

# MAINTENANCE GUIDE

## SuperNova<sup>2</sup> Chuck

### Tools required

- ½" spanner
- 2 X flat head screw driver
- Circlip pliers (and safety glasses)
- 3mm Allen key (provided with Supernova<sup>2</sup> chuck)
- Plastic hammer (or block of wood)
- Multipurpose grease for regreasing of chuck

This guide contains information on how to disassemble your chuck for cleaning and maintenance. The guide starts right from the basic position of the chuck on the lathe; you may wish to skip several steps in order to advance to where you are currently at.



The Supernova 2 chuck on Nova 3000 DVR lathe

### Removing Supernova<sup>2</sup> from insert and lathe



Using the 3mm Allen key provided with the Supernova release M6 grub screw (turning anti-clock wise direction to loosen)



Using a ½" spanner (like accessory 23014 pictured) undo the insert from the lathe. Make sure the spindle lock on the lathe is engaged and hit the spanner with a block of wood or plastic mallet in an anti-clock wise direction



With the chuck in your hand and using the ½" spanner again hit the spanner with a block of wood or plastic mallet is disengage the insert from the chuck

# Disassembling the Supernova<sup>2</sup> Chuck



With the 4mm allen key provided release all jaws from the chuck by un screwing the M6 conuter sunk screws



Using circlip pliers remove circlip from bottom of chuck holding in the plastic backing. **YOU MUST WEAR SAFTEY GLASSES WHILE PERFORMING THIS OPERATION AS CIRCLIP MAY FLY UPWARDS OFF PLIERS**

Before using screw drivers make sure you have completely removed M6 grub screw from the side of the chuck.



Using two flat head screw drivers gently push together to lift both sides evenly. Do not try to force out straight away as this may damage plastic, work on bringing both sides up together at the same time. Remove plastic backing completely exposing pinions and back of scroll ring.

Pinions will now come out by hand just by pushing.



Turn the chuck upside dwn to remove scroll ring



Now just push jaw slides out by hand.

### **Cleaning the separate components of the Supernova2 chuck:**

- Clean each jaw slide with rag removing any grit, wood and dust particles. etc
- Clean scroll ring of all grease, grit wood etc
- Clean pinions of all grease, grit, wood etc.
- Regrease the scroll ring and pinions, be very generous with the grease application. (Normal multipurpose grease is sufficient)
- If possible before re-assembling the chuck, low out all parts with an air compressor.

## **Reassembling the Supernova<sup>2</sup> Chuck**



Push all jaw slides to meet in center forming a square. There is no starting slide way so you may choose any one. Starting with Jawslide 1 insert jaws in clockwise direction in numerical order.



Place scroll ring in chuck and move it back with your fingers as demonstrated in the picture. You will know once it has engaged as it will drop down allowing the pinions to fit in. Make sure the jaws have not moved and still have a square formed in the centre.



Put pinions in each of the two pinion holes. Like the scroll ring you may need to move it back and forward to engage it. Pinions must be all the way in otherwise the plastic backing cover will not go on.



Position backing plate to pinions like in picture and push down so that the plastic backing plate is flat with the chuck.

Place circlip back on using circlip pliers. You will see that once the circlip is in its groove the two ends will meet together with a snap. YOU MUST WEAR SAFETY GLASSES WHILE PERFORMING THIS OPERATION AS CIRCLIP MAY FLY UPWARDS OFF PLIERS.



Using 1/2" spanner wind the insert back in, make sure the spigot is in full contact with the back of the chuck. This is important for accuracy. Once insert is fully engaged screw in M6 grub screw with 3mm Allen key provided.

## Removing and attaching jaws to the Supernova<sup>2</sup>

The Supernova<sup>2</sup> chuck comes without jaws attached. With the many jaws available it is very easy to use your single chuck for a very wide range of applications.



All jaws in the Teknatool range for the Supernova<sup>2</sup> are secured and attached the same way.

**Attaching Jaws** - To mount the jaws to the Supernova<sup>2</sup> chuck is another easy process. Firstly wipe clean all jaw slides making sure a clean contact will ensure. Repeat this with all four jaws you wish to attach. Jaw slides are numbered one to four and have a corresponding jaw - of the same number. Place a jaw on its correct jaw slide and position into the groove (location ring out from the jaw into the groove of the jaw slide). The first few times you may need to GENTLY tap the jaws into the locator slot with a block of wood or plastic mallet. Place M6X6 counter sunk screws in jaws and screw them to finger tight. When both screws are in nip up them and back them off half a turn. Repeat this the remaining three jaws, now using the 8mm t bar Allen key scroll all jaws towards middle until they all come together. Now with all jaws touching and exerting equal pressure on each tighten all screws up. This will ensure a perfect run out. Check to see there are no gaps between the jaws if this has happened it will probably be due to a jaw being placed on its wrong number (e.g. a #2 jaw on a #3 jaw slide)

**To remove Jaws** - Simply using the 4mm Allan key supplied, unscrew all M6 counter sunk screws (there are eight of them). The jaws will come away once their screws are released, however sometimes due to dust particle build up after heavy turning the jaws may need a very light tap with a plastic hammer to dislodge them. It is important to keep them in their set so not to mix them up with other jaws of the same type.