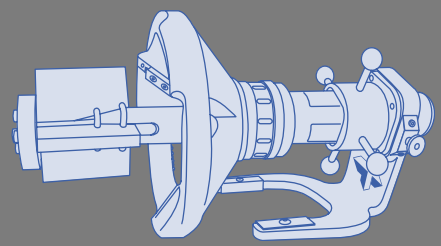
TRI TOOL INC.
3041 Sunrise Blvd.
Rancho Cordova, CA 95742

If you weld 2” to 8” pipe...

DON’T GO INTO THE FIELD WITHOUT YOUR 4X4!

TRI TOOL INC.
4X4™
www.tritool.com
(888)TRITOOL
PIPE BEVELER

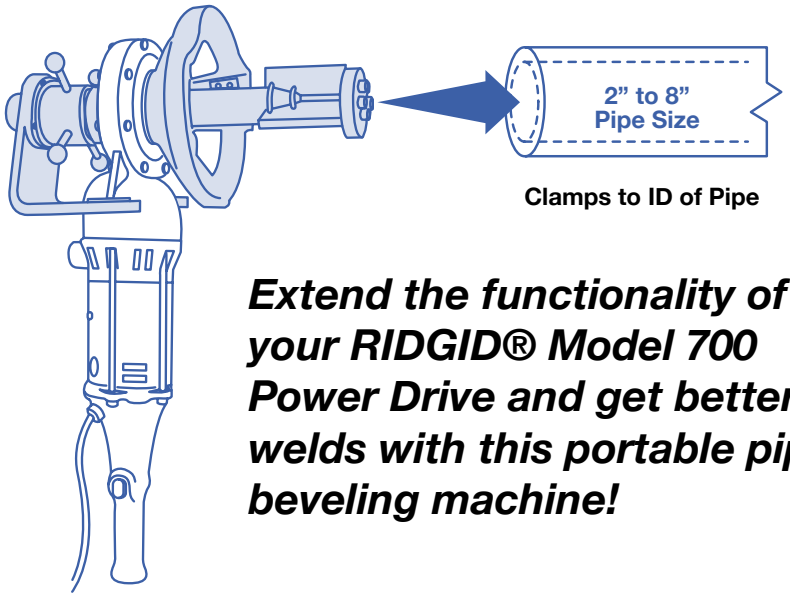


What benefits do you get, when using a portable pipe beveler?

Over the years, portable pipe bevelers have proven to offer significant cost and labor savings compared to traditional hand grinding methods. As welding technology has advanced, the need for uniform, repeatable bevels required that portable machinery be designed to produce reliable bevels in the often harsh and rugged conditions of field machining. Ideally, the new machine would be powered by dependable power sources already in use. This was the origin of the 4X4™ Beveler.

- *Faster Weld Prep*
- *Better Fit-Ups*
- *Superior Welds*
- *Less Weld Problems*
- *Less Labor Costs*

The 4X4™ was designed to generate accurate bevels with easy setup and operation, and best of all, you can now produce bevels with the same drive used for your power threading. Pipe can be prepared for welding in just a few minutes. You'll have much better fit-ups and welding results, and that means you save time and money.

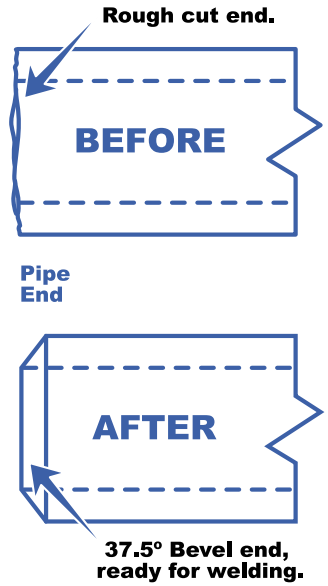


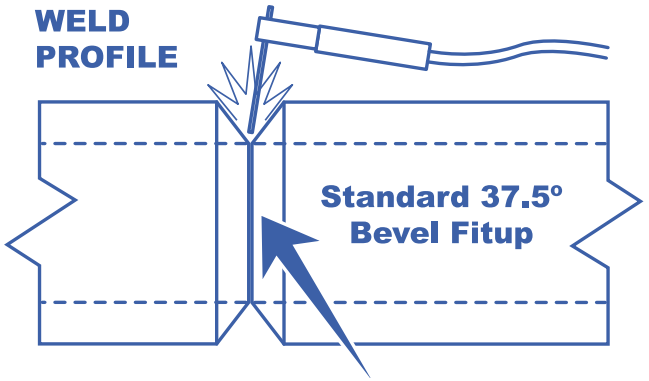
Clamps to ID of Pipe

Extend the functionality of your RIDGID® Model 700 Power Drive and get better welds with this portable pipe beveling machine!

The Beveling Solution...

Many pipe cutting techniques produce a rough, irregular end which is probably not square to the run of pipe. An ID (inside diameter) mounted pipe beveler solves several problems at once. First, since it mounts in the pipe end, all of the torque of the cut is carried by the pipe. This means the machine won't want to twist out of your grasp and reduces operator fatigue. Secondly, the beveled end will be square to the centerline of the pipe so that you can keep a uniform center, even with multiple welds. Most important of all, the "weld prepped" pipe end guarantees an optimal (industry standard) 37.5° bevel, ensuring you will have ideal root pass access, so critical to a good weld. This bevel provides uniform transmittal of heat into the parent metal and controls the amount of filler metal required. All of this adds up to superior, repeatable welds, each and every time!





Beveled pipe allows for better root pass consistency to prevent excessive penetration or lack of penetration. (ASME Code - Section 9)

What makes the Tri Tool® 4X4™ portable beveler so versatile?

For the first time, you can do practical pipe weld preparation with your conventional pipe threading power drive. With this tool's minimal set-up time and simple operation, field weld preparation has never been so easy!

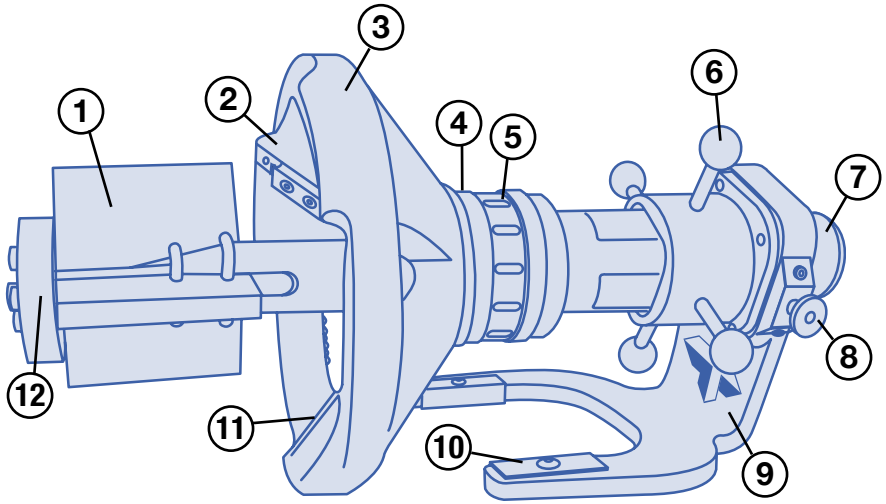
The 4X4™ Beveler, when used with your existing power drive, turns a universal pipe stand into an effective field pipe beveling workstation!

Tri Tool's 4X4™ Beveler has been designed to withstand the rigors of field use with a rugged cast cutting head and multiple bit mounting stations. This means that there are three mounting positions for each pipe size if the bit mounting holes become worn. Tough steel mandrel & mounting blocks ensure maximum rigidity for smooth cutting while accepting the machine's torque. The proven triple blade mounting system automatically centers and squares the machine in the pipe end and a shear pin system provides safety against jamming or torque overload to prevent damage to the machine from operator error. Easy access drive knobs give excellent tactile control over the feed pressure and the open cage cutting head provides a clear view of the cut, essential to determine the optimal feed rate. A safety cover prevents the pipe beveler from being removed from the pipe with the power drive engaged with the cutting head. A single release knob allows quick removal of the torque bracket and feed knob assembly. Get all the features you would want in a portable machine tool, backed by the best customer support in the business. When it comes to portable pipe beveling, depend on the name known throughout the world for quality and reliability, Tri Tool Inc.

The 4X4™ Beveler's cutting head offers a full safety cage, but still provides excellent visibility of the cut with the "chip" indicating the optimal feed rate.

4X4™

Portable Pipe Beveling Machine

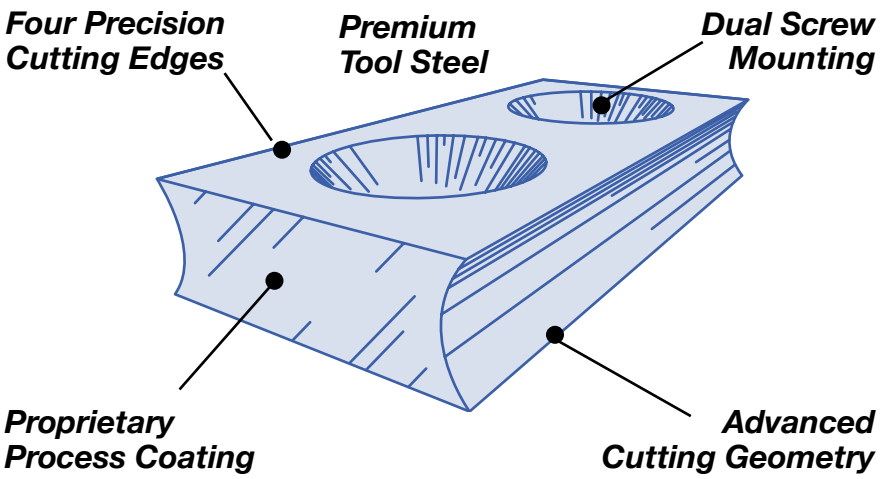


Equipment Features Include...

1. **Steel mandrel assembly for solid mounting, smoother cuts.**
2. **Cast-in pipe size numbers for bit positioning can't wear off.**
3. **Rugged cast cutting head for safety and accurate bit holding.**
4. **Safety shear pin prevents torque overloading to protect tool.**
5. **Multiple drive holes distribute wear and allow fast engagement.**
6. **Easy handling feed knobs for positive tactile feed control.**
7. **Safety cover prevents removal from pipe while drive engaged.**
8. **Handy release knob permits rapid removal of torque assembly.**
9. **Strong torque bracket eliminates twisting for smooth operation.**
10. **Replaceable wear plates protect power drive from wear.**
11. **Triple mounting stations for bits or future accessories.**
12. **Optional mounting kits available for pipe sizes from 2" to 8".**

What makes the new 4X4™ tool bit superior to traditional tool bits?

Even the best cutting machine can only cut as good as its bit. The 4X4's revolutionary bit is designed with four precision ground cutting edges for maximum functionality. If one edge wears out, you can turn and remount the bit with a fresh cutting edge. In fact, that's how the 4X4™ got it's name - 4X the bit life and 4X the economy! Over a quarter century of manufacturing experience producing Tri Tool® specialized pipe cutting equipment has gone into this bit's advanced geometry, for the utmost in reliability and smooth cutting performance. Tri Tool Inc. produces their own bits, specially coated with a proprietary process that results in the finest pipe cutting bits available in the industry today.



4X the Cutting Edges!
4X the Tool Bit Life!
4X the Economy!

The 4X4™ would work great for me, but where can I go to get one?

Everything about the 4X4™ Beveler is easier, even getting one! Follow the 3 easy steps below to put the 4X4™ Beveler to work for you.

Step 1

Think about the pipe size(s) you need to cut. The basic machine comes with a mounting kit for the pipe size between 2" to 8" of your choice. (Refer to the Mounting Kit Selection Chart on the other side of this brochure to see the kits available).

Note: Additional kits can be purchased to extend the cutting range of your beveler.

Step 2

Visit Tri Tool's 4X4 page at: www.tritool.com/4x4
Determine the machine and accessories you require.

Note: The machine comes complete with all tools needed for operation and one FREE 4X4™ bit.

Step 3

Call Tri Tool and place your order by calling:

888-TRI TOOL or (916)288-6100

TRI TOOL INC.

Tri Tool Inc. manufactures a wide range of portable maintenance and construction machine tools for pipe severing, beveling, and squaring, flange facing, and special machining operations for industries around the world.

Now you can produce perfect weld prep bevels in the field!

Printed in the USA Brochure PN 81-0101 (09-08)

4X4™ Beveler Step-by-Step Operating Instructions

1 Measure the pipe's ID & OD to select the right mounting kit to use (see Mounting Kit Selection Chart at right).

2 Install mounting kit by rotating the draw rod clockwise, threading the assembly onto the mandrel, making sure jaws are in slots.

3 Install a single bit. Tighten bit, centered over the proper number to correspond to the pipe size (the bit above is set for 4" pipe).

4 Make sure there is adequate forward feed travel by rotating feed nut counterclockwise before installing into the pipe.

5 With jaw blocks retracted smaller than the pipe's ID, place the mandrel and cutting head assembly in pipe end to be cut.

6 Jiggling the tool slightly as you start (for a good fit), fully tighten draw nut. Leave clearance of 3/8" from the pipe end to the tool bit.

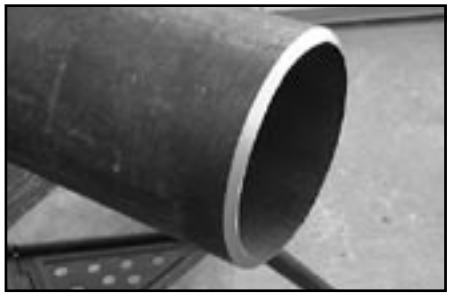
7 With motor unplugged, install the drive motor onto the drive sleeve fully. Push the motor forward until it reaches the back of head.

8 The torque bracket must straddle the motor. With knob out, slide bracket onto the mandrel, with a leg on either side of the motor.

9 Lock torque bracket on the mandrel by engaging torque knob into one of the four locking holes on the end of the mandrel.

10 The machine is now set-up to cut. Clear the work area. Always wear safety glasses. Only attach power cord when actually making cut.

11 Cutting head should rotate in direction of arrow. Feed slowly. Cut full bevel, rotating feed knobs opposite to the head rotation.



12 Unplug power cord. Remove the torque bracket and drive motor. Loosen mounting jaws to slide beveler from beveled pipe end.

Safety Shear Pin Replacement Procedure

The design of the 4X4™ Beveler includes a shear pin for safe operation. When the torque of the machine becomes overloaded due to material jams or incorrect operation, the shear pin is designed to break, saving more valuable components from damage. An indication that this has occurred is when the cutter head stops turning when the drive motor is turning, while properly engaged with the drive pins.
The shear pin is easily replaced by the procedure shown below. Shear pins are available in 4 packs (PN 09-0018) and should always be replaced by original OEM parts for continued safe operation of the machine.

1. Pull the release knob and remove the torque restraint bracket from the tool.
2. Remove the ramp block assembly from the front of the mandrel by unscrewing the drawrod assembly.
3. Remove the mandrel from the back of the tool by rotating the feed nut, in the direction opposite of the head rotation arrow, until it comes free.
4. Rotate the drive sleeve until the hole with the broken shear pin, and the round indicator mark on the cutter head, are aligned with each other.
5. Using a 3/16" (4.8 mm) diameter punch and a hammer, gently tap out the old shear pin segment(s) through to the center bore of the cutter head.
6. The drive sleeve has been designed with (4) shear pin holes. If the shear pin hole has become damaged, simply use one of the remaining holes.
7. Making sure the open shear pin holes in the drive sleeve and the cutter head are aligned. Tap the replacement shear pin into the shear pin hole from the outside until it sits just below the outer drive sleeve surface by about .010" to .020" (.25 mm to .5 mm).
8. Tool can now be reassembled for use.

Mounting Kit Selection Chart

The 4X4™ beveler covers it's entire mounting range with a series of Mounting Kits. Made up of (3) ramp blocks, (1) end plate, and (2) retaining springs, kits fit on the mandrel end and are held in place by the draw rod. Kits can be purchased for the following pipe sizes:

Standard OD* Pipe Size	Schedule	Use Mounting Kit: (Part Number)
2"- 2.5" (60.3 mm - 73 mm)	40 - 80	08-0558
3" (88.9 mm)	40 - 160	08-0559
4" (114.3 mm)	40 - 160	08-0555
5" (50.8 mm)**	40 - 120	08-0560**
6" (168.2 mm)	40 - 120	08-0556
8" (219 mm)	20 - 80	08-0557

*OD = Outside Diameter **The 5" ramp block set is available by special order only.

Replacement Parts

NOTE: Call Tri Tool for more information regarding replacement parts for your 4X4 beveler at (888) TRI TOOL.

INDUSTRY APPROVED
QUALITY ASSURANCE
www.tritool.com
For Customer Service Call:
888 - TRI TOOL
916-288-6100
PERFORMANCE TESTED

LIMITED LIFETIME WARRANTY

Tri Tool Inc. warrants this tool, to the original purchaser, to be free from defects of materials or workmanship for the life of the tool. At Tri Tool's discretion, repairs or part replacement will be provided at no charge.
It will be the responsibility of the equipment owner to pay for all shipping or freight charges, to and from the factory or repair facility, for all warranty repairs.
Contact customer support for more information at (888) TRI TOOL.

Ref.	Part #	Description	Qty.
1	13-0450	Mandrel	1
2	23-0335	Drawrod Assembly	1
3	30-2798	Retaining Ring	1
4	33-0927	Set Screw, Half Dog	2
5	34-0106	Thrust Washer	1
6	21-0536	Cutter Head	1
7	32-0544	Shear Pin	1
8	33-0282	Button Head Screw	6
9	34-0256	Thrust Washer	1
10	35-0562	Feed Nut	1
11	43-0543	Retaining Cover	1
12	45-0308	Bushing	2
13	45-0310	Bushing	1
14	46-0487	Shear Sleeve	1
15	33-0361	Screws (Tool Bit)	2
16	99-4X4	**Tool Bit**	1
17	24-1690	Wear Plate	2
18	24-1694	Retaining Plate	1
19	32-0540	Plunger Pin	1
20	33-0039	Cap Screw	2
21	33-0285	Button Head Screw	2
22	33-0280	Button Head Screw	4
23	33-0521	Set Screw, Cup Pt.	1
24	33-1614	Handle Stud	4
25	40-0267	Compression Spring	1
26	42-0076	Ball Knob	4
27	42-0193	Knurled Knob	1
28	46-0492	Feed Sleeve	1
29	47-1242	Torque Rest. Bracket	1
30	48-1206	Pin Retaining Block	1
31	43-0582	Safety Cover	1
32	33-0043	Cap Screw	2

Safety Precautions

IN GENERAL: When using rotating head cutting equipment, basic safety precautions should always be followed to reduce the risk of personal injury. Operate this tool only in accordance with specific operating instructions.

WARNING: Do not override or tie down the power switch.

DRESS CONSIDERATIONS: Use standard safety equipment. Hard hats, safety shoes, safety harnesses, protective clothes, and other safety devices should always be used when appropriate.

Use safety glasses. Do not operate cutting tools without eye protection.

Dress properly. Do not wear loose clothing or jewelry. They can be caught in rotating and moving parts. Avoid slippery floors or wear nonskid footwear. If you have long hair, wear protective hair covering to contain it.

WORK AREA: Keep the work area clean. Cluttered work areas and benches invite injuries.

Consider the work area environment. Keep the area well lit. Keep electrical cords, cables, rags, rigging straps, etc. clear of rotating equipment. Do not use power cutting tools in the presence of flammable liquids and gasses.

Keep visitors away. Do not let visitors or untrained personnel at or near operating tools. Enforce eye protection requirements for all observers.

Do not over reach. Keep proper footing at all times.

Stay alert. Watch what you are doing. Use common sense. Do not operate tools when you are tired.

TOOL CARE: Maintain tools with care. Keep tools in good operating condition. Sharp tool bits perform better and safer than dull tool bits. Well maintained tools function properly when needed.

Check for damaged parts. If a tool has malfunctioned, been dropped or hit, it must be checked for damage. Run no-load tests and feed function checks. Do a complete visual inspection.

Use only with proper AC voltage power source and observe all normal electric shock hazard procedures.

Do not abuse power and control cords. Pulling or running over cords and cables can result in electrical shock hazards and malfunctions. Keep power cord out of all cutting fluids and water.

AREA EQUIPMENT: Secure work. Whenever possible use clamps, vises, chains and straps to secure pipe.

Make sure the work piece is secured and tool is firmly mounted in pipe; it is safer to have both hands free to operate the tool.

TOOL USE: Use the right tool and tool bit for the job. Do not use a tool which is incorrect for the job you are doing.

Use both screws to mount the tool bit. Loose bits are a safety hazard.

Disconnect power supply during setup and maintenance. Use all stop or shut-off features available when changing or adjusting tool bits, maintaining the tool, or when the tool is not in use.

Remove adjusting keys and wrenches before applying power to the equipment. Develop a habit of checking the tool before turning it on to make sure that all keys and wrenches have been removed.

Do not force tools. Tools and tool bits function better and safer when used at the feed and speed rate for which they were designed.

Do not reach into rotating equipment. Do not reach into the rotating head stock to clear chips, to make adjustments, or to check surface finish. A machine designed to cut steel will not stop for a hand or an arm.

Handle chips with care. Chips have very sharp edges and are hot. Do not try to pull chips apart with bare hands, they are very tough.

Avoid unintentional starts. Do not carry or handle tools with your hand on the operating switches or levers. Do not lay the tool down in a manner which will start the drive. Do not allow the tool to flip around or move when adjusting or changing tool bits.

Store idle tools properly. Disconnect tools from the power source and store in a safe place. Remove tool bits for safe handling of the tool.

"Tips & Techniques"

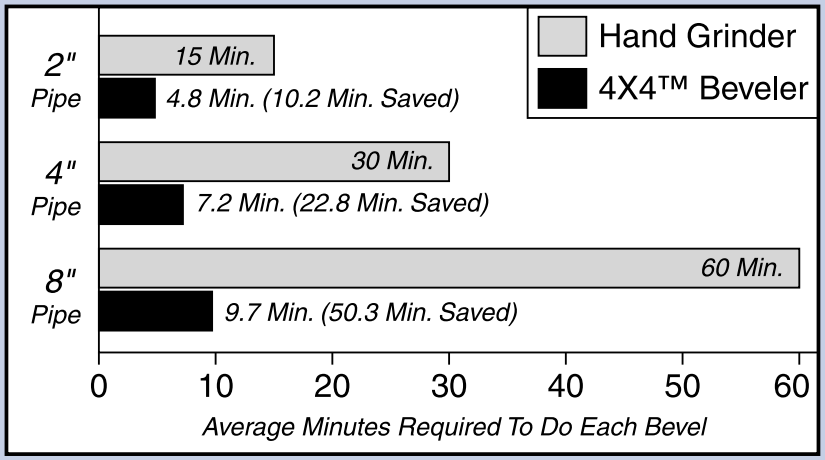
• Only use a single bit to cut with. While more than one bit can be mounted, the quality of the cut will degrade or cause undue torque loads on the tool.

• Remember, pipe ends are not always square. When starting a new cut, it is likely that the cut will start as an interrupted cut. Feed slowly at first to allow the cutting bit to make full contact with the pipe end (cutting through a full turn) before increasing feed pressure. Feeding the bit into an uneven end at too much speed could damage the tool bit and cause increased tool wear.

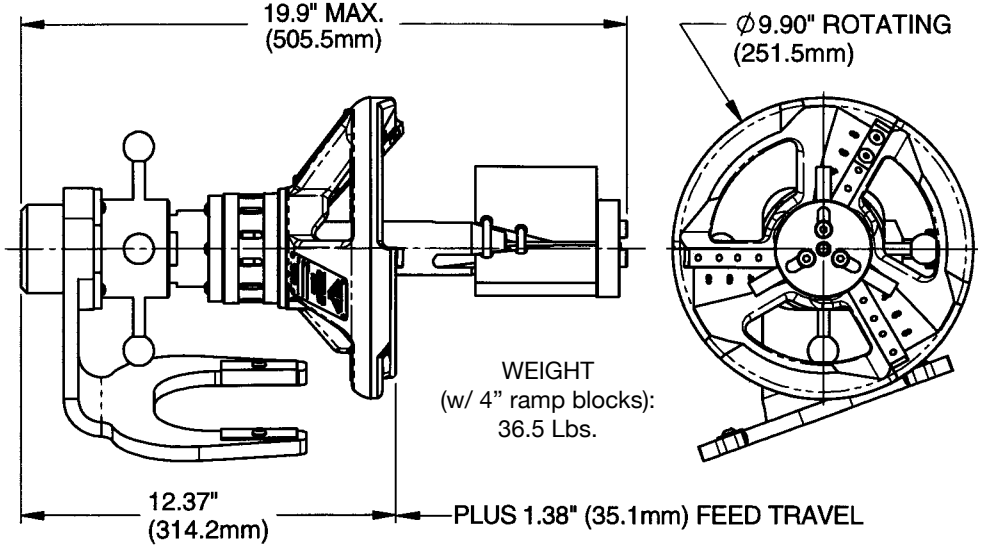
• Pipe bevelers cut best when under appropriate load. Too little or too much feed is a matter of feel and will become apparent as you gain experience with the machine.

A proper feed rate (feed pressure) is when the cut metal curls off the bit in one continuous "chip." The chip may curl up into a ball and block your view of the cut. Stop the cut and use pliers to clear chips away from the machine (you can back off the feed handle to facilitate chip removal). Remember that the chips are razor sharp. Always use pliers and remove chips with extreme caution. Never use bare hands to clear chips from the machine.

• The optimum feed rate will vary greatly with different wall thicknesses and materials. Experiment to find out what works best for the material being cut.



Specifications



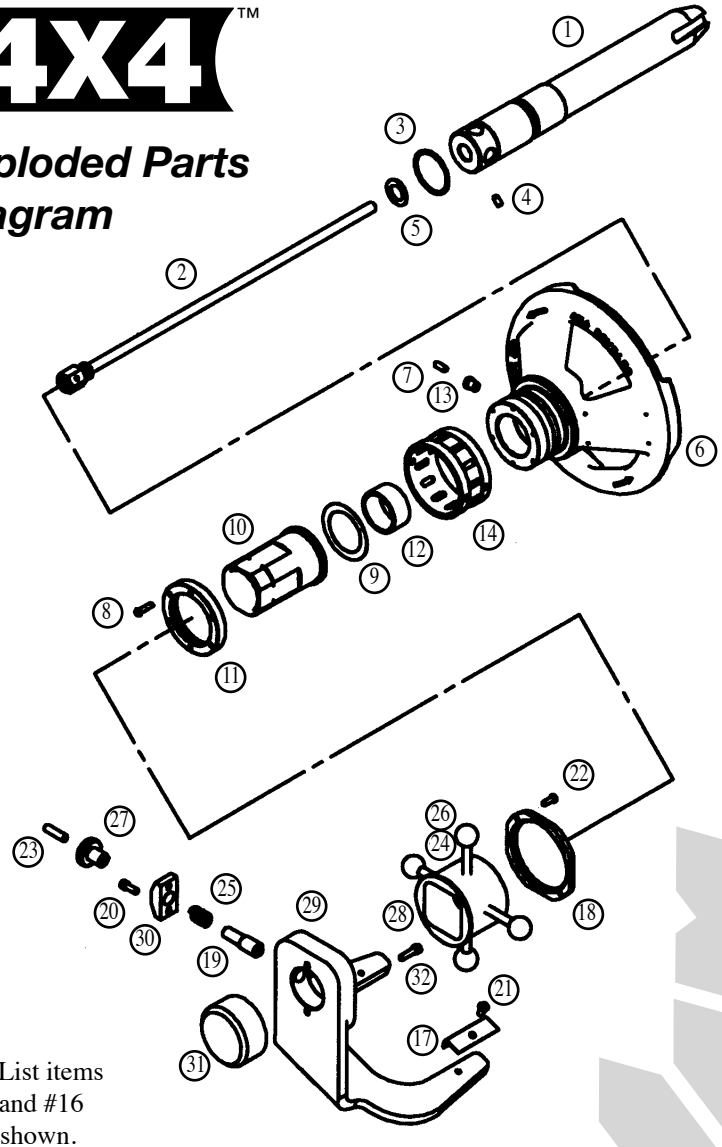
Maintenance Tips

The 4X4™ Beveler is designed to provide many years of reliable service. As with any tool, observing the following equipment maintenance tips can significantly lengthen tool life, and ensure maximum dependability.

- Keep all machine surfaces clean from dirt, grime, and cutting debris.
- After each use, make sure machine is free from moisture and water.
- While stored, apply rust prohibiting oil on steel surfaces if humidity is present.
- Lubricate all moving parts with general purpose grease every 8 hours of use.
- Check bit frequently and either switch to a new edge or replace if it is worn.

4X4™

Exploded Parts Diagram



Note: List items #15 and #16 not shown.

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