CMFS Suggested Reading Materials

DISCLAIMER:
Neither STLE, nor its Metalworking Certification Committee, approve or endorse any independent education or training programs, or publications by individuals or organizations. These listed here are in common usage. The list is not meant to be all-inclusive or exclusive, but rather to represent cross-sectional industry consensus.

Machining and Manufacturing Practice

Machinery’s Handbook 25th Edition
Robert E. Green Editor Industrial Press Inc. 200 Madison Avenue, New York, New York 10016 ISBN 0-8311-2595-0 Comment: this is the end user’s bible for the detail in the manufacturing business. It is also referred to as "A Reference Book for the Mechanical Engineer, Designer, Manufacturing Engineer, Draftsman, Toolmaker, and Machinist" and is also available as a CD. Can be found on www.amazon.com, or similar source.

Machining Data Handbook 3rd Edition
Compiled by the Technical Staff of the Machinability Data Center Institute of Advanced Manufacturing Sciences, Inc. 1111 Edison Drive Cincinnati, OH 45216 ISBN 0-936974-00-1. Can be found on www.amazon.com, or similar source.

Metalworking Fluids, Second Edition

ASM-Metals Handbook, Ninth Ed.

Modern Metal Cutting - a practical handbook
Sandvik Coromant, 1702 Nevins Road, Fair Lawn, NJ 07410 ISBN 91-972299-3-0. Can be found on www.amazon.com or similar source.

Short Run SPC

Tool and Manufacturing Engineers Handbook
Fourth Ed. Volumes 1-5, Society of Manufacturing Engineers, Vol.1,Machining, Thomas J. Drozda & Charles Wick, ISBN No. 0-87263-085-4, Chapter 4, Cutting Fluids and Lubricants. Excellent presentation of both stand alone and central system. Selection table is a little dated. Each section on turning, milling, drilling, tapping, etc. discusses both the machine tools and cutting tools. Visit the SME website to purchase.

Understanding Statistical Process Control, Second Edition

Coolants and Lubrication

Coolant Filtration, 2nd Edition - Additional Technologies
James J. Joseph, Joseph Marketing Inc. 120 Richmond Hill Court, Williamsburg, VA 23185 (No ISBN number).
Cutting and Grinding Fluids: Selection and Application, Second Edition

Handbook of Biocide and Preservative Use

Edited by Robert W. Bruce, General Electric, Cincinnati, OH, USA CRC Press, 2012

Lubricants and Lubrication

Metalworking Fluids

Metalworking Fluids, Second Edition


Modern Grinding Process Technology

Standard Methods for the Examination of Water and Wastewater, 22nd Edition
Edited by Eugene Rice, Rodger Baird, Andrew Eaton and Lenore Clesceri, Published by the American Public Health Association (APHA), American Water Works Association (AWWA) and Water Environment Federation (WEF).

The Lubrication Engineers Manual, Third Edition

Tribology In Metalworking, Friction, Lubrication and Wear

Standards
Note that most of these standards are available on a CD-ROM entitled ASTM International Metalworking Industry Standards
E 1302, Guide for Acute Animal Toxicity Testing of Water-Miscible Metalworking Fluids
E 1497, Practice for Safe Use of Water-Miscible Metal Removal Fluids
E 1687, Test Method for Determining Carcinogenic Potential of Virgin Base Oils in Metalworking Fluids
E 1868-10, Practice for Loss-On Dryng by Thermogravimetry for Determination of VOC
E 1972, Practice for Minimizing Effects of Aerosols in the Wet Metal Environment
E 2144, Practice for Sampling and Analysis of Endotoxin in Metal Removal Fluid Aerosols
E 2148, Guide for Using Documents Related to Metalworking or Metal Removal Fluid Health & Safety
E 2169, Practice for Selecting Antimicrobial Pesticides for Use in Water-Miscible Metalworking Fluids
E2523, Terminology for Metalworking Fluids and Operations
E2657, Method for Determination of Endotoxin Concentrations in Water-Miscible Metalworking Fluids
E2693, Practice for Prevention of Dermatitis in the Metal Removal Fluid Environment
E2694, Method for Determination of Adenosine Triphosphate in Water-Miscible Metalworking Fluids
E2889, Practice for Control of Respiratory Hazards in the Metal Removal Fluid Environment
D 2881, Classification for Metalworking Fluids and Related Material
D 3519, Foam in Aqueous Media (Blender Test)
D 3601, Foam in Aqueous Media (Bottle Test)
D 4627, Iron Chip Corrosion Test for Water-Dilutable Metalworking Fluids
D 5619, Comparing Metal Removal Fluids Using the Tapping Torque Test Machine
D 7049, Metal Removal Aerosol in Workplace Atmospheres
D 3233, Measurement of Extreme Pressure Properties of Fluid Lubricants (Falex Pin and Vee Block Methods)
D 2670, Measuring Wear Properties of Fluid Lubricants (Falex Pin and Vee Block Method)
D 2783, Measurement of Extreme-Pressure Properties of Lubricating Fluids (Four-Ball Method)
D 4172, Wear Preventive Characteristics of Lubricating Fluid (Four-Ball Method)
D 2782, Measurement of Extreme-Pressure Properties of Lubricating Fluids (Timken Method)
D 3520, Quenching Time of Heat-Treating Fluids (Magnetic Quenchometer Method)
D 6200, Determination of Cooling Characteristics of Quench Oils by Cooling Curve Analysis
D 1748, Rust Protection by Metal Preservatives in the Humidity Cabinet
B 117, Standard Practice for Operating Salt Spray (Fog) Apparatus
(In addition to ASTM Standards, other industry standards such as the Japanese Industry Standards (JIS), as well as Deutsches Institut fur Normung eV (DIN), can provide useful and relevant information)
ANSI Technical Reports:

**American National Standards Institute (ANSI)**

**National Institute for Occupational Safety and Health (NIOSH)**
Organization Resources Counselors (ORC), Inc.

Occupational Safety and Health Administration (OSHA), Metalworking Fluids: Safety and Health Best Practices Manual

GLOSSARIES

WHITE PAPER
Development of Guidelines for Using and Maintaining Metalworking Fluids
A White Paper Sponsored by the Society of Tribologists and Lubrication Engineers