

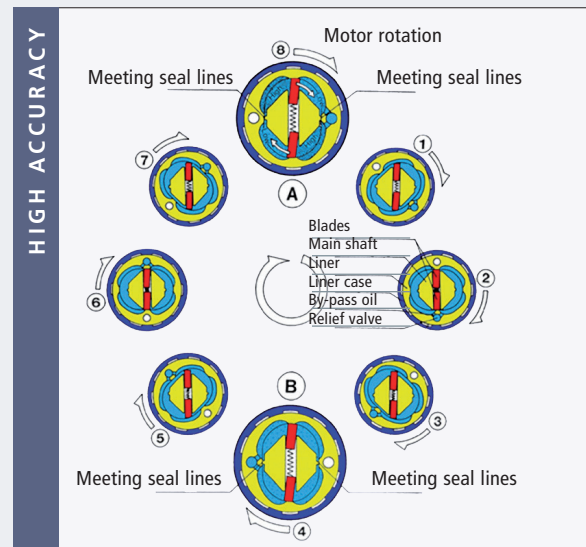
SELECTION GUIDE

specified torques ranges

With an impulse wrench, you bring optimal clamp force into the bolt connection which helps to reduce assembly time to a minimum. When it comes to accurate and fast assembly to the highest ergonomic standards, impulse technology is indispensable in the automotive industry, in the production of transport equipment and mechanical and plant engineering. The machines are quiet, lightweight and responsive.

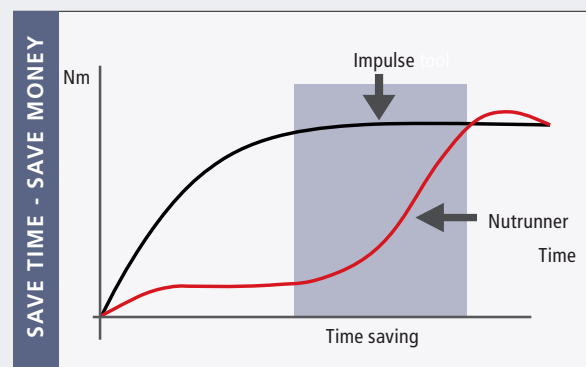
High accuracy

Impulse wrenches have a twin blade impulse mechanism for sealing oil which gives a high repeatability. The mechanism is designed so that the liner, rotated by the air motor gives an equal torque on both blades and instant rotation torque on the mainshaft (see figure below). A by-pass is designed in the liner so that the oil can escape from the area of high pressure to the area of low pressure at the moment of creating a pulse and the amount of oil flow can be adjusted by the relief valve to control the torque output. Depending on model and setting, the impulse wrenches give 10 - 40 impulses per second. The power is transmitted by oil pressure and therefore the impulse wrenches have a very low noise and vibration level.



Save time - save money

Because of the principal of using hydraulics to reach a certain torque, impulse tools can run at a high RPM. The required torque is reached in a split second. All YOKOTA and RED ROOSTER impulse wrenches can be used for hard and soft joints, and give a high accuracy/ repeatability and a low relaxation.

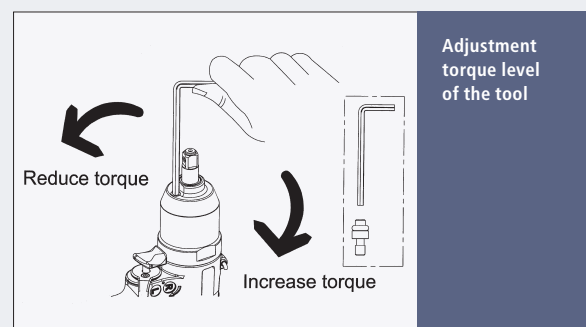


Specified torque range

The torque ranges are specified at a dynamic air pressure of 0,6 MPa, lower air pressure will result in lower torque. Please take note that these impulse wrenches are developed for a dynamic air pressure of 0,63 MPa maximum.

NOTE

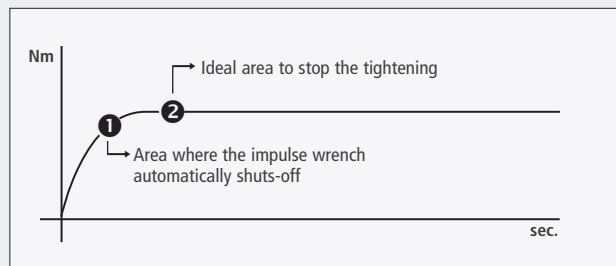
The specified torque range is measured in the laboratory under ideal conditions. Therefore these torque figures are only to be used as a guideline. The actual torque range depends on a variety of working conditions, eg: air pressure, joint hardness, used accessory.



SELECTION GUIDE

specified torques ranges

Impulse wrenches with and without shutt-off



Impulse wrenches without shutt-off ②

Impulse wrenches achieve the highest quality joint if the tightening is finished in this area (horizontal part of the torque curve):

- Highest clampforce with smallest tolerances
- Smallest torque tolerances

Impulse wrenches with mechanical shutt-off ①

- Shorter operating time
- Operator knows when the tightening is finished
- Highest clamp force with smallest tolerances
- Smallest torque tolerances

Impulse wrenches with Poka Yoke⁺ system ②

Impulse wrenches with controlled shutt-off:

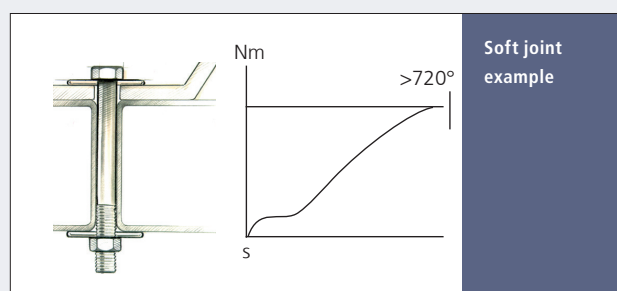
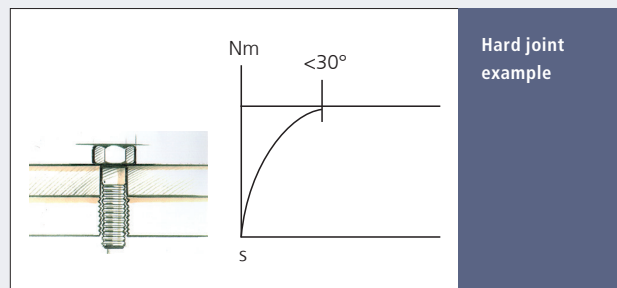
- Highest clamp force with smallest tolerances
- Smallest torque tolerances
- Shortest optimum operating time
- Operator knows when the tightening is finished
- Operator is informed about OK-NOK of the tightening
- OK joints are counted, no missed tightnings

Impulse wrenches with integrated torque transducer ②

- Highest clamp force with smallest tolerances
- Smallest torque tolerances
- Shortest optimum operating time
- Operator knows when the tightening is finished
- Operator is informed about OK-NOK of the tightening
- OK joints are counted, no missed tightnings
- Actual tightening torque is measured
- Full documentation
- Zero fault production

We advise to use the impulse wrench up to 80% of its capacity for the highest productivity, accuracy and durability.

Hard joint and soft joint



Shut-off impulse wrenches selection:

- Hard joint: torque levels up to 95% of the specified torque range
- Soft joint: torque levels up to 85% of the specified torque range

Non shutt-off impulse wrenches selection:

- Hard joint: torque levels up to 100% of the specified torque range
- Soft joint: torque levels up to 90% of the specified torque range

Accessories

The size and shape of impact sockets influence the torque result. Extension bars, depending on the length, can lower the torque range with 5-30% inner torx and inner hexagon can lower the torque range with 5-20%.

For the best result of the impulse wrench, use:

- Constant stabilized air pressure
- Sleeve drive sockets, impact quality (see pages 58-64)
- Impact quality accessories with the correct dimensions
- Accessories in good condition
- Correct inner diameter and length hose
- Lubricated air