

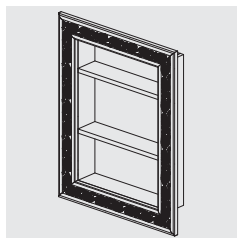
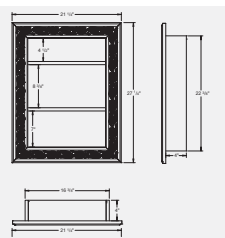
RECESSED SHELVES

CONSTRUCTION PLAN



Difficulty level: TT | MODERATE

Completion time: Less than 3 hours



RECESSED SHELVES

Elegant and practical, these built-in shelves made from MDF are beautifully framed with decorative moulding. The unit is harmoniously proportioned, with interior dimensions of 16 3/8" wide by 22 3/8" high and a depth of 4". The parts are assembled with finishing nails, making this an easy project for most do-it-yourselfers.



TOOLS AND MATERIALS NEEDED

TOOLS

- > Table saw
- > Mitre saw
- > Router with 1/4" straight bit
- > Drywall saw
- > Finishing (straight) saw
- > Pneumatic nailer
- > Plastering trowel
- > Sandpaper
- > Cordless drill
- > Stud finder
- > Level
- > Pencil
- > Measuring tape

MATERIALS

- > 1 sheet MDF, 5/8" x 24" x 48"
- > 1 panel fibreboard, 1/4" x 24" x 48"
- > 1 length polyurethane moulding, 5/8" x 3 1/16" x 94 1/2"
- > 2 pieces of 2" x 4" x 96"
- > 18-gauge 1 1/2" finishing nails for pneumatic nailer
- > 1 1/2" No. 8 screws
- > 1/2" drywall screws
- > Drywall compound
- > Fibreglass tape
- > Carpenter's glue
- > Contact adhesive
- > Wood filler
- > Primer
- > Paint

BEFORE ASSEMBLY

CUTTING LIST

Sand the edges smooth as needed.

MDF, 5/8" x 24" x 48"

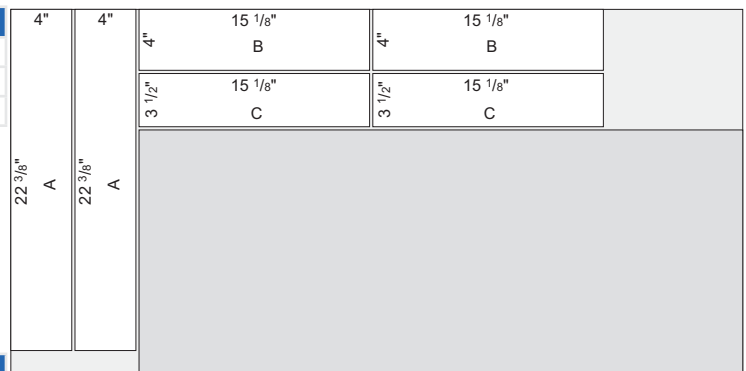
PIECES	QUANTITY	WIDTH (")	LENGTH (")
A SIDE	2	4	22 3/8
B TOP / BOTTOM	2	4	15 1/8
C SHELF	2	3 1/2	15 1/8

Polyurethane moulding, 5/8" x 3 1/16" x 94 1/2"

PIECES	QUANTITY	LENGTH (")
D FRAME - SIDE	2	27 1/4
E FRAME - TOP/BOTTOM	2	21 1/4

Fibreboard, 1/4" x 24" x 48"

PIECES	QUANTITY	WIDTH (")	LENGTH (")
F BACK	1	15 5/7	21 1/2



RECESSED SHELVES

BEFORE ASSEMBLY (CONT'D)

ROUTERS

The router is a motorized tool that can be equipped with a variety of cutters, or bits, making it extremely versatile. Router bits exist for making mouldings, carving grooves (e.g. for inserting drawer bottoms or cabinet door panels), giving a more professional-looking finish to the edges of pieces of stock (boards, shelves, tables), planing surfaces and making dovetail joints. Router bits are often sold in sets, usually with illustrations of the patterns that they can cut.

Depending on the model of router and type of work involved, the user either moves the router along the fixed material (e.g. to follow curves) or moves the material itself along a fixed router table (e.g. to carve grooves). A number of routers are designed to be used either way and can be fastened upside down under a router table.

MDF

MDF is a versatile material that makes it easy to build strong, sturdy and affordable furniture. It is advisable to always glue the pieces together with carpenter's glue before fastening them with nails or screws. If the nails or screws do not provide enough strength, use clamps to hold the parts together while the glue dries.

Nail fastening:

For some projects it is best to use finishing nails. In such cases, using a pneumatic nailer will get the job done more quickly and easily, and the nails will hardly show.

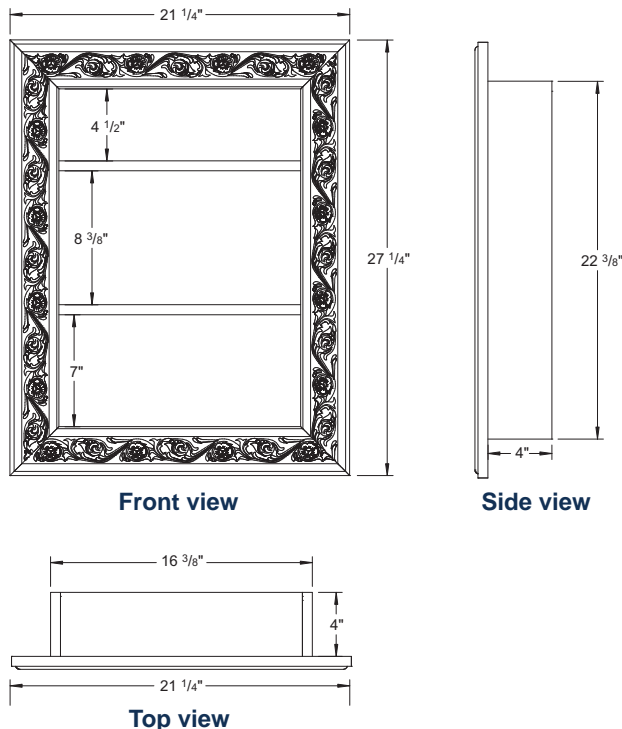
Important note:

Always wear a protective mask when cutting or sanding MDF as the dust can be irritating and is a potential health hazard. Work outside if you can; if this is not possible, close any air vents and doors leading to other rooms so as to prevent the dust from spreading. Open a window while you work and cover all items in the room with dust sheets. Vacuum once you have finished cutting.

CONTACT ADHESIVE

Contact adhesive must always be applied to both surfaces and each surface must then be left to dry for the manufacturer's recommended time – usually about 10-15 minutes. You then press the two surfaces together, applying pressure from the centre outwards. They will adhere instantly and do not need to be clamped. Once they are stuck, you will no longer be able to move or adjust them. It is therefore important to handle the parts carefully and position them accurately. Do this work in a well-ventilated room, away from excessive heat or open flame.

ELEVATIONS

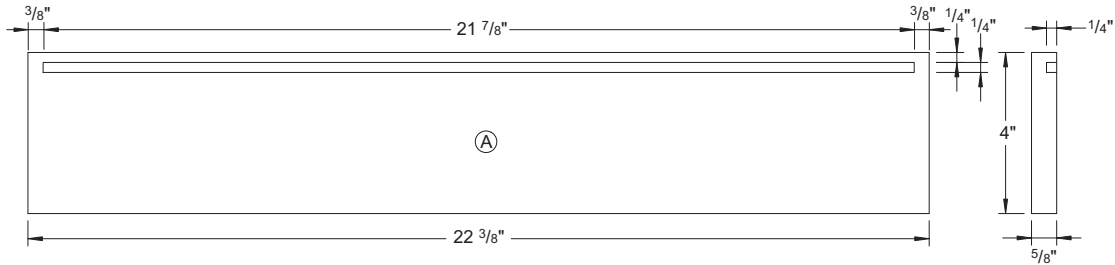


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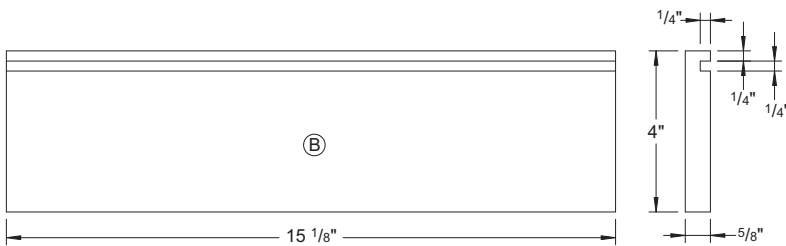
PREPARATION

1 PREPARE THE PARTS

Follow the instructions and the measurements shown in the illustrations. Apply a coat of primer and paint the parts before assembling.



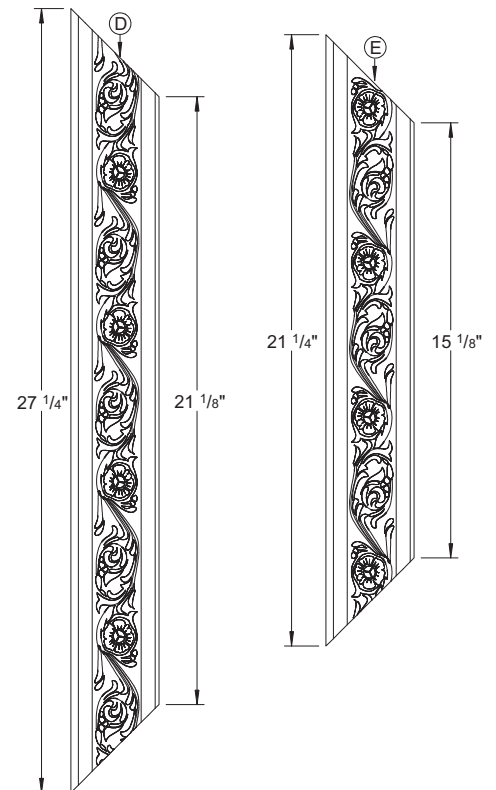
1.1 Sides A: Using the router and straight bit, carve a groove 21 ⁷/₈ long by ¹/₄ deep along the length of the board but leaving ³/₈ at each end.



1.2 Top / Bottom B: Using the router and straight bit, carve a groove ¹/₄ deep along the entire length of the board.

1.3 Frames D and E: Cut the ends at 45°.

N.B.: Building a frame from decorative moulding requires patience and care in order to make the angle cuts so that the pattern matches seamlessly at the corners.



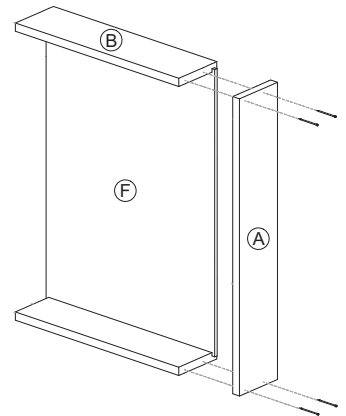
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ASSEMBLY

2 ASSEMBLE THE BOX

The top, bottom, sides and shelves are assembled using glue and finishing nails only.

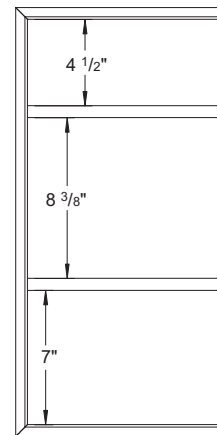
- 2.1 Dab carpenter's glue onto one of the ends of each part B.
- 2.2 Position one side A against the glued ends of parts B to form a U shape. The grooves on all parts must be facing inwards. Nail in place.
- 2.3 Apply glue along the grooves on parts B and side A, then slide back F into the grooves.
- 2.4 Apply glue to the other end of parts B and in the groove on the remaining side A, then nail side A to the ends of parts B to make a box.



3 INSERT THE SHELVES

- 3.1 Apply glue to the ends of the shelves.
- 3.2 Insert the shelves into the box, one 4 1/2" below top B and the other 7" above bottom B. Nail in place.
- 3.3 Clamp the parts and leave the glue to dry.

Handy tip: Use some pieces of MDF cut to 4 1/2" and 7" as spacers to help ensure accurate positioning of the shelves.

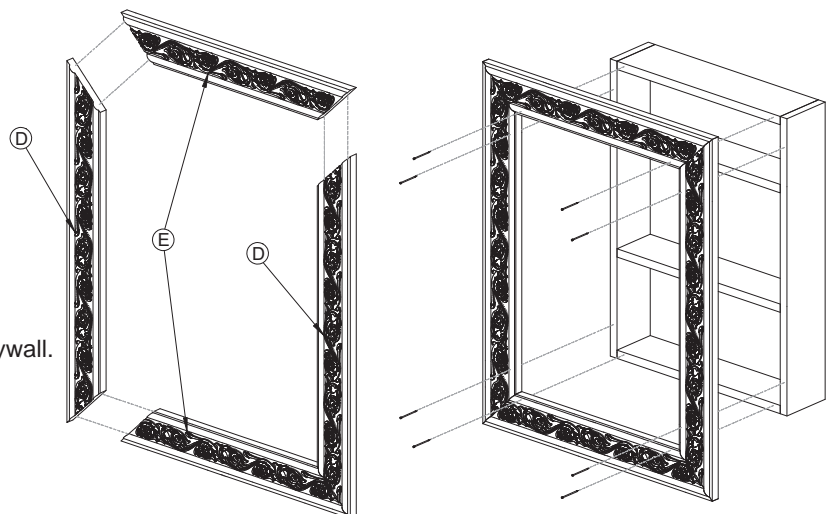


4 FIT THE SHELF UNIT INTO THE WALL

- 4.1 Insert the shelf unit into the wall opening, resting it on the bottom girt.
- 4.2 Check for level, then screw into the studs.

5 ASSEMBLE AND ATTACH THE DECORATIVE FRAME

- 5.1 Glue frame parts D and E together with contact adhesive, following the manufacturer's instructions.
- 5.2 Glue and nail the frame around the edges of the shelf unit to conceal the cuts in the drywall.
- 5.3 Fill the holes and touch up as necessary.



This recessed shelf unit is quick to build and not only adds charm and character to a room but also provides welcome additional display space!