



Milady's Standard Nail Technology

Electric Filing



“The person who sends out positive thoughts activates the world around him positively and draws back to himself positive results.”

— **Norman Vincent Peale**
Protestant preacher and author



Objectives

- Identify the types of electric files most often used by nail professionals.
- Define RPM.
- Define torque.
- Define tolerance.
- Define variable speed.
- Understand the need for bits to be concentric.
- Determine which shank sizes cannot be used in professional electric files.



Objectives, cont'd.

- Identify the type of bits that have grits.
- Explain how carbide bits differ from bits with grits.
- Name which bits are one-use only.
- Perform the practice technique for the cuticle area.
- Understand the causes of excessive heat when nails are being filed.
- Know the procedure for cleaning and disinfecting metal file bits.

Electric Drills

- Electric drills are used to file and shape nails and refine your work.
- Use can reduce time to increase revenue.





Types of Electric Drills

- Belt-driven
- Micromotor
- Battery-operated micromotor
- Hand-held micromotor
- Craft and hobby tools



Choosing an Electric Drill



- Determine needs and funds
- Power and speed
- Torque
- Tolerance



Drill Features

- RPMs
- Handpiece
- Size of machine
- Usage
- Warranty
- Price

Drill Features, cont'd.

- Forward and reverse
- Keyless chuck for changing bits
- Foot pedal option
- Closed casing handpiece
- Variable speed dial





Bit Types

- Concentric (balanced)
- Diamond
- Carbide bits
 - Traditional
 - One-way
 - Cross-cut





Bit Types, cont'd.

- Small and large barrel bits
- Tapered barrel bits
- Cuticle safety bits
- Cone-shaped bits
- Football-shaped bits



Bit Types, cont'd.

- UNC bits
- Bullet bits
- Needle bits
- Maintenance bits
- French fill bits



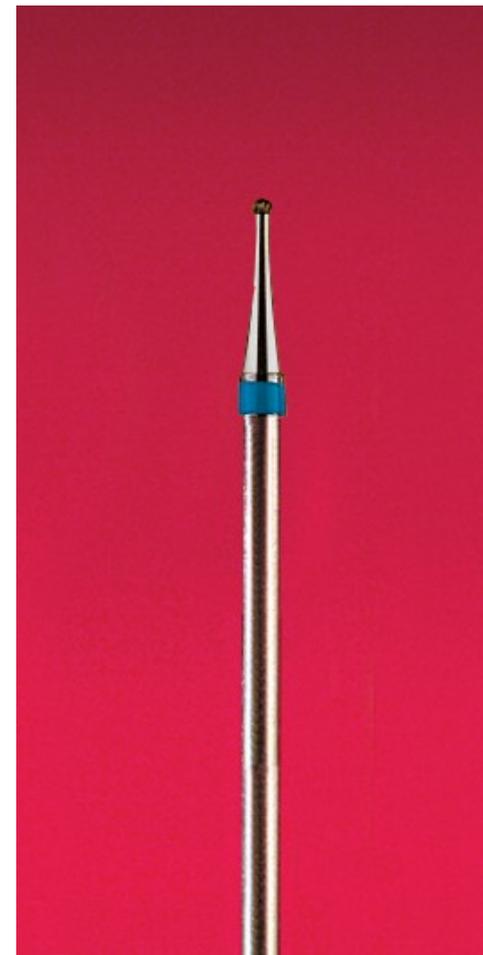
Bit Types, cont'd.

- Natural nail discs
- Rubber synthetic natural nail bits
- High shine bits
- Pedicure bits
- Prepper bits



Bit Types, cont'd.

- Mandrels
- Sanding and arbor bands
- Jewelry and specialty bits



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Disinfecting Metal Bits

- Wash and disinfect each bit.
- Remove dirty bit from handpiece.
- Replace dirty bit with a blank while not in use.

Electric Filing Techniques

- Hand balancing/fulcrum finger
 - Sit up straight with feet flat on floor.
 - Hold handpiece like pencil.
 - Place forearms on table to stabilize.
 - Use firm, steady grip.
 - Use pinky as fulcrum (balance point).



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More Filing Techniques

- Examine and mark dial for speeds.
- Insert bit
- Practice bit angles
 - Hold bit in center, go from right to left.
 - Return bit to right side of nail, repeat.
 - Hold bit flat to nail with center of bit.
 - Repeat placements on bottom of nail.
 - Repeat placements on top of nail.



More Filing Techniques, cont'd.

- Turn on machine.
- Practice surface work.
- Practice cuticle work.

Important Things to Remember

- Use correct bit angle.
- Avoid rings of fire (shown in image below).
- Choose correct speed.



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Nail Enhancement Maintenance

- Removing lifted product
- Cracks
- Shaping top surface
- Shortening the nails



Nail Enhancement Maintenance, cont'd.

- Cuticle work
- Two-color French manicure
- Shaping C-curves
- Finishing



Nail Enhancement Maintenance, cont'd.

- Buffing oils
- High-shine buffing
- Buffing creams
- Natural nail work



Electric Files for Pedicures



- Filing calluses is done when foot is dry.
- Apply callus treatment for recommended time.
- Use terry towel to slough skin and product.
- Use pedicure bit to remove remaining callus.



Troubleshooting

- Reducing dust
- Heat
- Causes of heat
- Solutions to reduce heat



Grabbing

- Occurs when bit grabs skin around nail
- Caused by improper speeds and angles
- Keep bit parallel to nail.
- Angle finger, not bit, to file sides of nail and cuticle area.
- Use bits with rounded ends.



Rings of Fire

- Caused by holding flat-tipped bits at wrong angle and allowing edge of bit to dig into nail surface.
- Keep bit parallel to nail, increase machine speed, and reduce pressure.



Product Breakdown



Causes of microshattering:

- Improper filing speed of machine
- Poor quality or bent bits
- Using bits that are too coarse
- Using low-quality products
- Working too aggressively



Product Breakdown, cont'd.

Microshattering solutions:

- Use a slower speed.
- Use proper filing techniques.
- Keep bit parallel to table during filing.
- Use correct application techniques.
- Use proper bits.
- Use finer-grit bit.
- Follow manufacturer's directions.



Product Breakdown, cont'd.

- Vibration
 - May lead to cumulative trauma disorders.
- Bent bits
 - Use only concentric bits.



Safety Tips

- Keep bit parallel to nail.
- Angle client's hand and handpiece.
- Compensate for pressure with speed.
- Lift bit frequently to avoid heat.
- Keep bit at 90-degree angle for shortening.



Safety Tips, cont'd.

- Keep good grip and adjust speed if you lose control.
- Tie long hair back.
- Wear dust mask.
- Receive machine training.
- Wear eye protection when filing.
- Avoid repetitive motions.



Continuing Education

An electric file is a safe tool in the hands of a skilled and practiced professional!



Summary and Review

- What types of electric files are most often used by professionals?
- Can a craft or hobby tool be used on the nails?
- Define RPM.
- Define torque.
- Define tolerance.
- Define variable speed dial.



Summary and Review, cont'd.

- Why should bits be concentric?
- What size shank cannot be used in professional electric files?
- Which types of bits have grits?
- How are carbide bits different from bits with grits?



Summary and Review, cont'd.

- What bits are one-use-only?
- Describe the practice technique for the cuticle area.
- What causes clients to feel excessive heat when nails are being filed?
- How do you clean and disinfect metal file bits?



Congratulations!

You have completed one unit of study toward course completion.