

UNIMAC®



Impact Air Wrench - 90PSI 1/2" Cordless Pneumatic

User Manual

[Revision 3.0 October 2018]

**RETAIN THIS MANUAL FOR FUTURE REFERENCE
PLEASE READ THIS MANUAL CAREFULLY BEFORE USE**

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Safety

Safety information for air tools

Basic safety measures must be followed when using air tools to eliminate the risk of fire, electric shock and personal injury. Please be sure to read and follow the notices in this operating manual prior to the first use and store them in a safe place. The manufacturer assumes no liability for damages or personal injury resulting from failure to follow these operating instructions.

The hazards listed are foreseeable for general use of handheld air impact drivers. However, the user (or their employer) must also assess specific risks which may arise from its use.

- Keep your hands or other limbs out of reach of rotating parts. Injuries may otherwise occur.
- Keep hands away from the counter bearing (e.g. box spanner) during use. This particularly applies when removing screws in tight work environments.
- Disconnect the compressed air before changing tools, adjustments and maintenance.
- Never use petrol or other flammable liquids to clean the air tool! Sparks could ignite residual vapours inside the compressed air tool resulting in explosion. Do not use the tool in explosive environments with flammable liquids, gasses or dust. Never work on materials which are or potentially could be highly flammable or explosive.
- In the cases of multiple hazards the safety instructions must be read and understood before attaching, operating, repairing and exchanging accessories and before working near the machine for screw connections. Otherwise severe bodily injuries may result.
- The machine for screw connections should only be set up, adjusted or used by qualified and trained operators.
- Never modify the machine for screw connections. Modifications may reduce effectiveness of safety measures and increase operator risks.
- Do not lose the safety instructions – hand them to the operator.
- Never use a damaged machine on screw connections.
- Regularly maintain machines to verify all required rated values and markings such as rated speed or rated air pressure are legible on the machine. If necessary, the employer/user must contact the manufacturer for replacement labels for markings.
- Only use the equipment for applications for which it was designed!
- Do not overburden the device.
- Never use hydrogen, oxygen, carbon dioxide or other bottled gasses to power this tool as doing so may result in explosion, thus severe injuries.
- Regularly maintain and clean the device as required (see Maintenance section).
- Check the device for damage prior to initial operation. Always verify the tool's proper condition before every use.
- Remain alert at all times! Unforeseen machine movement due to reaction forces or the tool or counter bearing breaking may result in injuries.
- Risk of injury due to chips being projected at high speeds in the event the tool (socket) breaks.
- Unforeseen tool movements may result in hazardous situations.
- Crushing risk based on the torque between the counter bearing and the work piece.
- Keep hands away from the tool (socket) being used to prevent the risk of injuries.

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- Only use holders and adapters in good condition and intended for use with the machines described here.
- Avoid an unnatural posture. Always maintain a proper footing and balance. This will allow you to better control the electrical power tool in unforeseen circumstances.
- Switch the device off when not in use.
- Always wear personal protective equipment and safety glasses. Wearing personal protective equipment such as dust mask, non-slip safety shoes, hard hat or ear protectors, depending on the type of air tool and its application, reduces the risk of injuries.
- Protect hoses from kinks, constrictions, solvents and sharp edges. Keep hoses away from heat, oil and rotating parts.
- Replace damaged hoses immediately. A damaged supply line may result in the air hose flapping about, possibly resulting in injuries.
- Do not use the equipment when fatigued or under the influence of drugs, alcohol or medications. Just a moment of carelessness when using this equipment may result in serious injuries.
- Do not directly inhale exhaust air. Keep eyes away from exhaust air. Exhaust air from the air tool may contain water, oil, metal particles or contaminants from inside the compressor. This may result in health damage.
- CAREFUL WHEN PUTTING THE TOOL DOWN! Always put down the device so the trigger is not activated. This could potentially result in accidental activation of the tool, which again could result in hazards.
- Only use suitable accessories. These can be purchased from the manufacturer. Using non-OEM accessories may result in hazards.
- Only use filtered and regulated compressed air. Dust, caustic vapours and/or moisture may damage the motor of an air tool.
- The hose must be constructed for a minimum pressure of 8 .6bar or 125 PSI, but no less than 150 % of the maximum pressure produced by the system.
- The tool and supply line must be equipped with a hose coupling to completely release pressure when disconnecting the coupling hose.
- Avoid contact with live lines. This device is not insulated against electric shock.
- Do not modify this equipment in any way without the manufacturer's approval.
- Only use the tool at the specified pressure (max. 6.3 bar).
- Disconnect the tool from the air supply after each use and when not in use.
- Discontinue use if the tool is leaking or in need of repair.
- Never connect the tool to an air hose with pressure exceeding 6.3 bar.
- Keep your working area clean and well lit. Untidy or poorly lit working areas can result in accidents. Doing so will allow you better control of the equipment, particularly in unforeseen circumstances.
- Only have the equipment repaired by qualified specialist personnel using OEM spare parts. This will ensure your device remains safe to use.
- Keep children and other individuals away from the equipment during use. Distractions can cause you to lose control of the equipment.
- Wear suitable clothing. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothing, jewellery or long hair can become caught in moving parts.
- Put down trigger and equipment in the event of unexpected compressor failure.
- Never use or store the tool in humid, dusty locations or near water, other fluids or hazardous gases.

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- If possible, use a condensate trap or regularly drain condensate (water) from hoses and pipes before and during air tool use.
- Secure work pieces. Use clamps or a vice to secure the work piece. Holding the work piece in your hand or pressing it against your body will not allow for safe use of the equipment.
- An undersized compressed air system may reduce the efficiency of your equipment.

Risks due to projecting parts

- If the work piece, one of the accessories or the tool itself breaks, parts may be projected at great speeds.
- Always wear impact-resistant eye protection when using the machine for screw connections. The level of protection required should be assessed for each individual application.
- Be sure the work piece is properly secured.

Risks from gripping/winding

- Risks from gripping winding may result in suffocation, scalping and / or cuts if loose clothing, jewellery, necklaces, hair or gloves are not kept away from the machine and its accessories.
- Gloves may become tangled in the rotating drive, which may result in injuries or fractures in fingers.
- Rotating drives and extensions may easily catch/wind rubberised or metal reinforced gloves.
- Never wear loose gloves or gloves with cut or worn fingers.
- Never hold on to the drive, collect or the drive extension.
- Keep hands away from the rotating drive.

Operating hazards

- When using the machine the operator's hands may be exposed to crushing, impact, cut, abrasion and heat hazards. Wear suitable gloves to protect hands.
- The operator and maintenance personnel must be physically capable to manage the weight and power of the machine.
- Hold the machine correct: be prepared to counteract typical or sudden movements – keep both hands ready.
- Be sure your body is well balanced and maintain a solid stance.
- If tools are required to absorb the reaction torque, use a suspension attachment whenever possible. If this is not possible, we recommend side handles for machines with straight handle and pistol grip. At any rate we recommend using tools to absorb if it is greater than 4 Nm for machines with straight handles, greater than 10 Nm for machines with pistol grip and greater than 60 Nm for offset screwdrivers.
- In the event of power failure release the start or stop control.
- Only use the lubricants recommended by the manufacturer.
- Hex nut drivers with open flathead can crush fingers.
- Do not use the tool in tight spaces and be sure your hands are not crushed between the machine and work piece, especially when unscrewing.

Hazards due to repetitive motions

- When using a machine for screw connections the operator may experience discomfort in hands, arms, shoulders, neck or other body parts whilst performing work-related tasks.

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- Maintain a comfortable position whilst using this tool, be mindful of a secure grip and avoid awkward positions or positions making it difficult to maintain your balance. The operator should change his posture during extended periods of use, which may help to prevent discomfort and fatigue.
- If the operator experiences symptoms such as persistent malaise, discomfort, palpitations, pain, tingling, numbness, a burning sensation or stiffness, these warning signs should not be ignored. The user should (if applicable) report these to the employer and) consult a qualified healthcare professional.

Risks associated with accessories

- Disconnect machine from the power supply before changing a tool or accessory.
- Do not touch collets or accessories whilst impact driving, as doing so may increase the risk of cuts, burns or injuries from vibration.
- Only use the size and types of accessories and consumables recommended by the manufacturer of the machine.
- Only use impact sockets in good working condition as manual sockets and accessories in poor working condition may break and be ejected when used with impact drivers.

Hazards in the work environment

- Slipping, tripping and falls are main causes of injuries at the workplace. Be mindful of surfaces which may have become slippery during machine use, and of tripping hazards caused by the air or hydraulic hose.
- Proceed with caution in unfamiliar surroundings.
- These may hold hidden dangers due to electrical cables or supply lines.
- The machine for screw connections is not suitable for use in explosive environments and is not insulated against contact with electrical power sources.
- Verify there are no electrical lines, gas lines, etc. which may result in a hazard in the event they are damaged during machine use.
- The risk assessment should include dust generated from machine use and dust in the area possibly being blown around.
- Exhaust air must be discharged so the amount of dust being blown about in a dusty environment is minimised.
- If dust or vapours are generated the principal task must be to monitor them in the area where they are released.
- All machine mounting parts or accessories intended to collect, extract or eliminate airborne dust or vapours should be used and maintained according to manufacturer instructions.
- Use respiratory dust equipment (if applicable according to employer instructions) as required by labour and health regulations.

Noise hazards

- With inadequate ear protectors the impact of high noise levels may result in permanent hearing damage, hearing loss and other problems, e.g. tinnitus (ringing, whistling or buzzing in the ear).
- It's imperative to perform a risk assessment for these hazards and implement the suitable regulatory mechanisms.
- Suitable regulatory mechanisms to minimise the risk include measures such as using insulation to prevent pinging sounds on work pieces.
- Use heating protection (if applicable according to employer instructions and) as required by labour and health regulations.

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- The machine for screw connections must be operated and maintained as recommended in these instructions to prevent an unnecessary increase in the noise level.
- If the machine for screw connections features a silencer, always ensure it is available when using the machine for screw connections and in good working order.
- Select, maintain and replace consumables and machine tools as recommended in these instructions to prevent an unnecessary increase in the sound level.

Hazards due to vibration

- Exposure to vibration may cause damage to the nerves and disturb blood circulation in hands and arms.
- Keeps hands away from the sockets of hex nut drivers.
- Wear warm clothes when working in cold environments and keep hands warm and dry.
- If you notice your skin on fingers or hands becoming numb, tingling, hurting or becoming white, stop working with the machine (if necessary, notify your employer) and consult a physician.
- Operate and maintain the machine for screw connections as recommended in this manual to prevent an unnecessary increase in vibration.
- Do not use work or poorly fitting sockets or extensions, as these are very likely to significantly increase vibration.
- Select, maintain and replace consumables and machine tools as recommended in these instructions to prevent an unnecessary increase in vibration.
- When possible use socket fittings.
- Whenever possible, use a stand, clamp or an equaliser to support the weight of the machine.
- Do not grip the machine too tightly but firmly, maintaining the necessary hand reaction forces, as the vibration hazard typically increases when tightening the grip.

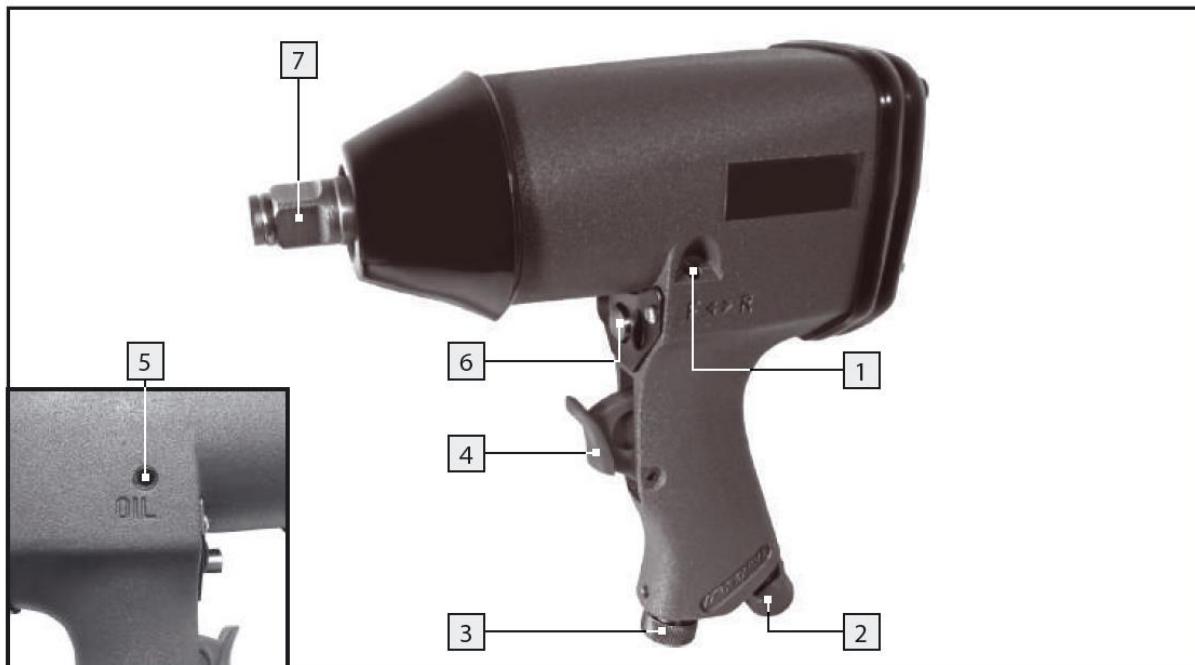
Additional safety instructions for pneumatic machinery

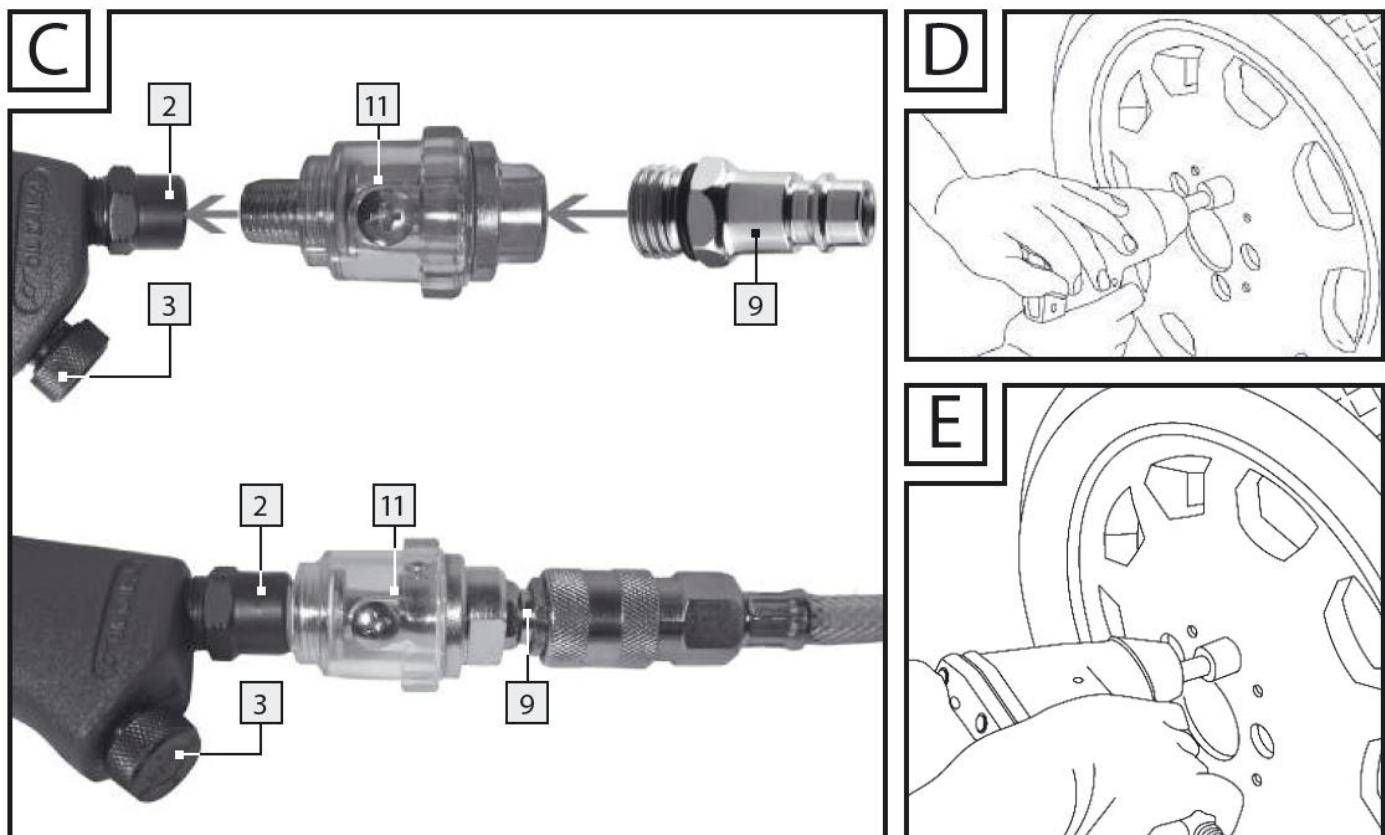
- Compressed air can result in serious injuries.
 - Always close the air supply, release pressure from the hose, and disconnect the machine from the compressed air supply when the machine is not in use, before switching accessories or when performing repairs.
 - Never aim the air flow at yourself or others.
- Hoses flapping about can result in serious injuries. Therefore always inspect hoses and their fasteners for damage and a secure fit.
- Direct cold air away from hands.
- Do not use quick-release couplings on the tool intake of impact- and impulse drivers. Only use connectors made from hardened steel (or material with comparable impact resistance) on threaded hose connections.
- If using universal swivel couplings (coupling discs) always use locking pins and use whip check hose safety cables for protection in the event the connection between the hose and the machine or in between hoses fail.
- Be sure not to exceed the maximum pressure specified on the machine.
- In torque controlled machines with continuous rotation the air pressure has a safety-related impact on the output. Therefore hose length and diameter requirements must be determined.
- Never carry pneumatic tools by the hose.

Set-up

Kindly refer to the table and illustration below for the set-up and operating instructions:

| No. | Part Description | No. | Part Description | No. | Part Description |
|-----|--|-----|------------------------------|-----|-----------------------------|
| 1 | Oil filler grub screw | 5 | Oil filling port | 9 | Plug nipple (1/4" = 6.35mm) |
| 2 | Compressed air connection (for 1/4" plug nipple) | 6 | Pivot bolt (forward/reverse) | 10 | Machine oil |
| 3 | Torque control | 7 | Square drive | 11 | Lubricator |
| 4 | Trigger | 8 | Extension | 12 | Allen key |
| | | | | 13 | Socket attachments |





Inserting the socket wrench or bit

- Always insert the required bit before connecting the device to the compressed air system. Always disconnect the compressed air supply from the air connection **[2]** before inserting or changing sockets or bits.
- Insert the correct socket, if necessary with extension **[8]** in the drive.
- Slide the socket spanner onto the square **[7]** of the drive.
- Be sure the snap ring is locked into the notch of the socket wrench.
- Only use socket key sizes specified in figure A.
- Be sure the socket keys used are not damaged.
- Never use damaged or the wrong size (not suitable) sockets keys.

Connecting

Note: only use connection hoses with a minimum inside diameter of 9 mm.

- First wrap a piece of Teflon tape (not included) around the outer threads of the plug nipple **[9]** and the lubricator **[11]** (see fig. B).
- Now screw the plug nipple **[9]** into the thread of the lubricator **[11]** (see Figure C).
- Tighten this connection with moderate force and absolutely using pliers.
- Now turn the combination of lubricator **[11]** and plug nipple **[9]** into the connection thread **[2]** of the impact driver (see Fig. C).
- Also retighten this connection with pliers.
- Now press the air hose onto the plug nipple **[9]** using a little force, until the hose locks in.

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- Be sure the air hose is firmly connected. A loose hose whipping about out of control presents a major hazard. Also ensure the two screw connections between lubricator, coupling and machine are securely seated.

Adjusting the compressed air

Note: this device is designed for an operating pressure of up to 6.3 bar and a compressor with the minimum air flow specified in the technical specifications.

When setting the air pressure, remember the pressure drops by approx. 0.6 bar with a hose length of 10 m and an inside diameter of 9mm.

Only use filtered, lubricated and regulated compressed air.

Adjusting the torque

- Set the torque control [3] to the correct torque by pressing it toward the housing and turning it until it locks at the desired setting.
- Be sure the operating pressure of the compressor is between 5 and 6.3 bar.

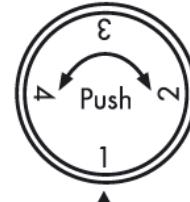
Note: the ideal pressure is 6.3 bar. The maximum torque cannot be reached at a pressure of only 5 bar or with insufficient air flow.

Operation

Initial use

- Activate the trigger **[4]** to start the equipment.
- Release the trigger to deactivate the equipment.

| Setting | |
|---------|-----------------|
| 1 | Low, min |
| 2 | Normal |
| 3 | High |
| 4 | Extra high, max |



Changing rotation

- The device must come to a complete standstill before changing the direction of rotation.
- A machine rotating in an unexpected direction can be dangerous. Always pay attention and use care.

Note: The impact driver clockwise/counter-clockwise rotation. Use the reverse switch **[6]** to change the direction of the impact driver.

- Pull the bolt forward in the direction of the "F" marking ("Forward / Fasten") for clockwise operation. You can now e.g. tighten screws.
- Push the bolt back towards the "R" marking ("Reverse / Release") so it protrudes from the back of the equipment to set to counter-clockwise mode. You can now e.g. loosen screws.

Correctly holding the equipment

This equipment weighs 2.3 kg.

- Hold the equipment with both hands to ensure safe operation (see Fig. D and E).

After initial use

Once the task has been finished the device must be disconnected from the compressed air supply **[2]**.

- Briefly activate the trigger **[4]** of the equipment to release any residual compressed air.
- Now pull back the safety on the connection coupling of your compressed air hose.
- Now remove the hose from the plug nipple **[9]**.

Careful when putting the device down. Always put down the device so it does not rest on the trigger. This could potentially result in inadvertent activation of the tool, which in turn could result in hazards.

Troubleshooting

Note: Regular lubrication is imperative to ensure the longest possible life for your compressed air device.

We recommend continuous lubrication via the included lubricator [11].

After every maintenance verify the equipment is still operating as originally.

| Faults | Possible causes | Action |
|-------------------------------|-------------------------------|---|
| Impact driver not working | Trigger not pulled | Pull trigger |
| | No compressed air supply | If applicable, drain condensation from tube (water bag) |
| | | Straighten kinks in the hose |
| | | Connect compressed [2] air |
| | Leak in compressed air system | Remedy leak |
| | Compressor defective | Verify the compressor is supplying compressed air. If necessary, have compressor repaired by a qualified professional |
| Not properly tightening screw | Defect inside the air tool | Have air tool repaired by a qualified professional |
| | Air pressure too low | Increase air pressure. ATTENTION! Never exceed the maximum approved operating pressure of the air tool! |
| Not loosening screw | Torque is too low | Turn torque control [3] to a higher setting |
| | Rusted screw | Apply rust remover to screw |

Maintenance

All maintenance must be performed by trained individuals. Follow the specified maintenance instructions to ensure a long life and proper operation of this quality product.

- Disconnect equipment from the compressed air source when performing maintenance and care.
- Check the condition of wear and tear items and accessories with each maintenance.
Note: Daily cleaning and regular lubrication are an absolute necessity for smooth operation.
- Only use special tool oil with a high viscosity (thin fluid). Oil for compressed air tools or SAE10-20 motor oil are suitable.

ATTENTION! Do not use other (especially high viscosity) lubricants. Malfunctions or permanent damage may otherwise occur.

The following lubricating options are available:

1. Via the lubricator [11]

- Fill the lubricator included [11] with a bit of oil by first unscrewing the inlet screw from the lubricator.
- Now install the lubricator [11] in the compressed air supply as described in chapter "Establishing connections".

2. Via oil-mist generator

If a complete maintenance unit with oil- mist generator is installed on your compressor the lubricator [11] does not necessarily need to be mounted.

- To use the oil-mist generator plug the plug nipple [9] directly into the equipment and connect with your air hose.

3. By hand

Alternatively you can also manually lubricate your equipment (not recommended).

- To do so, remove the screw plug on the oil filler port.
- Apply 3–5 drops of oil to the compressed air connection and the oil filling port before using the compressed air tool [5].
- If the air tool has not been used for several days 5–10 drops of oil must be added to the air connection [2] and the oil filler port [5].

Note: Regular lubrication is imperative to ensure the longest possible life for your compressed air device. We recommend continuous lubrication via the included lubricator [11].

- Always store your air tools/equipment in dry locations.
- No maintenance is required beyond the above lubrication and cleaning.

Cleaning and Care

- Only clean the tool with a dry cloth.
- Never clean with fluids such as petrol, solvents or water.
- Do not allow liquids to enter the equipment.

Technical Specifications

| | |
|--------------------------------------|--|
| Square drive | 1/2" |
| Max Torque | 230 ft. lbs.(310N.m) |
| Operating Pressure | 90 PSI |
| Reversible | Yes |
| Recommended Air Hose | 3/8 "ID |
| Recommended Maximum Bolt Size | 5/8" 16mm |
| Air Input | 4 CFM |
| Air Inlet Size | 1/4" NPT |
| Air Consumption | cfm (114L/min) |
| Impact Socket Drive | 1/2" |
| Impact Socket Size | 9, 10, 11, 13, 14, 17, 19, 22, 24, 27 mm |
| Product Weight | 3.2kg |



Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see www.datastreamserver.com/safety

- Consult all documentation, packaging and product labelling before use. Note that some products feature documentation available online. It is recommended to print and retain the documentation.
- Before each use, check the product for loose/broken/damaged/missing parts, wear or leaks (if applicable). Never use a product with loose/broken/damaged/missing parts, wear or leaks.
- Products must be inspected and serviced (if applicable) by a qualified technician every 6 months. This is based on average residential use by persons of average size and strength, and on a property of average metropolitan size. Use beyond these recommendations may require more frequent inspections/servicing.
- Ensure that all users of the product have completed a suitable industry recognised training course before being allowed access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or description of application. Be sure to attain third-party approval from a qualified specialist for your application before use, regardless of any assurances from the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (for example, automobile, computer, toaster), there is the possibility of technical issues that may require the repair or replacement of parts, or the product itself. If the possibility of such failure and the associated time it may take to rectify could in any way inconvenience the user, business or employee, or financially affect the user, business or employee, then the product is not suitable for your requirements. This product is not intended for use where incorrect operation or a failure of any kind, including but not limited to, a condition requiring product return, replacement, parts replacement or service by a technician may cause financial loss, loss of employee time or an inconvenience requiring compensation.
- If this product has been purchased in error when considering the information presented here, contact the retailer directly for details of their returns policy, if required.

