



**QX CONNECT SERIES™**  
Cordless Precision Fastening Systems

# TAKE TOTAL CONTROL

Taking total control of your fastening process doesn't have to be complicated. Our comprehensive QX Connect Series™ family of fastening systems deliver simple, flexible and capable solutions for all of your assembly requirements. No matter the industry or application, you can count on Ingersoll Rand as a trusted partner to help you get the job done right.

## DIFFERENT, BY DESIGN

WHAT DOES THIS MEAN TO ME?	<b>SIMPLE</b>	<b>FLEXIBLE</b>	<b>CAPABLE</b>
	<p><b>EXPERTISE NOT REQUIRED</b></p> <ul style="list-style-type: none"> <li>Save on selection, training and installation costs</li> <li>Easy to use, ergonomic designs</li> <li>Simple to order, fast delivery</li> </ul>	<p><b>EASILY IMPLEMENT CHANGE</b></p> <ul style="list-style-type: none"> <li>Easy line integration and rebalancing</li> <li>Multiple product options</li> <li>Connectivity options enable fast programming</li> </ul>	<p><b>MEET YOUR REQUIREMENTS</b></p> <ul style="list-style-type: none"> <li>Performance that optimizes your productivity</li> <li>Durable designs, lower cost of ownership</li> <li>Advanced diagnostics identify problems and enhance safety</li> </ul>

### ICON IDENTIFIERS

Compatibility Reference



USB compatible



Insight Connect App



ETS  
(Ergonomic Tightening System)



Wireless



Bluetooth compatible

# SIMPLY PRODUCTIVE WITH CONNECTIVITY

The innovative QX Connect Series™ is simple for anyone to use. It offers flexibility because of its feature-rich configurations, and can manage everything from data and fast programming to modifications on your line. The QX Connect Series™ increases productivity and lowers costs — all at a price you can afford.

### SIMPLE

- Multi-function display module for quick setup and feedback
- Compact, lightweight and ergonomically balanced so the operator can work without restraints
- The intuitive INSIGHT Connect app will help you stay productive & mobile on the plant floor via Bluetooth or wired connection.

### FLEXIBLE

- Provides up to 32 fully programmable configurations on a single tool, reducing costs and workspace clutter
- Fast and intuitive programming makes the tool easily adaptable to any needed changes on your assembly line
- Cordless and portable, allowing for effortless movement around your facility

### CAPABLE

- At the heart of every tool is the closed-loop transducer control that delivers precise torque and accurate, traceable results
- Available in a variety of configurations, including pistol grip, angle wrench, multiplied, and ETS
- Wireless & Bluetooth communication options enable flexible line integration, remote monitoring and simple system programming across a plant-wide network
- Manage cycle data, control the process, receive system status alerts and implement configuration adjustments in real time with INSIGHTqcx™ using Ethernet, Fieldbus and digital I/O



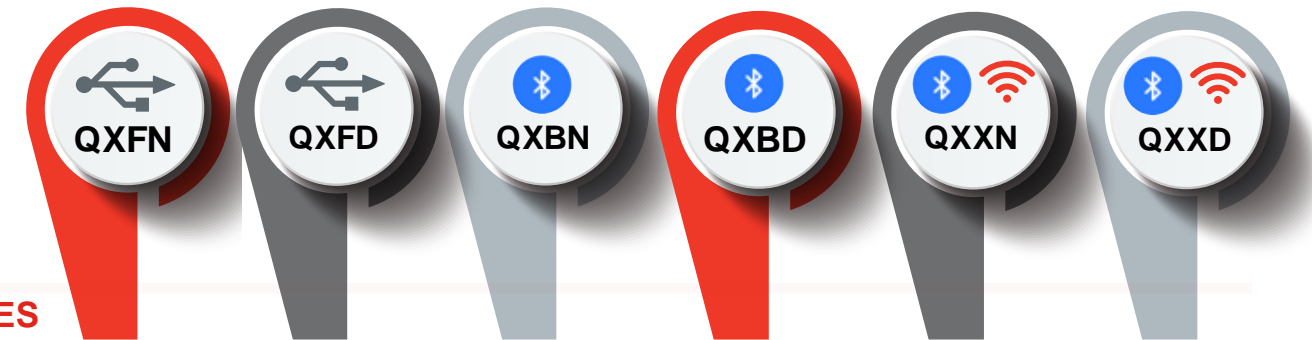
# QX CONNECT SERIES™ FEATURES



\* Not available on all models

# HOW TO SELECT THE RIGHT TOOL

When it comes to fastening, non-transducerized tools don't stand a chance. The QX Connect Series™ line of products give you closed-loop control of your fastening process, and the ease of mobility with different connectivity options. Each and every tool allows for programmable tightening strategies to deliver higher quality fastened joints and a level of control that is unmatched by other solutions. The diversity of the QX Series™ lineup offers a simple, flexible and capable solution for any fastening need.



## FEATURES

Display & Keypad	x	✓	x	✓	x	✓
Bluetooth	x	x	✓	✓	✓	✓
Wireless Radio Connectivity to INSIGHTqcx	x	x	x	x	✓	✓
Programmable with INSIGHT Connect via Bluetooth	x	x	✓	✓	✓	✓
Programmable with INSIGHT Connect and INSIGHT qcx via USB	✓	✓	✓	✓	✓	✓
ETS Optional	✓	✓	✓	✓	✓	✓
Number of PSETs	32*	32*	32	32	32*	32

\*Note: For QXFN, QXBN, QXXN models, users can program and select Psets using the INSIGHT Connect App.

# QXFN SERIES CORDLESS TOOLS

QXFN offers superior transducerized control and operator feedback in a way that is easy to use and simple to setup. This unique series features 32 tightening configuration that can be programmed via USB using the INSIGHT Connect app. All QXFN tools have no wireless communication and can only be programmed via USB using the INSIGHT Connect app.



## FEATURES

- 32 tightening configuration
- Transducerized for precise torque measurement
- Closed-loop control of torque, speed and degrees of rotation
- Simple to program via USB using the INSIGHT Connect app
- Visual operator feedback using green, yellow and red lights
- Programmable preventative maintenance alarms
- Maintenance indicator for troubleshooting and diagnostics
- 1200 cycles of data storage – accessible via the INSIGHT Connect app



Visit [irtools.com/qx](http://irtools.com/qx) to view spec data and request a demo



# QXFD, QXBN & QXBD SERIES CORDLESS

The versatile QXFD, QXBN/QXBD series feature 32 tightening configurations, offering the ability to consolidate the number of tools needed in your bag or bench. The series also enhances the feedback provided from the tool by displaying the measured torque or angle results to the operator. The QXBN & QXBD models further add Bluetooth connectivity & program the tools via wireless using the INSIGHT Connect app.



## 32

## FEATURES

- Flexibility to utilize the same tool on multiple applications
- Program 32 PSETs configurations into one tool
- Visual torque validation on display
- Transducerized for precise torque measurement
- Closed-loop control of torque, speed and degrees of rotation
- Flexible Connectivity options with Bluetooth for simple programming using the INSIGHT Connect app or back of tool programming.
- Visual operator feedback using green, yellow and red lights
- Programmable preventative maintenance alarms
- Maintenance indicator for troubleshooting and diagnostics
- 1200 cycles of data storage



Visit [irtools.com/qx](http://irtools.com/qx) to view spec data and request a demo



# QXXD, QXXN CORDLESS

The easy to use QXXD and QXXN, have the unique ability to integrate with line control systems for error proofing and data collection. The series also allows remote monitoring and integration with standard fastening system accessories.



## FEATURES

- With INSIGHTqcx™, complete integration into plant wide Ethernet network, for increased productivity and control
- Remote access and integrated data collection capability
- Use of INSIGHTqcx™ enables transmission of tightening data and line control integration via Ethernet, Fieldbus or I/O
- Flexibility to utilize the same tool on multiple applications
- Program 32 configurations into one tool
- Visual torque validation on display
- Transducerized for precise torque measurement
- Closed-loop control of torque, speed and degrees of rotation
- Simple to program via USB cable or back of tool programming
- Visual operator feedback using display screen and green and red lights
- Programmable preventative maintenance alarms
- Maintenance indicator for troubleshooting and diagnostics



SIMPLE FLEXIBLE CAPABLE

# QX ERGONOMIC TIGHTENING SYSTEM

Reducing the torque reaction in your fastening process doesn't have to be complicated. Control and ergonomics, not compromise - that is what the QX ETS is all about. The QX ETS offers all the capabilities found in the QX Connect Series™ platform, with less the torque reaction.

## FEATURES

- Ergonomically enhanced motor control algorithm significantly reduces the average force experienced by the operator during the tightening process
- Red foot label provides clear indication of ETS tool identity vs standard QX tool
- Continuously flashing purple light above keypad provides operator assurance that ETS is ACTIVE
- All the capability of the QX platform, without the torque reaction
- Common software and battery platform for simple integration
- ETS features are available for all QX Connect models and available in pistol grip, low torque angle and high torque angle
- Onboard 'pulse' counter supports proper optimization and application of ETS tools on ideal applications (10 pulses or less per cycle)



## SIMPLE SETUP

In addition to standard direct drive mode, each tool configuration can be independently programmed to utilize one of the three available single-parameter ETS modes, simplifying setup:

**Ergonomic Mode**, with the lowest energy pulses, is ideal for hard joints or when arm, wrist or tool angles are most difficult.

**Performance Mode**, with medium energy pulses, is the best all-purpose mode.

**Productivity Mode**, with the highest energy pulses, is the fastest mode. Ideal for soft joints or when high production rates are required.

# QXM CORDLESS TORQUE MULTIPLIER

The innovative QX Series™ Cordless Torque Multiplier will reduce your fastening time and cost, while ensuring repeatable accuracy for all torque-critical joints. Designed with a premium gearbox and an efficient, time-tested closed-loop transducer, the Torque Multiplier is world-class in quality, control and programmable configurations to maximize your productivity.

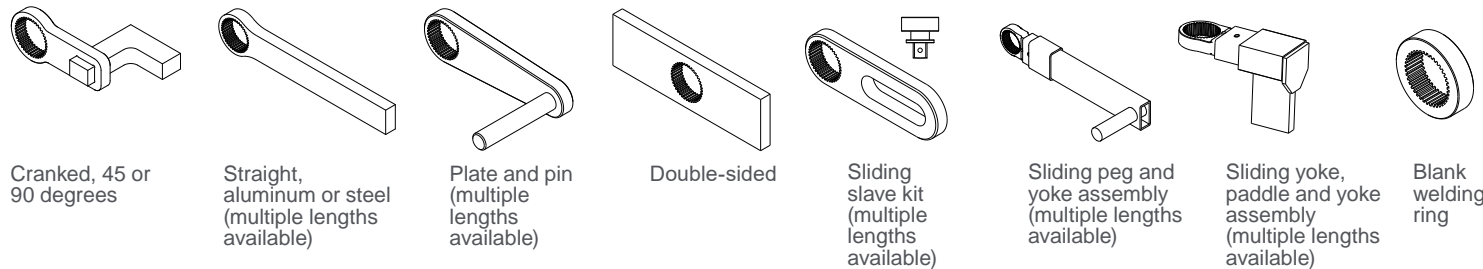


## FEATURES

- A multi-function display module allowing for quick setup and feedback on every QX Series™ tool
- User-programmable parameters such as torque, angle and batch count reduce the number of tools needed when multiple applications are required
- Maintenance indicator for troubleshooting and diagnostics
- Simple programming methods make the tool easily adaptable for various applications
- Pistol and angle configurations available

## REACTION ARMS

Ingersoll Rand® offers the following variety of reaction arms for different applications. Reaction arms are available in both 52 mm and 72 mm spline drives, depending on the size of the gearbox.



Cranked, 45 or 90 degrees

Straight, aluminum or steel (multiple lengths available)

Plate and pin (multiple lengths available)

Double-sided

Sliding slave kit (multiple lengths available)

Sliding peg and yoke assembly (multiple lengths available)

Sliding yoke, paddle and yoke assembly (multiple lengths available)

Blank welding ring

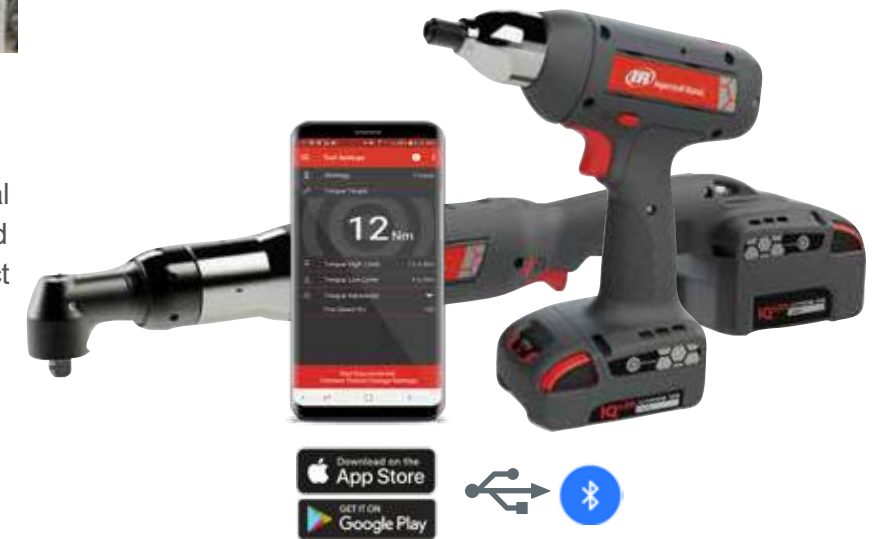


# INSIGHT™ CONNECT APP



The INSIGHT™ Connect app will help you stay productive, mobile and in control of your fastening process. It programs any Ingersoll Rand® QX Connect Series™ tool without the need for additional technical training, special software, plant network permissions or a laptop computer. Working from a smartphone or tablet, operators can use the app to quickly program the torque and angle control configurations on these closed-loop, transducerized tools.

Once installed, the INSIGHT™ Connect app can operate offline, so it functions in large facilities or other locations where Internet signal loss may be a problem, reducing downtime and maximizing ease of use. The INSIGHT Connect App is a perfect companion to complement QX Connect Series™ tools\*. With Bluetooth capability, the INSIGHT Connect App can communicate wirelessly via Bluetooth with the QX Connect tools.



You can quickly perform key tasks with your mobile device, including:

## SIMPLE

- Common Setting & General Tool Setup
- Multiple Language Support
- Retrieve Cycle Log and Share via Email
- Audit Logs
- Error Codes with Description

## FLEXIBLE

- Program All Standard QX Platform Tool
- Clone- Back Up and Restore
- Save and Load Configurations
- Firmware Update
- Virtual tool programming

## CAPABLE

- Program Torque, Angle, Speed
- Multiple Configurations
- Multiple Step Programming
- End of Run (EOR) data on App
- Calibration and Cp/Cpk
- Programming via Bluetooth

# CUSTOMIZE FOR SPECIAL APPLICATIONS

## QX PISTOL SPECIAL HEAD ADAPTER

The QX Pistol Special Head Adapter is the perfect solution to simply increase the flexibility of your QX pistol screwdriver. Using this adapter leverages the closed-loop capability of the QX tool to the most unique applications. The adapter helps manufacturers meet the requirements of applications where restricted access requires a custom head to reach the fastener. Common applications requiring a special head adapter, include assembling aircraft wings or installing door hinges on cars and trucks.



**SIMPLE**  
Ready made and easy to install

**FLEXIBLE**  
Use your QX pistol grip tool for unique applications

**CAPABLE**  
Employ closed-loop control capabilities on specialty applications

# INSIGHTqcx™ CONTROLLER



## THE POWER TO REDUCE COSTS & INCREASE FLEXIBILITY

When trying to achieve simple manufacturing goals in a complex manufacturing world, understanding the fastening process doesn't have to be complicated. The new Ingersoll Rand® INSIGHTqcx™ is different, by design. This cordless controller is designed to be easy to use and integrate, while providing a common platform to meet your assembly requirements worldwide.

With the new Multi Tools Controller (MTC) software option, you also have the ability to control up to 6 tools with just one INSIGHTqcx controller. Ingersoll Rand's innovative solution with our QX Series™ & INSIGHTqcx MTC controller provides some of the best value available on the market, with one of the lowest total costs of ownership & cost per spindle available.

	<b>SIMPLE</b>	<b>FLEXIBLE</b>	<b>CAPABLE</b>
<b>WHAT DOES THIS MEAN TO ME?</b>	<b>EXPERTISE NOT REQUIRED</b>	<b>EASILY IMPLEMENT CHANGE</b>	<b>MEET YOUR REQUIREMENTS</b>
	<ul style="list-style-type: none"> <li>Save on selection, training and installation costs</li> <li>Reduce errors and downtime</li> <li>Remove user dependencies</li> </ul>	<ul style="list-style-type: none"> <li>Reduce line rebalancing costs</li> <li>Easy line integration</li> <li>Remove device dependency</li> </ul>	<ul style="list-style-type: none"> <li>Get the job right, every time</li> <li>Assurance via traceability</li> <li>Optimize your productivity</li> </ul>
<b>HOW DOES INGERSOLL RAND PROVIDE VALUE?</b>	<ul style="list-style-type: none"> <li>Intuitive, visual programming interface</li> <li>Plug and play accessories and protocols</li> <li>Integrated backup and recovery</li> <li>Bundled controller options</li> <li>Easy Wireless Pairing (up to 6 tools with MTC option)</li> <li>Tightening configurations can be shared between tools (MTC)</li> </ul>	<ul style="list-style-type: none"> <li>Web based programming use any operating system via any browser</li> <li>Meets current industry communication needs</li> <li>Integrated logic controls</li> <li>Easy hardware and software upgrades</li> <li>Onboard wireless energy scan</li> </ul>	<ul style="list-style-type: none"> <li>Touch screen interface</li> <li>Optimal cycle data storage: 500,000 results &amp; trace</li> <li>Robust audit and system logs</li> <li>Advanced tightening strategies and features</li> <li>Onboard diagnostics</li> <li>Integrated statistical process controls</li> </ul>

## SIMPLY INSIGHTFUL

The controller's web-based software eliminates device dependencies and enables full programming capability with any device that can run an internet browser, including smart phones, tablets or computers. The INSIGHTqcx™ controller is easy to integrate with the manufacturing line, provides flexible logic controls for job sequencing and helps reduce line rebalancing costs through a simple and intuitive user interface.

# CONTROL UP TO 6 TOOLS

## with 1 Controller (with MTC option)

**Integrated wall mount**

**Configure up to 256 jobs & 32 Psets per tool**

**SSD card**

**Whiteboard & QR code**

**Integrated carrying handle**

**Holds 500,000 records for results & trace**

**7-in full color touch screen**

**System indicators**

- Factory connection
- Wireless connection
- Link status
- Fault detected

**Ethernet ports 10/100/1000**

**USB 2.0 ports (4)**

**Fieldbus card slot**

- Ethernet IP
- Profinet
- Profibus
- Devicenet
- Others

Sku#	Tools to Pair
MTC-SW-OPT2	2
MTC-SW-OPT4	4
MTC-SW-OPT6	6

**MTC OPTIONS**

- Up to 6 tools per controller
- Unlock Multi tool dashboard view
- Upgradeable software
- Backwards compatibility with INSIGHTqcx™ & QX™ tools

**SIMPLE FLEXIBLE CAPABLE**

# SYSTEM ACCESSORIES

We offer a wide range of accessories that offer ease of use and flexibility to meet your specific application needs. QX Precision Fastening Systems are compatible with a variety of plug and play accessories to maximize productivity for your manufacturing line.

## ACCESSORIES FOR ANY APPLICATION

- Battery chargers
- Battery packs
- Boots
- Bit selector trays
- Socket selector trays
- Suspension bales
- Auxiliary handles
- Selector tray cables
- Torque testers
- Spring balancers
- Socket kits



For a specific part number and ordering details, please refer to the accessories guide at [irtools.com/assemblyaccessories](http://irtools.com/assemblyaccessories)









Ingersoll Rand (NYSE:IR), driven by an entrepreneurial spirit and ownership mindset, is dedicated to helping make life better for our employees, customers and communities. Customers lean on us for our technology-driven excellence in mission-critical flow creation and industrial solutions across 40+ respected brands where our products and services excel in the most complex and harsh conditions. Our employees develop customers for life through their daily commitment to expertise, productivity and efficiency.



**Learn more at [www.ingersollrand.com](http://www.ingersollrand.com)**