HOME LIFTS

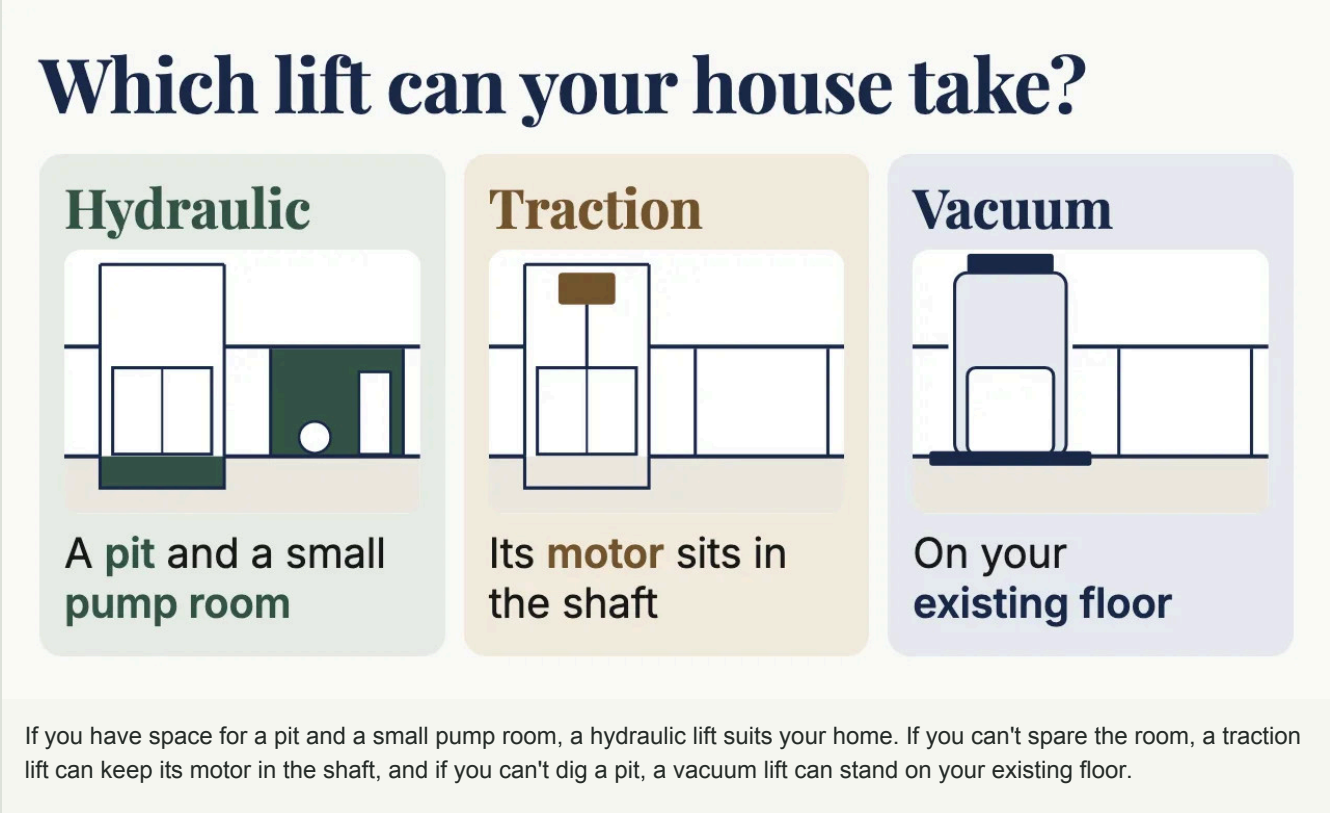
Hydraulic, traction or vacuum lift for your home?

By DirectHome Team Updated 24 October 2026 13 min read Explore our home lifts service ↗

A hydraulic lift like Savaria's Infinity suits your home if there's space for a pit under the lift and a small room for its pump and oil tank. If you can't spare the room, a traction lift can keep its motor in the shaft. If you can't dig a pit, a vacuum lift can stand on your existing floor.

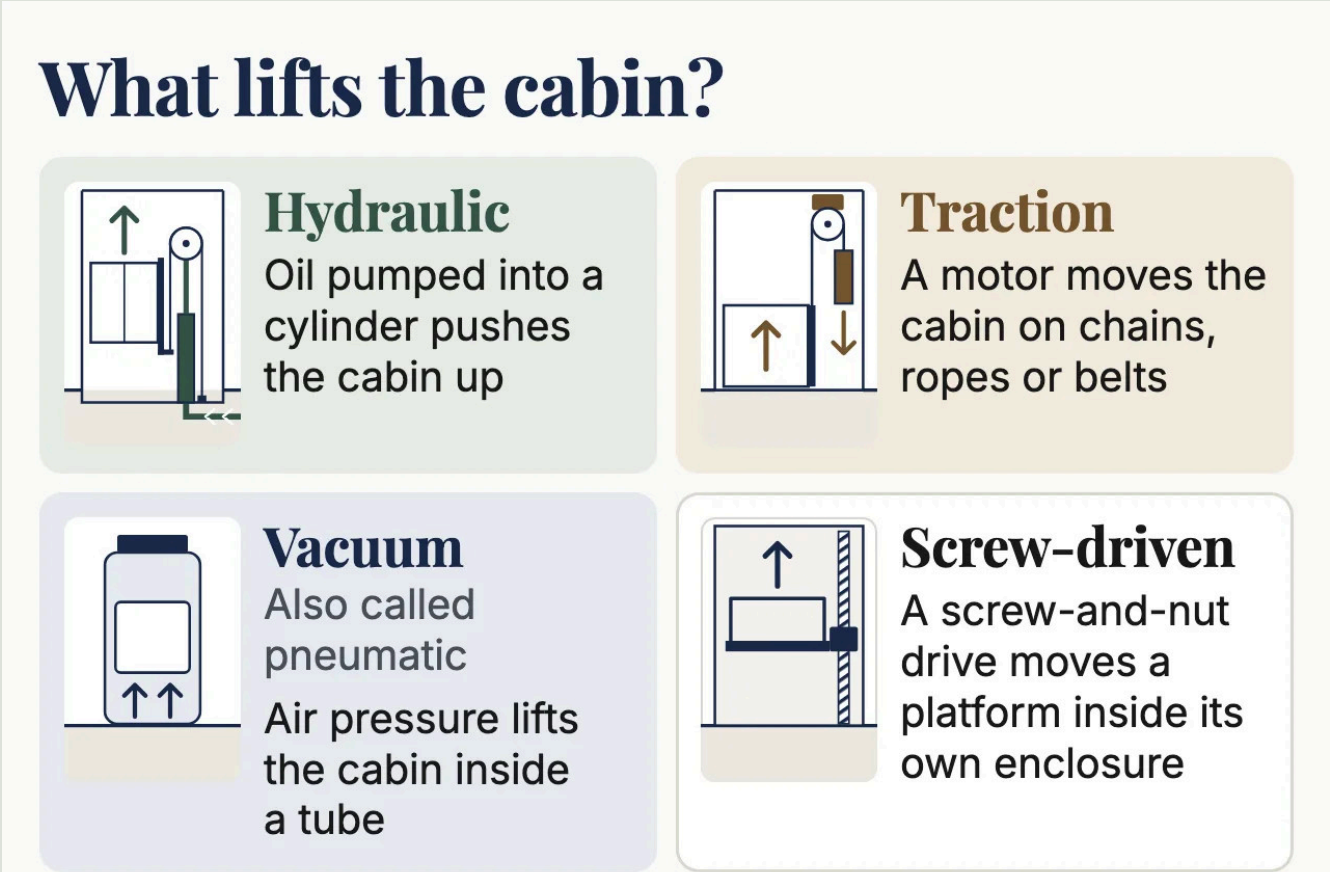
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If you have space for a pit and a small pump room, a hydraulic lift suits your home. If you can't spare the room, a traction lift can keep its motor in the shaft, and if you can't dig a pit, a vacuum lift can stand on your existing floor.

Different Drive Mechanisms and Model-Specific Layouts



What sets the four types apart is what lifts the cabin. Oil pumped into a cylinder pushes it up, a motor moves it on chains, ropes or belts, air pressure lifts it inside a tube, or a screw-and-nut drive moves a platform inside the lift's own enclosure.

For a home, the three main types are hydraulic, traction and vacuum lifts, which is how one vacuum-lift maker, Pneumatic Vacuum Elevators (PVE), sums up the market. A fourth, the screw-driven platform lift, can go in with almost no pit, so it's compared here too.

What sets them apart is what lifts the cabin:

- **Hydraulic:** oil pumped into a cylinder pushes the cabin up.
- **Traction:** a motor moves the cabin on chains, ropes or belts.
- **Vacuum, also called pneumatic:** air pressure lifts the cabin inside a tube.
- **Screw-driven:** a screw-and-nut drive moves a platform inside the lift's own enclosure.

Each maker builds its type differently, so the sizes on this page come from one published model of each: Savaria's Infinity (hydraulic) and Eclipse (traction), PVE's PVE52 (vacuum) and Aritco's HomeLift (screw-driven). Those sizes decide which home lift your house can take.

Hydraulic lifts run on electricity too

A hydraulic lift isn't the opposite of an electric one. Its pump is driven by an electric motor, and every other type here runs on electricity too.

Speed barely separates them in Savaria's range, where the hydraulic Infinity runs at 0.18 m/s and the chain-traction Eclipse at 0.20 m/s.

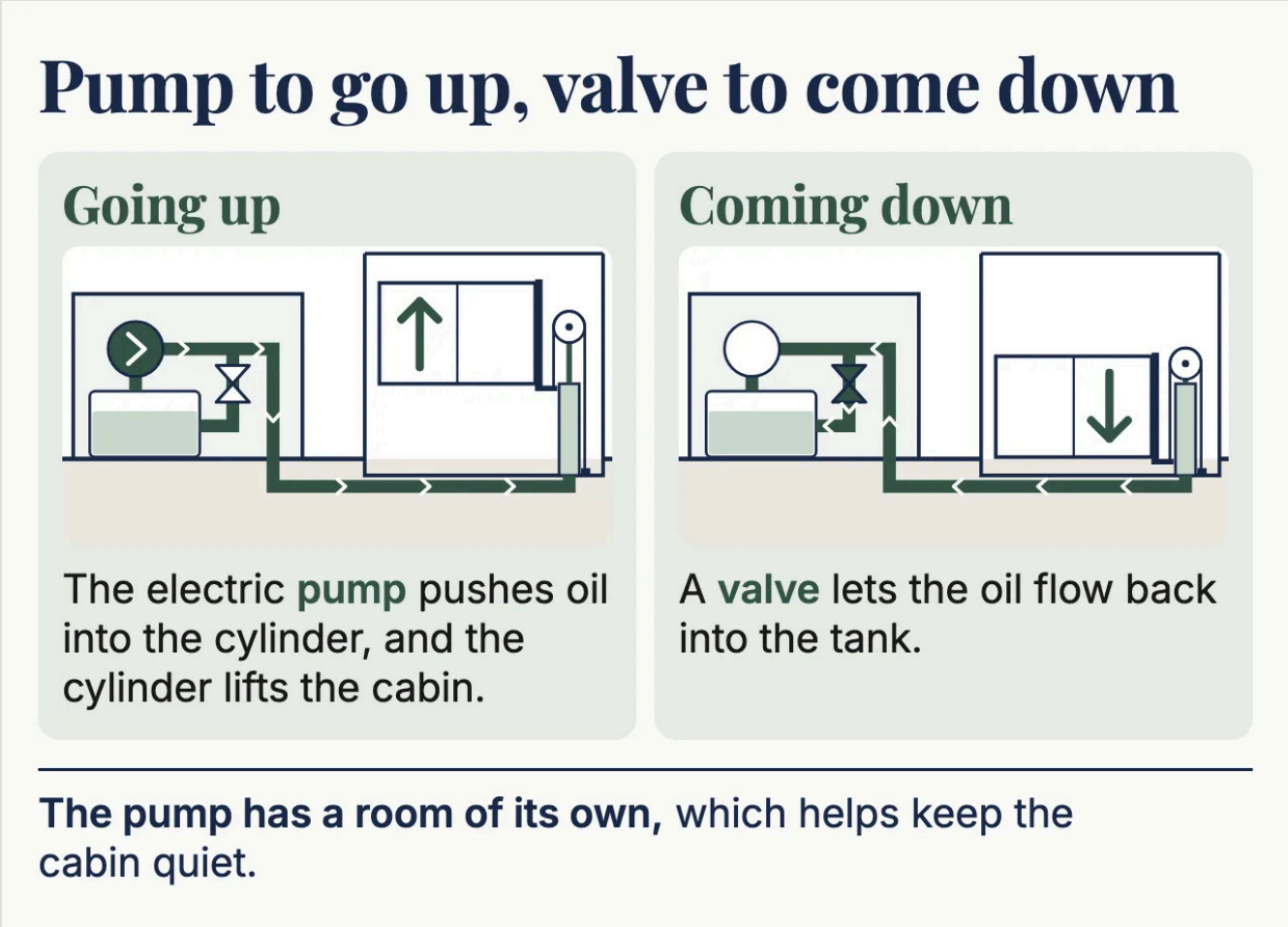
So choose a hydraulic lift like the Infinity if you can give its pump a room away from the cabin, which helps keep it quiet inside. If you can't spare the room, look at a traction, vacuum or screw-driven lift instead.

Lift or elevator, the name doesn't tell you the type

There's no fixed difference between a home lift and a home elevator. PVE's own page for the PVE52 calls its vacuum lifts both home elevators and home lifts, and the lift rules from Singapore's Building and Construction Authority (BCA) simply say lift.

So go by the type and model written on the quote, not the name on the brochure.

How a hydraulic home lift uses its cylinder and pump



An electric pump in its own room pushes oil into the cylinder, and the cylinder lifts the cabin. To bring it down, a valve lets the oil flow back into the tank.

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Savaria's Infinity is a hydraulic home lift, and its planning guide asks for:

- **A pit at least 203 mm deep** under the lift.
- **2337 mm of clear height above the top floor**, for the standard 2032 mm-high cabin.
- **A machine room about 1.2 by 1.5 m** for the oil tank and controller. The tank cabinet alone is 1295 mm tall, 711 mm wide and 432 mm deep.
- **A power circuit of its own**, 40 amps at 220 volts for lifts outside North America.

Keeping the pump in that separate room helps keep the cabin quiet. The maker's planning guide allows the tank without a machine room only with the local authority's approval, so plan for the room unless your approved lift plans say otherwise.

Keep the pump room cool

The maker's planning guide asks for the machine room to be ventilated to stay between **18°C and 25°C**, and for each landing to be climate-controlled so the lift runs at its best.

If the pump would sit in a store room or an outdoor space without air-conditioning, ask how the model will be kept in that range before you settle on it.

Servicing includes the oil

A hydraulic lift adds oil checks to each service. The maker's owner's manual for the Infinity lists checking the hoses and pipes for leaks, topping up the oil in the pump tank, and checking the cylinder for leaks, with its seals replaced when needed.

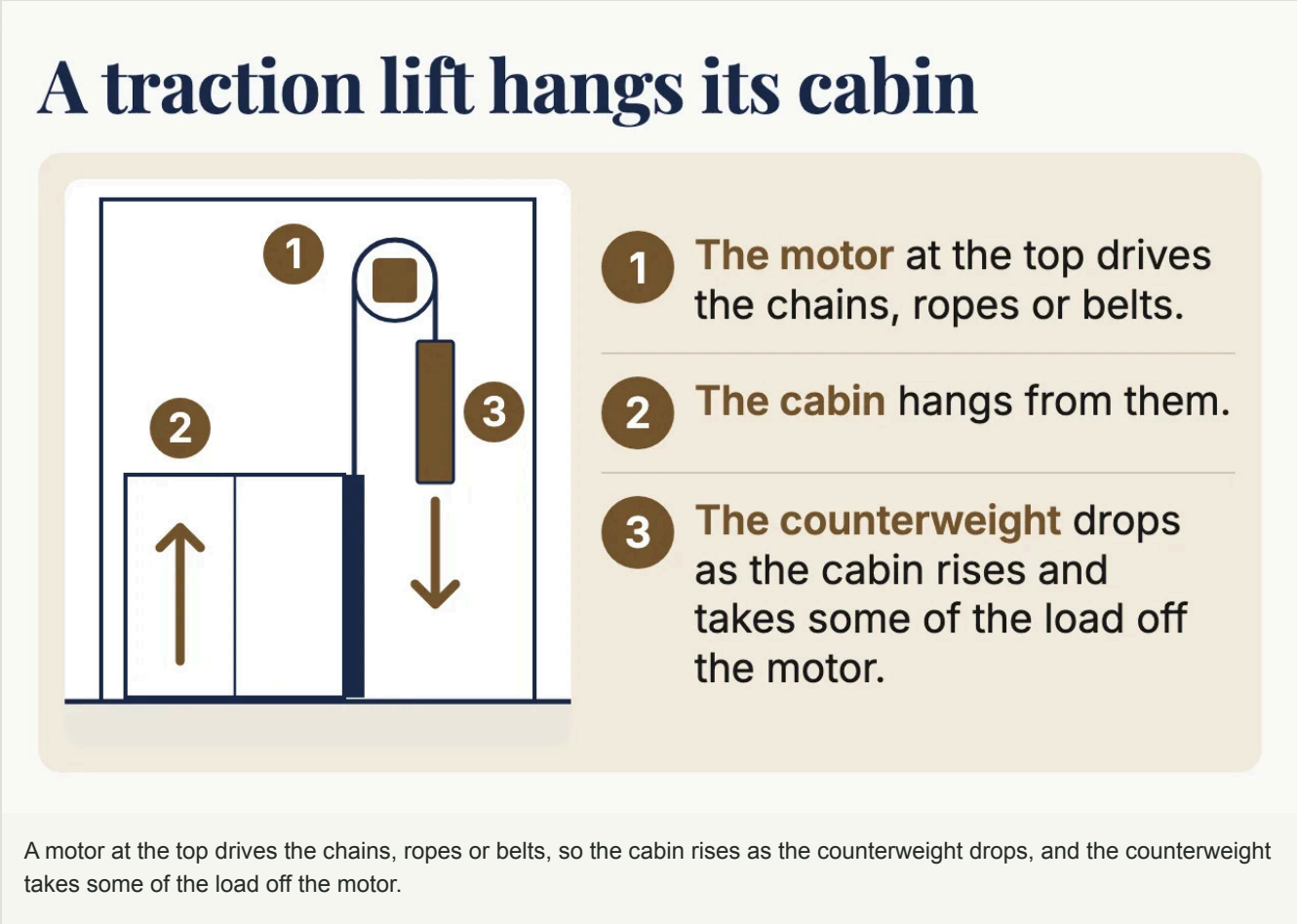
Our guide to home lift maintenance costs shows what a service plan should cover.

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How a traction lift is driven and suspended



A motor at the top drives the chains, ropes or belts, so the cabin rises as the counterweight drops, and the counterweight takes some of the load off the motor.

A traction lift hangs its cabin from chains, ropes or belts, and a motor drives them to move it up and down. A counterweight can take some of the load off the motor.

Savaria's Eclipse is a chain-driven traction lift for homes, and here's what it needs:

- **No machine room.** The motor sits at the top, and the controller fits in a small closet.
- **A pit of 203 mm**, the recommended depth, though as little as 152 mm may be possible.
- **2438 mm of clear height above the top floor.**
- **The same cabin sizes as the Infinity**, from 914 × 1219 mm, rated for 431 or 454 kg.

Adding a lift to a finished house? Our guide to choosing hydraulic or traction for a retrofit walks through the pit and headroom checks.

With or without a machine room, the space goes somewhere

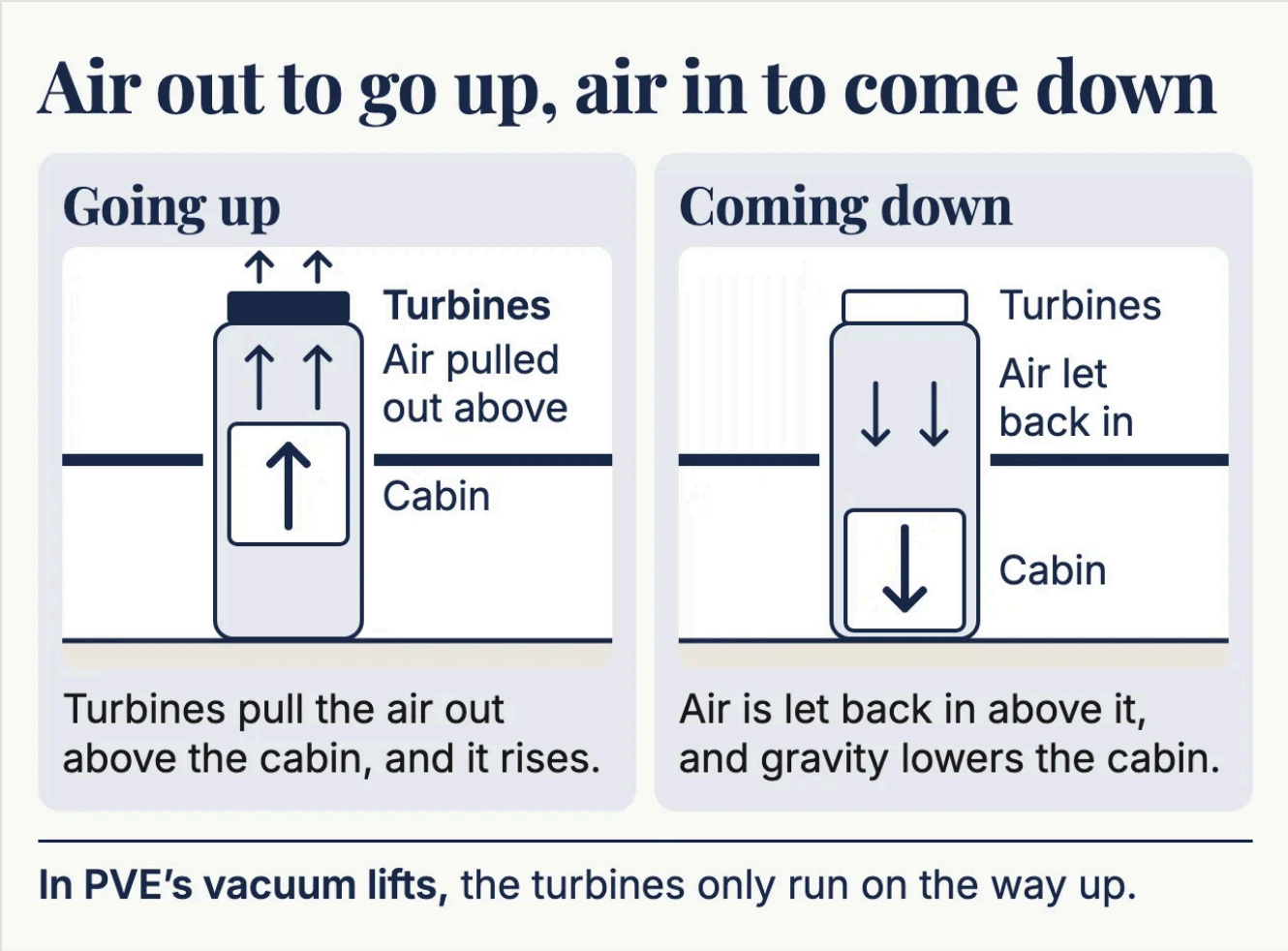
A lift without a machine room (MRL) isn't automatically better than one with a machine room (MR). The maker's two models show the trade:

- **The Infinity (MR)** needs a room about 1.2 by 1.5 m, but only 2337 mm above the top floor.

- **The Eclipse (MRL)** needs no room, but 2438 mm above the top floor, 101 mm more, and a small closet for its controller.

Pick a machine room if you have a store room or utility corner to give up and want the drive away from the cabin. **Pick MRL** if every room is spoken for and your top floor has the height.

How a vacuum or pneumatic lift rides on air pressure in its own tube



Turbines pull the air out above the cabin, so it rises up the tube. To come down, air is let back in above it and gravity lowers the cabin, so the turbines in PVE's vacuum lifts only run on the way up.

A vacuum lift, also called a pneumatic lift, rises when turbines pull the air out above the cabin. To come down, air is let back in above it and gravity lowers the cabin, so the turbines in PVE's vacuum lifts only run on the way up.

The tube holds itself up, and PVE's PVE52 vacuum lift needs no pit, shaft or machine room. PVE's technical sheet for the vacuum lift still asks for:

- **A level floor.** The lift rests on your existing floor, which has to be completely level.

- **A hole through each floor** about 1389 mm across.
- **2718 mm of clear height above the top floor**, or 2464 mm if the machinery is moved elsewhere.
- **A power circuit of its own**, 40 amps at 220 to 240 volts.

What keeps a vacuum lift safe

The PVE52 vacuum lift's technical sheet lists a safeguard for each thing you'd worry about:

- **A power cut:** the cabin descends to the ground floor by itself at a safe speed.
- **A loss of vacuum:** mechanical brakes catch the cabin within two inches, about 50 mm, if it starts to fall.
- **The doors:** each landing door has its own electromechanical lock, and the lift has an alarm system and a telephone.

Put the machinery away from bedrooms

The PVE52's machinery normally sits on top of the tube, on your top floor. The maker's split unit moves it up to about 9 m away through two pipes about 100 mm wide, and PVE lists lower noise inside your home as one of its benefits.

If the top of the tube would sit outside a bedroom, ask for the split unit. If the machinery goes outdoors, the maker requires the controller to stay indoors in a temperature-controlled space.

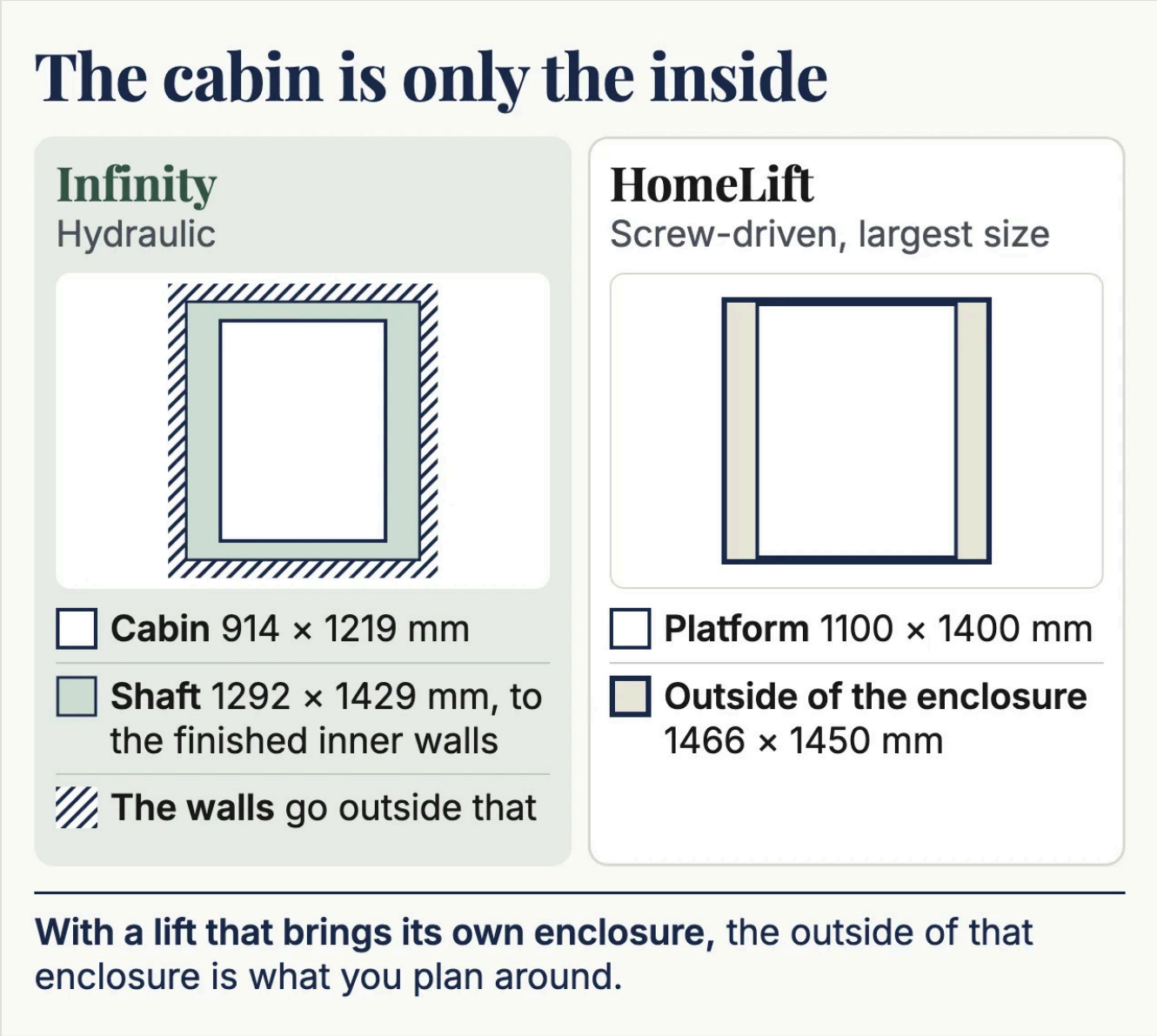
Alternatives to a vacuum or pneumatic lift

If the round cabin won't take your wheelchair, or a tube doesn't suit the room, these are the alternatives, and when each one makes sense:

- **A screw-driven platform lift** if you still can't dig. Aritco's HomeLift sits in a 37 mm recess, or on the floor with a ramp, and needs no machine room.
- **A traction lift** if you want a conventional cabin and can dig a shallow pit, like the 203 mm the Eclipse recommends.
- **A hydraulic lift** like the Infinity if you can dig that pit and also spare a small room for its pump and oil tank.

Our no-pit home lift guide compares the options that avoid digging in more detail.

Space Requirements Compared



The cabin is only the inside. With the Infinity, you plan around a 1292 × 1429 mm shaft plus its walls, and with the largest HomeLift, around its 1466 × 1450 mm enclosure.

Side by side, the four models differ most in what they ask of the building: the pit, the height above your top floor and a place for the machinery.

Each maker's published figures for these models, checked in October 2026. The drawings for your own lift set the final sizes.

Model and type	Space for people	Pit	Clear height above the top floor	Machinery
Infinity, hydraulic	914 × 1219 mm cabin and up; 340 to 454 kg	At least 203 mm	2337 mm with the standard cabin	Oil tank and controller in a room about 1.2 × 1.5 m
Eclipse, chain traction	914 × 1219 mm cabin and up; 431 or 454 kg	203 mm recommended; 152 mm may be possible	2438 mm	Motor at the top of the shaft; controller in a small closet
PVE52, vacuum	Round cabin 1118 mm across; about 238 kg; 813 mm entrance	None, on a level floor	2718 mm, or 2464 mm with the split unit	On top of the tube, or up to about 9 m away
HomeLift, screw-driven	Platforms from 600 × 830 mm to 1100 × 1400 mm; 250 to 400 kg	37 mm recess, or none with a ramp	At least 2225 mm	Built into the lift; no machine room

The cabin is only the inside. On Savaria's planning drawing, the Infinity's 914 × 1219 mm cabin sits inside a 1292 × 1429 mm shaft, measured to the finished inner walls, and the walls go outside that.

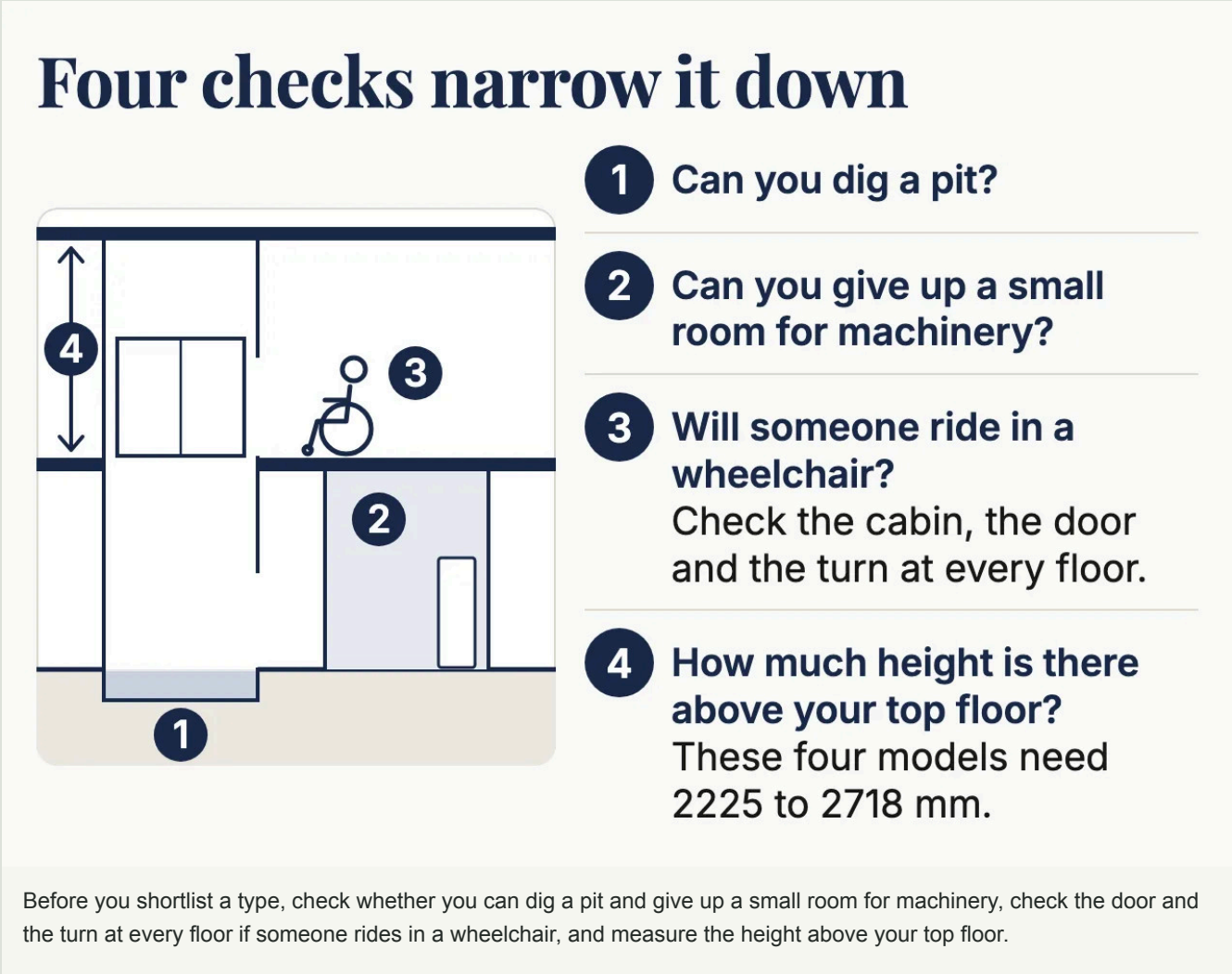
With a lift that brings its own enclosure, the outside of that enclosure is what you plan around. Aritco's largest HomeLift, for example, fits a 1100 × 1400 mm platform inside a 1466 × 1450 mm enclosure.

Our guide to home lift shaft dimensions shows how to read each of these sizes on a drawing, so every quote is measured the same way.

If someone will ride in a wheelchair, measure the chair with them in it, then check the door and the turn at each floor. The PVE52 vacuum lift takes two people when one is in a wheelchair, but its maker warns that not every wheelchair fits, so try yours in one first.

Our guide to wheelchair-accessible home lifts shows what to measure.

Which Should You Choose?



Before you shortlist a type, check whether you can dig a pit and give up a small room for machinery, check the door and the turn at every floor if someone rides in a wheelchair, and measure the height above your top floor.

The best type of lift for your home is the one your house can take and the person using it can ride easily. Four checks narrow it down:

1. **Can you dig a pit?** If not, look at a vacuum lift or a screw-driven platform lift, which can go in without one.
2. **Can you give up a small room for machinery?** If yes, a hydraulic lift like the Infinity keeps its pump and oil tank there. If not, pick a type with the machinery in the shaft or built in.
3. **Will someone ride in a wheelchair?** Start from the chair and its user, then check the cabin, the door and the turn at every floor.
4. **How much height is there above your top floor?** The four models here need between 2225 mm and 2718 mm, so measure before you shortlist.

So when is a hydraulic lift for your home the right call? When you're building or rebuilding and can plan a pit and a small, cool room for the pump from the start. In a finished house, check the pit and the pump room first, because a hydraulic lift like the Infinity needs both.

Whichever type you choose, Singapore's rules are the same. You need a valid Permit to Operate before you use the lift, and a BCA-registered contractor services it on the maker's schedule, or every three months if the maker doesn't set one.

It's also inspected and tested every year with an independent specialist engineer or lift inspector present. Our guide to home lift approvals covers the paperwork.

For the whole buying process, from your brief to handover, see our home lift buying guide.

Weighing up a hydraulic lift for your home? Start with a free site assessment. We'll measure your floors and the height above the top floor, check where a pit and a pump room could go, and give you a fixed-price quote within 3 to 5 working days of the visit.

We don't quote from photos, because the slab, the headroom and the space for machinery are what decide which type your house can take.

Frequently asked questions

What you're weighing up	What to compare
Space	The pit, the clear height above your top floor and where the machinery goes
Price	Whole quotes that include the building work each type needs
Noise and electricity	How far the machinery sits from the rooms you use, and each supplier's expected yearly electricity use for your floors and trips

Which home lift type is the cheapest?

Compare whole quotes, not lift prices, because the building work changes with the type. A hydraulic or traction lift like the ones here needs a pit and a shaft built around it, while a vacuum or screw-driven lift brings its own enclosure and needs little or no pit. Ask every quote to price that work, and see our guide to home lift prices for what else moves the price.

Which home lift is best for retrofitting an existing home?

If your ground floor can't be dug up, start with a vacuum lift or a screw-driven platform lift, since neither needs a full pit. Unless the lift goes in an existing void such as a stairwell, it also needs an opening through each upper floor, so have an engineer check your floors before anything is cut; we arrange that engineer for you. To use the stairwell itself, see whether a home lift can fit inside your staircase.

Which home lift type is the quietest?

The quietest set-up keeps the machinery furthest from the rooms you use, like the separate pump room on Savaria's Infinity or the split unit on a PVE vacuum lift. Before you decide, ride a working lift of the model you're quoted and listen from the room next to where its machinery would go. Our guide to home lift noise covers what to plan before the shaft is built.

How can you tell which home lift will use less electricity?

Ask each supplier for the expected yearly use in kWh for your floors and number of trips, then compare those figures. A vacuum lift's motor rating tells your electrician what circuit to run, not what you'll pay, and the same goes for every type. Our running cost guide shows how to budget for the electricity and the yearly upkeep.

What happens to a home lift in a power cut?

Each model here has a way to bring you down to a floor. Savaria's Infinity and Eclipse carry a backup battery that lowers the cabin and opens the lock, and the Eclipse adds a hand crank for emergency lowering. PVE's vacuum lift descends to the ground floor by itself at a safe speed, and Aritco's HomeLift has battery-powered emergency lowering.

Can a home lift serve a roof terrace or stand outdoors?

Only a model made for it. Savaria lists the Infinity and Eclipse for indoor homes, and Aritco lists its HomeLift for indoor installation. If your lift would stand outside or open onto a roof terrace, ask for an outdoor-rated model and where its controls will be kept.

More on home lifts

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