

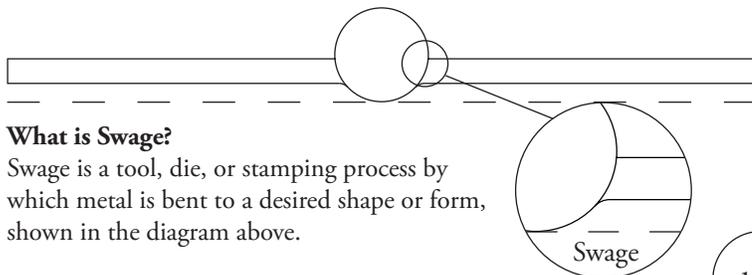


Opportunity: It is architecturally correct to have even reveals on both sides and the head of the door. Upstate Door needs to accommodate hinge swag from hinge manufacturers.

Solution: In an effort to achieve even reveals, Upstate Door intentionally makes the hinge sit proud to ensure there is a consistent 1/8" reveal around the door. This is also done to help remove stress from the hinge and keeps the hinge from binding over time.

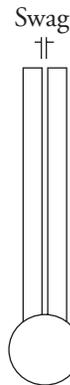
Why does Upstate Door Utilize Hinge Swag?

Every hinge manufacturer produces hinges with a different "swag." If the swag is not compensated for, the reveals will not be consistent on the top and sides of the door. To ensure a consistent 1/8" reveal on the sides and head of the door, Upstate Door intentionally sits the hinge proud. Sitting proud means that the hinges typically protrude out by a very minimal amount such as 1/32".



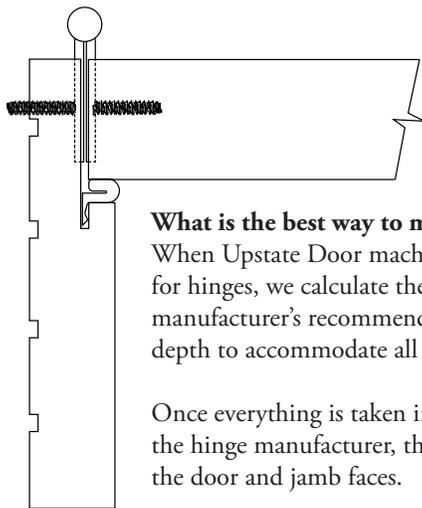
What is Swage?

Swage is a tool, die, or stamping process by which metal is bent to a desired shape or form, shown in the diagram above.



What is Hinge Swag?

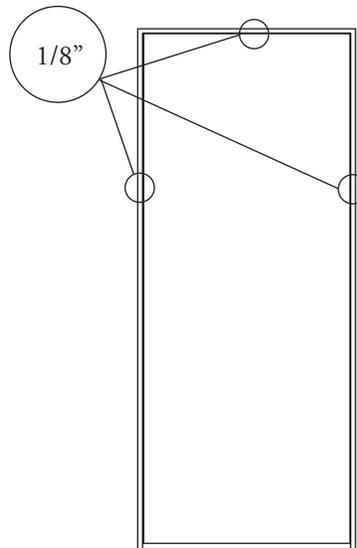
On hinges, the swage process creates a gap between the hinge leaves when the leaves are parallel to each other. This gap is called the "swag" (shown to the left). Most hinge manufacturers are around .06" or ~1/16" hinge swag.



What is the best way to machine for hinges?

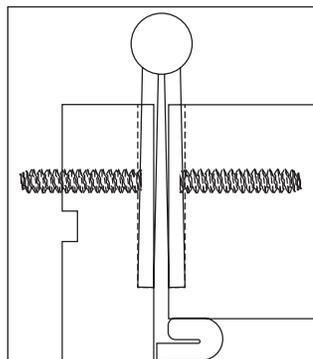
When Upstate Door machines the doors and jambs for hinges, we calculate the leaf thickness and the manufacturer's recommended swag and adjust the depth to accommodate all of the factors.

Once everything is taken into account, depending on the hinge manufacturer, the hinges may sit proud of the door and jamb faces.



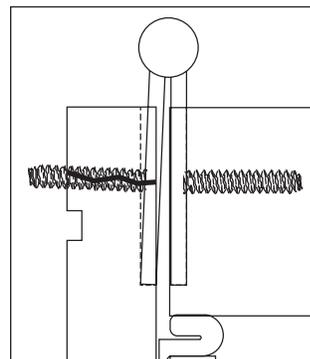
Why do I need 1/8" reveals?

Upstate Door requires that all operable door units must maintain a minimum of 1/8" reveal around the door to conform with our standard warranty. Improper reveals will lead to the door binding and/or general malfunction. 1/8" reveals around the unit ensure that the door has sufficient clearances year round. Wood products, being a living organism, will expand and contract throughout the year depending on temperature and relative humidity of the location.



What happens if Upstate didn't accommodate for swag/swage?

The hinge would not sit flat against the door or the jamb. This would leave a gap on the backside of the hinge (left). When the leaves don't sit flat against the door/jamb, this creates tension on the screw.



Why does Upstate never machine the hinge flush to the jamb/door?

Typically when the hinge sits flush against the jamb, the hinge will "bind." This stress could cause the screws to strip out of the jamb or crack the jamb completely (left). This is also architecturally incorrect.

Note: As a standard, Upstate Door puts 1/32" hinge shims behind hinges in the hinge pockets on the door. Also as a standard, Upstate Door sets all hinges proud in the jamb to ensure a consistent 1/8" reveal.