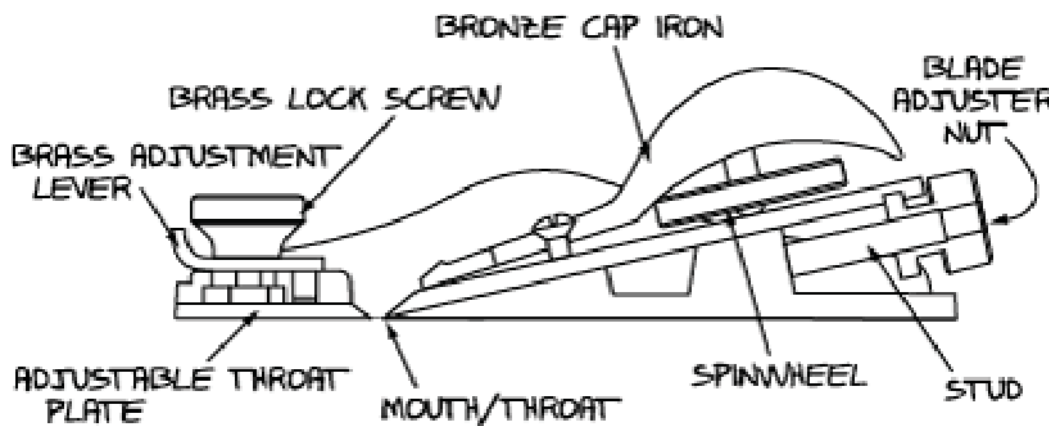


# Lie-Nielsen Toolworks Product - Use and Care Instructions

## Adjustable Mouth Block Planes



The Adjustable Mouth Block Plane is a general purpose tool, useful for fine trimming and finishing work, as well as quick stock removal. The body has an adjustable shoe to allow quick and easy control of the mouth opening. The best finishes will be obtained with the blade set to take a very small cut, with the mouth opening no larger than necessary to pass the chip. When you want to cut more aggressively, open the mouth more and advance the blade for deeper cut. For best results on end grain, set the blade and mouth to take a fine shaving.

**Geometry:** The blade sits in the body at 12° (Low) or 20° (Standard); it comes with a 25° flat ground bevel, making the included cutting angle 37° (Low) or 45° (Standard).

**Blade Sharpening:** The blade comes ready to use. Slight additional honing will increase performance. We often recommend a secondary bevel of 1° or 2°. This is most easily accomplished with a good honing guide. Further modifications of the bevel angles can be made to suit your style and the work.

**Mouth Adjustment:** Hold the sole in the palm of your hand and loosen the brass locking screw. Adjust with the brass lever. Tighten the screw firmly, but do not overtighten.

**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 1/4 turn. Make sure the mouth is adequately open before advancing the blade to avoid damaging the edge.

**Materials:** The body is cast from Ductile Iron, a very strong alloy that will take a lot of abuse. 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 Manganese Bronze. Other parts are Brass and Stainless Steel.

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The blade is A-2 Tool Steel hardened to Rockwell 60-62, cryogenically treated and double tempered. Our heat treating technique ensures that 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 1/8" thickness provides solid chatter-free cutting.

Maintenance: The body casting is ground flat and true (to .0015"). 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 iron can be polished with any good brass polish, or allowed to patina with age and use. Occasionally, the tool should be disassembled, cleaned, and moving parts oiled. The blade should be kept lightly oiled to prevent rust, especially when the tool is not in use. In our shop, we use a fine abrasive handblock to remove light surface oxide from body or blade.