

Garrett Wade

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Drill Bit Coatings



Black Oxide: is an inexpensive black coating. A black oxide coating provides heat resistance and lubricity, as well as corrosion resistance. These result in a longer bit life than possible for the typical uncoated high-speed steel bits. (Black Color)



Titanium Nitride (TiN): is a very hard ceramic material, and when used to coat a high-speed steel bit (usually twist bits), can extend the cutting life by three or more times. A titanium nitride bit cannot be properly sharpened, as the new edge will not have the coating, and will not have any of the benefits the coating provided. (Gold Color)



These are hole saws, they will work on thin steel and wood. There is 1 single arbor to fit the different size saws. Use a slight twist to remove the hole saw from case

All of the specialty bits should be obvious. There are Allen in SAE and metric, straight, Phillips, torx. Etc



Twist Drill Bits: The twist drill bit is the type produced in largest quantity today. It comprises a cutting point at the tip of a cylindrical shaft with helical flutes; the flutes act as an Archimedean screw and lift swarf out of the hole.



Masonry Drill Bits: Masonry bits typically are used with a hammer drill. The bit is both rotated and hammered into the work piece; the hammering breaks up the masonry at the drill bit tip, and the rotating flutes of the drill bit body carry away the dust. Rotating the bit brings the cutting edges onto a fresh portion of the hole bottom with every hammer blow. Hammer drill bits often use special shank shapes such as the common SDS type.



Spade Bit: Spade bits are used for rough boring in wood. They tend to cause splintering when they emerge from the work piece. They are flat, with a centering point and two cutters. The cutters often are equipped with spurs in an attempt to ensure a cleaner hole. With their small shank diameters relative to their boring diameters, spade bit shanks often have flats forged or ground into them to prevent slipping in drill chucks. Some bits are equipped with long shanks and have a small hole drilled through the flat part, allowing them to be used much like a bell-hanger bit. Intended for high speed use, they are used with electric hand drills. Spade bits are also sometimes referred to as "paddle bits."



Brad Points Bits: The lip and spur drill bit is a variation of the twist drill bit which is optimized for drilling in wood. It is also called the brad point bit or dowelling bit. Conventional twist drill bits tend to wander when presented to a flat work piece. For metalwork, this is countered by drilling a pilot hole with a spotting drill bit. In wood, the lip and spur drill bit is another solution: The centre of the drill bit is given not the straight chisel of the twist drill bit, but a spur with a sharp point and four sharp corners to cut the wood. The sharp point of the spur simply pushes into the soft wood to keep the drill bit in line.

Other Part of The Set:



identify drill bit sizes.

Drill Sizer or Drill Gage: is used to quickly and conveniently



Nail set: A nail set is a small metal tool that looks much like an ice pick. When you face-nail finish nails into wood, you often cannot hit the nail the nail quarter-inch or so into the wood or you will damage the surface of the wood.



Drill Bit Stop Collar: A drill stop, also called a drill bit stop collar, is used to control the cut depth when drilling by holding the drill in place with two set screws.



Countersink: A countersink is a conical hole cut into a manufactured object, or the cutter used to cut such a hole. A common usage is to allow the head of a countersunk bolt or screw, when placed in the hole, to sit flush with or below the surface of the surrounding material. (By comparison, a counter bore makes a flat-bottomed hole that might be used with a hex-headed cap screw.) A countersink may also be used to remove the burr left from a drilling or tapping operation thereby improving the finish of the product and removing any hazardous sharp edges.