LatheCity
Safely Working with Benchtop Systems

Volume 5 – CNC Benchtop Lathe

Featuring Sherline

167 pages text, 172 pages (with blank pages) print, 95 Figures, 6 Tables, 27 Programs
US trade 6x9" , Paperback (Perfect bind), Black interior printing, Cover/Back in color

Synopsis Having good resources makes learning CNC much easier. Unfortunately, documentation directly from Sherline is close to non-existing. As of fall 2015, their $2000+ CNC lathes come only with an online/CD manual about CNC milling (!) which you would need to print by yourself.

Instead, our book will walk you through the installation process and g-codes that indeed work on a small CNC lathe. We explain how to CNC Morse tapers, arbors, endmill holders, chamfers, blend radii, and ball ends. Furthermore, how to use subroutines, pass parameters to those, do simple math with g-codes, use different coordinate systems as well as linear and circular interpolation commands are described in plain English. We discuss alternatives to Sherline's hardware too. A quick guide reference section is added for more advanced hobby machinists.

We would recommend starting to learn CNC on a lathe rather than milling machine. In any case, the CNC hardware is interchange-able (lathe/mill). Example g-codes are available for free from our website at www.LatheCity.com; one won't need to type these codes.

Another thought: Just by browsing Amazon and eBay one can easily find 100 books titled "CNC..". But, most of these focus on CNC mills with perhaps a few notes about lathe work; I could not find a single one featuring Sherline tools. Kindle editions and on-line distance-education classes are booming, i.e., printed text books are not the only option anymore. Anyway, there is not much out there for CNC lathes, hobbyists, and Sherline.

Author Uwe Burghaus, born in West Berlin, Germany, obtained his education in Physics and Physical Chemistry at the Free University of Berlin. He obtained a PhD in 1995, after conducting his graduate studies in surface science at the Fritz-Haber Inst. of the Max Planck Society in Berlin. After postdoctoral positions in Genoa (Italy) and Santa Barbara (USA) he went back to Germany to complete a habilitation (German tenure) in Physical Chemistry. Now at North Dakota State University, he started to establish a surface chemistry group in 2003 and obtained tenure in 2009. His group is currently focusing on studies about nanostructured catalysts. He is not a professional machinist by training. However, in 2012 his hobby developed into a small part-time business. LatheCity sells currently books about metal working including software tools as well as accessories for mills and lathes: everything that's fun to make and may find customers. The strength of the business is custom designed/ customized tools.