



QC Clutch Tools Presentation

July, 2024



Targeted Markets

Where to focus?

Heavy Equipment & Agriculture

- Maintenance and repair tasks
- Disassemble and service heavy machinery

Trucks and Buses

- Chassis Assembly
- Interior dashboard installations
- Wheel and Brake maintenance

MVI and tiers

- Final Assembly Line
- Engine and Transmission repair

Aerospace

- Less critical joints (2-30Nm)

White Goods

- Refrigerators
- Washing machine
- Dishwashers

Electrical Equipment Manufact.

- Electrical Panels
- MV and LV Switchgears
- Circuit Breakers
- Capacitors

Renewables

- Solar
PV Panel installation

General Industry

- HVAC
- Packaging Machines
- More to identify

Product Overview

QC Clutch Tools

- Pistol Tools with torque range: 0.5 Nm – 12 Nm
- Angle Tools with torque range: 15 Nm – 30 Nm
- Programmable (with speed control) / Non-programmable* version
- Programmable tools will leverage **Insight Connect Mobile App** to program advanced settings
- Existing 20V battery & charger platform

*Non-programmable will be only kit



QC Pistol Tools

Pistol configuration overview



** Not available on non-programmable

QC AngleTools

Angle configuration overview



** Not available on non-programmable

Unique Value Propositions

Why QC Clutch Tools ?

1

Simple and User Friendly

Let operators know cycle status fast! Quick and easy to see cycle status allows operators to be more productive by not stopping to check the back of the tool.

User friendly programming - Use existing INSIGHT Connect Mobile App to adjust 8 advanced parameters in less than 30 seconds.

Easy access to USB port from back - no need to remove battery

2

Flexible

Fine tune tool for your application - 8 Advanced Parameters allow fine tuning and control of Fastening Cycles for Programmable Tools

Balance new tool investment with same battery platform - Tools use the Same IQv20 Battery Platform balancing new tool investment with our existing battery platform

3

Capable

Ensure your fastening applications are right first time with our clutch range offers great precision for low torque applications with CM >1.67 at 10%

Reduce reworks on complex joints with enhanced parameter adjustment settings for shift down conditions.

4

Durable

Designed for more than 500,000 Cycles - Save money on replacements and spares thanks to "glass fibre" enforced bodies, "Non-Contacting Trigger" and "steel reinforcements".

1 Simple and User Friendly

- **Let operators know cycle status fast with shadowless 360 status beam** - Allows operators to be more productive by not stopping to check the back of the tool and avoid shadows while illuminating



GREEN Cycle
Status –
OK Tightening



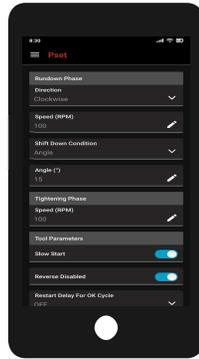
RED Cycle
Status –
NOK Tightening



WHITE light
indicator for
workpiece
illumination

1 Simple and User Friendly

- **User friendly programming** – Connect to existing INSIGHT Connect Mobile App with USB-C cable to adjust 8 advanced parameters in less than 30 seconds
- **Easy access to USB port from back** - no need to remove battery



Programmable RPM
Tightening Speed can be programmed to achieve maximum accuracy



Tightening Direction
Bi-directional tightening capability to cater to all kinds of joints



Soft Start
Gradual ramp up to Run-down Speed for better control and alignment of fasteners

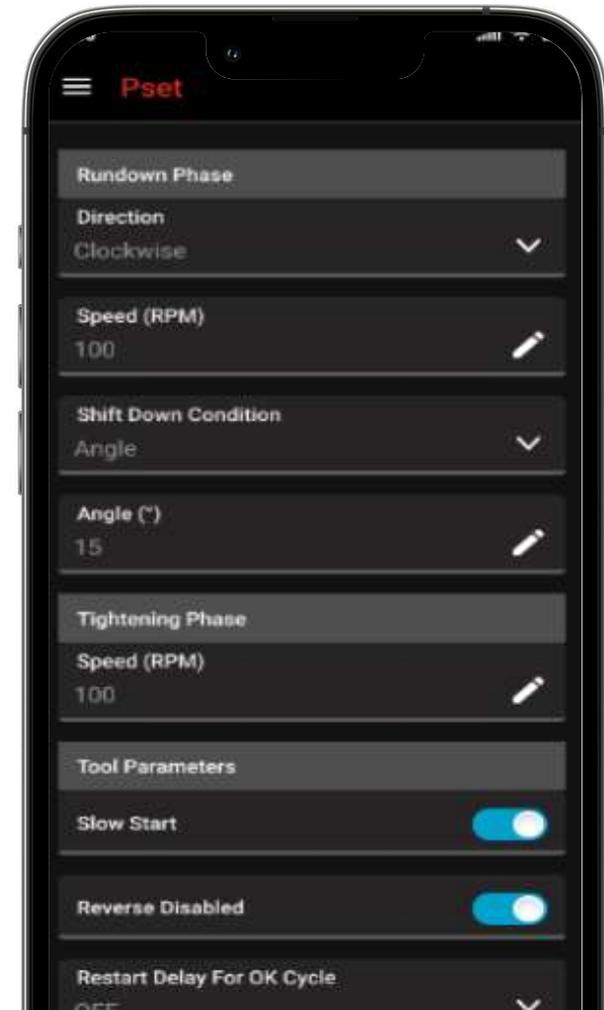


Shiftdown Conditions
Angle and Time shift-down conditions to go from Run-down Speed to Tightening Speed

2 Flexible

Setup up to 8 configurable parameters using the Insight CONNECT Mobile App

- **Rundown Phase:**
 - Tightening Direction CW/CCW
 - Speed (RPM)
 - Shift-down Condition (Angle (°)/Time (s))
- **Tightening Phase:**
 - Speed (RPM)
- **Tool Parameters:**
 - Restart Delay on OK Cycle
 - Restart Delay on NOK Cycle
 - Slow Start (Speed ramp up)
 - Reverse Disable (Disables reverse trigger)



2 Flexible

Balance new tool investment with same battery platform

- Tools use the Same IQv20 Battery Platform balancing new tool investment with our existing battery platform



3 Capable

Ensure fastening applications are right every time

- **Reduce reworks on complex joints** with enhanced parameter adjustment settings for shift down conditions.
- **High precision** with our clutch range offers great precision for low torque applications with CM >1.67 at 10%



Setup the clutch



Adjust Settings



Get precision up to $\pm 10\%$ at CM >1.67

4

Durable

Save money on replacements and spares

- Our clutch tools are designed to last longer, over **500,000 cycles**
- Glass fibre enforced bodies
- Patented Dual Speed non-contact trigger
- Aluminum reinforcements
- Regreasing of mechanism recommending every 10.000 cycles



4

Tool Specifications

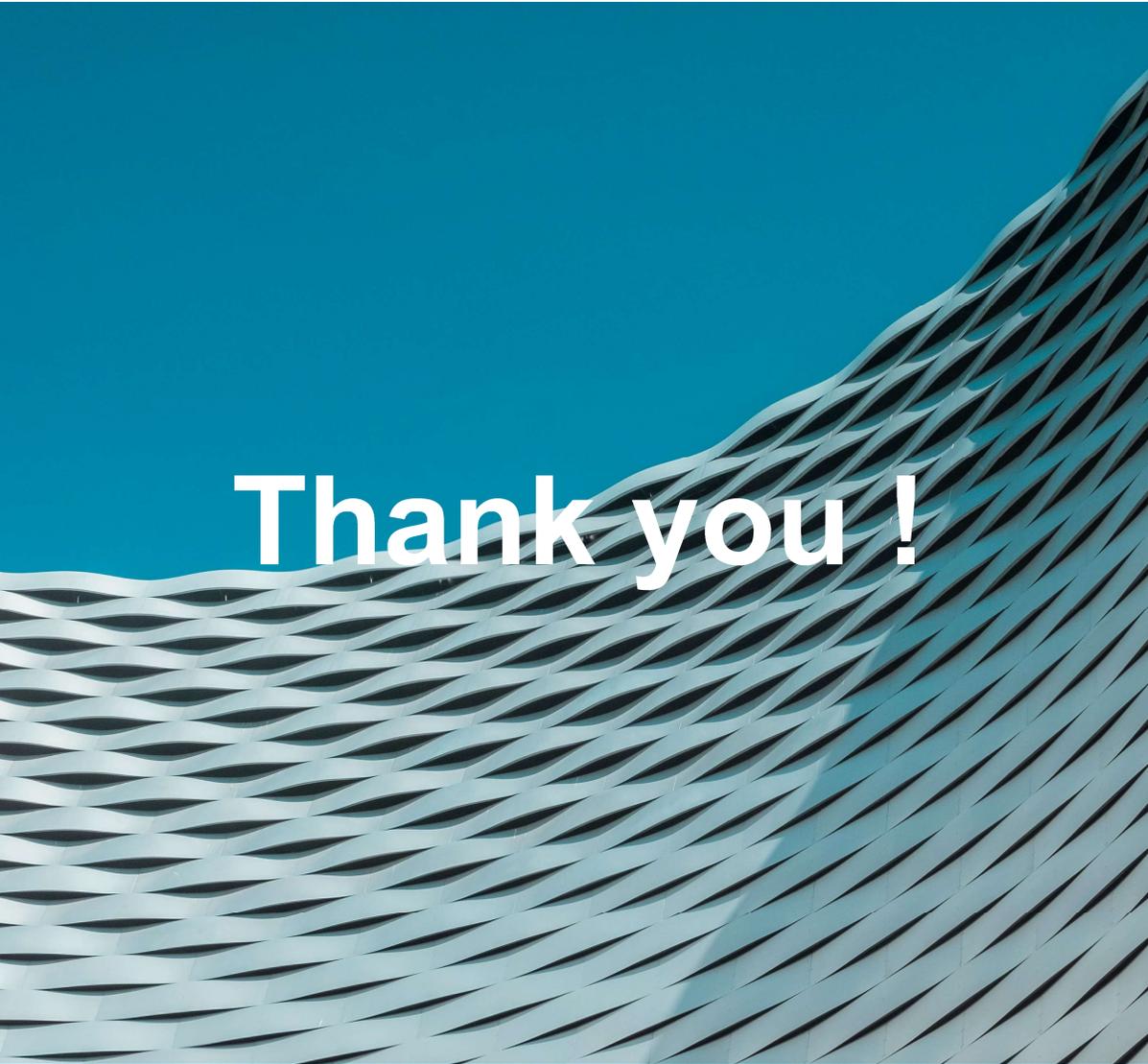
Technical data



QCP (Programmable Tool) Specifications

Model	Tool configuration	Drive	Torque (Nm)	Speed (rpm)	Weight w/o battery* (kg)	Lenght (mm)	Height w/o battery (mm)
QCN2P02Q4-K2EU	Non-Programmable Pistol	1/4" Quick-Change	0.5 - 2	1160	1.04	210	208,6
QCN2P04Q4-K2EU	Non-Programmable Pistol	1/4" Quick-Change	1 - 4	1160	1.04	210	208,6
QCN2P08Q4-K2EU	Non-Programmable Pistol	1/4" Quick-Change	3 - 8	700	1.04	210	208,6
QCN2P12Q4-K2EU	Non-Programmable Pistol	1/4" Quick-Change	5 - 12	700	1.04	210	208,6
QCN2A30S6-K2EU	Non-Programmable Angle	3/8" Square Dr	15 - 30	300	1.72	510	66,3
QCP2P02Q4-K2EU	Programmable Pistol	1/4" Quick-Change	0.5 - 2	350-1160	1.04	210	208,6
QCP2P04Q4-K2EU	Programmable Pistol	1/4" Quick-Change	1 - 4	350-1160	1.04	210	208,6
QCP2P08Q4-K2EU	Programmable Pistol	1/4" Quick-Change	3 - 8	140-700	1.04	210	208,6
QCP2P12Q4-K2EU	Programmable Pistol	1/4" Quick-Change	5 - 12	140-700	1.04	210	208,6
QCP2A30S6-K2EU	Programmable Pistol	3/8" Square Dr	15 - 30	60-300	1.72	510	66,3

*BL2012: 410g, BL2022: 710g



Thank you !