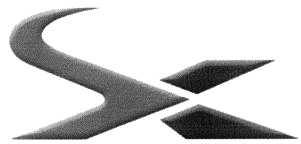


RIVET NUT TOOL SET UP PROCEDURES

RIVET NUT TOOLS
MS 50 & 100

Titgemeyer MS 50 or MS 100 Spin-Pull
SET UP

The MS 50 and 100 tools are the most challenging tool set we do but once you learn and follow the steps it becomes fairly routine.
The order will tell what head set size is being out on the tool.

1) Select proper tool MS 50 or 100, **record the serial number on the order.**
2) Select proper size Mandrel and Anvil
3) If necessary remove existing anvil from tool using a wrench to loosen lock nut. 20mm for MS 50, 27mm for MS 100.
4) Remove the front nose cap by using our largest adjustable wrench.
5) Remove existing mandrel from tool using a 10 mm on the flats of the mandrel and the locknut for the MS 50. Use a 14mm or adjustable wrench for the MS 100.
6) Reverse the process to install the new Mandrel and Anvil.
7) Now set up the tools stroke and Auto-Reverse, and Anvil by doing the following procedures.
   STROKE: for either tool the stroke is adjusted by means of turning a 4mm hex key on the base of the tool. Stroke length guidelines are outlined in the Titgemeyer manuals and are as follows.

MS 50

MetricThread	Inch Thread	Stroke
M 3	6-32	Approx. 1.5 mm
M 4	8-32	Approx. 2.0 mm
M 5	10-24, -32	Approx. 2.5 mm
M 6	1/4-20, -28	Approx. 3.0 mm
M 8	5/16-18, -24	Approx. 3.5 mm
M 10	3/8-16, -24	Approx. 4.0 mm
M 12	1/2-13, -20	Approx. 4.5 mm

MS 100

MetricThread	Inch Thread	Stroke
M8	5/16-18, -24	Approx. 3.5 mm
M 10	3/8-16, -24	Approx. 4.0 mm
M 12	1/2-13, -20	Approx. 4.5 mm
M 14	9/16-12, - 18	Approx. 5.2 mm

STROKE ADJUSTMENT STEPS

A) Install a quick connect fitting and then hook tool up to shop air.

B) Remove the END CAP. (FIG A)

C) Using a digital caliper measure the gap between the Air Motor and the body of the tool, and then zero out the caliper. (FIG B)

FIG A

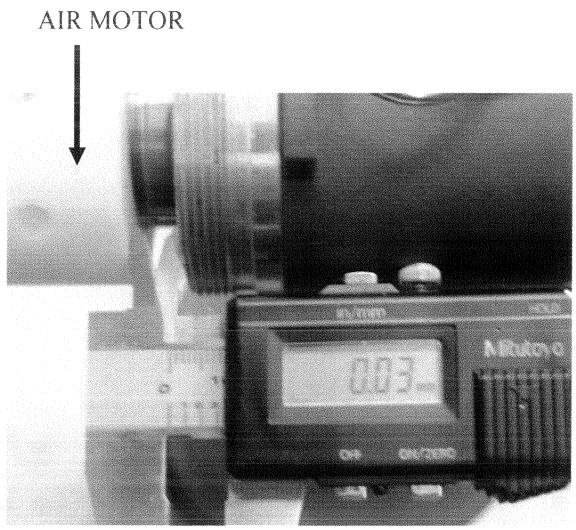


FIG B

Stroke adjustment continued

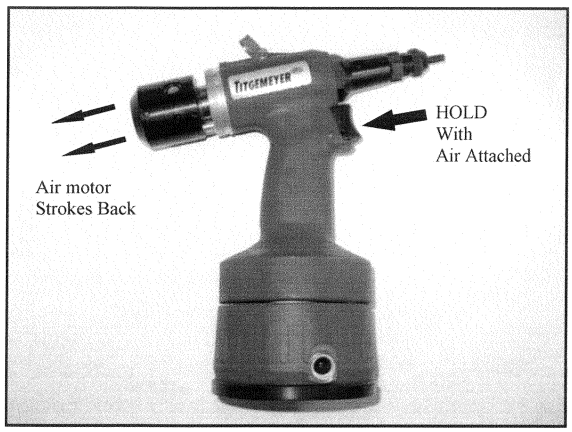


FIG C

D) Pull trigger all the way back so that mandrel/air motor strokes back. (FIG C) Measure the gap again. This will tell you how far back the tool is stroking.

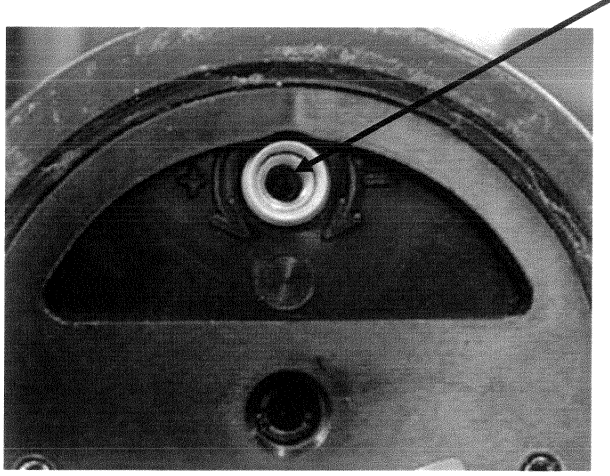


FIG D

E) Hold trigger back, and insert 4mm hex key in base of tool. Turning clockwise will decrease stroke, counter clockwise will increase stroke. (FIG D)

In the MS 50 4 turns will increase or decrease the stroke 1mm (.25mm/Turn)

In the MS 100 8 turns will increase or decrease the stroke 1mm (.25mm/2 Turns)

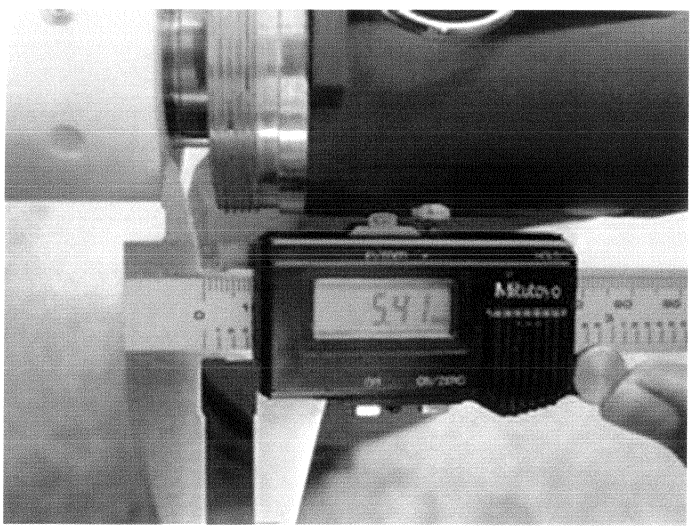


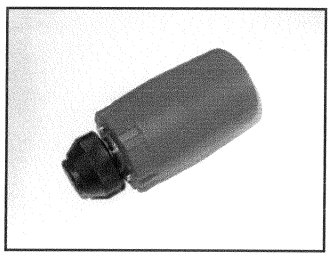
FIG E

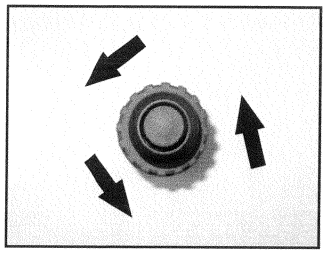
F) Adjust the stroke so that it is pulling to the distance as indicated in the guidelines on the previous page. Check again using the caliper as in step "C & D"

If the stroke is where it should be you are ready to adjust the Auto-Reverse and the Anvil.

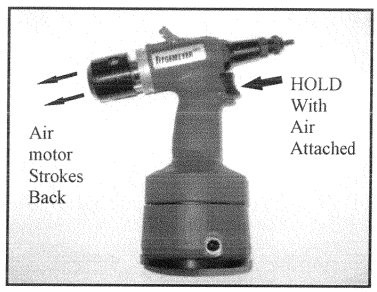
AUTO-REVERSE SET UP OF MS 50 OR MS 100 RIVET NUT GUN

1) Before stroking the gun, make sure the auto-reverse is fully retracted from the air motor. To do this, turn the black knob on the back of the end cap counterclockwise till the knob spins loosely.

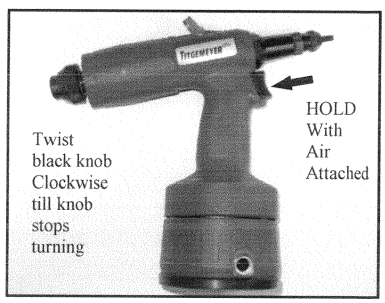




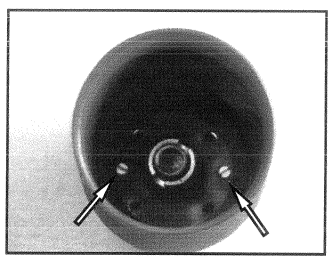
2) Set the stroke of the gun as described in the manual for your rivet nut. After stroke distance is set for your rivet nut, (with air line attached) stroke the gun and hold the trigger fully depressed.

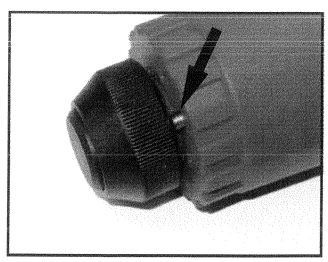


3) With the trigger fully depressed (air motor is in it's back (stroked) position), reattach the end cap and thread the black knob clockwise until it meets resistance. (Do Not Over Tighten).



4) Once the black knob is threaded to the resistance, release the trigger (gun will auto-reverse until the trigger is tapped). Now remove the end cap and turn the screws located inside the end cap clockwise until they come in contact with the black knob. Reattach end cap completing proper set up of the tool's auto-reverse system.





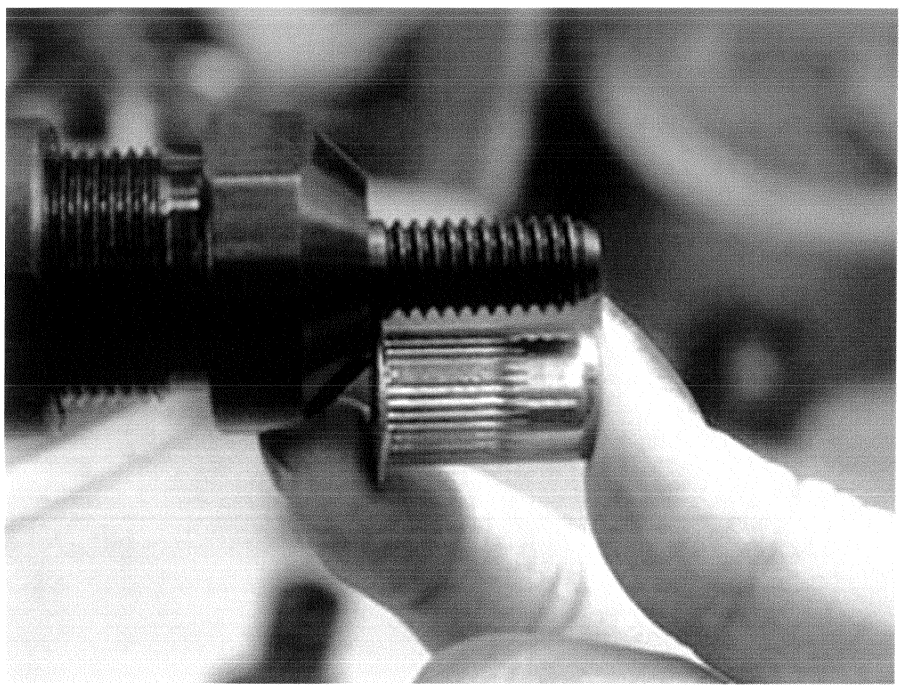
ANVIL SET UP OF MS 50 OR MS 100 RIVET NUT GUN & Completion

THIS LAST STEP IS THE EASIEST.

ADJUST THE ANVIL SO THAT YOU HAVE FULL THREAD ENGAGEMENT OF THE MANDREL INTO THE RIVET (SEE BELOW).

LOCK THE ANVIL IN PLACE USING A 20MM WRENCH FOR THE MS 50, AND A 27MM WRENCH FOR THE MS 100

Completion:
Insert 1 Tool manual, and 1 Auto-Reverse Instruction Sheet.
Give tool and any additional tool items on the order to shipper.



This manual is kept in: K:/Rivet Nuts/Tools/Tool Set up procedures