

Bottle (wine) Storage Rack

Orderly storage of vintage wine or home brewed beer can best be done in a substantial rack which enables easy access, yet gives space for maximum number of bottles. The rack sketched allows storage of bottles on their sides, roughly one dozen in each compartment, depending on the size of bottles, and some upright on top as shown in sketch. This single unit, compartmented rack would fit through a standard size doorway and may be useful under stairways, in broom cupboards, under the house, garage, etc. This rack should be firmly fastened to wall or piers.

TOOLS YOU WILL NEED

- Saw
- Hammer
- Measuring tape/rule
- Carpenter's square and pencil
- Drill and bits
- Screwdriver

MATERIALS YOU WILL NEED

TIMBER

Providing this storage rack would not generally be exposed to hazardous conditions of sun, rain or excessive dampness, then any type of timber, softwood or hardwood, which is available in 250 x 25mm DAR section could be used. Or 19mm plywood or 19mm particleboard sheets can be cut to provide equivalent dimension components e.g. 240 x 19mm x length required.

250 x 25mm DAR (finished size 240 x 19mm)

2 pieces, 2.1m (sides)

1.8m (5 pieces, 340mm) (divider pieces)

4.2m (6 pieces, 700mm) (shelves/top/bottom)

50 x 25mm DAR (finished size 45 x 19mm)

4.2m (5 pieces, 750mm) (facing strips)

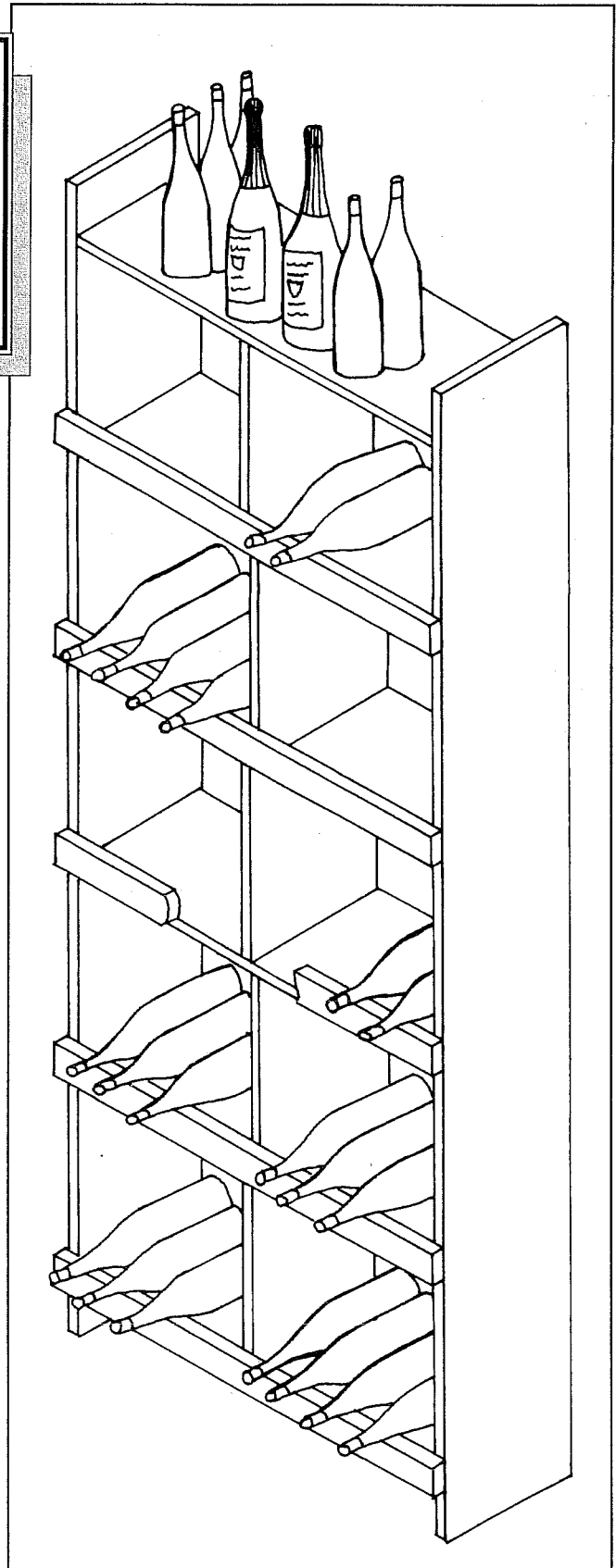
HARDWARE

50 x 2.5mm – Bullet head wire nails, for a decorative exposed rack requiring nails to be punched and holes filled.

OR

Flat head wire nails, if rack is in utility, or concealed location.

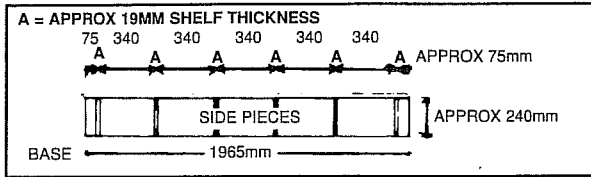
Angle brackets – Size as necessary for bracing rack(s) against wall.



STEP BY STEP

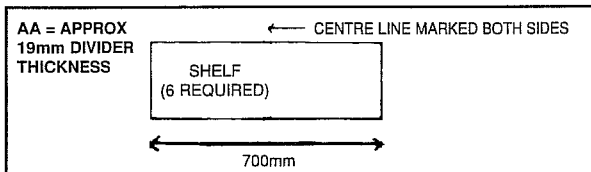
1 Cut sides: From the two pieces 250 x 25 x 2.1 DAR cut two side pieces each 1965mm long.

2 Mark each side piece as below with pencil, square and tape, to indicate location of shelves.



3 Cut shelves: From the two pieces 250 x 25mm x 2.4 DAR cut six shelves each exactly 700mm long.

4 Mark shelves with centre line on both faces.

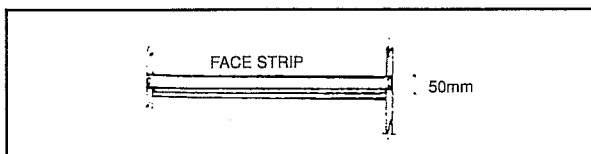


5 Cut dividers: From the pieces 250 x 25mm purchased, cut five divider pieces each exactly 340mm long. These pieces will be the same width as shelves hence will have finished size 340 x 240 approximately x 19mm.

6 Cut facing strips: From the pieces 50 x 25mm DAR purchased, cut five facing strips 740mm long.

7 Commence Assembly: Arrange side pieces standing on edge on flat surface and nail bottom shelf in place as indicated on markings in (2). Use three nails per side, but attempt to hold shelf square to side piece. Fix top shelf in a similar manner. Also use adhesive if desired.

8 Locate face strip for bottom shelf so that the top edge of the strip is 50mm above the shelf surface. Check assembly for squareness and nail strip in place using two nails on each side, predrilling holes if necessary.

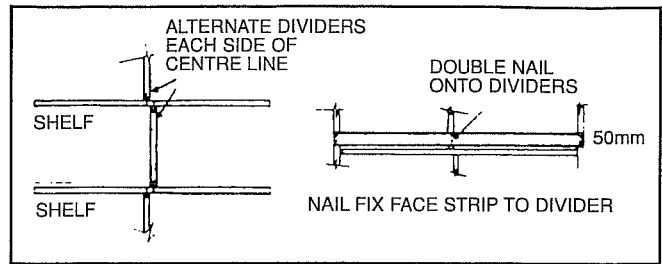


9 Fix second shelf, check squareness of assembly and fix facing strip in place as in (8).

10 Continue fixing, squaring and attaching face strips for remainder of shelves.

11 Trim off projecting strip material, slightly round off all visible edges using sandpaper/sander or plane as necessary.

12 Fit dividers between shelves: Turn assembly face down and fit dividers from the rear, as illustrated, using two nails at top and bottom of each divider to fix in place. Turn unit face upwards and nail facing strips, which also provide additional shelf support, to the dividers using two nails.



13 Finish by punching nails, puttying/filling holes as required then smoothing whole assembly. Apply selected stains, clear finishes, etc.

Note: A general recommendation is that the rack should receive, as a minimum, two coats of a clear polyurethane resin finish so as to make it easier to keep clean in service.

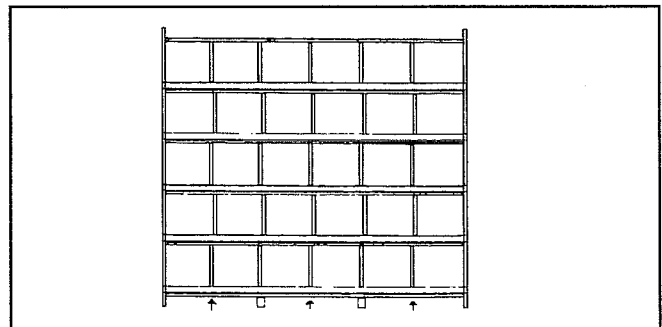
Installation

This rack should be located where it is safe from bumps and knocks. As an essential final step, the rack(s) must be firmly fixed to a wall, or pier, or cupboard wall by means of brackets or timber strips. Note that the rack will fit through a standard sized door so it could be used inside many a broom cupboard (discard brooms, as necessary) or pantry.

Larger racks

Longer racks can be made to suit space available. As far as possible, limit the compartments to 340mm square approximately. However, under every second dividing strip on the long bottom shelf, we suggest you fit a piece of 75 x 25 x 240mm long sawn timber (finished size 75mm high) as a support. Depending on load and height of rack, you may find that an additional support under every dividing piece – as indicated by arrows on the diagram – will be a worthwhile addition. Depending on floor levels, these supplementary supports could be adjusted in size to fit.

We also strongly emphasise that long racks as illustrated must be firmly braced or fixed to walls, or other substantial part of structure.



Free standing racks

The above rack designs are intended for fixed locations where they can be firmly fastened in place onto a wall or similar solid structure. For free standing or movable racks use a simple low height design.

A maximum rack height of two rows of compartments is suggested if this same design idea is used. This would give an overall height of, say, 900mm using 900mm side pieces. By fixing thin sheet plywood, hardboard or particle board to the back of the rack(s) a more complete unit with adequate bracing can be built.

Supplied by