



## Technology of Machine Tools, 8<sup>th</sup> edition

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### Eighth edition changes

In addition to updating the text to reflect changes in the modern business and manufacturing world today—such as Industry 4.0, nanotechnology, and IDI—an entirely new section on additive manufacturing (Section 17) as a revolutionary way to produce complex parts has been added.

- Unit 90—Nanotechnology. Nanotechnology deals with dimensions that are less than 100 nanometers, manipulating and controlling materials at the atomic and molecular level. Nanomanufacturing is a term used to refer to manufacturing at the nanoscale.
- Unit 93—Additive Manufacturing Technologies. Additive manufacturing creates parts and prototypes by fusing layers of material to build the part layer by layer from STL data, which describe only the surface geometry of a three-dimensional object.
- Unit 95—Industry 4.0. The combination of IoT, IIoT, cybersecurity, machine-to-machine connectivity, and the continuing implementation of lean manufacturing (elimination of waste) will be the basis for Industry 4.0.