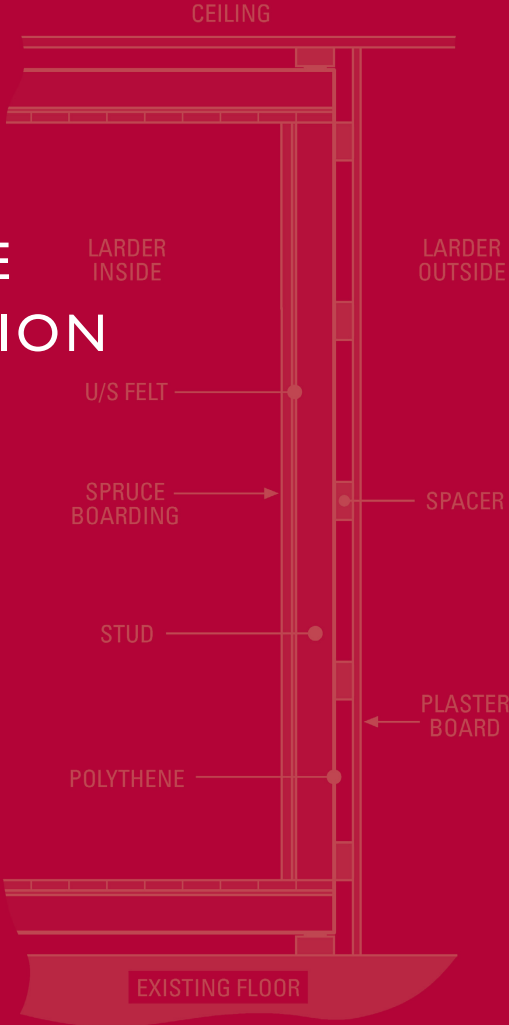


HELPFUL ADVICE AND INFORMATION

for building walk-in
larders/wine cellars



HELPFUL ADVICE AND INFORMATION

FOR BUILDING WALK-IN LARDERS/WINE CELLARS

The first thing to remember when you are trying to build your own temperature-controlled fridge is that there are three main components needed to achieve this:

1. A refrigeration unit/wine conditioning unit
2. Insulation on all walls, floor and ceiling
3. An insulated door with adequate seals to prevent loss of air.

This is important irrespective of the temperature i.e.- 5 degrees for food or 15 degrees for wine.

Before embarking on the idea of building your own walk in fridge/wine cellar, imagine going into an electrical shop and asking to buy a refrigerator without an insulated door. You wouldn't do it because the rest of the fridge would not work correctly. So remember that to build your own temperature controlled fridge/wine cellar it will have to have all the three main components to work correctly.

To calculate the size of the space that you want to refrigerate, multiply your space dimensions.

i.e. **length x width x height**

Example 2500mm x 2500mm x 2500mm = 12500 litres capacity so you would use our C18 refrigeration unit.

Always try to position your refrigeration unit towards the back of your walk in fridge/cellar and as far away from the door as possible. Ideally the refrigeration unit should be as high as practical but no closer than 10cm from the internal ceiling height.

The area to which your refrigeration unit vents into must have adequate air circulation to allow any heat created to dissipate naturally. The ambient temperature in this area should not exceed 30 degrees at all times. Ideal places are hallways, utility rooms, garages etc. Areas such as boiler rooms or small cupboards are not ideal.

We also have a unit available which has been specifically designed to be placed through an

external wall. This unit has been fitted with a heating belt to protect the unit from frost.

Note: The refrigeration units are very quiet. However the units which are positioned within an internal wall may seem louder than the units which are positioned within the cellar.

There are various insulation materials that can be used such as polystyrene, polyurethane, trisodur etc. If in doubt please ask. Rock wool is **not** a good material to use.

Always use an insulated door as this is the last piece of the jigsaw. Remember, there is no point insulating and putting in a refrigeration unit if all your cold air can escape through your door opening! We can supply you with an insulated door with a magnetic gasket (seal) - please ask for details.

Remember, the internal fascia must be moisture resistant - you can use a good quality hard wood tongue & groove, shiplap spruce boarding, ceramic tiles, good quality melamine board - if in doubt please ask.

Always ensure that you have no under floor heating in the area where you are building your walk in fridge/cellar. We recommend you tile your floor area as it is easy to keep clean and it acts as a cold surface.

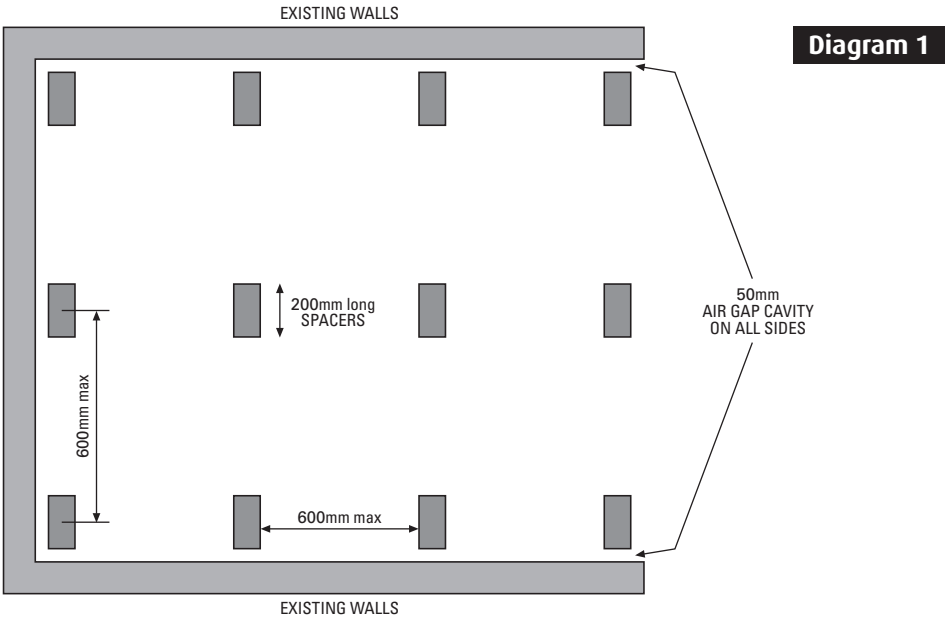
All our refrigeration units produce water and require a drain off point. This can be a fixed overflow or a receptacle that can be emptied periodically. This should be sited directly underneath the refrigeration unit - this does require some thought prior to construction of your walk-in fridge/cellar. We can provide a stainless steel water container if required.

All of our refrigeration units require a 13-amp plug socket on the warm side of the refrigeration unit. This needs to be accessible- for isolating the power.

Note: Please do not put the power inside your walk in fridge/cellar.

STEP BY STEP INSTRUCTIONS

How to insulate your cellar using Polystyrene Blocks



FLOORS

- 1 Draw a line 50mm away from walls all the way around the proposed larder (diag 1).
- 2 Cut spacers approximately 100mm long from 50mm x 100mm softwood timber.
- 3 Start on line in one corner and fix to floor at 600mm spacing (diag 1).
- 4 Cut a square of 1200mm long 600mm wider and longer than the room and roll it up.
- 5 Stick double sided tape to each spacer, leaving the top paper on at this time.
- 6 Starting at one side stick the polythene to the spacers leaving a 300mm upstand up the walls (diag 2). The Polythene must be kept tight.

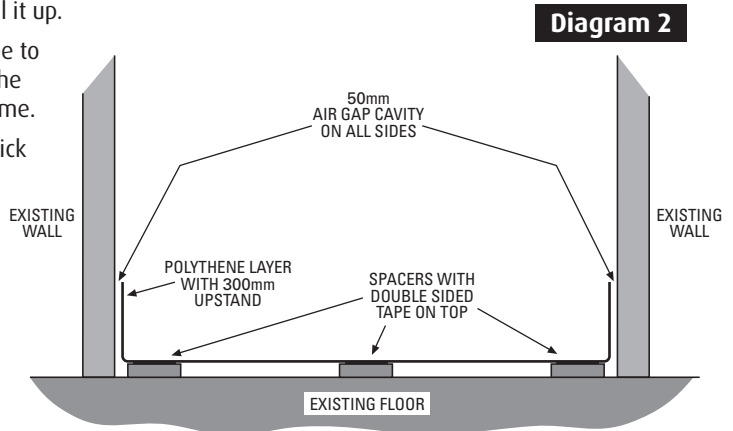
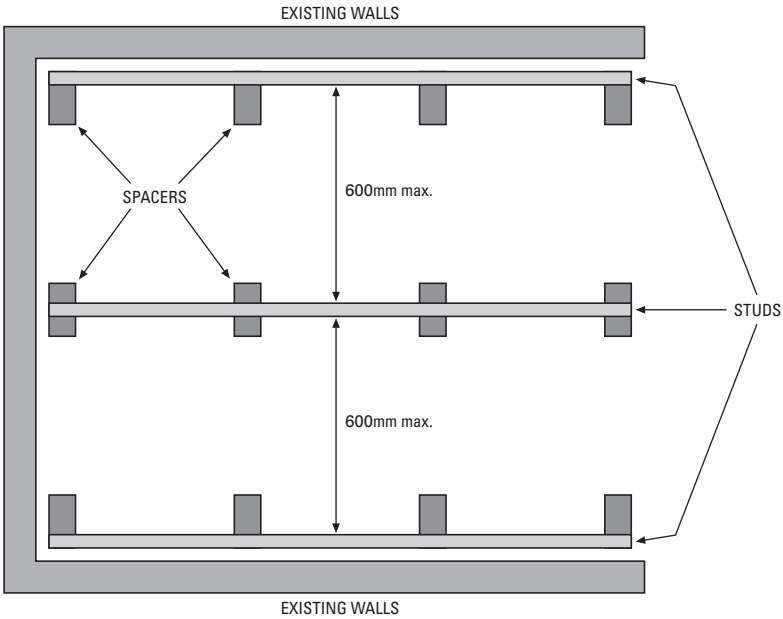
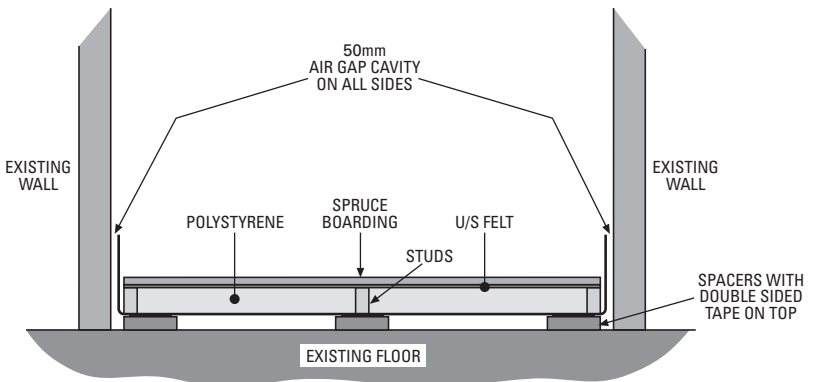


Diagram 3



- 7 Unroll the polythene sticking it to the spacers in turn.
N.B. The polythene must be pulled tight to avoid dips and should not be torn.
- 8 Cut 100mm x 50mm studs 100mm shorter than the room. These can now be fixed to the spacers 600mm apart starting 50mm away from the walls (diag 3).
- 9 Cut your 100m thick polystyrene sheets in half lengthways, thus giving two lengths 600mm wide.
- 10 Insert the polystyrene tight between the studs so that it is flush with the top of the timber (diag 4).
- 11 Fix u/s felt to B.S. 147 to studs over entire floor area. (diag 4)
- 12 Now fix spruce boarding to the studs to form your finished floor leaving a 50mm gap around and under the entire floor (diag 4).

Diagram 4



CEILING

- 1 First find the existing floor/ceiling joists. This can be done by gently knocking nails through your plasterboard ceiling until you hit the joist (they will probably be 400mm or 450mm apart).
- 2 Now carry out the same procedure as for the floor until you have finished the ceiling. N.B. any tears in the polystyrene should be taped using 100mm wide heavy duty tape.

WALLS

- 1 At this point you must decide which wall will house the larder door and the wine conditioning unit.
- 2 Cut a piece of polythene the same height as the room from floor to ceiling and long enough to go around the entire room (diag 5).
- 3 Starting at one top corner, stick this polythene to the downstand from the ceiling using 100mm heavy duty tape (diag 5) except for the wall which will house the door and the wine conditioning unit.
- 4 Starting at the bottom corner, pull the polythene down so that it is tight and stick to the upstand from the floor (diag 5) as 3 above.
- 5 To form the internal walls you must build a frame using 100mm x 50mm timber consisting of head plates, sole plates and uprights or studs.

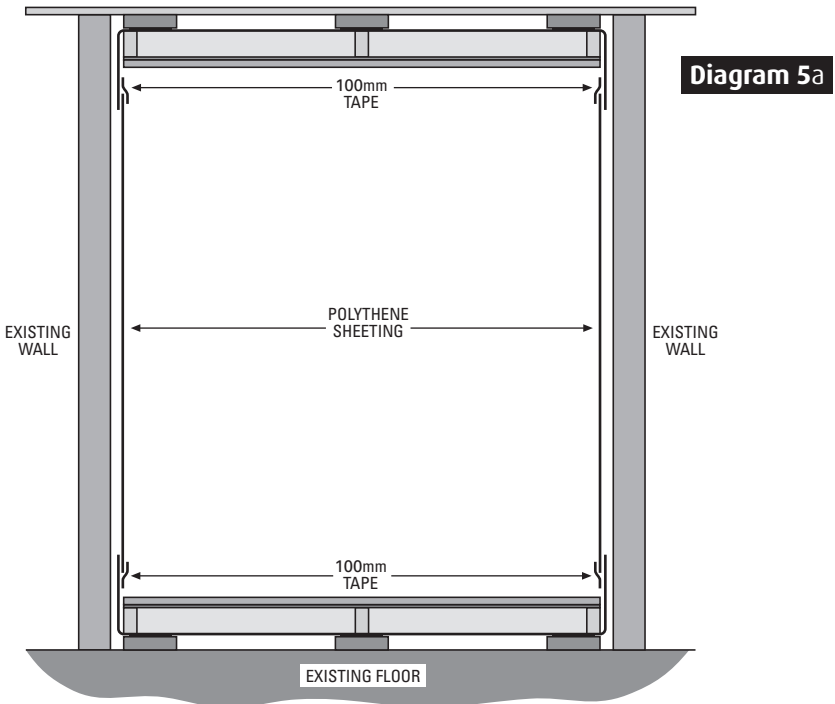
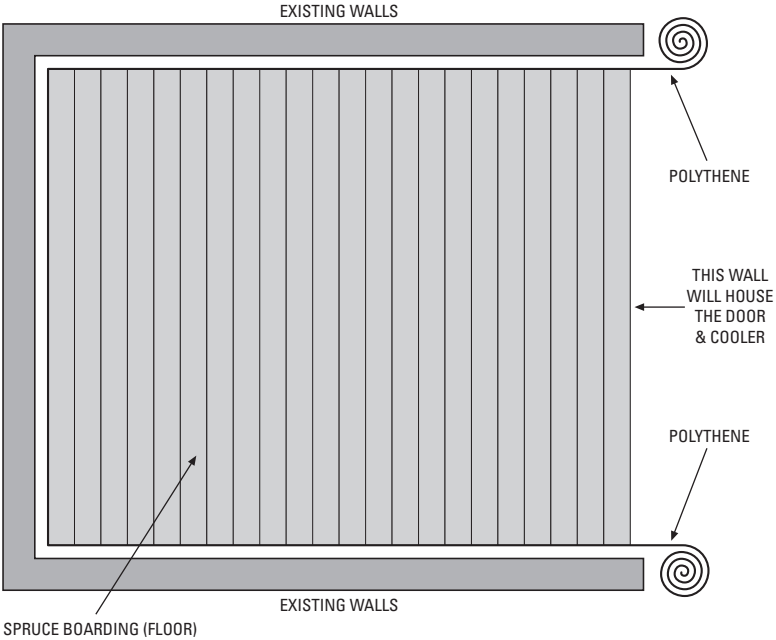


Diagram 5b



- 6 Cut two head and sole plates the same width (or length depending on which wall will house the door and cooler) as the floor, and the studs the height of the room less 100mm and fix together (diag 6).

Diagram 6

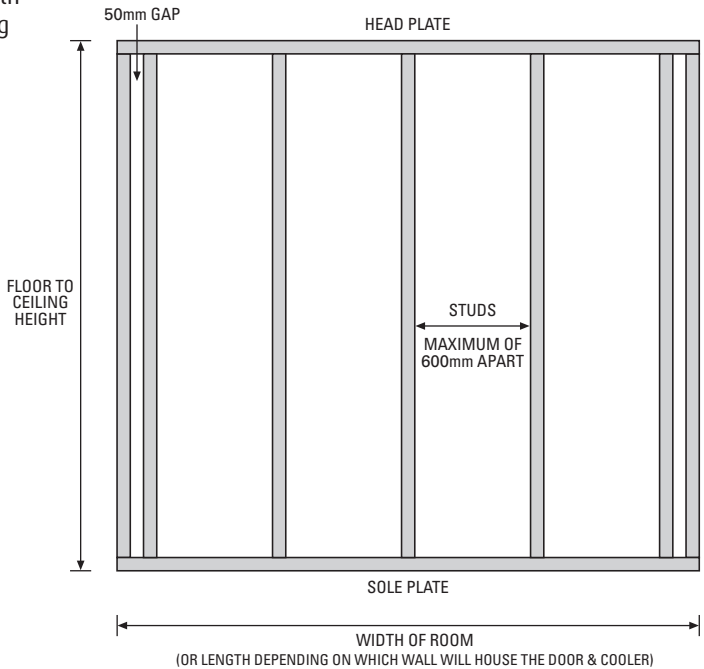
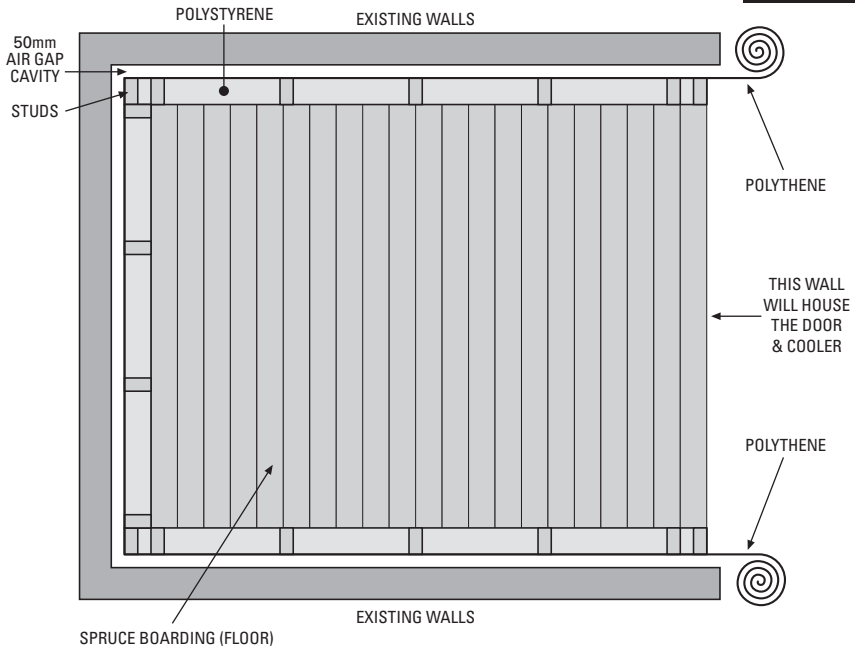


Diagram 7



- 7 Now fix these frames to the floor and ceiling (diag 7).
- 8 These two walls should now be insulated as for the floor and ceiling ensuring that the polystyrene is flush with the top of the timber face (diag 7).
- 9 Build the last full wall and fix it to the floor, ceiling and adjacent walls and insulate (diag 7).
- 10 The last wall will have to house your larder door and wine conditioning unit unit. See separate instructions included with your door and unit.
- 11 Having built this wall it can now be fixed note "9" above (diag 8).
- 12 Unroll the remaining polythene along this wall and tape to top, bottom and sides (diag 8).
- 13 Cut out the polythene covering the door and cooler openings and tape to frame.
- 14 Fix larder door and wine conditioning unit as per separate instructions.
- 15 Fix u/s felt to walls as for the floors.
- 16 Fix spruce pane panelling to the studs as "note 12 floors".

- 17 All NEW WALLS you build (diag 9) will need to be finished i.e. plastered or spruce boarded on the outside. To do this fix 100mm x 50mm studs either vertically or horizontally to the frame of your larder on the outside and fix your chosen finish to these, as in diagram 9.
- 18 It is important to ventilate the cavity you have formed around your larder. To do this simply cut 50mm x 200mm holes in the out sides of new or existing walls and fit a vent cover over them. Four vents, two at high level and two at low level should be sufficient.

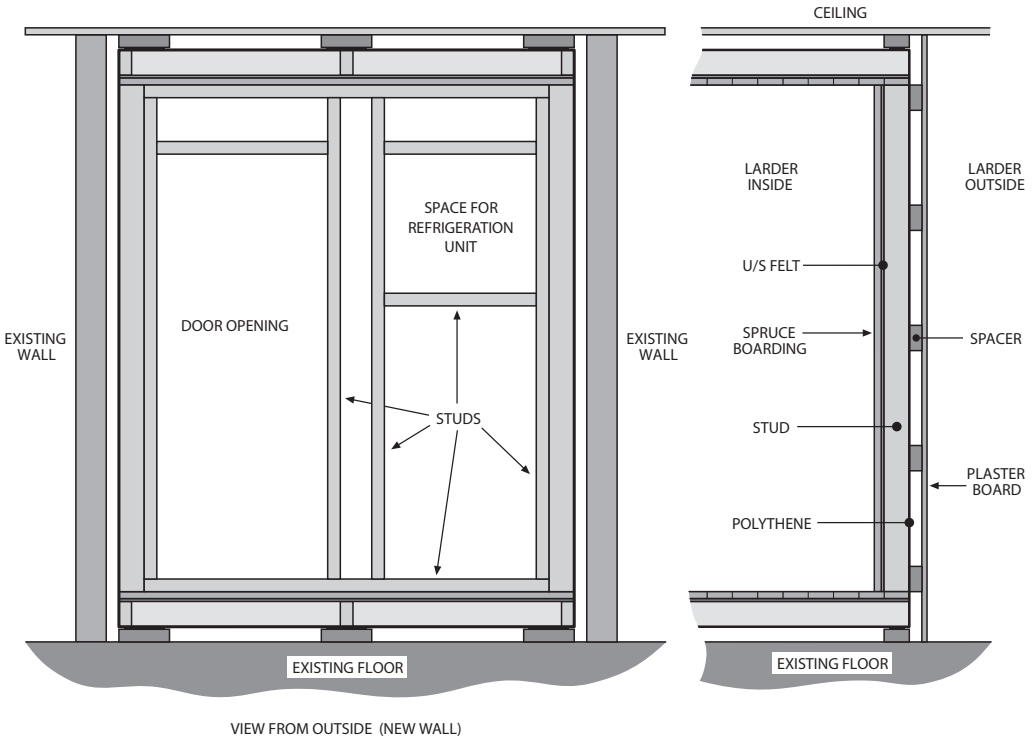


Diagram 8

Diagram 9



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