

1. Record Nr.	UNINA9910412150003321
Autore	Csandy Etele
Titolo	Mechanics of wood machining / / Etele Csandy, Endre Magoss
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-51481-1
Edizione	[3rd ed. 2020.]
Descrizione fisica	1 online resource (XIII, 320 p.) : 279 illus
Disciplina	684.08 674
Soggetti	Woodwork
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Mechanics of the cutting process -- Thermal loading in cutting tools -- Operating parameters of wood cutting tools -- The energy requirement of cutting -- Vibration of the tools and workpieces -- The stability of wood working tools -- Tool wear -- Surface roughness.
Sommario/riassunto	The new edition of this textbook, while largely retaining the proven chapter structure of the previous editions, combines the quantitative, mathematical analysis of the mechanisms of wood processing with practical recommendations and solutions. It presents new theoretical and experimental approaches and offers a clear and systematic overview of the theory of wood cutting, thermal loading in wood-cutting tools, optimum choice of operational parameters, dynamic behavior of tool and workpiece, stability problems in wood machining, energy requirements, the wear process of tools and a unique analysis of surface roughness. In general, diagrams are provided to help quickly estimate various process parameters. As a modern and powerful tool, the process optimization procedure is also included, and amply demonstrated in worked-out examples. In this edition, new and updated material has been added in many sections: roughly a third of the book has been rewritten and a quarter of the figures are new. In addition, many figures have been revised for clarity. The authors are confident that this revised and expanded edition will continue to meet the needs of all those working in the field of wood machining.

