

Important Initial Operating Tips

When you first use the machine you will probably feel the belt is far too loose, this is not so, it is essential that it runs as loose as possible without slipping and every machine is carefully adjusted and test run. If you tighten it up you can badly damage the motor and rob the machine of power – it **MUST** be loose. You may also suspect the machine runs rather hot to the touch, again this is a design feature and providing you can comfortably hold your hand on it there is nothing amiss. Do not however place the machine inside a box as it is essential that air can flow around it. We advise placing it on an old tray as this makes any cleaning far easier. One point you will notice is that the barrel will almost certainly move along the rollers until it touches one end of the machine – this is nothing to worry about – you will see there is a stop which the barrel will gently rub against. It is little use trying to tilt the machine in an attempt to stop this barrel movement.

Oiling and Maintenance

The machine is oiled when it leaves our workshops and can be used immediately. However, it will need lubrication whilst in use, proceed as follows:-

EVERY WEEK Apply one drop of oil to the steel shafts of the rollers where they pass through the plastic/brass bearing blocks. This is most important as the most common cause of problems with the barrelling machines of this design is a tight roller which robs the barrel of power.

EVERY MONTH Apply one drop of oil to the motor shaft where it protrudes through the side of the machine (2/3lb) – this will run into the motor bearing. Use motor car grade oil for oiling this machine, lighter grades are not suitable.

Problems With The Machine

If barrel does not rotate:-

- 1 Dry thoroughly rollers & barrel
- 2 If glazed rub lightly with sandpaper
- 3 Ensure no oil on rollers or barrel
- 4 Check barrel is not under-loaded or over-loaded

If belt slips:-

- 1 Remove, wash, de-grease, dry thoroughly and replace
- 2 Replace if worn. Do not tighten

Out of balance barrels:-

If barrels are overloaded or very irregular shaped items are being processed it is possible the heavy items will catch on the internal paddles when the barrel rotates, the load on one side will unbalance the barrel and it will not rotate properly. Either reduce the work load or if it is essential that the item is processed it may be worth trying a barrel without paddles which we can supply. The proportion of compounds may then need adjusting for optimum results. Incidentally, a very large number of these machines are used for polishing stones using silicon carbide grits – however the barrel construction is altered in that they have no internal paddles as the action is somewhat different. If you want to use this machine for polishing stones contact us for details on grits, barrels, etc.

For further advice or supplies please contact us at:-

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General Instructions

THESE machines will give excellent results if used correctly and with intelligence. PLEASE read these instructions very thoroughly and save them for future perusal. The machine will be supplied to you with a three pin plug already attached.

Barrelling Compounds

The items to be processed are rotated in the barrel in a controlled mixture to give the desired results. Selection of the best compound is to some extent aided by practical tests and the following notes are intended as an initial guide only. The two most used compounds we supply are:-

Shapes

These are small angular ceramic type media that can be used with an abrasive for deburring or with a burnishing soap for polishing. In a 3lb barrel use 500g of shapes, a level teaspoonful of abrasive or burnishing soap and half fill the barrel with cold water.

Use type 'A' abrasive or type 'A' burnishing soap.

Steel Pins

These are a mixture of small steel pins and various specially formed small steel media that are probably the most useful of all the barrelling compounds. These are used with burnishing soap or liquid as follows:- in a 3lb barrel use 500g of Steel pins, a level teaspoonful of burnishing soap and the fill the barrel half full of cold water. Use type 'B' burnishing soap or a desert spoon of type 'B' liquid.

Opening & Closing the Barrels

The end caps do not screw on but are a snug push fit, when new they can be eased with hot water if you wish. When replacing them ensure there are no particles around the rim that could stop them sitting squarely and sealing properly, also release excess air by lifting the side as you slide them down – THIS IS IMPORTANT. When lifting barrels filled with compounds etc ALWAYS hold the bottom cap if you hold it vertically as a heavy load could force the bottom cap off with obvious results.

Object Size/Quantity/Processing Time

Highest efficiency is obtained when the proportion of compound and work items is correctly balanced. Maximum size should be around 30% of barrel volume. As the range of items that can be processed is so large we can only suggest a starting point. For instance, for a selection of intricate coin sized objects in brass, steel or alloy try about ten items or less using steel pins and burnishing soap. Expect a processing time of around 4 to 12 hours. Finish can be varied by altering water content, more water gives a gentler action. If items are very dirty wash out barrel thoroughly and replace burnishing soap - items will not clean properly in dirty compounds. If extended processing times are used check barrel for gas build-up – this is very unlikely as normally a negative pressure is obtained when working and there is a slight inrush of air when the end caps are removed. However a gas build up could push the end caps off so be alert to this and check by lifting the side of the cap to reduce pressure.

Work Items with Holes/Threads/Assemblies

Many of the items you will be cleaning will have holes and crevices in them that the compounds will explore when in use. If any of the items have blind holes the compounds (steel pins are especially prone to this) will work their way in and may be very difficult to remove. Insert a plug in to the hole if you expect problems. If the item is threaded it is possible that the thread form may be altered very slightly, if the work is close tolerance protect vulnerable parts as necessary. If you put an assembled item in the barrel it will almost certainly be dismantled by the tumbling action!

Other Barrelling Compounds

Apart from the compounds we have described there are many others that are used for specialist work, for instance sawdust, nylon pellets and wood fragments are used. For cleaning cartridge cases prior to reloading finely broken walnut shells can be used.