REDUCING TORQUE REACTION DOESN'T HAVE TO BE COMPLICATED

QX Series™ Ergonomic Tightening Systems

Simple. Flexible. Capable.

SIMPLE

◄ **Be your own expert**

- 1 new parameter
- Back of tool programming
- Same software & battery platforms

CAPABLE

FLEXIBLE

▲ **Ensure control & ergonomics**

- Closed loop transducer control
- Local storage of 1200 cyles & wireless communication option
- Significant reduction in the average force and enhance safety

▲ **Adapt to your needs**

- 4 different tightening modes
- Multiple torque, shape, & communication options
- Li-ion battery platform & wireless communication option

Why ETS?

QX + ETS reduces average reaction force experienced by the QX Series™ user up to

▼ **63%**

ETS Active   ETS Not Active

When ETS is Active, the operator's arm movement is limited to a series of smaller movements instead of one large movement. This enables the operator to stay in control and in the 'power zone', reducing the chance for injury caused by quick, excessive movement.

QX ETS

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:

1. Ergonomic Mode:
With the lowest energy pulses, is ideal for hand joints or when arm wrist or tool angles are most difficult

2. Performance Mode:
With Medium energy pulse, is the best all-purpose mode

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

FEATURES

FEATURES	QXN	QXC	QXX
Total control of torque, speed and degrees of rotation	✓	✓	✓
One tightening configuration that is programmed via USB	✓		
Programming capability via USB using ICS software	✓	✓	✓
Eight tightening configurations available, giving it the ability to consolidate the number of tools		✓	✓
Ability to program a multi-step tightening configuration	✓	✓	✓
Multi-color visual status indicators for operator feedback	✓	✓	✓
Display shows actual achieved torque or angle value		✓	✓
Programming capability using onboard keypad and display		✓	✓
Ability to integrate with line control systems for error proofing and data collection			✓
Compatible with standard accessories like light stack, socket tray, bar code scanner, etc			✓
Allows remote access and programming via plant Ethernet network using ICS software			✓

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)

IC-PCM-2-U	
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™ ETS Models

Model	Communication	Style	Max Torque (Nm)	Free Speed (RPM)	Drive Output
QX_2PT08ES6	N, C, or X	Pistol 20V	8	1150	⅜" Square
QX_2PT08EQ4	N, C, or X	Pistol 20V	8	1150	¼" Quick Change
QX_2PT12ES6	N, C, or X	Pistol 20V	12	750	⅜" Square
QX_2PT12EQ4	N, C, or X	Pistol 20V	12	750	¼" Quick Change
QX_2PT18ES6	N, C, or X	Pistol 20V	18	500	⅜" Square
QX_2PT18EQ4	N, C, or X	Pistol 20V	18	500	¼" Quick Change
QX_2AT27ES6	N, C, or X	Low Torque Angle 20V	27	330	⅜" Square
QX_5AT40ES08	N, C, or X	High Torque Angle 40V	40	545	½" Square
QX_5AT80ES08	N, C, or X	High Torque Angle 40V	80	375	½" Square

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 Matrix			
Model	**SKU**	**Model**	**SKU**
IQ^v20 series 20^V, 2.5Ah Lithium Ion Battery Pack	BL2012	IQv40 Series 40^V, 2.5Ah Lithium Ion Battery Pack	BL4011
BL2012 Battery Boot	BL2012-Boot	Protective cover with closed back	VP1-Boot-NP
BL2010 Battery Boot **	BL2010-Boot	Auxiliary Handle	VP1-A48
IQ^v20 series 20^V, 5.0Ah Lithium Ion Battery Pack	BL2022	Pistol Tool Suspension Bale	VP1-365

**Fits BL2022 & BL4011

QX Pistol Protective Boots		
Boot Color	**Open Back**	**Closed Back**
Red	VP1-BOOT	VP1-BOOT-NP
Orange	VP1-OR-BOOT	VP1-OR-BOOT-NP
Yellow	VP1-YL-BOOT	VP1-YL-BOOT-NP
Green	VP1-GN-BOOT	VP1-GN-BOOT-NP
Blue	VP1-BL-BOOT	VP1-BL-BOOT-NP
Black	VP1-BK-BOOT	VP1-BK-BOOT-NP
White	VP1-WT-BOOT	VP1-WT-BOOT-NP

Right Angle Accessory Compatibility by Torque			
Model	**QX_2AT27ES6**	**QX_5AT40ES08**	**QX_5AT80ES08**
Angle Head Sleeve GEA40-171	✓		
Angle Head Sleeve GEA40-172		✓	✓
Angle Head Extended Boot GAA4-170	✓		
Angle Head Extended Boot GAA5-170		✓	✓
Reaction Bar Assembly for Angle DEA120-K48*	✓	✓	✓
Mounting Plate Assembly DAM120-K48*	✓	✓	✓
Flanged Mounting Plate GEM120-K48 *	✓	✓	✓

*Requires DAA4-27 coupling