



## HYDRAULIC ROLL GROOVING ATTACHMENT 1/2" - 12"

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### **⚠ WARNING**

Read this Operator's Manual carefully before using this tool.  
Failure to understand and follow the contents of this manual may result in electrical shock, fire and/or serious personal injury.

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#### **ITEM NUMBER: 3309200**

#### **Specifications:**

Capacity: 2" to 12" Schedule 10-40 pipe.

Mounts quickly and easily to PT® Power Drive and RIDGID® 300 Power Drive Support Arms.

Integral hydraulic hand pump applies 5000 psi at the grooving roll.

Hydraulic Hand Pump: 5000 psi

Weight: 123 lbs.

#### **Standard Equipment**

Roll Grooving Attachment

Hydraulic Hand Pump: 5000 psi

One (1) 2"-6" Schedule 10/40 Roll Set.

One (1) 8"-12" Schedule 10 (8" Schedule 40) Roll Set.



FOR PRODUCT OR WARRANTY INFORMATION CONTACT  
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## General Safety Information

### **⚠️ WARNING**

Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

#### **Work Area Safety**

- **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.** Tools create sparks which may ignite the dust or fumes.
- **Keep bystanders, children, and visitors away while operating tool.** Distractions can cause you to lose control.
- **Keep floors dry and free of slippery materials such as oil.**
- **Guard or the area when work piece extends beyond machine.** A guard or barricade that provides a minimum of three feet clearance around the work piece will reduce the risk of entanglement.

### **⚠️ WARNING**

#### **Electrical 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 tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
- **Avoid body contact with grounded surfaces.** There is an increased risk of electrical shock if your body is grounded.
- **Don't expose electrical tools to rain or wet conditions.** Water entering a tool will increase the risk of electrical shock.
- **Do not abuse 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 electrical 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 electrical shock.
- 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.
- Use proper extension cords. (See chart.) Insufficient conductor size will cause excessive voltage drop and loss of power.
- **Keep all electric connections dry and off the ground. Do not touch plugs or tool with wet hands.** Reduces the risk of electrical 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 medications. 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 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.
- **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, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

## Tool Use and Care

- 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.
  - 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 the reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.
  - 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 for your tool. Accessories that may be suitable for one tool may become hazardous when used on another tool.
  - Keep handles dry and clean; free from oil and grease. Allows for better control of the tool.
- Service
- Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified repair personnel could result in 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 electrical shock or injury.

## Foot Switch Safety

Using a power drive or threading machine without a foot switch increases the risk of serious injury. A foot switch provides better control by letting you shut off the motor by removing your foot. If clothing should become caught in the machine, it will continue to wind up, pulling you into the machine. Because the machine has high torque, the clothing itself can bind around your arm or other body parts with enough force to crush or break bones.

## Roll Groover Safety

- Roll Groover is made to groove pipe and tubing. Follow instructions in Operator's Manual on machine uses. Other uses may increase the risk of injury.
- Keep hands away from grooving rolls. Do not wear loose fitting gloves when operating unit. Fingers could get caught between grooving and drive rolls.
- Keep guards in place. Do not operate the groover with guard removed. Exposure to grooving rolls may result in entanglement and serious injury.
- Set-up Groover on a flat, level surface. Be sure the machine, stand, and groover are stable. Will prevent tipping of the unit.
- Do not wear loose clothing. Keep sleeves and jackets buttoned. Do not reach across the machine or pipe. Clothing can be caught by the pipe resulting in entanglement and serious injury.
- Do not use this Roll Groover with a Power Drive or Threading Machine that does not have a foot switch. Foot switch is a safety device to prevent serious injury.

### Roll Groover Safety (continued)

- When grooving pipe, keep hands away from the end of the pipe. Do not reach inside pipe end. Will prevent being cut on sharp edges and burrs.
- Be sure groover is properly secured to the power drive or threading machine. Carefully follow the setup procedures. Will prevent tipping of the pipe or grooving unit.
- Properly support pipe with pipe stands. Use two pipe stands to groove pipe over 36" long. Prevents tipping of the unit.
- Use only power drives and threading machines that operate under 58 RPM. Higher speed machines increase the risk of injury.

### Description

The PT® Heavy Duty Roll Groover forms rolled grooves in steel, stainless steel, aluminum, PVC pipe and copper tubing. The grooves are formed by the hydraulic feeding of a grooving roll into the pipe which is supported by a drive roll.

The Roll Groover includes two (2) groove and drive shaft sets that can groove the following pipe:

- 2" - 6" Schedule 10 and 40
- 8" - 12" Schedule 10 and 8<sup>M</sup>Schedule 40

This Heavy Duty Roll Groover is specifically designed for use with the PT® Threading Machine and RIDGID 300® Threading Machines.

RIDGID® is a trademark of RIDGID, Inc. The trade dress of the RIDGID® Model 300 Power Drive product is a trademark of RIDGID, Inc.

### Specifications:

Capacity: 2" to 12" Schedule 10-40 pipe.

Mounts quickly and easily to PT® Power Drive and RIDGID® 300 Power Drive Support Arms.

Integral hydraulic hand pump applies 5000 psi at the grooving roll.

Hydraulic Hand Pump: 5000 psi

Weight: 123 lbs.

Contact an ARGCO-PT distributor or consult the ARGCO catalog for specifications on roll grooving equipment.

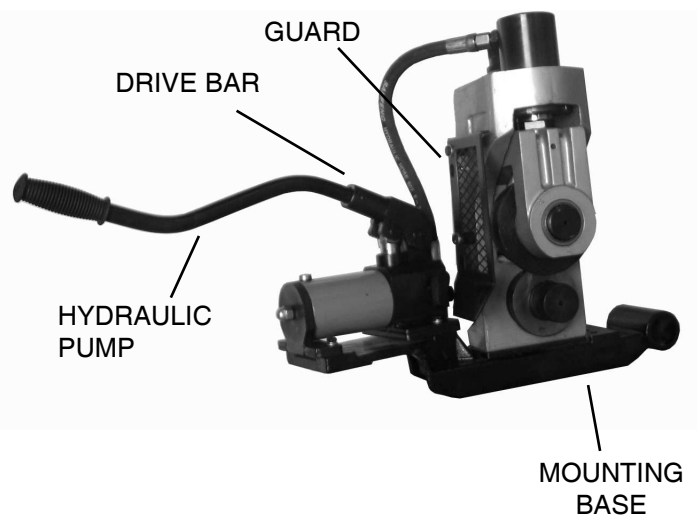
### Standard Equipment

Heavy Duty Roll Grooving Attachment

Hydraulic Hand Pump: 5000 psi

One (1) 2"-6" Schedule 10/40 Roll Set.

One (1) 8"-12" Schedule 10 (8" Schedule 40) Roll Set.



## Installation

### **⚠️ WARNING**

Use only power drives and threading machines that operate at 58 RPM or less. Higher speed machines increase risk of injury.

To prevent serious injury, proper assembly of the Roll Groover is required. The following procedures should be followed:

1. Remove carriage or other attachments from the Power Drive.
2. Fully open front chuck of power drive.
3. Slide the base assembly onto the support arms of the Power Drive.
4. Align the notched flats of the drive shaft with the jaws on the Power Drive chuck.
5. Close and tighten the front chuck.

## Machine Inspection

### **⚠️ WARNING**

Do not use this Roll Groover with a power drive or threading machine that does not have a foot switch.

To prevent serious injury, inspect your Roll Groover and machine. The following inspection procedures should be performed on a daily basis.

1. Make sure machine is unplugged and the directional switch is set to the OFF position.
2. Make sure the foot switch is present and attached to the machine.
3. Inspect the power cord and plug for damage. If the plug has been modified, is missing the grounding pin or if the cord is damaged, do not use the machine until the cord has been replaced.
4. Make sure all bolts holding the Roll Groover and hydraulic pump to the base are tight.
5. Drive bar must be centered and securely held in the front chuck.
6. Check that guard mounted to the roll groover is in place.

### **⚠️ WARNING**

Do not operate Roll Groover with guard removed. Exposure to moving grooving rolls may result in fingers being crushed.

7. Inspect the Roll Groover and machine for any broken, missing, misaligned or binding parts as well as any other conditions which may affect the safe and normal operation of this equipment. If any of these conditions are present, do not use the Roll Groover until any problem has been repaired.

8. Lubricate the Roll Groover if necessary according to the Maintenance Instructions.

9. Use groover rolls and accessories that are designed for your Roll Groover and meet the needs of your application.

The correct groover tools and accessories allow you to do the job successfully and safely.

Accessories suitable for use with other equipment may be hazardous when used with this Roll Groover.

10. Clean any oil, grease or dirt from all equipment handles and controls. This reduces the risk of injury due to a tool or control slipping from your grip.

11. Inspect the groove rolls to insure they are not damaged or worn. Worn groover rolls can lead to pipe slippage and poor quality grooves.

## Machine and Work Area Set-Up

### **⚠️ WARNING**

To prevent serious injury, proper set-up of the machine and work area is required. The following procedures should be followed to set-up the machine:

1. Locate a work area that has the following:
  - Adequate lighting
  - No flammable liquids, vapors or dust that may ignite.
  - Grounded electrical outlet
  - Clear path to the electrical outlet that does not contain any sources of heat or oil, sharp edges or moving parts that may damage electrical cord.
  - Dry place for machine and operator. Do not use the machine while standing in water.
  - Level ground
2. Clean up the work area prior to setting up any equipment. Always wipe up any oil that may be present.

3. Place machine on a flat level surface. Be sure the machine, stand and groover are stable.

4. Properly support the pipe with pipe stands. See Chart “A” for maximum pipe lengths to be grooved with one stand.

### **⚠WARNING**

**Failure to properly support the pipe can result in the unit tipping or the pipe falling.**

5. Make sure FOR/OFF/REV switch is in the OFF position.

6. Position the foot switch so that the operator can safely control the machine, roll groover and workpiece. It should allow the operator to do the following:

- Stand facing the hydraulic pump.
- Use the foot switch with his left foot.
- Have convenient access to the groover and hydraulic controls without reaching across the machine. Machine is designed for one person operation.

7. Plug the machine into the electrical outlet making sure to position the power cord along the clear path selected earlier. If the power cord does not reach the outlet, use an extension cord in good condition.

### **⚠WARNING**

To avoid electrical shock and electrical fires, never use an extension cord that is damaged or does not meet the following requirements.

- The cord has a three-prong plug similar to shown in Electrical Safety section.
- The cord is rated as “W” or “W-A” if being used outdoors.
- The cord has sufficient wire thickness (14 AWG below 25’/12AWG 25’ - 50’). If the wire thickness is too small, the cord may overheat, melting the cord’s insulation or causing nearby objects to ignite.

### **⚠WARNING**

To reduce risk of electrical shock, keep all electrical connections dry and off the ground. Do not touch plug with wet hands.

8. Check the unit to insure it is operating properly.

- Flip the directional switch to FOR (Forward). Press and release the foot switch. Check that the groove roll rotates in a counterclockwise direction as you are facing the groover. Have the power drive or threading machine serviced if it rotates in the wrong direction or if the foot switch does not control its stopping or starting.

- Depress and hold the foot switch. Inspect the moving parts for misalignment, binding, odd noises or any other unusual conditions that may affect the safe and normal operation of the machine. If such conditions are present, have the roll groover drive serviced.
- Check the speed of the machine to insure it rotates under 58 RPM. Higher speed machine increases the risk of injury.
- Flip the directional switch to REV (Reverse). Press and release the foot switch. Check that the drive roll rotates in a clockwise direction as you are facing the roll groover.
- Release the foot switch and flip the directional switch to OFF.

9. Check the groove and drive rolls to insure they are the correct size.

### **⚠WARNING**

**Do not use this machine to “make-on” or “break off” fittings. This practice is not an intended use of this Threading Machine.**

### **⚠WARNING**

**Use of roll sets on both carbon and stainless steel pipe can lead to contamination of the stainless steel material. This contamination could cause corrosion and premature pipe failure.**

**To prevent ferrous contamination, use roll sets dedicated for stainless steel grooving.**

## **Operating Heavy Duty Roll Groover**

### **⚠WARNING**

**Do not wear loose clothing when operating a Roll Groover. Keep sleeves and jackets buttoned.**

**Do not reach across the machine or pipe.**

**Do not use this Roll Groover with a Power Drive or Threading Machine that has a broken or missing foot switch.**

**Always wear eye protection to protect eyes from dirt and other foreign objects.**

**Keep hands away from grooving rolls. Do not wear loose fitting gloves when operating groover.**

**Use pipe stands to support pipe.**



**Pipe Preparation**

1. Pipe ends must be cut square. Do not use cutting torch.
2. Pipe out-of-roundness must not exceed the total O.D. tolerance listed in groove specifications, Table 1.  
NOTE! Determine out-of-roundness by measuring maximum and minimum O.D. at 90 degrees apart.

3. All internal or external weld beads, flash or seams must be ground flush at least 2" back from pipe end.  
NOTE! Do not cut flats on gasket seat area.

**Pipe/Tubing Length**

The chart below lists the minimum length of pipe or tubing to be grooved and the maximum length to be grooved with (1) pipe stand.

NOM SIZE	MIN. LENGTH	MAX LENGTH
1"	8"	36"
1-1/4"	8"	36"
1-1/2"	8"	36"
2"	8"	36"
3"	8"	36"
3-1/2"	8"	36"
4"	8"	36"
4-1/2"	8"	32"
5"	8"	30"
6"	10"	28"
8"	10"	24"
10"	10"	24"
12"	10"	24"

**Pipe Set-Up**

1. Pipe or tubing longer than the specified maximum lengths listed in Chart above must be supported with 2 pipe stands. The second pipe support should be located 3/4 of pipe length from roll groover.
2. Raise upper groove roll housing by placing pump release lever in RETURN position (away from operator).
3. Square pipe and pipe support to roll groover making sure pipe is flush against drive roll flange.

4. Level pipe by adjusting pipe stand.

5. Slightly offset pipe and pipe stand (approx. 1/2° away from or toward operator as directed below:

**FOR: 1/2° toward operator**  
**REV: 1/2° away from operator**

**Adjusting Roll Groove Depth**

NOTE! Due to differing pipe characteristics, a test groove should always be performed when setting up or changing pipe sizes. The index depth adjustment knob must be reset for each diameter of pipe/tube.

1. Advance the upper groove roll by placing the pump release lever in ADVANCE position (toward operator) and pump the handle until the upper roll contacts the pipe to be grooved.

NOTE! Upper roll should only touch the pipe surface. Care must be taken not to penetrate pipe surface with upper roll by applying excessive pressure.

2. Turn down the indexed depth adjustment knob (clockwise) until it stops against the top of the machine.
3. Back the depth adjustment knob off one turn.

**Forming the Roll Groove.**

Do not use to groove 8" schedule 40 steel pipe harder than 150 BHN.

1. Flip the directional switch from OFF and step on power drive or threading machine foot switch while applying downward pressure on the pump handle. Allow one full pipe rotation between quarter strokes of the pump handle.

If pipe begins to "walk off" the drive roll, stop the machine and check "Pipe Set-Up" procedure.

**⚠ WARNING**

2. To help prevent "walking", apply pressure on outside of pipe with right hand: away from operator when running the power drive or machine in FORWARD mode; toward operator when running the power drive or machine in REVERSE mode.

**⚠ WARNING**

**Keep hands away from the end of pipe.  
Do not reach inside pipe end. Will prevent being  
cut on sharp edges and burrs.**

NOTE! Do not overfeed upper groove roll. Maintain constant downward pressure, pausing to allow one pipe revolution per quarter stroke of the pump handle.

3. When the depth adjustment knob contacts the machine casting, allow two complete pipe revolutions to even out groove depth.
4. Release foot switch and retract upper groove roll by placing the pump release lever in the RETURN position (toward operator).
5. Check groove diameter before proceeding with additional grooves.

NOTE! Groove diameter should be measured using a Diameter - tape. To increase groove depth, rotate the index depth adjustment knob one mark counter clockwise. To decrease groove depth, rotate the depth adjustment knob clockwise.

6. Periodically check groove with a Diameter-Tape or similar measuring device.

**Roll Grooving Tips**

1. If pipe tends to “walk off” drive roll, increase offset dimension.
2. If drive roll flange shaves pipe end, decrease offset dimension.
3. If pipe end flare is excessive, lower pipe end to level with roll groover.
4. If pipe wobbles and/or “walks off” the drive roll, raise pipe end to level with roll groover.
5. Short lengths of pipe (under three feet) may require slight pressure to maintain the 1/2 degree offset dimension.

**Grooving Short Lengths of Pipe**

1. When running machine in forward direction, exert pressure on pipe away from operator.
2. When running machine in reverse, exert pressure on pipe toward operator.

**Removing and Installing  
Groove Roll and Drive Shaft**

NOTE! As groove dimensions are determined by the roll set geometry, specific roll sets are required when grooving the following:

- 2 - 6” Schedule 10, 40
- 8 - 12” Schedule 10

**⚠ WARNING**

**Make sure power drive or threading machine is unplugged from power source before changing the Roll Sets or removing the Roll Groover.**

**When removing rolls and shafts, be sure they are properly supported.**

**Removing and Installing Roll Sets with  
Solid Drive Shafts (2”, 6”, 8”, 12”)**

1. Recommend removing Roll Groover from power drive or machine, and placing it on a work bench in an upright position. If a suitable workplace is not available, roll sets can be changed with Groover mounted on the machine.

**⚠ WARNING**

Use care that the Groover does not slide off the support arms on the Power Drive.



**2. Removing Groove Rolls:**

- Fully raise the upper roll housing by moving the pump release lever to the return position, away from the operator.
- Loosen groove roll set screw. Grasp groove roll and remove upper shaft and groove roll from groover.

**3. Removing Solid Drive Shaft:**

- Manually rotate the drive shaft while applying pressure to the spindle lock pin until the lock pin engages the spindle lock hole in the driveshaft.
- With the spindle lock engaged, use the box wrench to remove the drive shaft bearing retaining nut.
- Release pressure on the spindle lock pin, allowing to retract.
- Remove the drive shaft.

**4. Installing Solid Drive Shaft:**

- Install new drive shaft.
- Install the drive shaft bearing retaining nut, with text out.
- Manually rotate the drive shaft while applying pressure to the spindle lock pin until the lock pin engages the spindle lock hole in the drive shaft.
- With the spindle lock engaged, use the box wrench to tighten the drive shaft bearing retaining nut.
- Release pressure on the spindle lock pin, allowing to retract.

**5. Installing groove roll:**

- With upper roll housing fully raised and driveshaft in place, insert groove roll into upper roll assembly and fully insert upper roll shaft through bearings and groove roll.
- Tighten groove roll set screw into detent on upper roll shaft.

**6. Using a grease gun, grease the drive shaft through the fitting on the side of the Groover.****Maintenance Instructions**

Make sure machine is unplugged from power source before performing maintenance or making any adjustments.

**Hydraulic Fluid Level**

Remove the reservoir filler cap. The oil level should come to the fill line when the pump is resting on its base and the ram is fully retracted. Use only high grade hydraulic oil.

**Lubrication**

Drive shaft and Groove roll shaft bearings. Lubricate with multi-purpose grease through fittings located on groove roll shaft and lower roll housing once a month, and after every roll change.

**Machine Storage**

Motor-driven equipment must be kept indoors or well covered in rainy weather. Store the machine in a locked area that is out of reach of children and people unfamiliar with threading machines. This machine can cause serious injury in the hands of untrained users.

**Service and Repair**

Service and repair work on this Threading Machine must be performed by qualified repair personnel.

When servicing this machine, only identical replacement parts should be used. Failure to follow these instructions may create a risk of electrical shock or other serious injury.

If you have any questions regarding the service or repair of this machine, call or write to:

ARGCO Piping Tools Division  
Technical Service Department  
5400 S. 66th Street  
Ft. Smith, AR 72903  
Tel: (800) 230-6636  
E-Mail: TechServices@argco.com



## ONE YEAR WARRANTY:

ARGCO stands behind all PT® tools - no questions asked.

All PT® tools are warranted to be free of defects in workmanship and material.

### **How long coverage lasts:**

This warranty lasts one year from date purchased. Warranty coverage ends when the product becomes unusable for reasons other than defects in workmanship or material.

### **Service:**

To obtain warranty benefits, ship product to ARGCO, Ft Smith, Arkansas. Warranted products will be repaired or replaced, at ARGCO's option, and returned at no charge.

### **What is not covered:**

Failures due to misuse, abuse or normal wear and tear are not covered by this warranty. ARGCO shall not be responsible for any incidental or consequential damages.

### **No Other Express Warranty Applies**

This Full One Year Warranty is the sole and exclusive warranty for ARGCO products. No employee, agent, dealer, or other person is authorized to alter this warranty or make any other warranty on behalf of the ARGCO Inc.



FOR PRODUCT OR WARRANTY INFORMATION CONTACT  
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