation
- Easy access to most of the vehicle undercarriage and drivetrain
- Wheels hang free for wheel, brake, steering and suspension work
- Fast installation with no digging
- Available adapters make it possible to lift a variety of vehicles
- Easy to maintain
- Easily moved or relocated
- Environmentally friendly because there is no fluid below ground
- Available with a wide range of vehicle contact configurations for maximum flexibility
- Extended-height models available for taller vehicles
- Low-ceiling models available for shops with ceilings as low as 10 feet

### Drawbacks:

- Columns can damage doors or restrict access to the vehicle's passenger compartment
- Overhead bar can limit lifting heights on taller vehicles
- Lift is less efficient at times due to less room for technicians to work
- Lifespan of 10-15 years is shorter than inground lifts
- Ceiling height for installation needs to be considered

# PRODUCT PROFILE: THE ROTARY SPOA10



**LEARN MORE ABOUT  
THE SPOA10**

The Rotary SPOA10 two-post lift is the world's best-selling asymmetrical lift, with a wide range of features to accommodate more kinds of vehicles. It's available with standard arms and adapters, as well as TRIO™ arms and adapters. It has a capacity of 10,000 pounds.

**TRIO™ three-stage arms.** Our patented two-piece, three-stage arm accommodates a wider range of vehicles.

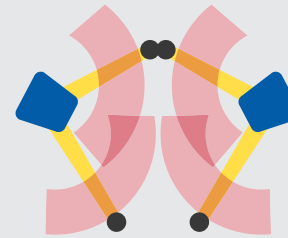
**Option for 2x faster rise and descent.** Add Shockwave™ for our patented 110v DC power system, which includes a built-in battery charger for accelerated productivity.

**Adjustable height options.** Column extensions give you the flexibility to lift and service taller vehicles.

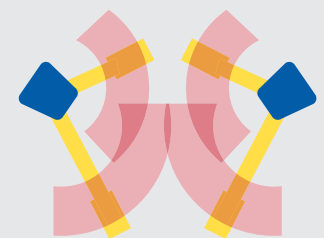
**ALI Gold Certified.** This lift has been tested to ensure it meets the highest industry safety standards.

## About TRIO™ three-stage arms.

TRIO arms have three telescoping sections to provide a greater “sweep” area and make better contact with more vehicles’ designated lift points.



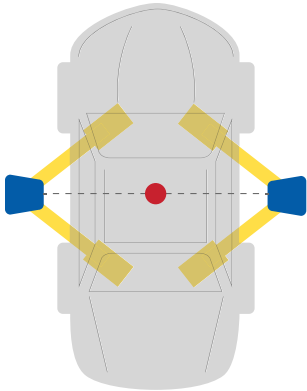
Three-Stage Front and  
Two-Stage Rear Arms



Two-Stage Front  
and Rear Arms

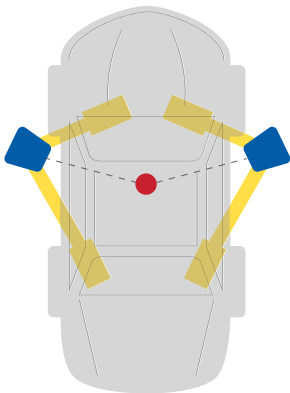
## Symmetrical vs. asymmetrical columns

Two-post lifts are available in symmetrical and asymmetrical designs. Depending on the services performed in your shop, one or the other will be ideal. Check out the differences below and be sure to confirm with your distributor before you purchase.



### Symmetrical

- All four arms are the same length.
- Columns are parallel and face each other squarely.
- Center of gravity is directly between the two posts.
- Front doors are blocked by the posts.
- Vehicle interior has limited access.



### Asymmetrical

- Front arms are slightly shorter than the back arms.
- Columns are rotated 30 degrees, so columns are angled outward slightly.
- Front doors are not blocked by the posts.
- Vehicle interior has better access.

● = Center of gravity

## Four-Post Lifts

When using a four-post lift, you simply drive onto runways situated between the posts and then lift the vehicle. There's no setup required, and a mechanic can have a car ready for service in about 60 seconds. A four-post lift can also be outfitted with rolling jacks that allow you to lift the front, rear or all wheels off of the runway by the axles. You can also equip it with alignment kits. Capacity for a four-post lift ranges from 14,000 to 30,000 pounds.

### Typical uses:

Fast-turn service, such as oil changes, center undercarriage and exhaust work, alignments, and tasks requiring loaded suspensions

### Features and benefits:

- Available in a variety of lengths and lifting capacities with adjustable runway track widths to accommodate most vehicles
- Very versatile when equipped with rolling jacks, which allow you to perform brake, tire and suspension work
- Can be equipped to perform alignments and front-end adjustments
- Fast and easy installation
- Easier for technicians to drive and position vehicle onto if uncomfortable with spotting
- Can be configured as a drive-through model to drive vehicles on and off lift
- Lower initial costs
- Installation requires no digging
- Easy to maintain
- Can be moved or relocated
- Environmentally friendly because there is no fluid below ground

### Drawbacks:

- Requires a fairly large area
- Greater approach area can impede traffic flow
- Columns and runways limit walk-through space and access to the vehicle
- Crossbeams can hinder front-end work
- Lifespan of 10-15 years is shorter than that of an inground lift

## PRODUCT PROFILE: THE ROTARY ARO14SW



**LEARN MORE ABOUT  
THE ARO14SW**

The Rotary ARO14SW is an open-front, Shockwave™ equipped four-post lift. It has a capacity of 14,000 pounds to service a wide variety of vehicles.

**2x faster rise and descent than a standard four-post lift.** The Shockwave™ power system gives you lower cost and more reliable operation. The built-in battery charger uses 110v power, eliminating the need for expensive 20v wiring.

**Open-end design.** Allows greater vehicle access and enhanced productivity.

**Dual-function Sentinel Lock™ system.** Sentinel Lock™ is a slack-cable guide arm that stays “on guard” to manage the lock latch. In a slack-cable situation, the lock system kicks the lock into position. Fewer parts means less opportunity for service issues and more peace of mind.

**Single-piece non-welded runway with tracks for rolling jacks.** Provides strength and extra durability.

**Air filter/regulator/lubricator.** Makes clean, lubricated air, which will extend the life of your lift and air-powered tools.

**Compatible with the newest technology alignment systems on the market today.** Bolster your service offerings and boost your bottom line by adding alignment equipment that’s easy and safe to use.

**ALI Gold Certified.** This lift has been tested to ensure it meets the highest industry safety standards.



## Scissor Lifts

A scissor lift uses a scissor design to lift the vehicle without the need for permanent columns. It's available as a pad-contact model for quick-lifting operations or with wheel-engaging runways for easy drive-on lifting. Alignment models are available.

### Typical uses:

Fast-turn services, such as oil changes; center undercarriage, brake and exhaust work; tire mounting and rotation

### Features and benefits:

- Lift lays close to the floor when lowered for a clean appearance because there are no permanent columns
- Offers many of the benefits of a four-post lift, but with a smaller footprint
- Can be portable for added versatility
- Provides good access to the center of the vehicle's undercarriage, as well as the outside of the vehicle
- Can accommodate short or long wheelbases
- Can be equipped to perform alignments and front-end adjustments
- Accepts rolling jacks and swing air jacks for wheel service
- Fast and easy setup for enhanced productivity
- Open front and rear
- Lower initial costs
- Fast installation with no digging
- Easy to maintain
- Can be moved or relocated if necessary
- Environmentally friendly with no fluid below ground

### Drawbacks:

- Greater approach area can impede traffic flow
- Scissors apparatus and base limit technicians' working space and access to the vehicle

## PRODUCT PROFILE: THE ROTARY XA14



**LEARN MORE ABOUT  
THE XA14**

The Rotary XA14 is a versatile, alignment-ready scissor lift with a 14,000-pound capacity. The lift's front-radius gauge area has an extended, lengthened recess where multiple plates can be configured for vehicles with longer wheelbases. This configuration can handle vehicles with wheelbases as little as 85.5 inches to larger trucks and vehicles up to 198 inches.

**Open front and rear design.** Space-saving working clearance and easy movement for accessing multi-bay projects and tool boxes and when making wheel alignment adjustments.

**Two turning radius gauges included.** Plus, easy-to-use adjustable spacers for radius gauges—the ultimate in wheelbase flexibility.

**Automatic rear wheel chocks.** The chocks engage when the lift is raised, and release when lowered.

**Robust hydraulic system.** Simple, reliable hydraulic system maintains level platforms during entire lifting cycle.

**Intuitive console controls.** A simple control unit built with robust, simple buttons and switches for long life. Includes single-point rear slip-lock switch.

**40 inches between platforms.** Greater access for your technicians means greater productivity.

**ALI Gold Certified.** This lift has been tested to ensure it meets the highest industry safety standards.

## Low-Rise Lifts

A low-rise lift is designed to raise vehicles two to four feet off the ground. Pad-contact configurations are used for quick-lifting operations. Runways and frame-contact lifting arm configurations are also available. It is often portable, so the lift can be rolled around the shop or even outside for use as needed.

### Typical uses:

Wheel, tire, brake and body work, new car prep, detailing, inspections, and estimating

### Features and benefits:

- Fits under low ceilings
- Can be used outside to increase available working space
- Ergonomically correct positioning for work around the outside of the vehicle and limited undercar work
- Low profile when lowered
- Inexpensive and portable
- Provides more productivity than using jacks

### Drawbacks:

- Not a full-service lift
- Can't be used for most undercar maintenance and repair

## PRODUCT PROFILE: THE ROTARY VLXS10



**LEARN MORE ABOUT  
THE VLXS10**

The Rotary VLXS10 is your solution for quick service operation on today's passenger cars and trucks up to 10,000 pounds. Tire and brake work can now be performed on a wider variety of vehicles, thanks to the lift's pads, adapters, wider drive-over capability and increased lifting capacity.

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**Drive-over ramps and side rails.** Get the width to support wider vehicles during approach.

**Dual lifting cylinders.** Have plenty of power to lift vehicles to capacity.

**Four heat-resistant, non-slip pads.** Enjoy a greater contact surface for adapters or vehicle pickup points.

**ALI Gold Certified.** This lift has been tested to ensure it meets the highest industry safety standards.

# How to Evaluate Lift Manufacturers

When choosing a new lift, it is just as important to evaluate the lift manufacturer as the lift itself. A good manufacturer will provide you with the support you need to build and maintain a strong business. With so much riding on your lifts, buying based on price alone can be an expensive risk.

**There are many factors you should consider when evaluating a lift brand or manufacturer. Consider them all before making your selections.**

**Company reputation.** Ask the manufacturer's representative for a list of references from businesses similar to yours. Talk to your distributor about lift manufacturers they have bought from in the past to find out which companies take care of their customers and build products that last.

**Company history.** A company's history can give you an idea of what to expect in the future. How long has the company been in the lift business? Does it have a history of developing innovative new products to better serve customers?

**Financial stability.** You want to buy from a lift manufacturer that will be in business for the life of your lift. Ask colleagues if they have seen any signs of trouble with the manufacturers they have purchased from.

**Company focus and depth of product line.** Are lifts the company's core business? Does the manufacturer offer a variety of lift styles and offer arm, adaptor and capacity options? If you need more than one lift style, it's much easier to buy them from a single manufacturer.

**Commitment to quality.** Does the manufacturer belong to the Automotive Lift Institute (ALI)? Are its products certified to the latest safety standards? What controls does the company have in place to ensure manufacturing consistency and quality?

**Engineering and design.** Does the company do all of its product design and engineering in-house or is some of it outsourced? Does the company life-cycle test its lifts for durability and robustness?

**Service and support.** Does the company offer its products through an extensive network of factory-trained and certified service providers who are fully equipped to provide installation, service and repair?

**Parts availability.** Are genuine OE replacement parts available right away from a local distributor or do you have to wait for them to be shipped to you? Does the manufacturer use a computerized parts system to constantly maintain an appropriate inventory of parts?

**Warranty.** Ask for a written copy of the warranty. It should clearly state which components are covered and under what conditions. Does the manufacturer offer the opportunity to purchase an extended warranty?

**Liability insurance.** A solid company will have the financial resources to back its products. The best companies cover their authorized installers under an umbrella policy, as well.

**Environmental awareness.** What steps has the manufacturer taken to reduce its impact on the environment? Have any of its products been third-party certified to meet independent environmental standards?

**Training materials.** A reputable lift manufacturer will offer a variety of training materials to help train your technicians on the proper and safe use of vehicle lifts.

**Facility planning assistance.** Will the manufacturer help you and your architect choose and arrange the best lifts to maximize efficiency for your facility?

## Look for the gold ALI seal.

The Automotive Lift Institute (ALI) is an industry trade association founded by vehicle lift manufacturers in 1945 in North America. ALI sponsors a certification program for vehicle lifts. Intertek Testing Services (ETL), an independent, worldwide testing organization, manages the program and conducts third-party tests of vehicle lifts to determine whether they meet safety and performance standards.

### This testing includes verification of:

- Structural integrity of all the lift's systems and components
- Proper function of its controls and load-holding devices
- Proper lowering speeds
- Overload protection
- Instructional materials that meet the requirements



Lifts that are tested and found to meet all of the requirements outlined in the ANSI standards receive a gold “ALI Certified/Validated by ETL” label. Only lifts that have passed testing by an independent, nationally recognized testing laboratory like ETL can use this label.



# So You've Purchased a Lift.... Now What?

Once you've selected a quality lift that can meet the needs of your business today and in the future, there are certain things you must do to make the most of your investment. The choices you make with regard to installation, regular inspection and maintenance can have a big impact on the life of your lift and the uptime you get out of it.

## Lift Installation

When you're in the market for a new vehicle lift, your first call should be to your local lift distributor. A relationship with a distributor should last well past your initial purchase. The distributor is your one-stop shop for accessories, service, OE replacement parts, yearly inspections and professional installation.

### You should work with a professional installer who is:

**Factory authorized.** These representatives will have access to the most current product, installation and service information available. Using a factory-authorized installer can also mean enhanced warranty protection and installation guarantees for your new lifts.

**Fully insured.** A trustworthy installer should have adequate liability insurance, as well as workman's compensation coverage.

**Available for future repairs and maintenance.** Your installer should have an adequate inventory of OE replacement parts on-site to get lifts back up and running as quickly as possible. They should also work around your schedule to find times that are best for your operation.

## Lift Maintenance

ALI reports that one of the leading causes of accidents involving vehicle lifts are caused by a lack of lift inspection and maintenance. Maintenance is a matter of safety, productivity and profitability.

To keep your lifts functioning properly for a lifetime of service, follow the specific maintenance, adjustment and lubrication recommendations provided for each lift by the manufacturer. Maintenance intervals and routines vary by lift, so it's important to adjust your maintenance procedures if necessary when you buy new lifts.

### Above all, make sure to:

**Schedule annual lift inspections.** Your technicians should perform a [quick, daily inspection](#) of the lifts they use at the start of every shift. All of your lifts need to be inspected annually by a qualified service company.

**Use OE replacement parts.** OE parts are designed with the exact tolerances and material strength required for a specific lift. Because they come from the lift manufacturer, they also incorporate the latest design updates and improvements.

## Lift Training

Once vehicle lifts are installed, it is crucial that the operating technicians know how to use them correctly. No one should operate a vehicle lift without being trained. Ask your lift manufacturer's representative for training and maintenance materials. You should receive an owner's manual outlining operating instructions for each lift that you purchase.

All lifts from ALI member manufacturers will also come with a safety tips placard and warning labels. These materials should be posted where they are easily seen by lift operators every day. Your local lift distributor may also offer operator training. Be sure to document your facility's operator training, lift inspections and lift maintenance. Inspectors may ask to see these logs.

### General safety tips:

- Never guess how to properly position and lift a vehicle.
- Never overload a lift beyond its maximum capacity.
- Before moving a vehicle onto or off of a lift, make sure the area is clear of any obstructions, including lift arms, tools, equipment, cords and hoses.
- Never raise a vehicle with anyone in it.
- Inspect the vehicle lift daily before use. Do not use if it has damaged parts or is not working properly.
- Do not make any modifications to the lift.
- Always remain at the controls while the lift is moving.

# Why Rotary?

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With an uncompromising commitment to product quality, testing and safety, Rotary Lift is the world's most trusted lift.

Since 1925, Rotary Lift engineers have used customer feedback and product testing to design lifts that are durable, powerful, productive and environmentally friendly.

**Our history.** Rotary Lift was founded in 1925 by Peter Lunati, a car mechanic in Memphis, Tennessee, who invented the first automotive hydraulic lift. Lunati was inspired by a barber chair rising in the air. Today, there are more Rotary Lift professional vehicle lifts used in repair shops around the world than any other brand.

**Quality engineering.** Rotary Lift representatives work closely with car designers to establish pick-up points for future products. This “upstream engineering” ensures that Rotary Lift lifts are able to safely and efficiently pick up any new vehicle when it debuts.

**Reliability.** Rotary rigorously cycle tests its lifts and components for at least 20,000 cycles at a rated load, giving you a reliable, proven and quality-tested lift that won't let you down.

**Our distributor network.** Rotary Authorized Installers and Distributors are your first line of service for lifts and parts. They give customers access to Genuine Rotary Parts™, ALI Certified Lift inspections and factory authorized installation.

For most shops, vehicle lifts are a major investment. And they're an investment that will affect your revenue for years to come. Don't take your decision lightly, and use all of the resources available when making your decision. That includes the experienced distributors from Rotary. They can help you evaluate your needs and make the right decision for your shop now and in its future. Contact one in your area or get in touch at [RotaryLift.com](http://RotaryLift.com).

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