### **Cable Drum Machine**

# Operation Manual

# 110ES SERIES

Cleans 1 1/4" to 3" lines up to 25'

**Used For:** Sinks, Showers & Tub Drains



WARNING - Read All Instructions, When Using Electric Tools, Basic Safety Precautions Should Always Be Followed To Reduce The Risk Of Fire, Electric Shock And Personal Injury, Save These Instructions.



#### GENERAL SAFETY

#### **Important**

Replacement parts: When servicing, use only identical replacement parts. Polarized plugs: To reduce risk of electric shock, this equipment has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

#### **WORK AREA**

- Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep bystanders, children, and visitors away while operating a power tool. Distractions can cause you to lose control.

#### **ELECTRIC SAFETY**

- Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
- Double Insulated tools are equipped with a polarized plug (one blade is
  wider than the other.) This plug will fit in a polarized outlet only one
  way. If the plug does not fit fully in the outlet, reverse the plug. If it
  still does not fit, contact a qualified electrician to install a polarized
  outlet. Do not change the plug in any way. Double Insulation
  eliminates the need for a three wire grounded power cord and
  grounded power supply system. (Applicable only to Class II tools.)
- Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded.
- Don't expose power tools to rain or wet conditions. Water entering a
  power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.
- When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W." These cords are rated for outdoor use and reduce the risk of electric shock

#### PERSONAL SAFETY

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Dress properly. Do not wear loose clothing or jewelry. Contain long hair.
   Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
- Avoid accidental starting. Be sure switch is off before plugging in.
   Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.
- Remove adjusting keys or wrenches before turning the tool on. A
  wrench or a key that is left attached to a rotating part of the tool may
  result in personal injury.

#### **PERSONAL SAFETY CONT.**

- Do not overreach. Keep proper footing and balance at all times.
   Proper footing and balance enables better control of the tool in unexpected situations.
- Use safety equipment. Always wear eye protection. Dust mask, nonskid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

#### TOOL USE AND CARE

- Use clamps or other practical way to secure and support the work piece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control.
- Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.
- Do not use tool if switch does not turn it on or off. Any tool that can not be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.
- Store idle tools out of reach of children and other untrained persons.
   Tools are dangerous in the hands of untrained users.
- Maintain tools with care. Keep cutting tools sharp and clean. Properly
  maintained tools, with sharp cutting edges are less likely to bind and
  are easier to control.
- Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
- Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool, may become hazardous when used on another tool

#### **SERVICE**

- Tool service must be performed only by qualified repair personnel.
   Service or maintenance performed by unqualified personnel could result in a risk of injury.
- When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.

# OPERATING INSTRUCTIONS



Figure 1

**IMPORTANT:** You must read the safety instructions for this machine before use.

- 1 For best results it is recommended that the machine is positioned within 2 feet of the drain. (see Fig. 1)
- 2 Loosen the keyless chuck, pull sufficient cable out of the drum and place the end of the cable as far into the drain as possible.
- 3 Plug the power cable into the electrical socket and switch the power on.
- 4 Switch the drill direction to forward (FOR) and fully depress the trigger. The cable will begin to turn. Keep one hand on cable when it is rotating.
- 5 Pull approximately 5 feet of extra cable from the drum creating a slight loop of cable between the machine and the inlet. This should gently be fed into the inlet.
- 6 Once the obstruction has been cleared, the line should be washed through with a hose or power washer.
- 7 To retrieve the cable, pull one or two feet of cable from the inlet (drain or stack) while running the machine in forward (FOR) position and push the cable into the drum. Continue this procedure until the end of the cable is just inside the inlet.
- 8 Turn off the machine, remove the remaining cable from the inlet and hand feed it back into the drum. Finally, tighten the chuck (hand tight).

Warning A: Do not allow the cable to get hung up on the obstruction. If the cable end gets hung up on an obstruction, stop the motor and reverse (REV) the drill until the cable becomes free. Once free from the obstruction, turn motor to the forward (FOR) position and resume clearance operation.

**Warning B:** Do not allow cables to become "over-stressed." Over stressing cables due to a stubborn obstruction or snag will create tension in the cable leading to cable damage or an unpredictable cable reaction. If the cable becomes over-stressed, follow the same procedure as advised in "Warning A."

**Warning C:** Never fully retract the cable from the inlet while it is rotating.

**Note:** It is recommended that the cable is continuously flushed through with clean water as it is being retrieved from the inlet and again before putting it away.

# SPECIAL APPLICATIONS

#### **Reverse Operation**

Running this machine in reverse should only be done if the cable becomes blocked and only for a few seconds, enough to free the end of the cable. If the cable gets caught on an obstruction, immediately release the trigger to allow the machine to come to a complete stop. Fully tighten the chuck and turn the drill switch to the (REV) position. Grasp the cable with a gloved hand and pull it while jogging the trigger. When the cable is dislodged, place the drill switch in the forward (FOR) position, loosen the chuck, and follow normal operating procedure.

#### Lubrication

Grease all exposed and moving parts.

#### Storage

The machine must be kept in a dry, safe place, out of the reach of children.

#### Cables

The metal cable should be thoroughly cleaned with water to prevent unpleasant odors and the damaging effects of drain cleaning compounds.

### CABLE REMOVAL & REPLACEMENT

- The cable is NOT attached to the inside of the auger, so to REMOVE the cable from the drum, continue to pull the cable from the drum until it is fully removed from the drum
- To REPLACE the cable, first bend a 45° angle in the end of the cable end that goes into the drum
- Continue to push the cable into the drum until complete Replacement Cable ST-96101G

## REPLACING THE DRILL MOTOR

- Remove the three allen bolts from the front cover
- Remove the center hub screw with a slotted screwdriver (left hand threads)
- Remove the three allen bolts from the drive hub.
- · Remove the drill from the drive hub



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