

# Screw Torque Testing

Forte™ Opening Solutions has completed testing of screw torque for hinge screws in three standard offerings to provide information for installation of hinge screws in the hinge stile doors. Face torque for surface applied hardware is also included.

A standard 4-1/2" x 4-1/2" standard weight butt hinge was used alongside 18-8 stainless steel Phillips countersunk, flat head wood screws, of specification #12 x 1-1/4" as provided by the hinge manufacturer.

The screw torque range as determined for stile configuration below is as follows:

- Fire Doors with non-combustible composite stiles typically found on 45-90 minute ratings
  - » **Maximum torque: 30 in-LB.**
- LSL veneer edge banded stile
  - » **Maximum torque: 30 in-LB.**
- Hardwood edge stile
  - » **Maximum torque: 30 in-LB.**
- The torque for the door face
  - » **Maximum torque: 25 in-LB.**
- The torque for top rail with surface applied hardware
  - » **Maximum torque: 25 in-LB.**

Factory Pilot holes should be ordered for butt hinge preps. Pilot holes are required for installation of any screws (Stiles/Rails/Faces) if allowed based on hardware applications per manufacturer's listings.

The use of a wood screw thread lubricant such as natural beeswax will help with friction reduction and ease of screw insertion into the pilot holes.