Ingersoll Rand

QX Series™

QX™

SERIES

PRECISION FASTENING SYSTEMS

REAL TOOLS FOR REAL WORK™

Take Total Control

Taking total control of your fastening process doesn't have to be complicated. Our comprehensive QX 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

Expertise not required

- Save on selection, training and installation costs
- Easy to use, ergonomic designs
- Simple to order, fast delivery

Meet your requirements

- Performance that optimizes your productivity
- Durable designs, lower cost of ownership
- Advanced diagnostics identify problems and enhance safety

Easily implement change

- Easy line integration and rebalancing
- Multiple product options
- Custom solutions available

Icon identifiers

Compatibility Reference

USB compatible | Insight Connect App | ETS (Ergonomic Tightening System) | Wireless | ICS

UPtime Program

Ordering Fastening Systems Has Never Been Easier

New production lines, new applications and the need to have critical backup tools readily available are a part of everyday assembly environments. This creates a continuous demand for capable assembly tools with short lead times.

With our UPtime™ program, you will have access to an extensive list of QX Series™ products that can be delivered within one week. Ordering is fast, simple and hassle-free – finally allowing you the flexibility of swapping out components easily when you need to modify a workstation or rebalance your assembly line.

When you need it the most, UPtime will make sure your production line keeps moving – contact your local Ingersoll Rand distributor, or visit our website for details.

Contact your sales representative for a copy of our UPtime guide or visit irtools.com/UPtime

Other skus available, contact your sales representative for assistance.

Simply Productive

The innovative QX 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 Series™ increases productivity and lowers costs — all at a price you can afford.

QX Series™ Haz Tool Class 1 Division 2 certified

QX Series™ Precision Screwdriver

Process Communication Module

QX Series™ Angle Wrenches

QX Series™ Multiplier 1,000 Nm Pistol

QX ETS (Ergonomic Tightening System)

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 and mobile on the plant floor

Flexible

- Provides up to eight 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, Class 1 Div 2 and ETS
- Wireless communication option enables 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 using Ethernet, Fieldbus and digitial I/O

QX Series™ Features

Patented transducer control provides traceable results

USB port for convenient programming and data transfer

Precision planetary gears for greater reliability

Multiple drive choices
1/4" quick-change, 1/4" square drive, 3/8" square drive, and 1/2" square drive options available

Durable DC brushless motor tested beyond a million cycles

Super bright LED headlight with programmable on and off times. (Not available on the QX Series™ angle wrench)

Optional wireless communications for process control and data collection

Non-contacting patented trigger and reverse switch for maximum durability

High strength, impact resistant lens guards against damage

Ergonomic design, comfortable, lightweight and balanced

Optional backlit display offers quick setup and remarkable visual feedback

Lithium ion battery provides maximum run time and portability

How to Select the Right Tool

When it comes to fastening, non-transducerized tools don't stand a chance. The QX Series™ line of products give you closed-loop control of your fastening process. 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	QXN	QXC	QXX
Number of Tightening Configurations	1	8	8
Compatible with INSIGHT Connect App	✓	✓	✓
Compatible with ICS Software	✓	✓	✓
Total control of torque, speed, & degrees of rotation	✓	✓	✓
Multi-step tightening configuration support	✓	✓	✓
Multi-color visual status indicators`	✓	✓	✓
Optional ETS models available	✓	✓	✓
Optional QXM Torque Multiplier models available		✓	✓
Displays quantitative result of actual torque		✓	✓
Programming directly from the back of the tool		✓	✓
Integration with line control systems for error proofing			✓
Integration with plant network for data collection			✓
Integration with standard accessories such as: light stack, socket tray, bar code scanner, etc.			✓
Supports remote access and programming using ICS			✓

Visit irtools.com/qx to view spec data and request a demo

QXN Series Cordless Tools

QXN offers superior transducerized control and operator feedback in a way that is easy to use and simple to setup. This unique series features one tightening configuration that can be programmed via USB using the INSIGHT Connect app.

Features

- One 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

SIMPLE FLEXIBLE CAPABLE

See page 12 for more information or go to **irtools.com/insightconnect**

Visit **irtools.com/qx** to view spec data and request a demo

QXC Cordless Tools

The versatile QXC features eight tightening configurations, giving it the ability to consolidate the number of tools needed in your bag or at your bench. This series also enhances the feedback provided from the tool by displaying the measured torque or angle result to the operator.

Eight in One

Visit **irtools.com/qx** to view spec data and request a demo

Features

- Flexibility to utilize the same tool on multiple applications
- Program eight 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 options 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 – accessible via ICS software

SIMPLE **FLEXIBLE** **CAPABLE**

Learn More at
irtools.com/insightconnect

QXX Cordless Tools

The easy to use QXX has 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.

SIMPLE FLEXIBLE CAPABLE

Features

- Full integration into plant-wide Ethernet network, for increased connectivity
- Remote access and integrated data collection capability
- Use of PCM 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 eight 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 options using ICS software and 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

Visit **irtools.com/qx** to view spec data and request a demo

Learn More at **irtools.com/insightconnect**

QX ETS - 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 Series™ platform, without the torque reaction.

Features

- Ergonomically enhanced motor control algorithm significantly reduces the average force experienced by the operator during the tightening process
- Red tool highlights provide clear indication of ETS tool identity vs standard QX tool
- Continuously flashing blue 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
- QXN, QXC and QXX versions 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.

Visit **irtools.com/qx** to view spec data and request a demo

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

SIMPLE **FLEXIBLE** **CAPABLE**

Learn More at **irtools.com/insightconnect**

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

- Strategy
  - Torque
  - Angle
  - Torque + angle
- Back-up and restore tool settings
- Retrieval of tool logs and the ability to send via email for post-processing
- Review audit logs

Learn More at
irtools.com/insightconnect

Customize for Specialty 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

QX Series™ Cordless Haz Tool

Haz Tool options are available for QX tools in pistol or angle configurations. The Class 1 Division 2 certified QX Series™ Haz Tool takes the QX Series™ where it couldn't go before. It's a revolutionary step for your entire facility, one that shows how a smarter tool can improve process control, operator comfort and data communication in a single safe package, while increasing productivity, lowering costs and ensuring a high-quality product at the end of your line.

Learn More at
irtools.com/insightconnect

A Plant-Wide Network for Plant-Wide Productivity

Ingersoll Rand doesn't just give you unprecedented technology, we want to give you total control of that technology. Our Process Communication Module enables flexible line integration, remote monitoring and simple system programming that translates into maximum productivity and efficiency.

QX Series™ Process Communication Module (PCM)

Configuration		IC-PCM-2-U 10 to 1	IC-PCM-2-U 1 to 1
Tool Connections	Wireless tool connections	10	1
Software	ICS Connect software	•	•
Power Supply	120V AC input, 5V DC output	•	•
Communication	Ethernet to ICS	•	•
Fieldbus Options	Ethernet/IP, DeviceNet, Interbus-S, Profibus, Modbus-TCP		•
Protocols	Open Protocol, Ethernet EOR, Serial EOR, Toyota TOHO		•
Printers/Devices	Serial RS232, bar code, label printing		•
I/O	8 inputs/8 outputs, with behavior assignable through ICS software, operates at 24V DC		•
I/O Power Supply	120V AC input, 24V DC output		•
Indicators	Power ON, system ready, wireless activity, Ethernet activity	•	•
Ambient Operating Conditions	0-50°C, 20/90% non-condensing humidity	•	•
Enclosure	IP52 mounted in upright vertical position	•	•
System Weight	3.0 lb (1.4 kg)	•	•
Overall Dimensions	11.5 in x 4.1 in x 8.3 in 291 mm x 103 mm x 210 mm	•	•

Process Communication Module

QX Series™ tools can communicate with a computer via USB port and ICS Software or via mobile device with the INSIGHT Connect app.

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

IQ^{V40} Series 40V, 2.5Ah Battery Charger

IQ^{V40} Series 40V, 2.5Ah Lithium Ion Battery Pack

IQ^{V20} Series 20V Battery Charger

IQ^{V20} Series 20V, 5.0Ahr Lithium Ion Battery Pack

IQ^{V20} Series 20V, 2.5Ahr Lithium Ion Battery Pack

Boot

Bit Selector Tray

Socket Selector Tray

Suspension Bale

Auxiliary Handle

Selector Tray Cables

Torque Tester

Spring Balancer

Socket Kit

For a specific part number and ordering details, please refer to the accessories guide at irtools.com/assemblyaccessories

Learn More at
irtools.com/insightconnect

Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a $14 billion global business committed to a world of sustainable progress and enduring results.

www.ingersollrandproducts.com

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