



China Lathe Tailstock Accessories

Morse #2 or MT 3 Adjustable Tailstock Center

For current prices see our website.

Tailstock accessories for benchtop lathes: the adapter has a Morse #2 (or MT3) taper on one side and a dead center on the other side. Both steel pieces are mounted on a thick plate. In order to adjust the dead center to tailstock spindle distance the plate has a T-slot keyway and the dead center comes with a bolt. In addition, a Morse #0 arbor can be mounted on the front end to hold a life center or MT dead center.



Typical application: Accessory for benchtop / tabletop lathes. Adapter mounts in a Morse arbor, e.g., in the tailstock spindle of a tabletop lathe and connects to a dead center (pin) or MT0 arbor.

Off-setting the tailstock is typically used to cut taper between centers using a drive dog. Note that this accessory is designed for cutting small taper angle as those common on machine taper. The dead center can be moved in and out of the center line. Therefore, very small and large adjustments of the dead center's position are possible.

Procedure: Extend the tailstock spindle by about $\frac{1}{4}$ ". For best fit, *slightly* (and carefully) slam the taper in the spindle *by hand*. To remove the taper, pull back the spindle. Typically, taper arbors/spindles have an internal draw bar, which will push out the taper.

Note that the MT is approx. 1.5" long, i.e., it is shorter than an ANSI MT since most China lathe tailstocks do NOT obey the ANSI standard. These are often too short. The SD side of the MT is tapered to insert a $\frac{1}{4}$ -20 bolt. If you have indeed a full length tailstock use that screw, adjust its length to your tailstock depth to insure that the taper pops out properly. In doing so, this tool is compatible with most China import lathes. The MT has no tang.

Slide the dead center along the T-slot until it aligns with the center hole of your work piece. Tighten the dead center/MT0 arbor using a wrench.

Safety Notes, Trouble Shooting, Limitations, and Disclaimer: General safety rules for machine/power tools are in place. For an extended list of safety notes, consult the literature or go to our website. You can download free of charge a safety booklet, which is also typically included (free of charge) for first-time customers. Use protective clothing including, most importantly, safety glasses for metal work. The adapter may start to rotate in

the tailstock spindle. Do not try to stop the rotating adapter with your hands. Make sure that the adapter is properly inserted in the Morse arbor – the quill typically needs to be moved out somewhat. The tailstock needs to be locked. This accessory is designed for small taper angle as those common on machine taper. For large angle settings (>5°) unstable and dangerous working conditions may appear. Don't use this accessory for large taper angles. A typical application may be machining MT2 or MT1 ends in longer stock rods. The plate used to mount the dead center cannot be tilted, i.e., use this design for small taper angles on not too long metal rods. Be aware of that you may generate significant side forces on the tailstock. Therefore, don't overdo it with the size of the work pieces. In addition, working on hard to machine materials such as stainless steel will generate larger forces and is in any case not recommended on a small benchtop lathe. Similarly, the screws and bold end holding the dead center and MT must be tight. Large forces on the adapter may loosen these screws which may result in a sudden change of the position of the dead center. RPM maximum are 2800. The adapter is tested only on a SIEG benchtop lathe which is a typical China import lathe. We do not warrant that any accessories can be used for any particular application. Usage of accessories or damage caused by unprofessional use is at the risk of the customer. Neither LatheCity nor its owner shall be liable for damage arising from unprofessional use or misuse of LatheCity accessories. 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 (Factor direct), 14 days (eBay) after shipment. All shipping costs, taxes, credit card fees, broker fees, whatever fees, 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. Note that the return rate of LatheCity products is below 1%. General sells and business terms as given on our web site are active.

Pricing: This is a rather specialized application. Job-shops easily charge \$60/work hour + materials + tooling. Machining that piece takes longer than 60 min. Our price is fair and reasonable, in our opinion.

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