



The Brownells/Yavapai 1911 Auto Slide Jig is a versatile milling fixture designed specifically for customizing all models of 1911 Auto slides. With this fixture, the slide can be held securely without damage while all of the most requested slide modifications are made. The slide jig also makes a convenient "handle" to hold the slide while polishing or belt grinding prior to final finish.



### WARNING



Never attempt to disassemble or reassemble a firearm unless you are absolutely certain that it is empty and unloaded. Visually inspect the chamber, the magazine and firing mechanism to be absolutely certain that no ammunition remains in the firearm. Disassembly and reassembly should follow the manufacturer's instructions. If such instructions are not immediately available, contact the manufacturer to see if they are available. If they are not available at all, then you should consult other reference sources such as reference books or persons with sufficient knowledge. If such alternative sources are not available and you have a need to disassemble or reassemble the firearm, you should proceed basing your procedures on common sense and experience with similarly constructed firearms.

With regard to the use of these tools, the advice of Brownells Incorporated is general. If there is any question as to a specific application it would be best to seek out specific advice from other sources and not solely rely on the general advice and warnings given.

### HOW TO USE

**WARNING:** Most modern production 1911 Auto slides are heat-treated much harder than WW-II era military slides. Your milling setup and tooling must be absolutely rigid to prevent damage to tools, parts and possibly the operator, especially if carbide cutters are used. For current production slides, i.e. Colt, Caspian, Para-Ordinance and Essex we recommend that carbide cutters be used exclusively.

The Slide Jig is designed to be clamped in a good quality milling vise, although for some applications it can be held directly to the milling table by using appropriate clamps. See the illustrations of the Slide Jig with slide attached. Before beginning work, observe the Slide Jig carefully. One end of the Slide Jig's rails are rounded. This end fits against the rear of the slide tunnel when the slide is held for sight work, ejection port lowering/chamfering or for cutting the face of the slide for use with compensators.

The slide is held in place on the Slide Jig by securely tightening the Allen head cap screws, located on the bottom of the jig, against the disconnector race, ahead of the disconnector notch and against the inside surface of the slide just ahead of the locking lugs. The cap screws are spaced so all models and lengths of 1911 Auto slides can be installed on the Slide Jig without damage.

**CAUTION:** Be sure the rear face of the guide rod tunnel is located against the front of the Slide Jig before tightening the cap screws. Failure to do so may place the rear cap screw in line with the disconnector notch; tightening the cap screw while the slide is in this position will bend the sides of the disconnector notch and cause extensive damage to the slide.

As further precaution, we strongly urge you to use thin shim stock and/or shaped pieces of aluminum or brass stock between the inside of the slide and the cap screws to prevent the screws marring the inside of the slide.

In all setups, you must verify that:

- 1.) Your mill's table and vise are located at 90° to the spindle.
- 2.) The sides of the vise jaws are square to the bottom of the milling vise.
- 3.) The bottom inside surface of the vise is parallel to the table.
- 4.) The fixed jaw of your vise is indicated parallel to the long axis of your mill's table.

Never assume that your milling vise is square to the cutter. Always set up your tooling appropriate to your machinery using accepted procedures and known quality measuring equipment. Please refer to the following illustrations to see how the Slide Jig should be positioned to make the most commonly requested modifications to 1911 Auto slides.

## BROWNELLS/YAVAPAI 1911 AUTO SLIDE JIG

#080-835-002



READ & FOLLOW THESE  
INSTRUCTIONS

## BROWNELLS

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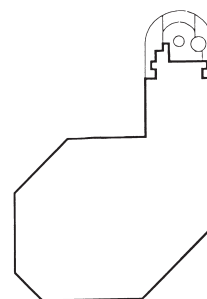
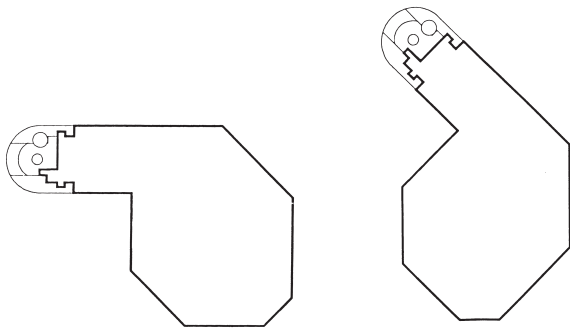


ILLUSTRATION "A"

In this illustration the Slide Jig is clamped in an upright position with the slide held by the cap screws coming from underneath the slide. Use this position for milling sight dovetails or for installation of low-mount sights. Before milling, the top of the slide (which is not square to the bottom of the rails) must first be indexed square to the face of the milling cutter.

The slide can be held in this position to make a "french" cut. Done correctly, a "french" cut really sets off the side of the slide and creates a visual, paneled effect that tricks the eye into thinking that the slide is evenly finished and square, even though it is not. A "french" cut is a small "V"-shaped groove or cut that is usually made with a 60° dovetail cutter, and only about .003" to .005" deep. The cut is made along the entire length of the slide at the point where the radius on the top of the slide meets the very top edge of the side flat. The "french" cut should not run through the cocking serrations, which are machined lower than the flat surface of the slide.

To make this cut accurately, install the slide in the jig (as shown in **Illustration "A"**); clamp the slide and jig onto a rotary table or in a rotary vise. The rotary table or rotary vise allows you to index the side of the slide (which is not parallel or square) to the point of the 60° dovetail cutter so the depth of cut is uniform along the entire length of the slide. It's best to practice several "french" cuts on pieces of scrap steel before trying this maneuver on an expensive slide.



ILLUSTRATIONS "B" AND "C"

The slide and jig are clamped into the position shown in **Illustration "B"** to lower the ejection port. Lowering the ejection port decreases the possibility of jammed cases and is absolutely necessary for reliable feeding when using low mounted scopes or electronic, red-dot sights. We recommend that a  $\frac{3}{8}$ " diameter end mill be used to make the cut. **Note:** When making this cut it is important to only *lower* the ejection port and not lengthen it. Remove only enough material to clean up the face of the extractor hole. **Note:** The typical distance from the bottom of the slide to the port on lowered ejection ports is from .425" to .475". If you are setting up a pistol for NRA Bullseye shooting, check the current rule book for the specifications on ejection port height.

After the port height has been cut at position "B", reposition the Slide Jig as shown in **Illustration "C"** and cut the inside bevel at the port using a .375" end mill. Bevel the edge only and do not lengthen the port by cutting into the face of the extractor hole or into the face of the rear slide lug.

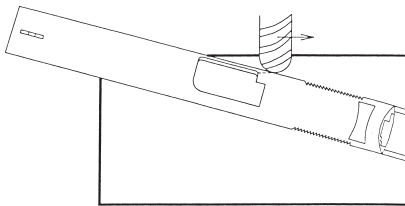
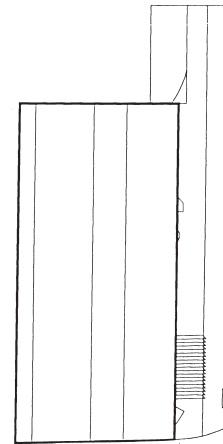


ILLUSTRATION "D"

To make this cut, clamp the Slide Jig (as shown in **Illustration "D"**) in a milling vise or directly to the milling machine table. Clamp the slide in the illustrated position with a pair of machinist's clamps ahead of the ejection port and at the rear sight location. Use a .750" ball end mill cutter to cut straight back from the port. Caution: Do not cut too deep or the rollover cut will run into the extractor hole.

ILLUSTRATION "E"



To relieve the face of the slide at a 1° angle, clamp the slide to the fixture as shown above in **Illustration "E"**. The rear surface of the slide's spring guide tunnel must be flush against the end of the fixture. Place the opposite end on a level surface. You will note that the fixture automatically indexes the slide at the correct 1° angle.

Depending on the height of your mill's spindle above the table, clamp the fixture either into a milling vise with the rear face of the fixture directly against the level bottom of the vise or directly to the table. The front face of the slide can now be milled with a  $\frac{1}{2}$ " diameter, carbide end mill. The face of most slides is very hard, so go slow and remove only .001" to .002" on each cut. The 1° angle is only approximate and final fitting should be made after the barrel is fitted and the compensator has been correctly indexed to the slide. Any additional material can be removed with a  $\frac{1}{2}$ " x  $\frac{1}{2}$ " x 6" Fine India Stone.

The slide can also be held in this position to cut front cocking serrations at right angles to the slide rails. Before cutting cocking serrations you will have to negate the jig's built-in 1° angle by indexing the Slide Jig so it's held in the machine vise in a vertical position. The easiest way to do this is to install the slide on the Jig and use a machinist's square to position the bottom side of the Jig vertically in the vise.

You may have to experiment with the cutters and the angle on the mill's head to get the serrations to match the rear serrations. It's best to experiment on a piece of scrap steel or brass before cutting the slide. In addition, you will have to measure the spacing of the rear cocking serrations to index the mill's table vertically an appropriate distance after each pass of the cutter.

Reassemble the firearm according to the manufacturer's instructions. Check for proper functioning using **ACTION PROVING DUMMIES**. Make sure **ALL SAFETY MECHANISMS** are fully functional as designed and approved by the manufacturer. If these tests prove satisfactory, test-fire the firearm with live ammunition in a **SAFE** and **APPROPRIATE** manner. **IMPORTANT!** If the firearm is a fully or semi-automatic design, start the live ammunition tests by first loading an **ACTION PROVING DUMMY**, then a live round, into the magazine. Only after several tests have been conducted in this manner should additional rounds be placed in the magazine and fired.