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9043 Heavy Duty Pneumatic Pull-to-Pressure / Pull-to-Stroke Tool

User Manual

PNEUMATIC / HYDRAULIC TOOL
FOR RIVET NUTS FROM M4 TO M12 & #6 TO #1/2 INCH
WITH OIL PRESSURE ADJUSTMENT

Sales@RivetNutUSA.com

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(800) 236 - 3200

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GENERAL INFORMATION

Repairs

For tools repairs e-mail: sales@rivetnutusa.com

Certification and CE marking

The Tool is manufactured in accordance with the relevant Community Directives applicable at the time of its placing on the market.

As the Tool is not included in Annex IV of Directive 2006/42/EC, Rivet Nut USA provides self-certification to affix the CE marking.

Warranty

The Warranty only covers replaced parts, excluding labor.

Non included in the Warranty are both standard accessories and damages to the machine caused by:

- Transport and/or handling.
- Operator errors.
- Lack of maintenance required by this Manual.
- Failures and/or breakages not attributable to the malfunction of the same.
- Normal wear and tear of parts subject to wear.

Unauthorised tampering/replacement of tool parts, the use of accessories, tools, consumables other than those recommended by the manufacturer could represent a risk of injury and release the manufacturer from warranty.

Rivet Nut USA accepts liability only if the tool is defective in origin and is void if the user does not comply with the instructions provided.

Structure of the manual

The customer must read the information in this manual very carefully, as correct preparation, installation and use of the tool represent the basis of the manufacturer-customer relationship.

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GENERAL INFORMATION

Purpose and content

The purpose of this Manual is to provide the Customer with all the necessary information to make sure that the operator can work as independently and safely as possible. It includes Technical, Operation, Maintenance, and Safety information.

Before carrying out any operation on the Tool, Operators and Qualified Technicians must carefully read the instructions contained in this publication.

In case of doubt on the correct interpretation of the instructions, contact Rivet Nut USA S.r.l. to obtain the necessary clarifications.

Addressees

This manual is intended for both the Operator and the Technicians qualified to maintain the tool.

Users must not carry out operations reserved for Maintenance Operators or Qualified Technicians.

Rivet Nut USA S.r.l. is not liable for any damage resulting from failure to comply with this prohibition.

Storage

The Instruction Manual must be stored in the immediate vicinity of the tool, in a suitable container and, above all, away from liquids and anything else that may affect its readability.

TOOL DESCRIPTION

**Please note that RIV943 is supplied without kits.
They are to be requested separately according to the user's requirements.**

Operating principle

The hydro-pneumatic RIV 943 tool, is designed to place the following fasteners:

- **RIVSERT female rivet nuts from M4 to M12 and #6 - #1/2 inch**
- **RIVBOLT male rivet nuts from M4 to M10 and #6 - #3/8 inch**

The special feature of this tool is that there are two types of adjustments: force (by adjusting the switching pressure) and stroke (by adjusting the stroke selection ring); the rivet nut is screwed in by pressing the tie rod onto the rivet nut.

By working with force, the same insert can be applied to different sheet metal thicknesses, keeping the ring nut in the maximum stroke position.

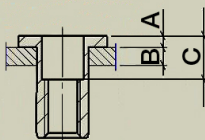
It is possible to work with the stroke only, adjusting the machine to its maximum force.

The function of the ring nut is to limit the stroke.

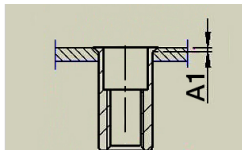
Piston travel and return are fully pneumatic, without return spring.

The machine is equipped with an additional unscrewing device in case the operator unintentionally inserts an unsuitable insert or incorrectly adjusts it and gets stuck.

Clamping parameters for rivet nut



Dome head rivet nut



Countersunk head rivet nut

A1 = 0 mm
A = from 1 to 1.5 mm
B = SS= Grip Range
C = Deformation chamber

D = Max deformation = C-A-SS

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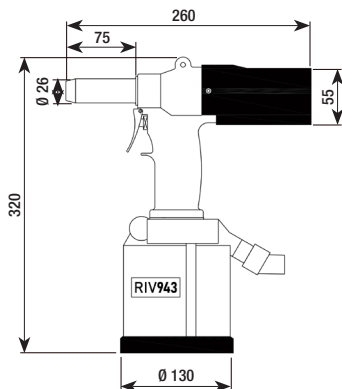
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TECHNICAL DATA

Below are the data and technical features of the tool to which you should refer for any contact with Rivet Nut USA
S.r.l. Technical Assistance.



Operating air pressure	6 bar
Min-max air pressure	5-7 bar
Air consumption per cycle at 6 bar	7.5 litres
Max. stroke	10.0 mm
Max. force	32.000 N
Motor speed (screwing cycle)	2.100 rpm a 6 bar
Motor speed (unscrewing cycle)	2.500 rpm a 6 bar
Weight	3.1 kg
Vibrations	< 2,5 m/s ²
Noise level	90 dB (A)

STANDARD EQUIPMENT AND ACCESSORIES

The equipments mentioned below refers to standard tools.
Any special tool could consequently require special parts, different to those hereunder listed.

Ref.	CODE	QUANTITY	DESCRIPTION
1	6568800	1	RIV943 - Hydropneumatic tool for rivet nuts (in pvc case)
2	3064400	1	Hydraulic oil type iso vg 32 100cc
3	3077300	1	Plastic case
4	0207300	1	Universal key
5	2533800	1	Stroke and emergency adjustment pin
6	4154200	1	Adjustment key 3 mm
7	3163300	1	Steel ring for balancer Ø 25 mm
-	6568600	1	User Manual



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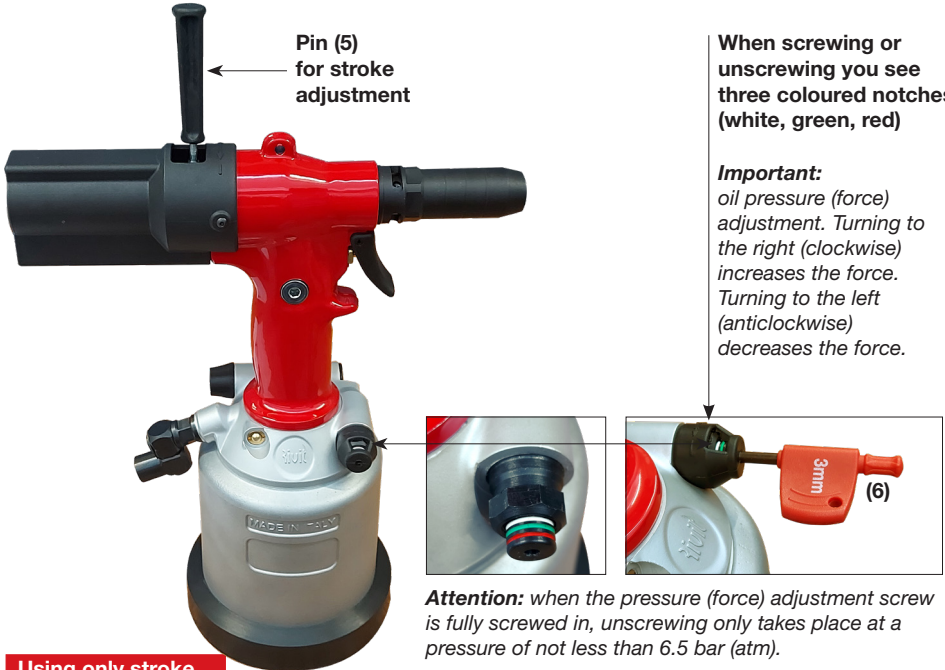
ADJUSTMENTS: PRESSURE AND STROKE

Using only pressure

unscrew the entire ring nut with the appropriate pin (5) all the way, then use the spanner (6) to adjust the pressure.

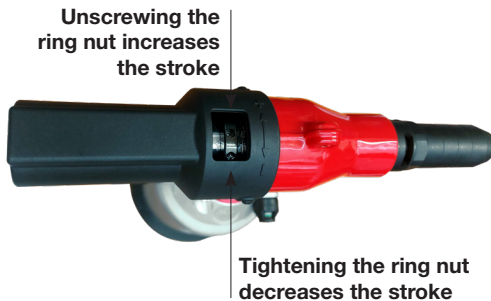
M4 M5 } White M6 M8 } Green M10 M12 } Red

NB: *These adjustments are indicative; the rivet nuts do not have a uniform hardness, so corrections must be made on the adjustment (+ or -).*



Using only stroke

Tighten the oil pressure adjustment screw to the maximum with the spanner (6).
Adjust the stroke with the pin (5) finding the position where the rivet nut is optimally secured.



It is recommended to start with the following indicative stroke values:

Rivet nut standard threaded	M4	M5	M6	M8	M10	M12
Stroke (mm)	2	2.5	3	4	5	6

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SAFETY

General Warnings

The Operator must read the information in this Manual very carefully, with particular regard to the appropriate safety precautions listed in this chapter.

It is also imperative that the Operator follows the warnings listed below:

- Obligation to wear personal protective equipment. 
- Use of the Tool by specialised personnel is recommended.
- Keep the Tool and the work area tidy and clean.
- Rest the Tool vertically on the rubber base in a flat area to prevent falls.
- Do not use the Tool unless in normal psychophysical conditions.
- Wear suitable clothing in order to avoid impediments and/or dangerous entanglements to/from the tool.
- Wear glasses or face shields and gloves when using the tool.  
- Do not remove or alter the plates affixed by Rivet Nut USA S.r.l. on the Tool.
- Do not let persons not involved in the work touch the tools.
- Ensure that the compressed air supply hoses are correctly sized for the intended use.
- Do not drag the tool connected to the power supply by pulling it by the hose; keep the hose away from heat sources and sharp objects.
- After carrying out repair and/or adjustment work, ensure that the service or adjustment keys are removed.
- Before disconnecting the compressed air hose from the tool, ensure that the tool is not under pressure.
- Repair and cleaning work on the tool must be carried out with the tool unpowered.
- Only use fluids with the characteristics indicated in this booklet for oil filling operations.
- If accidental oil spills come into contact with your skin, wash thoroughly with water and alkaline soap.
- Where possible, the use of a safety balancer to support the tool is recommended.
- Possible risk of whiplash from compressed air hoses.
- Do not point the tool towards the operator or other people nearby.

Intended use

The use of the tool is intended exclusively for female threaded rivet nuts (e.g. Rivet Nut USA RIVSERT type) with thread between M4 and M12, male threaded rivet nuts (e.g. Rivet Nut USA RIVBOLT type) with thread between M4 and M10.

Contraindications for use

The tool must not be used:

- For uses other than those set out in 4.2.
- In explosive or aggressive atmospheres or with a high concentration of dust or oily substances suspended in the air.
- In an atmosphere where there is a risk of fire.
- Exposed to the weather.

Residual risks

During the normal work cycle and during maintenance, Operators are exposed to certain residual risks which, by the very nature of the operations, cannot be totally eliminated:

- **Risk of breaking of the supply hose, as it contains compressed air. It is therefore essential that the maximum pressure value indicated in the technical data is not exceeded.**

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SAFETY

Identification/Serial number



INSTALLATION

Transport and handling

The tool can be transported by hand and it is advisable to store it in its packaging after use. Correct use of the case guarantees safe transport.

Damage to the tool caused during Transport and Handling, are not covered by WARRANTY.
Repairs or replacement of damaged parts are the responsibility of the Customer.

Storage

In the event of prolonged inactivity, the tool must be stored with precautions regarding storage place and time:

- Store the Tool in a closed place.
- Protect the machine from impacts and stress, using the appropriate case.
- Protect the Tool from humidity and high temperature fluctuations.
- Prevent the Tool from coming into contact with corrosive substances.

Connections

In order to avoid any problems when starting up the tool, it is best to follow the instructions below.

Pneumatic

Connection to the pneumatic network is made with a hose to be connected to the articulated coupling supplied with the tool.

The hose must be sufficiently flexible and meet the safety requirements for pressurised products.



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INSTALLATION

Air supply

The supply air must be free of foreign bodies and moisture to protect the tool from premature wear of moving parts; dry, unlubricated air is therefore recommended.

Preliminary Checks

Before operating the Tool, a series of checks and controls must be carried out in order to prevent errors or accidents.

- Check that the Tool has not been damaged during transport.
- Check the exact connection of the compressed air hose to the air connection supplied with the tool.
- Check the free movement and possible free rotation of the motor.

OPERATION

Users

The Tool has been designed for use by a single Operator.

Tool operators must satisfy the requirements stated hereafter (or they must be informed and trained accordingly). They must be aware of the manual herein and of all information relevant to safety:

- They must have some general and technical education, to a sufficient level to be able to understand the manual and to interpret the drawings and the diagrams correctly.
- They must be acquainted with the main hygienical rules, and with the industrial-safety and technological instructions.
- They must have an overall knowledge of the line and of the factory in which the tool is installed.
- They must know what to do in case of emergency, where to find the individual protection means and how to use them correctly.

Together with the above-mentioned requirements, the service technicians must also have an appropriate technical training.

DIAGNOSIS AND REPAIRS

Repairs

To ensure the operational efficiency and safety of the tool, all repair jobs shall be carried out exclusively by Rivet Nut USA.

Requesting assistance

For any information concerning Use, Maintenance, Installation, Repair and so on, email Rivet Nut USA at sales@rivetnutusa.com

When making inquiries the customer is requested to be absolutely clear and to make always reference to this Manual.

DISMANTLING INSTRUCTIONS

Dismantling instructions

When demolishing the tool plastic parts must be separated, which are to be and disposed of in compliance with current Regulations.

As for the bulk metal part of the tool, simply split-up the steel parts from those in other metals or alloys and send to be melted down and recycled.

The oil drained from the tool must not be thrown outdoors but handed over to an authorized spent oil disposal center.

ENCLOSED DOCUMENTS

Declaration

The following declaration is enclosed:

- Declaration of Conformity to DIRECTIVE 2006/42/EC.

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