



ASM HANDBOOK, VOLUME 18: FRICTION, LUBRICATION, AND WEAR TECHNOLOGY

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The 2017 edition of Volume 18 builds on articles devoted to specific friction- or wear-critical components supported by coverage on the fundamental physical principles of friction, lubrication, and wear. In addition to basic concepts, methods of lab testing and analysis, materials selection, and field diagnosis and monitoring of friction and wear are also covered. The 2017 edition of this volume has undergone a significant expansion and revision of coverage by a new group of global experts. It has been updated with numerous material and technology developments on coatings, lubrication, tool and die wear, and a number of typical tribological components or classes of components. While it is impossible to include all of the types of moving mechanical assemblies that pose tribological challenges, Volume 18 emphasizes a structured approach in analyzing complex tribosystems involving thermal, mechanical, materials, and chemical influences.

The new Volume 18 provides an essential resource for a broad audience including researchers, engineers, technicians, students, and quality control personnel. The sections on solid friction, lubricants and lubrication, and wear and surface damage contain basic physical principles that help to introduce the materials-oriented professional to established concepts in tribology. The Handbook is also intended for use by individuals with a background in mechanics or lubricant chemistry seeking information on trends and developments on materials and coatings.

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