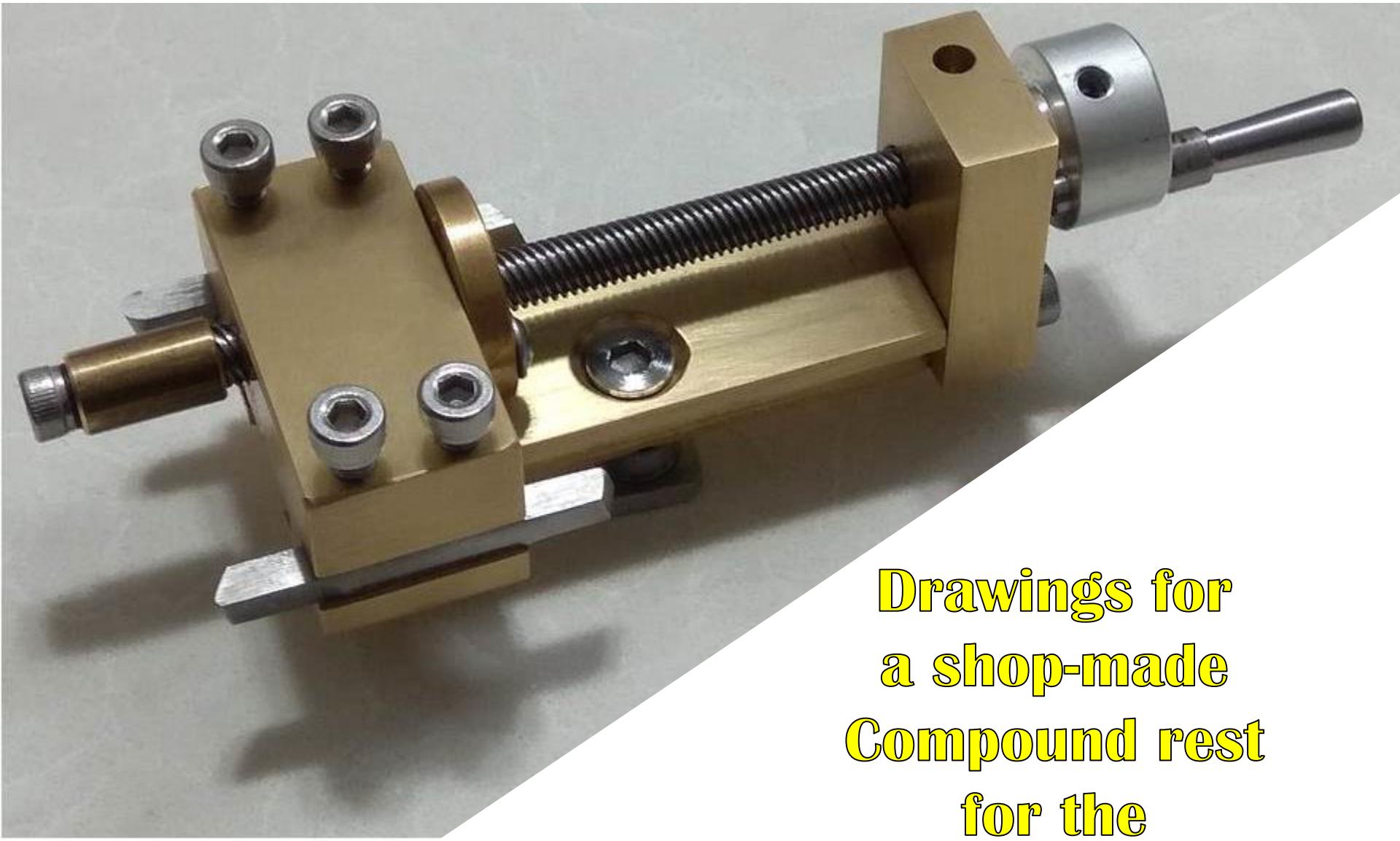
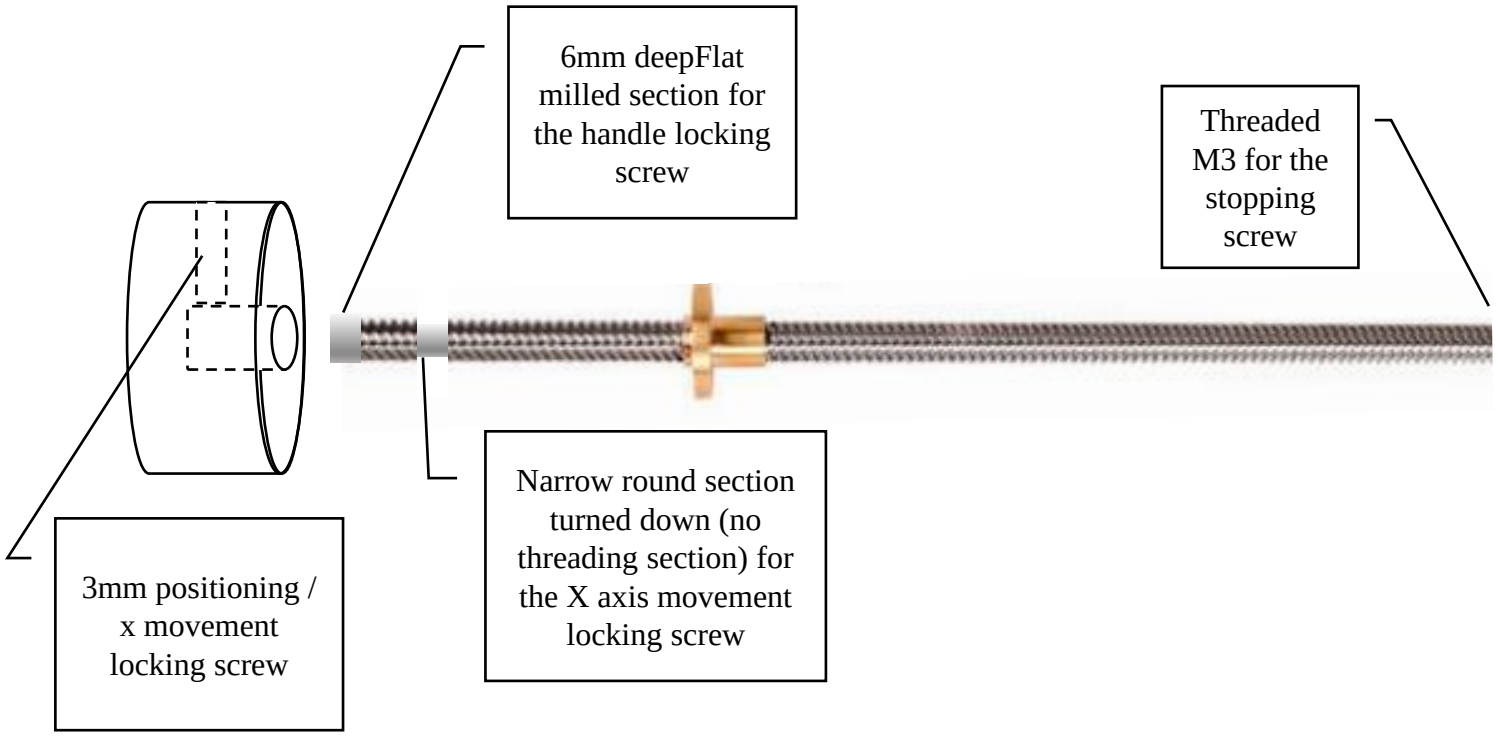


Drawings for a shop-made Compound rest for the Unimat SL 1000 Lathe

Smallathe, Mar.2022

The lead screw

88mm/3.46” long lead screw (the length depends on your ways/travel length)
It **must** be a 6mm threaded rod as the unimat spindle core is 6mm ID.



Recommendation:

Like the bed a 77cm/3” long lead screw will be long enough and allow for a 50mm/2” travel.

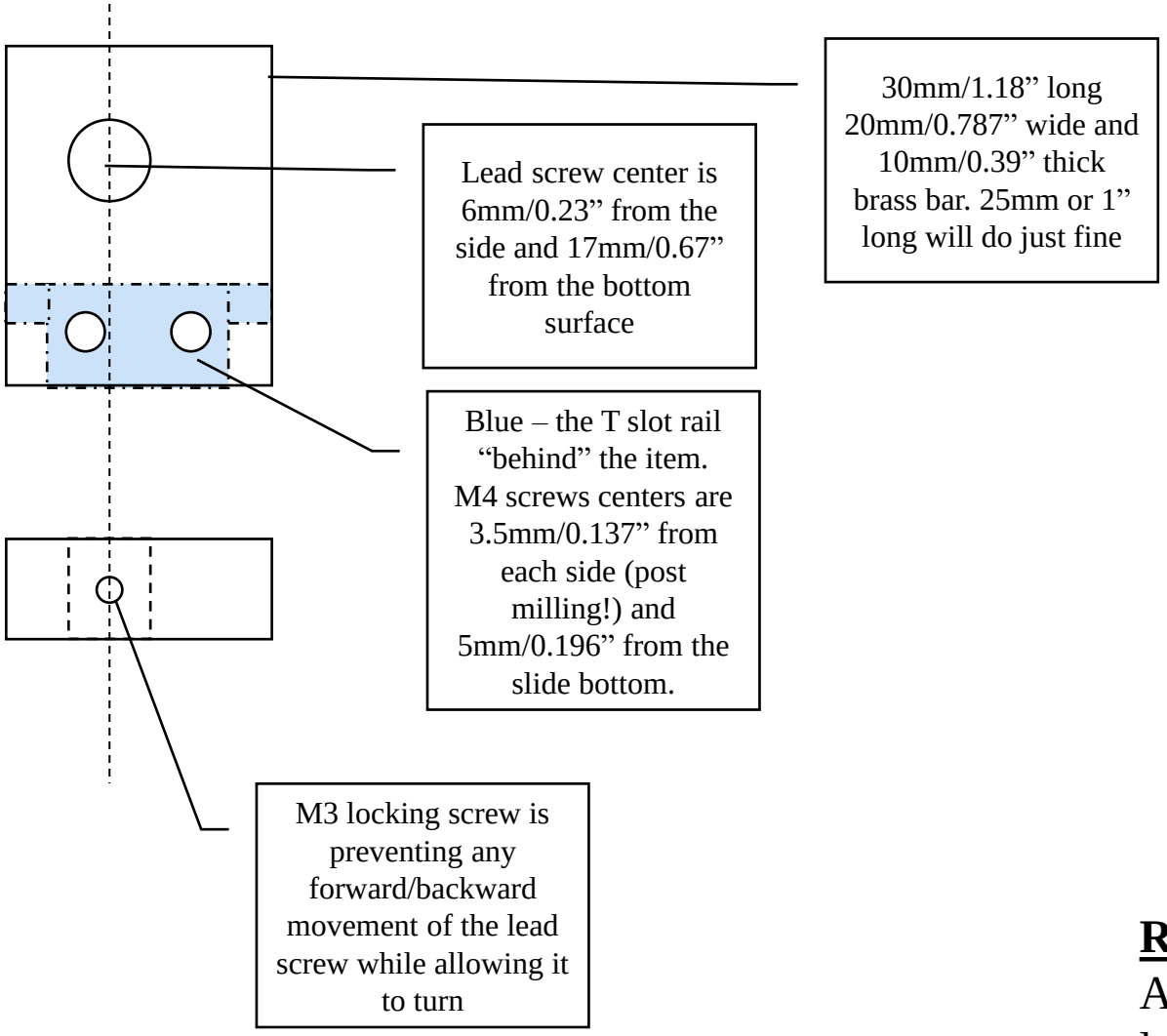
The lead screw is a 6mm OD

- 3D printer lead screw.

You buy it along with the brass nut.

The back plate

Stock: 20x10mm brass stock (as is)

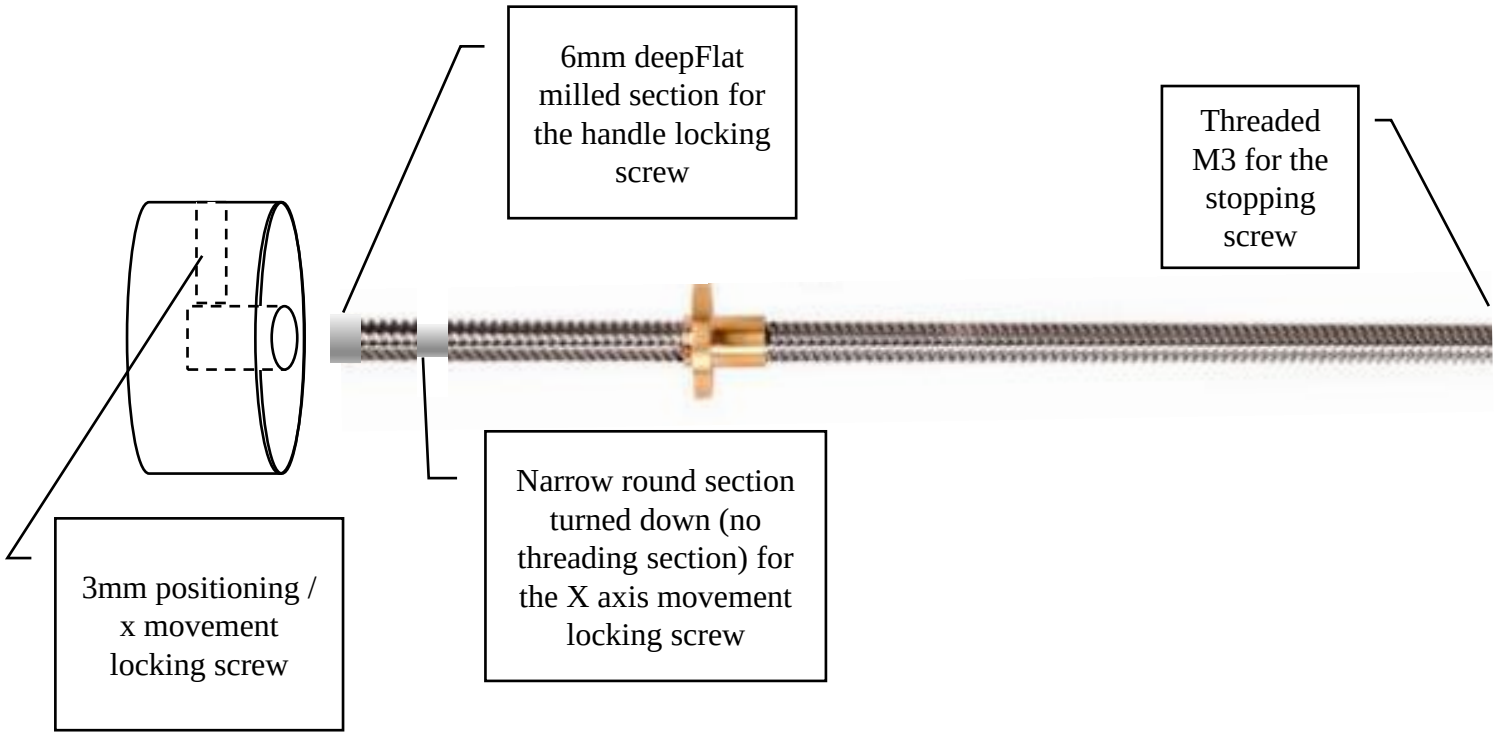


Recommendation:

A 25mm or 1” total length will do just fine for this piece

The lead screw

88mm/3.46” long lead screw (the length depends on your ways/travel length)
It **must** be a 6mm threaded rod as the unimat spindle core is 6mm ID.



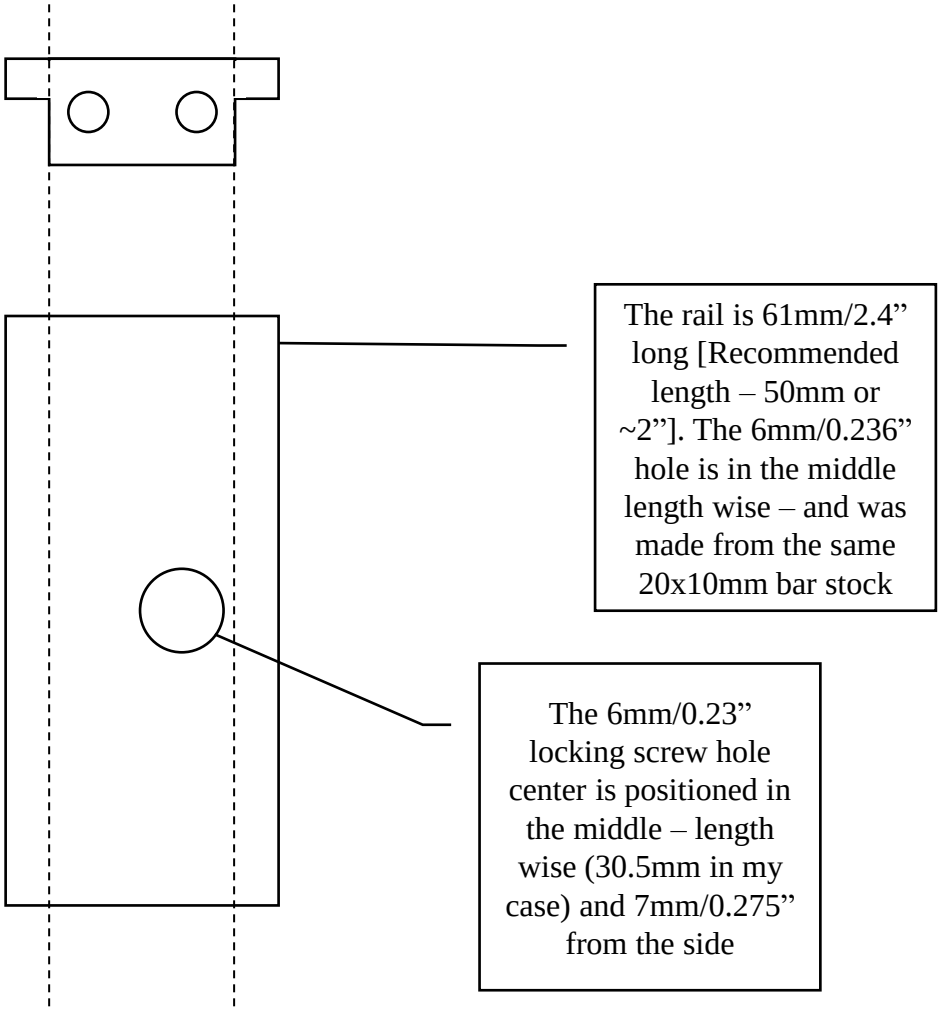
Recommendation:

Like the bed a 77cm/3” long lead screw will be long enough and allow for a 50mm/2” travel.

The lead screw is a 6mm OD

- 3D printer lead screw.

You buy it along with the brass nut.

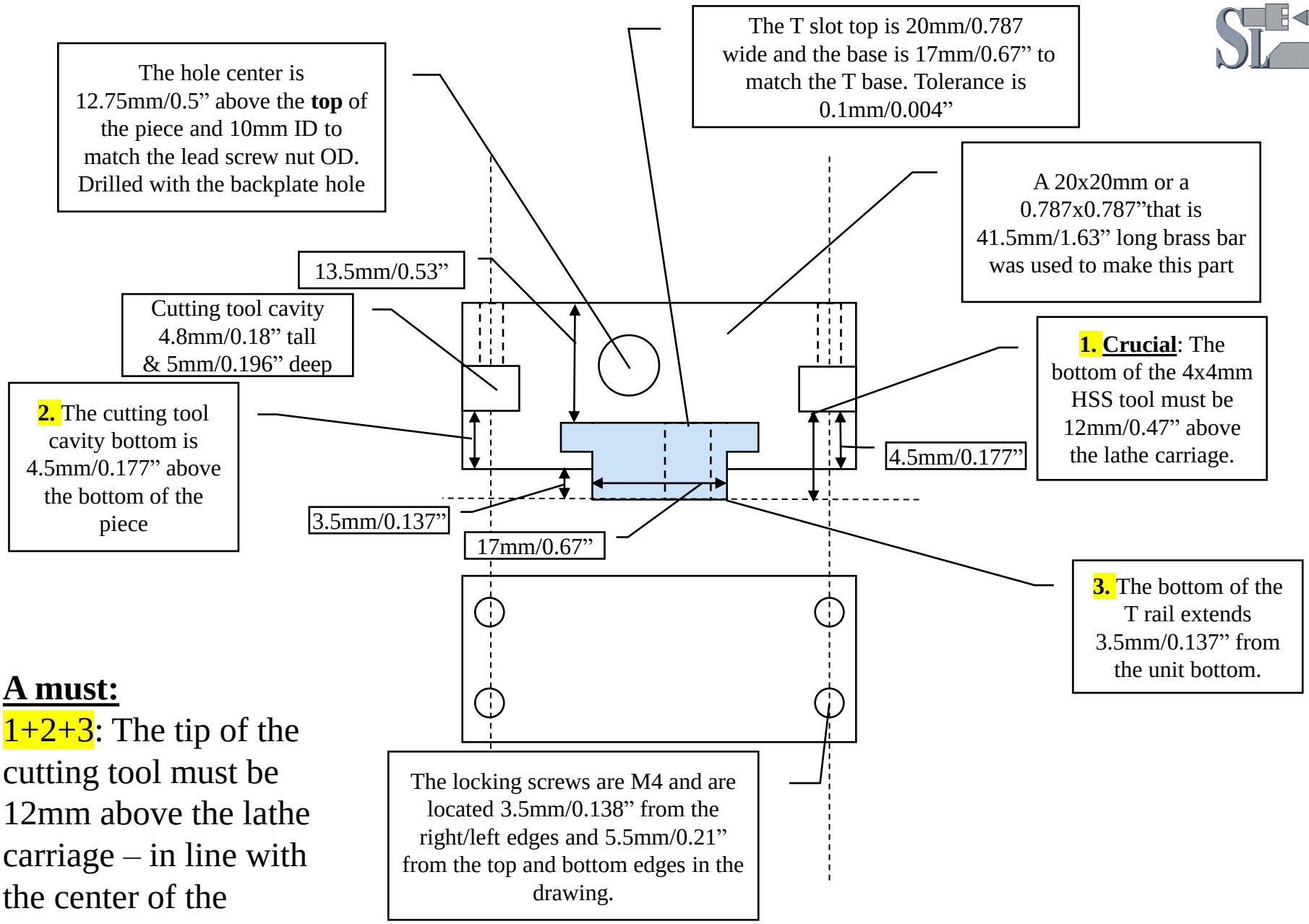


The rail is 61mm/2.4” long [Recommended length – 50mm or ~2”]. The 6mm/0.236” hole is in the middle length wise – and was made from the same 20x10mm bar stock

The 6mm/0.23” locking screw hole center is positioned in the middle – length wise (30.5mm in my case) and 7mm/0.275” from the side

Recommendation:

Make the bed length – 50mm or ~2”, not longer!.



A must:

1+2+3: The tip of the cutting tool must be 12mm above the lathe carriage – in line with the center of the spindle

Last few notes:

I have bought some 6x4mm HSS tool steel bits for the compound rest.
This allows me to hold the tool steel bit more tightly, without any required angle – as I grind off the clearances.

Knurled handle for this piece is a wonderful idea (wish I could do that) so scrap the tiny handle idea and use a knurled round nob to hold and move the lead screw.

I hope you make one yourself.
If you do – I would highly appreciate a picture!
Feel free to email me (through my webpage below), as questions – I'll be happy to help a unimat-mate :)

Enjoy
Saar
www.spicecandies.com
March2020