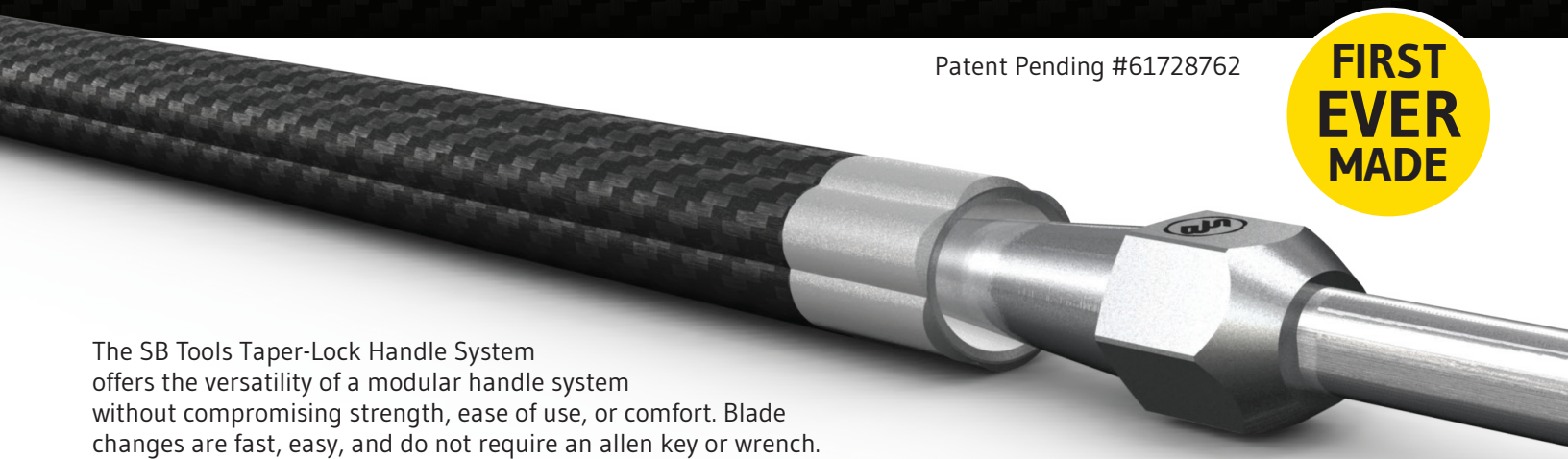
TAPER-LOCK HANDLE SYSTEM

Patent Pending #61728762

FIRST EVER MADE



The SB Tools Taper-Lock Handle System offers the versatility of a modular handle system without compromising strength, ease of use, or comfort. Blade changes are fast, easy, and do not require an allen key or wrench. A simple twist is all it takes to lock or unlock your blade.

We offer the widest range of handle lengths (from 6" to 48") and, because every SB blade comes with the SB Bolster already fitted, your tool is ready for use in seconds.

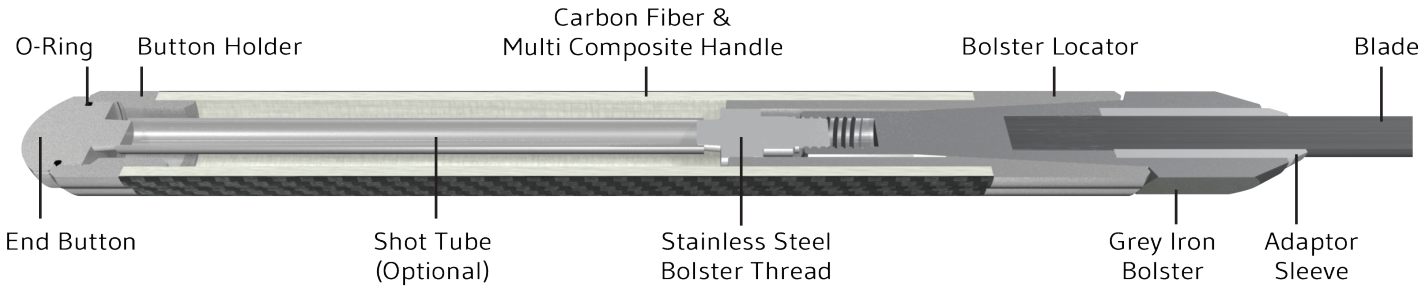
Vibration is eliminated with the use of an innovative, multi-layer carbon fiber and composite handle material in conjunction with our signature grey iron bolsters. Our Taper-Lock handles are the first and only carbon composite handles in the industry.

As part of this handle system, SB Tools sells a variety of adaptor sleeves which enable you to use other round blades with our handles. It's never been easier to experience for yourself these revolutionary handles.

Features & Benefits

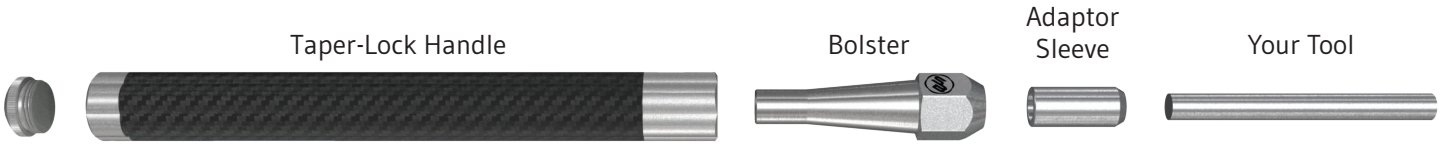
- First ever carbon fiber composite handle
- First ever use of grey iron for bolster
- Exceptional vibration dampening qualities
- Ergonomically designed six-lobed shape that does not roll
- No allen keys required
- Less than ten seconds blade to blade change
- Stronger & lighter than steel and aluminum handles
- Choice of 4 weights with internal chambers
- Choice of 10 different handle lengths from 6" to 48"
- All SB Tool blades come with fitted bolster for immediate use with every handle length
- Unprecedented choice of blade and handle length combinations

Inside the SB Tools Carbon Fiber Composite Handle

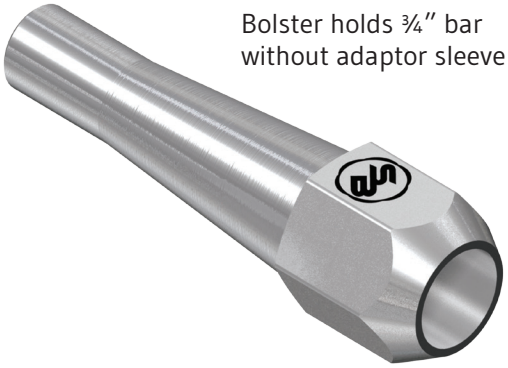


Fit Your Own Blade to Our Handle

All bolsters are sold with sufficient 2-part epoxy for semi-permanent blade fixturing. Once your blade is glued into the bolster it will be secure and ready to use. There is no need for an allen key to lock or unlock it from your handle, and your blade will fit into any one of our Taper-Lock Handles in seconds.



Bolster – $18.50
SKU 002200
(includes glue)


Bolster holds ¾" bar without adaptor sleeve


Bolster with adaptor sleeve inserted

How it Works

First, choose the adaptor sleeve that corresponds to the diameter of your tool. The bolster comes with a two-part epoxy that has a twenty-minute work time and two hour cure time. Next glue the tool into the sleeve and glue the sleeve into the bolster. Choose the handle length that best suits your tool and your project. Last, twist the bolster into the top of the handle and you're ready to turn. The threads are inside the product to protect against damage.

Note: The bolster and sleeve remain attached to the tool. The bolster can be removed with heat once your blade is worn out and reused.

Adaptor Sleeves – $3.50
(individual SKUs below)

Adaptor Sleeves

SB Adaptor Sleeves are sized to fit almost any round woodturning tool. The size of the adaptor sleeve corresponds to the outer diameter of the tool. (Please note: European bowl gouge manufacturers may measure their gouges differently, so be sure to measure the outer diameter of the tool.) Sizes are as follows:

	1/4"	3/8"	7/16"	1/2"	5/8"
SKU	002302	002306	002308	002310	002314

Bench Wrench – $8.00
SKU 002130

Bench Wrench

- Achieve an even tighter hold for aggressive cuts or a semi-permanent lock
- Can be bench mounted or used loose
- Precision machined aluminum

Taper-Lock System: How it Works

Taper-lock is one of the most secure fastening methods, offering considerably more surface-to-surface contact than almost any other. Taking just one and a half turns to lock or unlock, a blade can be changed in less than ten seconds with a secure grip. We offer a bench wrench for semi-permanent locking but it is not required for general use. Unlike collets, every blade fits every handle without changing collets or sleeves. Handles that use allen keys to locate blades only have a fraction of an inch surface contact. Our bolster to handle contact is over six square inches.

Cut Away View

This cut away view shows how the grey iron bolster is drawn back onto the taper by the stainless steel internal threads, giving unmatched ease of use, strength and security.

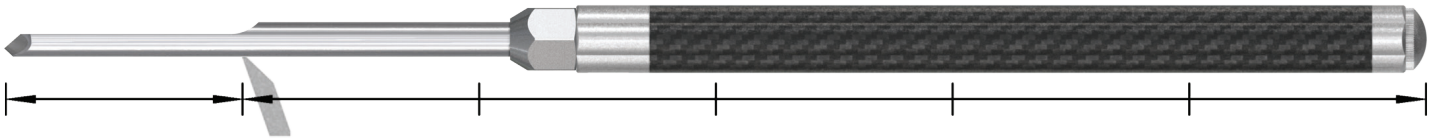
Why Carbon Fiber and Composite

Carbon fiber is an advanced material. It offers more rigidity and dampening qualities than any aluminum or steel handle. The outer layers of our handle are carbon fiber and the inner layers are a shatter proof composite. Combining these two different materials make our handles almost indestructible.

Composite is easy to grip and never hot or cold to touch, nor does it require a rubber or foam outer layer to mask vibration.

Perfectly Balanced Handles and Blades

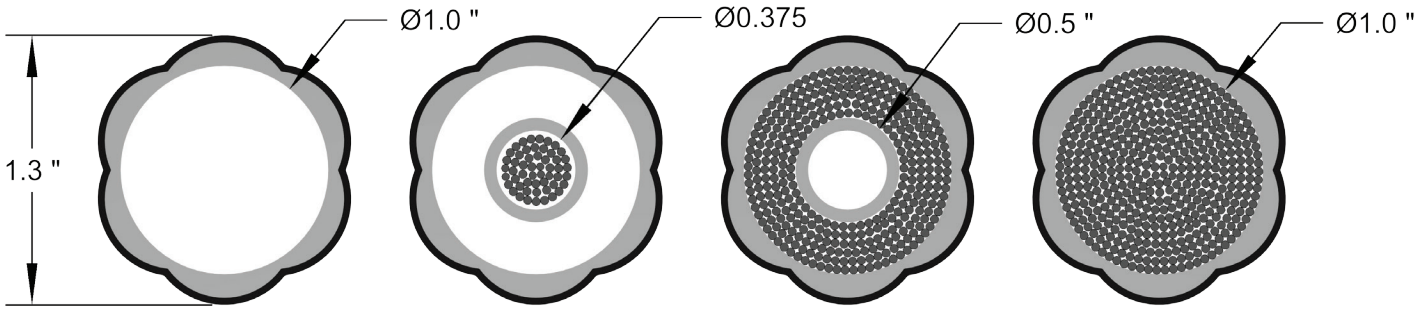
Our handles are designed without compromise to enhance a woodturner's experience. The six-lobed handle shape was developed to ensure comfort in handling and rotation. Users will not fatigue as easily because the materials we've selected to build our handles from virtually eliminate vibration. Handles are light in all the right places; they place the weight of the blade and bolster onto the tool rest where it is needed most. Professional road cyclists prefer carbon fiber bike frames over aluminum because of anti-fatigue properties of the carbon fiber.



Handle Weight Option

∅ - Diameter
R - Radius

There are four main weight options to choose from. The following weights are for lead shot. Steel shot is approximately 30% lighter.



Option 1
No Shot
0.33 lb. per foot

Option 2
Minimum Shot
0.73 lb. per foot

Option 3
Medium Shot
1.77 lbs. per foot

Option 4
Maximum Shot
2.5 lbs. per foot

--------- With optional shot tube ----------

SB handles don't need shot to eliminate vibration. The option to add weight is suggested purely for personal preference. The following guidelines will help you decide when additional weight would be to your advantage.

- **Option 1**: At this option our handles are the lightest in the industry and offer the best vibration dampening through material selection and design. All blades can be used with this option, especially spindle tools.

- **Option 2**: Conventional Scrapers because they are held with the handle above the blade can benefit from additional weight; this option is good with scrapers up to 1" wide. Roughing gouges and Negative Rake Scrapers work well with this level of weight.

- **Option 3**: This level of weight can be beneficial when turning larger bowls, especially bottom bowl cuts with excessive overhang. Conventional Scraper and larger roughing gouges often work well with this level of extra weight.

- **Option 4**: At this option our handle becomes the heaviest in the industry. This is only recommended for Conventional Scrapers. This level of weight can also help when roughing down larger diameter bowls but is not generally suitable for any gouge finish cuts. It is simply too heavy for any spindle turning cuts.

Vibration Killing Features

You are probably not aware that all steel and aluminum handles vibrate when the blade is cutting. The only way to reduce the vibration in metal handles is to add shot, but doing so also unfortunately adds weight in the handle and therefore directly into the turner's hand.

Our use of composite reduces the weight in the turner's hand and eliminates vibration from the blade back to the turner's hand without the need to fill the handle with shot.

This, combined with our grey iron taper-lock bolster, makes for a truly unique balance of anti-vibration qualites, an ergonomically balanced handle/blade combination, and overall reduced fatigue for the turner.

All SB Tool blades are precision machine fitted to our grey iron taper-lock bolster for the most rigid blade to handle connection in our industry.

For beam-shaped gouges

For round blades

For skews

Grey iron has been used for centuries for its exceptional dampening qualities.

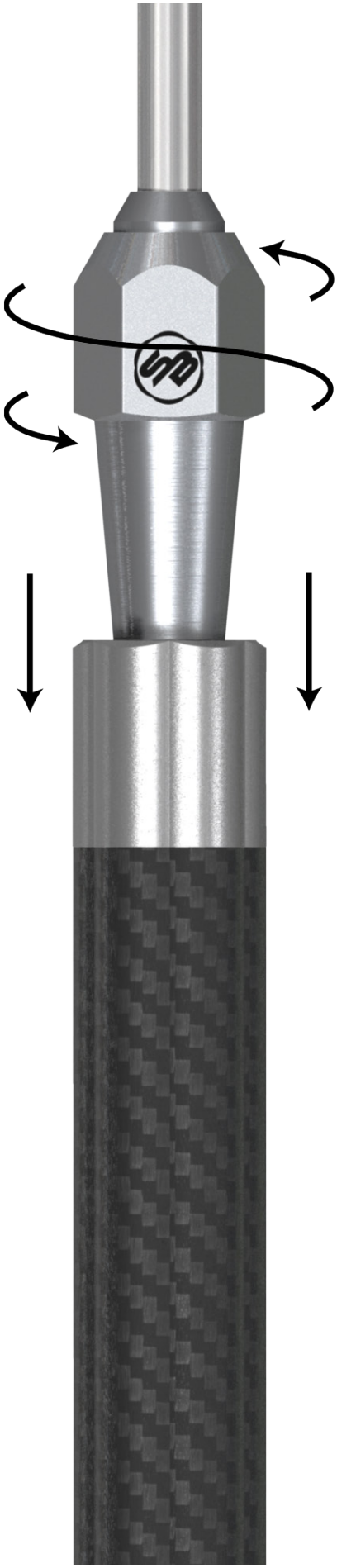
Our bolsters add significant rigidity to every blade where it counts, strengthening the contact between blade and handle. Unlike other manufacturers' blades, ours do not have weak tangs where they fit the handle; ours get stronger, creating unprecedented rigidity and helping to eliminate still further any vibration when cutting.

Our bolsters also add additional weight to the front of the tool and onto the tool rest, where it is needed. Combined with our lightweight anti-vibration carbon fiber handles, they offer the most ergonomic handle/blade combination with exceptional balance and reduced fatigue in the industry.

Taper-lock technology gives exceptional mating between the bolster and handle, with an unmatched six square inches of surface contact. Blade to blade changes are fast–less than 10 seconds–and do not require an allen key. Use our Bench Wrench for the option for semi-permanent locking.

Overview of Materials & Design

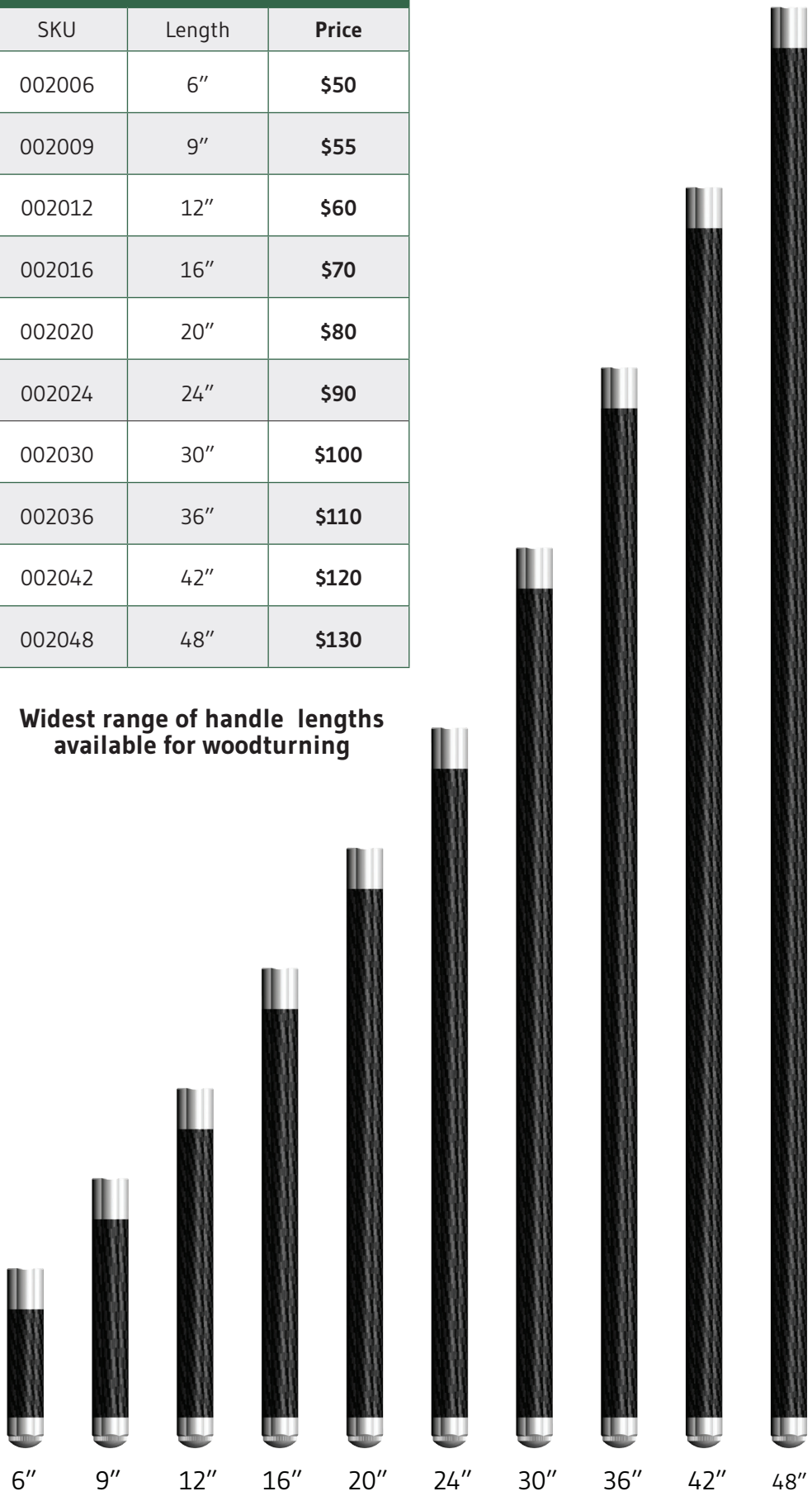
- Carbon Composite reduces weight and fatigue for the turner
- Iron bolster places weight at the front of the tool, where it is needed to improve blade control
- Bolster fits all 10 lengths of our handle system (6" to 48")
- Grey iron exceptional vibration dampening
- SB Tool blades are all precision machined fit to bolster for added rigidity
- No allen key required
- Bolster to handle contact with an unprecedented six square inches of surface contact
- Fast blade changes: less than 10 seconds blade to blade change



Taper-Lock Handle Prices

SKU	Length	**Price**
002006	6″	**$50**
002009	9″	**$55**
002012	12″	**$60**
002016	16″	**$70**
002020	20″	**$80**
002024	24″	**$90**
002030	30″	**$100**
002036	36″	**$110**
002042	42″	**$120**
002048	48″	**$130**

Widest range of handle lengths available for woodturning



OVERHANG RATIOS

To ensure safe, comfortable control of a tool while cutting or scraping we recommended using the following ratios:

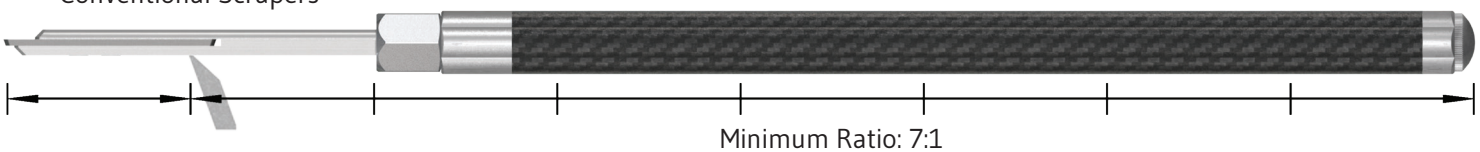
Tool	Ratio
CONVENTIONAL SCRAPERS	7:1
GOUGES and SKEW CHISELS	5:1
PARTING TOOLS and BEDANS	5:1
NEGATIVE RAKE SCRAPERS	3:1

For every inch of blade overhanging the tool rest there should be at least the above ratio used when cutting or scraping on a lathe. This will ensure you have the correct leverage and help you stay in control. The ratio can be acheived using a combination of handle and any remaining blade still on the handle side of the tool rest. However, if you hold the handle towards the front you will affect the ratio and leverage.

SB Tools offers the widest range of handle lengths in the industry. Choose from ten of the most popular and useful lengths ranging from 6" to 48". All SB blades fit all SB handles. The turner has ultimate flexibility in choosing the handle and blade combination to suit the required cut.

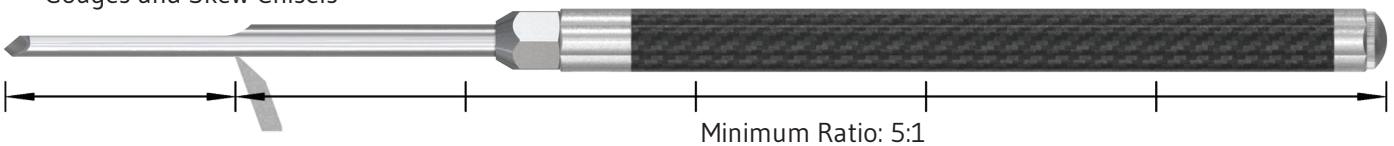
∅ - Diameter
R - Radius

Conventional Scrapers



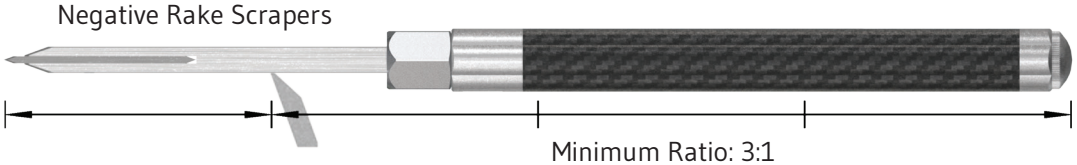
Minimum Ratio: 7:1

Gouges and Skew Chisels



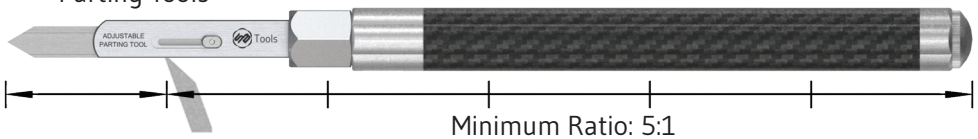
Minimum Ratio: 5:1

Negative Rake Scrapers



Minimum Ratio: 3:1

Parting Tools



Minimum Ratio: 5:1

NOTE: the images above of tool positions are for reference only. A gouge should always point uphill and a conventional scraper should always point downhill. Only a Negative Rake Scraper and Parting Tools should be used as positioned above.