



Lathe Headstock Spindle MT3 clean-out tool



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[VIEW IN BROWSER](#)

updated 13. 2. 2022 | published 13. 2. 2022

Summary

A simple tool for cleaning the MT3 taper in a lathe spindle.



2.40 hrs



1 pcs



0.20 mm



0.40 mm



PLA



25 g



Prusa
MK3/S/S+

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Many small lathes (such as my 9x20 lathe) have an internal Morse MT3 taper in the head-stock spindle. When using a center in this MT3 socket, it is very important that the socket is very clean to ensure maximum precision.

This simple cleaning tool makes it possible to clean the MT3 socket quickly and easily. In addition, because it uses a small piece of replaceable paper towel to do the cleaning, it can be “re-newed” quickly, easily, and cheaply when it gets dirty.

Use Instructions

The cleaning tool consists of two identical “handles” which have a cylindrical handle on one end and an MT3 taper on the other end. The

handles are held together by simple cylindrical bands ("keepers") which simple press fit onto each end of the handle.

To assemble the tool, place the two handles together face-to face, and place a keeper over the end to hold them together. Note that the handles are flexible enough so that you can pry them apart slightly and insert a folded piece of paper towel between them. With the paper towel inserted (see photos), place the second keeper on the taper end to clamp the paper towel in place. If desired, you can trim the paper towel a bit with scissors - but note that you should leave about 1 - 2cm in place as this will be the "wiper" part of the tool.

To use, simply insert the tool into the taper until it bottoms out, and then rotate it several times to wipe the inner surface of the taper. When the paper towel gets too dirty, simply replace it.

Print Instructions

Print in PLA using the 3mf or gcode files provided. In general :

- perimeters = 2
- infill = 5% rectilinear

I initially designed this with a thicker wall in mind, but I found that in practice 2 perimeters is more than strong enough as the tool experiences little stress in use.

CAD

The Onshape 3D CAD files can be found here :

<https://cad.onshape.com/documents/da6b6b09961748a26c5fc25e/w/1f2cb46c40dfc219a86ba9ff/e/4fd8ebf99c1f61b6e525b571>

Model files



tapercleanermt3e-keeper.stl



tapercleanermt3e-all.3mf

tapercleanermt3e-handle.stl



Print files

tapercleanermt3e-all_02mm_pla_mk3s_2h24m.gcode



PLA 0.40 mm 0.20 mm 2.40 hrs 25 g Prusa MK3/S/S+

[Find source .stl files on Thingiverse.com](#)

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