

PIXIE MANUAL





SUVA
LAPIDARY SUPPLY

DIAMOND WHEELS
PIXIE COLLECTION
GENIE COLLECTION
TITAN COLLECTION
CABBING SUPPLIES
CARVING SUPPLIES



Important Safety Instructions

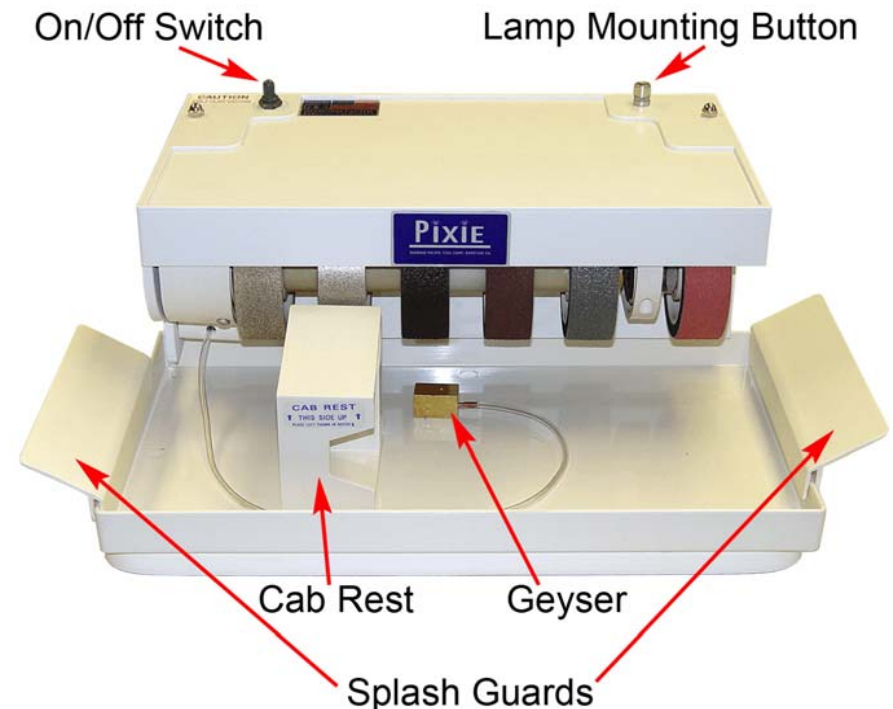
Please Read Before Operating This Machine

- ✓ Before plugging in this machine, make certain the electrical outlet is properly grounded and of the proper voltage. Also make certain that the machine switch is off and that your hands and the electrical connections are dry.
- ✓ **Do not** use silicon carbide or aluminum oxide wheels on this unit. Such wheels require metal guards as they may break and fly apart while in use. The hood and pan on this unit are designed for use with diamond grinding wheels **only**, and should not be used with silicon carbide or aluminum oxide wheels.
- ✓ Rock dust can be hazardous to one's health. Use sufficient water at all times while grinding and polishing stones so that rock dust does not form.
- ✓ Before grinding and polishing any material, make certain that it will not produce toxic fumes or dust. Sea shells are one of the known hazardous materials of this type. If you should ever have occasion to grind metallic ores or other mineral specimens, be aware of the possibility that they may contain toxic quantities of such substances as uranium, lead, mercury, arsenic, asbestos, copper sulfate, etc.
- ✓ **Use safety glasses** to protect your eyes from flakes of stone or other objects that might be thrown by the wheels.
- ✓ It is possible for a stone to become wedged between adjacent wheels or between wheels and the pan which could result in injury to yourself as well as the machine, such as a bent shaft. Be alert while working to prevent this from occurring.

Introduction

The Pixie is a compact cabochon grinding and polishing unit complete with motor, diamond wheels, and coolant system. It requires no attachment or hookups other than a standard 115 volt electrical outlet, (230 volt for export model) making it portable and light weight. Since the grinding and polishing wheels do not require large amounts of water, the Pixie is also a clean operating unit, and can be used in any convenient place such as the kitchen. Its small, compact size makes it ideal for use in R.V.'s, mobile homes and apartments.

The Pixie comes with two Galaxy metal-bond diamond grinding wheels: one 80 grit for coarse grinding, and one 220 grit for fine grinding. The set of four Nova resin-bond diamond sanding and polishing wheels (grit sizes 280, 600, 1200, and 3000) is an excellent all-around combination that will produce a high polish on most stones. For those stones that may benefit from an additional polishing step, a canvas pad is included for use with finer grit diamond compound, and can be attached to the right hand shaft. With the six wheels mounted at once, the lapidary can quickly and efficiently grind and polish most stones in a matter of minutes, without having to stop to change or charge attachments and wheels.



Optional Accessories

Although the Pixie comes complete and ready to operate there are a number of optional accessories available to make it more versatile and to better suit it to your personal needs.

- ◆ The Jewelers Buff Kit turns your Pixie into a polishing machine.
- ◆ Extra wheel adaptors make for quick wheel changes on the right side of your Pixie allowing you to rapidly change between extra Nova and Galaxy grits or to mount our Convex Carving wheels.
- ◆ 4 inch diameter Nova Pads or Magnetic Laps, leather and canvas pads, "No-Hole" metal bond laps or other discs that use a 1/4-20 attachment can be easily attached to the right end of your Pixie.
- ◆ The Flex-Stem Lamp can be replaced with a Flex-Stem Magnifier or you can add a Shade Mounted Magnifier to your lamp.

You can find some of these accessories listed on the last pages of this manual. See our current catalog for more information regarding these accessories.

Motor

The Pixie motor is custom made for Diamond Pacific and is located in a compartment at the rear of the machine housing.

The motor is totally enclosed, and permanently lubricated, to prevent contamination from rock dust and water.

Housing and Pan

The Pixie housing is of molded Noryl. It is attached to the baseboard by two long bolts that are fastened at the top of the machine with acorn nuts. An edging around the top makes it a convenient tray for storing stones while working.

The pan is molded of ABS plastic for durability and is easily slid forward for removal and cleaning.

The only maintenance that the housing, pan, and Formica topped

baseboard need is cleaning with a soft cloth and soap and water. Do not use harsh abrasives as this will eventually damage the surface finishes.

Splash Guards

The Pixie is provided with a set of plastic splash guards. These are attached to the side of the pan by sliding the grooved portion of the guard over the edge of the pan. The shorter guard fits on the left side of the pan so as to allow the pan to be moved to the right when using laps or other discs on the right end. Both guards will normally be tight fitting in order to hold them in place while the machine is running.

Flex Stem Lamp

The lamp has a 15" flexible stem for easy adjustability, and a quick-coupler at the base for easy detachment. When adjusting the lamp, use both hands so you can grasp the base of the flexible stem and bend it from there in order to prevent excessive strain on the base attachment. To remove the lamp, raise the plastic ring near the base of the flexible stem, and the unit will lift off. Use maximum 100 watt bulb

The Flex-Stem Lamp can be replaced with a Flex-Stem Magnifier or you can add a Shade Mounted Magnifier to your lamp. (See page 21)

Cab Rest

The odd shaped plastic cab rest has two main purposes, to act as a steady rest for the hands while grinding and polishing a stone, and to provide an easy, accurate way to grind the bezel on cabochons.

The cab rest can be set in the pan in any position that enables you to steady your hands while grinding and polishing. Usually it will be laid flat in the pan.

To grind a uniform bezel on your stones, set the cab rest upright, with the down slope towards you and the upper end close to the grinding wheel. Turn your cab topside down, place on top of cab rest, and proceed to grind the edge. The slope of the cab rest is at an angle that will give you a uniform 12-1/2 degree bezel.

Spra-Mist Cooling System

Description:

The Spra-Mist coolant system utilizes a piston type air pump to operate the geyser that provides a fine mist to the underside of the grinding and polishing wheels. The pump is mounted on the housing at the left rear of the machine.

The Spra-Mist pump is relatively trouble free because of its unique design. No water flows through the pump itself, so it cannot be damaged or clogged by rock dust or grit. Regular oiling of the leathers and bearings will generally keep the pump operating at maximum efficiency.

Operation:

1. The pump automatically begins to operate when the motor is turned on.
2. The geyser should be placed in the water pan with the large hole down, and set towards the rear of the wheels to avoid excess water splash. **Remember to move the geyser from wheel to wheel as you work.**
3. About two or three cupfuls of water should be placed in the pan, or enough to reach approximately one third the way up the side of the geyser.
4. By attaching the white plastic base to the brass geyser, the geyser sits at an angle that will provide a spray of water to either "No-Hole" metal laps or Nova discs attached to the right hand side. The plastic base should be removed after the lapping process is complete. If left on, it may not properly spray the underside of the wheels. (The geyser spray should not be used on canvas polishing pads as it will wash away the compound.)
5. Occasionally a geyser will become plugged from the mineral content in the water. This usually can be corrected by boiling the geyser in a solution of vinegar and water. Or if plugged by a small piece of grit, use a needle or paper clip to remove the obstruction.
6. A few drops of Water Aid in the pan will improve the cutting ability of the Galaxy metal-bond diamond grinding wheels. Avoid excess Water Aid as it can cause excessive foam in the pan.

Galaxy Metal Bond Diamond Grinding Wheels

Description:

Galaxy metal-bond diamond grinding wheels are designed to provide the gem-cutter with a smooth, fast cutting, true-running grinding surface ideal for working stones. The diamonds in a Galaxy Wheel are held on a heavy steel ring by an extremely hard nickel alloy plating. The ring is mounted on a tough, glass-filled polyester core, making a smooth, quiet running wheel.

Use and Maintenance:

Galaxy Wheels never need dressing, **do not** attempt to do so as you may damage or ruin the wheel.

For longer wheel life and to prevent wheel damage, the following practices should be followed when using your Galaxy Wheels:

1. Use a light to medium pressure when grinding stones. Although diamonds are extremely hard, they are also quite brittle and can be easily shattered by excessive pressure or the bumping of a heavy rock. The wheels cut most effectively with a light to medium pressure and will last longer as well.
2. Use a steady rest to avoid uneven wear patterns. Steadying your hand while grinding will help prevent bumping and chattering that causes uneven wear of wheels. It will also help prevent damage to stones.
3. Use a coolant while grinding. Water is best and a small amount will normally do to keep the wheels wet. This prevents the formation of rock dust, keeps your stone cool, and stops the buildup of rock residue on the wheel surface which can slow down cutting action. When grinding soft materials such as onyx or turquoise more water is needed in order to keep the wheel clean.
4. Use the entire surface of the wheel as you grind your stone. Avoid using just the center or edge or any one area of the wheel surface as this will cause excessive wear in that area and shorten the effective life of the wheel. When grinding crosses, hearts, fire agate, etc. be certain you grind with the diamond covered surface,

not on the bare metal side of the wheel, as this will undermine the diamonds and cause excessive wear of the wheel edge.

5. A few drops of Water Aid in the pan will improve the cutting ability of the Galaxy Wheels.

Nova Resin-Bond Diamond Sanding and Polishing Wheels

Description:

Nova Wheels are specially designed to produce an excellent finish on stones with a minimum of time and effort. The diamonds in Novas are embedded within a tough, flexible, plastic resin backed by an extra soft, thick, sponge rubber backing. This soft, flexible construction enables the surface of the Nova Wheel to conform to the stone, eliminating flat spots and scratches.

Use and Maintenance:

1. Nova wheels **must** be used with a water lubricant. This fact cannot be stressed too strongly, for if the wheels are run dry for more than a few moments, rapid wear and damage can result. Make certain that the geyser is supplying sufficient water to the Nova Wheel before using it, and remember to move the geyser to the next wheel as you progress through the sanding and polishing procedure.
2. Nova Wheels should be broken in by sanding and polishing a large agate cab prior to working on others. This is necessary in order to remove excess resin coating surfaces of the diamonds. Spend from two to five minutes on each wheel with the first cab, working it over the entire surface of the wheel. The finer grit wheels, especially the 3000 grit, will take longer to remove the excess resin, and will continue to improve in speed and finish as more stone are worked.
3. Use sufficient pressure to cause the surface of the wheel to depress slightly to conform to your stone. This eliminates the flat spots left by the grinding wheels and will cause fewer scratches than would be produced by pressure that is too light.
4. It is important to hold your stone so that you do not allow the upper or leading edge to act as a plow and dislodge diamonds from the

surface of the wheel. The diamonds in Nova Wheels are firmly embedded in the resin and with proper use cannot be dislodged to cause contamination in proceeding from one wheel to the next. But they can be dislodged with the sharp edge of a stone.

5. To prolong the life of your Nova Wheels, be certain to prepare your stone properly on the grinding wheels prior to sanding. Use the metal bond wheels to grind your stone to its final size and shape, and to remove all sharp edges and corners. This leaves only the final sanding and polishing to the Nova Wheels. Similarly, it is important to do a good job of sanding at each stage before going to the next as the finer grit wheels will take much longer to remove scratches than do the coarser wheels.
6. If your stone still has scratches after the final polish, check the following procedures:
 - A. Make certain all deep scratches left by the coarse (80 grit) grinding wheel are removed by the fine (220 grit) grinding wheel.
 - B. Make certain you are using enough pressure on the Nova Wheels. Too light a pressure can cause scratches.
 - C. Make certain your Nova Wheels have been broken in properly, especially the 3000 grit wheel. If any one wheel seems to be causing the scratching, take a large agate cab and work it across the entire surface of the wheel.
 - D. Almost all problems with scratches are caused by improper procedure in the above three areas.

Procedure for Grinding and Polishing Cabochons

Pre-Forming - Preparing Stone for Grinding Wheels:

Since most gem material comes in sizes and shapes larger than desired for a single cabochon, it must be pre-formed. This is usually done by cutting the rock into slabs about 1/4 inch thick with a lapidary or rock saw. The best areas of the slab are then selected and marked with a template for shape and size of desired stones. Excess material is removed with a trim saw or one of the other tools available for this purpose. The more material that can be removed from a pre-formed stone at this step, reducing it to as near its finished size as possible, the

less time will be taken in the grinding process. Just as important, the life of the grinding wheels will be increased.

Grinding on the Galaxy Grinding Wheels:

The basic procedure is to grind your stone to proper size and shape on the Galaxy Grinding Wheels. If the stone is properly prepared on the grinding wheels, it is only a matter of minutes more to polish it on the Nova Polishing Wheels.

First grind your cabochon to the approximate size of the template outline using the left hand or coarse (80 grit) Galaxy Wheel. Use light to medium pressure and work the stone over the entire surface of the wheel. Check the stone's size as you work, either with the template or the mounting in which it will be set. Leave a small amount of material outside the outline so that the stone is slightly larger than the template or mounting. The balance of the excess material will be removed in fine grinding and some in the sanding process. Using the Cab Rest during the above procedure will make it easy to grind a uniform 12-½ degree bezel angle all around your stone.

Proceed to the fine (220 grit) Galaxy Wheel, making certain that you move the geyser to the wheel you are using. Again, a light to medium pressure is all that is necessary. Finish grinding the bezel of the stone, leaving only a small amount of material that makes the stone just a fraction too large.

Now move back to the coarse grinding wheel to grind the face or dome of the cab to shape. For best results, the stone should be dopped to enable you to hold it more easily.

Grind from the edge towards the center of the stone, and then back to the edge using a circular and oscillating motion as you work. The circular component of this motion is accomplished by continually rotating the base of the dop stick using your right hand. At the same time, your left hand is used to move the stone back and forth in an oscillatory manner so that its point of contact with the wheel spirals from the edge of the stone to the center and back without stopping, since stopping produces a flat spot.

This circular, oscillating motion is the key to well shaped stones and the prevention of flat spots. Check the curvature of your stone frequently to achieve symmetry. The outline should form a smooth arc when viewed in any direction, with no high spots or flats, especially at the top of the dome.

Once you have achieved a uniform shape, move to the finer grit wheel and remove all the scratches left by the coarse wheel. It is important to remove all scratches possible before proceeding to the Nova Wheels.

Sanding and Polishing with the Nova Wheels:

Before using any Nova Wheel, make certain that the geyser is supplying water to that wheel. **NOVA WHEELS MUST NOT BE USED DRY.**

1. Start with the 280 grit Nova Wheel, making certain that the geyser is supplying water to that wheel. Use a firm pressure, depressing the rubber backing so that it conforms to the surface of the cab, and keep moving your stone with a circular and oscillating motion at all times. This firm pressure (in contrast to the light to medium pressure used on the grinding wheels) and the circular and oscillating motion are important procedures in eliminating flat spots and scratches. Using too light a pressure, or allowing the stone to remain in one position, can result in more scratches and flat spots.
2. Spend enough time on the 280 grit Nova Wheel to completely sand away the scratches and facets left by the grinding wheels. This should only take a minute or two, leaving the stone with a uniform finish over its entire surface and reduced to very near its final size.
3. Proceed to the 600 grit Nova Wheel, making certain that you move the geyser first. Continue using firm pressure and the circular and oscillating motion. You should only need to spend a minute or two on each of the 600, 1200, and 3000 grit Nova Wheels to achieve a fine polish on your stone.
4. It is important to do as good a job of sanding and polishing as possible at each stage before going on to the next, as the finer grit wheels take longer to remove scratches than do the coarser grit wheels.
5. Some hard to polish materials, such as Jade, may require a finer grit polish than the 3000 grit Nova Wheel. A 14,000 grit Nova Disc is provided with the machine and will generally give an excellent polish. Diamond compounds, or polishes such as cerium, tin, or aluminum oxides can also be used with untreated canvas, felt or leather pads to provide the final polish.

Using Nova Discs:

For those stones requiring an additional step to achieve a satisfactory polish (jade and some soft stones, for instance), we recommend using the Nova Disc that comes with the machine. Other types of fine polishing compound such as cerium and tin oxides also produce excellent results, and untreated canvas, felt and leather pads are available for use with these compounds.



1. Thread the Nova Disc into the 1/4-20 mounting hole in the right end of the machine.
2. Snap the small, white plastic, geyser base that came with your machine onto the bottom of the brass geyser to angle it to spray on the Nova Disc. **NOVA DISCS MUST NOT BE USED DRY.**
3. Slide the pan toward the right to allow for working room when using the Nova Disc or other right end attachment.

Optional Accessories

Although the Pixie comes complete and ready to operate there are a number of optional accessories available that make it more versatile to better suit your personal needs

An extra right hand adaptor

allows you to change the right hand wheel on your Pixie in just a few seconds. Great for extra grits or special carving wheels



4 inch diameter

Nova Pads or Magnetic Lap s, leather and canvas pads, "No-Hole" metal bond laps or other discs that use a 1/4-20 attachment can be easily attached to the right end of your Pixie. Remember, if you are using diamond compounds use a silicone lubricant instead of your geyser so as not to wash off the compound.



The Pixie Trim Saw

turns your Pixie into a 6 inch saw for trimming out your projects. 6 inch saw blade is included.



The Jewelers Buff Kit

contains buffs and jewelers rouge for finishing metals. The wheel adaptor and spacer included allow the buffs to be mounted on the right side of the Pixie.

The Boxer Attachment

Holds your slabs at a 45 degree angle to make perfect miter joints for fabulous looking boxes. Mounts on the Right side of your Pixie for use with "no hole" laps (1/4-20 thread)



(Boxer is pictured on the Genie)

See our current catalog or call us for more information regarding these accessories.

Pump Maintenance

Oiling Pump Leathers and Bearings:

To maintain maximum output, the leathers and bearings in the pump should be lubricated about every forty hours of machine use. Use the following procedure:

1. **UNPLUG THE MACHINE.**

2. With a phillips head screwdriver, remove the two screws in the pump head that are painted red. (See photo) Then elevate the back side of the Pixie about 1 to 2 inches higher than the front by placing two small blocks of wood or equally sized items under the back edge of the baseboard. Do not elevate so high that there is danger of the machine slipping forward.



3. With the unit tilted forward, place one drop of 30W motor oil in each hole. The center hole oils leathers in the pump. The corner hole oils the pump bearings. Allow the oil a few minutes to run down into the pump before setting the machine back level and replacing the two screws in the pump head.

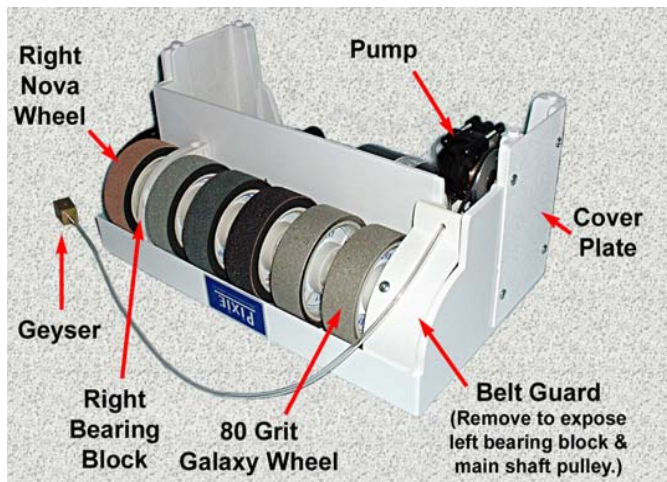
4. Regularly oiling as explained above will normally keep the pump operating properly, but the two usual causes of decreased air output, dried out pump leathers and belt slippage, are easily corrected.

Dried Out Pump Leathers:

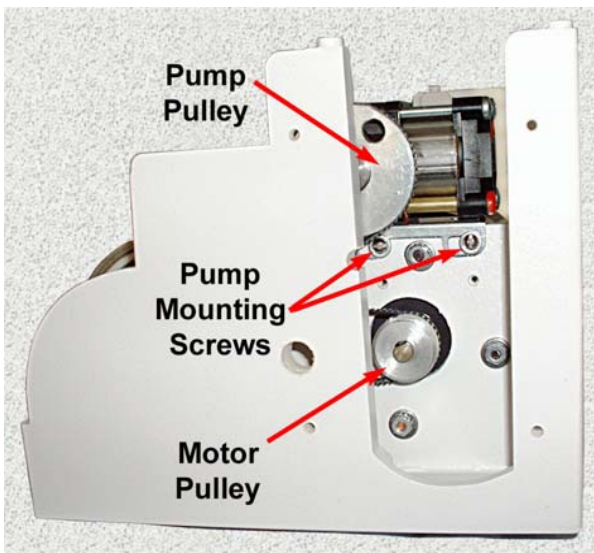
Decreased air flow with the pump still operating is usually caused by dried out pump leathers. The leathers should be removed and thoroughly oiled, or replaced. This can be done by disassembling the pump with a phillips screwdriver as follows:

1. **UNPLUG THE MACHINE.** Remove the pan and lamp, then turn the Pixie on its back side with the baseboard perpendicular to the work bench. Remove the baseboard by unscrewing the two long bolts located on each side of the unit at the rear.

2. With the baseboard off, place the Pixie upside down on the work bench. (See photo) Remove the belt guard located between the 80 grit (left) Galaxy wheel and the outer side of the housing. Remove the cover plate on the left-hand side of the machine.



3. Remove the two screws attaching the pump bracket to the housing. Once the pump is detached from the housing, remove the bracket from the pump.

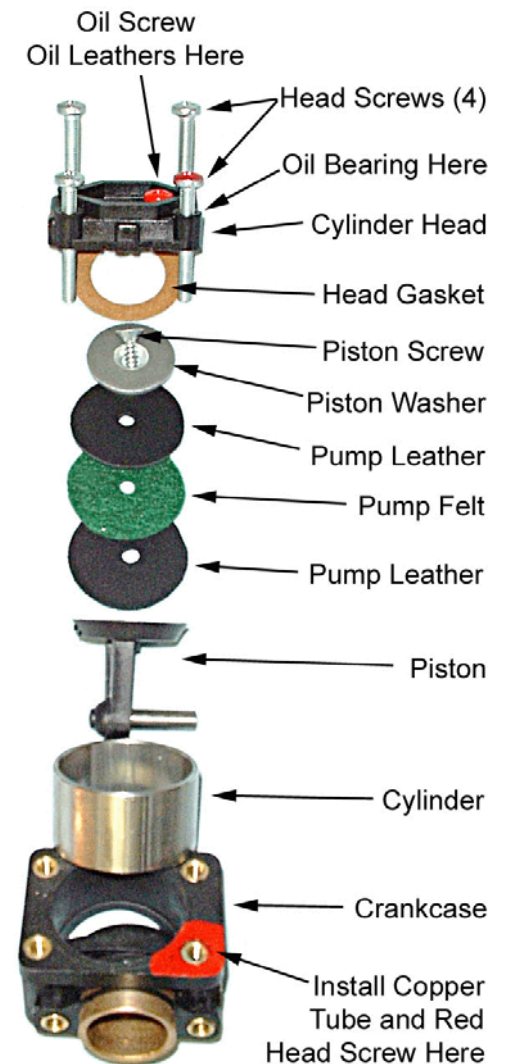


4. The four corner screws in the pump are to be removed next, but note the position of the red corner screw as it and its copper tubing sheath must be returned to its proper corner when the pump is reassembled.

5. Once the four corner screws in the pump are removed, the cylinder head will raise off and the piston will be exposed. Remove the leathers and felt by unscrewing the screw in the center of the piston. Stretch the leathers and felt with the fingers, and oil them generously with 30 weight motor oil.

6. When ready to reassemble the piston, it is important that it be done in the following order: (see photo)

- A. Place the felt between the two leathers. The smooth or shiny side of the leathers should be away from the felt.
- B. Place the flat washer on top of the leathers, countersink side of the washer hole facing up. Center the washer so that the edge of the leathers shows evenly around it.
- C. Slip the screw through the washer and leathers and into the hole of piston top. Tighten the screw securely so that it cannot loosen.
- D. Slip cylinder and head back over the piston with the air outlet tubing on the side opposite the pump pulley.



7. Insert the copper tubing between the pump head and block, into the holes that have been reamed for this purpose. Insert the red screw through the copper tubing. Insert the other corner screws and tighten all securely. Avoid excessive tightening of these screws as this may distort the main bearing of the pump, causing hard turning and overheating.
8. Attach the pump bracket securely to the pump, then attach the pump to the housing, but do not tighten the two screws. Replace the pump belt over the belt groove near the end of the main shaft, then over the pump pulley. Move the pump until the belt is taut, then tighten the two screws attaching the pump bracket to the housing.
9. At this point it is important to make certain the belts and pulleys are properly aligned. Refer to the section "Belt Tension and Alignment".
10. Replace the belt guard, the plate on the side of the housing, and bolt the Pixie back to the baseboard.

Belt Slippage:

Intermittent air output or no air output is caused by a slipping belt. This problem indicates that excess oil from the pump has leaked onto the pulley and belt, and can be corrected by cleaning and tightening the belt as follows:

1. **UNPLUG THE MACHINE.** Remove the pan and lamp, then turn the Pixie on its back side with the baseboard perpendicular to the work bench. Remove the baseboard by unscrewing the two long bolts located on each side of the unit at the rear.
2. With the baseboard off, place the Pixie upside down on the work bench. (See photo on page 15.) Remove the belt guard located between the left Galaxy wheel and the outer side of the housing. Remove the cover plate on the left-hand side of the machine.
3. Loosen slightly the two screws holding the pump bracket to the housing. They can be located through the opening in the side of the housing. Once the bracket is loosened, it can be moved to allow the pump pulley belt to be removed for cleaning.

4. Use a clean cloth and wipe any excess oil from the belt grooves in the pump pulley and the small outer belt groove on the wheel shaft. Clean any oil from the belt with detergent and a clean cloth.
5. Replace the belt on both pulleys, and move the pump until the belt is taut. Tighten securely the two screws fastening the pump bracket to the housing.
6. At this point it is important to make certain the belts and pulleys are properly aligned. Refer to the section "Belt Tension and Alignment".
7. Replace the belt guard, the plate on the side of the housing, and bolt the Pixie back to the baseboard.

Belt Tension and Alignment:

The belts should be tight enough to prevent slippage but should not be tighter than necessary. Belts that are too tight can cause the motor to start slowly or not start at all. Tight belts also cause excess wear on the bearings. Check tightness by using a finger to deflect the belt at a point midway between pulleys. The belt should move at least 1/8 inch.

The most common problem due to belt misalignment occurs when the pump pulley moves outward from the pump which in extreme cases can cause the pulley to rub against the housing. This is easily corrected by pushing inward on the pump and thereby slightly bending the pump mounting bracket.

Do not overdo this adjustment as it is best if the aluminum pump pulley does not rub against the bronze pump bearing but has about 1/16 inch clearance instead.

Pump belt misalignment can also occur if the pump mounting bracket is not squarely mounted on the pump. The two round holes for the screws that hold this bracket on the pump are slightly oversized to allow for adjustment. It may help to hold a straightedge against the pulley when trying to judge whether the bracket is square with the pump pulley.

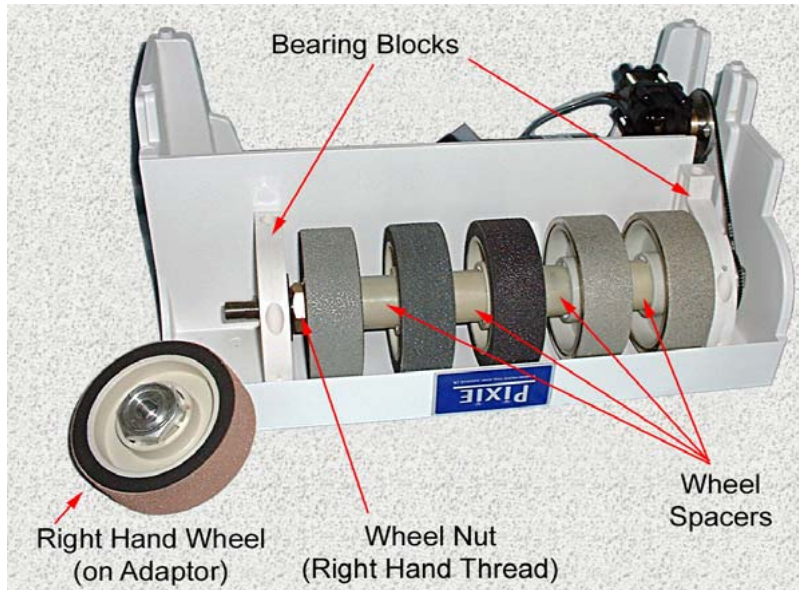
Proper belt alignment between the motor and the main shaft depends upon the main shaft pulley being snug against the shoulder on the main shaft. The motor pulley is then positioned on the motor shaft so that the two pulleys line up with each other.

Procedure for Replacing Wheels on the Pixie

The far right Nova Wheel (3000 mesh) will unscrew from the machine by hand. This wheel is mounted on an aluminum adaptor. It can be replaced by unscrewing the left-hand threaded nut which holds it on the adaptor. (Extra adaptors for quick wheel changes are available, see last page of this manual)

To replace any of the other wheels on your Pixie proceed as follows:

1. **UNPLUG THE MACHINE.** Remove the pan and lamp, then turn the Pixie on its back side with the baseboard perpendicular to the work bench. Remove the baseboard by unscrewing the two long bolts located on each side of the unit at the rear.
2. With the baseboard off, place the Pixie upside down on the work bench. (See photo) Remove the belt guard located between the left



Galaxy wheel and the outer side of the housing. The guard was attached to the left bearing block. This bearing block, and the similar right bearing block must both be removed by unscrewing the two socket-head screws that attach each block to the housing. An allen wrench (3/16 inch) must be used. Once the two bearing blocks are free, the wheel and shaft assembly can be moved to allow the two belts to be slipped off, and the wheel assembly can then be lifted out.

3. Unscrew the far right Nova wheel from the rest of the wheel assembly and remove it.
4. Remove the right end bearing block. Unscrew the standard right-hand nut which holds the remaining five wheels on the shaft. The wheels and spacers will then slide off. Do not remove the small spacer or left end bearing block.
5. When replacing the wheels and spacers on the shaft, make certain they are put in proper order - coarse Galaxy wheel, spacer, fine Galaxy wheel, spacer, followed by the 288, 600, and 1200 Nova wheels and their accompanying spacers. Now replace the 3/4-16 right hand nut which holds the wheels on the shaft. **Note:** If ever the wheels slip on the shaft while the machine is in operation, this nut needs to be tightened.
6. Replace the right end bearing block on the shaft and set the wheel assembly in the housing. While the wheel assembly is still loose, replace the belts on the pulleys. Both belts are the same size.
7. One belt should go on the motor pulley and the large pulley on the main shaft. The other will go on the belt groove near the end of the main shaft and the large pulley on the pump.
8. Once the belts are on all four pulleys, adjust the wheels and bearing blocks so that both bearing blocks fit properly on the housing. The rubber should be fitting evenly over the bearings as well.
9. Replace the screws that hold the bearing blocks. Do not force the screws as cross-threading can strip the threads inside the screw holes in the housing.
10. At this point it is important to make certain the belts and pulleys are properly aligned. Refer to the section "Belt Tension and Alignment".
11. Replace the belt guard, the plate on the side of the housing, the remaining wheel, and bolt the Pixie back to the baseboard.

Parts and Accessories	
Jewelers Buff Kit	100-JBK-P
The Boxer	100-BOXER
Extra Right Hand Adaptor	101-ADP-PR
Shade Mounted Magnifier	117-DMLM
Water Aid, 8 oz bottle (call for other sizes)	410-WA-108
Replacement Brass Geyser	101-GSG-25
Splash Guard (set)	101-PUO-105
Pump Leathers (set)	101-GPL-145
Pump Belt / Motor Belt (2 required)	101-PPB-150
Pump Maintenance Kit	101-PMK
Complete Pump Assembly	101-P-PUMP
Replacement Shaft Bearings (each)	101-GBE-148
Replacement Pan	101-PPA-130

Orders/Technical Support:

Toll Free: (800)253-2954

Outside US: (760)255-1030

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