



## Questions and Answers

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### What is PowerGrit® and how does it work?

PowerGrit is a patent-pending, diamond-coated Utility Saw Chain designed to grind through ductile iron, cast iron, PVC, HDPE and other types of pipe as well as a broad range of other hard materials.

### What are the benefits of using PowerGrit?

PowerGrit chain is faster, easier and safer than other methods.

- Reduced excavation time to access pipe
- Reduced labor required to dig under pipe
- Single position cutting access up to 24" (600 mm) diameter pipe, no need to access bottom of pipe
- Easier saw control, reduced operator effort during cutting
- Improved operator safety due to access, control and reduced rotational force
- Reduced potential for blade breakage

### How fast will a PowerGrit utility saw chain cut?

Depending on the saw and other factors, including pipe wall thickness, hardness, operator experience and others, a PowerGrit chain can cut through a 10" (250 mm) ductile iron pipe in as little as 3-5 minutes.

### How long will a PowerGrit utility saw chain last?

PowerGrit chains can last as long as 30 cuts through 10" (250 mm) ductile iron pipe.

*Note: The number of cuts will vary depending on many factors, including pipe diameter, pipe wall thickness and/or hardness, position of the pipe in the trench, factors related to the saw, operator experience and others. PowerGrit Chains being run on gas-powered saws may get as much as 50% less chain life than on hydraulic saws, depending on conditions. Cutting into materials surrounding the pipe can also reduce chain life as can inadequate water supply to the saw.*

### How long does a guidebar last?

A guidebar used with PowerGrit Utility Saw Chain should last through one to three chains depending on several factors including material being cut, operator experience, cutting into surrounding material, water pressure and others.

*Note: Guidebars being used with PowerGrit Utility Saw Chain should be checked periodically and replaced if worn.*

### What kind of saw do I need to use PowerGrit utility saw chain?

PowerGrit utility saw chain requires 6.5 hp or greater for optimum performance. Examples of saws that are compatible are the 695F4 (or 633F4) ICS gasoline powered chainsaw, 880F4 (or 853) 8 gpm & 12 gpm ICS hydraulic chainsaw and the Stanley Hydraulic DS12 chainsaw when equipped with the appropriate drive sprocket, guidebar and water supply.

### Will PowerGrit utility saw chain cut concrete and asphalt?

It is not recommended that PowerGrit be used to cut concrete or asphalt. PowerGrit will cut concrete, asphalt and many other materials, but chain life may be reduced significantly compared to the life experienced when cutting ductile iron pipe. For best results, concrete and other aggregate materials should be cut with ICS diamond segment concrete-cutting chain.

### What is the "Pipe Clamp" ?

The PowerGrit pipe clamp was developed to take the weight of the saw from the operator, make the saw more stable and produce straighter, more accurate cuts. The clamp works on pipe from 4" to 12" (10-30 cm) in diameter depending on which saw and guidebar are used. Currently the pipe clamp is available for the 880F4 only. While cutting with the clamp has distinct benefits, PowerGrit can be used "free hand" or with the pipe clamp.

### **Why consider an alternative to the current methods for cutting ductile iron pipe?**

The most widely used method for cutting ductile iron pipe now is the gas powered “cut-off saw” with a circular abrasive or diamond blade. Maneuvering a circular blade around the outside of a pipe to complete a cut requires a large area be excavated to accommodate the saw and operator. The need to cut all the way around the outside of the pipe may require use of the saw in a non-ergonomic position, which can be very difficult.

### **What is the largest pipe diameter that can be cut?**

When cutting free-hand without use of the pipe clamp, there is no limit to the diameter of pipe that can be cut. If the pipe diameter is larger than the cutting length of the bar, it must be cut from two sides.

### **Does the chain require water?**

The chain requires approximately one gallon per minute (approx 4 liters) of water at 20 psi (1.5 bar) of water pressure. This can be supplied by a common home or building faucet, an on-site water truck or mobile tank. A small tank with a DC electric motor attached can be purchased inexpensively for the back of a pickup or ATV.

### **Does the chain require water lubrication if there is already water in the pipe or trench?**

Yes. The chain is lubricated and cooled with water through the guidebar which is the only way to ensure adequate surface cooling.

### **Is PowerGrit a directional chain?**

No, the chain can be mounted on the bar either direction.

### **Is it okay to cut with the tip of the bar in the dirt?**

Cutting with the tip of the bar in dirt will significantly increase chain stretch, increase cut times and reduce chain life.

### **When does the chain need tightening?**

PowerGrit chains tend to run better when slightly loose. It is normal for the drive-links to hang completely out of the bar. Tighten the chain when the drive-links hang more than 1/2 inch (12mm) below the bar. Remember that the chain should be able to be pulled around the bar by hand, otherwise it is too tight.

### **What happens when the chain has reached end of life?**

Cutting times will increase significantly and/or straight cutting may become difficult.

### **When cutting pipe in the ground, will the bar and chain become pinched during cutting?**

Before cutting, make sure the pipe is in a safe condition to be cut by ensuring support of the work piece in such a way that the cut remains open during the cutting operation and when the cut is finished. Pinching the chain during the cut could cause chain breakage and could result in death or serious injury to the operator.