

PRO-TEK
SERIES

G3 CHUCK
QUICK START

INSTRUCTION MANUAL



Thank you for purchasing the PRO-TEK G3 Chuck – a new addition to our Nova woodturning chuck range with advanced features to enhance your chuck performance. It provides a versatile and easy method for fast and secure work holding for all face turning – 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: This chuck is capable of contributing to serious injury (as with any other power tool accessory) if this manual guidance is not followed or if it is used improperly on the lathe. Read and understand also the lathe owner's manual. If you do not have a manual, contact the supplier of your lathe to obtain one before using the lathe and chuck. User must be professionally trained to use this chuck. Vocational school courses or other expert tuition is recommended.

As with other work holding methods, an extremely cautious and sensible approach is necessary. With the PRO-TEK G3 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 closely strict guidelines in this manual for different jaw types on wood blank diameters and length, plus strictly follow recommended lathe speeds.

Safe Operation

Eye Protection: Woodturning operations can result in objects being thrown into your eyes which can result in severe eye damage. Protective eye wear must be used at all times. 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 ear plugs or ear defenders. Particularly if the noise exceeds 85dB. Exposure to high levels of noise can lead to hearing problems.

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

Chuck is properly secured on lathe spindle: Follow mounting instructions for your lathe for faceplates and other spindle fixtures. Do not rotate chuck under power unless workpiece is firmly clamped.

WARNING: 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 size of wood blank are known. In addition, you must strictly follow the maximum speed limits set out in the operating section of this manual. Do not exceed them under any circumstances.

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

Make sure wood is clamped firmly. Follow mounting instructions for different gripping modes and jaw types. In the expansion mode do not use undue force or jaws may split the wood.

Do not exceed maximum guidelines in this manual for wood blank diameters/length set out in this manual for different modes and jaw types.

Check wood is securely held in chuck, before operation. Check grip by vigorously wrenching wood blank back and forth. If any loosening occurs, re-examine holding area for adequate grip (Following mounting guidelines) and any damage to holding area. Rotate manually to make sure of clearance before switching power on.

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

Safe Practice

CHISEL USE: Use only hand held woodturning chisels to shape wood being held in 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**.

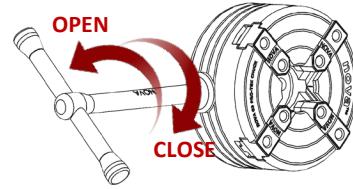
JAW SLIDES: For safe operation do not extend the jaw slides beyond the chuck body under any circumstances. Wherever possible stand to one side of the revolving wood.

WEAR SUITABLE CLOTHING: Do not wear any loose clothing, neck ties, gloves, bracelets, rings or other jewellery 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 safe distance from the work area.

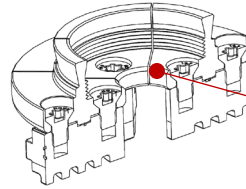
OPENING AND CLOSING OF JAWS



ATTACHING AND REMOVING PRO-TEK G3 CHUCK JAWS

The PRO-TEK G3 chuck includes a set of PRO-TEK 50mm (2") jaws. The jaws must be properly attached on the chuck to function as intended. Before installation, ensure the jawslide 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:



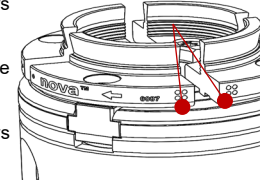
1. Arrange the jaw segments so that the dot pattern matches with the same dot pattern on the next segment. Loosely attach the jaw segments on the jawslide with the appropriate screws and firmly close the jaws to make sure no light is visible between the jaw segments.

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

2. Firmly tighten the Nova Star screws using the included Star Screw Tool.

To remove the jaws, loosen and remove the Nova Star screws from the chuck.

Tip: After removal, wipe down the jaws and add rust protection before storing.



MOUNTING THE PRO-TEK G3 CHUCK ON THE LATHE

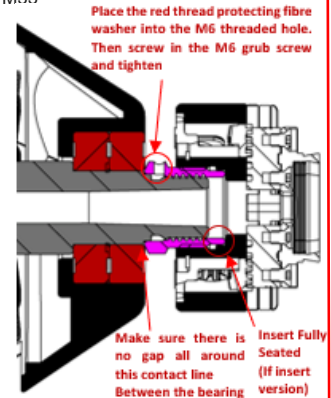
There are two configurations available for the PRO-TEK G3 chuck:

- Insert model: Requires an insert for chuck to be mounted on the lathe. See full manual online for a list of lathe spindle thread inserts available.
- Direct Thread model: 1" 8TPI and M33

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

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

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



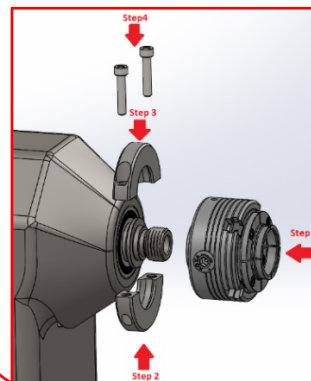
*Using the ASR M33 Thread locking ring (Only applicable to ASR M33 model)

Step 1: Tighten the ASR M33 chuck to the spindle on the lathe, make sure the rings on the spindle and chuck have been clamped.

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

Step 3: Put upper part of the locking ring to the clamped rings as well.

Step 4: Using the Allen key to tighten up two bolts on the locking ring.



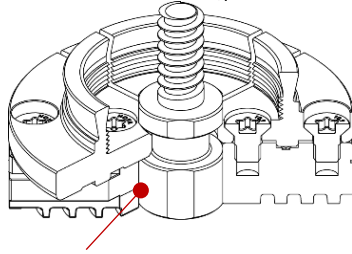
WOODWORM SCREW

The woodworm screw provides a convenient method for holding a bowl blank to cut a recess to mount on the PRO-TEK G3 50mm (2") jaws. Jaws must be mounted on the chuck before the woodworm screw – See diagram below

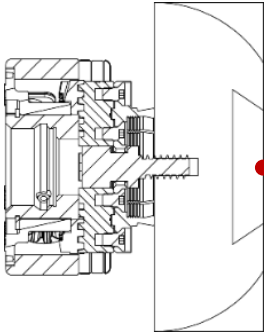
Open the jaw slide and insert the woodworm screw in the centre hole of the chuck.

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 jaw slides.



Make sure this flat surface is in contact with the tip of the jaw slide



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

Pre-drill a hole of size 8mm (5/16in) diameter with 19mm (3/4in) 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.

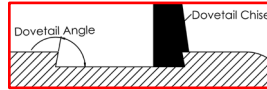
For first stage rounding of bowl blanks; extra support can be used with live centre support from the lathe tailstock.

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 700RPM 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 75-80deg with 10mm (25/64in) depth.

▶ 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).

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 inches). 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")



nova™

PRO-TEK G3
SERIES



To register your warranty or full manual visit www.teknaool.com



Teknaool International Ltd.
USA (727) 954-3433 Int'l (+64) 9 477 5600

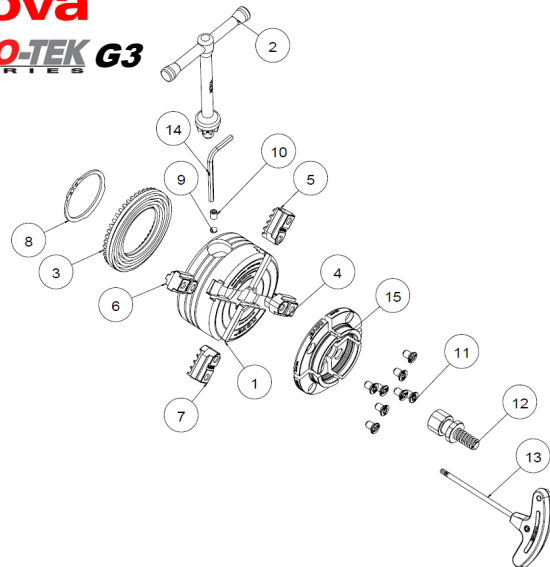
Global Support For all inquiries, repairs, and support Email: service@teknaool.com or contact your local dealer.

Find a dealer closest to you by visiting www.teknaool.com



www.teknaool.com

nova™
PRO-TEK G3
SERIES



REF #	QTY	PART #	DESCRIPTION	REF #	QTY	PART #	DESCRIPTION
1	1	48206 / 48239 / 1359011	CHUCK BODY: Insert Type / 1"x8tpi / M33 ASR	9	1	NS1000	FIBER WASHER
2	1	1359010	CHUCK KEY	10	1	G0606	GRUB SCREW
3	1	23109 / 23113	SCROLL RING: Insert Type, 1"x8tpi / M33 ASR	11	8	CM5010182	NOVA STAR SCREW
4	1	1359051 / 1359055	JAWSLIDE #1: Insert type, 1"x8tpi / M33 ASR	12	1	10006	WOODWORM SCREW
5	1	1359052	JAWSLIDE #2	13	1	13049	STAR HEAD SCREW T-HANDLE
6	1	1359053	JAWSLIDE #3	14	1	AK3	ALLEN KEY 3MM
7	1	1359054	JAWSLIDE #4				
8	1	EC48 / EC50	CIRCLIP: Insert type, 1"x8tpi / M33 ASR	15	1	10045	PRO-TEK 50MM (2") JAWS