



**RIV939**  
**HYDRO-PNEUMATIC TOOL**  
**FOR RIVET NUTS FROM**  
**#4-40 TO 1/2" AND M3 TO M12**  
**OPERATING INSTRUCTIONS**



**PennEngineering®**



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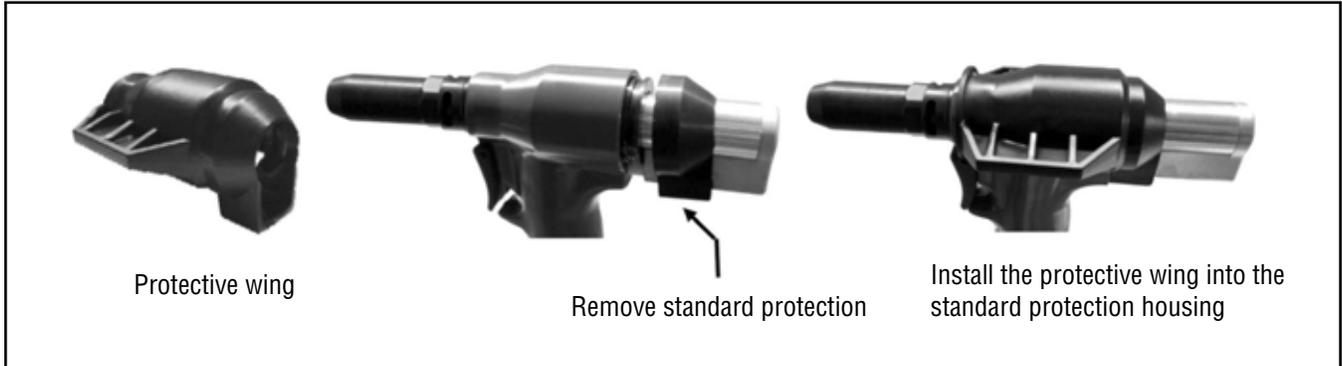
**NOTE: THE RIV938 TOOL COMES WITHOUT NOSE ASSEMBLY KITS.  
NOSE ASSEMBLY KITS HAVE TO BE ORDERED SEPARATELY ACCORDING TO THE USER NEEDS.**

1. Air piston return (without spring).
2. Power piston air outwardly, not through the piston.
3. Kit assembly with toothed ring nut (wrench no longer necessary).
4. Tie rods are now replaced by commercial screws.
5. Additional unscrewing in case the user installs the wrong insert, or in case it gets stuck due to an improper regulation.
6. One position trigger mechanism.
7. No adjustments are needed when there is a thickness change in materials.
8. No damages occurs to mandrel (or tie rod) if operations are repeated.
9. Lightweight.
10. Small dimensions.

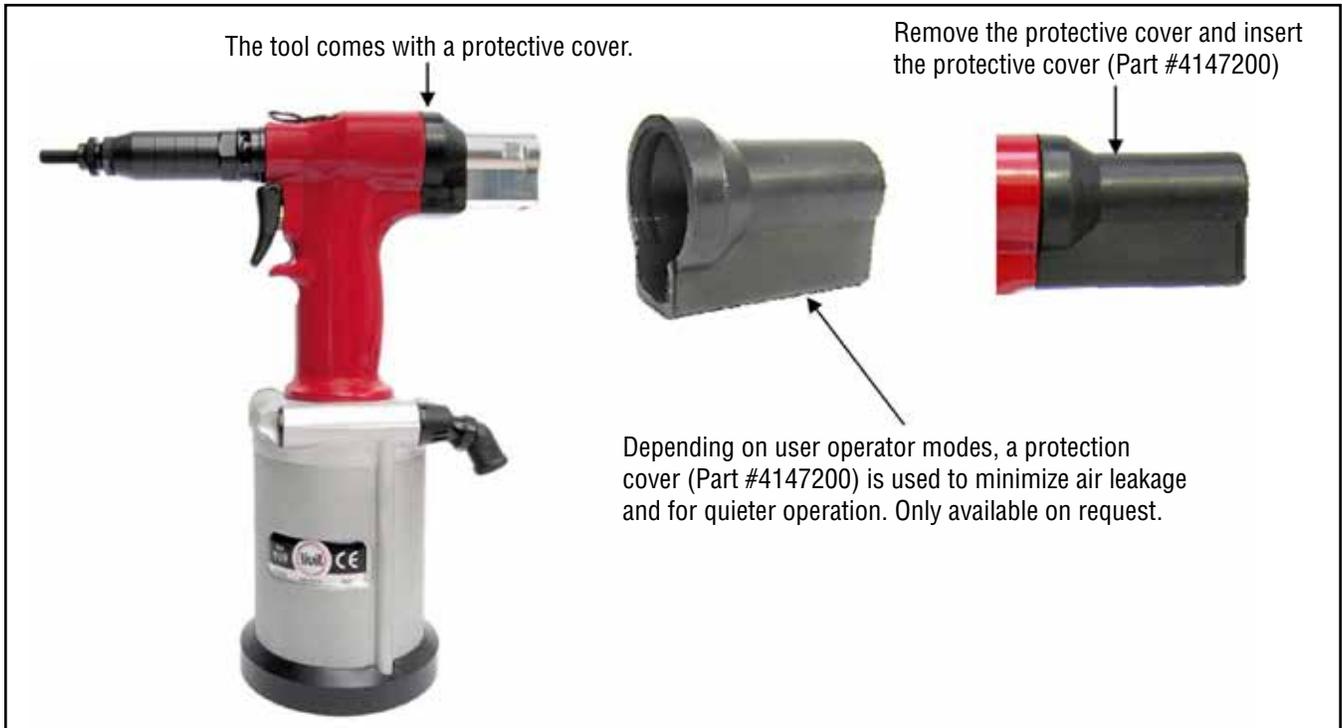
**RIV938 AND RIV938S**

**PROTECTIVE WING**

(optional accessory)



Together with the rubber base, it creates a support for the tool, avoiding any contact of the surface with the metal part of the tool body.



## GENERAL INFORMATION

### MANUFACTURER

Rivit S.r.l. was born in 1973, it produces and distributes in Fasteners and Tools for Fixings (tools for rivets and rivet nuts). The Company boasts much technical experience and offers a wide range of products related to fastening systems.

### ASSISTANCE

In case you need any assistance concerning the use and the maintenance of the tool, or in case you need to order any spare parts, you shall contact your local authorised dealer (or Rivit S.r.l. directly) specifying the identification/serial numbers of the tool, written on its outer casing.

### CERTIFICATION AND EC MARKING

The tool is manufactured in compliance with the European Directives, which are in force when the tool itself is put on the market. As the tool is not included in ENCLOSURE IV of DIRECTIVE 2006/42/EC, Rivit S.r.l. issues a self-certification to apply the EC marking.

### WARRANTY

The warranty has a validity of 12 months, as of the date indicated on the invoice.

The warranty only covers replaced parts; labor is not included.

The following are not covered by warranty: standard accessories (see section 2.5) and tool damages caused by:

- transport and/or handling, user's mistakes,
- failed servicing/maintenance, as indicated in section 7 of this manual,
- faults and/or breakages that are not attributable to tool anomalies,
- normal consumption of consumables.

The warranty is invalidated both in case of unauthorized tampering/replacements of tool components and in case of use of accessories, tools or consumables different to those recommended by the manufacturer, which could even cause injuries to the tool's user.

Rivit S.r.l. assumes responsibilities only if the tool is originally defective, but declines all forms of responsibility if the user fails to follow the instructions given.

### OPERATING SYSTEM

The hydro-pneumatic RIV939 tool, with oil pressure regulation, is designed to place female threaded inserts (from #4-40 to 1/2" and M3 to M12) and male threaded inserts (from #8-32 to 5/16" and M4 to M10). The hydro-pneumatic system and the mechanical components used inside the RIV939, when compared with other riveting tools, are more reliable. There is less wear and tear of the components, consequently the tool will last much longer and work better. The technical solutions adopted make the RIV939 more compact and lighter.

### MANUAL STRUCTURE

This instruction manual must be read with particular attention by the Customer, as the correct pre-arrangement, installation and use of the tool, are the correct basis for a good relationship between Manufacturer and Customer.

### PURPOSE AND CONTENTS

The manual herein has the purpose of providing the Customer with all the information needed not only to use the tool correctly, but also to manage it self-sufficiently and safely. It includes information concerning technical aspects, operation, maintenance, spare parts and safety.

**Users and Qualified Technicians must read the instructions given herein thoroughly before starting to use the tool.** If you have any doubts on the meaning of the instructions given, please do not hesitate to contact Rivit S.r.l. for further explanations.

## RECEIVERS

The manual herein has been written for both the operators and the technicians enabled to service the tool. Operators must not carry out jobs reserved to service and/or qualified technicians. Rivit S.r.l. is not liable for any damage deriving from the failed observance of this rule.

## PLACING OF THE MANUAL

This instruction manual must be kept near the tool, inside a dedicated container and, above all, away from liquids or anything else that may compromise its legibility.

## VIBRATION

When used correctly, the tool does not produce any dangerous vibration.

## NOISE LEVEL

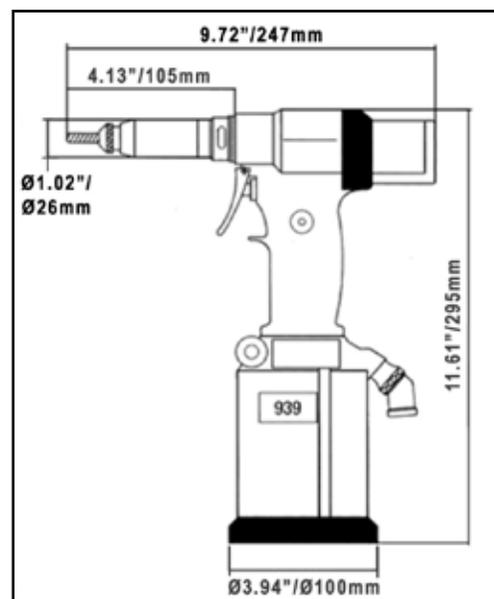
The tool is designed and manufactured in such a way that the noise level is very low. The weighed equivalent continuous acoustic pressure level A in the operator position is indeed below 80 dB (A). This information can allow the tool user to better evaluate the possible risks of danger.

## TECHNICAL DATA

The following table provides the technical data and features of the tool, to which you must refer when contacting the ATLAS® Technical Assistance Department at PennEngineering.

## TECHNICAL DATA AND FEATURES

AIR WORKING PRESSURE	90 PSI / 6 BAR
MAX AIR PRESSURE	70 to 100 PSI / 5 to 7 BAR
AIR CONSUMPTION PER CYCLE AT 6 BAR	305 cu. in. 5 liter
MAX STROKE	.256" / 6.5 mm
MAX. FORCE	6 lbs. / 26.6 N
MOTOR SPEED (SPIN ON)	2200 rpm
MOTOR SPEED (SPIN OFF)	1750 rpm
MOTOR SPEED (DIRECT SPIN OFF)	1850 rpm
WEIGHT	4.85 lbs. / 2.2 kg
VIBRATIONS	< 2.5 m/s <sup>2</sup>
NOISE LEVEL	76 dB (A)



**SPECIAL EXTENDED HEAD**

Part number 3531800



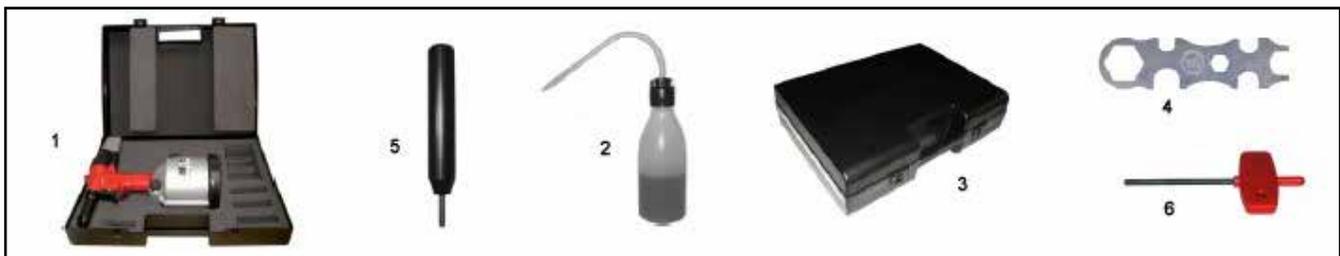
REF.	PART NUMBER	QTY	DESCRIPTION
A/1	3446600	1	90 MM EXTENDED SLEEVE
A/2	3446900	1	90 MM INTERNAL EXTENDED SLEEVE

**NOSE ASSEMBLIES AND STANDARD ACCESSORIES**

The nose assemblies stated hereafter refers to standard tools.

Any special tool could consequently require special parts, different than those listed.

REF.	PART NUMBER	QTY	DESCRIPTION
1	4621500	1	RIV939-HYDRO-PNEUMATIC TOOL FOR INSERTS (IN CASE)
2	3064400	1	HYDRAULIC OIL TYPE ISO VG 32 100CC
3	0369800	1	PLASTIC CASE
4	0207300	1	UNIVERSAL KEY
5	2533800	1	EMERGENCY AND STROKE REGULATION PIN
6	4154200	1	REGULATION WRENCH MM. 3,0
-	-	1	INSTRUCTION MANUAL



**OPTIONAL TOOLING**

For Blind Threaded Insert Installation.

**NOSE ASSEMBLY PART NUMBERS**

Thread Size	Part No. For Complete Insert Nose Assembly	Part No. For Replacement SHCS / Mandrel <sup>(1)</sup>
#4-40	4326700	MC-91251A078 (50/box)
#6-32	3755100	IN-14328 (100/box)
#8-32	3755500	IN-03190 (100/box)
#10-24	—	IN-08823 (100/box)
#10-32	3755900	IN-07085 (100/box)
1/4-20	3756100	IN-05336 (100/box)
1/4-28	—	IN-08057 (100/box)
5/16-18	3756300	IN-04153 (100/box)
5/16-24	—	IN-10834 (100/box)
3/8-16	3756700	IN-15776 (100/box)
3/8-24	—	IN-16488 (50/box)
1/2-13	4361600	—
M3	3441100	IN-06219 (200/box)
M4	3441200	IN-03023 (200/box)
M5	3441300	IN-03038 (200/box)
M6	3441400	IN-13128 (200/box)
M8	3441500	IN-21070 (100/box)
M10	3441600	IN-03088 (100/box)
M12	3441700	—



*(1) Replacement mandrels sold in box quantities shown above.*

**HEAD RING NUT**

Can be ordered separately. Part number 0327700.



**SPECIAL HEAD**

Head and holes can be ordered in different diameters. Part number 4281000.



**KIT FOR BLIND THREADED INSERT #4-40**



REF.	PART NUMBER	QTY	DESCRIPTION
1	4326700	1	KIT FOR BLIND THREADED INSERT #4-40 SOCKET HEAD CAP SCREW

**KIT COMPOSITION**



REF.	PART NUMBER	QTY	DESCRIPTION
2	4326300	1	HEAD WITH RING NUT FOR #4-40 SCREW
3	4326400	1	ADAPTER FOR #4-40 SCREW (HOLE Ø 3.0)
4	MC-91251A078 (50/box)	1	SOCKET CAP SCREW #4-40 X 1.5"
5	4326500	1	HEXAGONAL JOINT WITH SPRING FOR #4-40 SCREW

**KIT FOR BLIND THREADED INSERT #6-32**


REF.	PART NUMBER	QTY	DESCRIPTION
1	3755100	1	KIT FOR BLIND THREADED INSERT #6-32 SOCKET HEAD CAP SCREW

**KIT COMPOSITION**


REF.	PART NUMBER	QTY	DESCRIPTION
2	3755200	1	HEAD WITH RING NUT FOR #6-32 SCREW
3	3753300	1	ADAPTER FOR #6-32 SCREW (HOLE Ø 3.6)
4	IN-14328 (100/box)	1	SOCKET CAP SCREW #6-32 X 1.5"
5	3753400	1	HEXAGONAL JOINT WITH SPRING FOR #6-32 SCREW

**KIT FOR BLIND THREADED INSERT #8-32**



REF.	PART NUMBER	QTY	DESCRIPTION
1	3755500	1	KIT FOR BLIND THREADED INSERT #8-32 SOCKET HEAD CAP SCREW

**KIT COMPOSITION**



REF.	PART NUMBER	QTY	DESCRIPTION
2	3755600	1	HEAD WITH RING NUT FOR #8-32 SCREW
3	3753800	1	ADAPTER FOR #8-32 SCREW (HOLE Ø 4.2)
4	IN-03190 (100/box)	1	SOCKET CAP SCREW #8-32 X 1.5"
5	3753900	1	HEXAGONAL JOINT WITH SPRING FOR #8-32 SCREW

**KIT FOR BLIND THREADED INSERT #10-32**


REF.	PART NUMBER	QTY	DESCRIPTION
1	37555900	1	KIT FOR BLIND THREADED INSERT #10-32 SOCKET HEAD CAP SCREW

**KIT COMPOSITION**


REF.	PART NUMBER	QTY	DESCRIPTION
2	3755600	1	HEAD WITH RING NUT FOR #10-32 SCREW
3	3471700	1	ADAPTER FOR #10-32 SCREW (HOLE Ø 5.0)
4	IN-07085 (100/box)	1	SOCKET CAP SCREW #10-32 X 2.25"
4	IN-08823 (100/box)	1	SOCKET CAP SCREW #10-24 X 2.25"
5	3472000	1	HEXAGONAL JOINT FOR #10-32 SCREW

**KIT FOR BLIND THREADED INSERT 1/4-20**



REF.	PART NUMBER	QTY	DESCRIPTION
1	3756100	1	KIT FOR BLIND THREADED INSERT 1/4-20 SOCKET HEAD CAP SCREW

**KIT COMPOSITION**



REF.	PART NUMBER	QTY	DESCRIPTION
2	3756200	1	HEAD WITH RING NUT FOR 1/4-20 SCREW
3	3754600	1	ADAPTER FOR 1/4-20 SCREW (HOLE Ø 6.5)
4	IN-05336 (100/box)	1	SOCKET CAP SCREW 1/4-20 X 2.25"
4	IN-08057 (100/box)	1	SOCKET CAP SCREW 1/4-28 X 2.25"
5	3754700	1	HEXAGONAL JOINT FOR 1/4-20 SCREW

**KIT FOR BLIND THREADED INSERT 5/16-18**


REF.	PART NUMBER	QTY	DESCRIPTION
1	3756300	1	KIT FOR BLIND THREADED INSERT 5/16-18 SOCKET HEAD CAP SCREW

**KIT COMPOSITION**


REF.	PART NUMBER	QTY	DESCRIPTION
2	3756400	1	HEAD WITH RING NUT FOR 5/16-18 SCREW
3	3755300	1	ADAPTER FOR 5/16-18 SCREW (HOLE Ø 8.1)
4	IN-04153 (100/box)	1	SOCKET CAP SCREW 5/16-18 X 2.25"
4	IN-10834 (100/box)	1	SOCKET CAP SCREW 5/16-24 X 2.25"
5	3755000	1	HEXAGONAL JOINT FOR 5/16-18 SCREW

**KIT FOR BLIND THREADED INSERT 3/8-16**

1



REF.	PART NUMBER	QTY	DESCRIPTION
1	3756700	1	KIT FOR BLIND THREADED INSERT 3/8-16 SOCKET HEAD CAP SCREW

**KIT COMPOSITION**



REF.	PART NUMBER	QTY	DESCRIPTION
2	3756800	1	HEAD WITH RING NUT FOR 3/8-16 SCREW
3	IN-15776 (100/box)	1	SOCKET CAP SCREW 3/8-16 X 2.5"
3	IN-16488 (50/box)	1	SOCKET CAP SCREW 3/8-24 X 2.5"
4	3755700	1	HEXAGONAL JOINT FOR 3/8-16 SCREW

**KIT FOR BLIND THREADED INSERT 1/2-13**

1



REF.	PART NUMBER	QTY	DESCRIPTION
1	4361600	1	KIT FOR BLIND THREADED INSERT 1/2-13

**KIT COMPOSITION**


REF.	PART NUMBER	QTY	DESCRIPTION
2	4378400	1	M8X6 SOCKET CAP SCREW NUT
3	4378500	1	M8 - 1/2-13 UNC DOUBLE THREAD BUSH
4	4378600	1	HEAD (HOLE Ø 8.1)
5	3472600	1	ADAPTER (HOLE Ø 8.1)
6	4187000	1	M8X70 SOCKET HEAD CAP SCREW 8.8, UNI 5931
7	3472900	1	HEXAGONAL JOINT FOR M8 SCREW

**KIT FOR BLIND THREADED INSERT M3**



REF.	PART NUMBER	QTY	DESCRIPTION
1	3441100	1	KIT FOR BLIND THREADED INSERT M3 SOCKET HEAD CAP SCREW

**KIT COMPOSITION**



REF.	PART NUMBER	QTY	DESCRIPTION
2	3457500	1	HEAD WITH RING NUT FOR M3 SCREW
3	3457400	1	ADAPTER FOR M3 SCREW
4	IN-06219 (200/box)	1	SOCKET CAP SCREW M3X40 12.9 UNI5931/DIN912
5	3466200	1	HEXAGONAL JOINT WITH SPRING FOR M3 SCREW

On request, we can provide a longer screw than the standard one.

REF.	PART NUMBER	QTY	DESCRIPTION
4a	2193500	1	SOCKET CAP SCREW M3X50 12.9 UNI5931/DIN912

**KIT FOR BLIND THREADED INSERT M4**


REF.	PART NUMBER	QTY	DESCRIPTION
1	3441200	1	KIT FOR BLIND THREADED INSERT M4 SOCKET HEAD CAP SCREW

**KIT COMPOSITION**


REF.	PART NUMBER	QTY	DESCRIPTION
2	3470200	1	HEAD WITH RING NUT FOR M4 SCREW
3	3466300	1	ADAPTER FOR M4 SCREW
4	IN-03023 (200/box)	1	SOCKET CAP SCREW M4X55 12.9 UNI5931/DIN912
5	3470600	1	HEXAGONAL JOINT WITH SPRING FOR M4 SCREW

On request, we can provide a longer screw than the standard one.

REF.	PART NUMBER	QTY	DESCRIPTION
4a	4186400	1	SOCKET CAP SCREW M4X65 12.9 UNI5931/DIN912

**KIT FOR BLIND THREADED INSERT M5**



REF.	PART NUMBER	QTY	DESCRIPTION
1	3441300	1	KIT FOR BLIND THREADED INSERT M5 SOCKET HEAD CAP SCREW

**KIT COMPOSITION**



REF.	PART NUMBER	QTY	DESCRIPTION
2	3471800	1	HEAD WITH RING NUT FOR M5 SCREW
3	3471700	1	ADAPTER FOR M5 SCREW
4	IN-03038 (200/box)	1	SOCKET CAP SCREW M5X55 12.9 UNI5931/DIN912
5	3472000	1	HEXAGONAL JOINT FOR M5 SCREW

On request, we can provide a longer screw than the standard one.

REF.	PART NUMBER	QTY	DESCRIPTION
4a	4285500	1	SOCKET CAP SCREW M5X65 12.9 UNI5931/DIN912

**KIT FOR BLIND THREADED INSERT M6**


REF.	PART NUMBER	QTY	DESCRIPTION
1	3441400	1	KIT FOR BLIND THREADED INSERT M6 SOCKET HEAD CAP SCREW

**KIT COMPOSITION**


REF.	PART NUMBER	QTY	DESCRIPTION
2	3472200	1	HEAD WITH RING NUT FOR M6 SCREW
3	3472100	1	ADAPTER FOR M6 SCREW
4	IN-13128 (200/box)	1	SOCKET CAP SCREW M6X55 12.9 UNI5931/DIN912
5	3472500	1	HEXAGONAL JOINT FOR M6 SCREW

On request, we can provide a longer screw than the standard one.

REF.	PART NUMBER	QTY	DESCRIPTION
4a	4285300	1	SOCKET CAP SCREW M6X65 12.9 UNI5931/DIN912

**KIT FOR BLIND THREADED INSERT M8**

1



REF.	PART NUMBER	QTY	DESCRIPTION
1	3441500	1	KIT FOR BLIND THREADED INSERT M8 SOCKET HEAD CAP SCREW

**KIT COMPOSITION**



REF.	PART NUMBER	QTY	DESCRIPTION
2	3472700	1	HEAD WITH RING NUT FOR M8 SCREW
3	3472600	1	ADAPTER FOR M8 SCREW
4	IN-21070 (100/box)	1	SOCKET CAP SCREW M8X60 12.9 UNI5931/DIN912
5	3472900	1	HEXAGONAL JOINT FOR M8 SCREW

On request, we can provide a longer screw than the standard one.

REF.	PART NUMBER	QTY	DESCRIPTION
4a	2192800	1	SOCKET CAP SCREW M8X65 12.9 UNI5931/DIN912

**KIT FOR BLIND THREADED INSERT M10**

1



REF.	PART NUMBER	QTY	DESCRIPTION
1	3441600	1	KIT FOR BLIND THREADED INSERT M10 SOCKET HEAD CAP SCREW

**KIT COMPOSITION**


REF.	PART NUMBER	QTY	DESCRIPTION
2	0329000	1	HEAD WITH RING NUT FOR M10 SCREW
3	IN-03088 (100/box)	1	SOCKET CAP SCREW M10X60 12.9 UNI5931/DIN912
4	3441800	1	HEXAGONAL JOINT FOR M10 SCREW

On request, we can provide a longer screw than the standard one.

REF.	PART NUMBER	QTY	DESCRIPTION
3a	2428500	1	SOCKET CAP SCREW M10X70 12.9 UNI5931/DIN912
3b	4180100	1	SOCKET CAP SCREW M10X1.25X60 12.9 UNI5931/DIN912

**KIT FOR BLIND THREADED INSERT M12**



REF.	PART NUMBER	QTY	DESCRIPTION
1	3441600	1	KIT FOR BLIND THREADED INSERT M12 SOCKET HEAD CAP SCREW

**KIT COMPOSITION**



REF.	PART NUMBER	QTY	DESCRIPTION
2	0329000	1	HEAD WITH RING NUT FOR M12 SCREW
3	4316200	1	TOOTHED BLOCKING RING NUT
4	3473100	1	SOCKET CAP SCREW M12X60 12.9 UNI5931/DIN912
5	3441800	1	HEXAGONAL JOINT FOR M12 SCREW

**OPTIONAL TOOLING**

For Blind Threaded Stud Installation.

**NOSE ASSEMBLY PART NUMBERS**

Thread Size	Part No. For Complete Stud Nose Assembly
#8-32	4361900
#10-24	4362000
1/4-20	4362100
5/16-18	4362200
M4	3442300
M5	3442400
M6	3442500
M8	3442600
M10	4601900



*Nose assembly screws into here*

**Stud Nose Assembly**

Kits are sold separately. A different kit is required for each thread size.

The tool is available with different kinds of head assemblies.



**HEAD RING NUT**

Can be ordered separately. Part number 0327700.



**KIT FOR BLIND THREADED STUD #8-32**



REF.	PART NUMBER	QTY	DESCRIPTION
1	4361900	1	KIT FOR BLIND THREADED STUD #8-32

**KIT COMPOSITION**



REF.	PART NUMBER	QTY	DESCRIPTION
2	2561200	1	HEAD WITH RING NUT FOR #8-32 STUD (HOLE Ø 4.25)
3	4377000	1	TIE ROD FOR #8-32 STUD
4	3441800	1	HEXAGONAL JOINT

**KIT FOR BLIND THREADED STUD #10-32**



REF.	PART NUMBER	QTY	DESCRIPTION
1	4362000	1	KIT FOR BLIND THREADED STUD #10-32

**KIT COMPOSITION**



REF.	PART NUMBER	QTY	DESCRIPTION
2	2561300	1	HEAD WITH RING NUT FOR #10-32 STUD (HOLE Ø 5.1)
3	4376700	1	TIE ROD FOR #10-32 STUD
4	3441800	1	HEXAGONAL JOINT

**KIT FOR BLIND THREADED STUD 1/4-20**

1



REF.	PART NUMBER	QTY	DESCRIPTION
1	4362100	1	KIT FOR BLIND THREADED STUD 1/4-20

**KIT COMPOSITION**



REF.	PART NUMBER	QTY	DESCRIPTION
2	4376800	1	HEAD WITH RING NUT FOR 1/4-20 STUD (HOLE Ø 6.5)
3	4376900	1	TIE ROD FOR 1/4-20 STUD
4	3441800	1	HEXAGONAL JOINT

**KIT FOR BLIND THREADED STUD 5/16-18**

1



REF.	PART NUMBER	QTY	DESCRIPTION
1	4362200	1	KIT FOR BLIND THREADED STUD 5/16-18

**KIT COMPOSITION**


2



3



4



5

REF.	PART NUMBER	QTY	DESCRIPTION
2	2700500	1	HEAD WITH RING NUT FOR 5/16-18 STUD (HOLE Ø 8.1)
3	4316200	1	TOOTHED BLOCKING RING NUT
4	4376200	1	TIE ROD FOR 5/16-18 STUD
5	3441800	1	HEXAGONAL JOINT

**KIT FOR BLIND THREADED STUD M4**



REF.	PART NUMBER	QTY	DESCRIPTION
1	3442300	1	KIT FOR BLIND THREADED STUD M4

**KIT COMPOSITION**



REF.	PART NUMBER	QTY	DESCRIPTION
2	2561200	1	HEAD WITH RING NUT FOR M4 STUD
3	3441900	1	TIE ROD FOR M4 STUD
4	3441800	1	HEXAGONAL JOINT FOR M4 SOCKET CAP SCREW STUD

**KIT FOR BLIND THREADED STUD M5**


REF.	PART NUMBER	QTY	DESCRIPTION
1	3442400	1	KIT FOR BLIND THREADED STUD M5

**KIT COMPOSITION**


REF.	PART NUMBER	QTY	DESCRIPTION
2	2561300	1	HEAD WITH RING NUT FOR M5 STUD
3	3442000	1	TIE ROD FOR M5 STUD
4	3441800	1	HEXAGONAL JOINT FOR M5 SOCKET CAP SCREW STUD

**KIT FOR BLIND THREADED STUD M6**



REF.	PART NUMBER	QTY	DESCRIPTION
1	3442500	1	KIT FOR BLIND THREADED STUD M6

**KIT COMPOSITION**



REF.	PART NUMBER	QTY	DESCRIPTION
2	2561400	1	HEAD WITH RING NUT FOR M6 STUD
3	3442100	1	TIE ROD FOR M6 STUD
4	3441800	1	HEXAGONAL JOINT FOR M6 SOCKET CAP SCREW STUD

**KIT FOR BLIND THREADED STUD M8**

1



REF.	PART NUMBER	QTY	DESCRIPTION
1	3442600	1	KIT FOR BLIND THREADED STUD M8

**KIT COMPOSITION**


REF.	PART NUMBER	QTY	DESCRIPTION
2	2700500	1	HEAD WITH RING NUT FOR M8 STUD
3	4316200	1	TOOTHED BLOCKING RING NUT
4	3442200	1	TIE ROD FOR M8 STUD
5	3441800	1	HEXAGONAL JOINT FOR M8 SOCKET CAP SCREW STUD

**KIT FOR BLIND THREADED STUD M10**

1



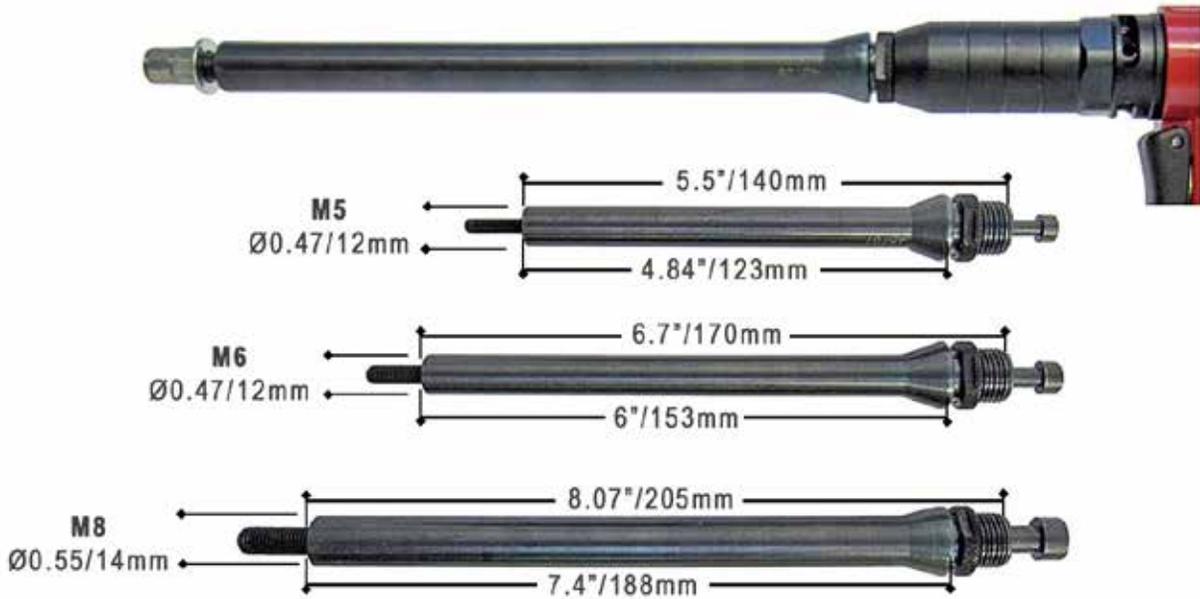
REF.	PART NUMBER	QTY	DESCRIPTION
1	4601900	1	KIT FOR BLIND THREADED STUD M10

**KIT COMPOSITION**



REF.	PART NUMBER	QTY	DESCRIPTION
2	4601700	1	HEAD WITH RING NUT FOR M10 STUD
3	4601600	1	EXTERNAL SLEEVE
4	4601800	1	FEMALE TIE ROD FOR M10 STUD
5	3540100	1	TIE ROD CONNECTOR WITH O-RING

## HEAD EXTENSIONS



The total length of the extension is obtained using the Head Extension and the External Sleeve on the tool.

To get a 140mm head extension, simply request Part Number #4572500 consisting of:

- Part #4570700 - Head Extension D. 12x140 for M5 inserts.
- Part #45513GR - Socket head cap screw UNI5931/DIN912 plain M5x170.

To get a 170mm head extension, simply request Part Number #4572600 consisting of:

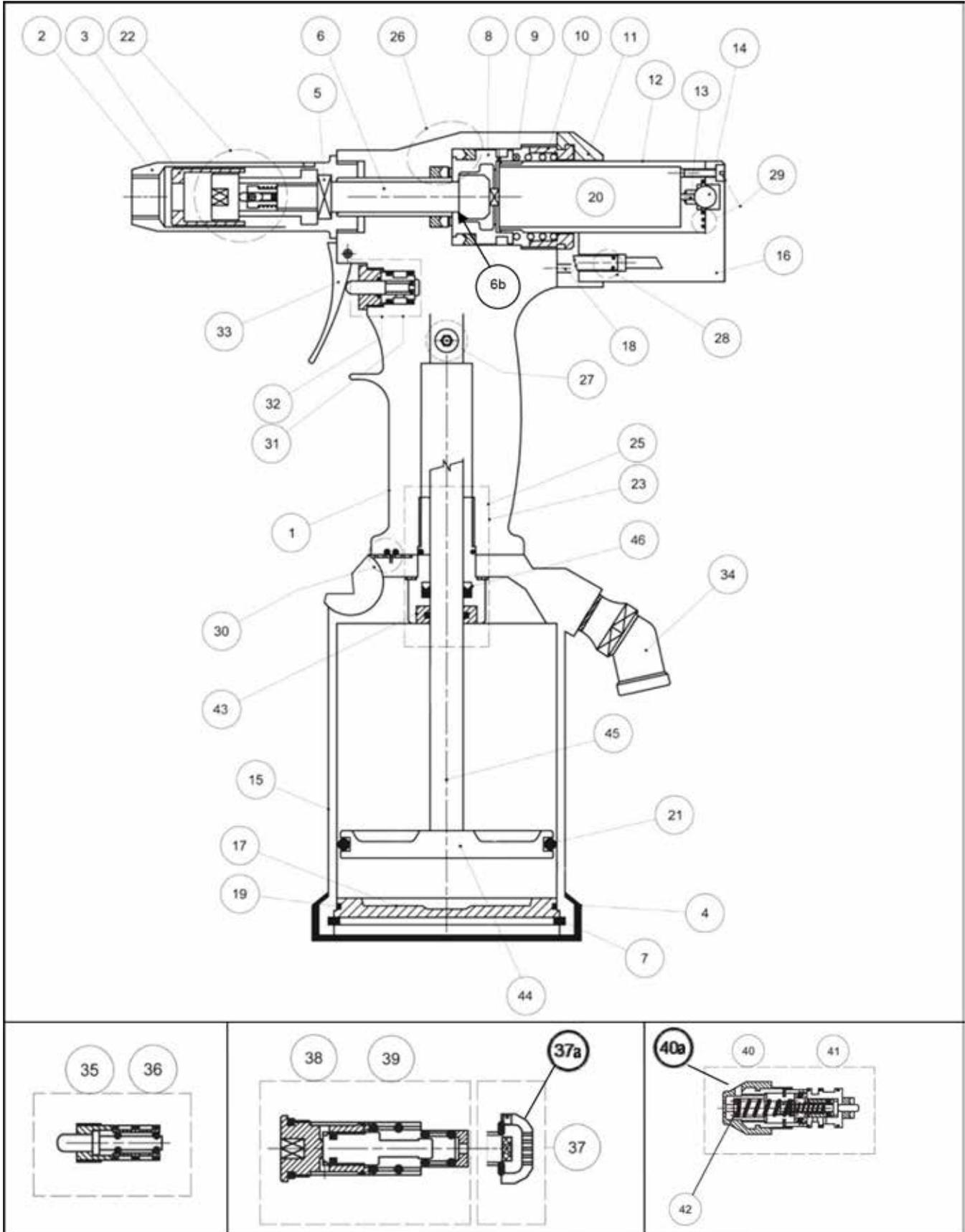
- Part #4570800 - Head Extension D. 12x170 for M6 inserts.
- Part #45702GR - Socket head cap screw UNI5931/DIN912 plain M6x200.

To get a 205mm head extension, simply request Part Number #4572600 consisting of:

- Part #4570900 - Head Extension D. 14x205 for M8 inserts.
- Part #45514GR - Socket head cap screw UNI5931/DIN912 plain M8x240.



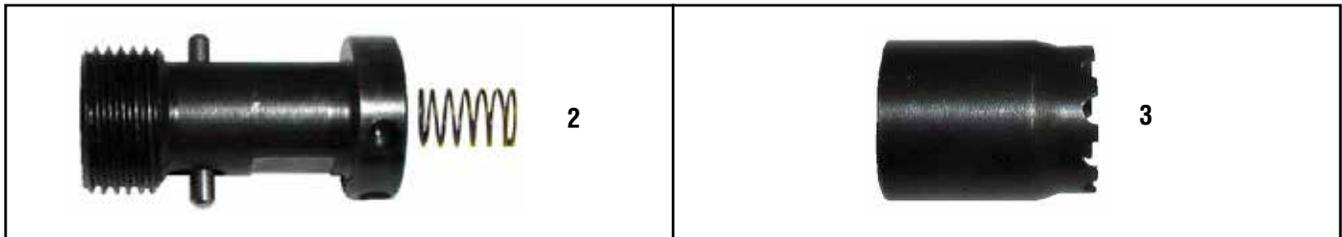
**SPARE PARTS**





REF.	PART NUMBER	QTY	DESCRIPTION	REF.	PART NUMBER	QTY	DESCRIPTION
1	4153100	1	HANDLE CASING	26	4151000	1	PISTON GASKET KIT (2 PIECES)
2	3539900	1	OUTER CONE	27	4175700	1	OIL CAP KIT WITH O-RING
3	4172400	1	TOOTHED BLOCKING RING NUT M3-M10	28	4175600	1	AIR HOSES KIT WITH O-RING (6 PIECES)
4	4165100	1	RUBBER BASE	29	4151100	1	O-RING KIT AND SCREWS (5 PIECES)
5	3098600	1	RING NUT	30	4152300	1	FLAT GASKET KIT AND O-RING
6	4151500	1	ROTATING PIN AND SKIMMER	31	4151200	1	O-RING KIT (4 PIECES)
6b	3097900	1	SKIMMER WASHER	32	4156900	1	KIT COMPLETE WITH O-RING (7 PIECES)
7	3093200	1	SNAP RING	33	4153400	1	LEVER - PIN KIT
8	4151300	1	OIL PISTON	34	3235500	1	AIR CONNECTION THREAD 1/4" PLUS 1/4" GAS PLUS ALUMINUM WASHER
9	4151700	1	SPRING	35	4157000	1	KIT COMPLETE WITH O-RING (8 PIECES)
10	4151800	1	RING NUT	36	4156600	1	O-RING KIT (5 PIECES)
11	4151900	1	PROTECTION	37	4291600	1	BAFFLE KIT (3 PIECES)
12	3761500	1	MOTOR CASING	37a	4412900	1	DEFLECTOR
13	3761300	1	ROD	38	4155800	1	O-RING KIT (7 PIECES)
14	3096900	1	BALL	39	4157100	1	KIT COMPLETE WITH O-RING (13 PIECES)
15	464300	1	AIR BODY	40	4154400	1	GASKET KIT (7 PIECES)
16	4152000	1	DISPENSER	40a	4412100	1	MANOSTAT PROTECTIVE COVER
17	3762300	1	BOTTOM	41	4157200	1	KIT COMPLETE (18 PIECES)
18	4152100	1	PIN	42	4647500	1	SPACE
19	3762200	1	O-RING	43	4645600	1	O-RING HOLDER RING NUT
20	3761000	1	MOTOR UNIT	44	4645400	1	PISTON
21	3235600	1	O-RING	45	4645500	1	STEM
22	4174200	1	QUICK KIT WITH SPRING	46	4645700	1	GASKET
23	4647700	1	GASKET KIT (3 PIECES)	—	4316600		SEE KIT PAGE 31
25	4647600	1	COMPLETE STEM GUIDE KIT (6 PIECES)				

**QUICK KIT COMPLETE WITH SPRING**

**QUICK KIT COMPLETE WITH SPRING WITHOUT TOOTHED RING NUT**
**TOOTHED RING NUT ASSEMBLED ON THE TOOL**

**SPECIAL TOOTHED RING NUT FOR M8 SOCKET CAP SCREW  
NO NEED FOR REDUCTION (PART NUMBER 3472600) (OPTIONAL)**


REF.	PART NUMBER	QTY	DESCRIPTION
1	4174200	1	QUICK KIT COMPLETE WITH SPRING
2	4176900	1	QUICK KIT WITH SPRING AND WITHOUT TOOTHED RING NUT
3	4172400	1	TOOTHED RING NUT M3 - M10
4	4280300	1	SPECIAL TOOTHED RING NUT, HOLE Ø 8

**HIGH RESISTANCE SPECIAL KIT FOR M8 WITH FIXED RING NUT**

For use with M8 rivet nuts only. The locking ring (Part #4508700) is made from high resistance material for a consistent tolerance and increased durability.



Kit Part #4508800



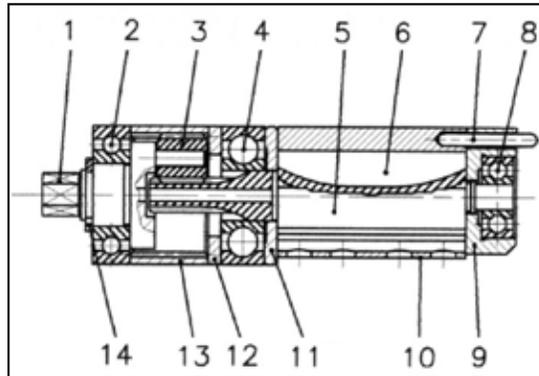
Part #4508700



Part #3540100

**MOTOR UNIT SPARE PARTS (KIT 20)**

Part number 3761000.



REF.	PART NUMBER	QTY	DESCRIPTION	REF.	PART NUMBER	QTY	DESCRIPTION
1	3763400	1	PLANET WHEEL HOLDER	8	3327300	1	BEARING
2	3763300	1	BEARING	9	3327400	1	REAR PLATE
3	3763200	1	PLANET WHEEL	10	3327000	1	STATOR
4	3327500	1	BEARING	11	3326900	1	FRONT PLATE
5	3523400	1	ROTOR	12	3763700	1	SPACER
6	3327100	1	FIN	13	3763600	1	CROWN WHEEL
7	3327200	1	ROLLER	14	3763500	1	SNAP RING

**NOTE:** When placing an order, always reference the part number and the description.

**COMPLETE MOTOR KIT CONSISTING OF 5 ITEMS**

Part number 4316600.



**ORDERING SPARE PARTS**

Only local authorized dealers are allowed to repair the tool. Otherwise, contact the ATLAS® Technical Assistance Department of PennEngineering, where qualified engineers can help to solve any problems.

## GENERAL WARNINGS

The operator must read carefully the information given in the present manual, especially with regard to the safety precautions listed in this chapter. The operator must also observe the warnings listed below:

- The tool shall be used exclusively by trained personnel.
- The tool and the work area shall be kept clean and tidy.
- The tool shall be rested upright on the rubber base on a flat surface to prevent it from falling.
- The tool shall only be used in normal operating conditions.
- The user shall wear suitable clothing taking care to avoid entanglement of loose parts, ties, long hair, cleaning rags etc. in the tool itself.
- When using the tool, the operator and others nearby should wear safety glasses to protect against fastener ejection. We also recommend wearing gloves when using the tool.
- The user shall use the accessories supplied when servicing and/or adjusting the tool.
- The plates applied on the tool by Rivit S.r.l. shall not be removed or altered.
- Unauthorized personnel shall not be allowed to touch the tool.
- Make sure that the air supply hoses are correctly sized.
- Do not drag the tool holding it by the hose when it is connected to the power supply. Keep the hose away from sources of heat and from sharp objects.
- Remember to remove service or adjustment keys after having making a repair and/or adjustment.
- Before disconnecting the compressed air hose from the tool, ensure it is not pressurized.
- Disconnect the air supply before cleaning or making tool repairs.
- Air supply must be disconnected before making tool repairs and cleaning.
- When filling with oil, only use fluids with the characteristics indicated herein.
- If you should accidentally spill oil on your skin, rinse and wash thoroughly with soap and water.
- Where possible, you are recommended to use a safety balance to support the tool.
- Pay attention to possible risk of whiplash with the air supply hoses.
- Do not operate the tool when it is directed towards anyone.

## INTENDED USE

The tool is designed exclusively to be used with female threaded type inserts with thread sizes #4-40 to 1/2" / M3 to M10 and male threaded type studs #8-32 to 3/8" / M4 to M10.

## UNINTENDED USE

The tool shall not be used:

- In explosive or aggressive atmosphere or when there is an excessive amount of dust or oil in the air.
- In atmosphere subject to the risk of fire.
- When it is exposed to weather conditions.

## RESIDUE RISK

During the normal working cycle and when servicing the tool, the operators are exposed to some residue risks which, due to the nature of the operations to be carried out, cannot be totally eliminated.

***It is therefore absolutely crucial not to exceed the maximum pressure indicated in the technical data section on page 6.***

## IDENTIFICATION/SERIAL NUMBER



## HANDLING

The tool can be hand carried. It is recommended to store the tool in its case after using it. The tool can be transported safely if it has been correctly put away in its case.

***Damages to the tool caused during transport and/or handling are not covered by WARRANTY. Repairs or replacements of damaged parts are at Customer's charge.***

## STORAGE

If you are not going to use the tool for a long time, you must put it away according to the following suggestions:

- Store the tool indoors.
- Protect the tool from impacts and stresses by keeping it in its case.
- Protect the tool from damp and excessive heat.
- Keep the tool away from corrosive substances.

## CONNECTIONS

To avoid problems when starting the tool, observe the following:

## PNEUMATIC

The pneumatic line is connected by a quick-release coupling hose to be attached to the air connection, thread size 1/4", supplied with the tool. The air supply hose must be flexible and must meet the safety requirements of the tool.

## AIR SUPPLY

The air supply line must be free from dirt and moisture to prevent early wear of moving components on the tool. Therefore, it is recommended to use dry air: i.e. not greased.

## PRELIMINARY CHECKS

Before putting the tool into service you need to make a few inspections and checks in order to prevent errors or accidents while starting it.

- Check if the tool has been damaged during transportation.
- Check if the compressed air hose is accurately connected to the air supply line.
- Check if the tool turns freely and if the motor runs freely.

## OPERATORS

The tool is designed to be used by one operator only.

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 safety rules, and with the industrial-safety and technical instructions.
- They must have an overall knowledge of the line and of the factory in which the tool is installed.
- They must know how to act in case of emergency, where to find the individual protection means and how to use them correctly.

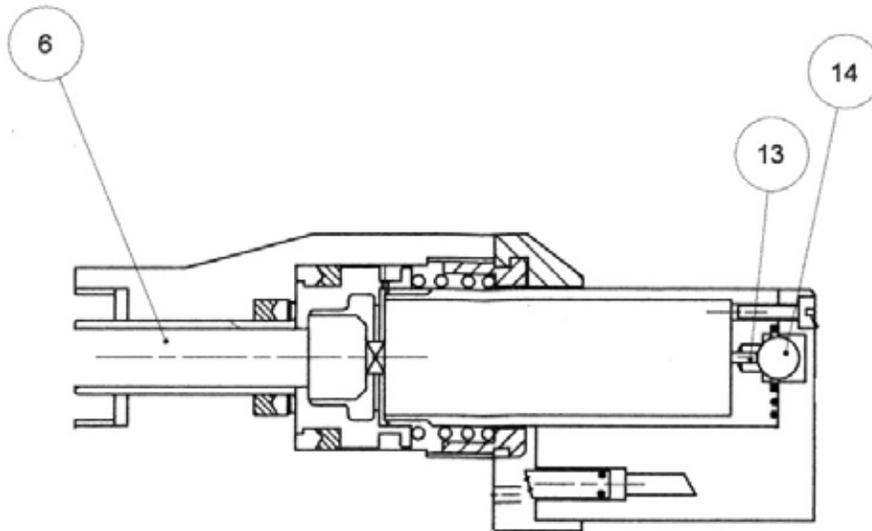
Together with the above-mentioned requirements, the service technicians must also have appropriate technical training.

### MOTOR SCREWING ROTATES NONSTOP

When the rotating pin (6 part number 4151500) is broken and you replace it, the motor may rotate continuously, which means that the shaft (13 part number 3761300) is too long; in this case it will have to be shortened by a few tenths to obtain the closure of the ball (14 part number 3096900). When the air is on, the shaft shall have no end float.

### MOTOR UNSCREWING DOES NOT ROTATE

Unlike the situation above, the shaft is too short and it has to be replaced with a new one, fitting it without end float, with the air on, in order to obtain the closure of the ball (14 part number 3096900).



### TOOL PREPARATION AND SCREW REPLACEMENT

**Warning:** Tool setting and screw replacement must be carried out with the tool disconnected from the air supply line.

There must be a distance of .060" / 1.5 mm between the casing and the nut for motor screwing.

To replace screws you have to carry out the following operations:  
 Unscrew the toothed ring 1 from the tool. Insert joint 2. Insert screw 3. Insert screw adapter 4. Screw the toothed ring 1 making sure that the screw (or tie rod) moves freely, then try and find the most suitable joint (see indented ring). Screw on 5 and 6.

### TO UNSCREW THE KIT HOLDER QUICK RING

Simultaneously press the two pins sliding them into the hole and unscrew the ring.



### OIL (FORCE) PRESSURE REGULATION SETTINGS

M3 / #4-40 -	White
#6-32 -	White
M4 / #8-32 -	Yellow
M5 / #10-32 -	Yellow
M6 / 1/4-20 -	Orange
M8 / 5/16-18 -	Orange
M10 / 3/8-16 -	Orange

**Note:** These settings are general guidelines to the operator. Inserts are not uniform as hardness and therefore some modifications may be necessary (+ or -).

### IMPORTANT

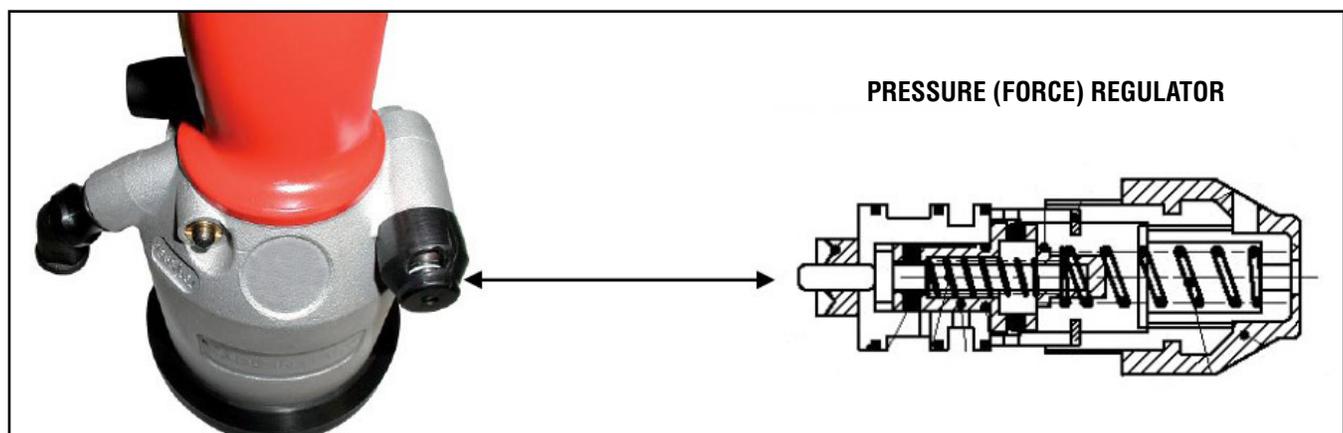
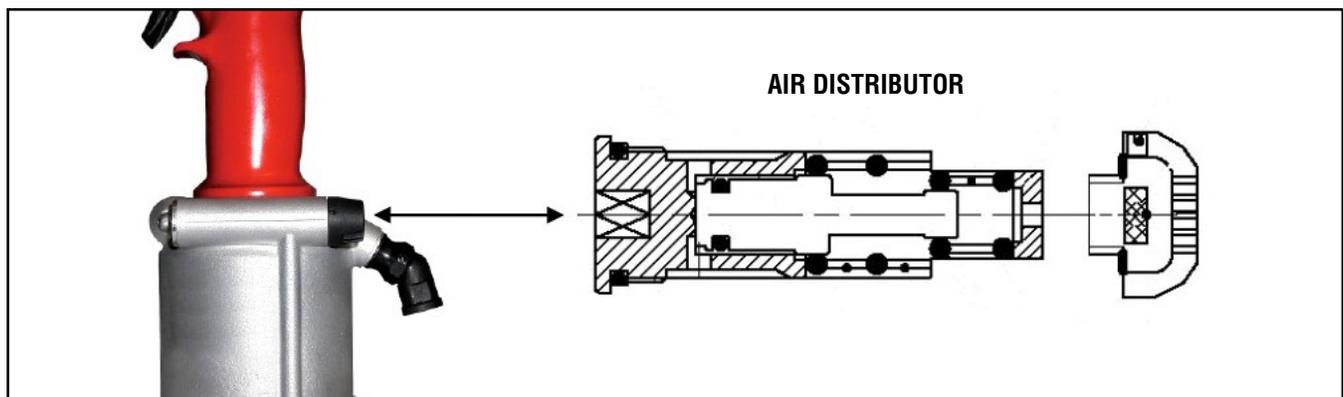
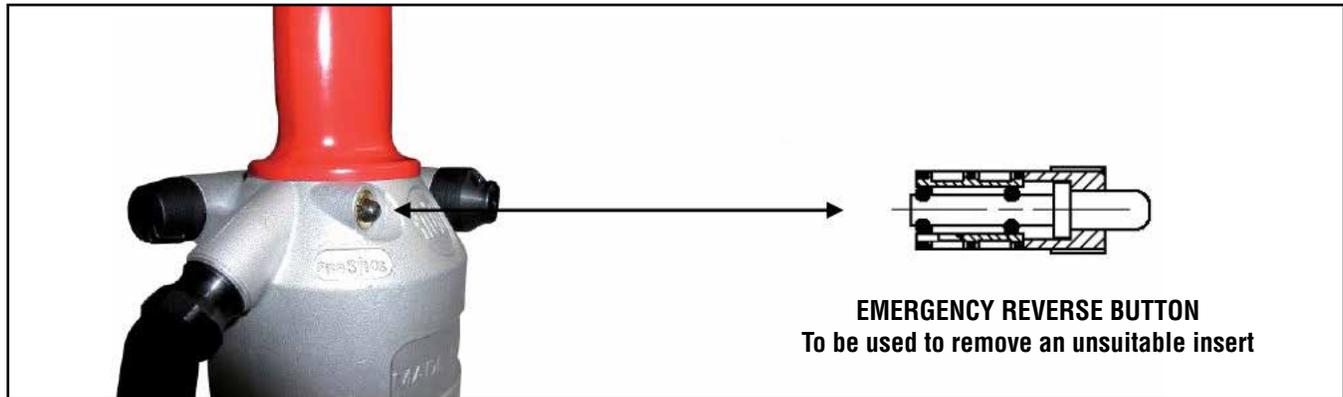
*Installation force increases when turning to the right. Installation force decreases when turning to the left.*

### WARNING

*When the pressure (force) adjustment screw is entirely screwed, unscrewing can be done at a pressure not less than 6.5 bar (atm).*

**INFORMATION**

To be used in case the rivet nut gets stuck, or in case you decide that the inserted rivet nut is not the correct one and you have to change it.



**WARNING**

*The cycle of unscrewing may not occur when the rivet nut is not mounted on the screw (tie rod) or the manostat isn't under pressure. The manostat can not unscrew if the tool is not under pressure.*



## MAINTENANCE

Maintenance operations must be carried out with the tool stopped and disconnected from the pneumatic supply line.

### **Warnings:**

- *The tool maintenance instructions must be followed carefully.*
- *To ensure safety and perfect tool efficiency, it is recommended to use exclusively ORIGINAL spare parts.*

## CLEANING

It is a good rule to completely clean and grease the tool on a periodic basis (depending on the type and frequency of use). These operations must be carried out at least once a year.

### **Shut-off all sources of power to the tool.**

***The operator must wear and use suitable personal protections before starting to clean the tool.***

## ORDINARY MAINTENANCE

In order to prevent stoppages and faults of the tool, an ordinary maintenance (including inspections, checks and operations) must be scheduled to keep the following under systematic control:

- ***State of lubrication of the tool.***
- ***State of wear of consumable parts.***

## REFILLING THE HYDRAULIC CIRCUIT WITH OIL

The hydraulic circuit needs to be refilled with oil after a continuous use, and when you notice a reduction in the tool stroke.

Proceed as follows (see photo at right):

- Disconnect the airline from the tool inlet.
- Unscrew the manostat (A) with wrench.
- Remove cap together with relevant washer 27.
- Put the tool in horizontal position and slowly pour in the hydraulic oil (ISO VG 32 type) 50 until the circuit is full.
- Screw cap back on, together with relevant washer 27.
- Connect the tool to compressed air line and start up a couple of idle cycles. Stop pulling the trigger and slowly loosen screw 27; make sure that the circuit is full with oil and that no air bubbles are left inside.

Wear gloves when managing the oil.

***Do not throw the old oil outdoors. Hand it over to an authorized waste disposal center.***

***Warning!:*** *If you should accidentally spill oil on your skin, wash and rinse thoroughly with soap and water.*



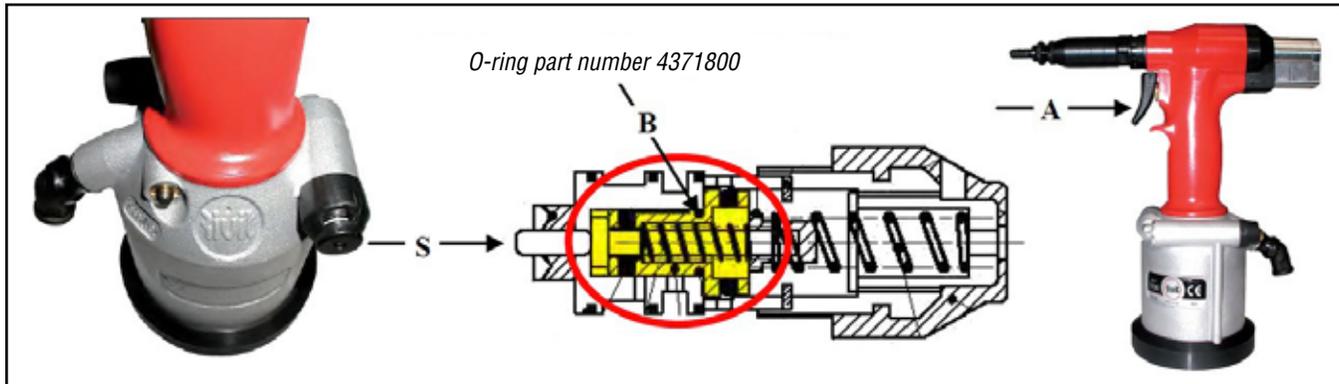
## PARTS SUBJECT TO WEAR

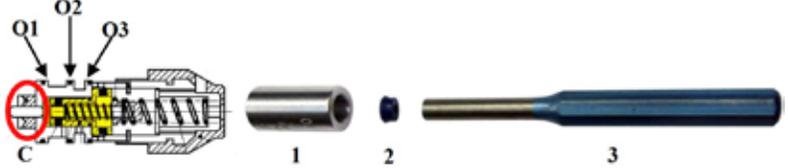
On a periodic basis check the rubber base for wear, as this is what ensures the stability of the tool. If it should need replacing, order the spare base from PennEngineering indicating the year/serial number of the tool.

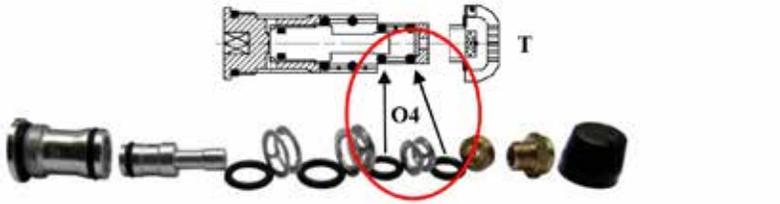
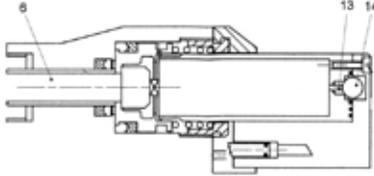
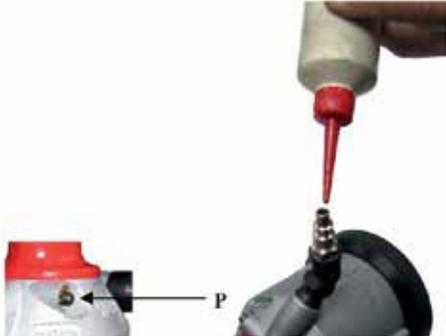
On a periodic basis check the screws and heads for wear and, if necessary, replace them as indicated.



REF.	PART NUMBER	QTY	DESCRIPTION
D	4461800	1	MILLED SLEEVE TO SCREW AND UNSCREW RING NUT
E	4461900	1	ROTATING PIN BUSHING FITTED WITH GASKET
F	4461700	1	METAL FERRULE THREAD PROTECTOR FOR INSERTION OF ROTATING PIN
1,3	4380800	1	GUIDE PIN AND ALUMINUM CYLINDRICAL PIN Ø 8X78
2	—	1	Ø 9 LIP SEAL GASKET FOR KIT (41)



CAUSE	SOLUTION												
No traction.	Tool needs oil. 												
When inserting the rivet nut in the tie rod, after pressing the trigger, tool does not unscrew properly.	<p>Not enough oil in tool. Check the O-ring (B) and replace it.</p>  <p>When you have to work on the pressure switch:</p> <ol style="list-style-type: none"> <li>1. Remove air</li> <li>2. Loosen the oil cap (27) to avoid the coming out of gasket (C). In case of replacement use guide (1). If after reassembling of all parts of the pressure switch, it does not work properly, O-rings (O1, O2, O3) have not been correctly assembled: O-ring (O2), when broken unscrews without making traction O-ring (O3) makes traction but no unscrew</li> </ol> <p>O-ring (O1) can leak air. Consequently it is advisable to replace all 3 o-rings (ORM 15x1) of the kit (ref. 41) code 41572.</p> <table border="1" data-bbox="665 1501 1453 1669"> <thead> <tr> <th>REF.</th> <th>PART NUMBER</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>4380800</td> <td>Guide bushing to insert Ø9 lip seal, located at the bottom of the seat of the pressure switch (ref. C)</td> </tr> <tr> <td>2</td> <td>4381200</td> <td>Ø9 lip seal (ref. C)</td> </tr> <tr> <td>3</td> <td>-</td> <td>Ø8 commercial punches</td> </tr> </tbody> </table> <p>Items 1 and 2 are special order (please refer to part numbers)</p>	REF.	PART NUMBER	DESCRIPTION	1	4380800	Guide bushing to insert Ø9 lip seal, located at the bottom of the seat of the pressure switch (ref. C)	2	4381200	Ø9 lip seal (ref. C)	3	-	Ø8 commercial punches
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3	-	Ø8 commercial punches											

CAUSE	SOLUTION
Air leaks from muffler (T).	 <p data-bbox="667 541 1122 640">Check the two O-rings (04) and o-ring (21 part number 3235600) which could be worn or broken.</p>
Motor screwing	<p data-bbox="667 716 1446 955">When the rotating pin (6 part number 4151500) is broken and you replace it, the motor may rotate continuously, which means that the shaft (13 part number 3761300) is too long; in this case it will have to be shortened by a few tenths to obtain the closure of the ball (14 part number 3096900).</p>  <p data-bbox="667 997 1446 1096">Unlike the situation above, the shaft is too short and it has to be replaced with a new one, fitting it without end float, with the air on, in order to obtain the closure of the ball (14 part number 3096900).</p>
Quick kit assembly	<p data-bbox="667 1171 1166 1306">When assembling the quick kit (code 4176900), with air off, make sure to create an axial space of 1.5mm allowing the pin to move freely.</p> 
Loss of revolutions during unscrewing	<p data-bbox="667 1486 1458 1690">When you are working intensely there is likely to be a loss of revolutions in the unscrewing; it is necessary to remove the air hose and add a few drops of oil in the air hose connection (Ref. 34) and re-enter the air by turning the engine with button (P) for a couple of minutes.</p> 

## **FAULT DIAGNOSIS AND REPAIRS**

### **REPAIRS**

To ensure the operational efficiency and safety of the tool, all repair jobs shall be carried out exclusively by the local authorized dealer or by the Technical Assistance Service of PennEngineering.

### **REQUESTING ASSISTANCE**

For any information concerning Use, Maintenance, Installation, Repair etc., PennEngineering is at the Customer's full disposal for all enquiries.

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

## **DISMANTLING INSTRUCTIONS**

### **DISMANTLING INSTRUCTIONS**

When disposing the tool you need to separate the plastic parts, which are to be 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 oil disposal center.

PennEngineering®



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