

Table: Lists of various equipment and consumables used in petrographic sample preparation¹

Equipments	Manufacturers, Brands, and Models
Wet diamond drilling machine for core extraction	Various manufacturers (can be found in an internet search engine)
Large diamond-edged rotary saws housing 12 to 24 in. diamond blades and small tile or trim saws with 4 to 10 in. diamond blades	Various manufacturers (can be found in an internet search engine, e.g., Covington Engineering, Raytech, Diamond Pacific, Lortone), Buehler (SamplMet 2, Delta AbrasiMet, Abrasimatic 2, OscillaMet, Delta PetroCut, Lapro Slab Saw, IsoMet series), Struers (Exotom, Unitom, Discotom-5, Labotom), Logitech (GTS1 Trim Saw), SBT (Model 650 and 660), Pace Technologies Abrasive Cutters (Metalcut, Servocut), Allied (TechCut 10), Extec Corp (Labcut).
Encapsulation and Vacuum-impregnation Units	Struers (Epovac), Logitech (IU-20, IU-30), Buehler (Cast N' Vac system and 1000).
Large horizontal rotary grinding/lapping machine – stand alone or tabletop unit with or without sample holding fixtures (circular conditioning rings and weights)	Covington Engineering (16-in. horizontal single and two-speed lapping units), Diamond Pacific (12 and 18 in. rotting disc flat laps), ASW Diamond Trust (SW Series Lapping Machines), Lapmaster International
Tabletop, single or dual-wheel, single or variable speed grinding and polishing machines with or without automated sample holding fixtures (heads)	Buehler (MiniMet, Polimet, MotoPol, MiniMet 1000, MetaServ 2000, Alpha and Beta Units, EcoMet series, AutoMet, Petro-Pol, PowerPro Family, Phoenix 4000 System); Leco (Spectrum System 1000 and 2000); Struers (RotoPol, RotoForce, LaboPol, LaboForce, Abramin, Abraplan, Abrapol, Planopol); Logitech (PS 2000, WG2, PM5, and LP 50 precision lapping/polishing machines); SBT (Model 900, 910, 920, TL-MC1); Pace Technologies Manual and Automatic Polishing Machines (Gripo, Digiset, Gripomat, Digimat, Forcimat), Lapmaster International, Allied (DualPrep, OptiPrep, MultiPrep, M-Prep, and TwinPrep units with AP-3 power head and AD-4 fluid dispenser), Extec Corp (Labpol).
Automatic Abrasive Dispensing System	Buehler (PriMet, MetLap), Leco, Pace Technologies (Lubomat, Dispomat), Struers (Multidoser).
Vibratory lapping machine for grinding, polishing, and ultrathinning	Buehler (VibroMet), Other Units from Covington Engineering, Diamond Pacific, etc.
Automated thin sectioning (precision-sectioning and/or grinding) machine housing precision blade and/or diamond grinding cup wheel or plate	Buehler, Ltd. (Isomet low speed saw, Isomet Plus, Isomet 1000, Isomet 5000, Petro-Thin thin-sectioning system); Struers (Accutom, Minitom, and Discoplan-TS units); Logitech (PS 2000, WG2, PM5, and LP 50 precision lapping/polishing machines with PLJ2 and PLJ7 precision lapping jigs); SBT (Model 650 and 660); Wards Natural Sciences (Ingram-Ward Thin Section Equipment Ingram Model 103 saw and model 303 grinder); Hillquist's thin-sectioning machine; Microtec Engineering Lab (Micro-Trim Automatic Thin Sectioning Machine); Pace Technologies Diamond Wafering Saws (Finocut, Micracut), Allied (TechCut 4 and 5, Trim Saw). Germann Instrument's thin-sectioning machine has roller grinding components. Buehler's Petrol-thin, Hillquist's unit, and Ingram-Wards unit have separate, parallel 8-in. diamond wafering blade and diamond cup wheel on the same compact tabletop unit for precision sectioning and grinding.
Thin-section Bonding Fixture	Buehler (PetroBond), Logitech (BJ2, BJ6, BJ9, and BJ12 thin

	section bonding jigs)
Miscellaneous equipments - Ultrasonic Cleaner, Oven, Hot plate, Vacuum Impregnator, Sieve Shaker, rock trimmer, hood with exhaust system, sink and drain, water supply and drain lines for sectioning, grinding, polishing equipments, re-circulating systems for sectioning or lapping units, tabletop hot air blower or hand held hair drier	Various manufacturers (e.g., internet search engines, Fisher Scientific, Gilson, etc.).
Consumables	Manufacturers
Loose grinding and polishing abrasives	Buehler, Leco, SBT, Extec, Allied, Pace Technologies, various manufacturers in the internet
Fixed Grinding Abrasives as PSA backing discs or paper for belt grinder	Buehler, Leco, SBT, Struers, Logitech, Extec, Allied, Pace Technologies,
Polishing cloths and diamond polishing pastes and suspensions	Buehler, Leco, SBT, Pacific Diamond, Extec, Allied, Pace Technologies, various manufacturers in the internet
Thin section slides (27×46 mm, 50×75 mm)	Wards Natural Sciences, Fisher Scientific, Erie Scientific, Logitech, Buehler, Electron Microscopy Sciences
Magnetic diamond discs for lapping (18-in. to 24-in.)	Pacific Diamond, ASW, Extec, Allied, Pace Technologies, various manufacturers in the internet
Magnetic 8-in. to 12-in. resin-bonded and metal-bonded diamond discs for grinding	Buehler, Leco, Extec, Allied, Pace Technologies, various manufacturers in the internet
Low-viscosity Sectioning and Lapping Oil	Buehler, Leco, Diamond Pacific, Extec, Allied, Mobil Oil Corp, Fisher Scientific
Solvents for Polishing	Fisher, Buehler, Leco, Extec, Allied, various manufacturers in the internet
Deagglomerated alumina (0.3 and 0.05- μ m) fine polishing powders	Buehler, Leco, Extec, Allied
Various castable epoxy resins and dyes	Various
Miscellaneous equipments - Disposable petri dish, aluminum foil, wax paper, disposable aluminum containers, plastic and metal cylindrical molds or cups, metal trays, fine and coarse permanent markers, carpet tape, dropper bottles, paper towels	Miscellaneous (Fisher Scientific, Electron Microscopy Sciences, etc.).
Consumables for electron microscopy	Electron Microscopy Sciences

¹The above list of various equipments and consumables are for information purposes only. In no case does this imply that these products are the best, nor the only materials available. Manufacturers' addresses and phone numbers: (1) Buehler Ltd.; 41 Waukegan Road, Lake Bluff, IL 60044; 847-295-6500; (2) Struers, Inc., 810 Sharon Drive, Westlake, OH 44145, 440-871-0071; (3) SBT - South Bay Technology, Inc., 1120 Via Callejon, San Clemente, CA 92673, 800-SBT-2233; (4) Microtec Engineering Laboratories, Inc., PO Box. 636; Clifton, CO 81520; 970-434-8883; (5) Wards Natural Science Establishment, Inc. PO Box 1712, Rochester, NY, 14603, 800-962-2660; (6) Mobil Oil Corp. Products and Technology Dept., 3225 Gallows Rd., Fairfax, Virginia, USA 22037, 703-849-3265; (7) McCrone Associates and Companies, 850 Pasquinelli Drive, Westmont, IL 60559-5531 800-622-8122; (8) Diamond Pacific Tool Corporation, P. O. Box 1180, Barstow, CA 92312, 800-253-2954; (9) Covington Engineering Corp., P. O. Box 35, Redlands, CA 92373, 877-793-6636; (10) ASW Diamond Trust, P.O. Box 116, Gorman, CA 93243, 800-825-2792; (11) Electron Microscopy Sciences, 321 Morris Rd. Box 251, Fort Washington, PA 19034, 800-523-5874; (12) Leco Corporation, 3000 Lakeview Avenue, St. Joseph, MI, 49085-2396, 269-983-5531; (13) Pace Technologies, 1802 W. Grant Rd. Suite 102, Tucson, AZ 85745, 888-PACE-654, (14) Lapmaster International, 6400 West Oakton Street, Morton Grove, IL 60053, 877-352-8637; (15) Hillquist Inc, 1144 S. Bannock Street, Denver, CO 80223, 303-722-9766 (Tel), (16) Allied High Tech Products, Inc. 2376 East Pacific Place, Rancho Dominguez, CA 90220, 800-675-1118; (17) Extec Corp. 99 Phoenix Avenue, P.O. Box 1258, Enfield, CT 06083-1258, 800-54-EXTEC.