

Double-Offset Knife Hinges

Used where you want minimum visibility of hinges or where butt hinges are ineffective, knife hinges are recessed into the cabinet carcass and the door ends instead of the sides. Double-offset hinges are used for fully inset doors.

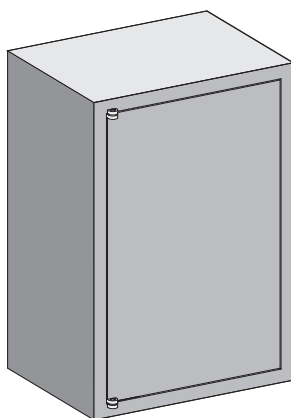


Figure 1: Fully inset door.

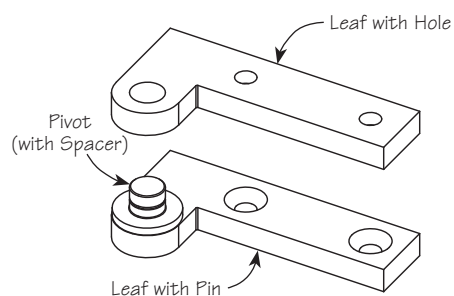


Figure 2: Double-offset knife hinge.

Notes on Knife Hinge Installation

- Accurate layout is the most critical part of installing knife hinges. Once the mortises are cut and the hinges installed, there is no easy way to adjust for position.
- The height of the door must equal the cabinet opening dimension **minus** the thickness of the two hinge spacers (washers). For an equal gap all around the door, the width of the door should equal the cabinet opening **minus** the same dimension of two hinge spacers (washers).
- The mortises for the hinges in the cabinet carcass will need to be cut before the cabinet is assembled.
- The leaf with the pin is installed in the cabinet carcass and the leaf with the pivot hole is installed on the door.

Disconnect the hinge leaves. Position the hinge leaf with the pivot hole on top of the door so that it is centered on the width of the door and the pivot hole end of the hinge leaf is flush with the edge of the door, as shown in **Figure 3**. (Pivot hole faces the door front.)

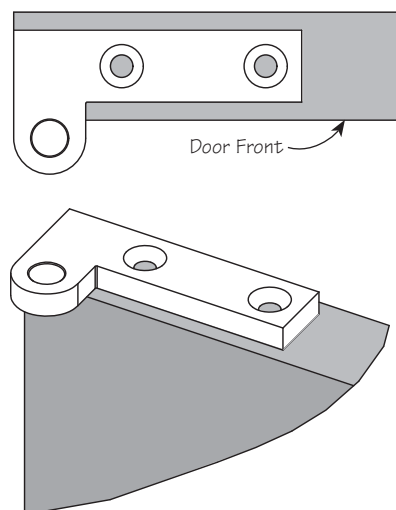


Figure 3: Positioning the hinge leaf on the door.

Mark a line around the perimeter of the hinge leaf using a striking knife. Set a marking gauge from the front of the door to the line at the front of the hinge leaf (**Figure 4**). Keep this setting, as you will use it to locate the other hinge leaves.

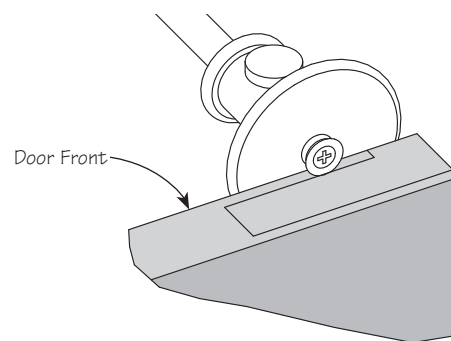


Figure 4: Setting a marking gauge to the front of the hinge.

Use a chisel to carefully cut out the mortise within the mark. The depth may be accurately cut using a small router plane set to the thickness of the hinge leaf. Alternatively, the mortise may be cut using a router and a straight bit set to a depth equal to the thickness of the hinge leaf. Test the fit of the hinge leaf in the mortise.

Using the setting on the marking gauge, strike a line for the front edge of the hinge leaf onto the bottom of the door. Position the hinge leaf to that line and mark the perimeter with a striking knife. Cut the mortise as shown in **Figure 5**.

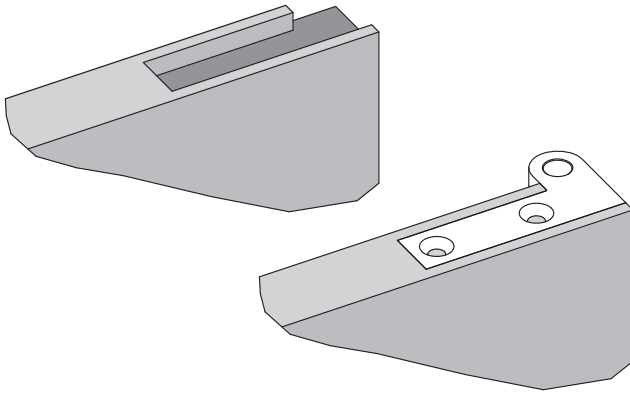


Figure 5: Cutting the mortise and testing the fit of the hinge leaf.

To ensure the front of the door is exactly flush with the cabinet, strike a line for the front edge of the hinge leaf on the bottom of the cabinet carcass using the same setting on the marking gauge, as shown in **Figure 6**.

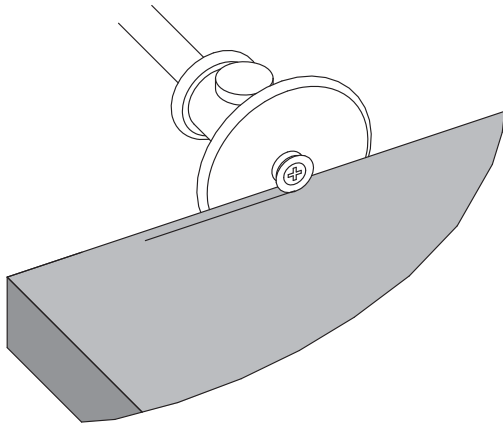


Figure 6: Striking a line on the bottom of the cabinet carcass.

Use a shim the same thickness as the hinge washer to achieve a consistent gap between the door and the cabinet carcass. Butt the pin end of the hinge leaf (pin facing out) against the shim on the carcass side, then position the hinge leaf to the scribed line and mark the perimeter with a striking knife, as shown in **Figure 7**. Cut the mortise as above, and then repeat these steps for marking and mortising the remaining hinge leaf in the top of the cabinet carcass.

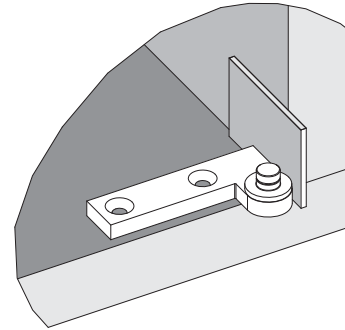


Figure 7: Using a shim to achieve consistent gap.

Once all the hinge mortises are cut, dry assemble the cabinet carcass and set the hinges in place to check the fit. Reconnect the two parts of the hinge, then position the hinges into the mortises in the cabinet carcass. Open the hinges and slide the door into position, such that the open hinge leaves catch in the door mortises, as shown in **Figure 8**. Check the door's alignment with the cabinet carcass and ensure that the gaps are even at the top and bottom.

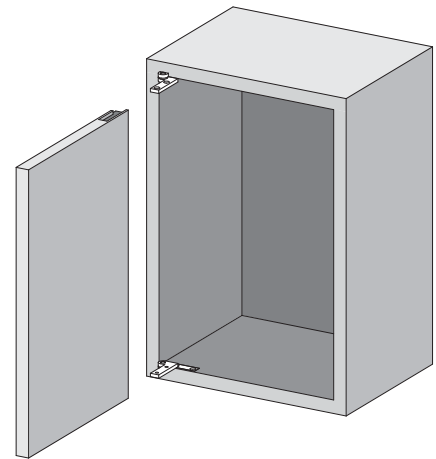


Figure 8: Installing the door.

Mark the hole centers for the hinge screws in the doors and cabinet carcass and drill pilot holes as required. Proceed with your project, then reposition the hinges in the cabinet carcass in their respective mortises and secure in place with screws. Slide the door into position on the hinges and secure in place with screws.