



**DRAINAGE
SOLUTIONS, INC**



PIPE TOOLS & VISES
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Approved to
the latest United
States and CSA
Canadian
standards

5301PD Power Drive

OPERATOR'S MANUAL

The electric-motor-driven REED 5301PD Power Drive centers and chucks pipe and conduit and rotates it while cutting, threading, and reaming operations are performed. FORWARD (clockwise) rotation can be selected with the REV/OFF/FOR switch.

- Includes Footswitch.
- Footswitch cord is 5' 6" (1676 mm) long.



WARNING!

**READ AND UNDERSTAND ALL INSTRUCTIONS.
FAILURE TO FOLLOW ALL INSTRUCTIONS LISTED
INSIDE MAY RESULT IN ELECTRIC SHOCK, FIRE,
AND/OR SERIOUS PERSONAL INJURY.**

**SAVE THESE
INSTRUCTIONS!**

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1117-55301

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GENERAL SAFETY INFORMATION

WARNING: READ AND UNDERSTAND ALL INSTRUCTIONS. FAILURE TO FOLLOW ALL INSTRUCTIONS LISTED MAY RESULT IN ELECTRIC SHOCK, FIRE, AND/OR SERIOUS PERSONAL INJURY.

SAVE THESE INSTRUCTIONS!

WORK AREA SAFETY

1. **Keep work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate tools in explosive atmospheres,** such as in the presence of flammable liquids, gases, or dust. Tools create sparks which may ignite the dust or fumes.
3. **Keep by-standers, children, and visitors away while operating a tool. Distractions can cause you to lose control.**
4. **Do not let visitors contact the tool or extension cord.** Such preventative measures reduce the risk of injury.

ELECTRICAL SAFETY

1. **Grounded tools must be plugged into an outlet, properly installed and grounded in accordance with all codes and ordinances.** Never remove the grounding plug or modify the plug in any way. Do not use adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
2. **Avoid body contact with grounded surfaces** such as pipes, radiators, ranges and refrigerators. There is an increased risk of electrical shock if your body is grounded.
3. **Do not expose electrical parts to rain or wet conditions.** Water entering a tool will increase the risk of electrical shock.
4. **Do not abuse cord.** Never use the cord to carry the tools or pull the plug from the outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electrical shock.
5. **When operating a tool outside,** use an outdoor extension cord marked "W-A" Or "W". These cords are rated for outdoor use and reduce the risk of electrical shock.
6. **Connect the tool to an AC power supply** that matches the name plate specification. Incorrect voltage supply can cause electrical shock or burns.

7. **Use only three-wire extension cords** which have three-prong grounding plugs and three-pole receptacles which accept the tool's plug. Use of other extension cords will not ground the tool and increase the risk of electrical shock.
8. **Use proper extension cords** (see Chart). Insufficient conductor size will cause excessive overheating.
9. **Keep all extension cord connections dry and off the ground.** Do not touch plugs or tool with wet hands. Reduces the risk of electrical shock.

Minimum Wire Gauge for Cord Set			
Nameplate Amps	TOTAL LENGTH (IN FEET)		
	0 - 25	26 - 50	51 - 100
0 - 6	18 AWG	16 AWG	16 AWG
6 - 10	18 AWG	16 AWG	14 AWG
10 - 12	16 AWG	16 AWG	14 AWG
12 - 16	14 AWG	12 AWG	NOT RECOMMENDED

PERSONAL SAFETY

1. **Stay alert, watch what you are doing and use common sense when operating a tool.** Do not use tool while tired or under the influence of drugs, alcohol, or medications. A moment of inattention while operating power tools may result in serious personal injury.
2. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair.** Keep hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
3. **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.
4. **Do not overreach.** Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
5. **Use safety equipment.** Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.
6. **Operate machine from side with REV/OFF/FOR switch.**



TOOL USE AND CARE

1. **Use clamp or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
2. **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.
3. **Do not use tool if switch does not turn it ON or OFF.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
4. **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.
5. **Store idle tools out of the reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
6. **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.
7. **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.
8. **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.
9. **Inspect tool and extension cords periodically and replace if damaged.** Damaged cords increase the risk of electrical shock.
10. **Keep handles dry and clean;** free from oil and grease. Allows for better control of the tool.
11. **Store tools in dry place.** Such measures reduce risk of electrical shock.

SERVICE

1. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified repair personnel could result in injury.
2. **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 electrical shock or injury.
3. **Follow instructions for lubricating** and changing accessories. Accidents are caused by poorly maintained tools.

SPECIFIC SAFETY INFORMATION

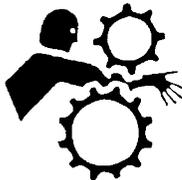
The Operator's Manual contains specific safety information and instructions for your protection against serious injuries including:

- Loss of fingers, hands, arms or other body parts if clothing or gloves get caught in moving parts;
- Electric shock or burns from contact with wires, motor or other power drive parts;
- Impact injuries, including broken bones if machine tips over or workpiece falls;
- Eye injuries, including being blinded by the workpiece or workpiece chips.
- Read and follow safety labels on machine.
- Know the location and functions of all controls before using.

FOOT SWITCH SAFETY

The foot switch increases safety. The switch shuts off the motor upon removing your foot. Clothing caught in a rotating tool can pull the operator into the machine. Additionally, the machine's high torque could crush or break bones should caught or trapped clothing bind around your arm or other body parts.

WARNING





CLOTHING/GLOVES CAN BE CAUGHT IN MOVING PARTS. FINGERS, HANDS, ARMS OR OTHER BODY PARTS CAN BE CRUSHED OR BROKEN.

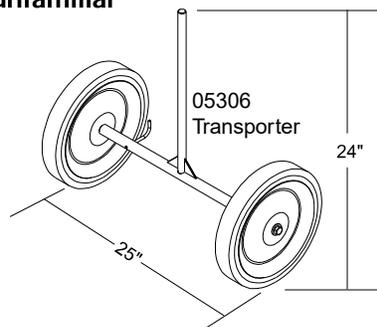
- Make sure switch is in the OFF position before plugging in power cord.
- Use foot switch.
- Do not wear gloves.
- Keep sleeves and jacket buttoned.
- Do not reach across machine. Clothing can be drawn into moving parts.
- Operate machine from switch side only.
- Do not block or disconnect foot switch.
- Keep foot switch in working order.
- Make sure you can quickly remove your foot from foot switch.
- Keep hands away from rotating pipe and fittings. Stop machine when screwing fittings on pipe or wiping threads.

THREADING MACHINE SAFETY

1. **Machine is made to thread and cut pipe or bolt. Machine also powers roll grooving equipment.** Follow instructions in Operator's Manual on machine uses. Do not use power drives for other jobs including hole drilling, winch turning, and making/breaking fittings. Other uses may increase the risk of injury.
2. **Secure machine to bench or stand.** This prevents tipping.
3. **Support long heavy pipe with pipe supports.** This prevents tipping.
4. **Do not wear gloves or loose clothing.** Keep sleeves and jackets buttoned. If clothing should become caught in the machine, it will continue to wind up, pulling you into the machine and possibly resulting in serious injury.
5. **Do not reach across the machine or pipe.** Operating the machine from the side with REV/OFF/FOR switch eliminates reaching across.
6. **Do not use machine if foot switch is broken or absent.** The foot switch works as a safety device in preventing serious injury.
7. **Tighten chuck handwheel and engage rear centering device on the pipe before starting the machine.**
8. **Keep hands away from rotating pipe and fittings.** Let the machine stop completely before touching the work. Wipe threads and attach fittings only after the machine stops.
9. **Keep covers in place.** Exposed moving parts may offer a chance for clothing or body parts to become caught in the machinery.

MACHINE MAINTENANCE

1. **Use sharp cutting tools.**
2. **Grease front and rear bearings every 8 hours of use.**
3. **Inspect machine cord.** Replace damaged, frayed, broken or worn machine cord.
4. **Inspect extension cords.** Repair or replace damaged, frayed, broken or worn cords.
5. **Keep handles dry and clean.** Keep free from oil and grease.
6. **When not being used, store machine in a secured, locked area, out of reach of children and people unfamiliar with the threading machine.**
7. **Keep foot switch in working order.**



DESCRIPTION, SPECIFICATIONS AND ACCESSORIES

DESCRIPTION

The REED 5301PD Power Drive is an electric-motor-driven power drive which centers and chucks pipe and conduit and rotates it while cutting, threading, and reaming operations are performed. FORWARD (clockwise) rotation can be selected with the REV/OFF/FOR switch.

SPECIFICATIONS

Threading Capacity:

Pipe 1/8" through 2"

Bolt 1/4" through 2"

Chuck:..... Chuck with replaceable jaw inserts.

Rear Centering Device:.. Cam action rotates with chuck

Support Bar (2):..... Heavy-duty

Switch (REV/OFF/FOR):.. Heavy-duty, bump-proof and reversible

Motor:..... Universal Type

Horsepower..... 1/2HP

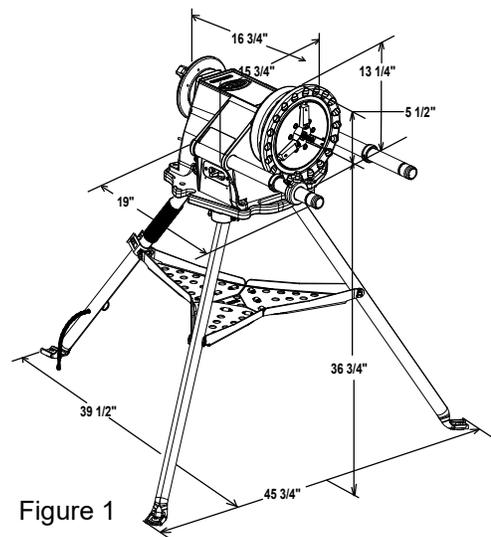
Volts..... 120 VAC single phase 60 Hz

Foot Switch (ON/OFF):... Oil and water tight

5301PD Weight: 90 lbs. (40.9 Kg)

ACCESSORIES

05305	Tripod - folding stand with tray (29 lbs.)
05306	Transporter provides effortless power drive portability
05307	Carriage with lever (holds die head, cutter and reamer)
05308	Reamer positive locking, 5 flute cone, right hand
05309	Cutter full-floating, wheel-type wide roll 1/8" through 2"
05380	R811 Universal Die Head (quick-opening die head)
06150	Oiler - stops oil waste, keeps dies flooded



OPERATION USING HAND TOOLS

WARNING: OPERATOR SHOULD BE THOROUGHLY FAMILIAR WITH PRECEDING SAFETY PRECAUTIONS BEFORE ATTEMPTING TO OPERATE THIS EQUIPMENT.

INSTALLING PIPE IN POWER DRIVE

1. Measure and mark length of pipe being worked.
2. If pipe is long enough to be retained by centering device, insert pipe through front or rear of machine. If pipe is short, insert into front of machine.
3. Make certain that pipe is centered in centering device, if used, and tighten centering device.
4. Tighten CHUCK JAWS with a repetitive, counter-clock wise snap spin of HANDWHEEL. This hammering action tightens jaws on pipe. A clockwise rotation snap spin releases jaws.

CUTTING PIPE WITH HAND CUTTER

1. Install pipe.
2. Engage pipe cutter with pipe and align cutter wheel with mark on pipe.
3. Rest PIPE CUTTER frame on SUPPORT BAR (Figure 4) located on switch side of machine. Tighten FEED SCREW HANDLE.
4. With power cord plugged in, turn REV/OFF/FOR switch to FOR (forward) position.
5. Place foot on FOOT SWITCH (Figure 2) to operate machine.
6. Continuously tighten feed screw handle (Figure 3) with both hands until pipe cutoff is completed.
7. Release foot switch and turn REV/OFF/FOR switch to OFF position.

REAMING PIPE WITH HAND REAMER

NOTE: SPIRAL SELF FEEDING REAMERS ARE NOT SUITABLE FOR POWER DRIVE USE.

1. Turn REV/OFF/FOR switch to FOR (forward position).
2. Insert reamer into end of pipe and hold firmly onto handle and handgrip (Figure 5).
3. Step on foot switch and push on reamer handgrip (Figure 5) with right hand to ream pipe.
4. Release foot switch, remove reamer and turn REV/OFF/FOR switch to OFF position.

THREADING PIPE WITH HAND THREADER

1. Place threader on end of pipe with handle resting on sup-

port bar (Figure 4) located on switch side.

2. Place 06150 Oiler (Figure 6) under threader and apply REED Thread Cutting Oil on pipe end.
3. Turn REV/OFF/FOR switch to FOR (forward) position.
4. Step on foot switch and push threader (Figure 4) with right hand to engage dies.

NOTE: THREADER IS AUTOMATIC ONCE DIES ARE ENGAGED. APPLY PLENTY OF OIL (FIGURE 6) UNTIL THREADS ARE COMPLETED.

5. Release foot switch once threads are completed.
6. Push back support bar (Figure 4) on switch side.
7. Reverse THREADER RATCHET KNOB.
8. Lower threader handle and pull support bar out. Threader handle is now against lower side of support bar.
9. Turn REV/OFF/FOR switch to REV (reverse) position and back off threader by stepping on foot switch.
10. Release foot switch and turn REV/OFF/FOR switch to OFF position.

