

GENERAL INFORMATION

Auger Bits

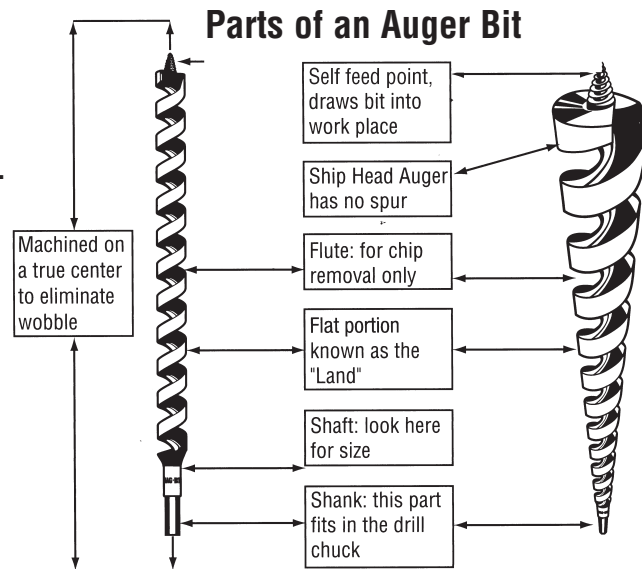
MAG303DLX & MAG357DLX NAILBOMBER® BITS:

MAG303DLX overall length 18", diameters from 3/8" to 1-1/2".
MAG357DLX overall length 8", diameters from 1/2" to 1-1/2".

Heavy duty Ship Head auger bits. Molybdenum coated. Molybdenum is a dry lubricant that allows even the greenest chips to pass more easily along the flute. The coating prolongs the life of the bit by dispersing excess heat from the tip and cutting lips during the cutting process. This prevents the loss of hardness developed during heat treatment.

They are induction heat treated and have been designed to cut through any nail they encounter.

- Solid Center makes the bit stronger
- Machined on a true center for straight fast holes

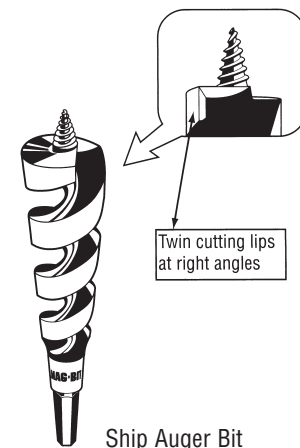


MAG735 & MAG715:

MAG735 overall length 17", diameters from 1/4" through 1-1/2".
MAG715 overall length 6", diameters from 1/2" through 1-1/2".

Standard Duty Ship Head Auger Bits: These bits have the same style head (two cutting surfaces) and self feed screw point as the MAG303 and MAG357. They are shorter overall and also have shorter flutes. This makes them less expensive.

These bits are not designed to cut through metal objects they might encounter. For sale when price is more important than quality.



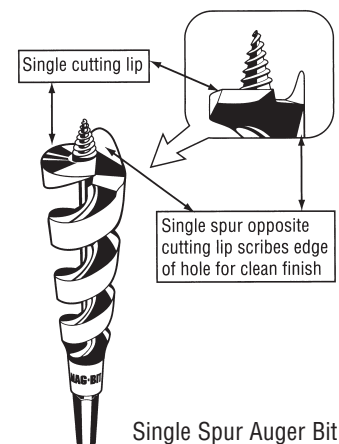
MAG701, MAG704 & MAG710:

MAG701 overall length 7-7/8", diameters from 1/4" through 1-1/2".
MAG704 overall length 13", diameters from 5/16" through 1-1/2".
MAG710 overall length 18", diameters from 3/8" through 1-1/2".

Single Spur Auger Bits: The heads of these bits are very different from Ship Head Auger Bits. As the name implies, they have a spur that protrudes from the outer diameter of the head. This is designed to scribe the outer edge of the hole as it is being cut, reducing splinters and blow outs. For best results the bit should not be forced into the work piece.

Only One Cutter: the spur is placed opposite the cutter to allow it to engage the work piece before the cutter, ensuring a clean entrance hole. Many of our competitors do not place the spur in this optimum position. If the spur follows the cutter it is of no value. These bits are manufactured with a solid center for greater strength.

Only MAG-BIT offers the 13" overall length MAG704, useful when a 6" bit is too short for the depth of hole needed, and an 18" bit will not fit into the work piece. Generally these bits are preferred by contractors.



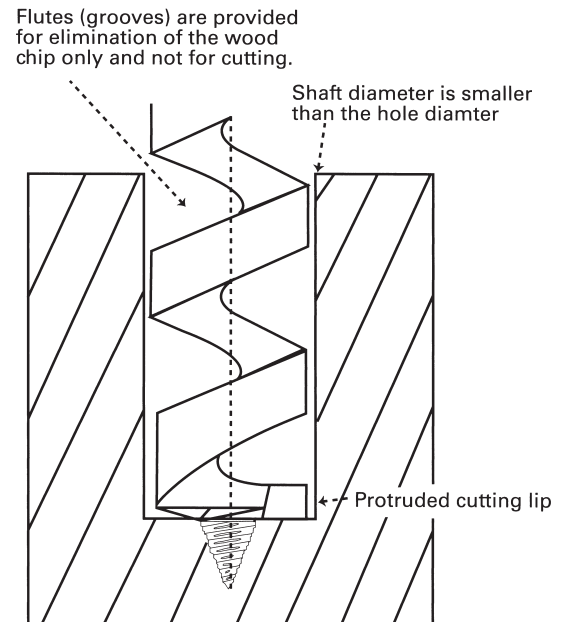
GENERAL INFORMATION

How to Measure a Ship Head Auger Bit

1) Definition: We define "Ship Head" auger bits as wood boring auger bits with *protruded* cutting lips. These bits are generally furnished in hollow center, one flute construction without any outlying spurs.

2) How it works: These bits are designed to drill holes in wood and similar materials rapidly and efficiently, requiring the least effort. The actual drilling is done by the protruded cutting lips. The fluted (grooved) portion of the bits is designed solely for the purpose of evacuating the wood chips towards the rear of the bits. The drill body is smaller than the holes produced by the bits, causing the least amount of friction between the wood and the tool.

3) How to measure the bit size: Attempts are often made to measure the size of the body portion (flute portion) of the bits – a mistaken notion that the thickness of the body portion determines the hole sizes. However, it is very difficult, if not impossible, to take the above measurements because of the odd shapes of the bits (ILL. A). It should also be noted that a measurement obtained in this way does not have any bearing on the actual hole size drilled.

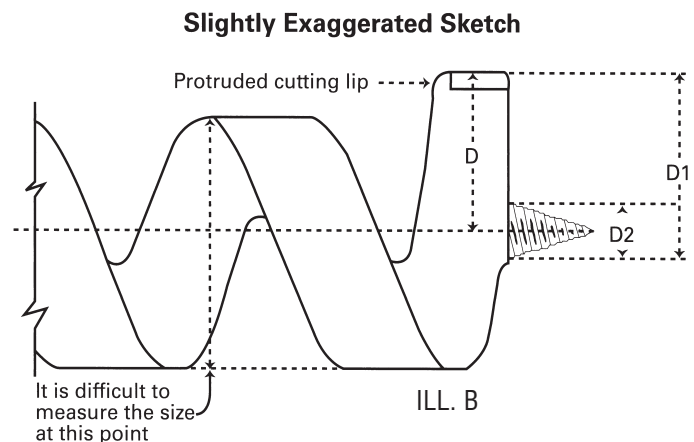


The measurement which determines the hole size is the distance between the center of the screw point and the outer edge of the protruded cutting lips. However, it is also difficult to take this measurement because of the odd shaped parts involved.

This method utilized at our factory to take this measurement for production is as follows (ILL. B):

- A) Measure the distance between the opposite side of the screw point at its base and the outer edge of cutting lips (D1).
- B) Measure the thickness of the screw point at the base (D2)
- C) Subtract 1/2 of the (D2) measurement from (D1) to obtain radius (D) of the bit.
- D) Multiply the above figure (radius) by the factor of 2 to obtain the diameter of the nominal bit size.

4) Nominal bit size and the actual hole size: It is often assumed that auger bits should produce holes equal to the nominal bit size. However, in actuality, the holes produced by this type of bit vary considerably depending upon various factors such as type of wood, dryness of the material etc., etc. Generally, the softer the materials, the smaller the size of the holes produced. Why? The screw point often moves around, especially in softer wood, during the drilling process and the holes produced often come out smaller.

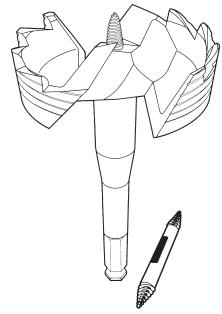


Therefore, in all likelihood, the holes produced by "Ship head auger bits" come out smaller than the normal bit sizes. Since work piece materials cannot be predicted, nominal bit sizes are selected by the theoretical hole size by most manufacturers of auger bits. When the hole size is critical, it is recommended that the users select bits slightly larger in nominal size. For example, for use with 1" bolts or dowels, 1-1/16" or 1-1/8" nominal size bits should be used. For any questions, please call Magnus Industries Inc. at 1-888-624-2487.

GENERAL INFORMATION

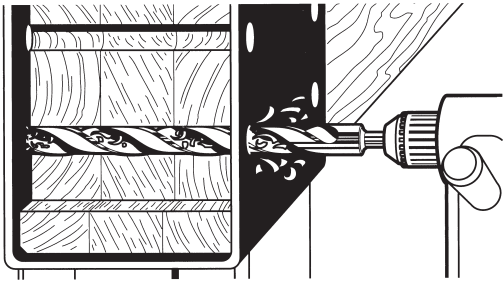
MAG785 Saw Tooth/Self Feed Bits: MAG785 overall length 6" and diameters from 1" through 4-5/8".

Drills holes for poplar pipe, conduit, tubing and all other large diameter holes in wood. Molybdenum coated for smooth cut and longer life. The quick change hex shank is versatile. It can be used in three jaw chucks, quick change chucks (except 3-5/8" & 4-5/8") and extensions.



MAG 785
Self-Feed
Saw Tooth Bit

Long Boy Drills: MAG911 overall length 12", diameters from 7/16" through 1-1/4".



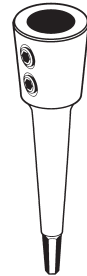
Used to drill holes in beams after the beam has been placed in a metal hanger (think Simpson Strong Tie). These specialty hangers have pre drilled holes, but trying to hit the exit hole when using an auger bit, and missing, causes a lot of broken bits.

The Long Boy Drill is made of High Speed Steel (HSS) and is capable of drilling through metal. These bits are 12" long overall and have a 9" flute. The flute is relieved all along its length to reduce heat and friction build-up. These bits have a 1/2" shank with three flats to help hold the bit in place in the chuck and 118° split point for easy starting.

MAG782 Extensions: MAG782 overall lengths 9-1/2", 12", 18" & 24". Fits bits with 1/4", 5/16" or 7/16" shanks.


Suitable for use with all MAG-BIT wood boring bits including Spade Bits and Saw Tooth/ Self Feed Bits. Supplied with a hex head wrench for tightening set screws. Available in 9.5", 12", 18" and 24" lengths.

1/4" extension should follow bits with a diameter of 1/2" or larger. 5/16" extension should follow bits with a diameter of 5/8" or larger. 7/16" extension should follow bits with a diameter of 7/8" or larger.



MAG 782
Extension

Safety Instructions

- Safety in the use of power tools and their accessories is very important.
- Always use tools in compliance with the tool manufacturers' instructions.
- Always wear adequate eye protection. 
- Be careful to keep long hair and loose clothing away from turning tools and equipment.
- Do not alter power tools or accessories in any way. This may cause hidden defects that can cause the tool or accessory to fail and will void the warranty.
- When drilling through any material do not allow the drill bit to protrude beyond the far side of the hole by more than three times it's diameter. Further protrusion can cause whipping action which will cause the bit to fail, resulting in possible injury to the operator and anyone close by.
- Always use a sharp drill bit.
- Do not exceed 1300 rpm.
- Failure to heed all warnings can result in serious bodily injury.