

Operating Instructions

Pneumatic Impulse Wrenches



WARNING

In order to reduce the risk of injury, the operating instructions and safety regulations must have been read and understood!



Please read the operating instructions in full and for your own safety follow all of the instructions contained therein.

Store the manual in a secure location.

Attention!

Remember that in accordance with the safety provisions of the Machinery Directive, a compressed air connection must not be made directly to the air inlet of the compressed air machine. Plug-in sleeves with pressed ends, screwed into the air inlet of the device provide the greatest level of safety.



Scope of delivery

Open the packaging and check the contents.

- 1 x compressed air device
- 1 x dehumidifier
- 1 x safety regulations
- 1 x EC Declaration of Conformity
- 1 x operating instructions
- 1 x technical specifications
- 1 x spare parts list

Function of impulse wrench

- The impulse wrench is a compressed air device and is used for precise tightening of screw connections.
- The versions with automatic switch-off are mainly used for hard screw connections, e.g. machine screws. The versions without automatic switch-off are used for screw connections that give in easily, e.g. flange connections with seals or screw connections with spring washers.
- Impulse wrenches work very precisely and feature high repeat accuracy, short impulses, constant tightening torques, barely noticeable reaction torques, and low noise and vibration impact.
- All impulse wrench versions are equipped with a 2-step trigger.
Step 1 allows screwing down the screw with reduced torque.
Step 2 tightens the screw with the specified torque.
- The recommended maximum screw time for an impulse wrench with automatic switch-off should not exceed 5 seconds. A longer duration indicates that the connection is too soft, and a model without automatic switch-off might be the adequate choice.
- Never use the impulse wrench for any other purpose.
- Please observe the safety regulations!

Application of impulse wrench

When working with compressed air devices, observe the safety regulations!

The structure of the impulse wrench is shown in detail in the spare parts list.

Despite its similar outward design, the impulse wrench is not an impact wrench! The impulse wrench is equipped with an integrated hydraulic oil pressure unit and, for some models, additionally with automatic switch-off and is used for tightening screws with a preset torque.

Essentially, the impulse wrench consists of the following main components:

1. Square drive shaft:

For mounting the socket.

2. Reversing switch:

For reversing the rotation of the square drive shaft.

3. Trigger

Starts the device.

Information for operation

- Connect device to the compressed air supply.
- The socket must slide on the drive spindle without any resistance. Replace worn sockets immediately.
- To secure the socket, push the supplied safety pin through the hole in the socket and the drive spindle, and secure with the O-ring.
Soiling might result in the socket getting jammed. In this case it may be useful to spray a little lubrication oil into the mount, and to tap lightly on the socket with a rubber mallet. Make sure to clean all components after successful disconnection.
- The drive spindle, socket and screw/nut must always be aligned to ensure safe and proper function.
- The machine starts when the trigger is pulled. The machine stops when the trigger is released again.
- To reverse the rotation of the drive spindle, use the reversing switch. The direction of rotation is indicated on the device.
- To prevent an unwanted reaction torque, always check the position of the reversing switch before use.
- Use the reversing switch only when the drive spindle is standing still.
- **Attention!** Failure to observe this might destroy the drive assembly of the machine.
- Always hold the machine firmly by hand to ensure correct function.

- Never use the impulse wrench on screw connections for which it is not designed. Doing so might destroy the impulse wrench or screw connection.
- Test the impulse wrench beforehand on a test screw connection in order to determine the required time and required torque for tightening a screw or nut.
- Tightening torques depend on many factors:
If the air flow pressure is below 6.2 bar, the tightening torque will also be reduced.
Worn sockets will reduce the tightening torques.
Tightening torques vary with different screw/nut sizes.

Information for torque settings

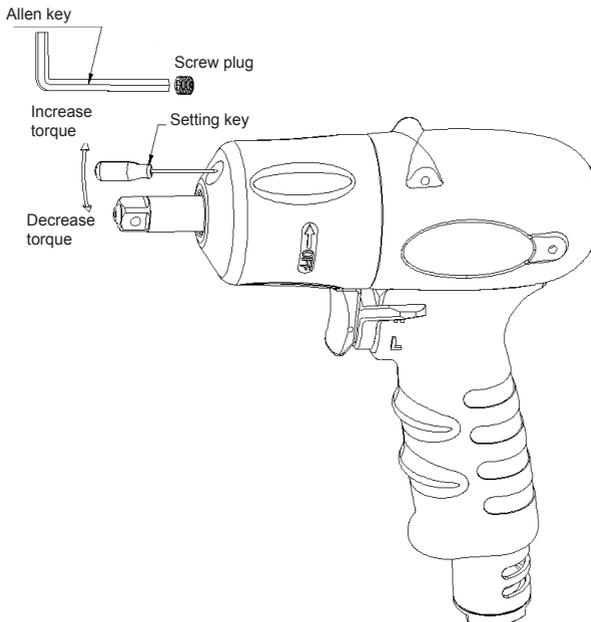
Attention!

Disconnect the device from the compressed air supply in order to prevent accidental activation of the machine.

To set the torque of the impulse wrench, proceed as follows.

1. Bring the impulse wrench to operating temperature by performing 10–15 tightening and releasing operations with the impulse wrench. You can now set the torque.
2. Unscrew the screw plug at the top of the impact mechanism housing.
3. Rotate the drive shaft until the torque setting screw becomes visible in the opening.
4. Using the setting key (included with delivery), turn clockwise to increase the torque, or turn counterclockwise to reduce the torque.
(The setting range of the setting screw is a maximum of 4 full rotations)
5. Never turn the oil drain screw, which becomes visible as well. This screw may only be removed for servicing by qualified personnel!

To check the set torque, you need a precision torque wrench.



Maintenance

When servicing the impulse wrench, observe the environmental regulations under local law.

To achieve a longer lifetime, the manufacturer recommends annual professional maintenance by trained, qualified personnel of your service partner.

If you have any questions, please contact the manufacturer.

Lubrication of the impact mechanism

The impact mechanism has a pressure oil filling and requires regular checking to prevent breakdown and high repair costs. Since each application is different, a hard screw connection might take 0.5 pulsating seconds, and a soft screw connection might take 2 pulsating seconds. In case of hard screw connections, the oil change interval is longer than for soft connections. Accordingly, the impulse wrench should be checked regularly on a torque tester.

Lubrication of the double-chamber motor

The double-chamber motor requires oil lubrication to ensure proper functioning of the motor assembly. It is therefore absolutely necessary to operate a maintenance unit (water separator / regulator / lubricator) with the impulse wrench in order to ensure adequate lubrication.

1. Use only mist lubricant approved by the manufacturer
2. Regularly check the air inlet for damage, and clean of any dirt

Attention!

Maintenance of the impulse wrench may only be carried out by qualified personnel.

Repairs should only be carried out by the service partner of the manufacturer.

Disposal

When disposing of the device, comply with applicable local legislation. Remember that incorrect disposing of lubricants causes environmental damage.