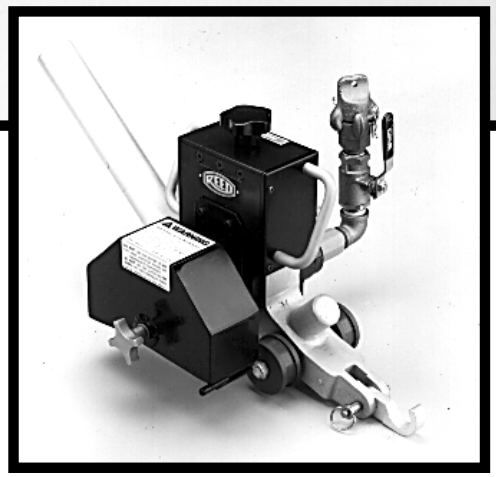
PNEUMATIC / PNEUMATIQUE



OPERATOR'S MANUAL
GUIDE DE L'UTILISATEUR

UPC 616A
UPC 636A
UPC 648A

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

708-57512

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I. SAFETY INSTRUCTIONS & WARNING

A. Always Comply With:

1. General Industry Safety & Health Regulations, Part 1910, OSHA 2206. Available from: Sup't of Documents, Government Printing Office, Washington, DC 20402.
2. ANSI Specification Nos. B186.1, B7.1 Available from: American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.
3. State and Local Regulations.

B. Abbreviated Form of Above Regulations:

These regulations are not all inclusive—study and comply with all above regulations.

1. Check Cutter Speed Before Mounting Cutter.
2. Use Tachometer
   Actual speed must not exceed rated speed.
3. Perform Speed Checks When:
   a. A tool is issued for use.
   b. After all tool repairs.
4. Use Tools Only For Intended Purpose
   Refer to Product Catalog.
5. Test & Operate Tools at 90 PSIG Maximum
   Only exception is if tool is marked otherwise.
6. Use Recommended Air Line Equipment
   This includes air line filters, regulators, and lubricators.
7. Stop Immediately If:
   a. Unusual sound is heard, or...
   b. Unusual vibration is experienced (Refer to Section III to check if proper assembly was followed).
8. Check Speed Rating Of Blade
   Must equal or exceed speed rating of air motor.
9. Mount Blade According To Regulations
   Refer to manufacturer's instructions regarding spindles, lock nuts, spacers, keys, flanges, etc. (Sec. IIIA, Items 4 and 6).
10. Mount Proper Blade Guard
    a. Refer to Sec. IIIA, Items 3 and 7 for proper and secure mounting.
    b. Sample Warning Label:

WARNING

HIGH SPEED ROTATING BLADES

PERSONAL INJURY CAN OCCUR IF HANDS ARE NOT KEPT CLEAR OF BLADES. ALWAYS WEAR PROPER EYE AND EAR PROTECTION. DO NOT OPERATE THIS UNIT WITHOUT THE BLADE GUARD IN PLACE.

DO NOT USE THIS CUTTER ON **AC** PIPE. FREE ASBESTOS FIBERS ARE HAZARDOUS TO YOUR HEALTH. **DO NOT** USE THIS CUTTER ON **FRP(GRP)** PIPE. FREE FIBERGLASS FIBERS MAY BE HAZARDOUS TO YOUR HEALTH.

REED MFG. CO. **ERIE, PA. U.S.A.**

11. Inspect Blade
    a. Refer to aforementioned regulations. (Sec. I, Item A)
    b. Discard if chipped, cracked or otherwise damaged.
12. Always Wear Protective Equipment When Tool is in Use
    a. Refer to aforementioned regulations (Sec. I, Item A) concerning goggles, face shields, and other protective clothing.
    b. Appropriate hearing protection which reduces noise to acceptable levels must be worn.
13. Employ a Safety Program
    Refer to ANSI and OSHA specifications for inspection and maintenance procedures.

WARNING: Failure to comply with all safety regulations may result in serious injury.

II. DESCRIPTION

A. Pipe Cutter Model: UPC 616A, 636A and 648A

B. Motor Specifications:

Horsepower = 1.7 H.P.
Maximum R.P.M. = 3675
Air Consumption = 50 SCFM
Pressure = 90 P.S.I. Maximum
Shut -Off = ¾" Ball valve
Air Supply Fittings = ¾" Dixon "Air King" Coupling

C. Pipe Cutting Range:

UPC616A - 6" thru 16" Nominal Pipe
UPC636A - 6" thru 36" Nominal Pipe
UPC648A - 6" thru 48" Nominal Pipe

D. Beveling:

Bevel determined by Bevel Cutter used. Available by special order.

E. Maximum Cutting Depth

4" Blade = 23⁄32"
6" Blade = 1 23⁄32"

F. Standard Equipment

Power Cutter with 1.7 H.P. Motor
Chain/turnbuckle assembly
Connecting Frames & Chain to cut up to 36" (UPC636) diameter
Connecting Frames & Chain to cut up to 48" (UPC648) diameter
Filter, regulator & lubricator with stand. (Sec. III, Part F.)
3 gallon carry along water tank (UPC616 only)
Stainless steel water tank (7 gallon) with cart (UPC636 & UPC648)
Carrying case
Air motor oil
Grease gun
Hex Key wrench set
Open end wrenches
Wedges

G. Optional Accessories/Blades*

Diamond for Cast Iron, Ductile Iron, Clay Pipe, Pit Cast & Concrete
Tungsten Carbide Grit for PVC Pipe
Bevel Cutter for PVC (Available by special order; minimum order applies.)
*See blade section chart at right.

H. Auxiliary Equipment Required:

Air compressor capable of sustaining 50 SCFM @90 psi. Hoses equipped with compatible fittings. If fittings other than those supplied with the motor are used, they should be a full bore type to maximize motor speed.

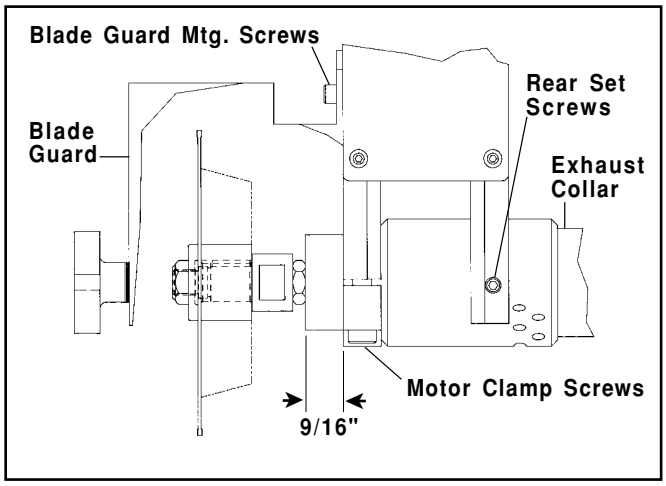


FIG.1

III. ASSEMBLY

A. Blade Installation

1. Select a Blade from the Chart Below
2. Install Blades
   a. Standard Arbor - Install the blade on the 5⁄8 diameter arbor shoulder (Fig. 2). Install the flange with the relieved side toward the blade and screw on the locknut. While holding a wrench (supplied) on the 7⁄8 arbor flats, tighten the arbor locknut. The blade must seat fully on the arbor shoulder and flush against the face of the arbor.
   b. Long Arbor - (for cutting & beveling PVC) Install the bevel cutter (small edge toward motor) or the arbor spacer (for cutting only) over the key on the arbor. Install the blade on the 5⁄8 diameter arbor shoulder (Fig. 3). Install the flange with the relieved side toward the blade and screw on the locknut. While holding a wrench (supplied) on the 7⁄8 arbor flats, tighten the arbor locknut. The blade must seat fully on the arbor shoulder and flush against the bevel cutter or arbor spacer.

CAUTION: Air Motor rotates COUNTER-CLOCKWISE as viewed from the arbor end. Blades stamped with rotation arrow must be installed so they rotate counter-clockwise.

B. Installing Bevel Cutters (Fig. 1) Optional

1. Check motor tightness by tightening motor clamp screws (2) on the underside of unit. (Fig. 1)

PHOTO #1

BLADE SELECTION CHART*

Pipe Material	UPC 616A, 636A and 648A (PNEUMATIC) 4" BLADES cut up to 23⁄32" (18.3 mm) wall thickness 6" (150 mm) Pipe Catalog No.	Item Code	6" BLADES cut up to 1 23⁄32" (43.7 mm) wall thickness 8" - 48" (200 -1300 mm) Pipe Catalog No.	Item Code
Cast Iron, Pit Cast, Ductile Iron, Clay, Concrete	UPDIA4C	97528	UPDIA6C	97524
PVC	UPCARB4	97510	UPCARB6	97514
PE	Call Reed for blade recommendation.			

*For better performance, Reed recommends 6" blade for pipe diameter 8" and over.

2. Rotate exhaust collar until ports are in downward position. Position rear set screws (2) to lightly touch the exhaust collar. Tightening the rear set screws will damage the motor and warp the motor bracket.

3. Remove blade guard, by loosening 2 screws at top of guard (Fig.1)

   Note: The pneumatic UPC is equipped with a short arbor as standard for cutting only. If a bevel cutter is ordered for PVC, it is necessary to order a longer arbor assembly (arbor-p/n 97561, arbor spacer, key, flange and locknut)

4. Remove the locknut, flange and arbor spacer (if so equipped) from the arbor.

   Note: For the long arbor assemblies, the key is an essential part on all cutting and beveling assemblies. Be sure not to misplace the key.

WARNING:
Do not use the unit without the blade guard.

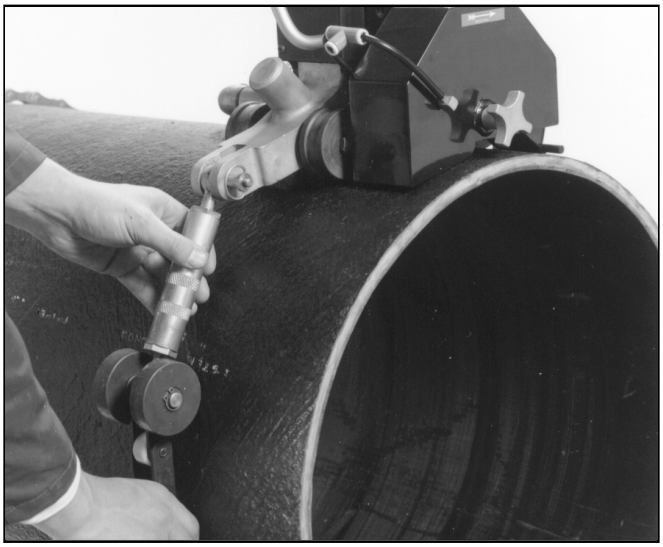


PHOTO #2

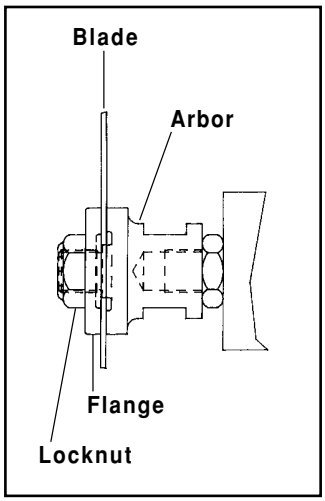


FIG. 2

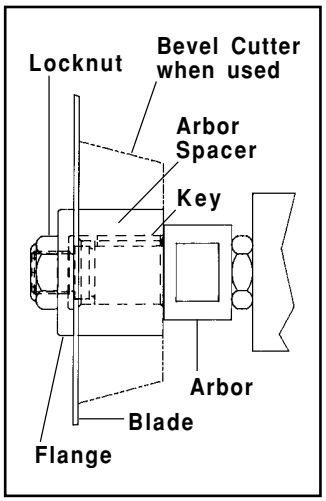


FIG. 3

3. Re-install blade guard and tighten mounting screws.

C. Select Chain and Connecting Frames to match outside Diameter of Pipe.

NOMINAL PIPE DIAMETER	MOTOR FRAME	13 LINK CHAIN ASSEMBLY WITH TURNBUCKLE	11 LINK CHAIN ASSEMBLY	CONNECTING FRAME
6 — 12 IN.	1	1	—	—
14 — 26 IN.	1	1	1	1
28 — 36 IN.	1	1	2	2
40 — 48 IN.	1	1	3	3

Note: UPC616 uses Motor Frame and 19 Link Chain/ turnbuckle Assembly.

D. Assembly of Unit on Pipe

1. Loosen motor bracket locking knob. (Fig. 4)

2. Retract motor bracket to uppermost position, by turning feed knob counter clockwise. (Fig. 4)

3. Connect 13 link chain and turnbuckle assembly to motor unit with release pin. Extend turnbuckle to outermost position. (Fig. 5)

4. Connect chain hook w/release pin to other side of motor unit. Assemble hook in upward position.

5. Place the unit on the pipe being sure to firmly hold the motor unit while wrapping the chain around to connect to the hook on the motor frame (Photo #2). Tighten turnbuckle so unit is snug but can be rotated (Photo #2). Cutter should always be mounted on the section of pipe not being removed.

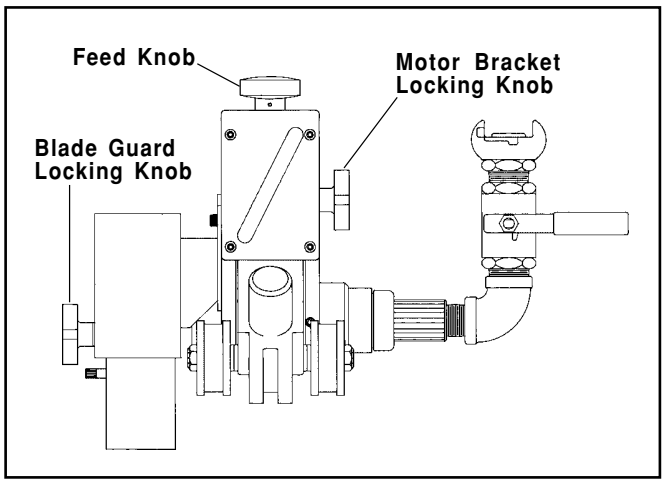


FIG. 4

6. If cutting pipe where connecting frames and 11 link chains are needed, (UPC636 & UPC648) pre-assemble chain hooks to the aluminum connecting frames, with the chain hooks in the downward position. Return to Step 5, being sure to space the connecting frames equi-distant to the motor unit. (Fig. 5)

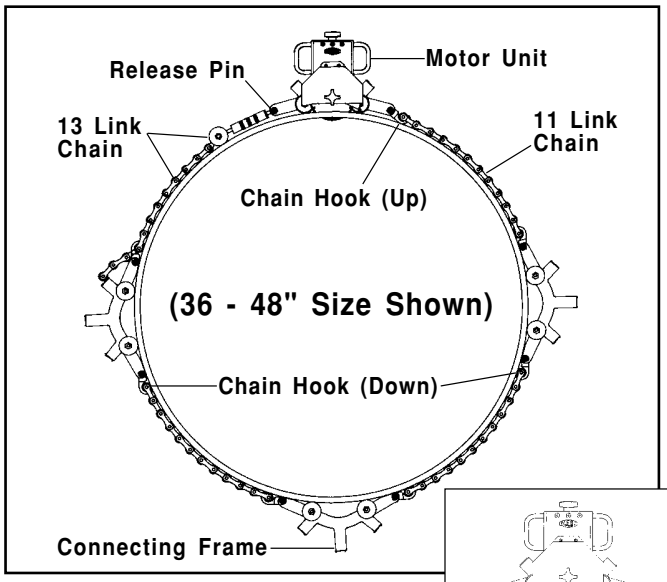
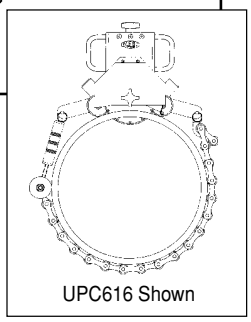


FIG. 5



E. Align Cutter

Rotate unit around pipe (one revolution). To check tracking accuracy, mark the pipe at one of the motor unit rollers, rotate the unit and note off/on track condition. By tapping the chain and/or connecting frames, the unit can be aligned.

F. Connect Air Supply

Unit is supplied with Street Ell, Ball valve and Dixon coupling, however, any combination of piping to the unit can be used as long as all fittings are full flow to ensure maximum motor RPM. Always connect to warm air side of compressor if so equipped. This will provide best tool performance.

G. Adjust Filter, Regulator, Lubricator

Note: It is imperative the filter, regulator, lubricator be employed when running the UPC Pneumatic. The air should be clean, dry, and lubricated to maximize motor life and performance.

1. Before pressurizing, fill the oiler with the oil provided, by removing the large black cap on the top. (Do not exceed the maximum fill line) Replace cap.
2. Set air pressure to 90 PSI maximum. Loosen wing-nut on bottom of regulator, and turn large knob clockwise until pressure is attained.
3. Turn the small set screw to set the oil drip. The oiler should be set of 5-6 drops per minute.

H. Fill and attach water tank (not required for cutting plastic pipe) to blade guard

Water is used to help cool the diamond blades when cutting cast iron, ductile iron and clay pipe. In cold temperatures, low-level heat may be applied to the water tank, or a non-toxic, environmentally safe, anti-freeze may be added to the water.

IV. OPERATION

A. Position the Cutting Blade

1. Loosen blade guard locking knob until swing guard rests on pipe.
2. Turn cutter feed knob clockwise. (Fig.2) Lower motor and cutter close to, but not touching the pipe. Motor bracket locking knob should be tight, yet allow the bracket to slide.

B. Pressurize Water Tank by following instructions provided with tank

Open valve on tank.

C. Turn Motor On

After ensuring air line is clear of dirt and debris, connect air hose to motor. Open ball valve on motor.

WARNING: Blade is now rotating, keep hands clear.

D. Slowly feed the blade into the pipe.

Note: Fast feeding can result in tracking off.

1. Note position of depth gage pointer (divided in tenths of inches with MM references). (Photo #3)
2.* Knowing the thickness of pipe to be cut, turn the feed knob clockwise, (Fig. 2) until the pointer indicates the desired depth of cutter. Allow at least ¼" of blade beyond depth of cut.

*Exception to this would be if the bevel cutter was being used for plastic, then the cutter would be engaged until the bevel cutter began cutting. At this point the depth gage pointer could be used to determine amount of bevel. Full engagement produces a $^{15}/_{16}$" bevel. (Fig. 4)

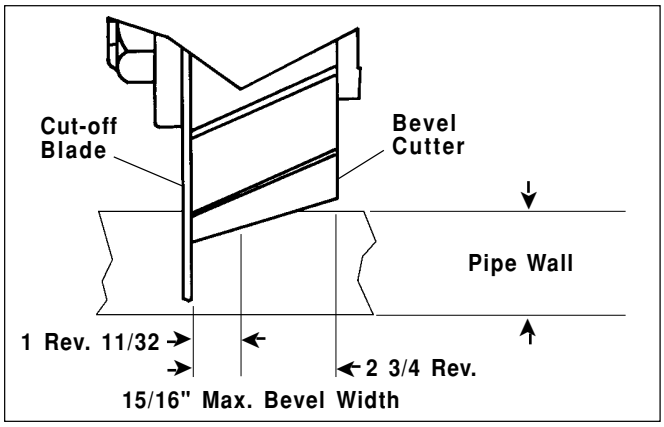


FIG. 6

3. Tighten motor bracket locking knob. (Fig. 2)
4. Tighten blade guard locking knob approximately ⅛" from pipe. (Fig. 2)
5. Rotate unit in direction of arrow on top of motor bracket.
6. Space wedges every 9-12 inches.
7. The unit will cut under water, however, if it is stalled, rotate it back up through its cut and exhaust the water before cutting again.

8. When beveling plastic pipe, overlap the start/finish point of cut to ensure a complete bevel.

9. If the blade is pinched in the cut:
   a. Disconnect air supply line from unit.
   b. Open ball valve to ensure complete bleed off through motor.
   c. Remove blade guard.
   d. Remove locknut, flange from arbor.
   e. Disconnect chain.
   f. Pull motor unit out of blade.
   g. Remove blade from pipe by lifting the pipe. Inspect the blade for damage.

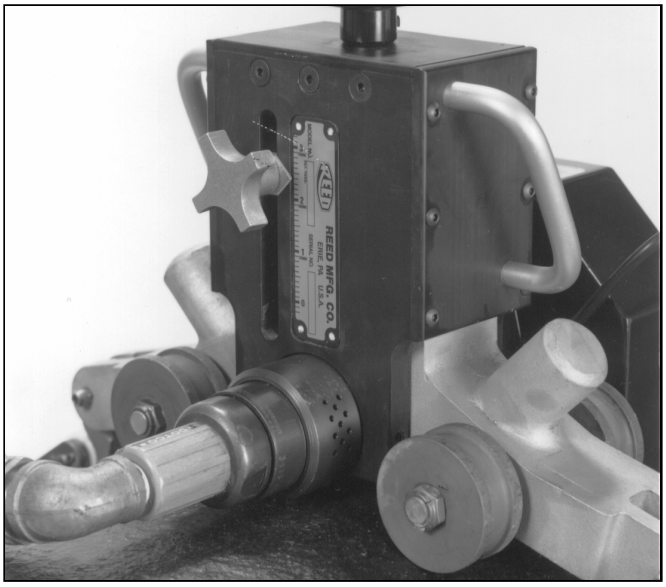


PHOTO #3

10. If the motor will not be used again in the same day, open the ball valve, pour about a teaspoon of air motor oil into the air inlet port and close the ball valve.

V. MAINTENANCE

A. Motor

1. Lubrication: Grease the planetary gears after each days use with the gear grease and grease gun provided. (Dotco Grease No. 45-0983 is recommended). A 1/4" hole at the front on the motor exhaust collar reveals a grease fitting. The fitting should be facing up when turning the motor unit upside down. Ref. Service Bulletin UPC 636-4. The motor should also be oiled before and after each days use (Sec. IV, D. Item 10).

2. Service: Refer to the service notice on underside of carrying case lid.

Note: In the event of experiencing motor problems (i.e. - leakage, loss of power, etc.) Do not disassemble the motor. This will void the motor warranty. Send motor back to Reed Manufacturing for service.

B. Cover Air Port with Cover Coupling When Unit is not in Use

C. Dress (Sharpen) Diamond Blades

1. See Service Bulletin #UPC 636-5

D. Clean Carbide Grit Blade if it becomes loaded

1. Use wire brush or appropriate solvent.

2. Direction of blade may be reversed for longer life.

E. Sharpen PE Blades/Bevel cutter

Should be performed by a professional tool grinding service.

F. Occasionally lubricate the release pins, chain links, main frame screw, roller pins and turnbuckle assembly with a water displacing lubricant (WD-40 or equivalent)

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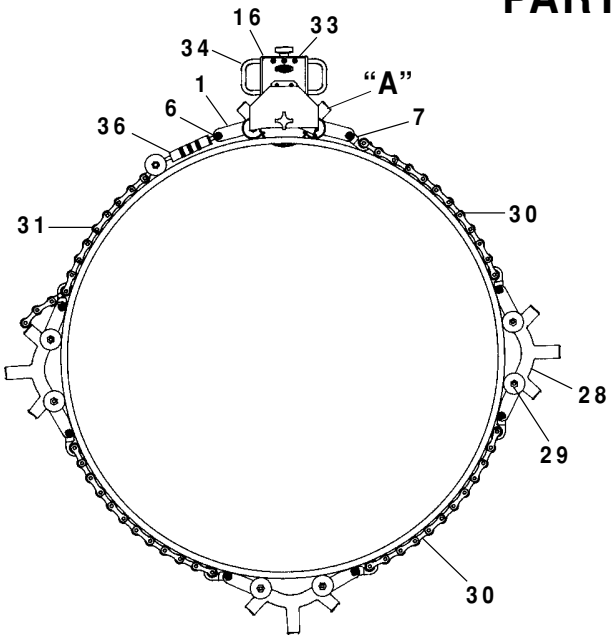
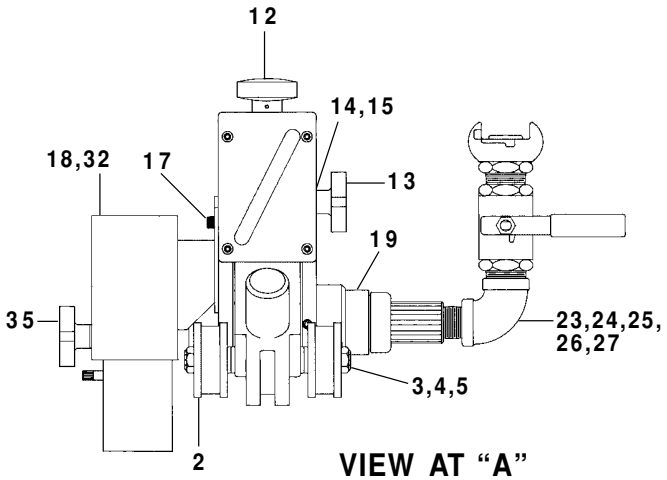
PARTS LIST





		UPC616A		UPC636A		UPC648A	
P/N	DESCRIPTION	QTY	CAT NO	QTY	CAT NO	QTY	CAT NO
1	MOTOR FRAME ASSEMBLY*	1	97067	1	97067	1	97067
2	ROLLERS, MOTOR FRAME, SET	4	97541	4	97541	4	97541
3	ROLLER PIN	2	97542	2	97542	2	97542
4	LOCKNUTS, ROLLER PIN	4	97543	4	97543	4	97543
5	SET SCREWS, ROLLER PIN	4	97544	4	97544	4	97544
6	RELEASE PIN	2	94477	6	97545	8	97545
7	CHAIN HOOK	1	97546	5	97546	7	97546
8	FEED SCREW	1	97547	1	97547	1	97547
9	BUSHING, FEED SCREW	1	97548	1	97548	1	97548
10	SET SCREW, COLLAR	2	40083	2	40083	2	40083
11	COLLAR	1	93140	1	93140	1	93140
12	KNOB, FEED	1	97551	1	97551	1	97551
13	KNOB, MOTOR LOCK	1	97552	1	97552	1	97552
14	WASHER, NYLON	1	97553	1	97553	1	97553
15	INDICATOR	1	97554	1	97554	1	97554
16	MOTOR BRKT. ASSEMBLY	1	97555	1	97555	1	97555
17	SCREWS, BLADE GUARD	2	30004	2	30004	2	30004
18	BLADE GUARD ASSEMBLY	1	97559	1	97559	1	97559
19	MOTOR, AIR 1.7 H.P.	1	97560	1	97560	1	97560
20	ARBOR, STD	1	97617	1	97617	1	97617
21	FLANGE	1	97066	1	97066	1	97066
22	LOCKNUT, ARBOR	1	97543	1	97543	1	97543
23	NIPPLE 1/2	1	97564	1	97564	1	97564
24	REDUCING EL. 1/2 X 3/4	1	97565	1	97565	1	97565
25	BALLVALVE 3/4	1	97566	1	97566	1	97566
26	COUPLING	1	97567	1	97567	1	97567
27	END CAP	1	97568	1	97568	1	97568
28	CONNECTING FRAME ASSEMBLY	N/A		2	04481	3	04481
29	ROLLERS, CONNECTING FRAME W/LOCKNUTS SET	N/A		4	97570	4	97570
30	CHAIN, 11 LINK ASSEMBLY	N/A		2	97572	3	97572
31	CHAIN, 13 LINK ASSEMBLY	N/A		1	97573	1	97573
32	CHAIN, 19 LINK ASSEMBLY	1	97576	N/A		N/A	
33	LABEL, WARNING	1	97574	1	97574	1	97574
34	LABEL, ARROW	1	97575	1	97575	1	97575
35	KNOB & SCREW ASSEMBLY	1	97578	1	97578	1	97578
36	CHAIN/TURNBUCKLE ASSEMBLY	1	97580	1	97579	1	97579
37	WATER TANK	1	40177	1	40159	1	40159
38	WATER SYSTEM HOSE W/FITTINGS	1	97581	1	97581	1	97581
39	HANDLE, ALUM. 12"	1	97582	1	97582	1	97582
40	LUBRICATING OIL-QT. (AIR MOTOR)	1	97583	1	97583	1	97583
41	FILTER-REG-LUBRICATOR W/STAND	1	97584	1	97584	1	97584
42	HEX KEY SET	1	40156	1	40156	1	40156
43	CARRYING CASE	1	40384	1	97586	1	97586
44	GREASE GUN	1	97587	1	97587	1	97587
45	GREASE TUBE	1	97588	1	97588	1	97588
46	WEDGES, BOX #8010	1	97589	1	97589	1	97589
47	WRENCH, 3/4 X 7/8	2	97590	2	97590	2	97590
48*	DRESSING STICK (DIAMOND BLADE)		97595		97595		97595
49*	ARBOR, LONG (USE W/BEVEL)		97561		97561		97561
50*	ARBOR KEY		97070		97070		97070
51*	ARBOR SPACER		97550		97550		97550

SHADED AREA - NOT SHOWN
* NOT STANDARD

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 and threading power drives are warranted for a period of one year from date purchased.

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 at ww3.hti.org.