

Key Takeaway

The #1 rule of building in: heat must have a path to escape. Identify your fridge's venting type before designing cabinetry.

Front-venting units need minimal clearance but the grille must always be 100% clear. Rear-venting units need a chimney effect with at least 200cm² per vent opening.

Get it right the first time — retrofitting is expensive.

Any Queries — 1300 376 849

Building In Bible – Bar Fridges Australia

Building fridges into cabinetry looks amazing, but is not as simple as it appears. Done right, the fridge will run efficiently and last for years. Done wrong, trapped heat will shorten compressor life dramatically — and in many cases will void the warranty.

The single most important principle is **airflow**. Every fridge generates heat as part of its refrigeration cycle. That heat has to go somewhere. If it can't escape the cavity it builds up, the fridge works harder and harder to maintain temperature, running costs increase, and components fail prematurely.

There are three main installation scenarios, each with different requirements: front venting, rear venting, and non-compressor units. The sections below cover each in detail.

1. Front-Venting Units

Front venting units have a grille at the front base of the fridge. Air is drawn in one side of the grille and hot air exits the other — all through the front. This makes them the easiest and most seamless to build in, especially under a bench.

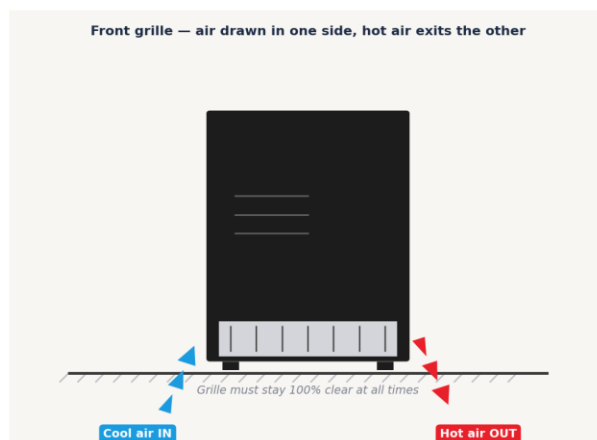


Figure 1 — front-venting airflow: cool air drawn in one side of the grille, hot air expelled the other.

Clearance Requirements

Location	Clearance	Notes
Sides	10mm	Minimal
Top	10mm	Minimal
Rear	50mm	Minimal
Front grille	Must be 100% clear	Always

These clearances are a guide — always check the product listing for the exact figures, or call us on 1300 268 900.

Power lead: if the power socket shares the cavity with the fridge, allow a little extra room at the rear so the lead can loop without being pinched.

Key Rules

Confirm it's fully front venting

Many units are only "semi front venting" and still need extra side clearance, especially in alfresco areas. Ask your supplier directly and get it in writing — a front grille alone doesn't guarantee a minimal-clearance build-in.

Keep the front grille 100% clear

The one rule you can never break. Nothing in front of the grille, ever — no flush door without a cutout, no skirt panel, no stored items. Even if a decorative grille on a cabinet door lines up and looks like it matches, that alone doesn't guarantee airflow — always confirm the fridge's own grille is 100% clear behind it. Even partial blockage spikes running temps and voids the warranty.

Why the 10mm side/top gap

It's not just airflow — it lets you pull the fridge out for servicing, and clears the door swing (most doors open slightly wider than the body) so it won't bind on the cabinetry.

Behind a cabinet door?

Fine, as long as the grille keeps breathing. Either integrate the grille into the kick/skirt panel at floor level, or mirror a matching grille cutout on the cabinet door directly in front of the fridge grille — pick one, not both. We never recommend doubling up on grilles (e.g. a skirt grille and a door grille together), since stacking grilles restricts airflow rather than helping it.

2. Rear-Venting Units

Rear venting units breathe around their body — they need open space on the sides, top, and ideally at the rear to allow heat to escape. The goal is to create a "chimney effect": cool air enters low, heats up around the fridge, and exits high.

Clearance Requirements

Location	Clearance	Notes
Sides	20mm	Important
Top	20mm	—
Rear	100mm minimum	Required
Air exit	Rear, side, or top	At least one exit point needed
Vent size	Min. 200cm ² per vent opening	e.g. 20cm × 10cm

These clearances are a guide — always check the product listing for the exact figures, or call us on 1300 268 900.

Power lead: if the power socket shares the cavity, make sure the lead can loop at the rear without being pinched.

The "Chimney Effect" Is Your Goal

You want two distinct airflow points: cool air enters low (through floor gaps or front bottom) and hot air exits high (through rear or top vents). This natural convection keeps the cavity temperature from rising. Even a small rear floor vent dramatically improves performance.

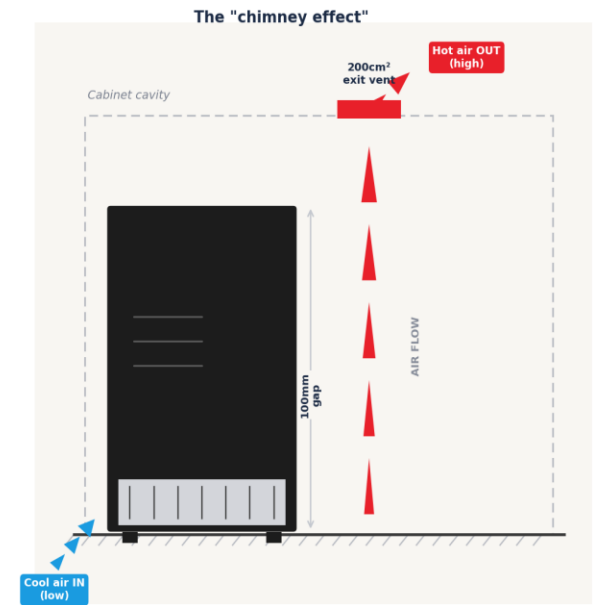
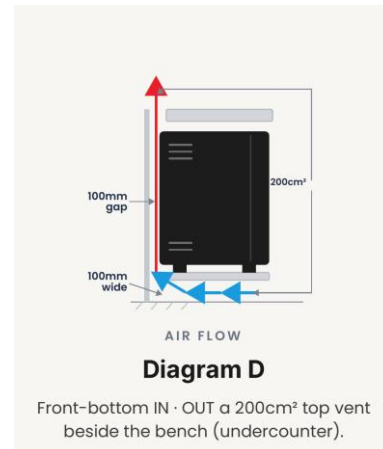
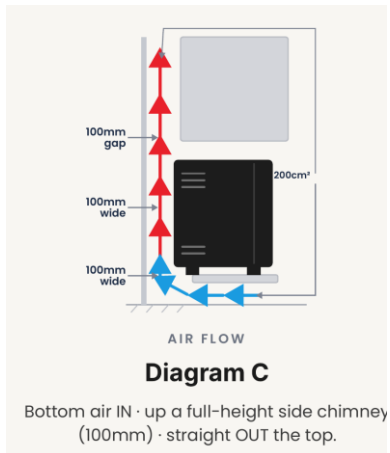
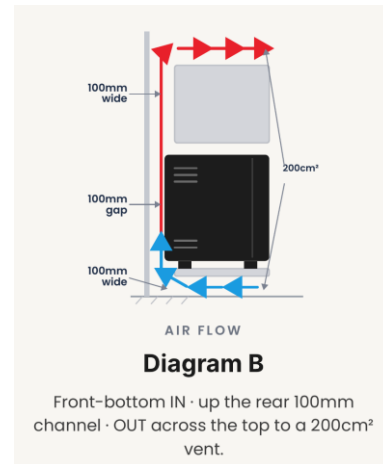
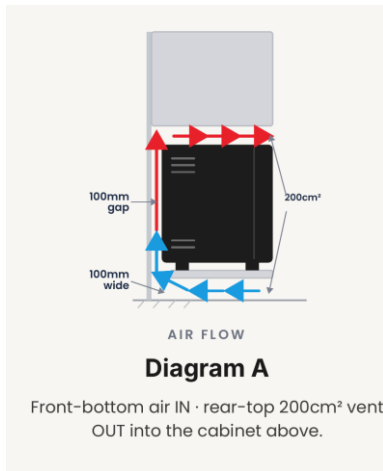


Figure 2 — the chimney effect: cool air in low, hot air out high.

Venting Configurations

Any of the layouts below creates the chimney path — pair one low inlet with one high outlet. This applies to all rear-venting units, including non-compressor units.



💡 How 200cm² is measured

Length × width — e.g. 20cm wide × 10cm high = 200cm².

Another method in mind? These diagrams show the most common ways to install, but there are others. Contact us on 1300 268 900 and we'll advise on the best approach.

These diagrams and measurements are an example only — every fridge is different, and some need more ventilation while others need less. Always check the product listing for your specific model.

Key Venting Rules

The rear 10cm is the heat zone

The compressor and condenser sit in the rear 10cm and dump all their heat there — this is the same 100mm rear clearance already specified above, not an additional space requirement. Keep that zone clear of any floor vent obstruction, and make the platform shorter than the fridge so air rises straight up the back.

Every vent opening $\geq 200\text{cm}^2$

Each individual inlet or outlet must be at least 200cm^2 — for example $20\text{cm} \times 10\text{cm}$. Smaller vents choke airflow and create back-pressure that traps heat inside the cavity.

One low inlet, one high outlet

That pairing is the chimney — cool air drawn in low, hot air pushed out high. Any of the diagrams above works as long as you keep both points open.

Behind a cabinet door?

A decorative door changes nothing — the unit still needs the full chimney. Just don't let the door seal the cavity: vents must draw from and exhaust to open air, not a closed box.

Common Installation Mistakes

Blocking the Front Grille

The most common and most damaging mistake — something placed in front of the grille blocking airflow. On front-venting units, you're not meant to block the grille. Common things that block grilles include:

- A cabinet door fitted flush without a matching grille cutout
- A decorative skirt panel placed directly in front of the fridge base
- Items stored in front of the fridge on the floor (crates, mats, etc.)
- Insulation foam or filler pushed into the grille area during cabinetry work

Even 50% grille blockage will cause the fridge to run at significantly higher temperatures. The compressor will run almost continuously and may burn out, consuming far more energy in the process, and its lifespan will be dramatically shortened.

This will void your warranty

Compressor failure caused by blocked ventilation is considered installation error and is not covered under warranty by any manufacturer.

No Rear Clearance or Exit Vent

Building a rear-venting fridge flush into a fully sealed cavity is a recipe for failure. Rear-venting fridges built into sealed cavities with no rear clearance or exit vent traps heat that has nowhere to go. The cavity temperature steadily rises until the fridge is essentially trying to cool in a hot box.

Signs this is happening:

- Fridge runs constantly without cycling off
- Contents never reach target temperature
- Exterior sides of the fridge feel extremely hot (note: some models have internal condenser lines and run warm on the sides normally — e.g. the EX108 — so this sign alone isn't conclusive)
- Significantly higher electricity bills
- Compressor fails within 1–2 years

💡 A rear floor hole makes a big difference

Even creating a 200cm² opening in the rear floor of the cavity (8–10cm under the rear of the fridge) creates enough of a chimney effect to dramatically reduce cavity temperature. This is one of the most cost-effective retrofits if you've already built in incorrectly.

Wrong Fridge Type for the Install

Choosing a rear-venting fridge for a tight built-in is an expensive mistake to reverse. Many buyers choose a fridge based on appearance and price, then build it into cabinetry — only to find it isn't front-venting and doesn't have the airflow clearance it needs.

Always confirm the venting type before finalising your cabinetry design:

- Ask the supplier directly: "What venting type is it, and what clearances does it need?"
- Confirm whether it can be built in with minimal side/rear clearance
- Get the installation requirements in writing
- Check whether alfresco or higher ambient temperatures change the requirements

💡 Front-venting units cost more for a reason

The engineering required to move all heat exchange to the front of the unit adds cost. If a deal seems too good for a "fully front-venting" fridge, double-check the claim carefully.

Power Lead Clearance Ignored

Crushing or pinching the power lead during cabinetry work is a serious safety hazard. The power lead exits from the rear base of the fridge. When building in, allowance must be made for the lead:

- If the power socket is inside the same cavity as the fridge: allow at least 75mm at the rear for the lead to loop and connect without being pinched
- If the power socket is outside the cavity: allow at least 25mm at the rear so the lead can exit cleanly

These power lead figures are the minimum for the lead itself — they are not a substitute for the ventilation clearance the fridge needs. Whether that 25mm/75mm is enough space overall still depends on whether the unit is front or rear venting: a rear-venting fridge needs its full rear clearance (100mm minimum) regardless of the power lead, so 25mm behind the unit is never enough for ventilation on its own.

A power lead that is kinked, pinched between the fridge and cabinetry, or trapped under the fridge is a fire and electrocution hazard. It also causes intermittent power loss which can damage the compressor.

⚠ Check this before pushing the fridge in

Once cabinetry is built, it can be very difficult to inspect the power lead. Confirm the lead routing before the cabinetry is completed.

Pre-Build Checklist

Work through this before your fridge arrives.

- ☐ Confirmed fridge venting type — front venting, rear venting, or non-compressor.
- ☐ Got confirmation in writing from supplier.
- ☐ Planned side and top clearance — set to the figures stated on the model's product page, not a broad rule of thumb.
- ☐ Planned rear clearance — set to the figure stated on the model's product page.
- ☐ Allowed extra space if the power socket shares the cavity, so the lead can loop without being pinched.
- ☐ Air exit point designed — for rear venting: pair a low inlet (front-bottom or rear-floor vent) with a high exit (rear-top, side, or top) so hot air rises out and away. Minimum 200cm² per opening.
- ☐ Front grille access confirmed — for front venting units: grille can never be blocked.
- ☐ If behind a cabinet door: one matching grille or skirting integration designed — never double up on grilles (skirt + door grille together), as stacking them restricts airflow.
- ☐ Power socket location planned — socket accessible without moving the fridge; if possible, place it in a drawer or cabinet beside the unit. Lead routing won't be pinched or kinked.
- ☐ Alfresco considerations checked — if outdoors: keep the unit out of direct sun and out of rain unless it's IP rated. The same ventilation requirements apply — and more airflow only helps given the higher ambient temperatures.
- ☐ Fridge removal path considered — the fridge must be serviceable. Side/top gaps also allow for removal when needed.