A GUIDE TO MAKING A 3 WHEEL BUFFING/POLISHING KIT

The Prokraft 3-wheel buffing polishing kit includes the following:
3 x 5” stitched cotton polishing wheels
1 x 250mm M8 threaded bar
6 x M8 large washers
12 x M8 nuts
4 x M8 wood insert screws
1 x Tripoli polishing bar
1 x Diamond white polishing bar

PLEASE NOTE THIS IS A GUIDE – THE ASSEMBLY CAN BE MADE IN SEVERAL WAYS AND WITH DIFFERENT MATERIALS - WHAT FOLLOWS IS INFORMATION TO ASSIST YOU IN THE PROCESS.

1] To make the mandrel

The mandrel can be made in many ways, we have provided wood insert screws so the supporting ends can be made from wood. You only need 2 but we supply 2 spares with the kit for future use or to make extra fitting if required.

The wood insert screws usually require an 11.5mm countersunk hole for screwing in but this can vary depending on wood types. An 8mm hex key is needed to screw them in (not supplied).

It is possible to make the fittings from suitable engineering plastic (Acetal rod would be ideal) these would require a tapped M8 x 1.25 thread.

In the video that accompanies this guide we copied the dimensions of a Morse taper 2 fitting in wood and used this as it is fun to make, low cost

and also provides a permanent quick release method. You could also make a fitting to go into a chuck – this is very much your choice of design.

It is also possible to provide the drive with a Jacobs chuck if you prefer not to make your own.

The M8 threaded bar is approx 250mm long – this can be shortened if required by cutting with a suitable hacksaw.

The M8 bar will screw into the fittings you have made for each end of the lathe.

2] Assembling the polishing pads

The pads come with a small hole in the centre which needs to be enlarged to approx 8-9mm – this is easily drilled but please beware of the dust created when drilling.

Each pad should have 2 large washers either side of the centre and 4 nuts – 2 on each side to lock them off and keep the pad secure so it does not move.

If you prefer you can make your own spacer rods with an 8 mm central hole – again this can be made from wood or engineering plastic and using this method you would need less locking nuts.

3] Using the system

The kit is supplied with 2 polishing bars:
Tripoli – red/brown colour is a medium abrasive wax block
Diamond white - white fine abrasive wax block

Whilst the pads are spinning hold the wax block onto the pad to add a very small amount of the product to the pad. Only a small amount is needed and you can see it adhering onto the pad during application.
Once it is on the pad you can start to polish your item.

Polish in the order: Brown – White – buffing

We do not provide any wax as we know most woodturners already have a good selection of waxes – the final choice of wax is a personal preference and the final wheel is for buffing out. You may use a wax stick or hand apply microcrystalline wax or similar and then polish off.

The 5” wheels are suitable for smaller lathes and generally provide a clearance of approx 75mm so you can hold your item at the bottom of the wheel. This provides you with a view of the progress made and also ensures if you catch the item in the wheel it moves away from you not towards you. Always polish at the bottom of the wheel whenever possible.

If your buffing wheels start to get clogged these can be cleaned off by applying some scrap abrasive paper whilst the wheels are spinning – we don’t recommend doing this too often as it wears out the wheels.

3] Adjustment of the wheels

You will see the polishing wheels are stitched in 3 places.

The outer 2 stitching rings can be removed creating a more loose pad and a softer polish.

A softer polish may be preferred for final buffing – again this is personal preference.

Do NOT remove the centre stitching where the reinforcement rings are located.

We hope you enjoy making your buffing / polishing assembly and that it will provide years of service.

Spare wheels and buffing sticks are available separately in our range if you wish to replace or enlarge your system.