



Lie-Nielsen TOOLWORKS[®] INC.

Heirloom Quality Tools[®]

Low Angle Block Plane

www.lie-nielsen.com

toolworks@lie-nielsen.com

1-800-327-2520

P. O. Box 9 • Route 1
Warren, Maine 04864

Made in Maine, USA, since 1981

Low Angle Block Plane

Our No. 102 Low Angle Block Plane is fashioned in such a pleasing shape that it will rapidly become one of the most used tools in your shop. The mouth of the plane is made to take a maximum .008 - .010" cut, which is suitable for most woodworking. Like our other block planes, the blade is adjusted with a captive nut for precise control with minimal backlash.

Geometry: The blade is flat ground at 25° and sits bevel up in the body at 12°, making the cutting angle 37°. The low angle makes it an excellent choice for end grain.

This tool is set up to take thin shavings (.008 - .010"). A tool with a large mouth will not perform as well on finish cuts. If you need a heavier cut, the tool can be easily modified by filing a chamfer on the leading edge of the mouth to allow a bigger shaving to pass.

Blade Sharpening: The blade comes ready to use, but honing a secondary bevel of 5° will increase performance, help achieve a razor edge quickly, and improve edge life in hardwoods.

For information on sharpening, we recommend David Charlesworth's video, *Plane Sharpening*, available via our website in both DVD and streaming formats.

Blade Adjustment: Hold the tool in one hand with your fingers supporting the sole and your thumb on the cap iron just in front of the screw. Loosen the spinwheel and, with your thumb still holding the blade and cap, adjust the blade. Tighten the spinwheel. **Do not overtighten.** You should be able to adjust the blade after loosening the spinwheel about ¼ turn.

Materials: We use Manganese Bronze for the bodies. These castings are fully stress-relieved, a process that removes inherent

stresses and ensures that the tool will remain flat and true. The cap is also Manganese Bronze; other parts are Brass and Stainless Steel.

The blade is A2 Tool Steel hardened to Rockwell 60-62, cryogenically treated and double tempered. Our heat treating technique ensures the blade will take and hold a very fine edge for a long time. After heat treating, the blade is fully surface-ground on the top, back, and cutting edge, giving a smooth, flat surface that will take a mirror finish very quickly. The ⅛" thickness provides solid chatter-free cutting.

Maintenance: The Bronze body casting is lapped dead flat. Occasional hand lapping with fine wet/dry sandpaper (320 grit or higher) on a flat surface will help remove dings and keep it true. The cap can be polished with any good brass polish, although many people like the patina that Bronze gets with age and use.

A light oiling on the threaded rod, adjuster nut, and spinwheel will keep them moving freely. The blade should be kept lightly oiled to prevent rust, especially when the tool is not in use. We recommend Jojoba Oil, a plant based oil product that is non-toxic, odor-free and easy to use. Also, in our shop, we use a fine abrasive handblock to remove any light surface oxide from tool bodies and blades. Jojoba Oil and abrasive handblocks are available from us.

Guarantee: Materials and workmanship are guaranteed for the life of your tool. Call for repairs or replacement parts. We are available for advice if you ever have a problem using your tool.

© 2019 Lie-Nielsen Toolworks, Inc.

Rev. 01152019



WARNING: This product can expose you to lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. Wash hands after handling.