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EN

INSTRUCTIONS MANUAL

- This instructions Manual has been compiled in compliance with EC Directive 2006/42 and **technical norm ISO 11148-6**.
- This Manual must be kept carefully in a place known and easily accessible to whoever uses the tool.
- Read and make sure that all operators read all parts of this Manual carefully before installation, use, maintenance, repairs or disposal of the tool.
- Always make sure that the operator fully understands the rules for use and the meaning of each symbol shown on the tool.
- Never remove or obliterate the labels or warnings, especially those imposed by the law.
- Before making any adjustments (e.g. setting the torque, changing bits or sockets) disconnect the machine from the compressed air line.
- The machine, together with any attachments and accessories, must never be used for anything other than the designed purpose
- Avoid unnecessary idling, i.e. running the machine unloaded (free speed).
- When using a suspension yoke, check that it is in good condition and correctly fastened.

EC DECLARATION OF CONFORMITY

We, **FIAM Utensili Pneumatici S.p.A.** - Vicenza - Italy, declare under our sole responsibility that the product to which this declaration refers complies with Directive 2006/42/EC, Harmonised standards applied: ISO 11148-6

Products to which this declaration relates:

Air screwdrivers with automatic shut-off, with/without torque transducer, with/without double pneumatic signal for torque control

- | | |
|--|--|
| • Screwdrivers 15C straight, pistol models | • CY straight, pistol models |
| • Screwdrivers 26C straight, pistol models | • AD angle 90° |
| • 26C up grip | • A...R angle nutrunners with flat head |
| • CDE straight, pistol models | • AF air angle nutrunners with flat, open head |

Technical file available from Fiam Spa Viale Crispi, 123 - 36100 - Vicenza – Italy
Managing Director: Ing. Lorenzo Casolo

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Signature of issuer:



1. GENERAL PRECAUTIONS

N.B.: The drawings referred to in the manual are shown on the last page.

1.1 HANDLING AND TRANSPORTING THE TOOL

When the tool is delivered, check that the packaging has not been spoiled and that the tool shows no sign of bumping; otherwise inform ASG at asginfo@asg-jergens.com or 888-486-6163.

1.2 INSTALLING THE TOOL

Air supply

Always check the pressure of the air supply: **tool performance is best using a rated delivery pressure of 6.3bar (90 P.S.I.), a value that must not be exceeded.**

Use a pressure reducer to regulate delivery pressure when this is greater than the tool's operating pressure.

Do not install a tool without an easily accessible means for cutting off the source of supply.

To maintain the performance and life of the tool only dry clean compressed air should be used (dew point max. 10°C). to protect the tool from damage, clogging and rust.

We recommend installing a filter pressure regulator between the points of delivery and tool entry.

Most FIAM tools are designed to function with non-lubricated air delivery, however the performance and durability are subject to change.

When subject to heavy-duty use (at high torque, with extremely soft joints or in case of very frequent use), the tool **must be lubricated** in order to keep its high performance and ensure it has a lengthy service life.

Where lubrication is required, FRL Group (Filter, Pressure regulator and Lubricator) should be used (see FIAM Accessories Catalogue).

It is important to use only very fluid good quality mineral oil containing no acids or carbon - rubber residue (FIAM Accessories Catalogue).

Non-observance of technical parameters (air pressure, diameter of the supply hose, etc.) can cause damage to the tool and constitute a risk for the operator.

Supply hose

Clean any dirt or moisture from the hose and threaded fitting before connecting the tool.

Use hoses, connections and fittings suitable for the dimensions and use of the tool (see ACCESSORIES catalogue).

A coupling should be used so as not to damage or disconnect the supply hose.

Do not pull the tool with its hose along the floor.

Connect the delivery hose to the tool before opening the air supply.

Do not use hoses that are damaged, frayed or worn. Always check the delivery hoses before use: breakage of a hose can cause damage.

Disconnect the tool from the supply line when not in use and before performing any replacement, adjustment, maintenance or disassembly operations. If a tool becomes unusable, remove it from service or leave a warning note.

According to the type of tool in use, these general precautions are to be added to those given in the part under the heading "Specific recommendations for use...".

If a tapered NPT fitting (2) is inserted in the tool's air inlet fitting (1), you will need to use a spanner to hold fitting (1) still to counterbalance the torque required to tighten the NPT fitting (2) as illustrated in figure 1.

1.2.1 Specific instructions for screwdrivers with triple air inlets

Fitting the power supply connection 1/8" (Fig. 2 - N.B. The example shown is for a rear power supply connection).

If you wish the power supply to enter from the top (S) or from behind (D):

- unscrew the relative plug (1)
- screw in the connection with the filter (2) supplied and tighten to 10Nm; it may be necessary to use Teflon tape or liquid sealant to make sure the connection is airtight.

1.3 STARTING THE TOOL

For safety reasons, **tools with attachments and accessories must be used only for the purpose for which they were designed.**

The tools are not insulated against contact with sources of electric power.

See the point "Specific recommendations for use."

They should not be used in environments where there is a possible risk of explosion due to the production process. Ensure that accessories are mounted correctly and safely.

If there are doubts regarding the use of the tool or accessory, always refer to the catalogue and for any further questions please contact the manufacturer.

Make sure that the tool controls are OFF before opening the power supply.

The starting and stopping device on the tool must always be kept in perfect working order.

Do not lock the safety devices, or the starting and stopping devices. Turn the starting device immediately to stop in the case of a power failure.

Avoid any bodily contact, unless required by operating conditions, with all parts undergoing the process when the source of supply is not completely isolated from the tool.

All portable tools must be kept clean and dry to ensure the best possible hold.

Take care not to start the tool accidentally when lifting it up and putting it down. The tool must be used in secure and suitable positions. Use a bench vice or a clamp to hold the workpiece during operation. Pay special attention when it is necessary to use the tool in uncomfortable working positions. Pay special attention to the risk of catching or trapping long hair and/or loose clothing. In the case of heavy tools, these should be suspended on a balance or similar device to avoid physical strain on the operator. Make sure that the device is fixed securely. Do not clean, oil or grease by hand any part in movement. Make sure that the exhaust is not a source of hazard especially if the exhaust is clogged (e.g. due to ice or protection caps, etc). To avoid personal injury, use personal protective equipment (PPE) suitable for the operation. According to the type of tool in use, these general precautions are to be added to those given in the part under the heading “**Specific recommendations for use...**”.

1.4 TOOL MAINTENANCE AND REPAIRS

Maintenance on pneumatic tools must be made properly by trained expert staff. It is advisable to check and clean the tool at least once a year. If the machine use is intensive and heavy, it must be overhauled more frequently. Do not use or continue to use the tool if you hear vibrations or strange noises or if you notice any unusual changes in speed. We also recommend cleaning the mesh filter on the air inlet as often as possible to avoid clogging and consequent reduction of motor efficiency. After any maintenance, the tools must be checked to be sure they are working correctly. The spare parts list is provided upon request for further information and should be used only by trained and expert technicians. Use only Fiam spare parts (the use of parts that are not original will cause the warranty to be cancelled). To avoid possible accidents due to incorrect use and to obtain the best yield from the tool, as well as complete assistance for repairs and maintenance, we recommend contacting ASG at asginfo@asg-jergens.com or 888-486-6163.

1.4.1. AF air angle nutrunners with flat, open head

With this kind of nutrunner, special care must be taken to ensure the head is greased. Greasing must be carried out every 3,000 cycles with two injections of specific FIAM grease (see catalogue) using the grease gun supplied. Since the properties of this grease ensure that the nutrunner continues to provide good performance in terms of torque and duration, under any working conditions, using any grease other than the specific FIAM product will void the warranty.

1.5 DEMOLISHING THE TOOL

The tool is mainly made from steel, cast iron, brass and plastic components. These are all easily disposable and do not represent a hazard for environmental pollution and/or personal safety. The various materials must be separated for recycling or differential disposal in compliance with standards. Fiam is eventually willing to withdraw materials after the dismantling of its own tools.

1.6 PACKAGES

Fiam packaging is made from recycled cardboard and plastic material, and so can easily be recycled. Refer to the national legislation.

2. SPECIFIC OPERATING RECOMMENDATIONS

2.1 INTENDED USE

The screwdrivers with their accessories are tools for assembling and fitting threaded components.

- Any other improper use, or without the necessary experience can cause damage to the tool and be a risk for the operator.
- Make sure that the piece to be screwed or unscrewed is firmly clamped with suitable means.
- Use an auxiliary grip for high torque values (an auxiliary grip should always be used when the torque reaction is greater than 4 Nm for straight tools or greater than 10 Nm for pistol-grip tools).
- If the device is to be mounted on a reaction arm, the relevant clamp must be positioned only in the area featuring the mounting collar (see Figure 3); do not attach the arm to any other area of the tool as you might damage the tool in question and compromise safety, in which case FIAM SpA cannot be held liable for any damage caused.
- When using screwdrivers with clutch functioning with air supply of less than 6.3 bar and a high preset torque value, the clutch may not function, again in this case, pay attention to the reaction torque.

- After adjusting the clutch, remove the setting key and close the keyhole. Do not hold the accessory in the hand while tightening or untightening.
- Use screwdrivers that have a suitable capacity for the dimensions and resistance of the threaded part.
- If the screwdriver has a capacity superior to that of the threaded element's resistance, the screw shank could be distorted and break, or the thread could be damaged.
- Devices for the inversion of rotation must be checked to make sure that they are in their correct position before starting the tool.
- Do not change the tool's rotation when the tool is running.

2.2 START UP

Depending on the model, the start up of the screwdrivers are the following:

- **Models with lever or push button:** press the lever or push button.
- **Models with push to start:** the air supply is direct and to start up it is sufficient to exert a pressure of 2-3- Kg on the bit by means of the fixing component.
- **Models with combined start up:** combine the above two methods.

2.3 INVERTING ROTATION

For screwdrivers with reversing facilities:

- rotation to the right (clockwise) is made by moving the reversing device to position 'R';
- rotation to the left (anticlockwise) is made by moving the reversing device to position 'L'.

Right and left hand rotation is defined as clockwise/anticlockwise looking at the accessory with the operator behind the tool.

2.3.1 Specific instructions for screwdrivers with triple air inlets

Changing the direction of rotation

- Move the lever (A) for right rotation (clockwise) – Fig. 2A
- Move the lever (A) for left rotation (counter-clockwise) – Fig. 2B

Setting up the screwdriver for left hand use

If the tool is held in the left hand, the lever for reversing the direction of rotation (A) can be re-positioned for easier access (Fig. 2C):

- remove the start button (1)
- undo the screw (2)
- turn the lever (A) through approx. 180° noting the position of the ball and the relative spring
- refit the screw (2) back into the seat provided in the housing
- refit the start button (1)

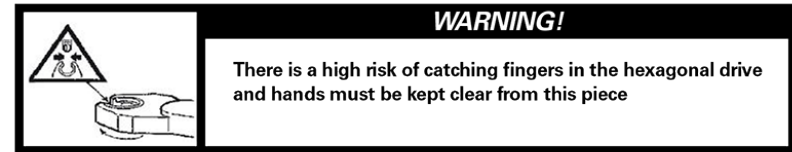
2.4 TORQUE ADJUSTMENT

Before making any adjustments (e.g. setting the torque, changing bits or sockets) disconnect the machine from the compressed air line.

The above adjusting nut can be reached through the slot which appears on the cover (or adapter) which is hidden by a rotating or sliding band spring or by another protection component which is tightened onto the cover (see Fig. 4).

Turn anticlockwise to increase the torque or clockwise to decrease (see Fig. 4A). The clutch spring must never be fully compressed or adjusted at such values that the clutch reaches higher torque values than those indicated in the catalogue for the tool model taken into consideration.

2.4.1 Air angle nutrunner with open head



These are used in special circumstances such as mounting fastening nuts on pipes. They are provided with special open FL heads which have a radial opening at their end which allows passage of the pipe within the hexagonal drive and access to the nut to be tightened. The command device consists of a 2-level lever mechanism which facilitates the tightening operations for this operation:

1. Make sure that the hexagonal bush is open, otherwise press the command lever lightly to activate the reverse mechanism that locks the bush and allows the pipe to be inserted.
2. Position the tool on the nut and press down the command lever to start the tightening phase.
3. After tightening, lift the tool from the nut, completely release the command lever and then move it to the intermediate position, the hexagonal bush opens allowing the tool to be freed and a new tightening cycle to be started.

The tightening torque must be adjusted according to the instructions for the specific tool above described.

2.5 REPLACING THE CLUTCH SPRING

To replace the clutch adjusting spring with the one supplied, follow the instructions below and refer to the figure (Fig. 5). Remove the accessory 5 (see ref. 2.6 - Replacing the accessory), unscrew the cover 1, remove the flexible ring 2 (when present) and unscrew the ring nut using the wrench provided.

Take off the regulation lock 4: now the adjusting spring is free and can be replaced. Reassemble everything following the above steps in the opposite order.

2.6 REPLACING THE ACCESSORY

Replace the accessory after disconnecting the air supply from the tool/nutrunner motor.

2.6.1 Screwdrivers with quick change chuck

To insert or remove the 1/4 hexagonal bit (ISO 1173) pull the knurled ring nut forward (ref. 1 Fig. 6). Then release the ring nut which holds the accessory.

2.6.2. Screwdrivers with release chuck

Insert or remove the 1/4 hexagonal bit (ISO 1173) by pushing or pulling it until the retainer ball snaps (Fig. 7).

2.6.3. Screwdrivers with square drive and block pin

Assemble the bush so that the block pin (ISO 1174) is inserted perfectly in the hole provided in the bush itself (see Fig. 8). Use only bushes with a passage hole. To remove the bush press on the block pin and pull out the bush itself.

2.6.4. Screwdrivers with square drive and passage hole

For these screwdrivers hold the bush with a pin of suitable diameter and an O-RING as shown in Fig. 9 (ISO 1174). Use only bushes with a passage hole.

The bush is removed by slipping off the washer and pin and then the bush itself.

3. FURTHER INFORMATION FOR OPERATOR SAFETY

3.1 NOISE AND VIBRATION DECLARATION STATEMENT

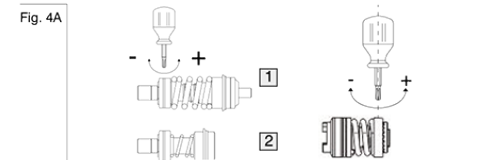
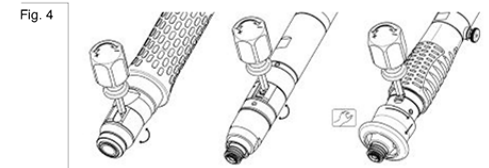
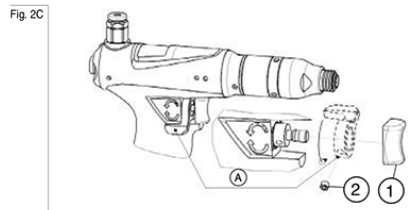
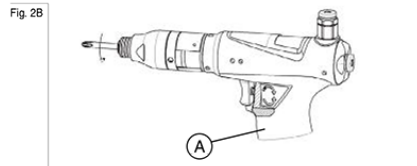
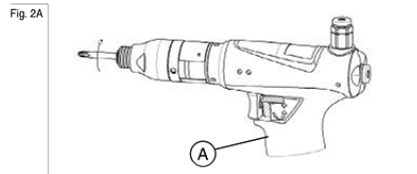
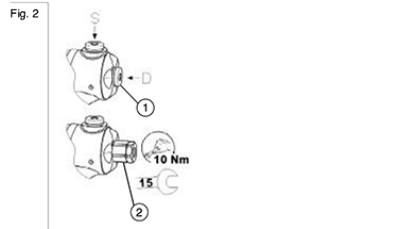
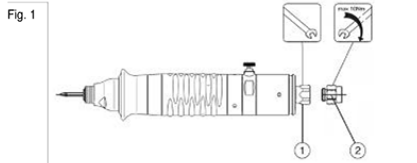
The declared values were obtained by laboratory type testing in accordance with the stated standards and are suitable for comparison with the declared values of other tools tested in accordance with the same standards. The declared values are not adequate for use in risk assessments and values measured in individual work places may be higher. The actual exposure values and risk of harm experienced by an individual user are unique and depend upon the way the user works, the workpiece and the workstation design, as well upon the exposure time and the physical condition of the user.

We, **Fiam Utensili Pneumatici Spa**, cannot be held liable for the consequences of using the declared values, instead of values reflecting the actual exposure, in an individual risk assessment in a work place situation over which we have no control.

This tool may cause hand-arm vibration syndrome if its use is not adequately managed.

An EU guide to managing hand-arm vibration can be found by accessing <http://www.pneurop.eu/index.php> and selecting 'Tools' then 'Legislation'.

We recommend a programme of health surveillance to detect early symptoms which may relate to noise or vibration exposure, so that management procedures can be modified to help prevent future impairment.



- 1 AD ARRESTO ARIA / WITH AIR SHUT-OFF CLUTCH / MIT LUFTABSCHALTUNG / AVEC COUPURE D'AIR / CON CIERRE DEL AIRE
- 2 A SALTERELLI / WITH SLIP-CLUTCH / MIT RUTSCHKUPPLUNG / À CRABOTS / DE TRINQUETE

