

## PURPOSE-BUILT VACCINE REFRIGERATORS

The main features of purpose-built vaccine refrigerators are:

- A stable, uniform, and controlled cabinet temperature unaffected by ambient temperature.
- Defrost cycle allowing defrosting without rises in cabinet temperature.
- Standard alarm and safety features alert and/or prevent irregular temperature fluctuations in cabinet.

### Advantages of having a purpose-built vaccine refrigerator

- Management of a purpose-built refrigerator is less demanding than a domestic refrigerator.
- After programming, all temperatures within the refrigerator are maintained in the +2°C to +8°C range. This minimises the risk of vaccines being stored outside the recommended temperature range.
- Good temperature recovery e.g. when the refrigerator has been opened to access vaccines.
- Nearly all of the internal space can be used for storing vaccines (check with the manufacturer about how to pack the maximum amount of vaccine and suitability of storing vaccines on the floor of the refrigerator). Therefore, the size of the purpose-built vaccine refrigerator may be smaller than your previous domestic refrigerator.
- Storage of other temperature sensitive medical products e.g. pharmaceuticals stored between +2°C to +8°C is acceptable in a vaccine storage refrigerator.

The following points should be considered when purchasing a purpose-built vaccine refrigerator.

### Questions to ask yourself

- How big does my refrigerator need to be? What is the maximum amount of vaccine I need to store, particularly during special programs such as the influenza program?
- Do I have the space in my clinic/practice for this size refrigerator?
- If the service does outreach clinics, do I need to consider ice pack/gel pack freezing capacity?
- If I do not buy a purpose-built vaccine refrigerator what are the risks to my clients and what is my legal risk?
- Where will the refrigerator be placed? If it is against an outside wall it may be hotter in summer and potentially affect the performance of the equipment.

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*In a purpose-built refrigerator nearly all of the internal space can be used for storing vaccines.*

## How to choose a purpose-built vaccine refrigerator

Some parts of the section 'Further points to consider if using a domestic refrigerator' (see p 17) will be relevant.

Also consider:

1. Capacity for having an alarm system. Alarm systems have various options e.g. capacity to notify someone remotely, by automatic telephone dialing, or a central area that is staffed 24 hours a day. Choose the alarm system which best suits your needs.
2. Does it have a 'door left open' alarm?
3. The temperature recording system may be visual, or chart form. Ensure the temperature can be easily read and accessed e.g. some refrigerators have the chart recording system placed at the bottom of the refrigerator.
4. Does it have an easy to use minimum/maximum temperature display feature?
5. Does the temperature probe have appropriate temperature lagging (see glossary) device?
6. Does it need enhancements (e.g. alarms, temperature monitoring features) and what do these cost?
7. If purchasing enhancements ensure they are easy to use.
8. Warranty: What are the conditions and duration? Will modifications to the refrigerator void the warranty?
9. Back up support and servicing varies from company to company. Determine availability and cost.
10. Does the supplier/manufacturer have quality assurance processes?
11. What size space do you have for the refrigerator?
12. Can the refrigerator record how long the unit has been without power?
13. How long will it stay within the recommended temperature range if there's a power failure (do you need to add 'cold mass' e.g. cooled water bottles)?

*Are you getting good value for your money?*

*Is it really a vaccine refrigerator?*

*Will it deliver what you expect?  
Ask questions!*

## Issues to note

- Even though there is more usable space it is important not to overstock your purpose-built vaccine refrigerator. You need to discuss the usual and maximum level of stock you can hold in your purpose-built vaccine refrigerator with the manufacturer. Your state or territory health department may be able to help you calculate your maximum storage needs.
- If you are storing very small amounts of vaccine in a purpose-built vaccine refrigerator check with the manufacturer if you need to add more 'cold mass' (i.e. cooled water bottles) to the refrigerator.
- The placement of the purpose-built vaccine refrigerator in the clinic/practice is very important, refer to the refrigerator company for advice. The space around the purpose-built vaccine refrigerator is determined by the manufacturer's recommendations and must be applied during installation.
- Vaccines can be stored in shallow plastic baskets/trays clearly labelled with the name(s) of vaccine(s). It is not necessary to use enclosed plastic containers as the purpose-built vaccine refrigerator has constant temperature control. Do not crowd the vaccines by overfilling the shelves. Allow space between baskets/trays for air circulation.
- Cool the vaccine refrigerator before stocking with vaccine.
- Even with vaccine purpose-built refrigerators, temperatures need to be monitored and recorded at least daily, before vaccine is used (see Step 11 page 14).
- If you have any concerns setting up your new purpose-built vaccine refrigerator contact the service technician.
- Depending on the quality and design of your purpose-built vaccine refrigerator, it may warm quickly during a power failure. Always have an alternative means of vaccine storage available.
- Purpose-built refrigerators with glass doors may not have ultraviolet (UV) filtering. This is another reason why vaccines must be stored in their original packaging to protect them from the light.

Your state or territory health department, Public Health Unit or Division of General Practice may have a list of current purpose-built vaccine refrigerator suppliers in your state or territory.

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*Be aware of light sensitive vaccines (most vaccines are sensitive to any form of UV light, including fluorescent light).*

## Vaccine Fridge Suppliers

### Summary of warranty and repairs services

Company	Warranty	Onsite repairs during warranty	Follow up repairs service after warranty period over (fee charged)	Comments
Rollex Lec Vaccine Refrigerators <b>1300 880 441</b>	24 months warranty	✓	✓	Temporary replacement fridges available if needed
Quirks Medisafe Refrigerators <b>1800 804 627</b>	12 months (if mentioned referred by Alliance 24 month warranty available)	✓	✓	
Thermoline L+M Pharmacy Refrigerators <b>(02) 9604 3911</b>	12 months warranty	✓	✓	
Arcus Australia Pty Ltd	Does not cover NSW			
Skope Industries Ltd <b>1800 121 535</b>	24 months warranty	✓	x	Can refer to local agent for repairs after warranty period finished
ICS Pacific <b>1800 664 664</b>	36 months warranty	✓	✓	
Quantum Scientific <b>1800 777 168</b>	24-60 months warranty depending on brand	✓	✓	

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### Summary of warranty and repairs services

Company	Warranty	Onsite repairs during warranty	Follow up repairs service after warranty period over (fee charged)	Comments
Orford Refrigeration Pty <b>(07) 4639 9000</b>	24 month warranty	✓	✗	
Nuline Refrigerators <b>(03) 9562 3355</b>	12 month warranty	✓	✓	
Crown Scientific <b>1300 737 870</b>	12 month warranty <i>can be negotiated</i>	✓	✓	

*All companies cover NSW and will be able to send technicians to rural areas*

*The above companies are endorsed by the Pharmacy Guild as suppliers of compliant refrigerators.*

*Alliance of NSW Divisions does not endorse any particular manufacturer of purpose built refrigerators. All answers are as provided by the companies and correct as of October 2005.*

***Last updated October 2005***