Sharpening Handbook

Because *sharp enough* … usually is not

Chapter 15

Stone Carving Tools

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SharpeningHandbook.info

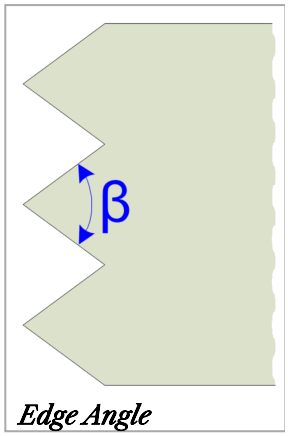
The full handbook, and the latest version of this chapter, are on the web at **SharpeningHandbook.info**. This chapter: November 2026.

Bushing Chisel

Guidelines shown below are for the cutting edge angle.

Frequent sharpening is recommended to maintain the tool's shape, and is needed for safe performance of the tool.

> *Besides, if there were no dragons of flesh and blood and fire, whence would come the idea for these stone carvings?*
> Robin Hobb



General Guidelines		
Material	**β**	**Sharpness**
Softer stone (e.g., chalk, soapstone, & pumice)	N/A	N/A
General stone (e.g., limestone & marble)	N/A	N/A
Harder Stone (e.g., granite & basalt)	75° - 90°	4

Notes & Comments

Softer stone (e.g., chalk, soapstone, & pumice)
Use a frosting tool

General stone (e.g., limestone & marble)
Use a frosting tool

Use larger angles for roughing out, and sharper (more acute) angles for finishing cuts.

Special Notes for Tools with Carbide Inserts: Do not cool by dipping in water: this will generate shocks in the metal, and cause the carbide to crack.

When sharpening, one of the following options is recommended.

1. Leave corners slightly beveled, or
2. Edge up on the final grind.
   - Leave the final 1.5 mm (1/16 inch) unground. This is because the rough grinding of the carbide introduces cracks and makes the edge more brittle. By stopping short of the edge, this is minimized.
   - Then, use a high grit wheel should be used to make the edge smooth with minimal cracks.
   - A very high grit grindstone should be used if a very smooth carving surface is needed, or if the material is very soft.

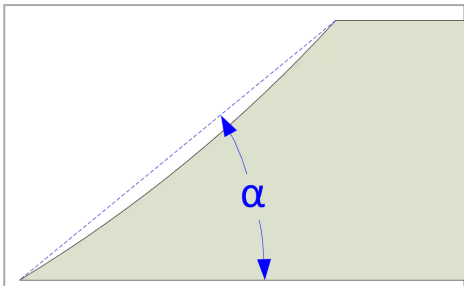
Special thanks to Oleg Lobykin at StoneSculpt - Custom Stone Carving for providing the guidance.

> **Sharpness Scale** - see Chapter 1.
> **Ongoing maintenance** - see Chapter 4, *Woodworking Tools*.
> **Grindstones and Other Sharpening Media** - see Chapter 2.

Stone Carving Chisel

Guidelines shown below are for the cutting edge angle.

Frequent sharpening is recommended to maintain the tool's shape, and is needed for safe performance of the tool.



Edge Angle

In opposition to wood chisels, the wider the tool, the greater the angle.

- Claw tools also use a sharper angle, in the lower end of the range (as they are basically multi-point tools).
- Wide chisels use a less sharp angle, in the upper end of the range

> *I saw the angel in the marble and carved until I set him free.*
> Michelangelo

General Guidelines		
Material	**β**	**Sharpness**
Softer stone (e.g., chalk, soapstone, & pumice)	25° - 35°	5
General stone (e.g., limestone & marble)	30° - 40°	4
Harder Stone (e.g., granite & basalt)	40° - 60°	4

Notes & Comments

Harder Stone (e.g., granite & basalt)

Carbide inserts are usually embedded in the tips of these tools.

Use larger angles for roughing out, and sharper (more acute) angles for finishing cuts.

Special Notes for Tools with Carbide Inserts: Do not cool by dipping in water: this will generate shocks in the metal, and cause the carbide to crack.

When sharpening, one of the following options is recommended.

1. Leave corners slightly beveled, or
2. Edge up on the final grind.
    - Leave the final 1.5 mm (1/16 inch) unground. This is because the rough grinding of the carbide introduces cracks and makes the edge more brittle. By stopping short of the edge, this is minimized.
    - Then, use a high grit wheel should be used to make the edge smooth with minimal cracks.
    - A very high grit grindstone should be used if a very smooth carving surface is needed, or if the material is very soft.

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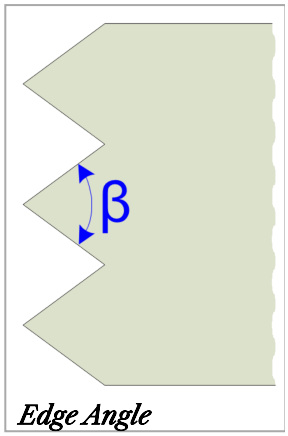
> **Sharpness Scale** - see Chapter 1.
> **Ongoing maintenance** - see Chapter 4, *Woodworking Tools*.
> **Grindstones and Other Sharpening Media** - see Chapter 2.

Stone Carving Frosting Tool

Guidelines shown below are for the cutting edge angle.

Frequent sharpening is recommended to maintain the tool's shape, and is needed for safe performance of the tool.

> *Carving is a source of joy to the artist. . . . To attack the raw material, gradually to extract a shape out of it following one's own desire, or, sometimes, the inspiration of the material itself: this gives the sculptor great joy.*
>
> Aristide Maillol



General Guidelines		
Material	**β**	**Sharpness**
Softer stone (e.g., chalk, soapstone, & pumice)	50° - 60°	5
General stone (e.g., limestone & marble)	50° - 60°	4
Harder Stone (e.g., granite & basalt)	N/A	N/A

Notes & Comments

Harder Stone (e.g., granite & basalt)
Use a bushing chisel.

Use larger angles for roughing out, and sharper (more acute) angles for finishing cuts.

Special Notes for Tools with Carbide Inserts: Do not cool by dipping in water: this will generate shocks in the metal, and cause the carbide to crack.

When sharpening, one of the following options is recommended.

1. Leave corners slightly beveled, or
2. Edge up on the final grind.
   - Leave the final 1.5 mm (1/16 inch) unground. This is because the rough grinding of the carbide introduces cracks and makes the edge more brittle. By stopping short of the edge, this is minimized.
   - Then, use a high grit wheel should be used to make the edge smooth with minimal cracks.
   - A very high grit grindstone should be used if a very smooth carving surface is needed, or if the material is very soft.

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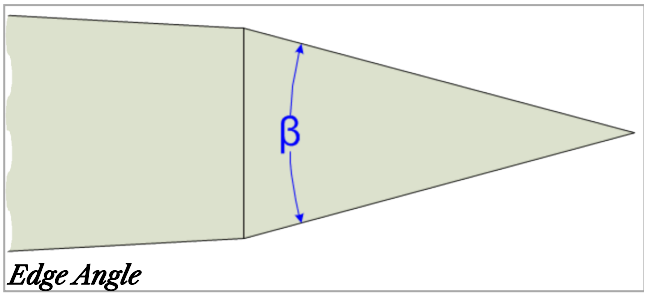
Sharpness Scale - see Chapter 1.
Ongoing maintenance - see Chapter 4, *Woodworking Tools*.
Grindstones and Other Sharpening Media - see Chapter 2.

Stone Carving Point Tool

Guidelines shown below are for the cutting edge angle.

Point tools generally use a sharper angle, in the lower end of the range. Also, point tools are typically ground with an overall convex grind.

Frequent sharpening is recommended to maintain the tool's shape, and is needed for safe performance of the tool.



Edge Angle

> *The marble not yet carved can hold the form of every thought the greatest artist has.*
> Michelangelo

General Guidelines		
Material	**β**	**Sharpness**
Softer stone (e.g., chalk, soapstone, & pumice)	25° - 35°	5
General stone (e.g., limestone & marble)	30° - 40°	4
Harder Stone (e.g., granite & basalt)	40° - 60°	4

Notes & Comments

Harder Stone (e.g., granite & basalt)

Carbide inserts are usually embedded in the tips of these tools.

Use larger angles for roughing out, and sharper (more acute) angles for finishing cuts.

Special Notes for Tools with Carbide Inserts: Do not cool by dipping in water: this will generate shocks in the metal, and cause the carbide to crack.

When sharpening, one of the following options is recommended.

1. Leave corners slightly beveled, or
2. Edge up on the final grind.
   - Leave the final 1.5 mm (1/16 inch) unground. This is because the rough grinding of the carbide introduces cracks and makes the edge more brittle. By stopping short of the edge, this is minimized.
   - Then, use a high grit wheel should be used to make the edge smooth with minimal cracks.
   - A very high grit grindstone should be used if a very smooth carving surface is needed, or if the material is very soft.

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Sharpness Scale - see Chapter 1.
Ongoing maintenance - see Chapter 4, *Woodworking Tools*.
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