

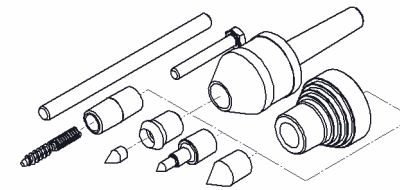
Designed in New Zealand, Made in China by
Teknatool International

Email: sales@teknatool.com
Web: www.teknatool.com

© Copyright 2007 Teknatool International Ltd
Publication Code: 97-0704-003



NOVA LIVE CENTRE SYSTEM OPERATION MANUAL



Fast precise powerful tailstock support system

Designed for the tough demands of modern woodturning

Over 6 functions in one handy unit

Quick change tapers

Can handle both heavy and delicate work.

Can handle soft and hard woods.

Fits any lathe with standard 2MT tailstock.

SKU: 5015

Thank you for purchasing our Nova Live Centre System. It will provide a useful addition to your woodturning accessories. Teknatool makes a specialist range of exciting woodturning products such as the NOVA Chucking Systems and NOVA lathes - ask about them at your NOVA stockist.

THIS MANUAL GIVES INFORMATION ON SAFETY AND OPERATION OF THE CENTRE SYSTEM AND MUST BE READ AND UNDERSTOOD BEFORE USE.

The Nova Live Centre System is a multifunction centre which provides a number of different support centres for most between centre woodturning requirements. It can also act as a support for some free end turning work. It uses a system of hardened, quick change centers (2MT same as the arbor) for ease of use and maximum versatility.

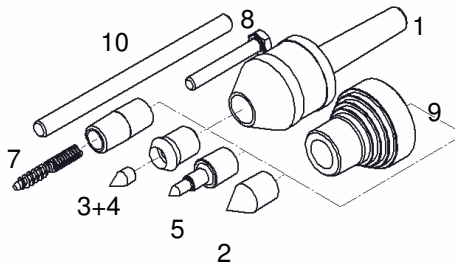
This system has a 2MT arbor so it will only fit into tailstock spindles with a 2MT bore. If your lathe does not have a hollow spindle the hollow boring function of the center cannot be used.

The centre can be adapted to either a 1 MT or 3MT spindle by using an appropriate adaptor: 1MT/2MT or 2MT/3MT. These adaptors are not supplied by Teknatool but should be readily available from engineering supply sources. If the Live Centre System is used with these adaptors the hollow boring function cannot be used. 4MT or larger adaptors should not be used to convert the Live Centre System as the capacities of these lathes would generally be too large to be appropriate for this system.

CAPACITY: The Nova Live Centre System should be used for an envelope of between centre work up to 150mm square/round x 1 metre long (6 inches x 39 inches).

As a tailstock support for bowls not exceeding 400mm (15") in diameter x 150mm (6") deep.

Parts List and Exploded Drawing



1. NOVA LIVE CENTRE BODY (5006)
2. 60 Deg Centre (5004)
3. Hollow Cup Centre (5002)
4. Hollow Cup Centre Point (5003)
5. Miniature Extension Centre (5001)
6. Thread Centre (5000)
7. Screw for Thread Centre (5/16 HB)
8. Bolt for Thread Centre (NLCNB)
9. Stepped Cone (NLCCS)
10. Knock Out Bar (37020)

WARRANTY

DATE PURCHASED
(To be completed by Sales Outlet).

This Teknatool/NOVA Product is backed by a warranty period twenty four months from the date of purchase. Teknatool International Ltd hereby agrees to make repairs or replace components without charge for any defects due to faulty material or workmanship, provided that -

1. The warranty period has not elapsed. Proof of purchase date (sales slip etc) would need to be forwarded to Teknatool International Ltd.
2. If in our opinion the unit had not been altered, repaired or modified in any way that would affect its operation; has not been subjected to misuse, negligence, accident or not used strictly in accordance with instructions.
3. Where necessary transportation is prepaid to Factory Service Centre, or other authorized Teknatool Service Centre.

Warranty does not cover any costs or damages arising directly or indirectly from the operation of this Teknatool/NOVA Product. No other guarantee, written or verbal is authorized by Teknatool International Ltd

OVERSEAS CUSTOMERS: Our Teknatool agents will issue their own Warranty to cover this product. The terms may vary from those stated above - please check with your dealer.

OPERATIONAL MODES:

Hollow Cup Centre: Refer to Dwg 3 & 5.

Drawing 3: Deep hole drilling using cup centre with centre point removed. Through hole 5/16". This function can only be used on lathes with a hollow tailstock spindle.



Drawing 5: Cup Centre Function. The outer rim provides support for the centre locating point. Ideal for softwood support.

Miniature Extension Centre: Ideal for small delicate turnings. Extension of turning away from centre allows it to be shaped right up to end.



Threaded Centre: Refer to Dwg 2,6 & 7.

Drawing 2: Use of a custom wooden support piece. This can be shaped to fit internal contours of smaller bowls and other hollow ware.



Particularly useful for repetitive turnings. The screw is fixed into the threaded section of the miniature internal case.

Drawing 6. Miniature Internal Cone Function: For small uncentred rounds up to 12mm (0.479 or square timber up to 6mm (5/16")). Ideal for quick mounting of small turnings eg. Lace bobbins.

Drawing 7: Internal support for thin bowls etc. The 5/16" bolt is used to fix a support disk.

60 Degree Centre: Refer to dwg 4. Ideal for medium to hardwoods. This point functions like a normal live centre.



Stepped Cone:

This large reverse cone centre mates to the centre by using the taper fit on the threaded centre.

The large reverse cone can handle centerless rounds up to 40mm (1 1/2"), split turnings or other work without a centre.



Alternative mounting is for the cone to be mounted in reverse onto the threaded centre with the long taper and steps able to be used for mounting turnings. The long taper allows for wedge fit of hollow sections from 26mm (1") to 32mm (1 1/4").

SAFETY

DANGER THIS CENTRE IS CAPABLE OF CONTRIBUTING TO SERIOUS INJURY AS WITH ANY OTHER POWERTOOL ACCESSORY, IF USED IMPROPERLY ON THE LATHE.

1. It is strongly recommended that the user take courses and receive professional guidance on woodturning.
2. Follow ALL SAFETY RULES set out in your lathe manual. Pay particular attention to appropriate turning speeds and correct chisel use.
3. Carefully check that morse tapers are sealed properly - the centre insert is correctly sealed in the Live Centre body plus the arbor is fully home in the tailstock taper. Failure to do so could result in either the wood being dislodged from lathe or the centre dislodging from the tailstock.
4. Do not mount any wood on the centre which has any cracks or weakness as it could give way during operation.
5. Always wear eye protection which complies with current ANSI Standard 287.1 (USA). We strongly recommend that a full face shield is used at all times while woodlathe is operating.
6. CHECK WOOD IS SECURELY HELD IN CENTRE BEFORE WOODLATHE IS UNDER POWER.
7. DO NOT EXCEED THE MAXIMUM CAPACITY RECOMMENDATIONS IN THIS MANUAL.

CARE IN HANDLING: Always take care with mounting centres which are hardened.

MOUNTING & DISMOUNTING CENTRE SYSTEM FROM LATHE:

Care of morse tapers: In all cases the taper shanks of these centres should fit the spindle taper socket accurately, and be free from dirt and shavings when inserted. It should never be necessary to drive them into the socket. They should be seated firmly with a quick thrust of the hand. Further end thrust developed when in operation should seal the arbor firmly enough. If the arbor/centre point does not seat firmly it indicates that either the tapers do not match or that they are prevented from making contact by the interference of burrs, scoring of the metal or blocking by foreign matter (eg shavings). The shank should never be so tight that excessive force is necessary to extract them. In lathes with a hollow tailstock mandrel (spindle), a rod (knockout bar) can be inserted to push the shank out (you can use this method on all Teknatool lathes). NO HAMMERING or other heavy impact should be necessary. A knockout bar is provided to push out the taper centres from the taper socket of the centre body.

For all lathes with reasonable wear inspect the morse tapers. Morse taper reamers are available to clean the taper - consult local engineering sources.

When mounting carefully wipe the inner tailstock taper and the arbor of the Nova Centre with a piece of clean cloth (any shavings or wood dust could prevent satisfactory fill). Similarly clean the taper bore in the Nova Centre body and taper of centre point.

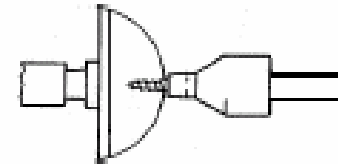
DISMOUNTING:

CAUTION!! The Nova Centre System has a hollow morse taper. A gentle tap with the knockout bar supplied should be all that is necessary to dislodge the taper. Use the knockout bar provided to remove taper centres from Live Centre body. Again a gentle tap should be all that is required.

METHODS OF TURNING WOODEN CENTRES

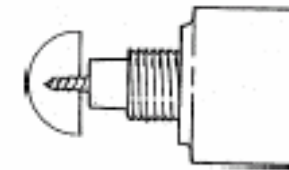
See dwg 2 on previous page. The centre screw can be used for holding specialized wood support centres. The screw itself will not spin true on the centre because of the way the thread has been formed (the centre components however are all concentric).

The most direct method which also ensures exact concentricity is to mount the unshaped piece of wood on the centre screw (to aid removal later, apply wax as the wood is screwed on) in the Nova Centre and drive from the headstock with a spur centre. Shaping work with turning chisels can then be carried out.



To shape a wooden support piece all over (eliminating the unshaped area where the spur was located, described in the previous method), mount the threaded centre directly into the 2MT taper of the headstock spindle. The limitation with this method is that a 2MT taper is required in the headstock.

Mount the wood on the centre screw thread. Now the wood is turning with an open end and it can be completely shaped. With this method a support piece can be quickly made and is an ideal method for one off support plugs.



The machine thread screw or bolt (5/16" UNC/WHIT) method is best when the wooden centre is utilized at intervals for repetitive jobs. The support is quick to remount and will locate more accurately than the centre screw method.

