

nova™

# **PRO-TEK** **SUPERNOVA2 CHUCK** **QUICK START** **INSTRUCTION MANUAL**



Thank you for purchasing the PRO-TEK SUPERNOVA2 – our new addition to the NOVA woodturning chuck and jaw range with premium features to enhance your turning experience. The PRO-TEK series provides the quality and ease to quickly secure all turning pieces – bowls, egg cups, vases, boxes, goblets, and an endless variety of similar projects

## **YOUR SAFETY**

Keep these instructions in a safe place for future reference.

**WARNING:** These chucks and jaws can contribute to serious injury (as with any other power tool accessory) if this manual guidance is not followed or if misused. Read and understand the lathe owner's manual. If you do not have a manual, contact the lathe supplier to obtain one before using the lathe and chuck. The user must be professionally trained to use this jaw set. Vocational school courses or formal training is recommended.

As with other work holding methods, an extremely cautious and sensible approach is necessary. With the **PRO-TEK SUPERNOVA2** Chuck it is not possible to give exact directions as to the amount of tightening pressure required for adequate work holding or approved chisel cutting techniques. Follow strict guidelines in this manual for different jaw types on wood blank diameters and length, and strictly follow recommended lathe speeds.

## **Safe Operation**

**Eye Protection:** WProtective eye wear must be used at all times while woodturning in order to keep objects from flying in your eyes. Everyday vision wear is not protective eye wear. We recommend a full-face shield. Always wear eye protection which complies with current ANSI Standard Z87 (USA).

**Noise Protection:** Use earplugs or ear defenders. Particularly if the noise exceeds 85dB. Exposure to high noise levels can lead to hearing problems.

**Dust Protection:** Use respiratory protective equipment (dust mask, portable respirator device). As exposure to high levels of irritating dust when turning or sanding hardwoods, softwoods, and manufactured composite boards (MDF) can result in serious health problems. Also, adequate workshop dust extraction must be used.

Chuck must be adequately secured on lathe spindle; Follow mounting instructions for your lathe, for faceplates, and other spindle fixtures. Do not rotate the chuck under power unless the workpiece is firmly clamped.



## **WARNING**

Speed Recommended is between 600-700 RMP for 6" and larger, or heavy work pieces. DO not exceed 700 RPM for both Tenon and Mortise Operation.

**LATHE SPEED:** Excessive speed is a serious lathe hazard. Always turn at the slowest speed possible. Ideal speed will vary with wood blank size. The larger the blank, the slower the speed. Consult your lathe manual or lathe information plate for speed guidelines. Do not attempt to use the chuck unless the recommended lathe speeds to the wood blank size are known. Additionally, you must strictly follow the maximum speed limits set out in this manual's operating section. Do not exceed them under any circumstances.

**CHECK WORKPIECE:** Examine wood blank carefully before mounting on chuck/lathe. Only mount wood with no cracks, splits, holes, or any other weaknesses (e.g., rotten or spongy sections). Do not use poorly jointed or laminated wood. Any irregular or out-of-balance stock needs to be turned at the slowest possible speed until it is in balance.

Make sure wood is damped firmly. Follow mounting instructions for different gripping modes and jaw types. In the expansion mode, do not use excessive force, or jaws may split the wood. Check that wood is securely held in the chuck before operation. Check grip by vigorously wrenching wood blank back and forth. If any loosening occurs, re-examine the holding area for adequate grip (following mounting guidelines) and any damage to the holding area. Rotate manually to make sure of clearance before switching on the power.

**DUPLICATOR OR JIGS:** Do not use chuck for work holding with a duplicator or jigs.

## **Safe Practice**

**CHISEL USE:** Use only handheld woodturning chisels to shape wood being held in the chuck. Use the recommended chisel for the job. Use safe and commonly approved techniques.

**WARNING:** Never attempt to place hands on a moving chuck on a lathe. Wait for the chuck to come to a complete stop before hands are anywhere near the chuck. Trying to grab at a moving chuck could result in **SERIOUS INJURY**.

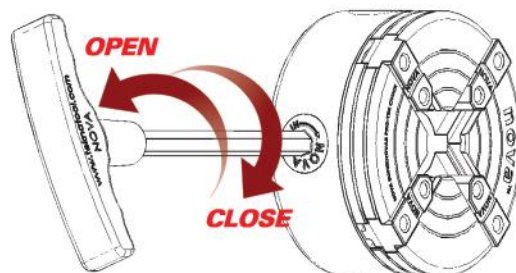
**JAW SLIDES:** For safe operation, do not extend the jaw slides beyond the chuck body under any circumstances. Wherever possible, stand to one side of the revolving wood.

**WEAR SUITABLE CLOTHING:** Do not wear any loose clothing, neckties, gloves, bracelets, rings, or other jewelry that could get caught in moving parts. Wear protective hair covering to contain long hair.

**DRUGS, ALCOHOL, MEDICATION:** Do not operate chuck or lathe while under the influence of drugs, alcohol, or any medication.

**KEEP CHILDREN AND VISITORS AWAY:** All children and visitors should be kept a safe distance from the work area.

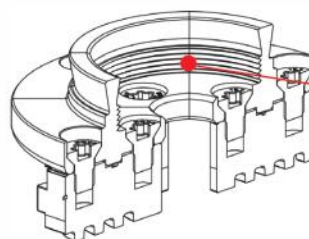
## **OPENING AND CLOSING OF JAWS**



## **ATTACHING AND REMOVING PRO-TEK SUPERNOVA2 CHUCK JAWS**

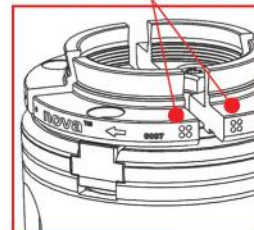
The PRO-TEK SUPERNOVA2 chuck includes a set of PRO-TEK 50mm (2") Jaws. The jaws must be properly attached to the chuck to function as intended. Before installation, ensure the jaw slide top surfaces are clear of any dust or debris before attaching the jaws on the chuck.

Follow the steps shown below to attach the jaws on the chuck:



1. Arrange the jaw segments so that each dot pattern matches with the same dot pattern on the next segment. Loosely attach the jaw segments on the jawslide with the appropriate screws and firmly close the jaws to make sure no light is visible between the jaw segments.

Note: Always mount the jaws clockwise, and match the icons on the side of jaws



2. Firmly tighten the star head screws with the T-handle included.

Loosen and remove the star head screws when removing the jaws from the chuck.

## **MOUNTING THE PRO-TEK SUPERNOVA2 CHUCK ON THE LATHE**

There are two configurations available for the PRO-TEK SUPERNOVA2 Chuck:

- Insert model - Requires an insert for chuck to be mounted on the lathe.
- Direct Thread model: M33 ASR Eurolock
- See full manual online for a list of lathe spindle thread inserts available.

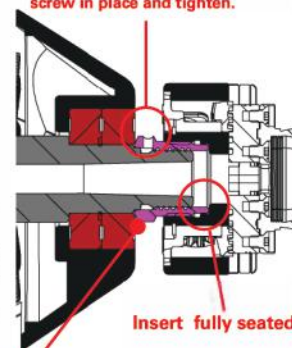
Place the red thread protector washer into M6 threaded hole. Then wind the M6 grub screw in place and tighten.

**Step 1:** If the chuck is an insert model, ensure the insert is bottomed out in the chuck body before mounting on the lathe.

**Step 2:** For Both Insert & Direct Thread model: Wind the chuck on the lathe spindle, until the chuck comes firmly in contact with the bearing/spindle shoulder leaving with no gaps between.

**Step 3:** Place red thread protector washer into the M6 Threaded hole. Then wind the M6 grub screw in position and tighten with M3 Allen head wrench (provided) to prevent the chuck from loosening on lathe spindle.

Make sure there is no gap all around this contact line.



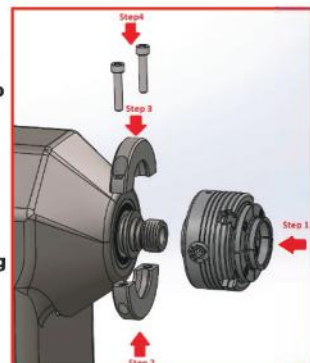
Using the NOVA M33 Eurolock Chuck with Locking Ring (Only applicable to ASR Eurolock model)

**Step 1:** Tighten the ASR Eurolock chuck to the spindle on the lathe, make sure the rings on the spindle and chuck have both been clamped.

**Step 2:** Put the lower part of locking ring under the clamped rings.

**Step 3:** Place the upper part of the locking ring to the clamped rings.

**Step 4:** Use the Allen key to tighten the two bolts on the locking ring.





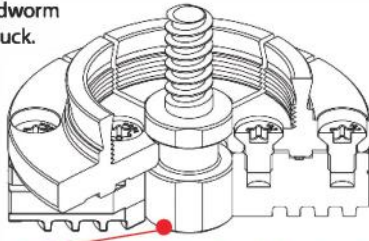
## WOODWORM SCREW

The woodworm screw provides a convenient method for holding a bowl blank to cut a recess to mount on the PRO-TEK 50mm (2") Jaws.  
Jaws must be mounted on the chuck before the woodworm screw.  
— See diagram below

Open the jaw and insert the woodworm screw in the center hole of the chuck.

Position the woodworm screw as shown in illustration.

**Note:** All 4 flat sides of the woodworm screw should be in contact with the flat end of the jawslides.



Make sure this flat surface is in contact with the tip of the jawslide.

The woodworm screw is used to secure the wood to cut either a mortis or tenon on the open 'face' end.

Pre-drill a hole of size 8mm (5/16") diameter with 19mm (3/4") depth to mount the blank using the woodworm screw.

Side to cut mortise or tenon on.

The wood must be seated firmly and flat against the top surface of the mounted jaws.  
For first stage rounding of bowl blanks; extra support can be used with live center support from the lathe tailstock.

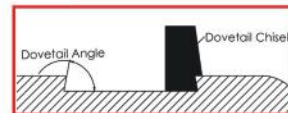
See full manual online for more details.



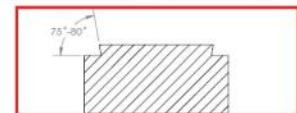
Speed recommended is between 600-700 RPM for 6" diameter and larger, or heavy pieces.

DO NOT exceed 700 RPM for both Tenon and Mortise Operation.

## FORMING A MORTISE OR TENON



Using a NOVA Dovetail Chisel #6008 (or any other suitable tool), cut into the wood, rest the flat side of the chisel on the bottom surface of the recess to form a dovetail profile of between 75°-80° with 10mm (25/64") depth.



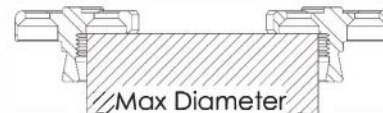
Using a suitable chisel, turn the outer diameter of the wood to form the tenon. The length of the tenon should be 3mm (0.12") less than the internal height of the jaws.

### CHUCK GRIPPING DIRECTION FOR TENON

A tenon is where the jaw contracts onto the workpiece to grip. This is mainly for box, goblet and vase turning (end grain items with a fair degree of overhang).

EXTREME CAUTION WITH THIS OPERATION MUST BE EXERCISED.  
DO NOT EXCEED 700 RPM FOR THIS OPERATION.

Tenon Diameter for 50mm Jaw		
	Min Diameter	Max Diameter
Cylinder	45mm (1 3/4")	65mm (2 9/16")
Square	40mm (1 9/16")	50mm (2")



### CHUCK GRIPPING DIRECTION MORTISE

A mortise is where the jaw expands into a recess of a workpiece to grip. This operation is mainly for bowl and platter (items with parallel wood grain). IT IS NOT RECOMMENDED THAT A MORTISE BE USED FOR ANY LONG WORK (OVER 100mm or 4"). DO NOT EXCEED 700RPM WITH THIS OPERATION.  
OUT OF BALANCE STOCK MUST BE TURNED AT THE SLOWEST SPEED POSSIBLE.

Diameter of recess for 50mm Jaw Mortise	
MIN	MAX
50mm (2")	70mm (2 3/4")



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## PRO-TEK SUPERNOVA2



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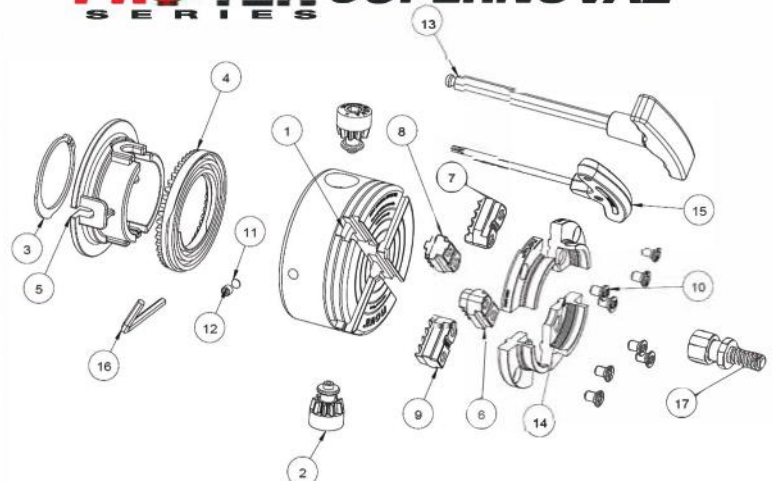


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### PRO-TEK SUPERNOVA2

#### SERIES



REF #	QTY	PART #	DESCRIPTION	REF #	QTY	PART #	DESCRIPTION
1	1	23049 1319011	BODY: Insert Type / M33 ASR	10	8	CM5010182	M6X10 STAR HEAD C/SUNK SCREW
2	2	23110	PINON	11	2	NS1000	FIBER WASHER
3	1	EC48 EC50	CIRCLIP: Insert Type / M33 ASR	12	1	G0606	M6 X 6 GRUB SCREW
4	1	23109 23113	SCROLL RING: Insert Type / M33 ASR	13	1	13006	T-HANDLE
5	1	23048R 23114R	BACKING PLATE: Insert Type / M33 ASR	14	1	10045	PRO-TEK 50MM (2") JAWS
6	1	1359051 1359055	JAWSLIDE #1: Insert Type / M33 ASR	15	1	13049	STAR HEAD SCREW T-HANDLE
7	1	1359052	JAWSLIDE #2	16	1	AK3	HEX KEY 3MM
8	1	1359053	JAWSLIDE #3				WOODWORM SCREW
9	1	1359054	JAWSLIDE #4	17	1	10006	