



ToeFX Burr Guide

The list of different burr types is lengthy. Burrs come in various shapes, sizes, and materials and each burr type has its own unique properties that make it suitable for certain procedures.

In this guide, we are going to highlight some of the most commonly used types of burrs favoured in the foot care industry .








► Burr Design

- The most commonly used burrs are Carbide, Ceramic, Stainless Steel and Diamond. They come in a large variety of shapes and grits. The shapes are designed for specific nail or skin pathology.
- Straight sides are efficient for calluses and thick nails.
- Pointed designs will reach into nail borders and small ingrown areas.

► Burr Shapes

- Burrs come in a wide variety of shapes and sizes that can be used to treat different patient cases. Although manufacturers may have a clear way of identifying different cuts and shapes of burrs, there is no widely accepted naming convention in the industry for the various bur shapes. Many manufacturers use a numbering system to distinguish among burr shapes.
- See the chart on the following page for a helpful guide on burr shapes.

ToeFX Burr Guide

SHAPE NAME	SHAPE IMAGE
Bud	
Pear	
Taper	
Ball Cutter	
Sharp Cone	
Blunt Cone	
Cylinder	
Rounded Edge Cylinder	
Ovoid	

ToeFX Burr Guide

► Pressure

- For a light touch-up of the nail plate, a fine diamond burr will treat both the top and front edge of the nail leaving a smooth surface.
- Use a light or heavy pressure and a lower or higher speed (RPM).

► Coarse Burrs

- For moderately thick nails, a coarse diamond or carbide burr can be used.
- Coarser burr grinds are much faster.
- Thin the nail plate quickly, in a very controlled manner.

► Choosing Burrs

- Choose the right burr shape for shaping and filing the nails.
- When working on the thin, flat surface of the nail use a burr with a larger, flat side.
- Burrs with a straight cutting edge will allow consistent reduction of the nail plate, leaving the nail plate equally thick over its surface.
- To reduce nail in the ingrown sides of the nail use a slender "taper" diamond burr.
- At moderate speeds these taper burrs will reduce the nail while affecting the nearby soft tissue very little.
- Burrs can easily be used on thin or thicker nails as well as corns and calluses.
- Some burrs have pointed shapes which will allow you to get into the smallest spaces to provide even thinning of the nails and nail borders.
- Others have flatter sides that are excellent for thinning thick nails and calluses.
- This will give you the versatility to achieve excellent debridement.
- Versatile shapes will help you thin and shape the most challenging areas of the nails or skin.
- Choose burrs that are suitable for autoclave or disinfecting solution.

ToeFX Burr Guide

► Working With Carbide Burrs





- When using a carbide burr, keep the speed medium to high, and approach the nail gently. This ensures the burr does not bite into the nail and does not bounce.
- It may be necessary to smooth the nail surface with a fine diamond burr after reduction with a carbide burr.
- For debridement of dystrophic nails such as thickened mycotic nails, the most efficient burr is made of carbide.
- Consider changing the direction of the burr rotation if you have an advanced sander with this feature. That can solve a "bouncing" burr problem.

► Types of Carbide Burrs

- Carbide burrs are very aggressive and often used to debride dystrophic nails such as thickened mycotic nails.
- They need to be used with caution to ensure that they don't go too deep into the nail or bounce off.
- These are our first choice for debridement onychomycosis thick nails.
- Manufacturers often name their carbide burrs according to their cut and level of aggressiveness.

The suggested Busch carbide burrs are in the chart on the following page.

ToeFX Burr Guide

TYPE OF CUT	EXAMPLE OF INSTRUMENT	MOST COMMON APPLICATION
Power cut with special cross-cut (SXM) <i>On Clinic Champ, these are: "Power Cross Cut"</i>		Gentle removal of clavi and fungal nails
SPEED-Cut		Special cut for nails, with passive safety, medium cutting performance
SPEED PLUS-Cut		Special cut for nails, with passive safety, strong cutting performance
Coarse straight cut with cross cut		Strong grinding of Hyperkerathosis and Orthosis silicones

ToeFX Burr Guide

► Carbide Burrs - TiAlN Burrs









Titanium Aluminum Nitride Burrs are violet bronze in colour. They have a hard aluminum oxide layer that reflects the heat away from nails and calluses.

Benefits:

- Very gentle on sensitive skin and high risk skin
- Much lower heat development and so much more comfortable for the client
- Increased production levels at higher speeds
- Longer burr life
- For the quick removal of thick dystrophic nails and callus hyperkeratosis
- Lamellas toothing, fine with cross cut and PVD-coating (wear protection coating)
- TiAlN series burrs are PVD coated which results in a much longer lifespan
- No Heat
- Barrel design has a large surface area and chews through thick nails easily
- Very high removal rate
- Suitable for autoclave or disinfection solution

ToeFX Burr Guide

TYPE OF CUT	EXAMPLE OF INSTRUMENT	MOST COMMON APPLICATION
Coarse medium cut with cross cut		Gentle grinding of Hyperkerathosis and Orthosis silicones
Very coarse double cut		Strong removal of thickened nails
Coarse double cut		Coarse modeling of thickened nails
Medium double cut		Specific outlining of nails with changed shapes
Fine double cut		Delicate treatment of prepared nails
Special Nail Cut		Special cut for very smooth surfaces

ToeFX Burr Guide

► Working With Diamond Burrs

- Mainly used for filing nails to achieve a smooth finish
- Made from diamond grit particles bonded on to the burr head
- because of their fine abrasion level produce a fine, harmful nail dust that can remain suspended in the air
- Recommended to use in conjunction with quality vacuum or spray drill that trap harmful contaminants

► Working With Ceramic Burrs








- Preferred by many professionals
- Lower weight facilitates smoother cutting, that both the patient and the clinician can noticeably experience during the treatment of diseased natural nails or artificial nails.
- Can be beneficial for patients who have a strong metal allergy and need to stay away from stainless steel and carbide burrs.
- Some downsides of using ceramic burrs include that they are more costly, and can break when dropped.

ToeFX Burr Guide

► Stainless Steel Burrs

- Stainless steel burrs are usually shorter than carbide burrs so they are somewhat easier to control.
- They are less recommended for Onychomycosis.

The Busch stainless steel burrs come in the following types of cuts:

TYPE OF CUT	EXAMPLE OF INSTRUMENT	MOST COMMON APPLICATION
Medium Cut		Removal of hematoma and corns under the nail surface
Medium Cut		Efficient nail treatment
Medium cross cut		Treatment of very thick calluses and corns
Medium cross cut		Fast abrasion of callus
Fine cross cut		Smoothing of callus
Hollow instruments		Removal of corns, calluses and treatment callus grooves
Polygonal working part without sharp blades		Removal of nail fold deposits and protruding cuticles

**Interested in learning more about how debridement can affect the ToeFX process?
Get in touch with irit@toefx.com to learn more!**