

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

Machinery's Handbook Toolbox 31st Edition (2020)

Erik Oberg, Editor, Industrial Press Inc. 200 Madison Avenue, New York, New York ISBN-13: 978-0831137311

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

1980. Published by Techsolve, Inc ISBN-13: 978-0936974002

Can be found on [Amazon](#), or similar source.

ASM Handbook, Volume 16: Machining (1989) ISBN-13 No. 978-0-87170-022-3.

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)

Dr. Donald J. Wheeler SPC Press, Inc. 5908 Toole Drive Knoxville, TN 37919, ISBN-13: 978-0945320128

Can be found on [Amazon](#), or similar source.

Understanding Statistical Process Control, Third Edition

Dr. Donald J. Wheeler, David S. Chambers SPC Press, Inc. 2010. 5908 Toole Drive Knoxville, TN 37919, ISBN-13: 978-0945320692

Can be found on [Amazon](#), or similar source.

Handbook of Lubrication and Tribology, Volume II: Theory and Design, Second Edition

Edited by Robert W. Bruce, 2012. General Electric, Cincinnati, OH, USA CRC Press, 2012. ISBN-13: 9781420069082.

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](#).

Hassan El-Hofy, "Fundamentals of Machining Processes: Conventional and Nonconventional Processes", Third Edition (2018)

Published by CRC Press, ISBN-13: 978-1138334908

Lubricants and Lubrication

Lubricants and Lubrication, Third Edition (2017)

Mang, Theo, and Dresel, Wilfried, Eds. Wiley VCH, ISBN-13: 978-3527326709 (print) or ISBN-13: 978-3527645565 (online).

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/ghoshacomparison.html>

Modern Grinding Process Technology

Salmon, Stuart C., Published in 1992 by McGraw-Hill, Inc., New York, NY, ISBN-13: 978-0070545007

Can be found on [Amazon](#) or [AbeBooks.com](#).

Standard Methods for the Examination of Water and Wastewater, 23rd Edition (2017)

Edited by Eugene Rice, Rodger Baird, and Andrew Eaton, Published by the American Public Health Association (APHA), American Water Works Association (AWWA) and Water Environment Federation (WEF). ISBN-13: 978-0875532875.

Can be found on [Amazon](#).

The Lubrication Engineers Manual, Fourth Edition

Published 2010 AIST, Three Gateway Center, Suite 1900 Pittsburgh, PA 15222-1004 (ISBN-13: **978-1935117056**)

Can be found on [Amazon](#).

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

Rudnick - CRC Press, Taylor & Francis Group – 2017, ISBN-13: 978-1498731720

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

2012. Edited by V.P. Astarkhov, S. Joksch. Woodhead Publishing, ISBN-13: 978-0857090614. Available at Amazon

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 Drying 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 für Normung eV (DIN), can provide useful and relevant information)

ANSI Technical Reports: American National Standards Institute (ANSI)

1997. Mist Control Considerations for the Design, Installation and Use of Machine Tools, ANSI Technical Report B11 TR 2-1997, New York, NY: ANSI. Can be found on the [ANSI website](#).

Other Resources:

National Institute for Occupational Safety and Health (NIOSH)

1998. Criteria for a Recommended Standard: Occupational Exposure to Metalworking Fluids (DHS 98-102, tel: 800-356-4674). Available at: <https://www.cdc.gov/niosh/docs/98-102/default.html>

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

A White Paper Sponsored by the Society of Tribologists and Lubrication Engineers Dr. Neil Canter, 2008.
Can be found on the [STLE website](#).