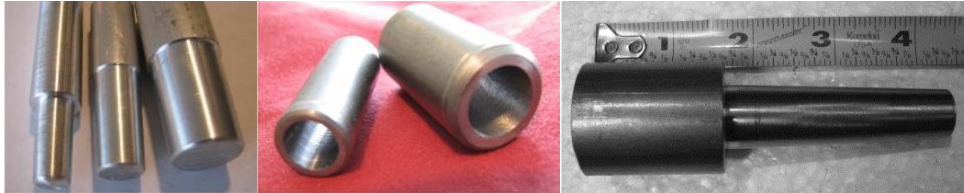


## Morse taper ...?

If you read descriptions (specs) of lathes then you may come across the term Morse taper #2 (MT2 or MT0) .. Äh – Morse ... what? No, that's not about SOS - beep beep ... It refers to the type/shape of the lathe spindle. Morse taper (name of a guy) are



**Fig.:** **Left)** MT0, MT1, MT2 taper (reduced length), **Middle)** MT0 and MT1 arbors, **right)** full length MT2. LatheCity sells these type of accessories.

standardized slopes either cut in the outside of a round (Morse taper) or a funnel like sloped boring (Morse arbor); see Fig. If the angle cut is small ( $1-2^\circ$ ), then the taper/arbor combination is self-holding. That pair fits quite tight together without bolts or glue. Therefore, a Morse arbor is use in the headstock and tailstock spindle of a lathe. (Your drill press may also have one – here it is typically a Jacobs (another guy) taper.) Morse taper are numbered from zero to seven depending on the diameter of the large end. Sherlines lathe has a Morse #1 in the headstock and Morse #0 in the tailstock. On more shop size lathes, typically at least a Morse #3 is used in the headstock. Some other benchtop systems just have a straight through hole as an arbor, such as the UNIMAT lathes. The advantage of a Morse arbor is that it can be used as a fast tool change system. In addition, many accessories are available and the system is self-centered, i.e., it is more precise than just a boring type arbor.