


The 4th edition of the well-known book by the late Dr. Trent co-authored by Dr. Wright is a refreshing one without losing the lucidity and originality of the first edition. As most cutting tools are produced through the sintering route, a sound knowledge of work piece - tool interaction is desirable. It is here that the role of a physical metallurgist comes in. Dr. Trent did a yeomen service in writing this book, a topic ever touched by a metallurgist. The author was the first to propose the concept of diffusion wear of WC based cemented carbides during steel cutting, a feature felt by the mechanical engineers but not having a scientific solution. In addition the role of dedicated metallographic studies in understanding machining has been propounded excellently. For materials scientists and engineers the chapters 6-8 related to tool materials i.e. High-speed steels, cemented carbides and Ceramic tools are of great significance. In addition the chapter on machinability is also written with due preciseness. Other chapters, perhaps written by the coauthor are mainly related to production engineering. The last chapter No. 14 is Exercises for Students. It would have been very desirable if the authors had included some solved numerical problems and also given the answers of the problems. The book is useful to both beginners and the experts. The former group has to read it rather selectively.

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The authors of the book are well known in USA P/M Industry. They got the inspiration to write this from the book of Dr. Gordon Dowson (U.K.) entitled “Powder Metallurgy, the process and its products”(1990), which is now out of print. The book contains 14 Chapters, whose details are as follows:

Chapter 1-Why is Powder Metallurgy important; Chapter 2-0 Visual Basics-A Quick Tour of Powder Metallurgy; Chapter 3-Metal Powder Properties and Production; Chapter 4-Compaction; Chapter 5-Sintering; Chapter 6- Repressing; Chapter 7-Secondary Machining; Chapter 8-Heat Treating of Powder Metallurgy Parts; Chapter 9- Secondary Operations; Chapter 10-Standards for Powder Metallurgy; Chapter 11-Quality Assurance; Chapter 12-Other P/M Forming Operations; Chapter 13- Case Histories; Chapter 14- A Brief History of P/M

The style is narrative and easy to read. The reviewer would prefer to comment on Chapter 5 –Sintering, which is of much relevance to the readers of this Journal. The Chapter spans 45 pages and contains 24 Figures. There are three subdivisions: 1.Definition of Sintering and How and Why of the Process; 2.Sintering Practice, and finally 3. Sintered products like Bronze, Brass, Copper infiltration of steel and stainless steel. It is not clear why