THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM

The Aviation Point

How to Use a Pneumatic Rivet Gun

A rivet gun is an air-driven hammer: the piston strikes the rivet set, the bucking bar on the other side holds, and the rivet swells into a shop head.

Parts and settings

Part	What it does	Setting or check
Air supply	Drives the piston	90 to 100 psi (H-31 p. 4-37)
Barrel	Holds the piston and the set	The maker's recommended capacity is usually stamped on it (p. 4-37)
Rivet set (header)	Carries the blow to the rivet head	Must match the rivet head; retained by a spring. Always check the set and the retaining spring are fitted (p. 4-38)
Needle valve (regulator screw)	Sets the driving force, on the handle	Adjust on a block of wood, never on anything harder (p. 4-38)
Trigger (throttle)	Starts the blows	Start slowly, one continued burst (p. 4-38)
Gun size	Sets the largest rivet it drives continuously	4X for normal work (dash 8, 1/4 in rivet); 3X for smaller rivets in thinner structure; 7X for large rivets in thicker structure (p. 4-37)

Typical mistakes

Mistake	What happens	Fix
Starting too fast	The set slips off the rivet and marks it (a smiley) or dents the skin (an eyebrow)	Start slowly, then continue in one burst
Driving longer than 3 seconds	The rivet work-hardens before the head is fully formed	Use a more powerful gun, or fewer, harder hits
Gun too powerful	Hard to control, can damage the work	Turn the needle valve down; if that fails, a smaller gun
Set too small or too large	A small set marks the rivet, a large one marks the material	Match the set to the rivet head
Testing the power on metal	Damages the set face	Test only on wood
Triggering with no work under the set	Set can fly out; injury	Never trigger unless the set is against wood or a rivet; never point the gun at anyone

Key points

- **Not approved data.** The SRM or drawing names the rivet, the set and any special driving method. This page describes typical practice from the FAA handbooks.
- **Gun sizes by maker.** The 2X to 7X names come from an old manufacturer series; ratings differ by brand. Use the maker's rated capacity.
- **No lubrication or air-line figures.** The sources give none, so none are shown.

SOURCES · FAA-H-8083-31B, AMT Handbook: Airframe, Chapter 4

SCAN · OPEN THIS GUIDE
theaviationpoint.com/standard-practices/tools/rivet-gun/

Educational reference only, not approved data. Always consult the applicable SRM, AMM, or AC 43.13-1B and your certifying authority.