Catalog Number: RG812H
Item Code: 08550

Catalog Number: RG26H
Item Code: 08560

WARNING

Clothing/gloves can be caught in moving parts. Fingers can be crushed.

- **Keep hands away from grooving rolls.**
- **Use footswitch.**
- **Read Operator's Manual.**

OPERATOR'S MANUAL

RG26H AND RG812H PORTABLE HYDRAULIC ROLL GROOVER

REED MANUFACTURING COMPANY
1425 West Eighth St. Erie, PA 16502 USA Phone: 800-666-3691 or 814-452-3691 Fax: 800-456-1697 or 814-455-1697
www.reedmfgco.com

Description and Specifications

Description

Reed Model RG26H and RG812H Roll Groover are designed to form standard rolled grooves in steel, stainless steel and aluminum pipe, from 8" to 12", up to Schedule 20 pipe. The groove is formed by the groove roll which is fed into the pipe wall. The pipe is supported on the inside by a drive roll, which is relieved to permit pipe wall deformation. The formed grooves comply with the specifications required for mechanical coupling systems. The only adjustment required is for the depth of the groove.

Designed for portability, the RG26H and RG812H Roll Groover are an economical solution to the job-site grooving requirements in mechanical piping system installations.

The RG26H and RG812H Roll Groover are designed for use with Reed 5301PD Power Drive, 38 RPM models only.

Specifications

Capacity

RG26H..... 2" - 6" (50.8 - 152.5 mm) up to and including Schedule 40

RG812H.....8" - 12" (203 - 305 mm) up to and including Schedule 20

Depth Adjustment.....Adjusting Screw and Included Depth Gauges

Actuation.....Hydraulic

REED 5301PD Power Drive Mounting

Weight - Tool Only.....53 lbs.

Tool Including Steel Toolbox.....74 lbs.

Standard Equipment

Groove Roll

RG26H .....2" - 6" (50.8 - 152.5 mm)

RG812H.....8" - 12" (203 - 305 mm)

Drive Roll (Drive Shaft)

RG26H.....2" - 6" (50.8 - 152.5 mm)

RG812H.....8" - 12" (203 - 305 mm)

Feed.....Maunual Hydraulic Pump with Stand

Support Means.....Included Support Rods

Recommended Accessories

- Reed Model JLV Low Pipe Jack (06355) with JTA Ball Transfer Head (06351), or JL2R Low Roller Head Jack (06356).
- Reed 5301PD Power Drive, 38 RPM Models.

Important - Before Operating

Before operating the Hydraulic Roll Groover, read and follow all safety information and instructions in the operator's manual.

Safety Information

WARNING!

Serious injury can occur if all safety information and operating instructions are not followed. These injuries could include:

Loss of fingers, hands, arms or other body parts if clothing or gloves get caught in moving parts;

Electrical 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 thrown workpiece or workpiece chips.

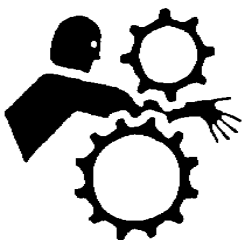
General Safety

Read and follow the safety information and instructions in the operator's manual.

Know the location and functions of all controls before using the machine.

Footswitch Safety

The footswitch of the power drive is for your safety. It lets you shut off the motor by removing your foot. If clothing should become caught in the machine, it could 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.



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Power Drive Safety

Follow all of the power drive manufacturer's safety information and operating instructions included with the power drive.

WARNING!

Warning: Clothing/gloves can be caught in moving parts. Fingers, hands, arms or other body parts can be crushed or broken.

- Keep fingers away from grooving rolls.
- Use footswitch.
- Do not wear gloves.
- Keep sleeves and jacket buttoned.
- Do not reach across machine because clothing can be drawn into moving parts.
- Operate machine from switch side only.
- Do not disconnect or block footswitch.
- Keep footswitch in working order.
- Make sure switch is in the "off" position before plugging in power cord.
- Make sure you can quickly remove your foot from the footswitch.

Personal Safety

1. Wear snug-fitting clothes, safety shoes, hard hat and safety glasses. Cover up or tie up long hair. Do not wear loose clothing, gloves, unbuttoned jackets, loose sleeve cuffs, neckties, rings, watches or other jewelry.

2. Wear hearing protectors, ear plugs or muffs if you use the machine daily or in a very noisy area.

3. Operate the power drive and roll groover from the side with the power drive's "REV/OFF/FOR" switch.

4. Keep good footing and balance. Do not overreach.

5. Do not operate machine when you are tired.

Caution: Keep hands clear of the Power Drive Hand Wheel/ Chuck and Roll Groove Handle area while the tool is in operation.

Electrical Safety

Follow all of the power drive manufacturer's electrical safety information and operating instructions included with the power drive.

Work Area Safety

1. Keep children and visitors out of work area. If visitors must be in area, keep them far away from the machine and extension cords.

2. Keep work area clean, uncluttered and well lit.

3. Keep floors dry and free of slippery materials.

4. Clear machine and bench of all objects such as wrenches or tools before turning machine on.

Roll Groover Safety

1. Keep hands away from grooving rolls. Fingers could get caught between groove roll and drive shaft.

2. Set up Roll Groover on a flat, level surface. Be sure the machine, stand and Groover are stable and will not tip over.

3. Be sure Groover is properly secured to the power drive. Carefully follow set up instructions.

4. Use only 38 RPM model Power Drives to drive RG26H and RG812H.

5. Do not use the RG26H or RG812H Roll Groover for any other purpose than roll grooving pipe and tubing.

6. Do not use excessive force when actuating the hydraulic pump. Follow the operating instructions and use Table 2 as a guide.

7. Properly support pipe with pipe support.

8. Use recommended accessories. Use of other accessories may increase the risk of injury. Refer to the "Recommended Accessories" section on page 2.

Machine Maintenance

1. Inspect groove roll and drive shaft. Replace worn rolls.
2. Lubricate with multi-purpose grease through the three grease fittings (see Figure 1).
3. Keep Adjusting Screw knob dry and clean. Keep free from oil and grease.
4. Follow all maintenance instructions provided with the Power Drive.

Powered Grooving Instructions

Assembling the RG26H and RG812H Roll Groover

1. Screw the two Support Rods into the sides of the main body of the Roll Groover (Figure 1). Tighten the support rods securely with a pipe wrench.
2. Install the Hydraulic Pump and stand by inserting the pipe over the support rod on the operators side of the Roll Groover. This is the side of the tool with the REED Logo, Depth Gages and grease fitting.
3. Attach the Hose coupling to the Ram coupling.

Installing the Power Drive

1. Remove carriage or other attachments from the power drive.
2. Fully open front chuck of power drive.
3. Install the RG26H or RG812H to the Power Drive by inserting the square opening of the pump stand over one Power Drive carriage rail and resting the support rod on the other Power Drive carriage rail.
4. Steady the Roll Groover with one hand.
5. With the other hand rotate the drive shaft to align the flats with the jaws on the Power Drive chuck.
6. Tighten Power Drive chuck on the drive shaft.

Pipe Preparation

1. Pipe ends must be cut square. Do not use cutting torch.
   Note: When adjusting roll groover depth, the trial groove pipe should not have a large burr protruding inward. Use a suitable tool to deburr trial groove pipe. After groove depth has been set, deburring of pipe is not required.
2. Pipe out-of-roundness must not exceed the total O.D. tolerance given in groove specifications, listed in Table 1.
   Note: Determine out-of-roundness by measuring maximum and minimum O.D. at 90° apart.
3. All internal or external weld beads, flash or seams must be ground flush at least 2 inches back from pipe end.
   Note: Do not cut or grind flats on gasket seat area.

Pipe Length

The chart below lists the minimum length of pipe to be grooved and the maximum length to be grooved without a pipe jack.

Groovable Pipe Lengths - Inches

Nominal Pipe Size	Minimum Length	Maximum Length without pipe jack
2	8	36
2-1/2	8	36
3	8	36
3-1/2	8	36
4	8	36
4-1/2	8	32
5	8	32
6 O.D.	10	30
6	10	28
8	10	24
10	10	20
12	12	18

Pipe Set-Up

1. Pipe longer than the specified maximum lengths listed in the above chart must be supported with a pipe jack. The pipe jack should be located 3/4 of the pipe length from the roll groover. Long lengths may require two jacks.
2. Raise the Groove Roll by retracting the Hydraulic Ram by loosening the Pressure Release Valve. Install the pipe on the Drive Shaft and pipe jack.
3. Square the pipe and pipe jack to the roll groover making sure the pipe is flush against the Roll Groover Cover Plate.
4. Level the pipe by adjusting the pipe jack height. Pipe axis should be level with machine axis (Figure 2, page 8).

Figure 1 - RG26H and RG812H Roll Groover

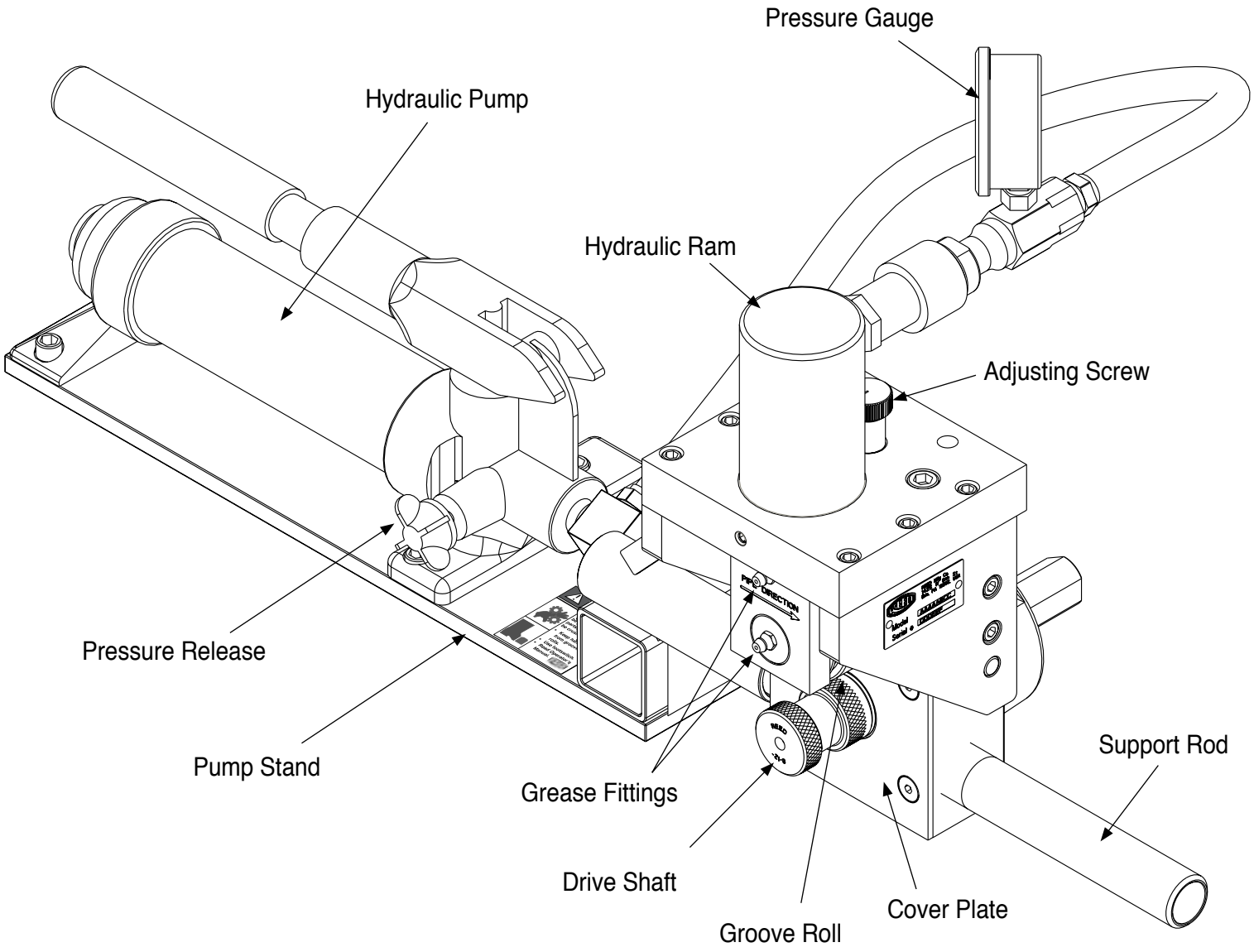


Table 1 - Standard Roll Groove Specifications

Note: All dimensions are in inches.

NOM. PIPE SIZE	PIPE DIAMETER O.D. TOL.	T MIN. WALL THK.	A GASKET SEAT ± .030	B GROOVE WIDTH ± .030	C GROOVE DIAMETER O.D. TOL.	D NORMAL GROOVE DEPTH
2	2.375 +.024 - .024	.065	.625	.344	2.250 +.000 -.015	.063
2-1/2	2.875 +.029 - .029	.083	.625	.344	2.720 +.000 -.018	.078
3 O.D.	3.00 +.030 - .030	.083	.625	.344	2.845 +.000 -.018	.078
3	3.50 +.035 - .031	.083	.625	.344	3.344 +.000 -.018	.078
3-1/2	4.00 +.040 - .031	.083	.625	.344	3.834 +.000 -.020	.083
4	4.50 +.045 - .031	.083	.625	.344	4.334 +.000 -.020	.083
4-1/2	5.00 +.050 - .031	.095	.625	.344	4.834 +.000 -.020	.083
5	5.563 +.056 - .031	.109	.625	.344	5.395 +.000 -.022	.084
6 O.D.	6.00 +.056 - .031	.109	.625	.344	5.830 +.000 -.022	.085
6	6.625 +.063 - .031	.109	.625	.344	6.455 +.000 -.022	.085
8	8.625 +.063 -.031	.109	.750	.469	8.441 +.000 -.025	.092
10	10.750 +.063 -.031	.134	.750	.469	10.562 +.000 -.027	.094
12	12.750 +.063 -.031	.156	.750	.469	12.531 +.000 -.030	.109

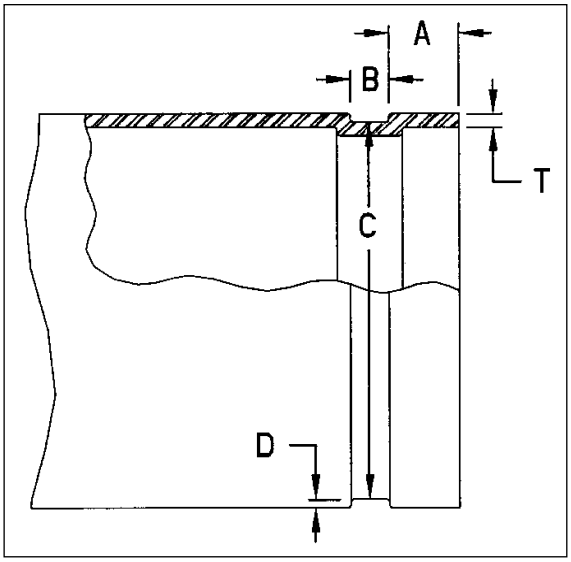


Table 2 - Groove Roll Feed Pressure

Material	Wall Thickness inches/(mm)	Pressure (psi) to Advance the Feed
Steel and Stainless Steel	.217 to .280 (5.51 to 7.1)	4000
	.135 to .216 (3.43 to 5.49)	3000 - 3500
	.120 to .134 (3.05 to 3.40)	1750 - 2250
	.065 to .119 (1.65 to 3.02)	1000
Aluminum	.135 to .216 (3.43 to 5.49)	2000
	.120 to .134 (3.05 to 3.40)	1250
	.065 to .119 (1.65 to 3.02)	750

Note: Pressures listed on this table are intended to be approximate. Slightly higher or lower pressure may be needed.

5. Square up the pipe tool.

Adjusting Groove Depth

Note: To insure the proper groove diameter, a trial groove should be performed.

Note: The Adjusting Screw must be set for each diameter of pipe.

1. Loosen Adjusting Screw (counterclockwise) enough to permit advancing of the Groove Roll down to the pipe.
2. Close the pressure release valve on the Hydraulic Pump. Advance the Groove Roll until it is snug against top of pipe. The pressure gage will begin to show pressure. Be sure Groove Roll contacts pipe and Adjusting Screw head does not bottom out.

   Note: Trial groove pipe should be deburred for best results. Burr on inside of pipe will raise pipe away from drive shaft, causing inaccurate set-up adjustment. After proper groove depth has been verified by trial groove, deburring of following pipes is not required. See Step 1 of **"Pipe Preparation".**
3. Using the Depth Gauge labeled with the pipe size being grooved, place Depth Gauge under head of Adjusting Screw.
4. Advance Adjusting Screw downward until underside of head touches Depth Gauge.
5. Remove Depth Gauge.
   Note: It may be necessary to readjust Adjusting Screw after trial groove is made. Each 1/4 turn of Adjusting Screw will produce a .02" change in diameter of rolled groove. Tightening Adjusting Screw will increase groove diameter. Loosening Adjusting Screw will decrease groove diameter.

Forming the Groove

1. Place the power drive switch in the reverse (REV) position for clockwise rotation of the drive shaft and pipe.
2. Step on power drive footswitch and apply light pressure on pipe by advancing Groove Roll with the Hydraulic Pump.

   Warning: If pipe tends to "walk off" the tool.
   a. Verify the pipe sits level, if not level then correct.
   b. Verify the pipe rotates in the direction shown by arrow on the tool.
   c. Offset the far end of the pipe toward the operator's side (the side with the power drive REV/OFF/FOR Switch). A pipe offset of 1 inch per 10 ft. should work. (See Figure 2).
3. With pipe tracking properly and end of pipe against cover plate, step on footswitch and begin advancing Groove Roll with Hydraulic Pump, allowing one complete rotation of pipe between strokes of Hydraulic Pump.

   Caution: Keep hands clear of the Power Drive Hand Wheel/Chuck and Roll Groove Handle area while the tool is in operation.

Note: If the ram will not advance make sure the Pressure Release Valve is closed. Snug by hand but do not over tighten. Turn clockwise to close and counterclockwise to open.

Caution: Do not over-feed. Allow one complete rotation of pipe between advances. See Table 2 for details.
Tip: Short 1/2 or 1/4 strokes are easier.

4. Continue feeding until Adjusting Screw makes contact with the top surface of the Roll Groover. Allow pipe to make two complete rotations in bottomed position to insure uniform groove depth.

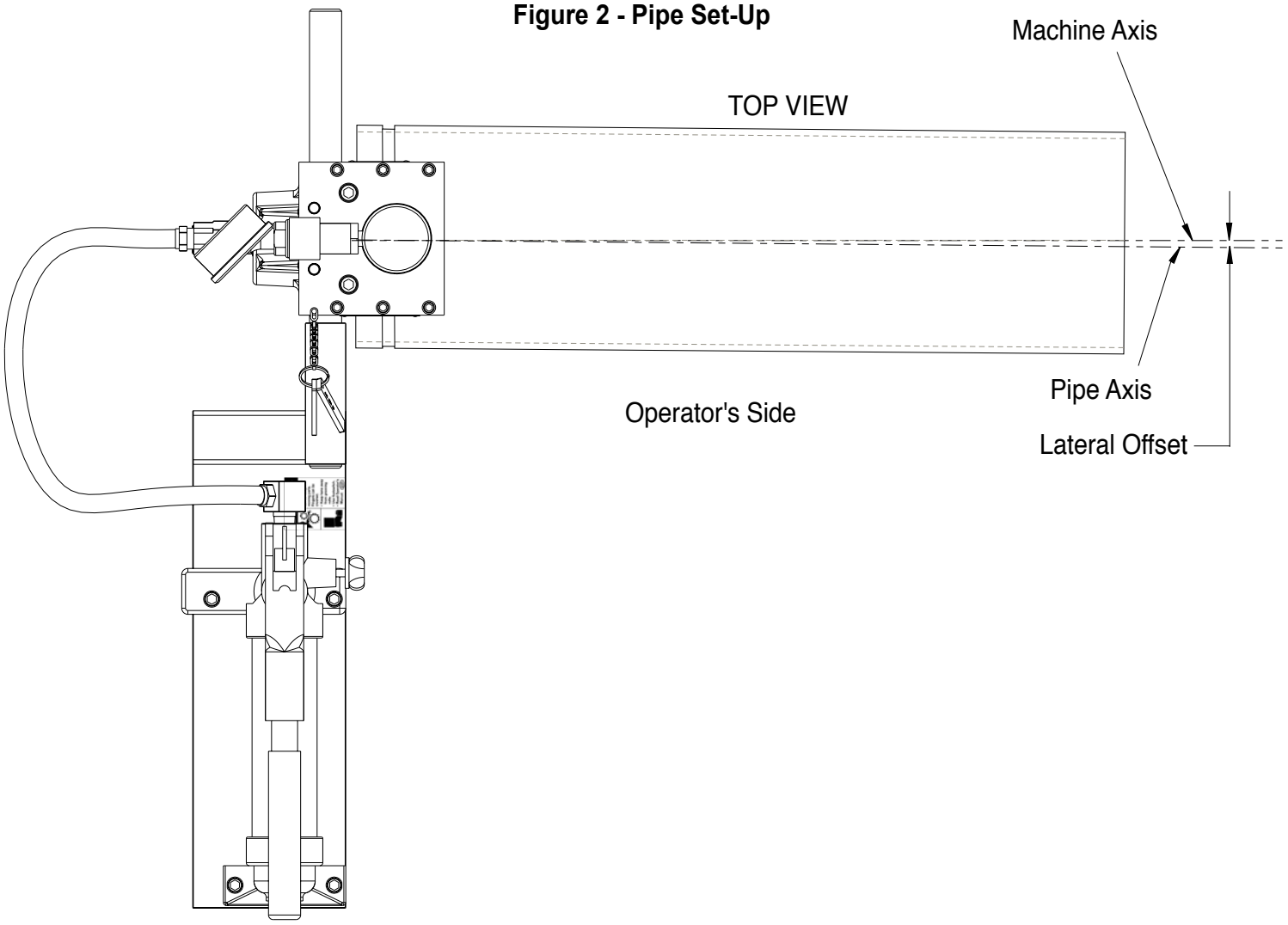
   Warning: Do not continue pumping Hydraulic Pump after Adjusting Screw bottoms out. Damage to the Adjusting Screw may result.
5. Release footswitch to stop machine, and retract Groove Roll. Retract Groove Roll enough to remove pipe from machine by loosening the pressure release valve on the Hydraulic Pump.
6. Measure groove diameter at two places 90° apart. Both measurements should be within the listed tolerance of the dimension shown in Table 1.
7. To increase groove diameter tighten Adjusting Screw. To decrease groove diameter loosen Adjusting Screw. **Each 1/4 turn of Adjusting Screw will change groove diameter by approximately .02".**

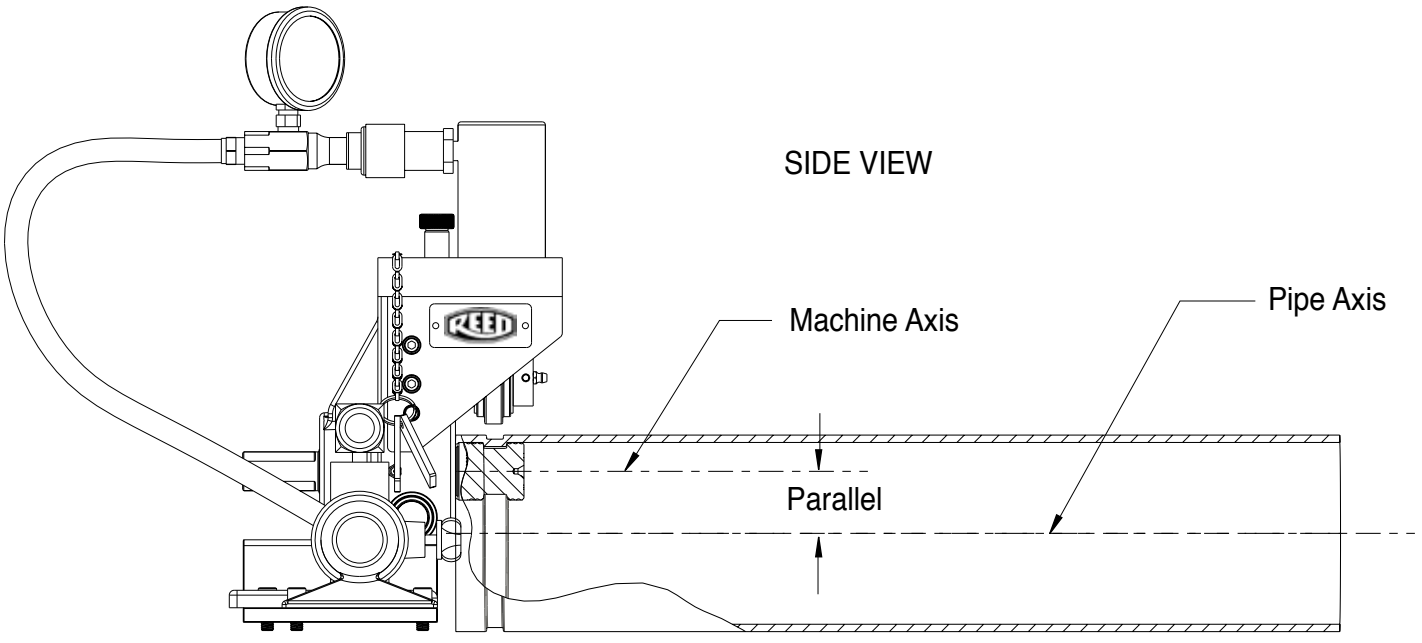
   Note: Once groove depth has been set, following grooves will be same depth.
8. Periodically check groove depth with a mechanical coupling. **The coupling should fully seat in the groove without binding or excessive play.**

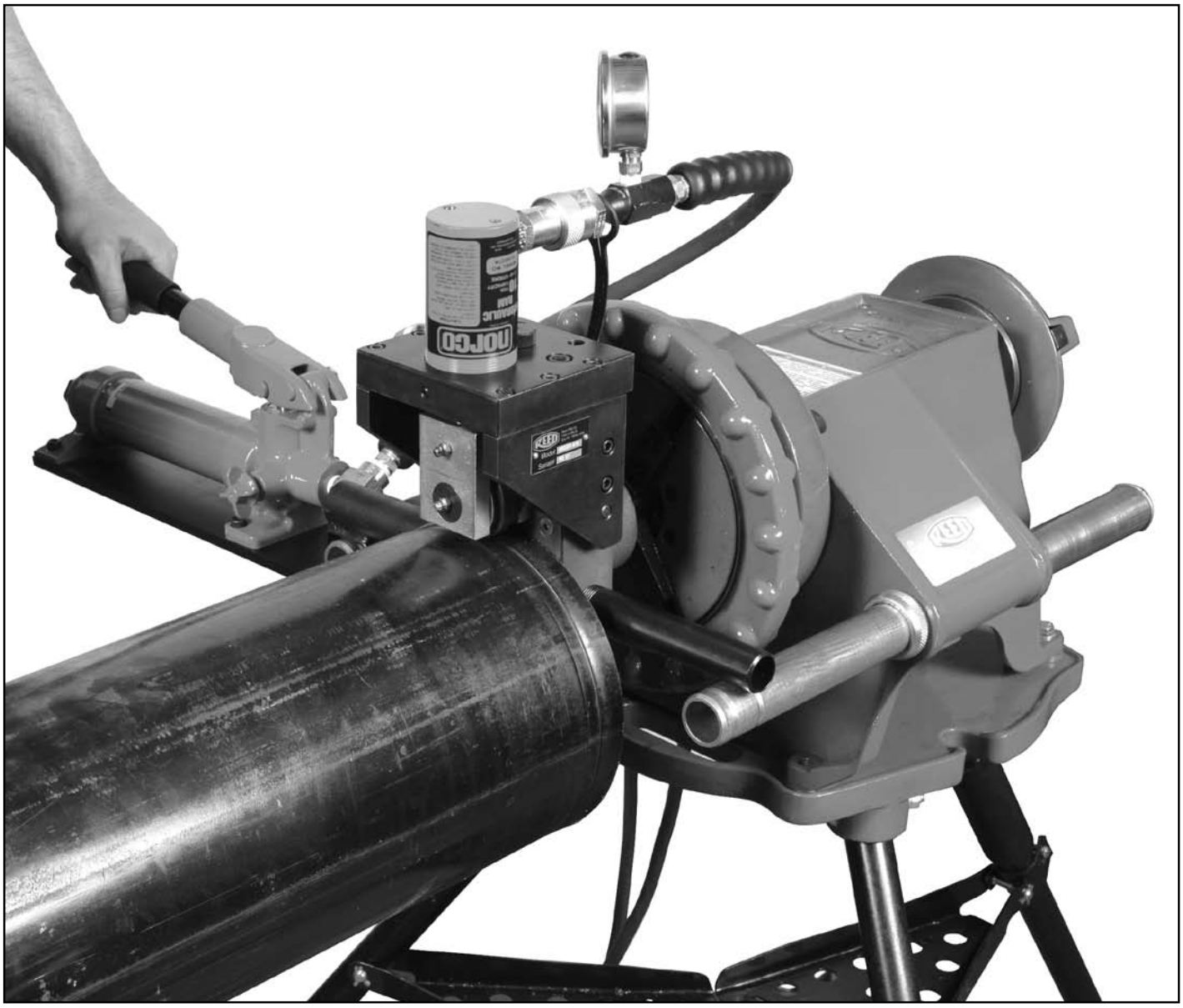
Roll Grooving Tips

1. If pipe tends to "walk off" drive shaft, increase lateral offset of pipe (see Figure 2 - Pipe Set-Up).
2. If Cover Plate shaves end of pipe, decrease lateral offset of pipe.
3. If pipe end flare is excessive, lower pipe end to level with roll groover. With smaller schedule pipe use less hydraulic pump pressure while grooving.
4. If pipe wobbles and/or "walks off" Drive Shaft, raise pipe end to level with roll groover.
5. Short lengths of pipe (under three feet) may require slight hand pressure to maintain the lateral offset.

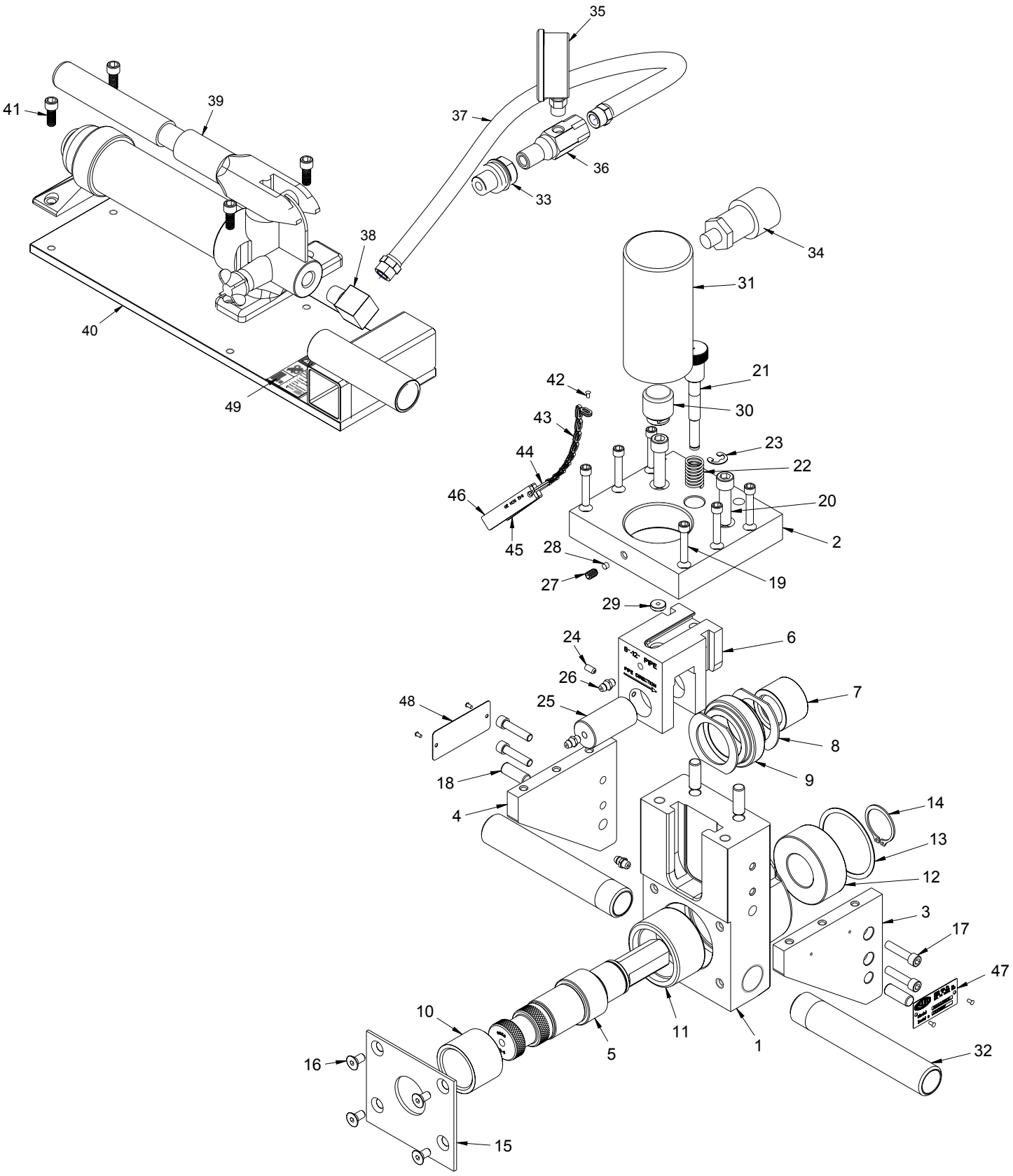
Figure 2 - Pipe Set-Up







Parts Breakdown



Parts List

Ref. No.	Description	RG26H Item Code	RG812H Item Code	Quantity
1	Main Body	99235	99235	1
2	Top Plate	99232	99232	1
3	Right Side Gusset	99233	99233	1
4	Left Side Gusset	99234	99234	1
5	Driveshaft	99250	99230	1
6	Slide Block	99251	99231	1
7	Top Roller Bearing	49207	49207	1
8	Thrust Washer	—	98590	2
9	Groove Roll	98506	99221	1
10	Roller Bearing - Inner Ring	40430	40430	1
11	Bottom Roller Bearing	40433	40433	1
12	Bottom Thrust Bearing	40432	40432	1
13	Retaining Ring	30207	30207	1
14	Retaining Ring	30211	30211	1
15	Cover Plate	98530	98530	1
16	1/4 - 20 x 1/2 Flat Head Socket Screw	30216	30216	4
17	1/4-20 SHCS	38581	38581	4
18	Dowel Pin	30213	30213	4
19	1/4-2 x1-1/4 SHCS	37668	37668	6
20	3/8-16x1-1/2 SHCS	30217	30217	2
21	Adjusting Screw	98509	98509	1
22	Compression Spring	30212	30212	1
23	Retaining Ring	30209	30209	1
24	10-24 Socket Set Screw	30224	30224	1
25	Groove Roll Shaft	98528	98528	1
26	Grease Fitting	40338	40338	3
27	1/4-20 x 3/8 Set Screw	30113	30113	1
28	Thread Protector for Cylinder THDS	99240	99240	1
29	Thrust Washer	93044	93044	1
30	Ram/Sliderblock Linkage	99237	99237	1
31	Hydraulic Ram	49221	49221	1
32	Support Bar	98511	98511	2
33	Male Cylinder/Hose Coupler with Cap	94308	94308	1
34	Female Cylinder/Hose Coupler with Cap	49224	49224	1
35	Pressure Gage	94314	94314	1
36	Gage Adaptor	49223	49223	1
37	2' x 3/8" Hydraulic Hose	49222	49222	1
38	90° Street Elbow	49225	49225	1
39	Hydraulic Pump	49220	49220	1
40	Pump Stand	99236	99236	1
41	5/16-18 SHCS	32910	32910	4
42	Drive Pin	30133	30133	5
43	Brass Safety Chain	40434	40434	1
44	Split Ring	40204	40204	1
45	Depth Gage	99223	99223	1
46	Depth Gage	99225	99225	1
47	Metalphoto Tag-Model/Serial Number	99204	99204	1
48	Reed Logo Tag	40193	40193	1
49	Roll Grove Sticker	50516	50516	1

Reed Lifetime Warranty

Reed Hand Tools are for the professional trade and are warranted against all failure due to defects in workmanship and materials for the normal life of the tool.

FAILURES DUE TO MISUSE, ABUSE, OR NORMAL WEAR AND TEAR ARE NOT COVERED BY THIS WARRANTY.

Power units for Universal Pipe Cutters, Saw It®, electric test pumps, and threading power drives are warranted for a period of one year from date of purchase.

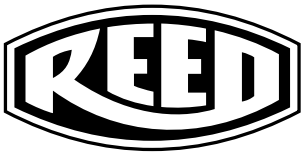
NO PARTY IS AUTHORIZED TO EXTEND ANY OTHER WARRANTY. NO WARRANTY FOR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY.

No warranty claims will be allowed unless the product in question is received freight prepaid at the Reed factory. All warranty claims are limited to repair or replacement, at the option of the company, at no charge to the customer. REED IS NOT LIABLE FOR ANY DAMAGE OF ANY SORT, INCLUDING INCIDENTAL AND CONSEQUENTIAL DAMAGES. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

CAUTION: Safety reminders for a professional approach to tool selection and use.

- Proper maintenance of tools is critical to personal safety; worn tools should be repaired or replaced as required.
- Select the correct tool and tool size for the job. Never modify a tool to exceed its intended capacity.
- We recommend the Hand Tools Institute booklets for additional safety tips. Booklets are available from Reed or the Hand Tools Institute.



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