

## Technical Data, Applications and Performance Tips



### Why SMART-BIT®?

Decks have undergone an evolution in recent years, from being part of the backyard to part of a home's primary living space. Along with this change has come the expanded use of **preferred decking materials like composites and hardwoods**. **Stainless steel deck screws**, long recognized as **the fastener of choice** for high-end decks, have also witnessed expanded use.

**Stainless steel**, however, is softer than hardened steel and **often requires pre-drilling** with preferred decking materials. In the past, pre-drilling was time consuming and laborious. But with the introduction of the original **SMART-BIT®**, **pre-drilling and countersinking could be done in one step**, with one tool, more **quickly and more easily** than ever before. That's *smart!*

And now, **SMART-BIT® is even smarter!** The new SMART-BIT® has **POWERBOLIC™ drill bits** with **special fluting** that cuts through decking more than twice as fast as standard wood bits. Plus, the bits are **replaceable!**

For deck builders working with **composites**, **SMART-BIT®** offers an additional benefit -- it **eliminates mushrooming** (the formation of small mounds of waste material near the screw hole surface).

### Performance Tips

1. We have tested SMART-BIT® under rigorous conditions. Going **into ipe** deck wood, with only minimal rests between holes, we were able to get **300 to 500 holes per bit**. Eventually the edges of any bit will get dull, causing heat to build up faster and finally causing the bit to break. When this happens, simply remove the old bit and replace it with a new one. The most important thing in extending the life of a SMART-BIT® is to **drill in a straight and stable fashion**. **Two-handed operation is highly recommended**. In particular, drilling into ipe or similarly dense materials is hard work. Rest as needed and **don't sacrifice stability for speed**.
2. You will know when the **hole is completed** when the **collar stops spinning**.
3. Occasionally when working with some brands of plastic/wood composites, the waste material can gather inside the cavity, requiring cleaning after approximately 10 to 20 holes. To clean, simply hold the free-spinning stop collar in one hand and run the drill away from the work surface. The waste material will simply eject itself. If more cleaning is ever needed, the SMART-BIT® cavity has been conveniently sized to permit using the end of a deck screw to clean it out. This, however, should not happen too often, if at all.

### Applications

#### Composite Decks

Plastic wood composite decking, as well as purely plastic decking materials, often require pre-drilling for stainless steel deck screws due to the hardness and density of the material. Even where the material is soft enough to not require pre-drilling, the waste material from the screw hole can form a small mound that is unsightly (called "mushrooming"), a problem that can be avoided by pre-drilling.

#### Hardwood Decks

Species such as ipe and mahogany are extremely hard and pre-drilling is highly recommended.

### **Decks using Hidden Clip Systems**

When using hidden clip systems, it is important to remember that the first and last deck boards, as well as the fascia and steps, still have to be secured with face screws. Pre-drilling for appearances and to avoid splitting is the accepted practice.

### **Splitting**

To avoid splitting, always pre-drill at the end of each board and where deck boards meet. Even decking material that doesn't require pre-drilling over all still needs pre-drilling at the ends of each board.

### **Splintering**

Regardless of the type of wood decking used, some splintering around the screw head will naturally occur if holes are not pre-drilled and countersunk. Not only is splintering unsightly, it can be a nuisance to pets and bare feet. For a clean-looking, safe deck, always pre-drill and countersink screws.

### **General Woodworking**

Although originally designed for deck building, SMART-BIT® has also become popular for installing cabinets and other general woodworking applications.

## **Specifications**

Size	Drill Bit Diameter		Countersink Diameter		Countersink Angle
	mm	inch equiv	mm	inch equiv	
#7 Trim	3.0	7/64	6.2	1/4	60 degrees
#8 Trim	3.2	1/8	6.6	17/64	60 degrees
#10 Flat	3.6	9/64	9.2	23/64	90 degrees

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