

DAFTAR PUSTAKA

- [1] G. W. A. Kui, S. Islam, M. M. Reddy, N. Khandoker, and V. L. C. Chen, "Recent progress and evolution of coolant usages in conventional machining methods: a comprehensive review," *The International Journal of Advanced Manufacturing Technology*, vol. 119, no. 1, pp. 3–40, 2022.
- [2] N. R. Dhar, M. W. Islam, S. Islam, and M. A. H. Mithu, "The influence of minimum quantity of lubrication (MQL) on cutting temperature, chip and dimensional accuracy in turning AISI-1040 steel," *J. Mater. Process. Technol.*, vol. 171, no. 1, pp. 93–99, 2006.
- [3] N. R. Dhar, M. Kamruzzaman, and M. Ahmed, "Effect of minimum quantity lubrication (MQL) on tool wear and surface roughness in turning AISI-4340 steel," *J. Mater. Process. Technol.*, vol. 172, no. 2, pp. 299–304, 2006.
- [4] M. Iqbal, *Pengaruh pengembangan mos2 pada cairan pendingin terhadap dromus terhadap keausan tepi pahat hss pada proses membubut baja karbon rendah dengan volume terbatas*. Padang, Indonesia: Universitas Andalas, 2025.
- [5] G. Hao and Z. Liu, "The heat partition into cutting tool at tool-chip contact interface during cutting process: a review," *International Journal of Advanced Manufacturing Technology*, vol. 108, no. 1–2, pp. 393–411, 2020, doi: 10.1007/s00170-020-05404-9.
- [6] M. A. ALWALID, *PENGARUH PENAMBAHAN PERSENTASE SERBUK MOS2 PADA CAIRAN PENDINGIN DROMUS TERHADAP KEKASARAN PERMUKAAN HASIL PROSES MEMBUBUT BAJA KARBON RENDAH MENGGUNAKAN PAHAT HSS*. Padang: Universitas Andalas, 2025.
- [7] I. K. Hong, S. I. Kim, and S. B. Lee, "Effects of HLB value on oil-in-water emulsions: Droplet size, rheological behavior, zeta-potential, and creaming index," *Journal of industrial and engineering chemistry*, vol. 67, pp. 123–131, 2018.
- [8] Y. Rai, A. Neville, and A. Morina, "Transient processes of MoS2 tribofilm formation under boundary lubrication," *Lubrication Science*, vol. 28, no. 7, pp. 449–471, 2016.
- [9] Mecholic.com, "Types of chip formation – continuous, built-up edge, discontinuous and serrated chips." p. Diakses pada 26 Agustus 2025, 2016. doi: <https://www.mecholic.com/2016/02/types-of-chip-formation.html>.
- [10] A. Jindal, "Analysis of tool wear rate in drilling operation using scanning electron microscope (SEM)," *Journal of Minerals and Materials Characterization and Engineering*, vol. 11, no. 01, p. 43, 2012.
- [11] M. P. Groover, "Fundamentals of modern manufacturing materials," 2019.

- [12] S. Kalpakjian, *Manufacturing engineering and technology*, 7th ed. Pearson Education India, 2015.
- [13] E. Ismail, S. O., Sarfraz, S., Niamat, M., Mia, M., Gupta, M. K., Pimenov, D. Y., & Shehab, "Comprehensive study on tool wear during machining of fiber-reinforced polymeric composites," *Machining and machinability of fiber reinforced polymer composites*, pp. 129–147, 2021.
- [14] M. Salot, M. Singh Sain, S. Shah, and M. Joshi, "Study on wear resistance of al-si alloy using a 3-body dry abrasive wear testing machine tribological properties of al-si alloy view project study on wear resistance of al-si alloy using a 3-body dry abrasive wear testing machine," no. May, 2016, [Online]. Available: <https://www.researchgate.net/publication/332780432>
- [15] M.B.Peterson & W.O.Winer, "Wear control handbook," 1980.
- [16] D. S. Bai, J. F. Sun, K. Wang, and W. Y. Chen, "Diffusion behavior and wear mechanism of wc/co tools when machining of titanium alloy," *Solid State Phenomena*, vol. 279, pp. 60–66, 2018.
- [17] Z. Abidin, "Mekanisme keausan pahat pada pemesinan," *Jurnal Momentum Jurusan Teknik Mesin Politeknik Negeri Semarang*, vol. 6, no. 1, pp. 9–16, 2010.
- [18] M. Yasir, "Teknik konstruksi dan manufaktur " analisa keausan pahat karbida sebelum menggunakan serbuk arang tempurung," 2017.
- [19] H. P. Company, "Thermal cracking archives," July 11, 2017, (Diakses pada 2 Juni 2025). [Online]. Available: <https://www.harveyperformance.com/in-the-loupe/tag/thermal-cracking/>
- [20] V. P. Astakhov, "Tribology of metal cutting," 2006.
- [21] V. K. Sharma, R. A. Yngard, and Y. Lin, "Silver nanoparticles: green synthesis and their antimicrobial activities," *Adv. Colloid Interface Sci.*, vol. 145, no. 1–2, pp. 83–96, 2009.
- [22] S. R. Kalpakjian, S., & Schmid, *Manufacturing engineering and technology*, 6th ed. Pearson Education India, 2010.
- [23] A. Linggi Allo, "Analisa keausan mata pahat hss pada proses pembubutan kering dengan variasi gerak makan dan putaran spindel," 2024, *Universitas Kristen Indonesia Toraja*.
- [24] M. C. Shaw and J. O. Cookson, *Metal cutting principles (Vol. 2)*, no. June. 2005.
- [25] J. Rech, "Influence of cutting tool coatings on the tribological phenomena at the tool-chip interface in orthogonal dry turning," *Surf. Coat. Technol.*, vol. 200, no. 16–17, pp. 5132–5139, 2006, doi: 10.1016/j.surfcoat.2005.05.032.

- [26] K. Weinert, I. Inasaki, J. W. Sutherland, and T. Wakabayashi, "Dry machining and minimum quantity lubrication," *CIRP annals*, vol. 53, no. 2, pp. 511–537, 2004.
- [27] B. Xiao, C. Zhang, and X. Cao, "The Effect of MoS₂ and MWCNTs Nanomicro Lubrication on the Process of 7050 Aluminum Alloy," *Processes*, vol. 12, no. 1, 2024, doi: 10.3390/pr12010068.
- [28] Ş. Sertsöz and A. Kaçal, "Nano mos₂ application in turning process with minimum quantity lubrication technique (Mql)," *Tehnicki Vjesnik*, vol. 28, no. 1, pp. 70–76, 2021, doi: 10.17559/TV-20190820115047.
- [29] B. Haldar, H. Joardar, B. Louhichi, N. A. Alsaleh, and A. Alfozan, "A comparative machinability study of ss 304 in turning under dry, new micro-jet, and flood cooling lubrication conditions," *Lubricants*, vol. 10, no. 12, p. 359, 2022.
- [30] A. Khatri and M. P. Jahan, "Investigating tool wear mechanisms in machining of ti-6al-4v in flood coolant, dry and mql conditions," *Procedia Manuf.*, vol. 26, pp. 434–445, 2018.
- [31] J. Zuo, Y. Lin, and M. He, "An investigation of the adhesive effect on the flank wear properties of a wc/co-based tialn-coated tool for milling a be/cu alloy," *Metals (Basel)*, vol. 9, no. 4, p. 444, 2019.
- [32] L. Huerta, A. Lozano-Guzmán, H. Orozco-Mendoza, and J. C. Jauregui-Correa, "Method for friction force estimation on the flank of cutting tools," *Shock and Vibration*, vol. 2017, no. 1, p. 5956425, 2017.
- [33] T. Brink, L. Frérot, and J.-F. Molinari, "A parameter-free mechanistic model of the adhesive wear process of rough surfaces in sliding contact," *J. Mech. Phys. Solids*, vol. 147, p. 104238, 2021.
- [34] B. Bhushan, *An introduction to tribology.*, vol. 17, no. 1. 2013.
- [35] P. J. Blau, *Friction science and technology: from concepts to applications*. CRC press, 2008.
- [36] Aji Surahman, Hendra Kurniawan, Eric Lando Ignagus, Ompusunggu, and Junaidi, "Analisa sudut potong pahatcarbide terhadap gaya pemotongan pada proses bubut material baja s45c ,aluminium 6061 dan nilon," no. December, 2018.
- [37] T. Childs, *Metal machining: theory and applications*. Butterworth-Heinemann, 2000.
- [38] I. Tungaloy, "DNMA150404 TH10," Tungaloy Indonesia Webshop. Accessed: Jun. 17, 2026. [Online]. Available: <https://webshop.tungaloy.co.id/catalogue/product/2074068>

- [39] T. Wu, T. Wang, Y. Hu, J. Chen, and J. Su, "Construction of middle-phase microemulsion system and its micro-mechanism on displacing residual oil in low-permeability porous media," *Front. Chem.*, vol. 12, p. 1465706, 2024.
- [40] I. K. Hong, S. I. Kim, and S. B. Lee, "Effects of HLB value on oil-in-water emulsions: Droplet size, rheological behavior, zeta-potential, and creaming index," *Journal of industrial and engineering chemistry*, vol. 67, pp. 123–131, 2018.
- [41] A. Takamura, T. Minowa, S. NORO, and T. KUBO, "Effects of tween and span group emulsifiers on the stability of o/w emulsions," *Chem. Pharm. Bull. (Tokyo)*., vol. 27, no. 12, pp. 2921–2926, 1979.
- [42] Colloidmueg.weebly.com, "Hydrophilic-lipophilic balance (hlb)," p. Diakses :26 Agustus 2025, [Online]. Available: https://colloidmueg.weebly.com/uploads/2/5/7/3/25736627/hydrophilic-lipophilic_balance.pdf?
- [43] Chemicalbook, "Span 60 manufacturers and suppliers in india." p. Diakses 3 September 2025. [Online]. Available: <https://www.chemicalbook.com/manufacturers-india/span-60.htm>
- [44] F. Ridwan and D. Noerhamzah, "Cutting forces and flank wears analysis for end mill processes using hss tools cryogenic treatment when cutting pfrp material," *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 1062, no. 1, 2021, doi: 10.1088/1757-899X/1062/1/012044.
- [45] M. Safavi, M. Balazinski, H. Mehmanparast, and S. A. Niknam, "Experimental characterization of tool wear morphology and cutting force profile in dry and wet turning of titanium metal matrix composites (ti-mmcs)," *Metals (Basel)*., vol. 10, no. 11, p. 1459, 2020.
- [46] A. K. Sharma, A. K. Tiwari, and A. R. Dixit, "Effects of Minimum Quantity Lubrication (MQL) in Machining Processes Using Conventional and Nanofluid Based Cutting fluids: A comprehensive Review," *J. Clean. Prod.*, vol. 127, pp. 1–18, 2016.
- [47] M. R. Vazirisereshk, A. Martini, D. A. Strubbe, and M. Z. Baykara, "Solid lubrication with MoS₂: a review," *Lubricants*, vol. 7, no. 7, p. 57, 2019.
- [48] R. Padmini, P. V. Krishna, and G. K. M. Rao, "Effectiveness of Vegetable Oil Based Nanofluids As Potential Cutting Fluids in Turning AISI 1040 steel," *Tribol. Int.*, vol. 94, pp. 490–501, 2016.
- [49] M. A. Makhesana, K. M. Patel, G. M. Krolczyk, M. Danish, A. K. Singla, and N. Khanna, "Influence of MoS₂ and graphite-reinforced nanofluid-MQL on surface roughness, tool wear, cutting temperature and microhardness in machining of Inconel 625," *CIRP J. Manuf. Sci. Technol.*, vol. 41, pp. 225–238, 2023.

- [50] M. Li *et al.*, “Experimental Evaluation Of An Eco-Friendly Grinding Process Combining Minimum Quantity Lubrication And Graphene-Enhanced Plant-Oil-Based Cutting Fluid,” *J. Clean. Prod.*, vol. 244, p. 118747, 2020.
- [51] B. Rahmati, A. A. D. Sarhan, and M. Sayuti, “Morphology of surface generated by end milling AL6061-T6 using molybdenum disulfide (MoS₂) nanolubrication in end milling machining,” *J. Clean. Prod.*, vol. 66, pp. 685–691, 2014, doi: 10.1016/j.jclepro.2013.10.048.
- [52] N. M. Tuan, T. B. Ngoc, T. Le Thu, and T. T. Long, “Investigation of the effects of nanoparticle concentration and cutting parameters on surface roughness in MQL hard turning using MoS₂ nanofluid,” *Fluids*, vol. 6, no. 11, p. 398, 2021.
- [53] B. E. Huitema, *Fisher’s Statistical Methods for Research Workers: 100 Year Anniversary*. 2025. doi: <https://orcid.org/0000-0002-7803-4249>.
- [54] R. Fischer, “Statistical methods for research workers, (1925),” in *Landmark writings in western mathematics 1640-1940*, Elsevier, 2005, pp. 856–870.
- [55] E. Rabinowicz and R. I. Tanner, “Friction and Wear of Materials,” *J. Appl. Mech.*, vol. 33, no. 2, pp. 479–479, 1966, doi: 10.1115/1.3625110.
- [56] M. Nouari and A. Molinari, “Experimental verification of a diffusion tool wear model using a 42CrMo4 steel with an uncoated cemented tungsten carbide at various cutting speeds,” *Wear*, vol. 259, no. 7–12, pp. 1151–1159, 2005.
- [57] W. P. K. Trent E.M., *Metal cutting*, (4th editi., vol. 36, no. 1. Oxford: Butterworth-Heinemann, 2000. doi: 10.2298/sos0401054u.
- [58] K. K. Gajrani, P. S. Suvin, S. V. Kailas, and R. S. Mamilla, “Thermal, rheological, wettability and hard machining performance of MoS₂ and CaF₂ based minimum quantity hybrid nano-green cutting fluids,” *J. Mater. Process. Technol.*, vol. 266, pp. 125–139, 2019.