

# Glass Door Bar Fridge Buyers Guide

## *Overview*

It's important to know some relevant information about the product you are considering purchasing. The reason we have developed this buyers guide is because 95% of Retailers, Wholesalers, and Importers fail to provide critical information, listings are scarce on areas that are vitally important. Display style refrigeration sales has increased greatly over the last 5 years due to the renovation and outdoor alfresco boom, meaning that in a growing industry, few possess the knowledge to assist buyers to make the correct purchasing decision with a glass door fridge. I hope following info at least helps in some way.

## *Important Facts to Consider*

**Commercial vs Domestic** - Glass door fridges are geared up completely differently to a normal household domestic fridge. Glass doors do not possess the same level of insulation as that of a solid door, therefore they have to deal with additional heat entering fridges interior as it makes its way through the glass. This process creates longer compressor running times, and the need for additional hot air to be removed from the cabinet. Fans that perform these functions have to be larger, work harder and work longer, and therefore generate additional noise compared to a domestic fridge. So basically remember a glass door fridge is nothing like domestic.

**Workload** - Although a lot of our range now has been cleverly geared up for low energy usage, you will still need to treat glass door fridges as a 'commercial appliance'. These units work hard for long periods of the day and maintenance is a requirement to extend their lifespan. Avoid allowing a front venting glass door fridge to sit for 2 years without any cleaning or maintenance. Think of your unit like a vehicle which runs 24/7 and has a variety of complex parts. Regular cleaning of the condenser/filter, seals, and interior cabinet is extremely important.

**Direct Sunlight** - Sunlight definitely impedes a fridges performance. It is recommended that the unit be in a covered area and in no way in contact with sunlight or other variables that will heat up the area in which the fridge is to perform. Always aim to place your unit in the best location to avoid burnout and excessive power bills from non-stop running.

**Ventilation** - Most of our units are designed to vent 100% from the front, meaning that you can place them in a cabinet with a gap of only a few centimeters around unit. Each of our listings separately states if the unit is front venting, semi front venting, or free standing. Front venting fridges require air to circulate so that when warm air is vented from the front it can easily rise and clear the unit rather than being sucked back into the cool air inlet. Semi front venting and free standing units require additional ventilation. Failure to provide the recommended space around a unit will make the fridge work harder, lower its life expectancy, and increase your energy consumption.

**Condensation in Humid Areas** - It is quite normal for glass door fridges to condensate on outer glass. The higher the relative humidity, the more likely that condensation will form on glass doors. Even if the ambient temperature is mild at 25°C, the relative humidity can be at 80%, meaning that doors will still have low levels of condensation build up. Super hot days in conjunction with high levels of relative humidity bring large levels of condensation to glass doors. A similar effect is a windscreen on a car. Should you live in an area of high humidity (55% RH Plus), then consider the units with **Low E tinted glass or Heated Glass** to combat this issue, especially if you have expensive flooring that might be damaged by water droplets. Alternately you can wipe down glass doors as the condensation builds up.

**Noise Levels** - All commercial style fridges make noise. The level of noise and what is perceived as 'noisy' will vary with an individual. Most commercial under counter 1, 2 & 3 door models run between 49 and 55 decibels (Db). A small domestic fridge will run at around 36Db to give a comparison of actual noise. On our website we have indicated a 3 tier level of noise on every product - LOW/MED/HIGH.

**LOW** = silent or extremely quiet. **MED** = quiet but can still hear. **HIGH** = you will hear the unit running.

Our range of '**Schmick**' wine and beer models are designed specifically to reduce noise for domestic, office, and indoor applications whilst still delivering commercial style performance. You will still hear the fridges running, but nowhere near to the noise levels of our commercial units that are generally utilised in hotels, clubs and pubs, and restaurant kitchens. Where ever tranquility and performance is desired we recommend LOW or MED range units from our scale. We have now developed a way to make our commercial units run virtually silent, this is great news and has increased sales dramatically, ask about **silent upgrade pricing** if it is important for units to be quiet.

**Power Consumption** - One of the most commonly asked questions is how much is it going to cost me? The simplest answer is that a glass door fridge will cost you anywhere from 2 to 6 times what a domestic solid door fridge will cost to run. The variables are many, and it's amazing to know that some brands use so much energy. It's basically through lack of engineering prowess and parts used, a cheap factory specification will have poor design, long pull down rates and cheap parts that cost a lot more to run, combine this with 250C + and it starts to balloon out to unthinkable costs.

There are many features on the units that we have implemented to save energy so take time to look at these on each listing when making your decision.

Each of our units has a **KWh/24Hrs** figure in the Main Specifications. This represents the energy (kilowatts) that the fridge will use over 1 full day (24Hrs). It is calculated in most cases where the ambient temperature is 32°C - so the energy used will be considerably less in lower operational temperatures. The cost of A **KWh** with your electrical provider currently varies from about 0.21c to 0.47c (depending on off peak, peak demand, and whether you are over quota). Most households can calculate a rate of 0.25c per day per **KWh**. A unit that draws **2.0KWh/24Hrs** will cost 0.50c per day or \$182.50 per year to run. Have you seen the big 2 door upright glass fridges in takeaway food shops? These used to draw around 13Wkh/24Hrs. Similar units now draw less than 3KWh/24Hrs - that's \$1186.25 vs \$273.75 so you can see that technology with refrigeration has come along in leaps and bounds. We have harnessed every aspect of the development to be geared around saving energy without losing cooling performance. Following is some information on the Rhino GSP (Green Sense Plus) range, these are our best models for alfresco, outdoor and pub/club scenes.

**Energy Comparison, using Husky brand fridge as an example because It's a well know brand in market.**

**MEPS Publicly available information:**

**Husky:**

C1	13.60Kw/24hours/m2	5M2
C2	10.54	5M2
C3	10.31	5M2

**Rhino:**

GSP1	4.63	5M1
GSP2	4.46	5M1
GSP3	4.16	5M1

## Conclusions to draw from above data.

Energy Efficiency: Rhino cabinets more than double the efficiency

Cooling Performance: Rhino cabinets chill more effectively (M1 means the warmest bottle was not more than 5C in the test. M2 means the warmest bottle was up to 7C during the test)

The MEPS figure compares energy consumption with the glass area, hence the GSP3 appears to be more efficient than a GSP1. The actual energy consumption during the test (data not visible on the MEPS site) is:

GSP1	1.25 kw / 24 hrs
GSP2	1.65 Kw / 24 hrs
GSP3	2.29 kw / 24 hrs

If you press the Eco button, the temperature inside the cabinet rises to cycle between 5-10C and this will save approx. 30% energy. Press the Eco button again and in about 2 hours it will return the drinks to serve temperature of 1C.

\*There is no other cabinet on the Australian market than matches the Rhino GSP for performance or efficiency.

There are so many 'like' fridges on Australian market that are similar to Husky, most use more energy than the Husky, so you can see why the Rhino GSP range are proven the best in the world. It's hard to gauge apples for apples as most list the consumption going on what factory say, which is usually only tested in 20-25oC ambient, not at all a true indication of being in hot climate.

The main factors that cause this are;

1. Design – Units cycle down quicker, meaning less wear/tear on working parts. In 40oC+ temperatures Rhino will keep every drink between 1.6 and 2.1oC. Units with poor pull down rates take up to 5 times longer to get to temp, and really struggle to stay there.
2. Parts – Rhino uses the best brand name parts that are most energy saving available, the fans alone run 70% cheaper than other factory standard fans and also have a design life of 50,000 hours as opposed to factory standard fans of 7,000 hrs.
3. LOW E Glass on both panes reflect heat rays up to 70% better, keeping cold in and hot out, this also assists in preventing condensation (water) on outer glass.
4. Italian controller is specially designed to know what is happening with units, and can slow fan cycles down in times of low usage. The Eco settings are extremely complex and really do work in minimising energy.
5. Embraco Brazilian compressor that runs 25% cheaper and also helps unit pull down quicker using 600gas, which is fast becoming the word wide preferred gas.
6. Patented air flow system, this ensure hot air is dispersed quickly to avoid high compressor temperature, meaning units come doen much wuicker so compressor can turn off, this really saves the unit so much in run times and consumption.

So in a nutshell Rhino GSP (Green Sense Plus) units are the best performed in hot ambient temperatures and are the most energy efficient in the world, when you add brand name parts, only units with outdoor IP34 rating, all stainless inside and out, you can be assured that your purchase of a Rhino Outdoor bar fridge is a smart long term investment.

### *Did you know that*

A fridge works and chills much better when it is filled with product. The reason is that the fridge only needs to chill around 25% of the air volume of what it would have to regularly chill if the fridge was empty. When first operating a new fridge, it's best to load it up and let it run flat out for 24Hours without opening the door. This effectively runs it in, and it will then settle into its normal mode where the thermostat will limit the running time of the compressor.

**All fridges should NOT BE SWITCHED ON for a minimum of two hours after relocation, transport, or moving.** Oil and gas in the compressor is relocated to the walls of narrow piping and ducting. Gravity and a level fridge are a requirement for the oil and gas to return to their operational position. Failure to let a fridge "settle" can result in compressor failure and an expensive repair which is not covered under warranty.

If ambient temperatures rise to high levels (such as 30°C +) your unit will take far longer to chill down. Each unit will also work comparatively harder and require more energy to meet the same chilling levels.

An electronic thermostat control in most commercial fridges has a variance of 4-7°C. This means that if you set the unit to be 2°C and the variance on the control is 4°C, then it will turn OFF at 2°C, but the air temperature inside the cabinet will need to get to 6°C before it starts up again. The display can often get to 7-8°C before the cooling process kicks in and you may naturally panic, but this is perfectly normal as the probe is measuring the air temperature and not the temperature of your drinks. Without being too technical the air temperature may get to 8°C, but the drinks will only rise about 2 degrees to 4°C from when the compressor cut out, so they will only need a little 'tickle' to be back at 2°C.

The compressor cuts in and out as the fridge goes through the normal operation of running, and it is not unusual for a compressor to kick on and off up to 10 times per hour. It all depends on how low the temperature is set, the ambient temperature, the variance on the controller, and how many times the door is being opened and closed.

**Cooling systems** - There are two main types of fridges on the Australian market - compressor driven, and 'Peltier' which are also known as Thermo Electric Coolers. Each system is completely different and both have certain advantages over the other. Compressor cooling is more expensive to build and this refrigeration style is suited for extremes in ambient temperatures. The Peltier style chillers work on what temperature the ambient is around the unit, and they then have a maximum decrease of usually between 12°C and 15°C from the room temperature that they are located in. So a Peltier style in 30oC ambient will only get to 15oC at best, this is why they are so much cheaper to purchase, the versatility isn't there.

**Wine Fridges** - You can find very cheap 'Peltier' wine fridges as mentioned above (between \$150 + \$300). Peltier units are not utilised in larger wine fridges (generally above 30 bottles), these need compressor driven refrigeration ensure stable temperature conditions. Nearly all Peltier units have cooling modules that last between 12-24 months. We make use of the latest 'Japanese' produced modules in all of our units which have been tested to last for around 5-7 years. You should not use a Peltier unit in an outdoor environment, if ambient temperature is 35C°, the best the unit can do is 12-15°C below that, meaning it will effectively cool to 20-23°C. This means your good wine could be spoiled.

**Indoor or Outdoor** – One of the most important area's to talk about, an outdoor refrigerator needs so much more engineering than one designed to run indoors, indoors are generally tested to run at 25oC ambient, whereas for outdoors you need minimum testing at 32oC, we do all our testing at 38oC and 40oC, the difference between 25 and 38 is massive. Consumption and performance in 38oC is nothing like 25oC. There are a lot of units that are really only designed for pubs/clubs/hospitality, to run in 25oC ambient operation, yet they look same/similar as other outdoor units so that average punter buys expecting similar performance, this is the biggest mistake made by far these days. Another factor is if units are built in or not, when a fridge is built in, as most alfresco units will be, it needs to be 100% front venting, or it simply will 'choke' the system as it tries to disperse the heat produced.

**Shipping** – It's very important to read closely about shipping policies, make sure you are covered in any event of breakages, make sure shipping is 'to your door' and that you will be notified of day of delivery.

When we process an order 90% of the time it leaves on Toll Ipec, and if we have your email address you are notified automatically every time the package is scanned. In some area's we do our own deliveries meaning we can give you a 2 hour window for delivery, making it much better for people working and with commitments.

**Warranty** – Extremely important understand your warranty conditions, as most online retailers are limited as to what they can and want to do. Ensure you have minimum 12Months Australia Wide Parts and Labour Warranty, this means that for problems in first 12Months the technicians will 'come to you'. Most online retailers only provide '**Parts Only**' or '**Back To Base**' Warranty, explained following;

**Parts Only** - You need to diagnose problem yourself and parts will be sent free charge for you to repair, so unless you are a fridge mechanic or tradesmen orientated it means more than likely you will need to pay for a call out fee for the technician to diagnose.

**Back To Base** - You need to pay costs to get unit back to a nominated warehouse for repair. A bar fridge is the sort of complicated item that is very hard to move, and to pack well enough for safe transport also becomes a major problem. A 2 door fridge can weigh up to 100Kg, the logistics alone of packing and sending unit for repair is massive, given glass door fridges do break down a lot more than domestic, it's important to have proper warranty conditions.

**Australia Wide Parts And Labour** – This is what we offer, it means that during warranty period we come to you at our cost, all parts and labour are covered by us. We have technicians Australia Wide, for 95% of the country, only a few small area's we need to arrange pick up of units for repair and return.

**We're sure that this information helps greatly with your selection. Call us on 1300 376 849 with any curly questions!**