

# MODIFIED OATH HIVE

PLANS AND CONSTRUCTION NOTES



## DESCRIPTION

These plans are for a modified version of the OATH (Original Australian Trigona Hive). They include a removable honey 'Super' and a heat shield to assist in preventing hive over-heating during summer.

The design has been developed through experimentation and observation of the techniques and practices of respected native bee authorities including Dr Tim Heard and Russell Zabel. The hive design incorporates a two part brood box which allows for easy hive splitting, a honey super which is separated from the main hive by two plywood separator boards and a top which provides for ventilation over the top of the hive to prevent overheating during the hot summer months.

To completed hive can optionally be fitted with a piece of PVC pipe to allow easy mounting on a star picket.

It is recommended that an untreated timber such as Cypress pine be used for the construction of box sides, top and base and exterior grade plywood for the separator boards. The timber used for the sides of the hive should be 25 mm (minimum) – 32 mm (recommended) in thickness as the timber provides the insulation and temperature stabilisation within the hive. The dimensions given in these plans are for boards that are 32 mm thick sides of the hive and honey super and 25mm thick for the base and top / heat shield.

The corner joints of this design are rebated for strength and durability. Butt joints could be used if the builder doesn't have the equipment or inclination to cut the rebates.

The outside of the finished hive should be given 3 or 4 coats of white exterior paint to improve the hives thermal properties and to protect the timber from rot and decay.

## MATERIALS LIST

### UNTREATED CYPRESS PINE

- 2 x 25 mm x 200 mm x 280 mm (Top and bottom of heat shield)
- 1 x 25 mm x 200 mm x 295 mm (Base)
- 6 x 32mm x 100 mm x 280 mm ( Sides of top and bottom halves and honey super)
- 6 x 32 mm x 100 mm x 180 mm ( Front and back of bottom halves and honey super)
- 2 x 25 mm x 32 mm ( Heat shield spacers)

### 6 - 8 MM PLYWOOD

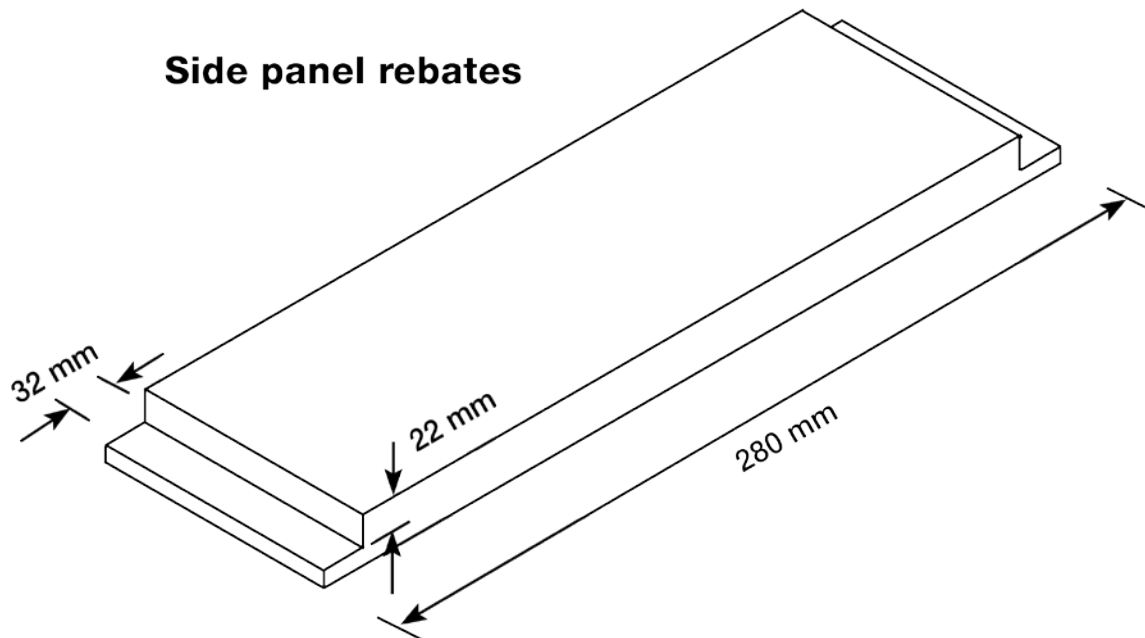
- 2 x 200 mm x 280 mm (Separator boards)

### MISCELLANEOUS

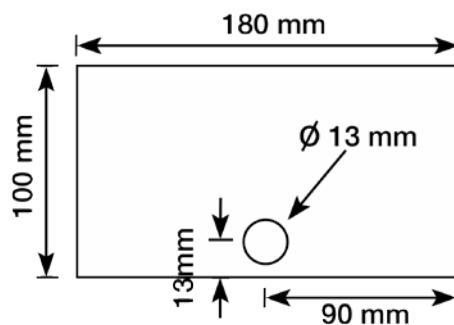
- 50mm wide strip of truck tube (Rubber band to hold hive together)
- Optional 150 mm long piece of 40 mm PVC pipe (Star picket mounting tube)
- PVA Wood Glue
- Screws or nails
- White paint to finish

## BUILDING PROCEDURE

1. Cut your Cypress pine and plywood pieces as per the materials list above
2. Cut 32 mm wide x 22 mm deep rebates in the 6 x 100 mm x 280 mm side pieces

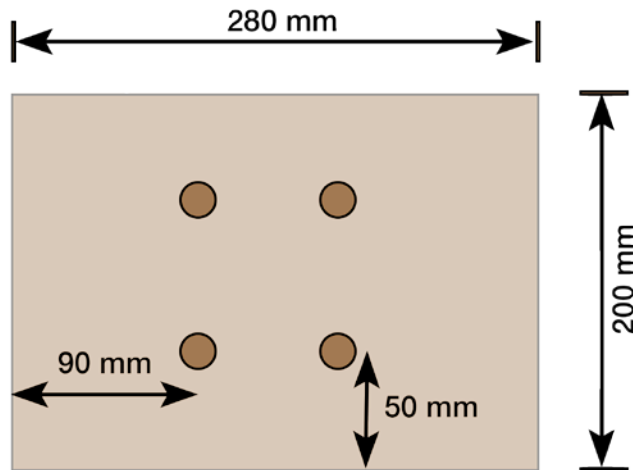


3. Drill a 13mm diameter entrance hole in one of the 100 mm x 180mm pieces of Cypress pine. The hole should be centred across the width of the piece and 13mm up from the bottom of the piece.



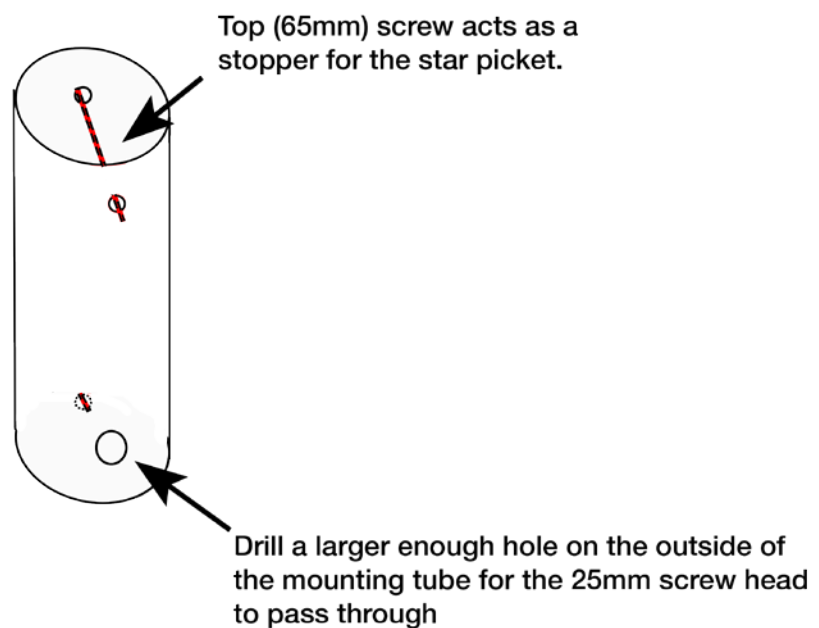
4. Drill 4 x 25 mm holes in the separator boards to provide access for the bees into the honey super. Positioning of these holes is not critical.

∅ 25 mm holes drilled in separator plates

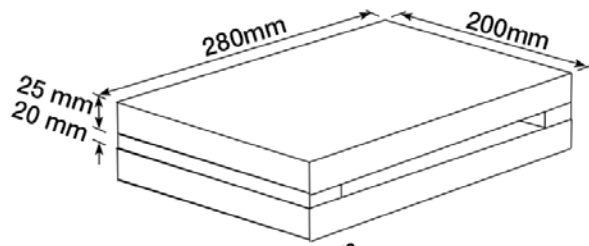


5. Glue and screw or nail your pieces together, cleaning up excess glue as you go.
6. Paint the outside of the assembled hive components. Give 3 or 4 coats for superior protection.
7. Attach the PVC star picket mounting tube using a 25 mm screw at the bottom and a 65mm screw at the top.

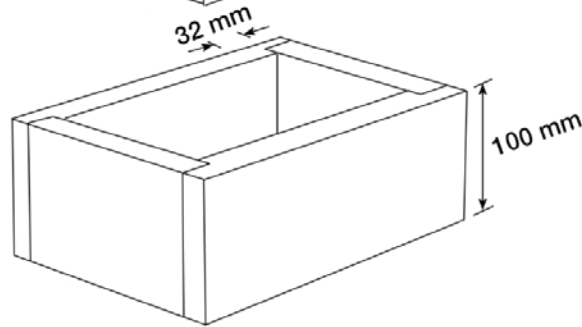
### Optional star picket mounting tube



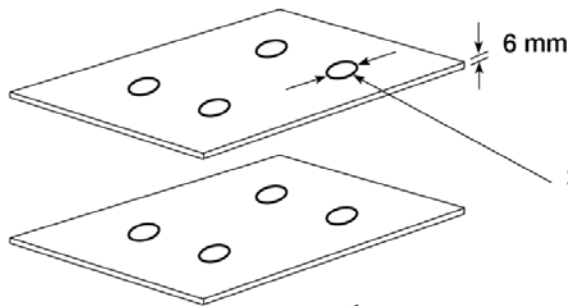
# EXPLODED VIEW OF HIVE



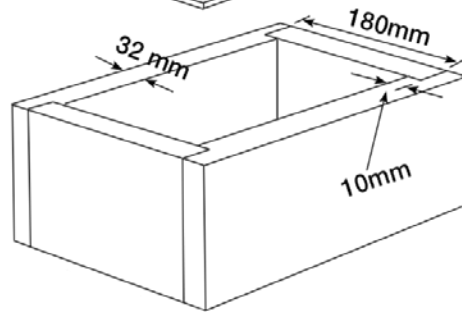
Top / Heat Shield



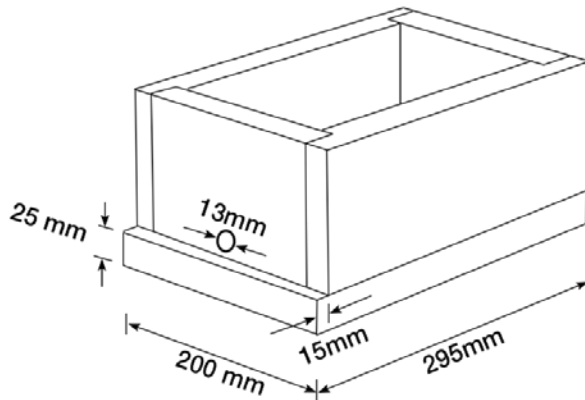
Honey Super



Separator boards



Hive top half



Hive bottom half