

Operating Instructions For D-700-365HL Rivetless NutPlate Installation Tool



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Features:

Powerful Lightweight Versatile Field Repairable Compact



Specifications:

Stroke: 0.8" (20.3 mm) **Weight:** 1.95 lbs. (884.5 g)

Pulling Force: 4,800 lbs. Wrist Effort To

Overall Height: 6.56" (166.6 mm) **3,000 lb. Fastener:** 55 lbs.

Overall Width: 2.00" (50.8 mm) Retract Actions: Single Pushbutton

Overall Length: 7.5" (190.5 mm)

Tool Purpose

The purpose of the tool is to install a rivetless floating nut plate, which is a common aerospace fastener of 3-piece construction, the nut, of which, is made of 1050 carbon steel, or A-286, and the sleeve, of which, is made of 300 Series CRES steel cadmium plated or passivated, and the bracket, or basket, of which, is made of carbon steel, 17-7Ph CRES steel or A-286 CRES steel heat treated to spring temper and cadmium plated or passivated. The tool will install the fastener by producing sufficient pull force to fully seat the anti-rotational lobes (located on the sleeve) into the work piece, while at the same time, flaring the stainless steel sleeve to fully captivate the fastener. This installation will meet or exceeds push-out, torqueout and tensile requirements of MIL-N-25027 specification covering nut performance.

Sequence of Operation:

- 1. The adjustable **Driving Anvil** (see photo) should first be positioned on the tool to accommodate the length of the fastener that is to be installed. This is accomplished by turning both the **Driving Anvil** and the **Jam Nut** (see photo) rearward on the **Mandrel** (see photo) until the exposed length of the **Mandrel** is something longer than the overall length of the fastener. You need not set the **Jam Nut** against the **Driving Anvil** at this time.
- 2. The fastener is positioned for installation by use of a special, hand-held wrench (available from FSI) that will locate the part so that it is perpendicular to the backside of the work piece and concentric to a hole within the work piece, into which the fastener will be installed.
- 3. The operator will then position the D-700-365HL tool (held with his opposite hand), so that the front of the tool will be aligned perpendicularly, and concentrically, to the same hole in which the fastener is positioned, but on the front side of the work piece, thus interfacing with the fastener that is to be installed.
- 4. The operator begins the installation by turning the **Turn Nut** (see photo) in a clockwise direction, thus threading the **Mandrel** into the nut portion of the fastener until the **Mandrel** has engaged all the threads in the nut of the fastener.
- 5. Once the Mandrel is fully threaded-in, the Driving Anvil can be turned back down near, or even touching, the face of the work piece, where it will self-center on the countersink of the hole. At this time the Jam Nut can lock the Driving Anvil in place, if the operator so desires. (It is usually a good idea to use the Jam Nut where multiple fasteners of the same sleeve length are being installed. On one or two fasteners, it is not necessarily needed.)
- 6. Once the **Driving Anvil** is positioned, the D-700-365HL tool can be actuated by operating the handle of the tool until the fastener is fully installed. (Full strokes of the handle are not necessary; any length of stroke to fit any individual's hand will install the fastener). The tool has a pre-set pull force, so that it cannot over-load the fastener. The D-700-365HL tool both seats the anti-rotational lobes of the fastener and flares the top of the sleeve into the countersink in a single action by its patent pending design.
- 7. Once the fastener is installed, the pressure within the tool can be released by pressing the **Button** (see photo) on the side of the tool. The **Mandrel** can then be removed from the fastener by turning the **Turn Nut** counter-clockwise until the **Mandrel** is free of the work piece.
- 8. With the Tool free from the face of the work piece, the operator will remove the hand-held wrench from the backside of the fastener, and the installation process can be repeated.

F365HL Assembly F187-2A/365 F171-365HL F365-Collet F365HL-Anvil Puller Shaft Turn Nut Collet F187-1A/365 F362-6 Jam Nut Sleeve Mandrel