



Cleaveland Aircraft Tool

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Pneumatic Squeezer Instructions

WARNING: The Pneumatic Squeezer is VERY powerful. When 90 psi air supply is applied, the squeezer will produce a force of 3000 psi on the ram.

NEVER: change the dies or sets when the air is connected to the tool.

ALWAYS: keep fingers and hands clear of the ram or dies when the air is connected.

The safety lever used to operate this squeezer is designed to prevent accidental actuation. Your thumb must push forward then down to actuate the squeezer.

DO NOT: defeat this safety feature.

NEVER: attempt to dimple any material unless there is a drilled hole to insert the die into.

Attempting to dimple a solid sheet with no holes could result in damaging dies or deforming the yoke.

NEVER OIL THIS TOOL!!!!!!!!!! NEVER OIL THIS TOOL!!!!!!!!!! NEVER OIL THIS TOOL!!!

Proper set-up of your squeezer will result in extremely uniform dimples and set rivets.

Dimple dies must be adjusted for each thickness of aluminum. This is accomplished by shimming the dies with flat washers of various thicknesses.

*Put the dies in the squeezer and close them.

*Add shim washers to the die shanks until the dies just touch - they will be difficult to rotate with your fingers when closed.

*Drill and deburr the appropriate sized hole in a scrap of aluminum that is the same thickness as you will be using.

*Make a sample dimple with the pneumatic squeezer. Evaluate the dimple.

*Add or remove a shim of the proper thickness to improve the accuracy of the dimple.

The dimple should imitate the shape of the rivet or screw head.

The rivet head should lie flat with the skin.

Distortion of the aluminum around the dimple should be minimal.

Over squeezing is a common problem. A smashed ring around the top edge of the dimple deforming the flat sheet will prevent the skin from looking smooth after riveting.

To set flush rivets use a combination of the large diameter flat set on the rivet head and a flat set of the length needed to produce a well proportioned shop head. As the length of the rivet varies so will the length of the flat set used. Shims may be needed to achieve the proper set.

NEVER USA A CUPPED SET LONGER THAN 1/8" IN THE TOP OF THE YOKE!

Restrictions: This squeezer is designed to squeeze 3/32" to 1/8" rivets. **DO NOT** use this squeezer for 3/16" rivets. A more powerful squeezer is needed for rivets of that size or larger. We recommend dimpling only .016"-.032" thick aluminum. Thicker material should be counter-sunk.

The dimpling/riveting process is some what subjective.

Good results can only be achieved through practice and evaluation.