

## Versailles-Type Planter Box

Designed and Constructed by John Holman

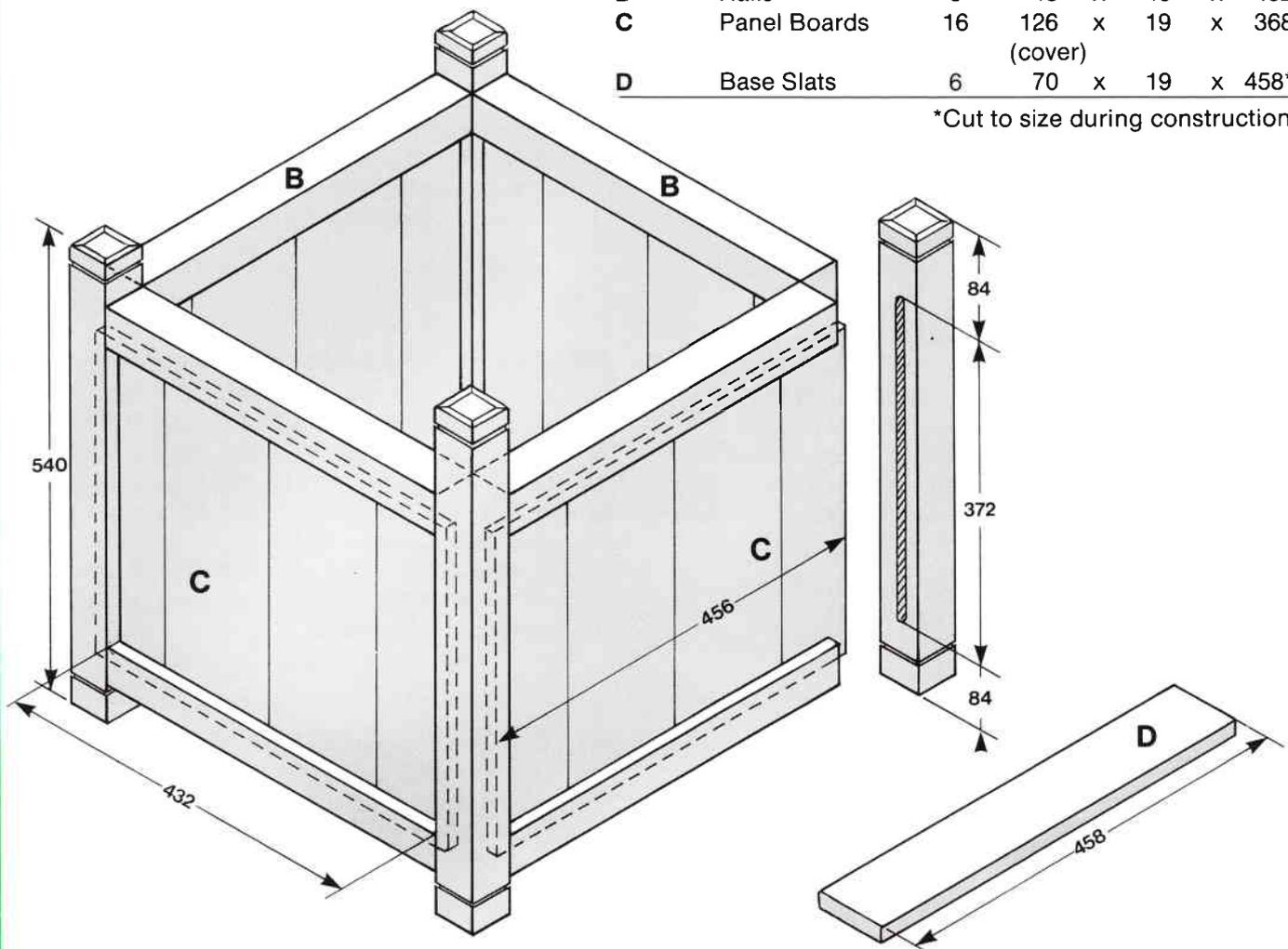
This is a formal type of planter box, seen at its best in pairs flanking steps or an entrance way. Dwarf conifers, citrus, or standard roses can all look good in this type of box. The sides are contained within rebated trenches in both the legs and the rails. Decorative grooves are added to the top and bottom of the legs, and the tops are chamfered, for added effect.



### Component Specifications *All dimensions are in mm*

Part No.	Description	Quantity	Width	Thickness	Length
A	Legs	4	48 x	48 x	540
B	Rails	8	48 x	48 x	432
C	Panel Boards (cover)	16	126 x	19 x	368
D	Base Slats	6	70 x	19 x	458*

\*Cut to size during construction.



### Tool Requirements

- ESSENTIAL** Triton Workcentre and your power saw, drill and 4mm drill bit, square, tape measure, hammer, screwdriver. Router and Jigsaw Table plus router and straight cut bit. (Specified but not absolutely essential – see text)
- USEFUL** Bar or sash clamps, sanding disc, extension fence for router, marking gauge.

# Construction Details

## Material Shopping List

**1. WOOD** Permapine (CCA Treated Radiata Pine) was selected for this project. An extremely durable timber is needed for exterior planter boxes, and Permapine is durable, economical and commonly available. Permapine is also available in a variety of cladding styles. "401 Shiplap" pattern was chosen for our example ("402" is the rough sawn equivalent).

(Figure 1)

Shop for:

**Rough saw Permapine 100 x 50mm** - 1 @ 1.2m, 1 @ 1.8m, for the legs and rails.

**401 or 402 Permapine Cladding** - 2 @ 3.0m or 4 @ 1.5m, for the panel boards.

**Permapine Decking 70 x 22mm** - 1 @ 3.0m, for the base slats.

### 2. FASTENING

- \* 16 - 4.5 x 100 galvanised bullet head nails
- \* 8 - 100mm galvanised shelving brackets
- \* 32 - 20mm x 86 galvanised countersunk woodscrews
- \* one pack 30 x 2mm galvanised bullet head nails.

## General Points

**1.** A tungsten-carbide tipped blade is recommended for cutting Permapine, as the metal salts used in the preservative treatment tend to dull blades quickly.

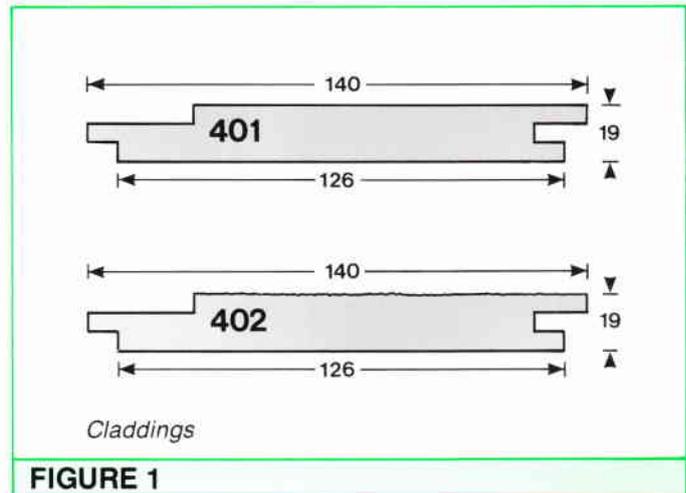
**2.** Stopped trenches are required in the legs. If you choose to make this project without a router, you will need an extension on your rip fence to attach a stop block. You will also need a chisel to square the ends of the trenches, which will be less than full depth at the ends for some distance due to the curvature of the sawblade.

**1** The legs and rails are cut from the 100 x 50mm rough-sawn Permapine. Rip the 100mm down the centre. If you have a small diameter saw you may need to double-rip (see your Operating Manual: Ripping Thick Wood). Reset your rip fence to 48mm, and plane all four sides of each piece to give a square and fine-sawn finish all round.

**2** Convert to the crosscut mode, and cut the following components to length:

- 4 Legs **A** - 540mm
- 8 Rails **B** - 432mm
- 16 Panel Boards **C** - 368mm.

Use a length gauge to ensure identical components. (See Jig Guide).

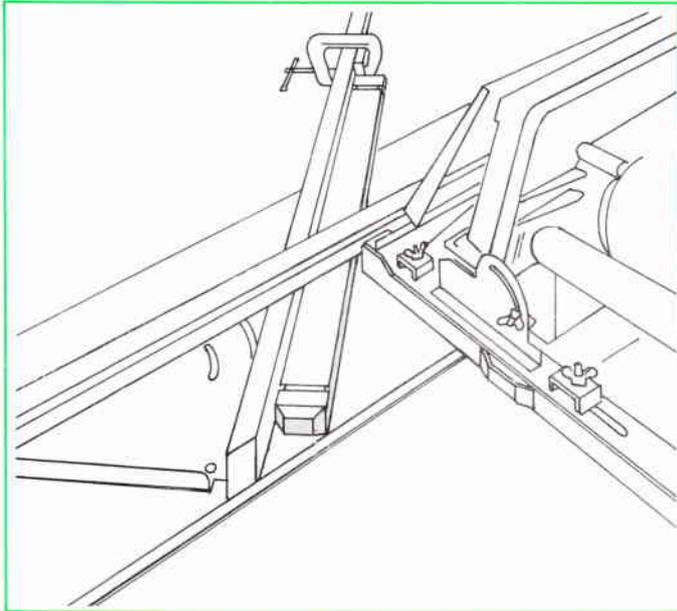


**3** Mark a line 25mm in from one end on one of the legs **A**. Use the mark to position the stop block on your length gauge, so that the saw cut line is right on this mark. Raise your saw so that the blade will cut only 5mm deep into the timber, and saw a groove on all four faces. Turn the leg end for end, and repeat the cuts on the other end. Repeat on the other three legs, then move the stop in by 3mm or one saw kerf, and repeat the process. This results in decorative grooves 6mm wide by 5mm deep at both ends of the legs.

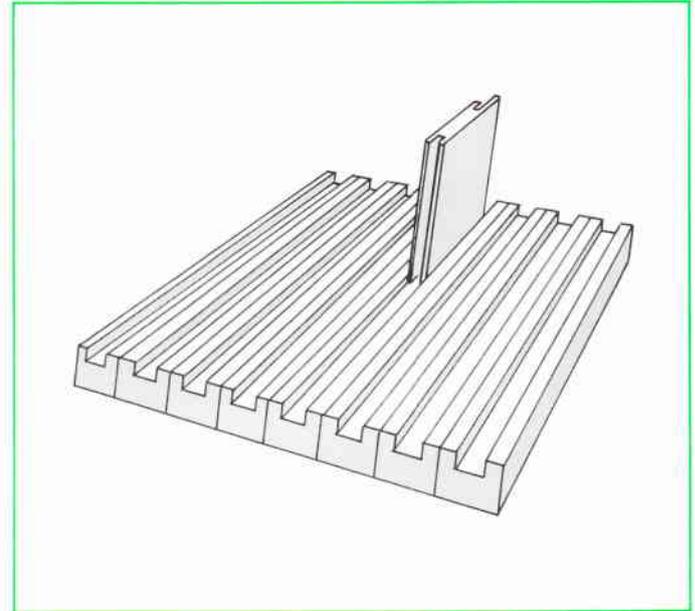
**4** To chamfer the tops of the legs, fully lower the sawblade and use the protractor set at 45 degrees. Mark one of the legs 10mm in from the end and square this line around the workpiece. Use these lines to make four cuts against face **A** of the protractor to form the top chamfers, and repeat with the other three legs. To save squaring and marking, and to make a neater job, it is easier to set a stop block on a protractor fence extension. **Figure 2.**

**5** Convert back to the table saw mode. With the rip fence set at 90mm, rip the **tongues** off four panel boards **C**. With the fence reset to 122mm, rip the **grooves** off another four. (Note that these settings are correct only for 126mm cover boards. If you use different cladding, adjust measurements to suit.) The object is to end up with a side panel width of 456mm, with the grooves evenly separated.

**6** To groove the trench into the rails **B**, set the blade height at 12mm, and the rip fence at 14mm. Pass one face of all the rail components over the sawblade. Move the fence out 3mm or one saw kerf and repeat until the



**FIGURE 2**



**FIGURE 3**

grooves are 20mm wide, checking finally that the cladding is an easy fit in the grooves. **Figure 3.**

If you are using your saw to make the stopped grooves in the legs, do this next. Dimensions are provided in **Figure 4**, and in the following steps 7 & 8 which refer to the router operation. General Points No.2 is also pertinent.

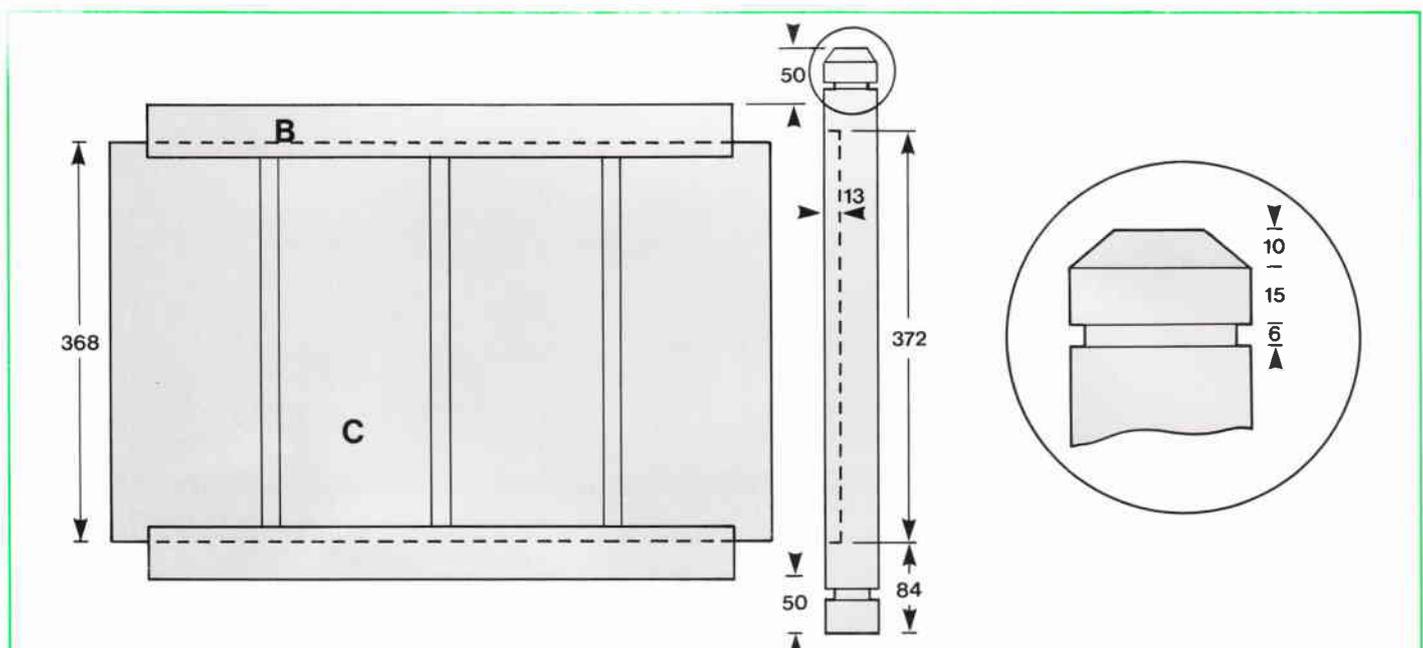
and fine-line marker pen. The trench begins 84mm from each end, so mark your timber to suit, and make your cuts using these reference lines.

A better method is to work up to a stop block clamped to a wooden extension mounted onto your router fence (you can also use your saw table rip fence). **Figure 5**

**7** Set up your router and the Router/Jigsaw Table, in the shaper table mode. A straight cut bit is required (maximum diameter = 20 mm).

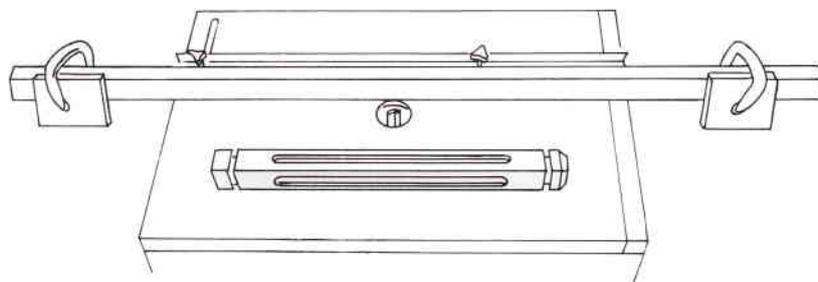
There are two ways to reference the cut when making the stopped trenches. The first is to mark on your router table top the position of the front and back edges of your router bit, using a square

**8** Set the fence so that it is 14mm from the cutter, and cutter height should be about 4mm. Make your first cuts on all four legs (on two adjacent faces of each), raise the router bit another 4mm, and repeat the process, continuing until you have stopped trenches about 13mm deep and 372mm long.



**FIGURE 4**

# Construction Details



**FIGURE 5**

(Note that these trenches are slightly longer than the height of the panels. This is so the ends of the panels do not have to be completely rounded over.)

Reset the fence, and repeat the above procedure until the trench width is about 20mm. The trenches should finally be 20mm wide, 13mm deep, and 372mm long, and in the centre of the legs.

**9** Assemble the panel boards into the side panels, using a board without a tongue, two normal boards, and a board without a groove. Test fit the rails top and bottom. The side panels should not protrude past the ends of the rails by more than 12mm. (If they do you will need to trim the end boards again. The grooves in the legs were made 13mm deep to allow for slight expansion of the side panels when in use).

Round the outer corners of the end boards of each panel, and check that they fit easily into leg grooves.

**10** To aid assembly pre-drill the legs for the nails. Mark lines 70mm in from the ends, and using a 4mm drill bit, drill through to the grooved faces, drilling either side of the line on adjacent faces to ensure that your nails do not intersect.

Mark the legs 50mm in from both ends on the grooved faces, to assist in locating the rails.

**11** Assemble the planter box with 100mm nails, punching them well into the wood. It is easier to assemble two opposite sides complete, and then fit the remaining components in between. The tops and bottoms of the rails should be level with the assembly lines you have drawn, and the panel sides fully home in the grooves. After nailing, clamp the planter box with sash or bar cramps, check for square, and screw the galvanised brackets to the inside corners, top and bottom, to prevent the nails from pulling out of the end grain during use.

**12** Cut the bottom slats to length, and nail in place inside the planter box with 30mm galvanised nails, leaving a small gap between each for drainage, and notching around the corner posts if necessary.

Finishing the timber with any kind of paint or stain is not recommended, as it will remain constantly damp in use.

Place the box in its intended position before filling with earth or compost, as it will be too heavy to carry. Place a layer of gravel screenings on the bottom to keep the earth from washing through the drainage slits. Note that offcuts of treated pine must not be burned.