

SMART-BIT.
PRO PLUG® SYSTEM
FOR DECKS, FLOORING AND WOODWORKING

STARBORN.

**THE SMART-BIT® PRO PLUG®
SYSTEM FOR WOOD
INSTALLATION INSTRUCTIONS**

What You Will Need

1. PRO PLUG® Tool for Wood. Depending on the number of holes and density of the wood you are drilling, extra Replacement Bits may be necessary.
2. PRO PLUG® Plug & Fastener Kit. Kits contain an equal number of plugs and fasteners. For decks, a general rule of thumb is 350 pieces for each 100 square feet (9 sq m) of decking. There are two available types of fasteners:

2-1/2" (62mm) stainless steel screws for decks and other outdoor projects, and 1-5/8" (42mm) hardened steel zinc plated screws for flooring and other indoor projects. Each kit also contains driver bit(s) and a PRO PLUG® Glue Nozzle.

3. Your decking or flooring manufacturer's instructions.
4. A power drill. (Pro tip: for best results, and to prolong the life of the PRO PLUG® Tool, use a corded drill).
5. A power sander with sandpaper; 60 grit works well for dense boards such as Ipe. For less dense boards such as Cambara or Meranti, 100 to 120 grit is recommended. Consult your decking or flooring installation instructions for their sanding recommendations.
6. A source of compressed air (from a small can or a compressor).

7. A water clean-up wood glue with a cap that is interchangeable with the PRO PLUG® Glue Nozzle. Wood glue products made by Elmer's® that work with the Nozzle are available in the following sizes: 4 oz. (118ml), 8 oz. (236ml) and 16 oz. (472ml). Wood glue products made by Franklin International (sold under their Titebond® line) are available in the following sizes: 4 oz. (118ml) and 8 oz. (236ml). For exterior projects, be sure to use appropriately rated exterior glues, such as Elmer's® Waterproof Wood Glue or Titebond® III. (Note: Epoxy adhesives can also be used for plugging, but will not work with the PRO PLUG® Glue Nozzle).

8. A plastic or wood mallet.
9. A rag.

How To Use The System

Note: Before gluing, practice using the PRO PLUG® Glue Nozzle on a few holes drilled in scrap wood. This will also get the Nozzle fully loaded with glue and give you a feel of how the

Nozzle works.

1. Read your decking or flooring manufacturer's installation instructions.
2. Determine the locations where screws are needed.
3. Pre-drill holes with the PRO PLUG® Tool for Wood. The hole is complete when the stop collar stops spinning.
4. Blow out sawdust from the holes with compressed air.
5. Insert PRO PLUG® Fasteners so they are flush with the countersink at the bottom of each hole. (Note: Wood should be kept dry and holes free of debris before gluing and inserting plugs).
6. Attach the PRO PLUG® Glue Nozzle to the wood glue bottle. Follow the glue manufacturer's usage recommendations, including working temperature and set time.

7. With the work surface in a horizontal position, place the Nozzle in the hole and push the glue bottle down. This will open the Nozzle. Gently squeeze. Turn the bottle a 1/4 turn to ensure full coverage of the side wall. Pull the Nozzle out of the hole. This will close the holes in the Nozzle. The objective is to coat the inside walls of the hole while leaving as little glue at the bottom of the hole as possible. You can glue several holes at a time and then go back to insert the plugs, so long as you do so before the glue begins to set. Use a rag to wipe off any excess glue that may build up on the Nozzle tip.
8. Insert a PRO PLUG® Plug in each hole, chamfered end first, with the wood grain aligned with the work piece. (Note: All plugs are face grained). Using only moderate force, pound plugs in with a plastic or wooden mallet until flush or nearly flush with the work surface. Any excess glue can be wiped clean with a

damp rag.

9. Sand the work surface. We recommend delaying sanding until after the glue has set following the glue manufacturer's directions.

(Note: PRO PLUG® Glue Nozzles can be easily maintained and reused even after becoming caked with dry adhesive. Simply wash the Nozzle with warm water and if necessary clear the Nozzle holes with the end of a paper clip).

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U.S. Patent No. 7,258,513 / European Patent No. 2,361,692 / Canadian Patent No. 2,607,296 / Australian Patent No. 2006246397 / German Patent No. 202006021006.7 / Other U.S. and international patents pending.
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