Morse Taper #4 three in one
MT4 to ¾”-16 (16 TPI)
MT4 to 1”-8 (8 TPI)
MT4 to 1¼”-7 (7 TPI)
Wood Lathe Spindle

Typical application May be used as a spindle for wood lathes.

Included in the package offer are

- one (reduced length) Morse Taper #4 (MT 4) spindle with a ¾”-16 threaded bolt end, thread length about 1.5” long,
- ¾”-16 nut,
- 1”-8 nut,
- washer,
- 1”-8 threaded end (O.D. 1”, 8 TPI),
- 1¼”-7 threaded end (O.D. 1.25”, 7 TPI),
- short drawbar (screw),
- this manual,
- safety booklet.

Spindle backend tapped for a drawbar. The 1”-8 and 1¼”-7 spindles have 1”-8 or 1¼”-7 outer threads and ¾”-16 inner threads to fit over the threaded end of the MT4 spindle. Thus, this is a three in one system that allow to mount various different chuck sizes. The ¾”-16 threaded end has a shoulder. For the larger diameter spindle a washer (included) will act as a shoulder. For shorter chucks use a nut to adjust the spindle length. The nut acts then as a shoulder. These are all right hand threads, i.e., don't reverse RPM.

Always tighten the chuck against a shoulder on the spindle which can be the shoulder in the Morse taper, a washer, or a screw. The chuck must be tightened against a shoulder or it will fly off. If heavy vibrations are a problem then use Nylock screws.

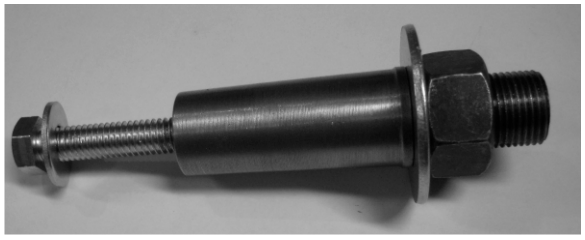
These are all right hand threads, i.e., don't reverse RPM or you will screw off the chuck and nut.

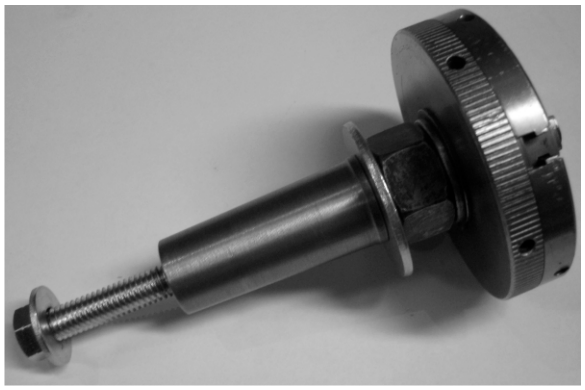
Don’t turn a chuck without clamping the jaws on their own or on a work piece or the jaws of the chuck may fly off.

Step 1: mount Morse taper spindle on lathe
Step 2: mount chuck on spindle as detailed in the following.

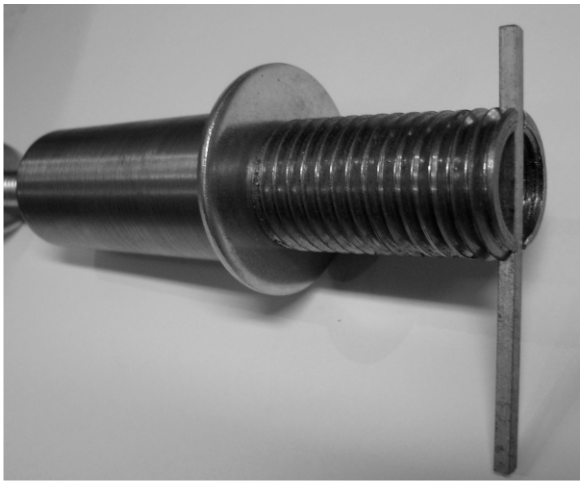
Procedure Insert taper end in spindle of wood lathe. Secure with draw bar if possible. (First, wipe off oil which may be on the taper for storage.)

Procedure (3/4”-16) For smaller chucks use the ¾”-16 end directly. Tighten the chuck against the shoulder of the MT4 spindle.





Procedure (3/4”-16)-short chuck For smaller and shorter chucks use the ¾”-16 spindle, but screw a ¾”16 nut first over the threaded end of the spindle. You may use a washer. Tighten the chuck against the nut/washer using a wrench. Hold nut with wrench and screw lathe chuck against the nut which will act as a shoulder. You may want to use a washer. **Do not over tighten screws. Good hand tight connections are sufficient.**



Procedure (1”-8) Screw the 1”-8 adapter over the ¾”-16 end of the spindle. A slot is milled in the front end of the 1”-8 spindle, a key stock is included. Don’t use plier to tighten or untighten the threads which would damage the threads. Place some cutting oil on the threads. Tighten first the 1”-8 adapter then the spindle. Important, when mounting the chuck then use either the provided washer or a 1”-8 nut which will act as a shoulder for the chuck. **Do not over tighten screws. Good hand tight connections are sufficient.**

Procedure (1¼"-7) Screw the 1¼"-7 adapter over the ¾"-16 end of the spindle. Two flats are milled in the back end of the 1¼"-7 spindle for using a wrench. Place some cutting oil on the threads. **Do not over tighten screws. Good hand tight connections are sufficient.** Tighten first the 1¼"-7 adapter on the MT4-¾"-16 spindle then the chuck. Important, when mounting the chuck then use either the provided washer or for shorter chucks use a 1¼"-7 nut (not included) which will act as a shoulder for the chuck.

TIR-total indicator runout The runout (TIR) may not be sufficient for a metal lathe. The taper is machined on a metal lathe with TIR of 0.0006". However, we cannot predict the TIR of the adapter on your wood lathe, it will unlikely be better than 0.01". If the runout on your system is too large don't use this spindle.

Advantage of the design Various chucks are in circulation which require different thread length. This spindle has an "adjustable" thread length. Furthermore, the spindle comes with three different tread types 16 TPI, 8 TPI, and 7 TPI.

Drawbar. The spindles are taped at the backend for a drawbar (bolt). A drawbar is common on metal lathes. It is a bolt or threaded rod which is inserted through the backend of the spindle to secure the spindle. This may not be necessary for wood lathes, but it is highly recommended using a drawbar.

Always tighten the chuck against a shoulder on the spindle which can be the shoulder in the Morse taper, a washer, or a screw. The chuck must be tightened against a shoulder or it will fly off. If heavy vibrations are a problem then use Nylock screws.

These are all right hand threads, i.e., don't reverse RPM or you will screw off the chuck and nut.

Don't turn a chuck without clamping the jaws on their own or on a work piece or the jaws of the chuck may fly off.

Safety/Disclaimer: Adapters are not cutting tools in themselves. Still, general safety rules for machine tools are in place. For an extended list of safety notes, consult the literature or go to our website for a free download of a safety booklet (http://www.lathecity.com/Books/Safety-Booklet-Lathe-City.pdf). We do not warrant that any accessories can be used for any particular application. Damage on equipment (particularly damage on threads by over tightened screws) caused by usage of accessories is the customer's responsibility. Make sure that screws are tight at all times. If you encounter heavy vibrations then replace the steel screws with Nylock (vibration tolerant) screws. Hobby machinists tend to stick their nose too close to the machinery. Use safety glasses and protective clothing. This manual does not replace books about metal working and/or proper training. Adapters may start to rotate. In that case, switch the lathe off. Do not try to stop the rotating adapter with your hands. For screw on type tools, make sure that the adapter is properly screwed onto a shoulder. For screw on type adapters, do not reverse RPM of the lathe or you will unscrew the adapter. The lathe spindle needs to turn towards you standing on the front side of the lathe. Neither LatheCity nor its owner shall be liable for damage arising from unprofessional use or misuse of LatheCity accessories. Max RPM 1800. Any legal action brought against LatheCity/Uwe Burghaus shall be tried in the State of North Dakota in Fargo, USA. WARRANTY: we do not provide any warranty for our products. In no event shall LatheCity's liability exceed the purchase price paid for the product. We shall in no event be liable for death, injuries to persons or property or incidental, contingent, special or consequential damage arising from the use of our products.

Returns in resalable conditions are accepted within 30 days (Factory Direct) or 14 days (eBay/Amazon) after shipment. All shipping costs will be covered by the customer. No restocking fees, no questions asked. No returns of custom designs or customized designs. No returns of bulk orders. No returns of mess-up machinable parts. General sells and business terms as given on our web site are active. Customer covers all shipping costs and credit card fees (2-3%) raised by e.g. PayPal also when reimbursing payments. Note that the return rate of LatheCity products is below 1%.

Design details may deviate from the image shown which does not affect the function of the accessory.

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