

SELECTING AUGERS

Choosing the right auger for long-term use depends on the drilling conditions. Use the information below to help you determine what is right for your project. Also, if you give us a brief description of the material expected, we will give our recommendation for the most efficient style auger.

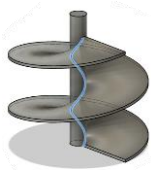
General

Dirt augers with dirt teeth are better for heavy clays and cohesive materials, but only in particular cases like dense clay or compacted soil.

Rock augers provide a good balance of durability and versatility. Even though they are slightly less efficient than dirt augers, they are suitable for a wide range of materials beyond just rock or hard ground.

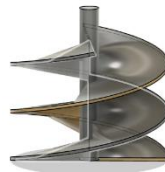
Single Flight or Double Flight?

See diagrams for a quick summary of the differences. Below the diagrams is more information on the differences to help you decide which is best. We can talk through your specific conditions and make a recommendation as to what will work best.



Single Flight

*Clays and other
Cohesive material.*



Double Flight/Double Cut

**General Drilling, Hard
Rock, more robust design
for maximum down force.**



Single Flight/Double Cut

**General Drilling,
Moderate Rock &
Cohesive Material**

Differences between single and double flight augers.

The key difference between single flight and double flight augers is their material handling capacity, especially for augers with diameters of 60 inches or less. The pitch is the distance between flights - the smaller the pitch, the flatter the flight.

Single flight augers excel in tight clay and cohesive materials, as their design allows easier release of these materials during spinning or shaking, making material removal from the drilled shaft more efficient so you can clear the auger and prepare for the next drilling cycle.

Double flight augers, conversely, work well in conditions involving rock or loose materials, since they have a flatter pitch that means that loose material will travel on top of the flighting, which removes more material with less cycles - significantly enhancing drilling efficiency.

Single flight auger with a double cut is our standard auger - designed with a pitch that strikes a balance between these extremes, making them versatile for various excavation tasks. For projects involving a substantial volume of cohesive material, the 'double cut' auger incorporates two cutting edges, enhancing its ability to drill plumb and increasing material penetration.



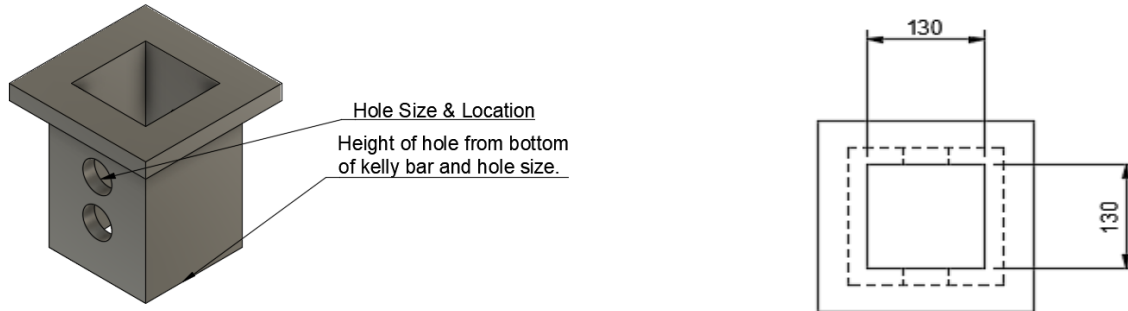
SELECTING AUGERS

Kelly Box – what is it and how do I measure for it?

A **Kelly Box** is the metal protective box that encases the **Kelly**, which is the heavy, steel, square or hexagonal pipe used in drilling.

How to measure for a Kelly Box:

See the diagram below to help you determine how to measure the dimensions of the Kelly Box you need. The Standard is 3” to 8: (76mm to 200mm).



The following information will help us determine the right size for you. Call for assistance.

Kelly Bar Square Size: _____

Kelly Pin Size: _____

Height from bottom of Kelly to lower or single hole: _____

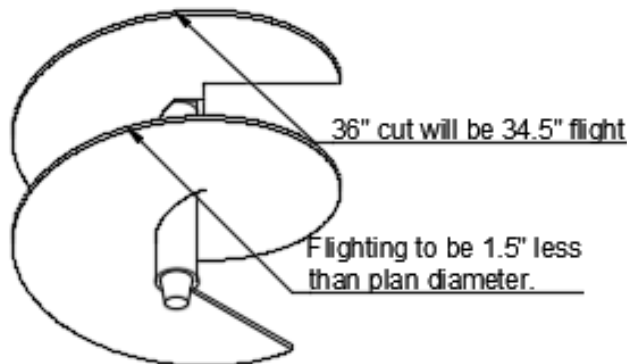
Height from bottom of Kelly to upper hole: _____

Auger Diameter 12” – 96” _____

Auger Height: 24” – 84” _____

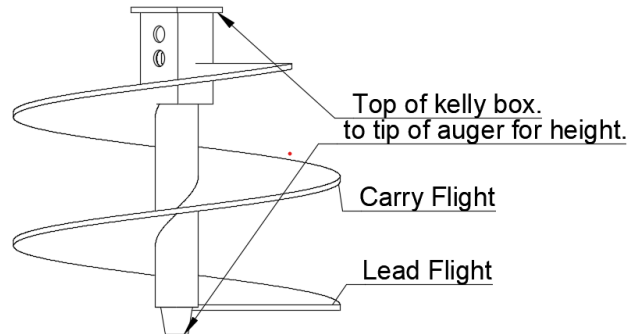
Flight Thickness: 1” – 2” _____

Note: When measuring flight thickness, the actual flighting will be 1.5” smaller than the designed cut, and the lead flight will be 1” thicker than selected flight thickness. See diagram below.



SELECTING AUGERS

Measure auger height from the top of the Kelly Box to the tip of the auger. See diagram below.



Teeth:

Electric City Tooling provides any of the Teeth described below. We can help you determine which is right for your project.

Rock Cutting Teeth



ECT 310 1" Shank Bullet Tooth
Best Suited for 120K and less FT LBS of torque. Lower replacement cost.



ECT 410 1.5" Shank bullet tooth.
Snap ring holder makes for easier teeth changing. Better suited over 120K ft lbs. of torque



ECT 210 3/4" Shank Bullet Tooth.
Best Suited for under 50K ft lbs. of torque. Easy and fast to change.



ECT 470 1.5" Shank with retainer clip for fast changing of teeth. Better suited over 120K ft lbs. of torque

Soil Cutting Teeth



ECT D1 Oversize earth tooth for increased diameter or tool gauge.



ECT D2 Standard Flat Shank Soil Tooth.

Also available with carbide for moderate rock drilling

Holder: A holder, or pocket, holds the teeth in place, and will be provided with the teeth you select.

