Certified Metalworking Fluids Specialist 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


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 Amazon, or similar source.

Machining Data Handbook 3rd Edition

Can be found on Amazon, or similar source.

Available for purchase at asminternational.org or from Amazon

Modern Metal Cutting - a practical handbook 1st North American Edition

1996 4. Sandvik Coromant, 1702 Nevins Road, Fair Lawn, NJ 07410 ASIN: B000ARWOFM
Can be found on Amazon, or similar source.

Short Run SPC (1992)

Can be found on Amazon, or similar source.

Understanding Statistical Process Control, Third Edition

Can be found on Amazon, or similar source.

Can be found on Amazon, CRC Press, or similar source.

**Good Practice Guide for Safe Handling and Disposal of Metalworking Fluids**
UKLA and HSE, 2018. Available from UKLA website at this link.

**HSE/UK Lubricants Association's DVD entitled, "The Safe Handling and Use of Metalworking Fluids,"**
Can be found on Health and Safety Executive (HSE) United Kingdom website at this link.


**Lubricants and Lubrication**

**Lubricants and Lubrication, Third Edition (2017)**
Can be found on the Wiley website or AbeBooks.com for purchase.

**Metalworking Fluids, Third Edition**
Byers, Jerry P., Ed, Published in 2017 by CRC Press (Taylor and Francis Group) and Society of Tribologists and Lubrication Engineers, ISBN 9781498722223.
Available on CRC Press website as well as Amazon.

**OSHA 29 CFR 1910.1200 – OSHA Occupational Safety and Health Standards**
https://www.osha.gov/dsg/hazcom/ghoshacomparsion.html

**Modern Grinding Process Technology**
Can be found on Amazon or AbeBooks.com.
Can be found on Amazon.

The Lubrication Engineers Manual, Fourth Edition
Can be found on Amazon.

Lubricant Additives: Chemistry and Applications, Third Edition (Chemical Industries)

Metalworking Fluids (MWFs) for Cutting and Grinding: Fundamentals and Recent Advances 1st Edition

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, Practice for Loss-On Dryng by Thermogravimetry for Determination of VOC
E 1972, Practice for Minimizing Effects of Aerosols in the Wet Metal Environment *WITHDRAWN, NO REPLACEMENT*
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
E2275, Practice for Evaluating Water-Miscible Metalworking Fluid Bioresistance and Antimicrobial Pesticide Performance
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) *WITHDRAWN, NO REPLACEMENT*
D 3601, Foam in Aqueous Media (Bottle Test) *WITHDRAWN, NO REPLACEMENT*
D 4627, Iron Chip Corrosion Test for Water-Dilutable Metalworking Fluids
D 5619, Comparing Metal Removal Fluids Using the Tapping Torque Test Machine *WITHDRAWN, NO REPLACEMENT*
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) *WITHDRAWN, NO REPLACEMENT*
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)


Other Resources:

National Institute for Occupational Safety and Health (NIOSH)

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

Washington, DC. Available at: https://www.osha.gov/SLTC/metalworkingfluids/metalworkingfluids_manual.html

Cutting Tool Engineering glossary

https://www.ctemag.com/glossary

WHITE PAPER

Development of Guidelines for Using and Maintaining Metalworking Fluids