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WE ARE FLUID POWER

Authorized Distributor of

Ingersoll Rand

INDUSTRIAL LIFT EQUIPMENT / HOISTS / TOOLS / CONTROLLERS

Insight QC Controller • QE Series Tools • Fixtured Tools
QX/QXN/QXC/QXM Series Cordless Tools • Air Chain Hoists
Trolleys • Beam Clamps

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Hyspeco is your #1 source for hydraulic, pneumatic, hose, fittings, and motion control products. We provide over 23,500 different part numbers to the Midwest, and work actively to meet customers every fluid power need.

We are employee owned, and operating as such takes our quality and services to a level that is incomparable. Our teammates benefit from producing and providing products of the highest quality. We are driven by our passion to innovate. We excel in the area of hydraulic pressure. We are fluid power. We are Hyspeco.





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St. Louis, MO 63146

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Springfield, MO 65802

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Decatur, IL 62526

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1316 Adams St.
Kansas City, KS 66103

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2011 W 4th St.
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- This catalog is a product preview of Ingersoll Rand tools, hoists, and heavy lifting equipment.

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Ingersoll Rand

INSIGHTqc™ Controller

REAL TOOLS FOR REAL WORK.™

Simply Insightful

When trying to achieve simple manufacturing goals in a complex manufacturing world, taking control of and understanding the fastening process doesn't have to be complicated. The new Ingersoll Rand® INSIGHTqc™ is different, by design. The INSIGHTqc™ controller is designed to be easy to use, easy to integrate, and provide a common platform to meet the global assembly needs of our customers. This controller offers advanced tightening control and a simple user experience to improve efficiency on production lines, and get the job done right, every time.

	SIMPLE	FLEXIBLE	CAPABLE
WHY DO I CARE?	EXPERTS NOT REQUIRED	EASILY IMPLEMENT CHANGE	MEET YOUR REQUIREMENTS
WHAT DOES THIS MEAN TO ME?	• Save on selection, training and installation costs • Reduce errors and downtime • Remove user dependencies	• Reduce line rebalancing costs • Easy line integration • Remove device dependency	• Get the job right, every time • Assurance via traceability • Optimize your productivity
HOW DOES INGERSOLL RAND OFFER THIS?	• Intuitive, Visual Programming Interface • Plug and Play Accessories and Protocols • Backwards Capability • Integrated Backup and Recovery • Bundled Controller Options • Context Specific Integrated HELP	• Web Based programming use any operating system via any browser • Meets current industry communication needs • Adjustable to meet any tightening control requirements • Integrated logic controls • Easy hardware and software upgrades	• Touch Screen Interface • Industry leading cycle data storage • Robust audit and system logs • Advanced tightening strategies and features • Onboard diagnostics • Integrated statistical process controls • Preventative maintenance alarms • Configurable email alerts

The 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 INSIGHTqc™ 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.

Bottom line, the INSIGHTqc™ controller is a Simply Insightful solution.

Capabilities

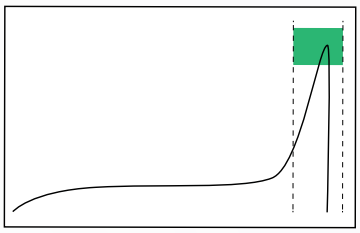
Software Capability

	Standard	F	M	FM		Standard	F	M	FM
Software Feature	•	•	•	•	License Update	•	•	•	•
Home Screen	•	•	•	•	License Activate	•	•	•	•
JOB Setup	•	•	•	•	Date & Time Settings	•	•	•	•
PSET Setup	•	•	•	•	System Initialization	•	•	•	•
ALL Tighteing Strategies	•	•	•	•	Spindle Management	•	•	•	•
Quick Programming	•	•	•	•	IP Address Settings	•	•	•	•
Advanced Programming	•	•	•	•	Email Alerts	•	•	•	•
Cycle Results	•	•	•	•	Digital IO Settings	•	•	•	•
JOB Results	•	•	•	•	EOR Data Out	•	•	•	•
Audit Log	•	•	•	•	Barcode	•	•	•	•
Event Log	•	•	•	•	User Managmeent	•	•	•	•
System Diagnostics	•	•	•	•	System Logs		•		•
Tool Diagnostics	•	•	•	•	Fieldbus Diagnostics		•		•
Digital IO Diagnostics	•	•	•	•	Fieldbus Settings		•		•
Statistics Settings	•	•	•	•	Ethernet IP		•		•
Statistics Summary	•	•	•	•	ProfiNet		•		•
Statistics Alarm Settings	•	•	•	•	ProfiBus		•		•
Statistics Alarm Summary	•	•	•	•	DeviceNet		•		•
Backup and Restore	•	•	•	•	MES Protocols Settings			•	•
Firmware Update	•	•	•	•	Atlas Copco Open Protocol			•	•
Preventative Maintenance Alarms	•	•	•	•	Atlas Copco ToolsNet			•	•
Tool Calibration	•	•	•	•	VW XML 2.1			•	•
Factory Reset	•	•	•	•	Nissan Serial EOR			•	•
Network System Discovery	•	•	•	•					

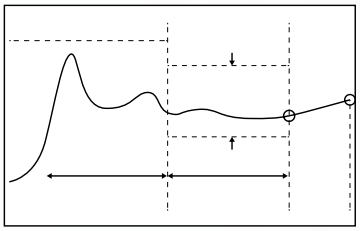
Statistical Process Controls

Statistic Status	Description
Mean	Statistical average - used to derive the central tendency of the tightening data of a particular PSET
Capability	Calculated as (6* sigma / Mean) * 100 on a particular PSET
Pass %	Indicates the % of the cycles that have a cycle result of PASS from the sample population of a particular PSET
Fail %	Indicates the % of the cycles that have a cycle result of FAIL from the sample population of a particular PSET
Mean Shift	Calculated as: MEAN Result Value - TARGET Result Value for a particular PSET
Range	Calculated as: MAX Result Value - MIN Result Value of a particular PSET.
Standard Deviation (σ)	The calculated standard deviation (σ) of the Result Value of a particular PSET.
PP	Process Performance, calculated as: (USL - LSL) / (6 * σ)
CAM	Calculated as: (USL - USL) / (6* (W / d * S))
PPK	Process Performance Index, Calculated as: MIN ((MEAN - LSL) / (3 * σ) OR (USL - MEAN) / (3 * σ)

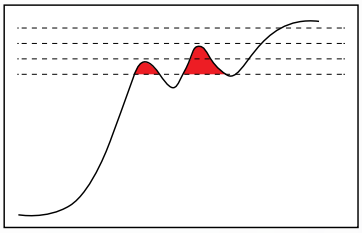
Torque/Angle Control



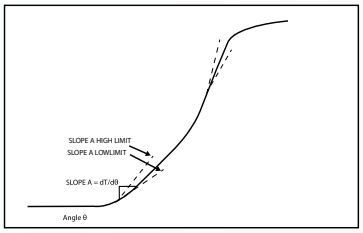
Prevailing Torque



Stick Slip Detection



Gradient/ Slope Analysis



Specifications

Hardware	
Weight (Kg) lbs	(5.6) 12.3
Volume (dm3)	10.9
Color Touchscreen	7 inch
Ethernet Port (10/100)	1
Ethernet Port (10/100/1K)	1
USB 2.0 Ports	4
Hot Swap Tools	Y
Boot Time (seconds)	40
Voltage / Current Requirement	115V / 20A or 220V / 8A
IP Rating	IP52
Onboard Circuit Breaker	Y
Integrated E-Stop	Y
Software	
PC Software	Not Required
PC License	Not Required
Number of JOBs	256
Number of PSETs	256
Number of Steps	31
Logic Rules for JOB Sequencing	Y
Barcode function: USB, Serial, Ethernet	Y
Manual Barcode Entry Option	Y
Tubenut Controls (Configurable modes)	Y
Number of Configurable User Logins	Unlimited
Quick Programming Mode	Y
Advanced Programming Mode	Y
Unrestricted programming function from controller screen	Y
Unrestricted remote programming from any device via any authorized browser	Y
Embedded, Context-Specific Help	Y
Email Statistics Alarms Direct From Controller*	Y
Email Preventative Maintenance Alarms Direct from Controller*	5
Multi-language Support	Y
Onboard Tool Diagnostics	Y

*Requires proper authorization and network settings by plant IT Administrator for each controller

Onboard Data Storage	
Removeable SSD Card that stores ALL setings and data	Y
Complete controller setings and data recovery through SSD swap	Y
Tightening Results	50,000
Tightening Curve	50,000
Tightening curve displayed on Home screen of controller	Y
Audit Log	50,000
Event Log	50,000
System Log	50,000
Full USB Backup and Restore Function	Y

Connectivity

Fieldbus Options

Ethernet IP, ProfiNet , ProfiBus, DeviceNet

MES Protcool Options

Atlas Copco Open Protocol, Atlas Copco Toolsnet, VW XML 2.1, Nissan Serial EOR, IR Ethernet EOR

Supported Languages

English, French, German, Italian, Spanish, Czech, Russian, Portuguese, Simplified Chinese

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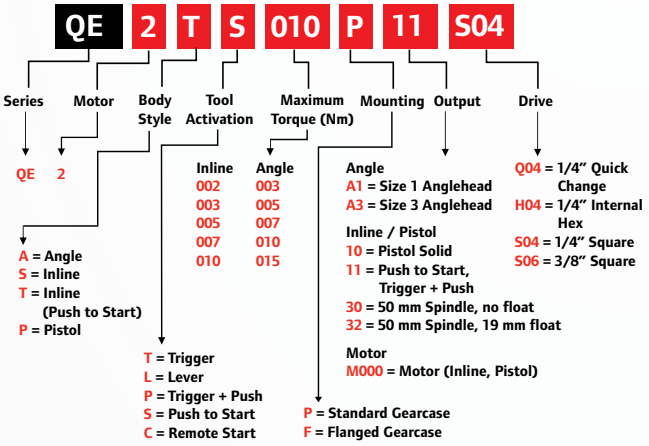
Controller Models

The INSIGHTqc™ Controller is 100% compatible with our QE and QM tools. With the INSIGHTqc™, these tools will have 50K tightening records and 50K tightening traces – compared to 10 to 30K in competitors' products – which will let users understand all facets of the tightening process – torque, angle, time and date.

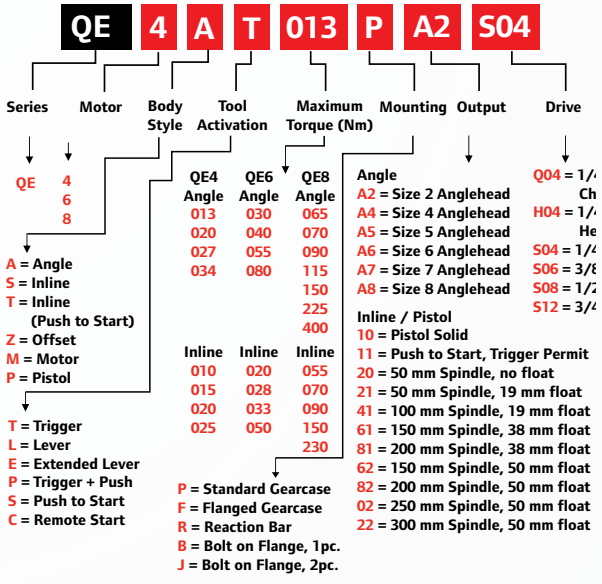
	SYSTEM OPTIONS				FIELDBUS OPTIONS				MES OPTIONS				
Model	Series	Display	Power	Hardware	Ethernet/P	ProfiNet	ProfBUS	DeviceNET	IR Ethernet EOR	Atlas Copco Open Protocol	ToolsNet	VW XML 2.1	Nissan SerialEOR
QCD11	QC	Display	120V AC	Standard					•				
QCD11-F	QC	Display	120V AC	Standard	•	•			•				
QCD11-M	QC	Display	120V AC	Standard					•	•	•	•	•
QCD11-FM	QC	Display	120V AC	Standard	•	•			•	•	•	•	•
QCD12-F	QC	Display	120V AC	Standard plus ProfiBus Card	•	•	•		•				
QCD12-FM	QC	Display	120V AC	Standard plus ProfiBus Card	•	•	•		•	•	•	•	•
QCD13-F	QC	Display	120V AC	Standard plus DeviceNet Card	•	•		•	•				
QCD13-FM	QC	Display	120V AC	Standard plus DeviceNet Card	•	•		•	•	•	•	•	•
QCD21	QC	Display	230V AC	Standard					•				
QCD21-F	QC	Display	230V AC	Standard	•	•			•				
QCD21-M	QC	Display	230V AC	Standard					•	•	•	•	•
QCD21-FM	QC	Display	230V AC	Standard					•	•	•	•	•
QCD22-F	QC	Display	230V AC	Standard plus ProfiBus Card	•	•	•		•				
QCD22-FM	QC	Display	230V AC	Standard plus ProfiBus Card	•	•	•		•	•	•	•	•
QCD23-F	QC	Display	230V AC	Standard plus DeviceNet Card	•	•		•	•				
QCD23-FM	QC	Display	230V AC	Standard plus DeviceNet Card	•	•		•	•	•	•	•	•

DC Electric Nutrunners

QE2 Series DC electric nutrunners



QE Series DC electric nutrunners



System Accessories

The INSIGHTqc™ Controller provides optimal flexibility for the workstation with compatibility to a variety of plug n play accessories to maximize productivity for your manufacturing line. A variety of cables and extension cables are available to customize your production setup.

DIO Box

QC-DIO-8CH

- QC-DIO-366-K mounting kit included

USB to Serial Adapter

QC-ADPT1

Socket Tray

QC-SKTR

- If a bit tray is needed order IC-BIT-8, IC-19PIN-10M, & QC-DIO-8CH

Bar Code Scanners

QC-BC-SCAN-WL Wireless
QC-BC-SCAN-1 Wired-Heavy Duty
QC-BC-SCAN-2 - Wired-Light Duty

Light Tower

QC-TL-4

Bit Tray

IC-BIT-8

Tool Cables

	(3m)	(6m)	(10m)
DC Tool Cables			
Tool Cable (QE2)	CPS2-CORD-3M	CPS2-CORD-6M	CPS2-CORD-10M
90 tool cable (qe2)	-	CPS2-CORD-6M-90	
Tool cable (qm, qe4/6/8)	GEA40-CORD-3M	GEA40-CORD-6M	GEA40-CORD-10M
90 cool cable (qm, qe4/6/8)	GEA40-CORD-3M-90	GEA50-CORD-6M-90	GEA40-CORDX-10-90
	(10m)	**(20m)**	**(40m)**
DC Tool Extenson Cables			
Extension cable	GEA40-EXT-10M	GEA40-EXT-20M	GEA40-EXT-40M
	(50")	936	
90 extension cable***	GEA40-INT-01		

*** 90 degree extension cable requires a tool cable. Other lengths available.

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DC Electric Fastening Systems

Tools, Controllers, and Software

True closed-loop transducerized control provides exceptional accuracy and traceability

Non-contacting switches, heavy-duty gear train, and brushless DC motor provide exceptional reliability

Ideally positioned, easy-to-use reverse ring

Available with trigger, lever, push-to-start, trigger/lever permit, and remote start actuation options

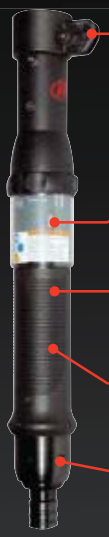
Multiple drive and head size options

High durability cable and connections keep lifecycle costs low

Bright LED headlight illuminates work area

Clevis attachment allows for easy connection to torque arms while offering the operator optimal hand positioning and workpiece visibility

Preventive maintenance alarms



Ergonomically contoured grips enhance operator comfort

Multicolored status indicator lights provide OK / NOK signals

Compact, lightweight, high-speed designs with easily accessible controls

Offset heads available for tight clearance applications

Optional line of accessories available to enhance your productivity

Sculpted hand rest helps reduce operator fatigue

Pistol, inline, angle, offset and motor configurations available

Compatible with all ICD and ICM controllers and ICS software

TactAlert provides positive tactile operator feedback without distraction from the task at hand

Configured solutions available to meet your needs including crows foot, tube nut, and other geared offset heads

Advanced tightening strategies

High temperature motor protection

Programmable momentary switch

Ingersoll Rand®

Handheld Tools

QE Series

The ultimate world-class combination — QE Series tools and IC Series controllers team up to provide superior accuracy, ergonomics and durability to meet your critical fastening requirements. Full closed-loop transducerized control in a compact, lightweight package allows you to maximize your productivity on applications.

Features

- Torque range from 0.3 - 400 Nm
- Full closed-loop transducerized control delivers excellent capability and traceability
- Compact, lightweight, high-speed design
- Optional bright LED headlights illuminate work space
- Multicolored light ring shows cycle status
- Seamlessly runs on either ICD or ICM controllers
- Highly configurable platform allows users to select output torque, body style, actuation and spindle type to create the perfect tool for the application
- ESD-safe and RoHS-compliant options
- High durability cable
- Comfortable, ergonomically contoured grip
- Easy-to-use push-button reverse and indicator light options

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Software

ICS software suite

Paired with an Insight IC1D or IC1M controller and a computer, our ICS software suite makes it possible to precisely control and monitor your fastening process. Optimizing your system is as simple as selecting one of four available packages.

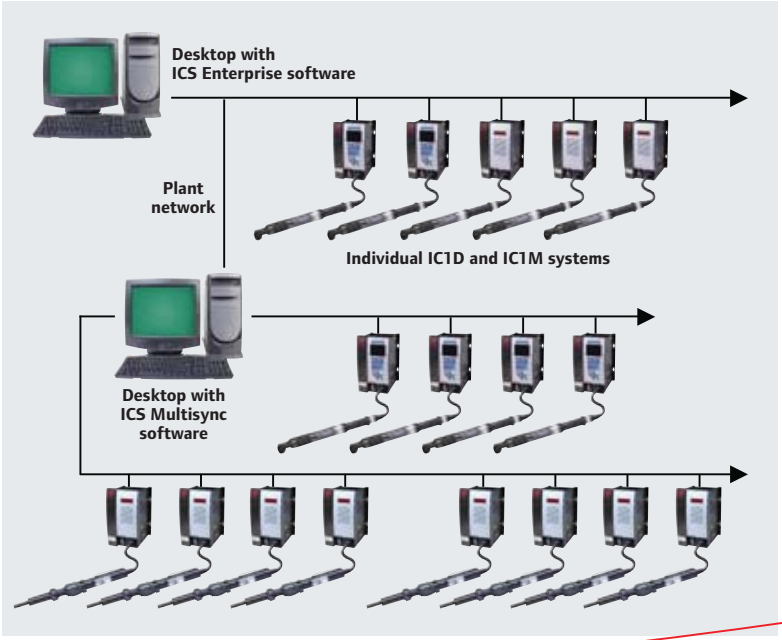
Features

- Four software packages allow you to select the best fit for your requirements (highest available package highlighted below)
- Compatible with all tools, no exceptions
- Connect, manage, view and program controllers remotely over local area network
- Advanced tightening strategies, including yield control and prevailing torque, improve joint quality
- Generate detailed statistical charts and graphs
- Program and view preventive maintenance alarms, cycle and event logs
- Allows remote monitoring, data collection and data archiving
- View and overlay tightening curves
- Available in Chinese, English, French, German, Italian and Spanish

Advanced Tightening Strategies
Torque control
Torque control with angle monitoring
Torque control with yield override
Angle control
Angle control with torque monitoring
Angle control with yield override
Yield control
Prevailing torque
Drag torque
Backout
Fault backout
Final fault backout
Retorque
Wait
Jog
Bypass

ICS Enterprise

ICS Enterprise is our highest license level and offers advanced programming and management of a network of up to 500 IC1D and IC1M controllers using QE, QM, and multiple-spindle systems. This package includes all elements of the lower license level ICS MultiSync along with SQL Server database archiving, searching, and statistics processing.



Features

- Provides all of the functionality of ICS Connect, ICS Network, and ICS MultiSync licenses
- Offers advanced programming and network management of up to 500 IC1D or IC1M controllers with QE Series tools, QM Series spindles, or multispindle systems (depending on license)
- Enables output of data to SQL Server database to archive cycle data, curves, parameter settings, diagnostics, event logs, and statistics
- Schedules regular archiving based on time or number of cycles
- Enables data sorting, searching, and reporting by shift, tool ID, VIN, and more
- Provides 10-curve, on-screen tightening curve overlay

Controllers

Insight IC1Display and **IC1M**odule

Measurement torque: Accuracy	±0.2% of torque full scale ±1 count of angle (degrees)
Measurement resolution	±0.025% of torque full scale
Torque transducer bridge excitation	±5V DC/GND
Torque transducer zero offset / drift compensation	±0.4% of full scale
Input signal sensitivity	2.0 mV/V
Calibration	Values read from spindle memory Automatic digital correction
Frequency response (torque filter)	Selectable 75 Hz, 150 Hz, 350 Hz, 500 Hz, 750 Hz
Keypad (IC-D only)	Membrane keypad containing 4 hot keys, 4 function keys, numerical keypad and directional keypad
Display	IC-D: 3.5-inch diagonal, 320 px by 240 px, 8-bit 65K backlit color (QVGA) flat panel display IC-M: 5-character, 7-segment numerical LED display
Parameter sets	256
Number of cycles stored in memory	IC-D: 1,000 IC-M: 200
Communication	Serial RS232, Ethernet, optional PROFIBUS, DeviceNet, Interbus-S, EtherNet / IP, Modbus - TCP, Open Protocol
I/O	8 inputs / 8 outputs, with behavior assignable through ISC software: with optional I/O card, an additional 16 inputs and outputs are available
Indicators	Power ON lamp
Input voltage	Single-phase 120 volts, 50/60 Hz, 16 amps Single-phase 230 volts, 50/60 Hz, 8 amps
Ambient operating conditions	0 – 50° C, 20/90% non-condensing humidity
Enclosure	IP-52
System weight	5.6 kg (12.4 lb)
Dimensions (mm)	152 h x 191 w x 23 d

All QE and QM Series tools are compatible with all controller models. Programming is quick and easy and can either be done on-screen (with the ICD), from a computer with ICS Connect software, or with the controller transfer key. Having these options mean you'll spend less time on set-up and more time assembling product.

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ICD/M controllers

The ICD/M Insight controllers give you full closed-loop control in a compact package. With features like a 1/4-VGA color display (optional) and easy, intuitive, quick setup programming, the ICD/M provides unmatched performance.

Expand the capabilities of the ICM and ICD controllers with ICS software.

Standard Ethernet and I/O connections optimize communication and line integration

Up to 1,000 cycles of end-of-run automatic data storage

Dual-mode power supply: 90 – 120 VAC and 200 – 240 VAC

Professional 1/4 VGA 216-color display is visible from 20 ft (6.1 m) (ICD models only)

Program up to eight basic fastening configurations (ICM access 256 configurations stored in memory)

Removable cover provides easy access to connections and terminals, even when the unit is installed

Controller transfer key enables quick upload, recovery, transfer, and storage of configuration sets

Power switch is enclosed in rubber boot for protection

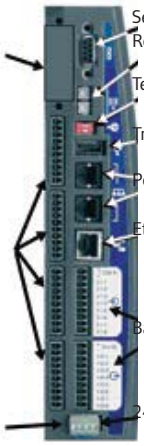
ICD Model

Internal maximum ambient operating temperatures of 0° – 50° C (32° – 122° F) ensure reliable use in demanding conditions without risk of overheating

Easy installation and set-up with convenient bracketing system

Comfortable and tactile membrane facilitates easy programming and screen navigation (ICD models only)

Extruded aluminum cooling fins



ICM Model

Fixtured Tools

True closed-loop transducerized control provides exceptional accuracy and traceability

Heavy-duty gear train and brushless DC motor provide exceptional reliability and durability

Torque ranges from 0.8 to 2500 Nm

Better than five percent capability across all four motor platforms

Multiple drive and spindle length options

High durability cable and connections keep lifecycle costs low

Available with or without spindles

Compatible with all ICD and ICM controllers and ICS software

Offset heads available for tight clearance applications

Preventative maintenance alarms

High temperature motor protection

Advanced tightening strategies

Custom Multiples are engineered systems designed and built to your unique requirements

Flexible mounting options include front-mounting or sandwich mounting for any unit

Solid, heavy or light spindle spring options

External electronics pod simplifies integration

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QM Series

QM Series tools are the workhorse of your fixed spindle application. With four platforms that provide broad torque and speed coverage, Ingersoll Rand QM spindles deliver at the highest levels of performance, durability, and reliability in the industry. The QM3, QM5, QM7, and QM9 platforms are so durable, in fact, that we stopped testing them after three million fault-free cycles.

Features

- Torque coverage from 0.8 to 2500 Nm
- Full closed-loop transducerized control delivers better than five percent capability across all four motor platforms
- Highly durable with little preventive maintenance required
- Seamlessly runs on either ICD or ICM controllers
- Flexible mounting options include front-mounting or sandwich-mounting for any unit
- External electronics pod simplifies mounting and connectivity
- Highly configurable platform allows users to select output torque, body style, and spindle type to create the perfect tool for the application
- An onboard sensor monitors the motor temperature and protects the unit from excessive heat
- Easy to service — no special tools required

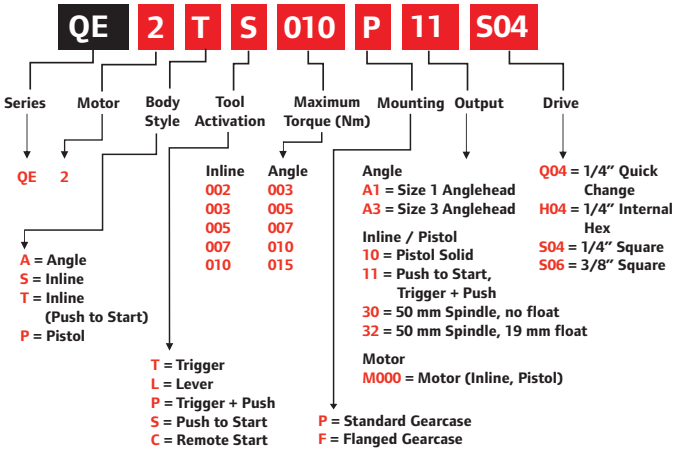
Custom multiples

Engineered to your unique specifications

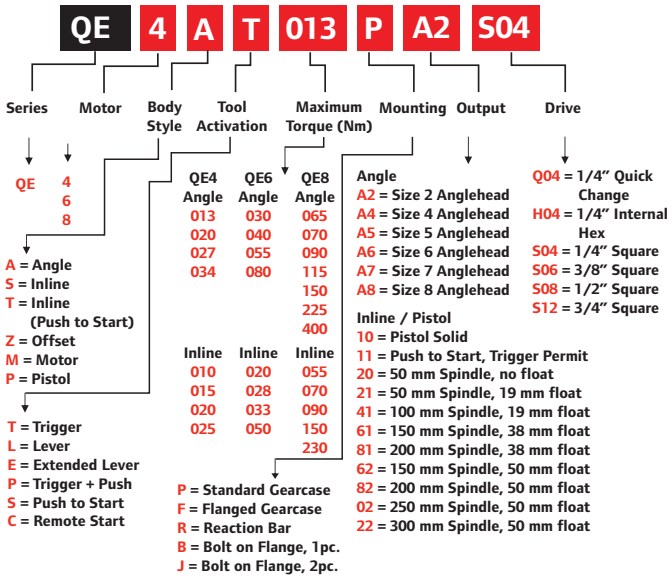
Custom engineered fixtured fastening systems are available for more complex jobs with requirements such as adjustable bolt centers, more than six spindles, specialized clamping, indexing, custom fixture design, and automation.

Ingersoll Rand's worldwide network of solution centers can serve your "Rail-to-Floor" project requirements from start to finish. Our full-range offering starts with joint analysis and process audits, and spans system design, project management, installation, and after-sales support.

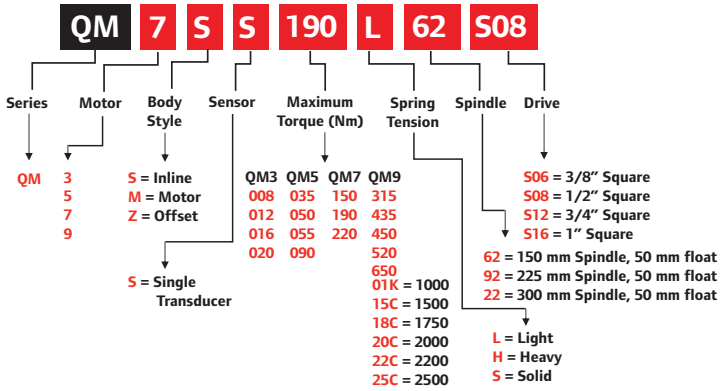
QE2 Series DC electric nutrunners



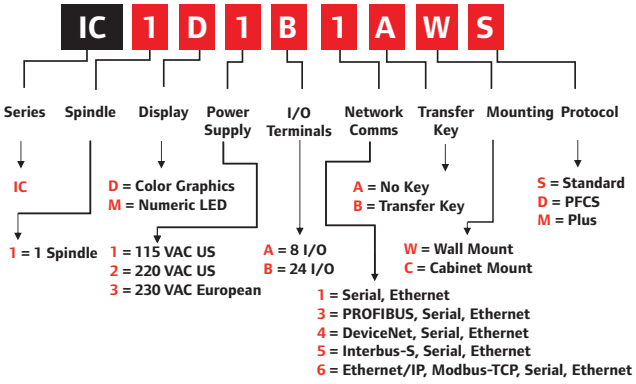
QE Series DC electric nutrunners



QM Series DC electric fixtured spindles



IC Series DC electric controllers



Cable accessories

DC Tool Cables	(3 m)	(6 m)	(10 m)
Tool cable (QE2)	GPS2-CORD-3M	GPS2-CORD-6M	GPS2-CORD-10M
90° tool cable (QE2)	—	GPS2-CORD-6M-90	—
Tool cable (QM, QE4/6/8)	GEA40-CORD-3M	GEA40-CORD-6M	GEA40-CORD-10M
90° tool cable (QM, QE4/6/8)	GEA40-CORD-3M-90	GEA40-CORD-6M-90	GEA40-CORD-10M-90
DC Tool Extension Cables	**(10 m)**	**(20 m)**	**(40 m)**
Extension cable	GEA40-EXT-10M	GEA40-EXT-20M	GEA40-EXT-40M
	(50")	**(60")**	**(70")**
90° extension cable	GEA40-INT-01	GEA40-INT-02	GEA40-INT-03
	(80")	**(90")**	**(100")**
90° extension cable	GEA40-INT-04	GEA40-INT-05	GEA40-INT-06
	(110")	**(120")**	**(130")**
90° extension cable	GEA40-INT-07	GEA40-INT-08	GEA40-INT-08

Ingersoll Rand

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REAL TOOLS FOR REAL WORK.

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 $13 billion global business committed to a world of sustainable progress and enduring results.

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Ingersoll Rand®

QX Series™

QX™

SERIES

PRECISION FASTENING SYSTEMS

REAL TOOLS FOR REAL WORK.™

Next-Generation Productivity.

The innovative QX Series™ is 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 package while increasing productivity, lowering costs, and ensuring a high-quality product at the end of your line—all at a price you can afford today.

Tools that put you in total control are the future of assembly. That future is here, that future is REAL.

NOT JUST TORQUE CONTROL BUT *TOTAL* CONTROL.

Accuracy:

- Ingersoll Rand® has a patented closed-loop transducer control at the heart of the tool delivers precise torque and accurate, traceable results—it's precision where you need it most

Control:

- A multi-function display module allowing for quick setup and feedback on every QX Series™ tool
- Optional up to eight configurations for torque, angle and speed per tool make it one tool that does the work of eight, reducing costs, and workspace clutter

Comfort:

- Compact, lightweight, and ergonomically balanced so the operator can work without restraints
- Cordless and compact, the QX Series™ is designed for safe and clean operation

Communication:

- Ingersoll Rand® has a wireless communication option that facilitates through a Process Communication Module (PCM) to help integrate the tool and the assembly line into a true plant-wide network
- Manage data, process control, and the ability to adjust tool configurations in real time using Ethernet, Fieldbus, or I/O

Versatility:

- Fast programming that makes the tool adaptable to any changes on your line
- Cordless and portable that allows for movement around your facility
- Available in pistol or angle wrench configurations in both standard and class 1 division 2 certified Haz Tool

QX Series™ Haz Tool
CLASS 1 DIVISION 2 CERTIFIED

QX Series™ Precision Screwdriver

QX Series™ Angle Wrenches

Distributed by:
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A Technological Vision.

The Ingersoll Rand® design team started with a bold idea—to engineer a new class of advanced cordless fastening tools that could deliver closed-loop, multi-configuration control, and precision at an affordable price. This idea has become a reality with the QX Series™.

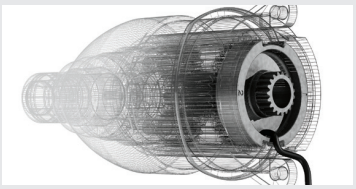
The QX Series™ Precision Screwdriver, Haz Tool, and Angle Wrenches are designed with innovative technological features that set it apart from all other tools in the category.

The Building Blocks of Ingenious Engineering.

Control:
Multi-Function Display Module

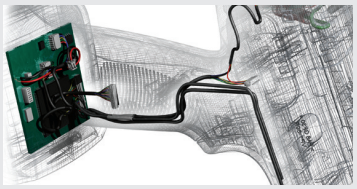
- Optional user-friendly display shows results and accepts programming inputs
- Up to eight user-programmable fastening configurations
- Stores cycle data for up to 1,200 rundowns

Precision:
Patented Closed-Loop Transducer



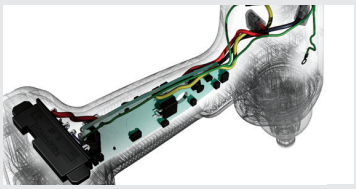
- Accurately senses torque to manage the fastening cycle
- Ultimate process control
- Advanced strategies like angle control, prevailing torque and torque monitoring

Power management:
Digital Signal Processor



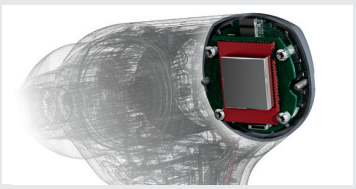
- Accurately controls motor for precision fastening
- Monitors torque, angle, and motor current while communicating end-of-run data
- Eliminates the need for costly external controller

Efficiency:
Advanced Power Board



- Controls DC motor to drive tools through user-programmed torque, angle, and speed profiles
- Modulates power from lithium ion battery to optimize performance

Communication:
Intelligent Radio Board



- An optional feature that transmits end-of-run data wirelessly to the Process Communication Module (PCM)
- PCM transmits data to database or assembly line control system via Ethernet, Fieldbus or I/O

Durability:
DC Brushless Motor

- Drives QX Series™ precision power train
- No brushes to wear out or leave carbon residue
- Efficient rare earth magnet motor designed for more than a million cycles

Engineering The Future.

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)

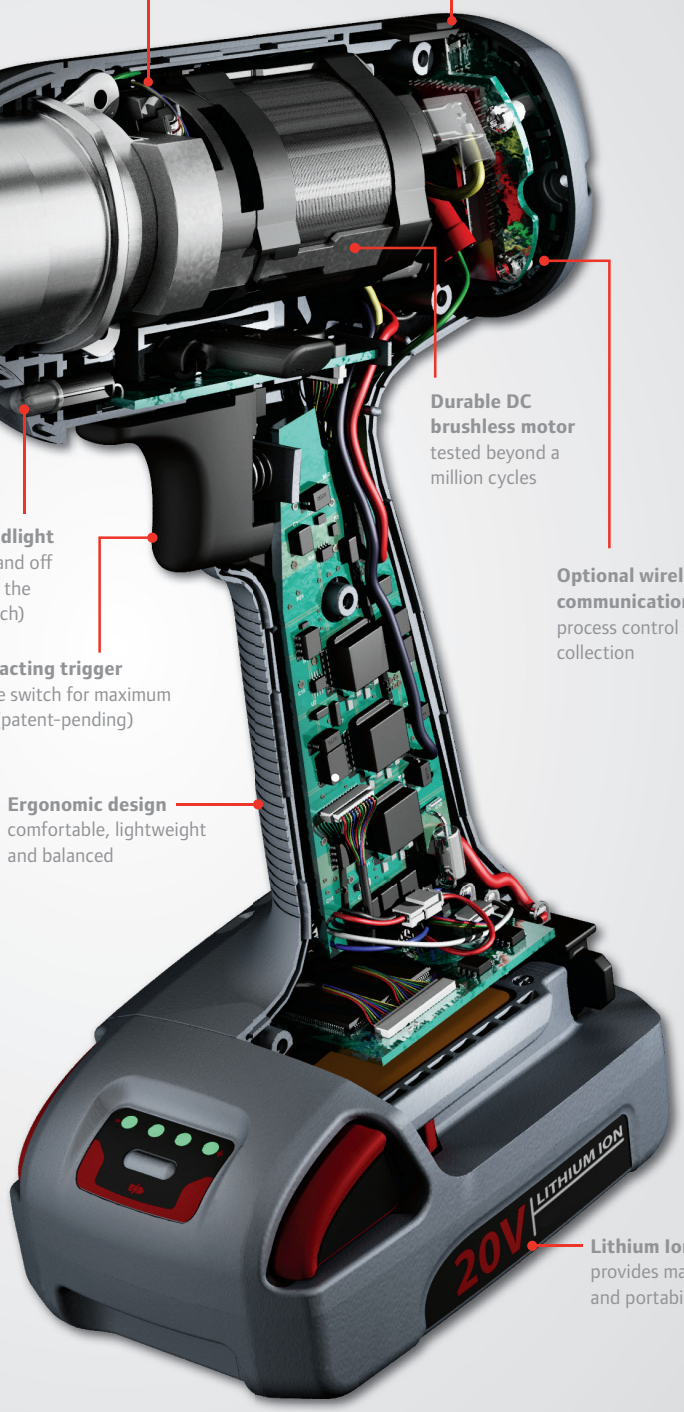
Optional wireless communications for process control and data collection

Non-contacting trigger and reverse switch for maximum durability (patent-pending)

High strength, impact resistant lens guards against damage

Ergonomic design comfortable, lightweight and balanced

Optional backlit display offers quick set-up and remarkable visual feedback



Lithium Ion Battery provides maximum run time and portability

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How to buy.

When it comes to fastening, standard clutch tools don't stand a chance. The QX Series™ line of products give you closed loop control of your fastening process. Each tool allows for programmable tightening strategies to deliver higher quality joints and control that outperforms the competition. The diverse line of tools offers a simple solution to meet your fastening needs.



FEATURES	QXN	QXC	QXX
Total control of torque, speed, and degrees of rotation	✓	✓	✓
1 Tightening Configuration Available-Programmed via USB	✓		
8 tightening configurations available-opportunity to consolidate number of tools		✓	✓
Ability to program a Multi-Step tightening configuration	✓	✓	✓
Visual status indicators for operator feedback	✓	✓	✓
Displays actual achieved torque or angle value		✓	✓
Programming capability via USB using ICS software	✓	✓	✓
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			✓

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 is 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.

See page 11 for more informatoin

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QXN Cordless Tools.

QXN offers superior transducerized control and operator feedback in a way that is easy to use and simple to setup.

Features

- 1 Tightening Configuration
- Transducerized for precise torque measurement
- Closed-Loop control of torque, speed, and degrees of rotation
- Simple to program using ICS software and USB cable
- 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

	in-lbs (Nm)		rpm	lbs (kg)*		in (mm)*		in (mm)		V	in	Communication
QX Series™ Cordless Precision Screwdriver												
QXN2PT04PQ4	7–35	(0.8–4)	1,500	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXN2PT04PS4	7–35	(0.8–4)	1,500	2.0	(0.91)	8.20	(208.3)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXN2PT04PS6	7–35	(0.8–4)	1,500	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8"	Via USB Cable
QXN2PT08PQ4	14–70	(1.6–8)	1,150	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXN2PT08PS4	14–70	(1.6–8)	1,150	2.0	(0.91)	8.20	(208.3)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXN2PT08PS6	14–70	(1.6–8)	1,150	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8"	Via USB Cable
QXN2PT12PQ4	21–106	(2.4–12)	750	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXN2PT12PS4	21–106	(2.4–12)	750	2.0	(0.91)	8.20	(208.3)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXN2PT12PS6	21–106	(2.4–12)	750	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8"	Via USB Cable
QXN2PT18PQ4	32–159	(3.6–18)	500	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXN2PT18PS6	32–159	(3.6–18)	500	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8"	Via USB Cable
QX Series™ Angle Wrench												
QXN2AT05PQ4	9–44	(1.0–5)	1213	2.5	(1.14)	21.73	(552)	0.36	(9.2)	20V	1/4"	Via USB Cable
QXN2AT10PS6	18–89	(2.0–10)	936	2.6	(1.18)	20.67	(525)	0.49	(12.5)	20V	3/8"	Via USB Cable
QXN2AT15PS6	27–133	(3.0–15)	600	2.6	(1.18)	20.67	(525)	0.49	(12.5)	20V	3/8"	Via USB Cable
QXN2AT18PQ4	32–159	(3.6–18)	500	2.8	(1.27)	24.34	(542)	0.51	(13)	20V	1/4"	Via USB Cable
QXN2AT18PS6	32–159	(3.6–18)	500	2.8	(1.27)	24.34	(542)	0.51	(13)	20V	3/8"	Via USB Cable
QXN2AT27PS6	48–239	(5.4–27)	330	3.7	(1.68)	21.73	(552)	0.67	(17)	20V	3/8"	Via USB Cable
	ft-lbs (Nm)		**rpm**	**lbs (kg)***		**in (mm)***		**in (mm)**		**V**	**in**	**Communication**
QX Series™ High Torque Angle Wrench												
QXN5AT20PS06	2.95–14.75	(4.0–20)	1045	4.5	(2.04)	22.74	(577.7)	0.52	(13.1)	40V	3/8"	Via USB Cable
QXN5AT30PS06	4.40–22.10	(6.0–30)	775	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	3/8"	Via USB Cable
QXN5AT30PS08	4.40–22.10	(6.0–30)	775	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	1/2"	Via USB Cable
QXN5AT35PS06	5.20–25.80	(7.0–35)	640	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	3/8"	Via USB Cable
QXN5AT35PS08	5.20–25.80	(7.0–35)	640	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	1/2"	Via USB Cable
QXN5AT40PS08	5.90–29.50	(8.0–40)	545	5.0	(2.27)	23.07	(586.1)	0.85	(21.6)	40V	1/2"	Via USB Cable
QXN5AT80PS08	8.80–59.0	(12.0–80)	375	5.0	(2.27)	23.07	(586.1)	0.85	(21.6)	40V	1/2"	Via USB Cable

Service and Accessories

Accessories:
Suspension Bale: VP1-365

Manuals:
PI47532146001 & 47104286

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QXC Cordless Tools.

QXC offers superior transducerized control and more insightful operator feedback in a way that is easy to use and simple to setup.

Features

- Flexibility to utilize tool on multiple different applications
- Program 8 configurations into 1 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 green, yellow, and red lights
- Programmable preventative maintenance alarms
- Maintenance indicator for troubleshooting and diagnostics
- 1200 cycles of data storage – accessible via ICS software

	in-lbs (Nm)		1 min. rpm	lbs (kg)*		in (mm)*		in (mm)		V	in	Communication
QX Series™ Cordless Precision Screwdriver												
QXC2PT04PQ4	7–35	(0.8–4)	1,500	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXC2PT04PS4	7–35	(0.8–4)	1,500	2.0	(0.91)	8.20	(208.3)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXC2PT04PS6	7–35	(0.8–4)	1,500	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8"	Via USB Cable
QXC2PT08PQ4	14–70	(1.6–8)	1,150	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXC2PT08PS4	14–70	(1.6–8)	1,150	2.0	(0.91)	8.20	(208.3)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXC2PT08PS6	14–70	(1.6–8)	1,150	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8"	Via USB Cable
QXC2PT12PQ4	21–106	(2.4–12)	750	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXC2PT12PS4	21–106	(2.4–12)	750	2.0	(0.91)	8.20	(208.3)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXC2PT12PS6	21–106	(2.4–12)	750	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8"	Via USB Cable
QXC2PT18PQ4	32–159	(3.6–18)	500	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXC2PT18PS6	32–159	(3.6–18)	500	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8"	Via USB Cable
QX Series™ Angle Wrench												
QXC2AT05PQ4	9–44	(1.0–5)	1213	2.5	(1.14)	21.73	(552)	0.36	(9.2)	20V	1/4"	Via USB Cable
QXC2AT10PS6	18–89	(2.0–10)	936	2.6	(1.18)	20.67	(525)	0.49	(12.5)	20V	3/8"	Via USB Cable
QXC2AT15PS6	27–133	(3.0–15)	600	2.6	(1.18)	20.67	(525)	0.49	(12.5)	20V	3/8"	Via USB Cable
QXC2AT18PQ4	32–159	(3.6–18)	500	2.8	(1.27)	24.34	(542)	0.51	(13)	20V	1/4"	Via USB Cable
QXC2AT18PS6	32–159	(3.6–18)	500	2.8	(1.27)	24.34	(542)	0.51	(13)	20V	3/8"	Via USB Cable
QXC2AT27PS6	48–239	(5.4–27)	330	3.7	(1.68)	21.73	(552)	0.67	(17)	20V	3/8"	Via USB Cable

	ft-lbs (Nm)		1 min. rpm	lbs (kg)*		in (mm)*		in (mm)		V	in	Communication
QX Series™ High Torque Angle Wrench												
QXC5AT20PS06	2.95–14.75	(4.0–20)	1045	4.5	(2.04)	22.74	(577.7)	0.52	(13.1)	40V	3/8"	Via USB Cable
QXC5AT30PS06	4.40–22.10	(6.0–30)	775	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	3/8"	Via USB Cable
QXC5AT30PS08	4.40–22.10	(6.0–30)	775	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	1/2"	Via USB Cable
QXC5AT35PS06	5.20–25.80	(7.0–35)	640	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	3/8"	Via USB Cable
QXC5AT35PS08	5.20–25.80	(7.0–35)	640	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	1/2"	Via USB Cable
QXC5AT40PS08	5.90–29.50	(8.0–40)	545	5.0	(2.27)	23.07	(586.1)	0.85	(21.6)	40V	1/2"	Via USB Cable
QXC5AT80PS08	8.80–59.0	(12.0–80)	375	5.0	(2.27)	23.07	(586.1)	0.85	(21.6)	40V	1/2"	Via USB Cable

Service and Accessories

Accessories:
Suspension Bale: VP1-365

Manuals:
PI47532146001 & 47104286

QXX Cordless Tools.

QXX offers superior transducerized control and more insightful operator feedback & a higher level of traceability in a way that is easy to use and simple to setup.

Features

- Full integration into plant wide wireless network for plant wide productivity
- Remote access & integrated data collection
- Utilizes PCM to transmit data or assembly line control system via Ethernet, Fieldbus or I/O
- Flexibility to utilize tool on multiple different applications
- Program 8 configurations into 1 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 & green, red, lights
- Programmable preventative maintenance alarms
- Maintenance indicator for troubleshooting and diagnostics

	in-lbs (Nm)		rpm	lbs (kg)*		in (mm)*		in (mm)		V	in	Communication
QX Series™ Cordless Precision Screwdriver												
QXX2PT04PQ4	7–35	(0.8–4)	1,500	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4" ○	Wireless Enabled
QXX2PT04PS4	7–35	(0.8–4)	1,500	2.0	(0.91)	8.20	(208.3)	0.8–1.0	(20.3–26.0)	20V	1/4" □	Wireless Enabled
QXX2PT04PS6	7–35	(0.8–4)	1,500	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8" □	Wireless Enabled
QXX2PT08PQ4	14–70	(1.6–8)	1,150	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4" ○	Wireless Enabled
QXX2PT048S4	14–70	(1.6–8)	1,150	2.0	(0.91)	8.20	(208.3)	0.8–1.0	(20.3–26.0)	20V	1/4" □	Wireless Enabled
QXX2PT08PS6	14–70	(1.6–8)	1,150	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8" □	Wireless Enabled
QXX2PT12PQ4	21–106	(2.4–12)	750	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4" ○	Wireless Enabled
QXX2PT12PS4	21–106	(2.4–12)	750	2.0	(0.91)	8.20	(208.3)	0.8–1.0	(20.3–26.0)	20V	1/4" □	Wireless Enabled
QXX2PT12PS6	21–106	(2.4–12)	750	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8" □	Wireless Enabled
QXX2PT18PQ4	32–159	(3.6–18)	500	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4" □	Wireless Enabled
QXX2PT18PS6	32–159	(3.6–18)	500	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8" □	Wireless Enabled
QX Series™ Angle Wrench												
QXX2AT05PQ4	9–44	(1.0–5)	1213	2.5	(1.14)	21.73	(552)	0.36	(9.2)	20V	1/4" ○	Wireless Enabled
QXX2AT10PS6	18–89	(2.0–10)	936	2.6	(1.18)	20.67	(525)	0.49	(12.5)	20V	3/8" □	Wireless Enabled
QXX2AT15PS6	27–133	(3.0–15)	600	2.6	(1.18)	20.67	(525)	0.49	(12.5)	20V	3/8" □	Wireless Enabled
QXX2AT18PQ4	32–159	(3.6–18)	500	2.8	(1.27)	24.34	(542)	0.51	(13)	20V	1/4" ○	Wireless Enabled
QXX2AT18PS6	32–159	(3.6–18)	500	2.8	(1.27)	24.34	(542)	0.51	(13)	20V	3/8" □	Wireless Enabled
QXX2AT27PS6	48–239	(5.4–27)	330	3.7	(1.68)	21.73	(552)	0.67	(17)	20V	3/8" □	Wireless Enabled
	ft-lbs (Nm)		**rpm**	**lbs (kg)***		**in (mm)***		**in (mm)**		**V**	**in**	**Communication**
QX Series™ High Torque Angle Wrench												
QXX5AT20PS06	2.95–14.75	(4.0–20)	1045	4.5	(2.04)	22.74	(577.7)	0.52	(13.1)	40V	3/8" □	Wireless Enabled
QXX5AT30PS06	4.40–22.10	(6.0–30)	775	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	3/8" □	Wireless Enabled
QXX5AT30PS08	4.40–22.10	(6.0–30)	775	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	1/2" □	Wireless Enabled
QXX5AT35PS06	5.20–25.80	(7.0–35)	640	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	3/8" □	Wireless Enabled
QXX5AT35PS08	5.20–25.80	(7.0–35)	640	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	1/2" □	Wireless Enabled
QXX5AT40PS08	5.90–29.50	(8.0–40)	545	5.0	(2.27)	23.07	(586.1)	0.85	(21.6)	40V	1/2" □	Wireless Enabled
QXX5AT80PS08	8.80–59.0	(12.0–80)	375	5.0	(2.27)	23.07	(586.1)	0.85	(21.6)	40V	1/2" □	Wireless Enabled

Service and Accessories

Accessories:
Suspension Bale: VP1-365

Manuals:
PI47532146001 & 47104286

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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 allows for control that translates into maximum productivity and efficiency.

10 to 1:
Every Process Communication Module can communicate with up to 10 individual QXX Series™ tools.

When not using the wireless networking option, each QX Series™ tool can communicate with a computer via USB port.

Configured For Versatility.

QX Series™ Process Communication Module (PCM)

		IC-PCM-2-US	IC-PCM-2-US
Power Cord	BC10-CORD-US		
Configuration		10 to 1	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		•
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
IC-PCM-2-US

Batteries

All QX Series™ IQV20 tools are compatible with both the BL2022 and BL2012 batteries. The BL2022 is optimum for longer use applications while the BL2012 is ideal for tighter spaces and reduced weight.

The QX Series™ IQV40 high torque tools utilize the BL4011 40V battery for increased torque and runtime.

IQ^{V40} Series 40V, 2.5Ah Battery Charger
BC1161

IQ^{V40} Series 40V, 2.5Ah Lithium Ion Battery Pack
BL4011

IQ^{V20} Series 20V Battery Charger
BC1121

IQ^{V20} Series 20V, 5.0Ahr Lithium Ion Battery Pack
BL2022

IQ^{V20} Series 20V, 2.5Ahr Lithium Ion Battery Pack
BL2012

Accessories

Boot
VP1-Boot

Bit Selector Tray
IC-BIT-8

Socket Selector Tray
IC-Socket-8

Communication Kit
84737-Comm-Kit

Suspension Bale
VP1-365

Auxiliary Handle
VP1-A48

Selector Tray Cables
IC-19PIN-5M
IC-19PIN-10M

Torque Tester
EXTT-30

Spring Balancer
BMDS-2

Socket Kit
SK3H8

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QXM Cordless Torque Multiplier.

The innovative QX Series™ Cordless Torque Multiplier will reduce your bolting time and cost, while ensuring repeatable accuracy for all torque-critical joints.

Features

- A multi-function display module allowing for quick setup and feedback on every QX Series™ tool
- User-programmable configurations such as torque, angle, and gang count that reduce the number of tools needed for multiple applications
- Maintenance indicator for troubleshooting and diagnostics
- Fast programming that makes the tool adaptable to multiple applications
- USB standard, wireless communication optional

	ft-lbs (Nm)		rpm	lbs (kg)*		in (mm)*		in (mm)		in	V	Communication
QX Series™ Pistol												
QXC2PT200NPS12	30-148	(40-200)	45	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Via USB Cable Only
QXC2PT500NPS12	74-369	(100-500)	18	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Via USB Cable Only
QXC2PT1000NPS12	148-738	(200-1,000)	9	12	(5.44)	16.50	(419)	3.14	(80)	3/4"	20V	Via USB Cable Only
QXC2PT1350NPS16	200-996	(270-1,350)	7	12	(5.44)	16.50	(419)	3.14	(80)	1"	20V	Via USB Cable Only
QXC2PT2000NPS16	295-1,475	(400-2,000)	5	15	(6.80)	17.80	(452)	3.14	(80)	1"	20V	Via USB Cable Only
QXX2PT200NPS12	30-148	(40-200)	45	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Wireless Enabled
QXX2PT500NPS12	74-369	(100-500)	18	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Wireless Enabled
QXX2PT1000NPS12	148-738	(200-1,000)	9	12	(5.44)	16.50	(419)	3.14	(80)	3/4"	20V	Wireless Enabled
QXX2PT1350NPS16	200-996	(270-1,350)	7	12	(5.44)	16.50	(419)	3.14	(80)	1"	20V	Wireless Enabled
QXX2PT2000NPS16	295-1,475	(400-2,000)	5	15	(6.80)	17.80	(452)	3.14	(80)	1"	20V	Wireless Enabled
QX Series™ Pistol Kit*												
QXC2P200S12K2	30-148	(40-200)	45	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Via USB Cable Only
QXC2P500S12K2	74-369	(100-500)	18	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Via USB Cable Only
QXC2P1000S12K2	148-738	(200-1,000)	9	12	(5.44)	16.50	(419)	3.14	(80)	3/4"	20V	Via USB Cable Only
QXC2P1350S16K2	200-996	(270-1,350)	7	12	(5.44)	16.50	(419)	3.14	(80)	1"	20V	Via USB Cable Only
QXC2P2000S16K2	295-1,475	(400-2,000)	5	15	(6.80)	17.80	(452)	3.14	(80)	1"	20V	Via USB Cable Only
QXX2P200PS12K2	30-148	(40-200)	45	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Wireless Enabled
QXX2P500PS12K2	74-369	(100-500)	18	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Wireless Enabled
QXX2P1000PS12K2	148-738	(200-1,000)	9	12	(5.44)	16.50	(419)	3.14	(80)	3/4"	20V	Wireless Enabled
QXX2P1350PS16K2	200-996	(270-1,350)	7	12	(5.44)	16.50	(419)	3.14	(80)	1"	20V	Wireless Enabled
QXX2P2000PS16K2	295-1,475	(400-2,000)	5	15	(6.80)	17.80	(452)	3.14	(80)	1"	20V	Wireless Enabled
QX Series™ Pistol Haz Lock Tool												
QXC2PT200VNPS12	30-148	(40-200)	45	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Via USB Cable Only
QXC2PT500VNPS12	74-369	(100-500)	18	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Via USB Cable Only
QXC2PT1000VNPS12	148-738	(200-1,000)	9	12	(5.44)	16.50	(419)	3.14	(80)	3/4"	20V	Via USB Cable Only
QXC2PT1350VNPS16	200-996	(270-1,350)	7	12	(5.44)	16.50	(419)	3.14	(80)	1"	20V	Via USB Cable Only
QXC2PT2000VNPS16	295-1,475	(400-2,000)	5	15	(6.80)	17.80	(452)	3.14	(80)	1"	20V	Via USB Cable Only
QXX2PT200VNPS12	30-148	(40-200)	45	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Wireless Enabled
QXX2PT500VNPS12	74-369	(100-500)	18	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Wireless Enabled
QXX2PT1000VNPS16	148-738	(200-1,000)	9	12	(5.44)	16.50	(419)	3.14	(80)	3/4"	20V	Wireless Enabled
QXX2PT1350VNPS16	200-996	(270-1,350)	7	12	(5.44)	16.50	(419)	3.14	(80)	1"	20V	Wireless Enabled
QXX2PT2000VNPS16	295-1,475	(400-2,000)	5	15	(6.80)	17.80	(452)	3.14	(80)	1"	20V	Wireless Enabled
QX Series™ Angle Wrench†												
QXX5A45T0180PS12	27-132	(16-180)	110	11.4	(4.25)	10.40	(264)	3	(76.2)	3/4"	40V	Wireless Enabled
QXX5A45T0270PS12	40-200	(54-270)	77	11.4	(4.25)	10.40	(264)	3	(76.2)	3/4"	40V	Wireless Enabled
QXX2A52T0396PS12	59-291	(79-395)	21	9.5	(3.54)	8.50	(216)	3	(76.2)	3/4"	20V	Wireless Enabled
QXX2A52T0594PS12	88-438	(119-594)	14	10.9	(4.06)	8.50	(216)	3	(76.2)	3/4"	20V	Wireless Enabled
QXX5A52T0880PS12	130-650	(180-880)	23	12.3	(4.60)	10.40	(264)	3	(76.2)	3/4"	40V	Wireless Enabled
QXX5A72T1080PS16	160-797	(216-1,080)	19	16	(5.97)	10.40	(264)	3	(76.2)	1"	40V	Wireless Enabled
QXX5A72T1620PS16	239-1,195	(324-1,620)	13	16	(5.97)	10.40	(264)	3	(76.2)	1"	40V	Wireless Enabled

*Kits include bare tool, two (2) BL2022 batteries, BC1121 charger and tool bag

Service and Accessories

Manuals:

47114541, 48619852, 47104286, & 47532146001

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Ingersoll Rand®

QXN Series

QX™

SERIES

PRECISION FASTENING SYSTEMS

REAL TOOLS FOR REAL WORK.™

Superior Control.

When it comes to fastening, standard clutch tools don't stand a chance. The QX Series™ line of products give you closed loop control of your fastening process. Each tool allows for programmable tightening strategies to deliver higher quality joints and control that outperforms the competition. The diverse line of tools offers a simple solution to meet your fastening needs.

FEATURES	QXN	QXC	QXX
Total control of torque, speed, and degrees of rotation	✓	✓	✓
1 Tightening Configuration Available-Programmed via USB	✓		
8 tightening configurations available-opportunity to consolidate number of tools		✓	✓
Ability to program a Multi-Step tightening configuration	✓	✓	✓
Visual status indicators for operator feedback	✓	✓	✓
Displays actual achieved torque or angle value		✓	✓
Programming capability via USB using ICS software	✓	✓	✓
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			✓

The innovative QX Series™ tools have already proven to be the best in class for cordless fastening control. With the addition of QXN, you can now more simply harness the superior transducerized control, operator feedback, and simple setup that the QX Series™ tools offer. This innovation is **a revolutionary step** for your entire facility; one that can show you how a smarter tool can improve process control, operator comfort, lower costs and provide invaluable assurance that your process is done right, every time. Tools that put you in total control are the future of assembly.

Transducerized torque and angle control provides superior accuracy and traceability

Pistol versions incorporate a bright LED light to illuminate the work area

Cycle status lights and audible alarm give immediate user feedback

Tool is programmed using the integrated USB port, eliminating the risk of unintentional program changes

Production rated, highly durable brushless motor design offers low maintenance and high duty cycle for production assembly use

The best-in-class, fully adjustable tightening speed, torque and angle settings offer simple and flexible process control

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Simple Assurance.

QXN offers superior transducerized control and operator feedback in a way that is easy to use and simple to setup.

Features

- 1 Tightening Configuration
- Transducerized for precise torque measurement
- Closed-Loop control of torque, speed, and degrees of rotation
- Simple to program using ICS software and USB cable
- 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

	in-lbs (Nm)		1 min. rpm	lbs (kg)*		in (mm)*		in (mm)		V	in	Communication
QX Series Cordless Precision Screwdriver												
QXN2PT04PQ4	7–35	(0.8–4)	1,500	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXN2PT04PS4	7–35	(0.8–4)	1,500	2.0	(0.91)	8.20	(208.3)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXN2PT04PS6	7–35	(0.8–4)	1,500	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8"	Via USB Cable
QXN2PT08PQ4	14–70	(1.6–8)	1,150	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXN2PT08PS4	14–70	(1.6–8)	1,150	2.0	(0.91)	8.20	(208.3)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXN2PT08PS6	14–70	(1.6–8)	1,150	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8"	Via USB Cable
QXN2PT12PQ4	21–106	(2.4–12)	750	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXN2PT12PS4	21–106	(2.4–12)	750	2.0	(0.91)	8.20	(208.3)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXN2PT12PS6	21–106	(2.4–12)	750	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8"	Via USB Cable
QXN2PT18PQ4	32–159	(3.6–18)	500	2.0	(0.91)	8.48	(215.4)	0.8–1.0	(20.3–26.0)	20V	1/4"	Via USB Cable
QXN2PT18PS6	32–159	(3.6–18)	500	2.0	(0.91)	8.35	(212.0)	0.8–1.0	(20.3–26.0)	20V	3/8"	Via USB Cable
QX Series Angle Wrench												
QXN2AT05PQ4	9–44	(1.0–5)	1213	2.5	(1.14)	21.73	(552)	0.36	(9.2)	20V	1/4"	Via USB Cable
QXN2AT10PS6	18–89	(2.0–10)	936	2.6	(1.18)	20.67	(525)	0.49	(12.5)	20V	3/8"	Via USB Cable
QXN2AT15PS6	27–133	(3.0–15)	600	2.6	(1.18)	20.67	(525)	0.49	(12.5)	20V	3/8"	Via USB Cable
QXN2AT18PQ4	32–159	(3.6–18)	500	2.8	(1.27)	24.34	(542)	0.51	(13)	20V	1/4"	Via USB Cable
QXN2AT18PS6	32–159	(3.6–18)	500	2.8	(1.27)	24.34	(542)	0.51	(13)	20V	3/8"	Via USB Cable
QXN2AT27PS6	48–239	(5.4–27)	330	3.7	(1.68)	21.73	(552)	0.67	(17)	20V	3/8"	Via USB Cable
	ft-lbs (Nm)		**1 min. rpm**	**lbs (kg)***		**in (mm)***		**in (mm)**		**V**	**in**	**Communication**
QX Series High Torque Angle Wrench												
QXN5AT20PS06	2.95–14.75	(4.0–20)	1045	4.5	(2.04)	22.74	(577.7)	0.52	(13.1)	40V	3/8"	Via USB Cable
QXN5AT30PS06	4.40–22.10	(6.0–30)	775	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	3/8"	Via USB Cable
QXN5AT30PS08	4.40–22.10	(6.0–30)	775	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	1/2"	Via USB Cable
QXN5AT35PS06	5.20–25.80	(7.0–35)	640	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	3/8"	Via USB Cable
QXN5AT35PS08	5.20–25.80	(7.0–35)	640	4.8	(2.18)	22.91	(581.8)	0.68	(17.2)	40V	1/2"	Via USB Cable
QXN5AT40PS08	5.90–29.50	(8.0–40)	545	5.0	(2.27)	23.07	(586.1)	0.85	(21.6)	40V	1/2"	Via USB Cable
QXN5AT80PS08	8.80–59.0	(12.0–80)	375	5.0	(2.27)	23.07	(586.1)	0.85	(21.6)	40V	1/2"	Via USB Cable

Service and Accessories

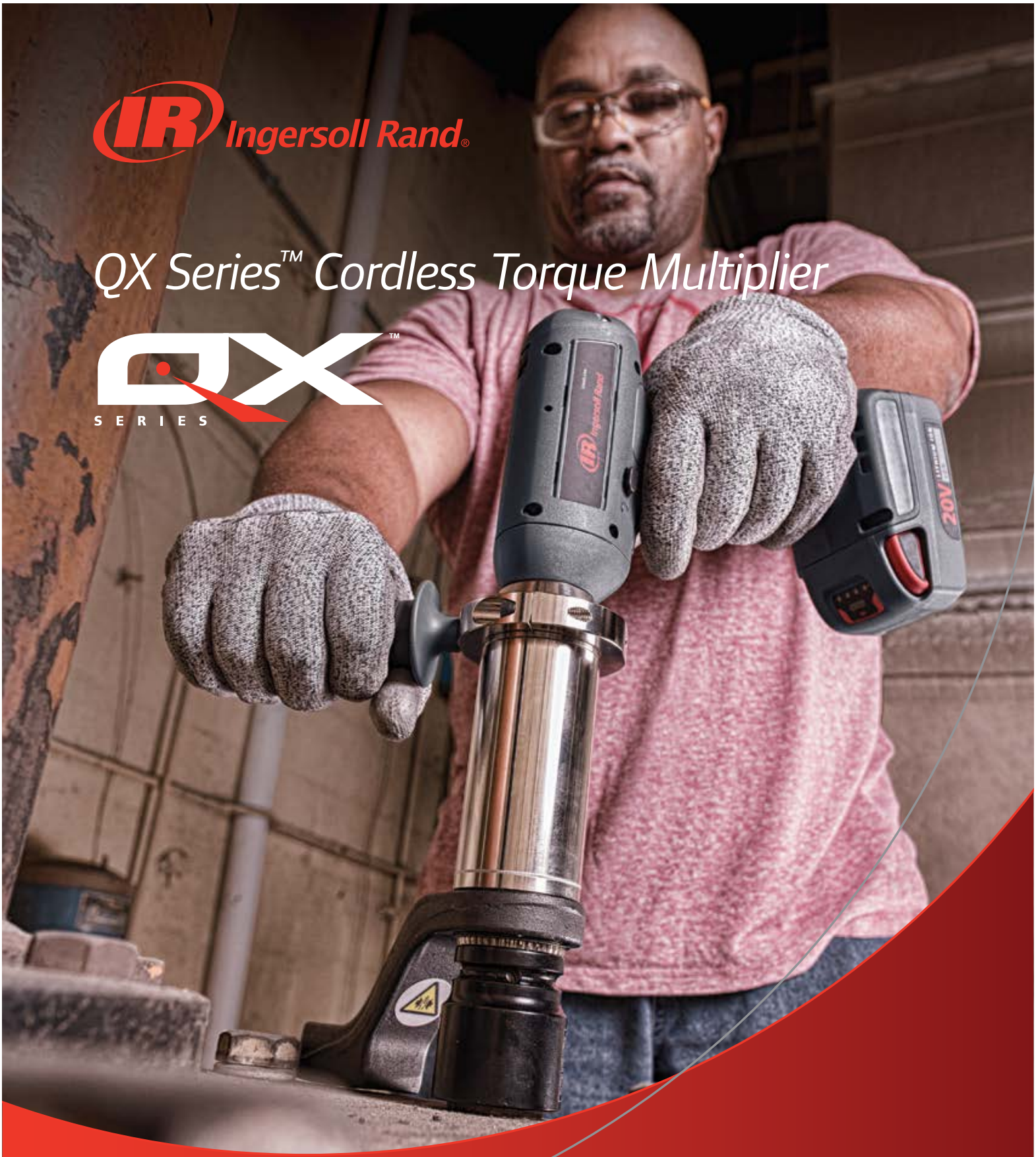
Accessories:
Suspension Bale: VP1-365

Manuals:
PI47532146001 & 47104286

Ingersoll Rand®

QX Series™ Cordless Torque Multiplier

QX™ SERIES



REAL TOOLS FOR REAL WORK.™

Next-Generation Productivity.

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

NOT JUST TORQUE CONTROL BUT *TOTAL* CONTROL.

Accuracy:

- Ingersoll Rand's closed-loop transducer control at the heart of the tool delivers precise torque and accurate, traceable results—it's precision where you need it most

Control:

- A multi-function display module allowing for quick setup and feedback on every QX Series™ tool
- User-programmable configurations such as torque, angle and gang count that reduce the number of tools needed for multiple applications

Comfort:

- Cordless and compact, the QX Series™ Torque Multiplier allows operators to move freely without the need of bulky air or hydraulic hoses, compressors, generators or powerpacks
- Tethering points to safely secure the tools

Communication:

- USB standard, wireless communication optional
- Data management, process control and the ability to adjust tool configurations (Ethernet, fieldbus and I/O capable)

Versatility:

- Fast programming that makes the tool adaptable to multiple applications
- Cordless and portable to allow operators to move freely around any workplace or environment
- HAZ TOOL Class 1 Division 2 option available
- Available in either pistol or angle configurations

QX Series™ Torque Multiplier
1000NM Pistol

QX Series™ Torque Multiplier
594NM Angle Wrench

QX Series™ Torque Multiplier
1620NM High Torque Angle Wrench

QX SERIES™

Ingersoll Rand irtools.com/QXMultiplier

Distributed by:
Hyspeco Inc. (800) 234-1041 www.Hyspeco.com

Adaptable to Your Application.

From pipeline flange bolts to truck frame assembly, the QX Series™ Cordless Torque Multiplier has the range, accuracy and configurations to tackle your bolting needs. Sharing the same IQ^{V} Series™ power platform with our industrial cordless and QX Series™ assembly tools, the Torque Multiplier expands our broad range of cordless bolting solutions.

Oil and Gas

- Flanges
- Heat Exchanges
- High Pressure Valves

Infrastructure

- Bridges
- Road Ways
- Steel Structures

Heavy Equipment

- Excavators
- Diesel and Gas Engines
- Construction/Truck

Wind

- Foundation Bolts
- Gearboxes
- General Maintenance

Rail

- Rail Car Maintenance
- Locomotive Assembly
- Infrastructure Installation/ Maintenance

Power Gen

- Turbines
- Valves Connections and Flanges
- Generators

Distributed by:
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QX SERIES™

Precision Engineered.

Premium Norbar® gearbox provides proven quality and accuracy

Optional wireless communications for process control with I/O and data collection

Closed-loop transducer control delivers precise torque and accurate, traceable results

USB port for convenient programming and data transfer

Standard or custom reaction arms meet multiple application needs

Proven QX Series™ brushless motor provides maximum durablity

Non-contacting trigger and reverse switch maximizes durability

360° adjustable handle provides operator comfort and flexibility when working on multiple joints and applications (includes 6 mm threaded port for eye hooks or other tethering points)

Ergonomic design comfortable, lightweight and balanced

Cycle status lights and audible alarm provide instant validation during each operation
Red – Above set high limit
Yellow – Below set low limit
Green – Within set range
Blue – Active alarm condition

Lithium Ion battery provides maximum run time and portability using power platform common to all Ingersoll Rand cordless families

Backlit display offers quick set-up and easy to read visual feedback

High strength, impact resistant lens guards against damage

Haz Tool - Class 1 Division 2 certified models available

Ingersoll Rand irtools.com/QXMultiplier

Distributed by:
Hyspeco Inc. (800) 234-1041 www.Hyspeco.com

Superior Communication and Control.

Ingersoll Rand doesn't just give you unprecedented technology, we give you total control of that technology. With up to eight programmable configurations per tool, the QX Series™ Torque Multiplier allows operators to transition seamlessly between different bolting applications. You'll be able to use bolting strategies individually, or combined in one strategy depending on what works best for you.

Common Bolting Strategies

Torque

Achieve desired torque within high and low limits

Angle

Achieve target rotation within high and low limits

Gang Count

Counts all rundowns to ensure all bolts have been fastened

+ If additional control is needed, Ingersoll Rand's ICS software gives you even more options to adapt to the most complicated bolting applications.

Advanced Communication Options for Process Control and Real-Time Monitoring

(PCM)

When not using the wireless networking option, QX Series™ Torque Multiplier tools can communicate with a computer via USB port.

Process Communication Module (PCM) Features

		IC-PCM-2-US	IC-PCM-2-US
Power Cord	BC10-CORD-US		
Configuration		10 to 1	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		•
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	•	•

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QX Series™ Specifications

	ft-lbs (Nm)		rpm	lbs (kg)*		in (mm)*		in (mm)		in	V	Communication
QX Series™ Pistol												
QXC2PT200NPS12	30-148	(40-200)	43	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Via USB Cable Only
QXC2PT500NPS12	74-369	(100-500)	15	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Via USB Cable Only
QXC2PT1000NPS12	148-738	(200-1,000)	8	12	(5.44)	16.50	(419)	3.14	(80)	3/4"	20V	Via USB Cable Only
QXC2PT1350NPS16	200-996	(270-1,350)	6	12	(5.44)	16.50	(419)	3.14	(80)	1"	20V	Via USB Cable Only
QXC2PT2000NPS16	295-1,475	(400-2,000)	4	15	(6.80)	17.80	(452)	3.14	(80)	1"	20V	Via USB Cable Only
QXX2PT200NPS12	30-148	(40-200)	43	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Wireless Enabled
QXX2PT500NPS12	74-369	(100-500)	15	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Wireless Enabled
QXX2PT1000NPS12	148-738	(200-1,000)	8	12	(5.44)	16.50	(419)	3.14	(80)	3/4"	20V	Wireless Enabled
QXX2PT1350NPS16	200-996	(270-1,350)	6	12	(5.44)	16.50	(419)	3.14	(80)	1"	20V	Wireless Enabled
QXX2PT2000NPS16	295-1,475	(400-2,000)	4	15	(6.80)	17.80	(452)	3.14	(80)	1"	20V	Wireless Enabled
QX Series™ Pistol Kit												
QXC2P200PS12K2	30-148	(40-200)	43	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Via USB Cable Only
QXC2P500PS12K2	74-369	(100-500)	15	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Via USB Cable Only
QXC2P1000PS12K2	148-738	(200-1,000)	8	12	(5.44)	16.50	(419)	3.14	(80)	3/4"	20V	Via USB Cable Only
QXC2P1350PS16K2	200-996	(270-1,350)	6	12	(5.44)	16.50	(419)	3.14	(80)	1"	20V	Via USB Cable Only
QXC2P2000PS16K2	295-1,475	(400-2,000)	4	15	(6.80)	17.80	(452)	3.14	(80)	1"	20V	Via USB Cable Only
QXX2P200PS12K2	30-148	(40-200)	43	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Wireless Enabled
QXX2P500PS12K2	74-369	(100-500)	15	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Wireless Enabled
QXX2P1000PS12K2	148-738	(200-1,000)	8	12	(5.44)	16.50	(419)	3.14	(80)	3/4"	20V	Wireless Enabled
QXX2P1350PS16K2	200-996	(270-1,350)	6	12	(5.44)	16.50	(419)	3.14	(80)	1"	20V	Wireless Enabled
QXX2P2000PS16K2	295-1,475	(400-2,000)	4	15	(6.80)	17.80	(452)	3.14	(80)	1"	20V	Wireless Enabled
QX Series™ Pistol Haz Lock Tool												
QXC2PT200VNPS12	30-148	(40-200)	43	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Via USB Cable Only
QXC2PT500VNPS12	74-369	(100-500)	15	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Via USB Cable Only
QXC2PT1000VNPS12	148-738	(200-1,000)	8	12	(5.44)	16.50	(419)	3.14	(80)	3/4"	20V	Via USB Cable Only
QXC2PT1350VNPS16	200-996	(270-1,350)	6	12	(5.44)	16.50	(419)	3.14	(80)	1"	20V	Via USB Cable Only
QXC2PT2000VNPS16	295-1,475	(400-2,000)	4	15	(6.80)	17.80	(452)	3.14	(80)	1"	20V	Via USB Cable Only
QXX2PT200VNPS12	30-148	(40-200)	43	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Wireless Enabled
QXX2PT500VNPS12	74-369	(100-500)	15	8	(3.62)	14.69	(373)	2.20	(56)	3/4"	20V	Wireless Enabled
QXX2PT1000VNPS16	148-738	(200-1,000)	8	12	(5.44)	16.50	(419)	3.14	(80)	3/4"	20V	Wireless Enabled
QXX2PT1350VNPS16	200-996	(270-1,350)	6	12	(5.44)	16.50	(419)	3.14	(80)	1"	20V	Wireless Enabled
QXX2PT2000VNPS16	295-1,475	(400-2,000)	4	15	(6.80)	17.80	(452)	3.14	(80)	1"	20V	Wireless Enabled
QX Series™ Angle Wrench†												
QXX5A45T0180PS12	27-132	(16-180)	110	11.4	(4.25)	10.40	(264)	3	(76.2)	3/4"	40V	Wireless Enabled
QXX5A45T0270PS12	40-200	(54-270)	77	11.4	(4.25)	10.40	(264)	3	(76.2)	3/4"	40V	Wireless Enabled
QXX2A52T0396PS12	59-291	(79-395)	21	9.5	(3.54)	8.50	(216)	3	(76.2)	3/4"	20V	Wireless Enabled
QXX2A52T0594PS12	88-438	(119-594)	14	10.9	(4.06)	8.50	(216)	3	(76.2)	3/4"	20V	Wireless Enabled
QXX5A52T0880PS12	130-650	(180-880)	23	12.3	(4.60)	10.40	(264)	3	(76.2)	3/4"	40V	Wireless Enabled
QXX5A72T1080PS16	160-797	(216-1,080)	19	16	(5.97)	10.40	(264)	3	(76.2)	1"	40V	Wireless Enabled
QXX5A72T1620PS16	239-1,195	(324-1,620)	13	16	(5.97)	10.40	(264)	3	(76.2)	1"	40V	Wireless Enabled

*Weight and length do not include battery. Battery sold separately. †Angle wrenches available through IR Solution Centers; angle kits and Haz Loc option coming soon.

30-148 ft-lbs (40-200 nm)
74-369 ft-lbs (100-500 nm)

148-738 ft-lbs (200-1,000 nm)
200-996 ft-lbs (270-1,350 nm)

295-1,475 ft-lbs (400-2,000 nm)

27-132 ft-lbs (16-180 nm)
40-200 ft-lbs (54-270 nm)

59-291 ft-lbs (79-395 nm)
88-438 ft-lbs (119-534 nm)

130-650 ft-lbs (180-880 nm)
160-797 ft-lbs (216-1,080 nm)
239-1,195 ft-lbs (324-1,620 nm)

QX Series™ Torque Multiplier Kit

Kit includes (1) tool, (2) BL2022 5.0 Ah batteries, (1) BC1121 charger and (1) tool bag. Hard case available as a separate option.

Ingersoll Rand irtools.com/QXMultiplier

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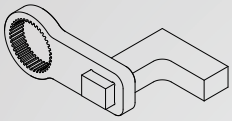
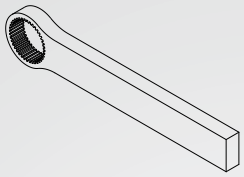
Reaction Arms

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 the on the size of the gearbox.



Cranked, 45 or 90 degrees



Straight, aluminum or steel (multiple lengths available)

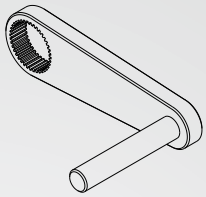
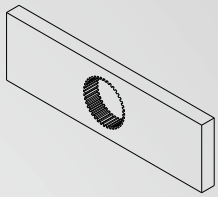
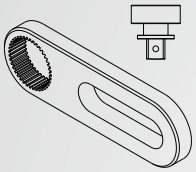


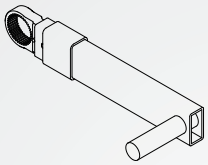
Plate and pin (multiple lengths available)



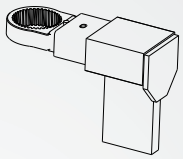
Double-sided



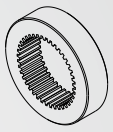
Sliding slave kit (multiple lengths available)



Sliding peg and yoke assembly (multiple lengths available)



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



Blank welding ring

Custom Reaction Arm Options

Not all applications are equal — Ingersoll Rand offers custom reaction arms. Please see your certified distributor for more information.

Power Platform

All QX Series™ 20V tools are compatible with both the 2.5 Ahr and 5.0 Ahr batteries. The 5.0 Ahr is optimum for longer use applications while the 2.5 Ahr is ideal for tighter spaces and reduced weight.

All QX Series™ 40V high torque tools are compatible with the 2.5 Ahr 40V battery.

IQ^{V20} Series™ Battery Charger 20V
BC1121

IQ^{V20} Series™ Lithium Ion Battery Pack 20V, 5.0 Ahr
BL2022

IQ^{V20} Series™ Lithium Ion Battery Pack 20V, 2.5 Ahr
BL2012

IQ^{V40} Series™ Battery Charger 40V, 2.5 Ahr
BC1161

IQ^{V40} Series™ Lithium Ion Battery Pack 40V, 2.5 Ahr
BL4011

Accessories

Protective Boots

Spring Balancer

Process Communication Module (PCM)

Hard Case

3/4" and 1" Socket Kits

Ingersoll Rand®

Pulse Tool Systems

REAL TOOLS FOR REAL WORK.™

Because every assembly is critical

There's much more to an assembly application than merely putting wrench to bolt. It's an intricate matter of linking tool users and fasteners to deliver an uncompromised combination of ergonomics, speed, and accuracy.

The solution: Ingersoll Rand Pulse Systems.

At Ingersoll Rand, we have extensive experience with threaded fastening processes. For over 100 years, we've worked with many of the world's leading manufacturers in various industries, and we understand the interface of the tool and operator. We know how to leverage the power of ergonomicaly designed equipment to maximize productivit and inspire progress.

Durability

- High-speed, reactionless fastening with a power-to-weight ratios similar to impact tools

Comfort

- Enhanced ergonomics for operator providing comfortable grip, low vibration and noise, and reactionless one handed operation

Reliability

- Consistent torque with fully customizeable operator feedback, process control, and data output options
- Proven performance in high and low torque models

Speed

- Non-Shut Off: 5,500 - 7,000 RPM
- Shut Off: 5,000 - 10,000 RPM

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Standard Pulse Tools

Q Series

Ingersoll Rand offers a full line of standard shutoff and non-shutoff pulse tools in pistol, angle, and in-line configurations to meet your needs. These extremely lightweight tools offer excellent power, speed, accuracy, and ergonomics.

The Q-Series is the latest generation of pulse tools engineered with the end-user in mind — making them the tools of choice for operators looking for the best combination of speed, ergonomics, and accuracy.

Improved life-cycle costs
Patented cooling system, improved sealing, and dual bearing support mechanism

Environmentally enhanced
Lube-free, dual chamber air motor, and self-lubricating blades and cylinder reduce oil mist in the environment and provide extended durability

Quick and easy torque adjustment
One screw on both shutoff and non-shutoff models speeds the setup process while still providing good repeatability

Rapid reset mechanism
Responds quickly to speed up cycle times on shut-off models

Comfortable soft-touch grip
Ergonomically contoured to reduce operator fatigue

Reactionless one-handed operation
Low-force trigger and easily accessible reverse lever lets operators concentrate on their task

Ergonomic improvements
Provide greater useability with lighter, smaller, quieter, and lower vibration designs

Directional air exhaust
Silencer projects noise and exhaust away from the user and the workpiece

Distributed by:
Hyspeco Inc. (800) 234-1041 www.Hyspeco.com

Shut off Pulse Tools

Features

- Torque range: 3 - 155 ft lbs (4.5 - 210 NM)
- Speeds: 4,000 - 7,000 rpm
- Easy torque adjustment for quick setup
- Auto-shut off feature stops airflow to tool when cycle is complete
- High-speed, compact, lightweight design
- Ergonomic design provides comfortable grip, low vibration and noise and reactionless one-handed operation
- Auto-shut off limits air consumption and tool wear
- Deters early throttle release; recommended when improved error-proofing is desired

Model	Fastener Size	ft-lbs (Nm)	rpm	lbs (kg)	in (mm)	in (mm)	in	cfm
PISTOL								
QS50P3	M5	3 - 6 (4.5 - 8)	4300	2.1 (0.95)	6.5 (164)	0.9 (23)	3/8″	8.9
QS50PQ1	M5	3 - 6 (4.5 - 8)	4300	2.1 (0.95)	6.5 (164)	0.9 (23)	1/4″	8.9
QS60P3	M6	5.1 - 11.4 (7 - 15.5)	5300	2.4 (1.1)	6.5 (164)	0.9 (23)	3/8″	12
QS60PQ1	M6	4.4 - 9.6 (6 - 13)	5300	2.1 (1)	6.5 (164)	0.9 (23)	1/4″	12
QS70P3	M6 - M8	11.1 - 23.6 (15 - 32)	6800	2.4 (1.1)	7 (177)	0.9 (23)	3/8″	13
QS70PQ1	M6 - M8	9.6 - 20.7 (13 - 28)	6800	2.4 (11)	7 (177)	0.9 (23)	1/4″	13
QS80P3	M8	22.1 - 40.6 (30 - 55)	6800	2.4 (1.1)	7.4 (187)	1 (25)	3/8″	16
QS110P4	M10 - M12	37 - 64 (50 - 85)	5800	3.3 (1.51)	7.6 (194)	2.2 (57)	1/2″	17.7
QS120P4	M12	52 - 85 (70 - 115)	5400	3.9 (1.8)	7.9 (201)	2.4 (62)	1/2″	18.4
QS140P4	M14	81 - 110 (110 - 150)	5200	4.6 (2.1)	8.4 (214)	2.6 (65)	1/2″	25
QS150P6	M16	103 - 155 (140 - 210)	4400	6.5 (3)	9.3 (237)	1.5 (39)	3/4″	25

Model			
QS50 - QS80	70 - 78 dba	1/4″ NPT	3/8″ (10 mm)
QS110 - QS150	80 - 86 dba	1/4″ NPT	3/8″ (10 mm)

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Non-Shut off Pulse Tools

Features

- Torque range: 6 - 258 ft-lbs (7.5 - 350 NM)
- Speeds: 4,000 - 9,300 rpm
- Easy torque adjustment for quick setup
- Extremely lightweight, compact, and fast
- World-class power-to-weight ratio
- Ergonomic design provides comfortable grip, low vibration and noise, and reactionless one-handed operation
- Environmentally enhanced lube-free, dual-chamber air motor, and self-lubricating blades and cylinder reduce oil mist
- Non-shut-off tools are recommended for the majority of applications where speed and ergonomics are important

Model	Fastener Size	ft-lbs (Nm)	rpm	lbs (kg)	in (mm)	in (mm)	in	cmf
PISTOL								
100PQ1	M4 - M5	5.5 - 8 (7.5 - 11)	9300	1.6 (0.7)	5.6 (142)	0.7 (18)	1/4″	12
Q60P3	M6	10 - 16 (13 - 22)	4000	1.8 (0.8)	5.1 (130)	0.9 (22)	3/8″	11
Q60PQ1	M6	8 - 15 (11 - 20)	4000	1.8 (0.8)	5.1 (130)	0.9 (22)	1/4″	11
Q70P3	M6 - M8	18 - 25 (24 - 35)	7000	1.8 (0.8)	5.2 (131)	0.9 (22)	3/8″	11
Q70PQ1	M6 - M8	15 - 20 (20 - 28)	7000	1.8 (0.8)	5.2 (131)	0.9 (22)	1/4″	12
Q80PQ1	M8	18 - 25 (24 - 35)	7000	1.9 (0.9)	5.4 (138)	0.9 (22)	1/4″	12
Q80P3	M8	24 - 37 (34 - 50)	7000	1.9 (0.9)	5.4 (138)	0.9 (22)	3/8″	12
Q90P3	M8 - M10	35 - 48 (47 - 65)	6500	2.1 (1.0)	5.8 (148)	0.9 (23)	3/8″	14
Q110P4	M10 - M12	44 - 70 (60 - 95)	5500	3.0 (1.4)	6.5 (164)	1.1 (27)	1/2″	20
Q120P4	M12	70 - 95 (95 - 130)	6600	3.7 (1.7)	6.9 (175)	1.3 (29)	1/2″	20
Q140P4	M14	95 - 118 (130 - 160)	5400	4.9 (2.2)	7.5 (190)	1.3 (33)	1/2″	30
140P6	M16	118 - 199 (160 - 270)	3200	6.8 (3.1)	8.9 (226)	1.4 (36)	3/4″	26
3000P	M16 - M18	170 - 258 (230 - 350)	4700	10.1 (4.6)	9.7 (246)	1.6 (40)	3/4″	10
INLINE								
180SQ1	M4 - M6	11 - 18 (15 - 24)	9000	20 (0.9)	8.7 (221)	0.9 (22)	1/4″	9
280SQ1	M6 - M8	15 - 23 (20 - 31)	8000	21 (10)	9.0 (229)	0.9 (22)	1/4″	11
380SQ1	M8	21 - 30 (29 - 40)	8500	26 (1.2)	9.1 (231)	1.0 (25)	1/4″	11
ANGLE								
500A	M6 - M8	21 - 29 (29 - 39)	7000	3.3 (1.5)	10.5 (267)	1.1 (27)	3/8″	11

Model			
Q60 - Q80	71 - 75 dBa	1/4″ NPT	3/8″ (10 mm)
Q790P - Q140	78 - 83 dBa	1/4″ NPT	3/8″ (10 mm)
100 - 3000	76 – 83 dBa	1/4″ NPT	3/8″ (10 mm)

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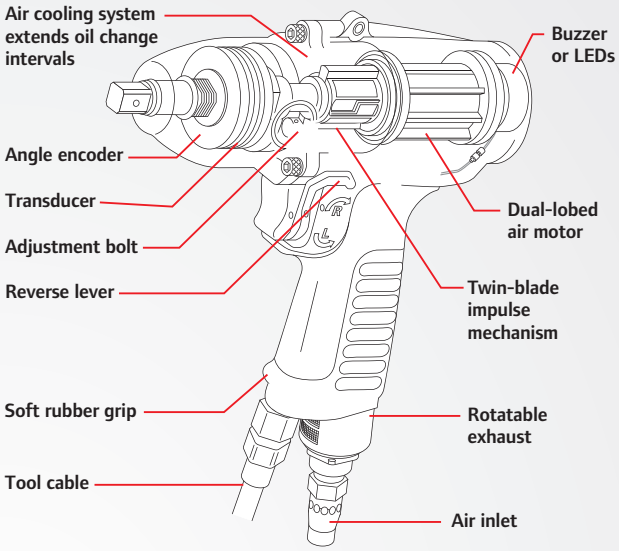
Transducerized Pulse Tools

Ingersoll Rand combines the power, speed and ergonomics of the pulse tool with the sophistication of a torque transducer and microprocessor to create a more powerful, convenient and accurate fastening system. The closed-loop system offers all the advantages of a pulse tool, while providing advanced torque control and data output typically found in a DC fastening system. The new angle encoded series includes the ability to monitor the fastening angle during the tightening process.

- Strain gauge on output shaft and close to the socket for more accurate measurement of torque.
- Non-contacting pick-up reduces signal noise, improving torque repeatability.
- Angle monitoring available
- Torque readout.
- End-of-run data.
- Operator visual and audible notification.
- I/O signals for line control.
- Simple programming for fast and easy set-up.



The new QXP Series pulse tools offer a new level of speed, convenience, accessibility, and comfort to the assembly process.

Model		ft-lbs (Nm)	1 min. rpm	lbs (kg)	in (mm)	in (mm)	in	cmf
PISTOL								
QXP60P6	M6	7.4 – 14.5 (10 – 19.5)	6,000	2.8 (1.26)	7.0 (179)	0.8 (21)	3/8″ □	9.5
QXP60Q4	M6	6.3 –11.8 (8 – 16)	6,000	2.8 (1.26)	7.0 (179)	0.8 (21)	1/4″ ⬡	9.5
QXP70P6	M6 – M8	13 – 24 (18 – 33)	7,000	2.8 (1.26)	7.0 (179)	0.8 (21)	3/8″ □	11.3
QXP70Q4	M6 – M8	11 – 20 (15 – 27)	7,000	2.8 (1.26)	7.0 (179)	0.8 (21)	1/4″ ⬡	11.3
QXP80P6	M8	17 – 33 (24 – 46)	7,000	3 (1.3)	7.3 (186)	0.8 (21)	3/8″ □	11.3
QXP90P6	M8 – M10	26 – 44 (35 – 60)	6,500	3.3 (1.5)	7.7 (195)	0.9 (23)	3/8″ □	14.5
QXP110P8	M10 – M12	35 – 70 (48 – 95)	5,500	4.1 (1.86)	8.2 (209)	1.0 (25.6)	1/2″ □	18.7
QXP120P8	M12	48 – 92 (65 – 125)	5,900	5.4 (2.46)	8.8 (223)	1.1 (29.0)	1/2″ □	21.2
QXP140P8	M14	55 – 114 (75 – 155)	5,200	6.3 (2.86)	9.3 (235)	1.1 (29.0)	1/2″ □	27.7
QXP150P8	M16	81 – 162 (110 – 220)	4,200	7.5 (3.41)	9.6 (241)	1.3 (32.5)	1/2″ □	27.9

Model			Ø
QXP60 - QXP150	75 - 87 dba	1/4″ NPT	3/8″ (10 mm)

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Pulse Systems

We offer a robust portfolio of pulse tools that deliver consistent performance and accuracy. Select the best solution for your application.

Pulse Systems			
FEATURES	**Standard Pulse Tools**		**Transducerized Pulse Tools**
	Non shut-off	**Shut-off**	
Fastening Strategies			✓
Angle Monitoring			✓
Torque Traceability			✓
Closed-Loop Torque Control			✓
Visible OK / Not OK Signaling			✓
Process Control			✓
Batch & Cycle Counting			✓
Operator Error Proofing		✓	✓
Lube Free Air Motors	✓	✓	✓
Easy Torque Adjustment	✓	✓	✓
High Speed, Compact, Lightweight	✓	✓	✓
Reactionless One-Handed Operation	✓	✓	✓

Accessories

Impact Sockets - 6 pt Hex

Type		No. of Models	Output Range in (mm)
IMPACT SOCKETS - INDIVIDUALS			
3/8"	Standard	20	1/4" – 1" (6 – 22)
	Deep	18	5/16" – 1" (7 – 22)
	Universal	36	5/16" – 1" (8 – 22)
1/2"	Standard	32	5/16" – 2-1/4" (8 – 36)
	Deep	18	5/16" – 2″ (8 – 36)
	Universal	36	5/16" – 1" (8 – 22)
3/4"	Standard	33	1/2" – 2 -1/2″ (17 – 50)
	Deep	33	1/2″ – 2 -1/2″ (17 – 50)
	Universal	29	11/16″ – 1- 7/8″ (17 – 46)

We offer many additional sizes in sockets. Visit www.ingersollrandprocducts.com for a complete offering.

Impact Sockets

Spring Balancers

Model	No. of Models	SWL lb (kg)	ft (m)	lb (kg)
BALANCERS (SEE LITERATURE LISTED BELOW FOR DETAILS)				
BHR Series*	3	0.875 – 5.5 (0.39 – 2.5)	4.25 (1.3)	2.6 – 2.9 (1.2 – 1.3)
BLD Series	4	0.9 – 6.6 (0.4 – 3.0)	5.2 (1.6)	1.3 – 1.5 (0.6 – 0.7)
BMD Series	13	2.2 – 22 (1 – 10)	6.5 – 8.2 (2 – 2.5)	4.4 – 8.8 (2 – 4)

*A hose reel balancer with 1/4″ NPT input/output and 18.4 cfm flow capacity.

Spring Balancer

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Ingersoll Rand

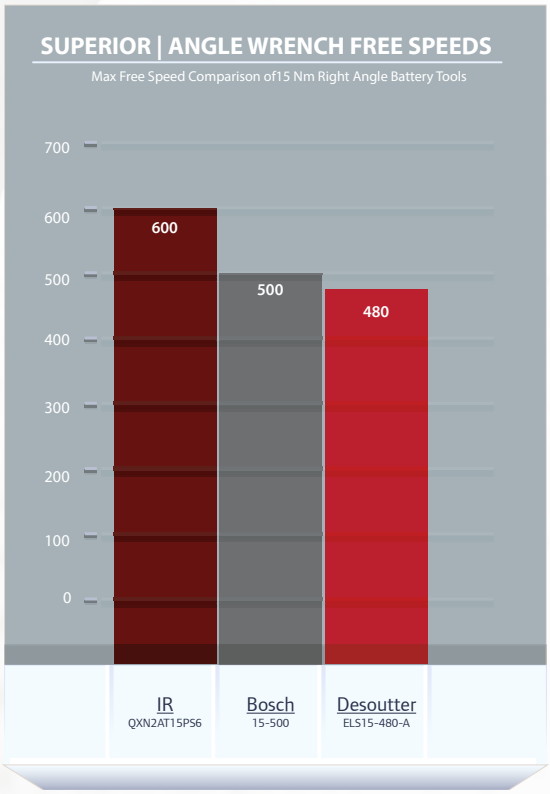
SUPERIOR CONTROL. SIMPLE ASSURANCE.

QXN Precision Angle Wrench

Why *settle* for a clutch tool when you can have:

- **SUPERIOR CONTROL:** Our closed loop control of torque, speed, and degrees of rotation provides superior control of your fastening process.
- **SIMPLE ASSURANCE:** 1,200 cycles of onboard data storage and validation of achieved torque after every tightening provides simple assurance of quality work, every time.
- **INCREASED PRODUCTIVITY:** Get more work done in less time through faster tightening speeds.

Simply the intelligent replacement for mechanical clutch tools



QXN 15 Nm battery right angle wrenches provide **22%** faster free speeds on average, than most leading 15Nm right angle battery clutch tools.

REAL TOOLS FOR REAL WORK.™

QX™ SERIES
PRECISION FASTENING SYSTEMS

Competitive StreetFighter

QXN Angle Wrench vs. Competitors

Inside Scoop – QXN2AT27PS6 Head-to-Head Comparison:

	Ingersoll Rand QXN2AT27PS6	Desoutter ELS30-300-A	Bosch EXACT ION 30-300
Max Speed (rpm)	300 rpm	300 rpm	300 rpm
Torque Range (Nm)	6 - 27 Nm	10 - 30 Nm	10 - 30 Nm
Torque Control Technology	Transducer	Clutch	Clutch
Control Types	Torque, Angle, Speed	Torque, Speed*	Torque, Speed*
Weight w/ Battery (lbs)	4.7lbs	4.62lbs	5.3lbs
Torque setting process	USB	Special tools + external torque analyzer	Special tool + external torque analyzer
Accuracy	Up to +/- 5%	Up to +/- 7%	Up to +/- 7%
Typical Tool Life	1 M Cycles	400,000 Cylces	500,000 Cycles
Street Price (Tool Only) $USD	$1,485	$2,118	$2,230

General Information:

What Ingersoll Rand is saying:

- Superior torque control via integrated transducer
- 1.0 to 27Nm QX2 Series
- Transducer with microprocessor control of final torque
- Multi-step torque strategy with speed control
- 20v Lithium Ion battery with multiple Amp Hour options for extended runtime or lighter weight.

What competition is saying:

- Torque control provided by adjustable spring clutch
- Torque validation upon lab testing
- Fixed speed adjustments, no angle control
- No data storage
- Prevailing torque applications are difficult and unreliable

The Bottom Line:

WORK HAS NO PLACE TO HIDE.

When it comes to fastening, standard clutch tools don't stand a chance. Ingersoll Rand's QXN cordless precision screwdrivers and angle wrenches have superior torque control and an integrated closed-loop transducer to deliver accurate, intelligent results- every cycle. Plus, the QXN cordless precision screwdrivers and angle wrenches each store 1,200 cycles of tightening data, providing simple assurance that you have total control of your fastening process.

Source for advertised competitive specs: www.boschproductiontools.com; www.desouttertools.com

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Ingersoll Rand®

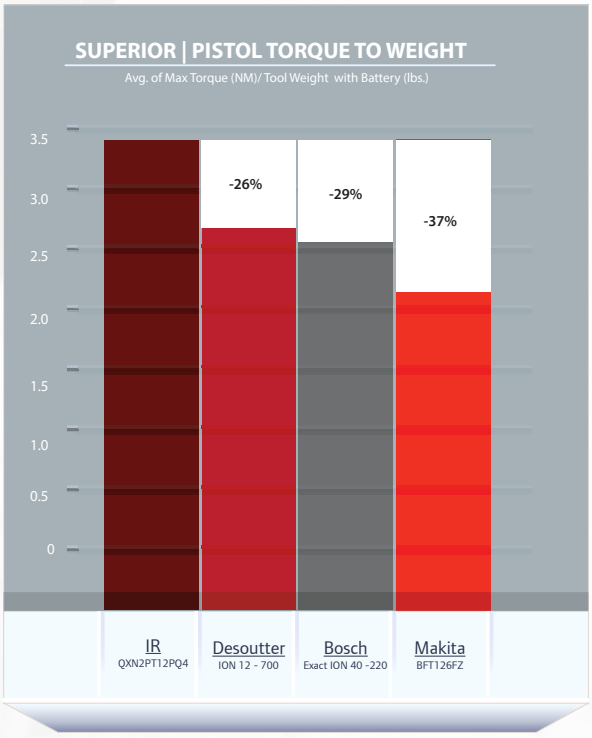
SUPERIOR CONTROL. SIMPLE ASSURANCE.

QXN Precision Screwdriver

Why *settle* for a clutch tool when you can have:

- **SUPERIOR CONTROL:** Our closed loop control of torque, speed, and degrees of rotation provides superior control of your fastening process.
- **SIMPLE ASSURANCE:** 1,200 cycles of onboard data storage and validation of achieved torque after every tightening provides simple assurance of quality work, every time.
- **BETTER TORQUE TO WEIGHT RATIO:** Apply more torque with less weight ensuring maximum operator comfort.

Simply the intelligent replacement for mechanical clutch tools



QXN battery pistol grip screwdrivers provide **28%** better torque-to-weight on average, than most leading pistol battery clutch tools.

REAL TOOLS FOR REAL WORK™

QX™ SERIES
PRECISION FASTENING SYSTEMS

Competitive StreetFighter

QXN Pistol Screwdriver vs. Competitors

Inside Scoop – QXN2PT12PQ4 Head-to-Head Comparison:

	Ingersoll Rand QXN2PT12PQ4	Desoutter ION 12-700	Bosch Exact ION 40-220	Makita BFT126FZ
Max Speed (rpm)	750	570	700	410
Torque Range (Nm)	2.4 -12	3 -12	2 -12	5 -12
Torque Control Technology	Transducer	Clutch	Clutch	Clutch
Control Types	Torque, Angle, Speed	Torque, Speed*	Torque, Speed*	Torque
Weight w/ Battery (lbs)	3.55 lbs	2.52 lbs	3.0 lbs	3.3 lbs
Torque setting process	USB	Special tools + external torque analyzer	Special tool + external torque analyzer	Special tool + external torque analyzer
Accuracy	Up to +/- 5%	Up to +/- 7%	Up to +/- 7%	Up to +/- 7%
Battery Voltalge & Type	20V Li-Ion	18V Li-Ion	18V Li-Ion	14.4V Li-Ion
Typical Tool Life	1 M Cycles	400,000 Cylces	550,000 Cycles	650,000 Cycles

General Information:

What Ingersoll Rand is saying:

- Superior torque control via integrated transducer
- Improved torque to weight ratio for ease of use and operator comfort
- Transducer with microprocessor control of final torque
- Multi-step torque strategy with speed control
- 20v Lithium Ion battery with multiple Amp Hour options for extended runtime or lighter weight.

What competition is saying:

- Torque control provided by adjustable spring clutch
- Torque validation upon lab testing
- Fixed speed adjustments, no angle control
- No data storage
- Prevailing torque applications are difficult and unreliable

The Bottom Line:

WORK HAS NO PLACE TO HIDE.

When it comes to fastening, standard clutch tools don't stand a chance. Ingersoll Rand's QXN cordless precision screwdrivers and angle wrenches have superior torque control and an integrated closed-loop transducer to deliver accurate, intelligent results- every cycle. Plus, the QXN cordless precision screwdrivers and angle wrenches each store 1,200 cycles of tightening data, providing simple assurance that you have total control of your fastening process.

Source for advertised competitive specs: www.makitaassemblytool.com; www.boschproductiontools.com; www.desouttertools.com

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Ingersoll Rand®

Industrial Lifting Equipment

Contents

HOIST MANUFACTURERS INSTITUTE

INDUSTRIAL SUPPLY ASSOCIATION

MATERIAL HANDLING INDUSTRY OF AMERICA®

ISO 9001 CERTIFIED

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Air Chain Hoists

Air chain hoists are the ideal choice when high speed, high duty-cycle, precision spotting, and the ability to operate in harsh environments are the determining factors. No one knows air chain hoists like Ingersoll Rand.

We offer the broadest range of air chain hoists in the world. This section highlights our offering of production hoists ranging in capacity from 0.125 to 6 metric tons.

The MLK and HLK Series hoists have proven themselves for years in the most difficult environments. The 7700 and 7790 Series hoists are renowned for exceptional speed and load control. The CLK Series hoist offer superior load control and low air consumption.

Our sales team and channel partners are available to help with selection, related accessories, and options to provide the optimal solution to your lifting and positioning challenges. Spare parts and our authorized service centers are there to keep them running in peak condition.

Visit our website at www.ingersollrandproducts.com to see our high-capacity chain hoists (up to 200 metric tons) and other products.

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Air chain hoists selection guide

Model	Lifting Capacity lb	Lifting Capacity metric tons	# Falls	Lifting Speed Rated Load ft/min	Lifting Speed Rated Load m/min	Lowering Speed Rated Load ft/min	Lowering Speed Rated Load m/min	Hook Mount Headroom in	Hook Mount Headroom mm	Trolley Mount Headroom in	Trolley Mount Headroom mm	Shipping Weight Top Hook lb	Shipping Weight Top Hook kg	Page No.
CLK SERIES														
CL125K	275	0.125	1	43	13.1	37	11.3	11.5	292.1	14.1	358.1	34	15.4	6
CL250K	550	0.25	1	32	9.8	45	13.7	11.5	292.1	14.1	358.1	34	15.4	6
CL500K	1100	0.50	2	15	4.6	22	6.7	12.75	323.9	15.35	389.9	38	17.2	6
MLK SERIES AND HLK SERIES														
ML250K	550	0.25	1	101	30.8	117	35.7	18	457.2	18	457.2	48	21.8	10
ML250KS	550	0.25	1	40	12.2	90	27.4	18	457.2	18	457.2	48	21.8	10
ML250KR	550	0.25	1	26	7.9	38	11.6	18	457.2	18	457.2	48	21.8	10
ML500K	1,100	0.5	1	55	16.8	97	29.6	18	457.2	18	457.2	48	21.8	10
ML500KS	1,100	0.5	1	22	6.7	66	20.1	18	457.2	18	457.2	48	21.8	10
ML500KR	1,100	0.5	2	13	4	20	6.1	18	457.2	18	457.2	61	27.7	10
ML1000K	2,200	1	2	28	8.5	49	14.9	18	457.2	18	457.2	61	27.7	10
ML1000KS	2,200	1	2	11	3.4	33	10.1	18	457.2	18	457.2	61	27.7	10
HL1000K	2,200	1	1	26	7.9	37	11.3	18.5	469.9	18.1	460.5	84	38.1	10
HL1000KR	2,200	1	1	26	7.9	37	11.3	18.5	469.9	18.1	460.5	84	38.1	10
HL1500K	3,300	1.5	1	16	4.9	26	7.9	18.8	477.5	18.9	479.5	84	38.1	10
HL2000K	4,400	2	2	13	4	18	5.5	23	584.2	21.6	549.4	125	56.7	10
HL3000K	6,600	3	2	8	2.4	13	4	25	635	22.6	574.8	125	56.7	10
HL4500K	10,000	4.5	3	4.6	1.4	10	3.1	30.9	784.4	28	711.2	193	87.5	10
HL6000K	13,200	6	4	3.5	1.1	7.6	2.3	36.2	919.2	32.2	817.6	248	112.5	10
ARO SERIES														
7770E	275	0.125	1	110	33.5	275	83.8	17	432	16.9	428	41	18.6	19
7718E	550	0.25	1	82	25	224	68.3	17	432	16.9	428	41	18.6	19
7756E	1,100	0.5	1	41	12.5	112	34.1	17	432	16.9	428	41	18.6	19
7776E	2,200	1	2	21	6.4	56	17.1	21.7	551	20.5	521	53	24	19
7790A	2,200	1	1	26	7.9	44	13.4	18.9	479	15	381	62	28.1	19
7792A	4,400	2	2	12	3.7	24	7.3	22.4	568	18	457	81	36.7	19
7712EL	550	0.25	1	50	15.2	70	21.3	17	432	17.1	435	41	18.6	19
7714EL	1,500	0.68	2	16	4.9	16	4.9	17	432	17.1	435	41	18.6	19
7796AL	1,500	0.68	1	16	4.9	16	4.9	18.9	479	15	381	62	28.1	19
7798AL	2,400	1.1	2	12	3.7	12	3.7	22.4	568	18	457	81	36.7	19
7799AL	3,000	1.36	2	7	2.1	7	2.1	22.4	568	18	457	81	36.7	19

All Ingersoll Rand Series hoists meet or exceed ASME/ANSI B30.16 standards. Please consult factory for hoists that meet the European machinery directive (EC) and carry the CE mark.

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Choosing the right hoist

Material handling needs differ from application to application. Ingersoll Rand offers numerous hoist types with a range of options that can be matched to meet your specific requirements. When the time comes to select the appropriate hoist for your needs, consider the following criteria:

Maximum load

Consider the maximum load the hoist will need to accommodate. Ingersoll Rand hoists have weight ratings from 275 lb to 6 tons. Consider hoist speed. The speed requirement of a hoist is dependent on the corresponding cycle time of the task to be performed – lift, transport, lower, return, start again.

Installation requirements

Ingersoll Rand hoists, whether hook or trolley, can be mounted on several beam configurations. Compact for low headroom requirements, these hoists can be mounted in areas where others can't.

Air supply

To ensure maximum operating performance, Ingersoll Rand rotary-vane air hoists require air supplies that continually provide clean, lubricated air at sufficient pressure and volume. Ingersoll Rand hoists require 90 psig at 32 to 70 scfm.

Control method

Our rotary-vane air hoists control lift and descent by admitting proportional amounts of air to the motor through a valve. Ingersoll Rand offers two control systems:

1. Pendent control system — a 3-hose pilot pressure / bleed system opens and throttles the valve.
2. Pull-chain system — operator-controlled pull chains attached to arm open and close the valve.

CLK Series

Pneumatic hoists: 125-, 250-, and 500-kg models

Disc brake is non-asbestos and spring-engaged with an air release that offers significant control while minimizing air consumption.

A two-stage differential transmission multiplies motor torque and reduces speed. Oil lubrication helps create maximum durability. Gearing components are made from high-strength, heat-treated steel alloy.

Forged five-pocket pocket wheel provides for smooth lifts and enhanced chain life.

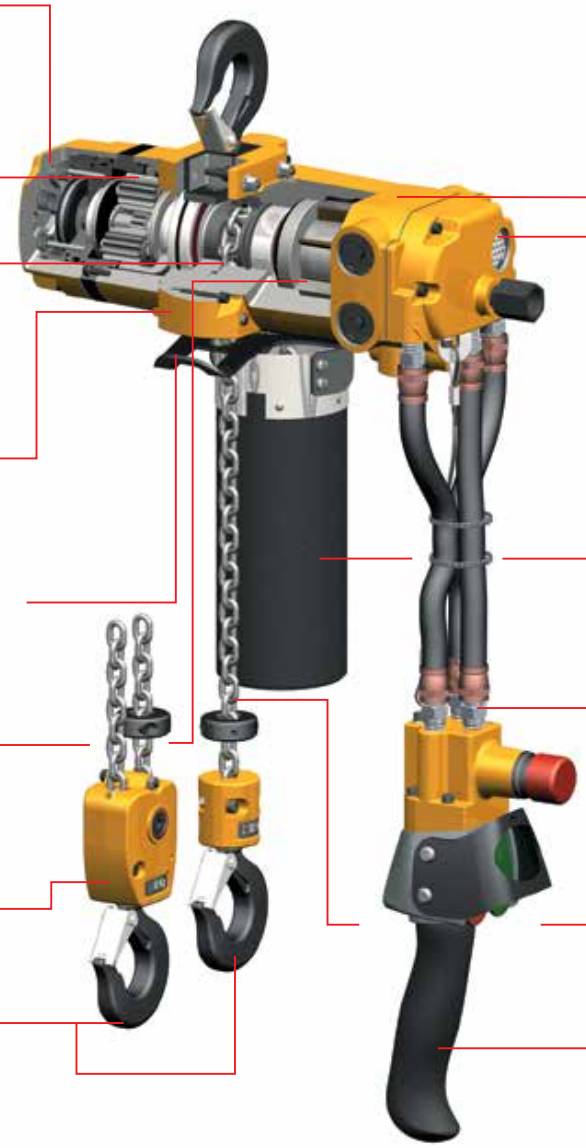
Specially designed slack chain opening prevents dangerous cross-linking by guiding chain to the drive wheels.

Upper and lower limit stops prevent dangerous over-travel of the hook in either direction, reducing possible damage to hoist and load.

100% duty cycle multi-vane (6) air motor offers a high-torque and low-maintenance design. Air porting under the vanes creates smooth operation, positive starting, and long life.

Double reeving is used on 500-kilogram units only.

Bottom latch-type swivel hooks meet OSHA requirements and are supported by anti-friction needle type thrust bearings.



High-strength aluminum housing for maximum portability and weather resistance. Strong yet light-weight with a durable powder-coated finish.

Internal muffler reduces sound levels to a best-in-the-industry 75 dBA.

Optional fabric chain container (available at extra cost) helps keep slack chain out of the way.

Full flow pendent for maximum control and enhanced load positioning capabilities.

Standard link load chain is zinc-plated steel DAT grade 80.

Ergonomic pendent handle (shown with optional E-stop) is rugged and durable. Guard covers both levers and can be used with or without gloves. Optional E-stop (available at extra cost) makes this hoist CE-compliant.

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CLK Series

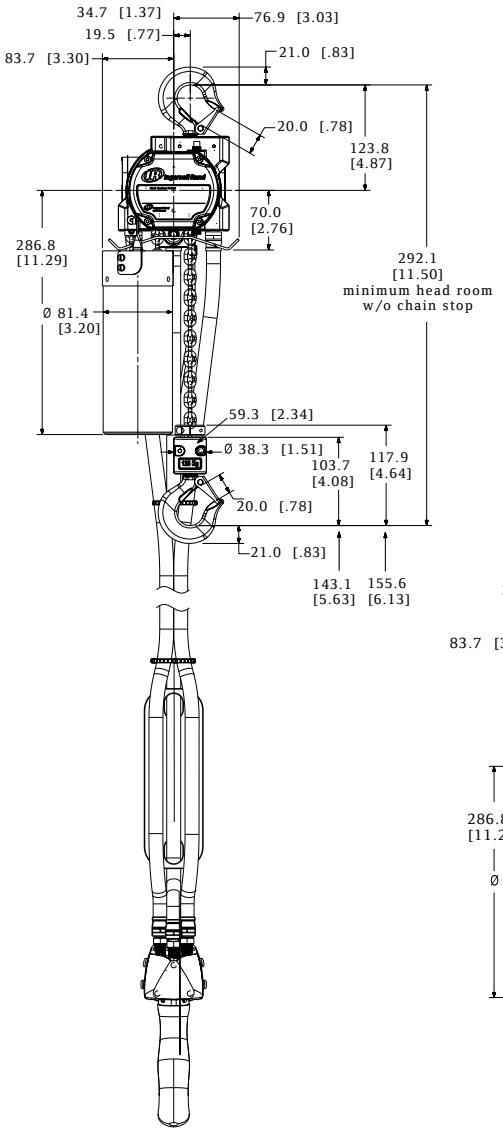
Pneumatic hoists: 125-, 250-, and 500-kg models

CLK Series Specifications

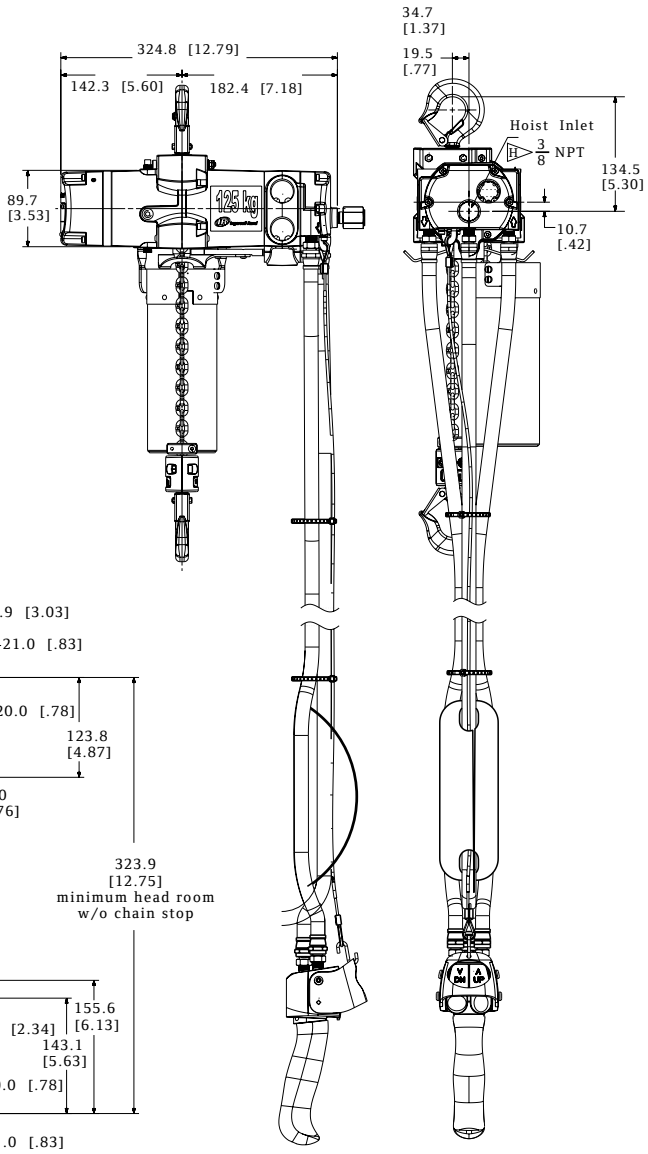
Model	Capacity lb	Capacity kg	# Falls	Hook Mount Headroom in	Hook Mount Headroom mm	Trolley Mount Headroom in	Trolley Mount Headroom mm	Lifting Speed Rated Load ft/min	Lifting Speed Rated Load m/min	Lifting Speed No Load ft/min	Lifting Speed No Load m/min	Lowering Speed Rated Load ft/min	Lowering Speed Rated Load m/min	Lowering Speed No Load ft/min	Lowering Speed No Load m/min	Chain Size	Chain Weight (per foot of lift) lb	Chain Weight (per foot of lift) kg	Net Weight w/10 ft of Lift lb	Net Weight w/10 ft of Lift kg
CL125K	275	125	1	11.5	292.1	14.1	358.1	43	13.1	56	17.1	37	11.3	27	8.2	4 x 12	0.24	0.11	34	15.4
CL250K	550	250	1	11.5	292.1	14.1	358.1	32	9.8	56	17.1	45	13.7	27	8.2	4 x 12	0.24	0.11	34	15.4
CL500K	1100	500	2	12.75	323.9	15.35	389.9	15	4.6	26	7.9	22	6.7	13	4.0	4 x 12	0.48	0.22	38	17.2

Working pressure from 5 to 7 bar (70 to 100 psi). Air consumption @ rated load — all models 0.9 m (32 cfm). Air inlet 3/8″ NPT. Sound level 75 dBA.

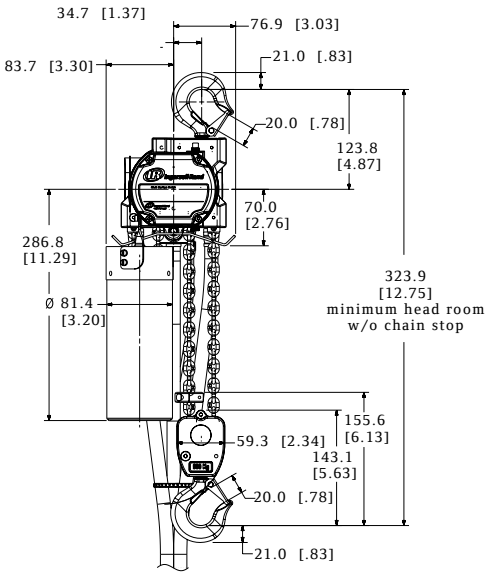
CL125K and CL250K



CL125K and CL250K



CL500K



Accessories

Pneumatic hoists: 125-, 250-, and 500-kg models

PT Series Hook-on Trolley

Model	Capacity lb	Capacity metric tons	Flange Adjustment in	Min. Beam Height in	Min. Curve Radius in	Weight lb	Kit no. (order separate)	Flange Adjustment in	Weight lb
STANDARD SERIES									
PT005-8	1,100	0.50	2.6 – 8	4	36	19.7	PT005-WFK	8 – 13	5.5

Wheels are cast iron and the universal tread fits either flat or tapered beams.

PT005-8

Cousin to the PT Series trolley, the twin suspension shaft RT Series trolley offers a rigid connection for the CLK Series of air chain hoists. Lug adapter CL250K-425 is required for use with the RT trolley.

RT010 Series Trolley

Trolley Part Number	Capacity metric tons	Fits Beam Flange Width in	Minimum Turning Radius in
RT010	0.25 - 1	2.7 - 6	36

Wheels have universal tread for use on flat or tapered beams.

Filters - Regulators - Lubricators

Part No.	Size (in) NPTF	Flow Rate scfm	Adj. Pressure Range psig	Bowl Capacity oz	Height x Width in
TRIO UNITS: FILTERS, REGULATORS, LUBRICATORS					
C38341-810	1/2	150	5 – 250	4	6 x 8.7
C38451-810	3/4	200	5 – 250	4	8.6 x 11.1
C38461-810	1	215	5 – 250	4	8.6 x 11.1

C38341-810

Quick Exhaust Valves

Part Number	For Use With	Control Type	Style	Pendent Length ft
MR-939	All CLK Series	Full-flow	3/8″ NPT	15 – 40

The first pair of full-flow valves will be installed between 7 and 8 ft from the pendent handle after pendent hose length reaches 16 ft. Any additional valves will equally divide the remaining hose length.

E-Stop Pendent Handle

Part Number	Description
45667359	Pendent handle assembly with E-stop function

E-Stop Pendent Handle

Link Chain Canvas Basket

Part No.	Capacity ft
CL250K-749-20	20
CL250K-749-40	40

Link Chain Canvas Basket

Industry-leading durability, precision, and flexibility

Ingersoll Rand, the most trusted name for quality, high-value hoists, introduces the CLK Series, including 125-, 250- and 500-kilogram models.

The CLK Series is the smart choice for:

- Durability that delivers more uptime — With a FEM/ISO mechanism classification of 1Am/M4 (ASME HST-5 rating of A5), CLK Series hoists are duty-rated to go an incredible 800 full-load hours between overhauls.
- Lifting speed and precision control for enhanced ease of use — Lifting speed of 43 fpm (13.1m/min) for the 125 kg models and 32 fpm (9.8m/min) for the 250 kg models is the **best in its class**. Enhanced load "positioning" capabilities and an outstanding combination of motor control and brake release make this hoist ideal for precision applications.
- "Best-in-the-industry" quiet operation enhances safety and decreases operator fatigue — Sound levels of just 75 dBA make CLK Series hoists easy on operators, while also minimizing the overall ambient noise of the work site.
- Highly efficient air motor saves money — For hoists in its class, CLK Series gets the most performance from your compressed air output. The CLK Series consumes only 32 cfm (0.9 m^3/min) of air lifting rated load and less then 16 cfm (0.5 m^3/min) while lowering load.

For more information on how the CLK Series hoists can generate high return on your equipment investment:

See your local distributor

Call 866-207-6923

Visit
ingersollrandproducts.com

HOW TO ORDER

Specify hoist by complete model number code as illustrated below. Specify accessories separately by part number. Note that 0 is a number, not a letter, in model part numbers.

Example: CL250K-2C10-C6U

C	L	250K	–	2	C	10	–	C	6	U	-	E

Series
C = Series

Link chain type

Capacity
125K = 125 kg = 275 lb
250K = 250 kg = 550 lb
500K = 500 kg = 1,100 lb

Control
0 = No Pendent
2 = Pendent

Suspension
A = Fixed lug (adapts to RT010A trolley)
C = Top hook
DA = Plain rigid trolley

Lift (ft)
10 = 10 ft
200 ft max. - CL125K & CL250K
100 ft. max. - CL500K

Lower hook
C = Steel snap hook

Pendent Control Hose (ft)
6 = 6 ft
40 ft max. pendent hose length

Options
U = Fabric chain container

CE Package
E = Compliance with the European Machinery Directive – will include E-stop pendent control

MLK and HLK Series

0.25 to 6 metric ton lifting capacities

Benefits

- 100 percent duty cycle enables continuous operation
- Dust, dirt, moisture, and corrosive gases kept out of the motor by air pressure — ideal for foundries and electro-plating applications
- Minimum chance of electrical shock makes air hoists ideal for highly flammable environments such as chemical plants and refineries; spark-resistant models also available
- Simple pull-chain speed and directional controls provide precise load-spotting capabilities; easy-to-operate pendent air valves provide a variable control signal with adjustable response by a variable orifice. For more precise control, **MLKS slow-speed models are available.**
- Motor, brake, and throttle parts are interchangeable with all current Ingersoll Rand air chain hoists
- Ingersoll Rand air chain hoists are designed and constructed for trouble-free maintenance

Top and bottom latch-type swivel hooks meet OSHA requirements and are supported by anti-friction roller bearings (Bullard Burnham hooks are available for all models, except spark-resistant)

Manual brake release kit allows operators to safely lower a suspended load in a power failure

Air-operated, non-asbestos, self-adjusting disc brake balances effort to motor torque by sensing air pressure in the valve chest, providing precise control and eliminating back-drop encountered with some mechanical brakes; if air supply is interrupted, pressure release causes instantaneous, automatic braking

Heat-treated planetary gearing system provides high-torque capability by splitting the torque path, thereby dividing and balancing the load over more teeth, assuring longer life and reduced maintenance

A small amount of exhaust air flows over chain and drive wheel to help lubricate chain from spent in-line lubrication of motor

Slack chain is guided into drive wheels by a specially designed opening that prevents dangerous cross-linking

Upper and lower limit stops prevent dangerous over-travel of the hook in either direction, reducing possible damage to hoist or load

Fabric or metal container keeps slack chain out of the way

Standard link load chain is zinc-plated steel; stainless steel chain available for 0.25-ton through 1-ton spark-resistant models

Two-piece, single-line hook block entraps chain links and hook bearing without using small load-bearing pins or fasteners

All bearings are either ball- or roller-type to minimize friction

An internal muffler reduces sound levels to 85 dBA; woven to prevent corrosion and clogging

Inlet swivel and strainer are combined for easy hookup from any direction — swivel reduces hose fatigue, especially on hook-mounted units; strainer nipple provides extra assurance of clean air for maximum wear protection

Precision throttle valves for smooth operation and metering of air; valves are poppet-type for ease of maintenance

High-strength aluminum housing is strong yet lightweight for maximum portability and weather resistance

Control adjustment screws provide sensitivity and maximum speed control for pendent models

100 percent duty-cycle multi-vane motor with high torque, low maintenance design, and air porting under vanes for smooth operation, positive starting, and long life

Pilot pendent control provides a variable pressure signal to the valve chest, where flow to hoist is metered accordingly; air does not travel through pendent, thus pendent length does not affect performance; control hoses are small, flexible, and easily converted to different lengths

One-piece, cast-aluminum guarded pendent handle for maximum durability; guards on either side of levers are cast-in for protection against accidental operation; all functional parts are corrosion- and spark-resistant

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MLK Series and HLK Series

0.25 to 6 metric ton lifting capacities

Features

MLK Series

The Ingersoll Rand MLK family of hoists is suitable for A5 / H5 severe-duty use in the 0.25 to 1 metric ton range. The MLK Series is designed to be used as a high-speed production hoist; the MLKS* is better suited for slow-speed spotting.

HLK Series

The HLK Series incorporates a larger chain wheel to accommodate 3/8″ diameter chain and a lower gear ratio to handle increased load capacities. HLK Series hoist capacities range from 1 to 6 metric tons and are severe-duty rated. Refer to the trolley section on page 61 for plain, geared, and motorized trolleys.

Spark-resistant features

MLKR and HLKR spark-resistant hoists have been designed to give maximum protection in explosive and other hazardous environments.

Components for spark-resistance include:

- Bronze hooks
- Bronze trolley wheels
- Stainless-steel (one part reeving) or aluminum (two parts reeving) lower hook blocks
- Aluminum stop ring (1/4-ton models)
- Stainless-steel load chain
- Stainless-steel pendent levers and bronze valve caps

The load capacity and speeds of MLKR and HLKR Series units are reduced. A restricted motor is used to accomplish this, as stainless-steel chain is not hardened and strength is less than standard alloy chain.

MLK Series

HLK Series

MLK and HLK Series

0.25 to 6 metric ton lifting capacities

MLK and HLK Specifications (performance at 90 psi, 6.3 bar)

Model	Capacity lb	Capacity metric tons	# Falls	Hook Mount Headroom in	Hook Mount Headroom mm	Trolley Mount Headroom in	Trolley Mount Headroom mm	Lifting Speed Rated Load ft/min	Lifting Speed Rated Load m/min	Lifting Speed No Load ft/min	Lifting Speed No Load m/min	Lowering Speed Rated Load ft/min	Lowering Speed Rated Load m/min	Lowering Speed No Load ft/min	Lowering Speed No Load m/min	Chain Size	Chain Weight (per foot of lift) lb	Chain Weight (per foot of lift) kg	Net Weight w/10 ft of Lift lb	Net Weight w/10 ft of Lift kg
ML250K	550	0.25	1	18	457.2	18	457.2	101	30.8	171	52.1	117	35.7	99	30.2	6.4 x 19.5	0.6	0.3	48	21.8
ML250KS	550	0.25	1	18	457.2	18	457.2	40	12.2	71	21.6	90	27.4	53	16.2	6.4 x 19.5	0.6	0.3	48	21.8
ML250KR	550	0.25	1	18	457.2	18	457.2	26	7.9	42	12.8	38	11.6	30	9.1	6.4 x 19.5	0.6	0.3	48	21.8
ML500K	1,100	0.50	1	18	457.2	18	457.2	55	16.8	106	32.3	97	29.6	59	18	6.4 x 19.5	0.6	0.3	48	21.8
ML500KS	1,100	0.50	1	18	457.2	18	457.2	22	6.7	44	13.4	66	20.1	32	9.8	6.4 x 19.5	0.6	0.3	48	21.8
ML500KR	1,100	0.50	2	18	457.2	18	457.2	13	4	21	6.4	20	6.1	15	4.6	6.4 x 19.5	1.1	0.5	61	27.7
ML1000K	2,200	1	2	18	457.2	18	457.2	28	8.5	53	16.2	49	14.9	30	9.1	6.4 x 19.5	1.1	0.5	61	27.7
ML1000KS	2,200	1	2	18	457.2	18	457.2	11	3.4	22	6.7	33	10.1	16	4.9	6.4 x 19.5	1.1	0.5	61	27.7
HL1000K	2,200	1	1	18.5	469.9	18.1	459.7	26	7.9	40	12.2	37	11.3	26	7.9	9.5 x 25.7	1.3	0.6	84	38.1
HL1000KR	2,200	1	1	18.5	469.9	18.1	459.7	26	7.9	40	12.2	37	11.3	26	7.9	9.5 x 25.7	1.3	0.6	84	38.1
HL1500K	3,300	1.50	1	18.8	477.5	18.9	480.1	16	4.9	28	8.5	26	7.9	16	4.9	9.5 x 25.7	1.3	0.6	84	38.1
HL2000K	4,400	2	2	23	584.2	21.6	548.6	13	4	20	6.1	18	5.5	13	4	9.5 x 25.7	2.6	1.2	125	56.7
HL3000K	6,600	3	2	25	635	22.6	574	8	2.4	14	4.3	13	4	8	2.4	9.5 x 25.7	2.6	1.2	125	56.7
HL4500K	9,900	4.50	3	30.9	784.9	28	711.2	4.6	1.4	10.5	3.2	10	3.1	6.6	2	9.5 x 25.7	3.9	1.8	193	87.5
HL6000K	13,200	6	4	36.2	919.5	32.2	817.9	3.5	1.1	8.4	2.6	7.6	2.3	4.8	1.5	9.5 x 25.7	5.2	2.4	248	112.5

Working pressure from 5 to 7 bar (70 to 100 psi). Air Consumption @ rated load - ML250KS, ML250KR, ML500KS,ML500KR, ML1000KS = 1.27m³ (45 cfm) all other models = 1.98m³ (70 cfm). Air inlet 1/2" NPT. Sound level 85 dBA.

Trolley Mount Specifications

Model	Trolley type	Capacity metric tons	Minimum Headroom in	Minimum Headroom mm	Trolley Speed at Rated Load ft/min	Trolley Speed at Rated Load m/min	Air Consumption @ Rated Load ft³/min	Air Consumption @ Rated Load m³/min	Trolley Flange Adjustment in	Trolley Flange Adjustment mm	Minimum Curve Radius ft	Minimum Curve Radius m	Air Inlet	Net Weight w/10 ft of Lift lb	Net Weight w/10 ft of Lift kg
ML250K, KS, KR	Plain	0.25	18	457	-	-	-	-	2.66-12	68-305	3.5	1.1	-	68	31
	Geared	0.25	18	457	-	-	-	-	2.66-12	68-305	3.5	1.1	-	71	32
	Motor	0.25	18	457	95	29	35	1	2.66-12	68-305	3.5	1.1	1/4	78	35
ML500K, KS, KR	Plain	0.50	18	457	-	-	-	-	2.66-12	68-305	3.5	1.1	-	68	31
	Geared	0.50	18	457	-	-	-	-	2.66-12	68-305	3.5	1.1	-	71	32
	Motor	0.50	18	457	95	29	35	1	2.66-12	68-305	3.5	1.1	1/4	78	35
ML1000K, KS	Plain	1	17	432	-	-	-	-	2.66-12	68-305	3.5	1.1	-	81	37
	Geared	1	17	432	-	-	-	-	2.66-12	68-305	3.5	1.1	-	84	38
	Motor	1	17	432	93	28	35	1	2.66-12	68-305	3.5	1.1	1/4	91	41
HL1000K, KR	Plain	1	18	457	-	-	-	-	3.25-12	83-304	3.5	1.1	-	106	48
	Geared	1	18	457	-	-	-	-	3.25-12	83-304	3.5	1.1	-	109	50
	Motor	1	18	457	93	28	35	1	3.25-12	83-304	3.5	1.1	1/4	116	53
HL1500K	Plain	1.50	18	457	-	-	-	-	3.25-12	83-304	3.5	1.1	-	106	48
	Geared	1.50	18	457	-	-	-	-	3.25-12	83-304	3.5	1.1	-	109	50
	Motor	1.50	18	457	84	25	35	1	3.25-12	83-304	3.5	1.1	1/4	116	53
HL2000K	Plain	2	22	559	-	-	-	-	3.25-12	83-304	3.5	1.1	-	203	92
	Geared	2	22	559	-	-	-	-	3.25-12	83-304	3.5	1.1	-	206	94
	Motor	2	22	559	80	24	35	1	3.25-12	83-304	3.5	1.1	1/4	213	97
HL3000K	Plain	3	23	584	-	-	-	-	3.25-12	83-304	3.5	1.1	-	203	92
	Geared	3	23	584	-	-	-	-	3.25-12	83-304	3.5	1.1	-	206	94
	Motor	3	23	584	71	22	35	1	3.25-12	83-304	3.5	1.1	1/4	213	97
HL4500K	Plain	4.50	27	686	-	-	-	-	4.25-7.25	108-184	5	1.5	-	392	178
	Geared	4.50	27	686	-	-	-	-	4.25-7.25	108-184	5	1.5	-	395	180
	Motor	4.50	27	686	60	18	35	1	4.25-7.25	108-184	5	1.5	1/4	402	182
HL6000K	Plain	6	29	737	-	-	-	-	4.25-7.25	108-184	5	1.5	-	442	201
	Geared	6	29	737	-	-	-	-	4.25-7.25	108-184	5	1.5	-	445	202
	Motor	6	29	737	45	14	35	1	4.25-7.25	108-184	5	1.5	1/4	452	205

Working pressure from 5 to 7 bar (70 to 100 psi).

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Hoist accessories for MLK and HLK Series

Chain Container

Series	Chain Capacity* ft	Metal Container Part Number	Fabric Container Part Number
MLK	13	ML10-K749	N/A
MLK	17	N/A	ML50K-K749-17
MLK	26	ML20-K749A	N/A
MLK	40	ML20-K749-20	N/A
MLK	45	N/A	ML50K-K749-45
MLK	80	MLK-K750-80	N/A
HLK	20	HLK-K750-20	HLK-K749-20
HLK	40	HLK-K750-40	HLK-K749-40
HLK	85	HLK-K750-80	N/A

**Chain containers are for one-part single lines. For two-part lines, divide capacity by two; for three-part lines by three, etc.*

Metal Container

Fabric Container

Hooks

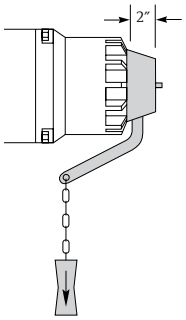
Series	Capacity metric tons	Bullard-Burnham Top Or Bottom Part Number	Bronze Latch Type* Top Or Bottom Part Number
MLK	0.25	CE110-KBB377	MLK-KRS304
MLK	0.50	CE110-KBB377	ML500KR-K377
MLK	1	CE120-KBB377	N/A
HLK	1	HLK-ABB377	HLK-SR377
HLK	1.50	HLK-ABB377	HL1500K-SR377
HLK	2	HL2000K-ABB377	HL2000K-SR377
HLK	3	HL3000K-ABB377	HL3000K-SR377
HLK	4.50	HL4500K-ABB377	HL4500K-SR377
HLK	6	HL6000K-ABB377	HL6000K-SR377

Bullard-Burnham hook

Bullard-Burnham hooks are not available for spark-resistant models.
**Not pictured.*

Manual Brake Release Kit (M)

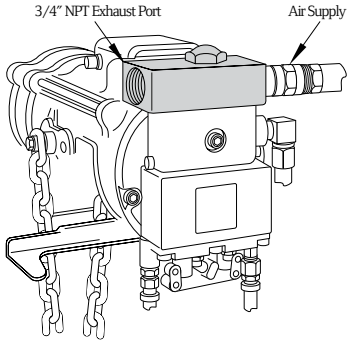
For all MLK Series and HLK Series hoists. Part number MLK-K390.



Piped-away Exhaust Kits for MLK Series and HLK Series Hoists

Part Number MHLK-KEXH

This two-piece kit replaces swivel air inlet on hoist. Noise is reduced with addition of piped-away exhaust hose. Use 1″ diameter exhaust hose to minimize reduction in lift speed.



Hose Trolleys

Part Number	Flange Width in
7703	2.33 to 5
D10-8888	5 to 8.75

Maximum hanging weight per unit is 35 lb; each can be adjusted to fit 1/2″ to 1-1/4″ O.D. hoses.

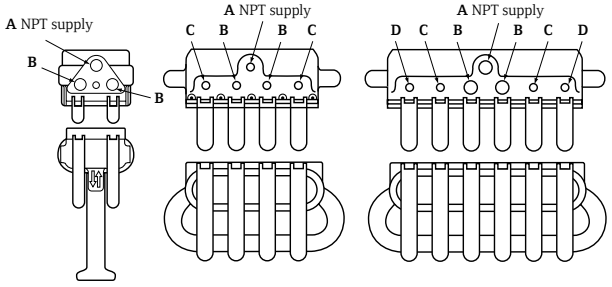
7703

Hoist accessories for MLK and HLK Series

Pendent Handles

Type / Part Number	NPT Air Inlet A in	B in	C in	D in
SINGLE-MOTOR				
MLK-A269C	1/8	1/8	N/A	N/A
EZG-A269	3/8	1/8	N/A	N/A
MR-269C	3/8	3/8	N/A	N/A
C6H20A-A169B	1/2	1/2	N/A	N/A
TWO-MOTOR				
PILOT-A122B	3/8	1/8	1/8	N/A
MLK-K122B	3/8	1/8	3/8	N/A
MR-A122C	3/8	3/8	3/8	N/A
C6H20A-A122B	1/2	1/2	3/8	N/A
THREE-MOTOR				
PILOT-A132B	3/8	1/8	1/8	1/8
MLK-K132B	3/8	1/8	3/8	3/8
MR-A132C	3/8	3/8	3/8	3/8
C6H20A-A132B	1/2	1/2	3/8	3/8

When a pendent-controlled hoist is purchased with a pendent-controlled power trolley or tractor, the required two- or three-motor pendent is furnished at no extra cost in place of an individual pendent, when specified.



Single motor **Two motor** **Three motor**

Link Load Chain

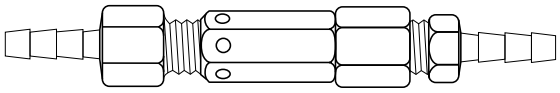
Series	Type	Bulk Part Number	Chain Size Diameter / Pitch mm
MLK	Zinc-plated*	M745Z	6.4 x 19.5
MLK	Stainless steel**	M745S	6.4 x 19.5
HLK	Zinc-plated*	H745Z	9.5 x 25.7
HLK	Stainless steel**	H745S	9.5 x 25.7

**Standard.*
***For spark-resistant models only.*

Quick Exhaust Valves

Part Number	For Use With	Control Type	Style	Pendent Length ft	Quantity Recommended*
20417	All MLK Series	Pilot	Push-on	21 – 50	2
20417	HLK Series hoists		1/4″ NPT hose	51 – 75	4
MR-939-6	TIR Series trolleys	Full-flow	Push-on	21 – 50	2
MR-939-6	MTK Series tractors		3/8″ NPT hose	51 – 75	4

**The first pair of full-flow valves will be installed between 5′ and 7′ from the pendent handle. Any additional valves will equally divide the remaining hose length.*



Part number 20417. Part number MR-939-6 not shown.

Pull Chain Conversion

Part Number	Description
MLK-K415A	Wooden directional and crossbar handles only
CA110-B240	Standard chain; specify total length of both chains
DO2-1413	Aluminum spark-resistant chain; specify total length of both chains

Pendent Conversion Kit

Part Number	Description
MLK-AL269C	MLK Series, HLK Series, and HLKR Series hoists; specify length

Drawbar Hitch Kits for Use with MTK Series Tractors

Series	Part Number
HL1000K, HL1500K, HL2000K and HL3000K with rigid trolley	No kit required; standard drawbar kit included with MTK Series tractors fits these hoists
MLK with rigid trolley	MR-K1

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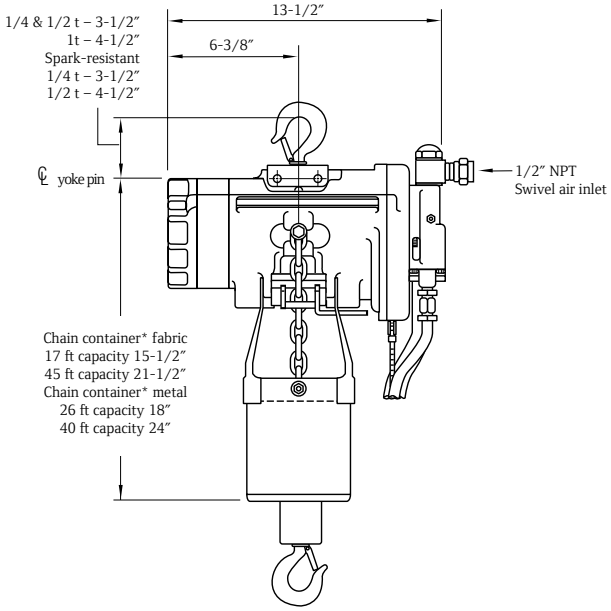
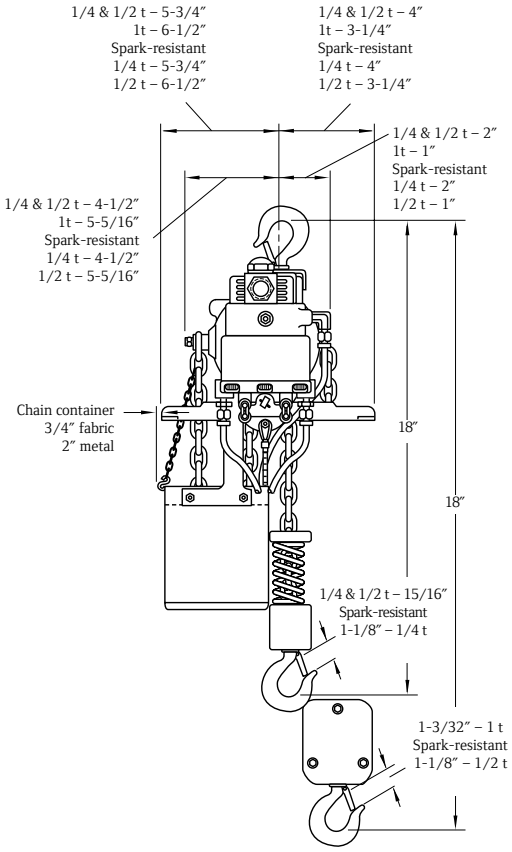
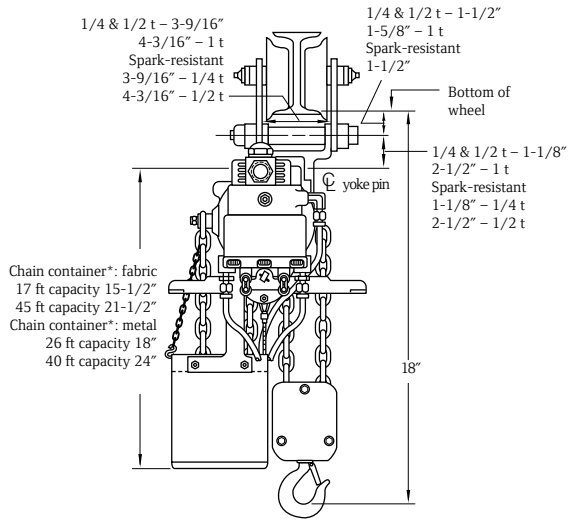
MLK, MLKS and MLKR Series

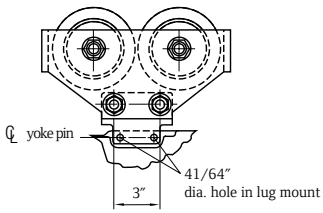
0.25 to 1 metric ton lifting capacities

Dimensions









**Chain container capacities are for one-part single lines. For two-part lines, divide capacity by two.*

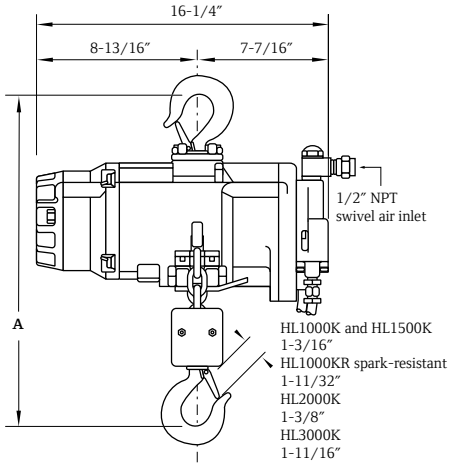
HLK and HLKR Series

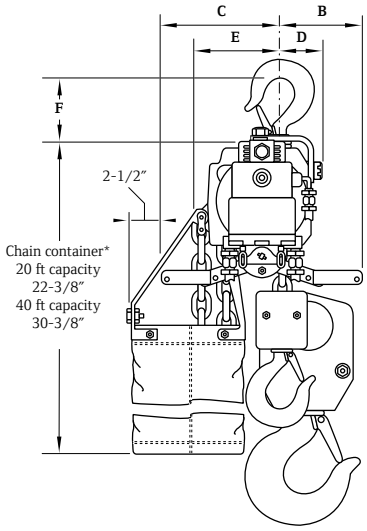
1 to 3 metric ton lifting capacities

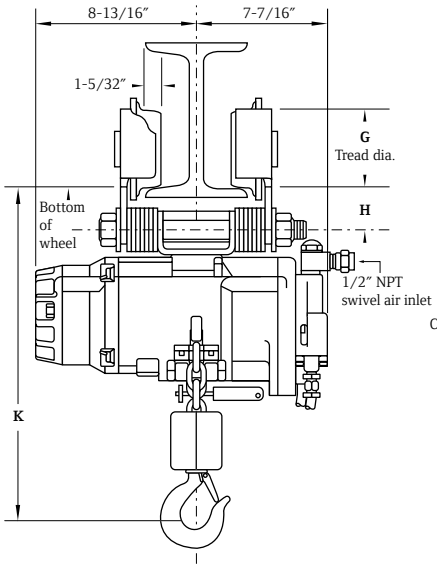
Dimensions

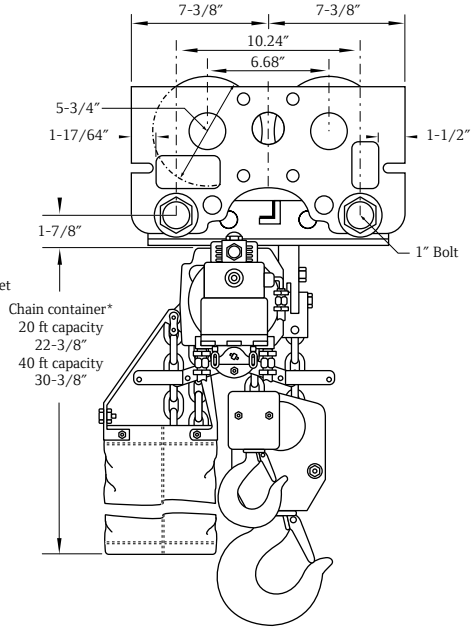
Series	A in	B in	C in	D Min in	E in	F in	G in	H in	K in
HL1000K/R	18.5	4.8	7.3	2.4	5.4	3.5	4.5	2.4	18.1
HL1500K	18.5	4.8	7.3	2.4	5.4	3.5	4.5	2.4	18.9
HL2000K	23	3.6	8.4	2.4	6.6	5.8	4.5	2.4	21.6
HL3000K	23	3.6	8.4	2.4	6.6	6.3	4.5	2.4	22.6

**Chain container capacities are for one-part single lines (1- and 1.50-ton). For two-part lines, divide capacity by two.*









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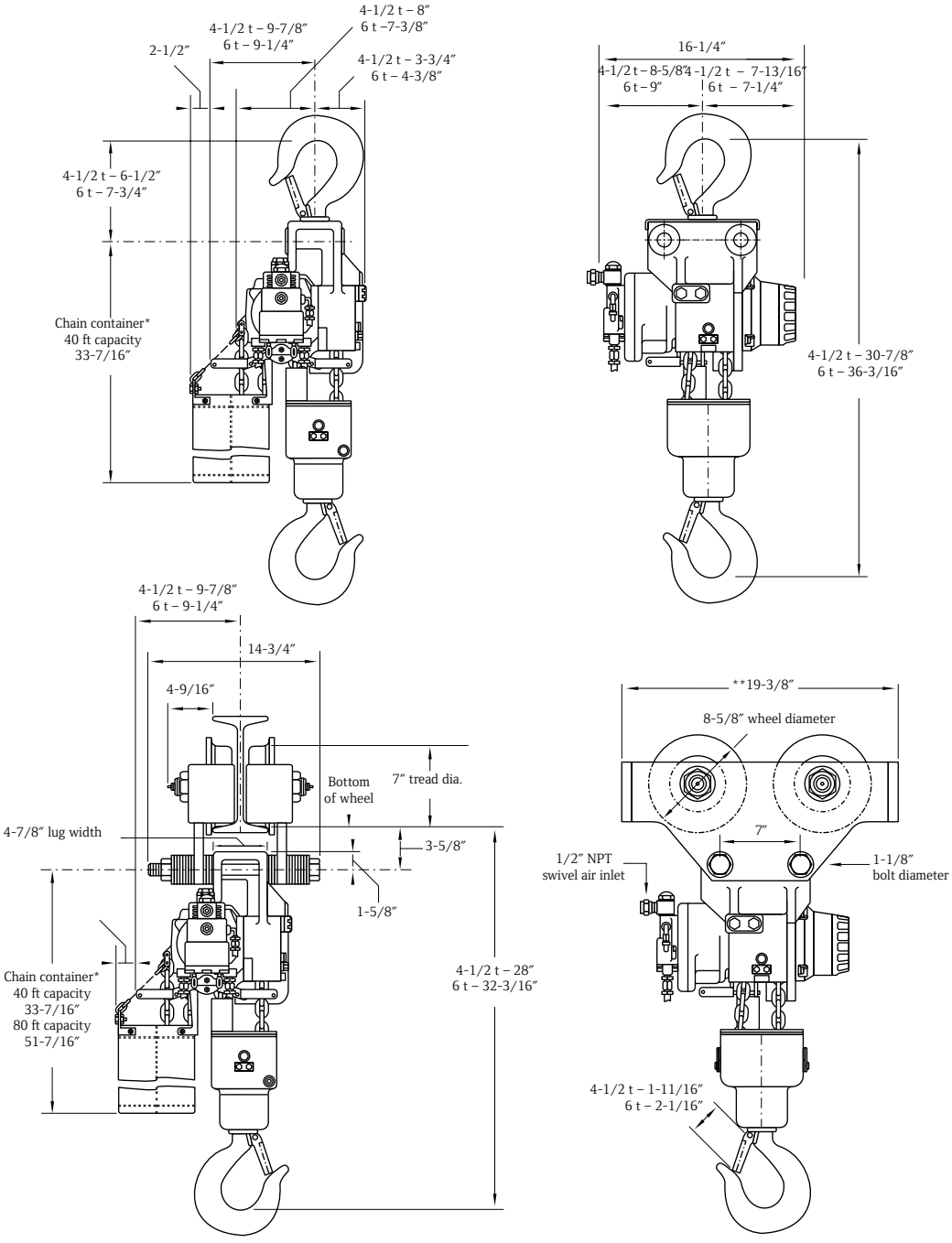
HLK Series

4.50 to 6 metric ton lifting capacities

Dimensions



**Chain container capacities are for single-line. For three-part 4.50-ton units, divide capacity by three. For four-part 6-ton units, divide capacity by four.*
***For additional geared and motorized trolley dimensions refer to dimensions in the TIR Series trolley section.*

MLK and HLK Series

0.25 to 6 metric ton lifting capacities

HOW TO ORDER

Specify hoist by complete model number code as illustrated below. If a trolley is required, specify beam size, type and flange width. Specify accessories separately by part number. Note that 0 is a number, not a letter, in model part numbers.

Example: ML500KR-2R10R6U

M	L	500K	R	-	2	R	10	-	R	6	U

Series
M = Series
H = Series

Link chain type

Capacity

250K	=	250 kg	= 550 lb
500K	=	500 kg	= 1,100 lb
1000K	=	1,000 kg	= 2,200 lb
1500K	=	1,500 kg	= 3,300 lb
2000K	=	2,000 kg	= 4,400 lb
3000K	=	3,000 kg	= 6,600 lb
4500K	=	4,500 kg	= 10,000 lb
6000K	=	6,000 kg	= 13,200 lb

Spark-resistant

R	=	Add for spark-resistant (0.25, 0.50 t MLKR and 1 t HLKR)
S	=	Add for slow speed spotting (0.25, 0.50, 1 t MLKS)

Control

0	=	No controls
1	=	Pull chain
2	=	Pendent
3	=	2 Motor pendent(1)
4	=	3 Motor pendent(1)

Suspension

A	=	Fixed lug
B	=	Bullard hook (self closing)
R	=	Bronze snap hook
C	=	Swivel top hook
CP	=	Copper-plated top hook
DA(3)	=	Plain rigid trolley (universal wheels "A" flange)
DD(3)	=	Plain rigid trolley (universal wheels "D" flange)
FXXA(2)(3)	=	Hand geared trolley (universal wheels "A" flange)
FXXD(2)(3)	=	Hand geared trolley (universal wheels "D" flange)
HA(3)	=	Vane mtr. powered trolley (universal wheels "A" flange)
HD(3)	=	Vane mtr. powered trolley (universal wheels "D" flange)

Lift (ft)
10 = 10 ft (standard)
XX = Specify length

Lower hook

C	=	Steel snap hook
CP	=	Copper-plated lower hook
R	=	Bronze snap hook
B	=	Bullard self-closing hook

Length of pull/chain or pendent control hose (ft)
6 = 10 ft (standard)
XX = Specify length

Options

CR	=	Copper-plated bottom block
M	=	Manual brake release kit
P	=	Piped away exhaust
S	=	Steel chain container
U	=	Fabric chain container

NOTE:

(1) Required with "H" suspension.

(2) XX = specify hand chain length if other than standard "08" (8 ft) required.

(3) For solid bronze wheels on non-spark resistant models, add "R" to the end of the trolley suspension code. (See pages 20 and 21 for price.)

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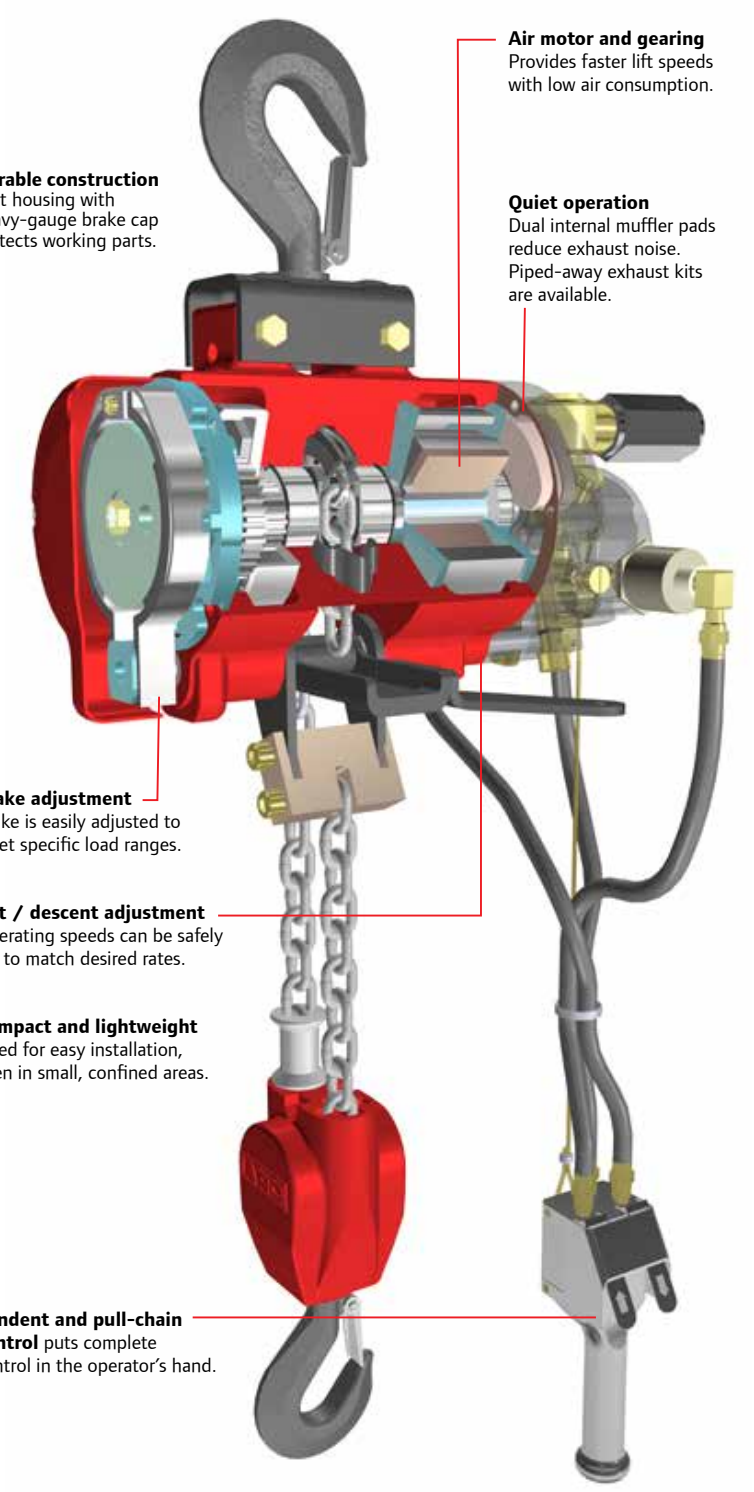
7700 Series and 7790 Series link chain hoists



Quality and performance

Ingersoll Rand hoists can be equipped with a variety of optional features that can be matched to the specifications of almost any job. Their long operating life, cost-effective service and maintenance, and dependable performance are supported by a host of standard features.

Rotary-vane air motors

These powerful, self-cooling rotary motors keep Ingersoll Rand hoists at peak performance in high-temperature situations. And, because they are air-powered, they further reduce the chance of causing sparks in a volatile environment.

Complete operator control

A pressure pendent or pull chain puts complete control of the hoist in the operator's hand. These hoists respond immediately to an operator's "inching" commands.

External brake adjustment

Easily customizes the sensitivity of the hoist to the load range for any application. This results in ease of operation with better spotting, feathering, and overall control.

Fast, efficient load handling

Rotary-vane air motors and efficient gearing combine to deliver one of the fastest lift speeds available. Gear ratios have been calculated to yield the lowest possible air consumption.

Job-matched performance

Numerous options allow Ingersoll Rand hoists to be matched to specific application requirements, including link or roller load chains, hook types, manual and power trolleys, pull chain or pendent control, standard and spark-resistant, and 300-lb to 2-ton capacities.

Clean and quiet

For applications and environments that require clean air, exhaust can be piped away. A two-stage filtration system removes foreign matter from air supplies so motors can operate at peak performance with longer operating lives.

Easy installation

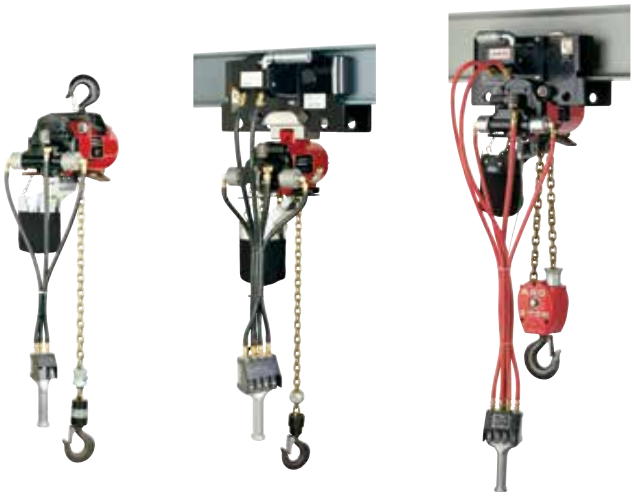
Lightweight and convenient, Ingersoll Rand hoists are easier to install than any other model. Even in small, confined areas, they can be installed and removed with minimal effort.

7700 Series and 7790 Series link chain hoists

0.125 to 2 metric ton lifting capacities

Continuous heavy-duty applications

The 7700 and 7790 Series has been designed specifically for heavy-duty industrial applications where loads vary between 275 and 4,400 lb. Simple, rugged, and reliable, these hoists are constructed with few moving parts for easy repair and less downtime. These hoists come complete with 10 feet of standard lift and 6 feet of either pendent control or pull-chain control.



Features

- Exceptional slow-speed control provides superior "spotting" characteristics
- Powerful, self-cooling rotary motors keep hoists at peak performance in high temperatures
- Brake control easily adjusts to meet specific load ranges
- Motor and gearing provide faster lift speeds with low air consumption

7700 Series and 7790 Series Specifications

	Capacity			Hook Mount Headroom		Trolley Mount Headroom		Lifting Speed				Lowering Speed					Chain Weight (per foot of lift)		Net Weight w/10 ft of Lift	
		metric						Rated Load		No Load		Rated Load		No Load		Chain				
Model	lb	tons	# Falls	in	mm	in	mm	ft/min	m/min	ft/min	m/min	ft/min	m/min	ft/min	m/min	Size	lb	kg	lb	kg
7770E	275	0.125	1	17	431.8	16.9	429.3	110	33.5	192	58.5	275	83.8	159	48.5	0.25 x 0.75	0.6	0.3	41	18.6
7718E	550	0.25	1	17	431.8	16.9	429.3	82	25	184	56.1	224	68.3	153	46.6	0.25 x 0.75	0.6	0.3	41	18.6
7756E	1,100	0.50	1	17	431.8	16.9	429.3	41	12.5	72	22	112	34.1	60	18.3	0.25 x 0.75	0.6	0.3	41	18.6
7776E	2,200	1	2	21.7	551.2	20.5	520.7	21	6.4	36	11	56	17.1	30	9.1	0.25 x 0.75	1.7	0.5	53	24
7790A	2,200	1	1	18.9	480.1	15	381	26	7.9	37	11.3	44	13.4	31	9.5	0.312 x 0.858	0.9	0.4	62	28.1
7792A	4,400	2	2	22.4	569	18	457.2	12	3.7	20	6.1	24	7.3	17	5.2	0.312 x 0.858	1.8	0.8	81	36.7

Working pressure from 5 to 7 bar (70 to 100 psi). Air consumption @ rated load - all models 1.98 m (70 cfm). Air inlet 1/2" NPT. Sound level 85 dBA.

Trolley Mount Specifications

			Minimum Headroom		Trolley Speed at Rated Load		Air Consumption @ Rated Load		Trolley Flange Adjustment		Minimum Curve Radius			Net Weight w/10 ft of Lift	
Model	Trolley type	Capacity metric tons	in	mm	ft/min	m/min	ft^3/min	m^3/min	in	mm	ft	m	Air Inlet	lb	kg
7770E	Plain	0.125	17	432	-	-	-	-	2.66-12	68-305	3.5	1.1	-	88	40
	Geared	0.125	17	432	-	-	-	-	2.66-12	68-305	3.5	1.1	-	91	41
	Motor	0.125	17	432	96	30	35	1	2.66-12	68-305	3.5	1.1	1/4	94	13
7718E	Plain	0.25	17	432	-	-	-	-	2.66-12	68-305	3.5	1.1	-	88	40
	Geared	0.25	17	432	-	-	-	-	2.66-12	68-305	3.5	1.1	-	91	41
	Motor	0.25	17	432	95	29	35	1	2.66-12	68-305	3.5	1.1	1/4	94	43
7756E	Plain	0.50	17	432	-	-	-	-	2.66-12	68-305	3.5	1.1	-	88	40
	Geared	0.50	17	432	-	-	-	-	2.66-12	68-305	3.5	1.1	-	91	41
	Motor	0.50	17	432	95	29	35	1	2.66-12	68-305	3.5	1.1	1/4	94	43
7776E	Plain	1	22	559	-	-	-	-	3.25-12	82-305	3.5	1.1	-	100	45
	Geared	1	22	559	-	-	-	-	3.25-12	82-305	3.5	1.1	-	103	47
	Motor	1	22	559	93	28	35	1	3.25-12	82-305	3.5	1.1	1/4	106	48
7790A	Plain	1	15	381	-	-	-	-	3.00-12	76-305	3.5	1.1	-	104	47
	Geared	1	15	381	-	-	-	-	3.00-12	76-305	3.5	1.1	-	107	49
	Motor	1	15	381	93	28	35	1	3.00-12	76-305	3.5	1.1	1/4	110	50
7792A	Plain	2	20	508	-	-	-	-	3.00-12	76-305	3.5	1.1	-	123	56
	Geared	2	20	508	-	-	-	-	3.00-12	76-305	3.5	1.1	-	126	57
	Motor	2	20	508	80	24	35	1	3.00-12	76-305	3.5	1.1	1/4	129	59

Working pressure from 5 to 7 bar (70 to 100 psi).

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7700 Series and 7790 Series link chain hoists

Spark-resistant models

Continuous heavy-duty applications

7700 Series — 500 to 1,500 lb capacities

7790 Series — 1,500 to 3,000 lb capacities

7700 Series and 7790 Series spark-resistant hoists are designed for Division 1 applications where, under normal operating conditions, the atmosphere contains hazardous concentrations of flammable gases, dust, or other materials.

Specifically engineered for continuous heavy-duty industrial applications — between 500 and 3,000 lb — Ingersoll Rand 7700 Series and 7790 Series spark-resistant hoists are available with bronze top-hook or trolley adapter suspension. These hoists come complete with 10 feet of standard lift and 6 feet of either pendent control or pull-chain control.

Features

- Stainless steel load chain and solid bronze hooks prevent accidental sparking
- Pendent control handles, when ordered, are covered with an industrial-grade vinyl grip; pull-chain controls come standard with zinc-plated pull chain
- Hoist capacities are reduced and speed adjustments are locked into place to maximize chain life
- Trolley models are supplied with bronze wheels

Division 1 and 2 applications

The following definitions may be used as a guide. The actual division distinction for each application must be determined by your local inspecting authority.

Division 1 (spark-resistant air hoists are required)

Atmospheres containing hazardous concentrations of flammable gases, dusts, or fibers; continuously, frequently, or periodically; under normal operating conditions.

Division 2 (standard air hoists are required)

Normally non-hazardous atmospheres in which a hazardous concentration of flammable gases, dusts, or fibers occurs when a container or handling system fails or the ventilating system that normally keeps the concentration non-hazardous fails.

7700 Series and 7790 Series Spark-resistant Specifications

	Capacity			Hook Mount Headroom		Trolley Mount Headroom		Lifting Speed				Lowering Speed					Chain Weight (per foot of lift)		Net Weight w/10 ft of Lift	
		metric						Rated Load		No Load		Rated Load		No Load		Chain				
Model	lb	tons	# Falls	in	mm	in	mm	ft/min	m/min	ft/min	m/min	ft/min	m/min	ft/min	m/min	Size	lb	kg	lb	kg
7712EL	550	0.25	1	17	431.8	17.1	434.3	50	15.2	80	24.4	70	21.3	53	16.2	0.25 x 0.75	0.6	0.3	41	18.6
7714EL	1,500	0.68	2	22.7	576.6	21.3	541	16	4.9	26	7.6	16	4.9	12	3.7	0.25 x 0.75	1.2	0.6	48	21.8
7796AL	1,500	0.68	1	18.9	480.1	15	381	16	4.9	26	7.6	16	4.9	12	3.7	0.312 x 0.858	0.9	0.4	62	28.1
7798AL	2,400	1.1	2	22.4	569	18	457.2	12	3.7	19	5.8	12	3.7	9	2.7	0.312 x 0.858	1.9	0.9	81	36.7
7799AL	3,000	1.36	2	22.4	569	18	457.2	7	2.1	11	3.4	7	2.1	5	1.5	0.312 x 0.858	1.9	0.9	81	36.7

Working pressure from 5 to 7 bar (70 to 100 psi). Air consumption @ rated load - all models 1.98 m (70 cfm). Air inlet 1/2" NPT. Sound level 85 dBA.

Trolley Mount Specifications

			Minimum Headroom		Trolley Speed at Rated Load		Air Consumption @ Rated Load		Trolley Flange Adjustment		Minimum Curve Radius			Net Weight w/10 ft of Lift	
Model	Trolley type	Capacity metric tons	in	mm	ft/min	m/min	ft^3/min	m^3/min	in	mm	ft	m	Air Inlet	lb	kg
7712-EL	Plain	0.25	17	432	-	-	-	-	2.66-12	68-305	3.5	1.1	-	88	40
	Geared	0.25	17	432	-	-	-	-	2.66-12	68-305	3.5	1.1	-	91	41
	Motor	0.25	17	432	96	30	35	1	2.66-12	68-305	3.5	1.1	1/4	94	43
7714EL	Plain	0.68	22	559	-	-	-	-	3.25-12	82-305	3.5	1.1	-	95	43
	Geared	0.68	22	559	-	-	-	-	3.25-12	82-305	3.5	1.1	-	98	45
	Motor	0.68	22	559	93	28	35	1	3.25-12	82-305	3.5	1.1	1/4	101	46
7796AL	Plain	0.68	15	381	-	-	-	-	3.00-12	76-305	3.5	1.1	-	104	47
	Geared	0.68	15	381	-	-	-	-	3.00-12	76-305	3.5	1.1	-	107	49
	Motor	0.68	15	381	93	28	35	1	3.00-12	76-305	3.5	1.1	1/4	110	50
7798AL	Plain	1.1	20	508	-	-	-	-	3.00-12	76-305	3.5	1.1	-	123	56
	Geared	1.1	20	508	-	-	-	-	3.00-12	76-305	3.5	1.1	-	126	57
	Motor	1.1	20	508	93	28	35	1	3.00-12	76-305	3.5	1.1	1/4	129	59
7799AL	Plain	1.4	20	508	-	-	-	-	3.00-12	76-305	3.5	1.1	-	123	56
	Geared	1.4	20	508	-	-	-	-	3.00-12	76-305	3.5	1.1	-	126	57
	Motor	1.4	20	508	84	25	35	1	3.00-12	76-305	3.5	1.1	1/4	129	59

Working pressure from 5 to 7 bar (70 to 100 psi).

Hoist accessories for 7700 and 7790 Series

Load chain

Ingersoll Rand hoists are offered with several different load chains. Standard hoists come complete with steel load chains. Spark-resistant hoists come with stainless-steel link load chain.

Chain length 7700 Series (0.25-, 0.50-ton), 7790 Series (1-ton)
Length of lift desired + 1 foot = load chain length

Chain length 7700 Series (1-ton), 7790 Series (2-ton)
2 x length of lift desired + 2 feet = load chain length

Link chain

Hoist Used On	Capacity lb	Chain Part No.	Chain Size Dia./Pitch	Weight lb/ft	Feet in Package
ZINC PLATED LINK					
7700 Series	275, 550, 1,100, 2,200	37708	.25 / .75	.6	250
7790 Series	2,200 & 4,400	42988	.312 / .858	.9	250
STAINLESS STEEL LINK					
7700 Series	500, 1,500	39489	.25 / .75	.6	250
7790 Series	1,500, 2,400, 3,000	43095	.312 / .858	.9	250

Hose Carrier Trolley

Easily tracks along same beam that hoist is mounted on. Keeps air hose suspended and out of operator's way. Use one for each 8 feet of hose length.

Part No.	Max Hose O.D. in	Min/Max Beam Height (in)	Min/Max Beam Flange Width (in)
7703	11/4	3-10	2-3/8 - 5
D10-8888			5 - 8-3/4

7703

Restraining Cable

For use as an added safety precaution in hoist suspension. Cable inserts through hole in hoist housing and around I-beam or other structure capable of safely supporting hoist and hoist load weight. Order based upon hoist used.

Hoist Used On	Part No.	Cable Dia. in	Cable Length ft
7700 Series	43231	1/4	2
7790 Series	43059	5/16	3-1/2

43231

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Hoist accessories for 7700 and 7790 Series

Chain Baskets

Catches and stores load chain as load is lifted. Mounts directly to side of hoist. Order based upon load chain length and hoist being used. Load chain length on 1-ton 7700 Series hoists and 2-ton 7790 Series hoists is twice the lift distance.

Load Chain Max Lineal Feet	Link Chain (metal basket) 7700	7790	Link Chain (canvas basket[1]) 7700	7790
10	–	49800 – 10	–	43441 – 1
12	–	–	–	–
16	37653 – 16	–	–	–
20	–	49800 – 20	43554 – 1	43441 – 2
30	–	49800 – 30	–	–
32	37653 – 32	–	43554 – 2	–
40	–	49800 – 40	–	43554 – 3
56	37653 – 64	–	–	–
60	–	49800 – 60	–	–
64	–	–	43554 – 3	–
80	37653 – 80	49800 – 80	–	–
59	37653 –100	49800 – 100	–	–

(1) Canvas baskets are made of specially treated oil-resistant material.

Link Chain Metal Basket

Link Chain Canvas Basket

Exhausts

Piped exhaust[1]

Allows exhaust to be piped to a remote area. This is particularly desirable for applications in food processing, chemicals, and processes where atmospheric purity must be maintained.

How to order: specify as option in Ordering Guide.

20308-4 exhaust muffler

Threads into exhaust port to minimize sound level. Can be used on 7700 and 7790 Series hoists ordered with piped exhaust option.

For field conversion

All 7700 Series hoists may be converted to a piped-away exhaust by ordering 46098-1 Head Assembly.

All 7790 Series hoists (except power trolley models) may be converted to a piped-away exhaust by ordering 43029 Piped Exhaust Adapter.

(1) Hose not included. Exhaust port is 1/2″ NPTF.

Hoist Controls

To convert from pull chain to pendent control: Either nylon braid (standard) or steel braid control hose is available. Steel braid hose is recommended to resist heat or abrasion. Specify the model shown, inserting the pendent length in feet for the *. Maximum 20 feet.

To convert from pendent control to pull chain: Specify 40004-*, where the * is pull chain length desired. Also required are two 34026 valve caps; two Y325-116 O-rings; two 38966 springs and one Y227-3 pipe plug per hoist.

Hoist Used On	Model	Type of Control	Standard Length ft
All 7700E Series	46094-*	Pendent – nylon braid hose	6
All 7700E Series	46369-*	Pendent – steel braid hose	6
All 7790 Series	43106-*	Pendent – nylon braid hose	6
All 7790 Series	46364-*	Pendent – steel braid hose	6
All 7700 & 7790 Series	40004-*	Pull chain	5

Hoist accessories for 7700 and 7790 Series

Hooks

Ingersoll Rand offers three different hook configurations designed to meet the needs of any material handling application. All hooks must be ordered separately by specifying model required according to hoist and beam configurations.

Steel snap-hooks

Steel snap-hooks have a spring-loaded latch to prevent a lifting eye from popping out of the hook while the load is "grounded." This style of self-closing hooks is the most popular as they are easy and inexpensive to replace.

Bullard hooks

Ideal for rough, high-speed, repetitive applications, these hooks employ a swinging gate latch. Far superior in strength to snap-hooks, the gate latch locks into place to minimize any chance of the "end effector" or "below-the-hook" attachment leaving the hook.

Self-Closing latch hooks

Self-closing latch hooks have the benefits of both spring-loaded snap hooks, and Bullard hooks by combining a spring-loaded latch with the strength and durability of the heavier gage Bullard gate.

33381-1 | 43000 | 42799 | 35206 | 44109

43002 | 34921 | 35203 | 45707

Hoist Series	Capacity (lb)	Hooks For Link Chain: Upper Hook	Hook Opening (in)	Lower Hook	Hook Opening (in)	Hooks For Roller Chain: Upper Hook	Hook Opening (in)	Lower Hook	Hook Opening (in)
STEEL SNAP HOOKS									
7700 Series 0.125, 0.25 and 0.50 ton	275/550/1,100	34921	1-1/8	35014	1	34921	1-1/8	33381-1	1
7700 Series 0.25 ton spark res.	500	35113	1-1/8	46565	1	35113	1-1/8	34655-1	1
7700 Series 1 ton	2,200	34921	1-1/8	45707[1]	1-1/8	34921	1-1/8	45708[1]	1-1/8
7700 Series 0.50 ton spark res.	1,000	N/A	–	N/A	–	35113	1-1/8	45710[1]	1-1/8
7700 Series 0.75 ton spark res.	1,500	35113	1-1/8	45709[1]	1-1/8	N/A	–	N/A	–
7790 Series 1 ton	2,200	43002	1-1/8	43000	1-1/8	N/A	–	N/A	–
7790 Series 0.75 ton spark res.	1,500	43097	1-1/8	43110	1	N/A	–	N/A	–
7790 Series 2 ton	4,400	43049	1-1/4	43048[1]	1-1/4	N/A	–	N/A	–
7790 Series 1 ton spark res.	2,400	43096	1-1/4	43101	1-1/4	N/A	–	N/A	–
7790 Series 1.50 ton spark res.	3,000	43096	1-1/4	43101	1-1/4	N/A	–	N/A	–
BULLARD HOOKS									
7700 Series 0.25 and 0.50 ton	550/1,100	35203	1-3/16	35206	1-1/16	35203	1-3/16	35205	1-1/16
7700 Series 1 ton	2,200	35203	1-3/16	45934[1]	1-3/16	35203	1-3/16	45935[1]	1-3/16
7790 Series 1 ton	2,200	43458	1-3/16	43456	1-3/16	N/A	–	N/A	–
7790 Series 2 ton	4,400	43459	1-7/16	43460	1-7/16	N/A	–	N/A	–
SELF-CLOSING LATCH HOOKS									
7700 Series 0.125, 0.25 and 0.50 ton	275/550/1100	N/A	–	42799	1-1/2	N/A	–	N/A	–

(1) Includes Sheave Block

Air Hose

N12-12B

Vinyl Grip

47469

EZ Grip Ergo Handle

EZG-A269

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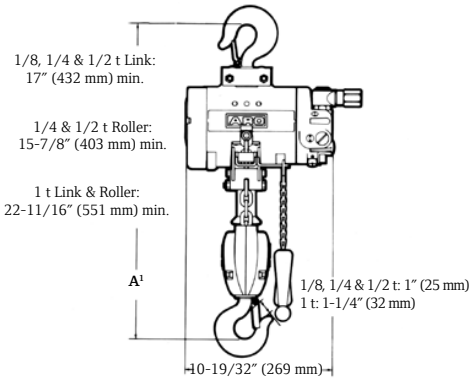
Dimensional drawings

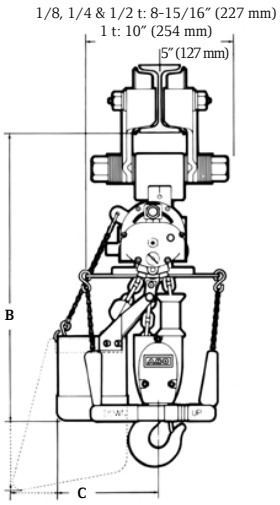
7700 Series Air Chain Hoists

Typical headroom dimensions (A) are indicated in dimensional drawings.

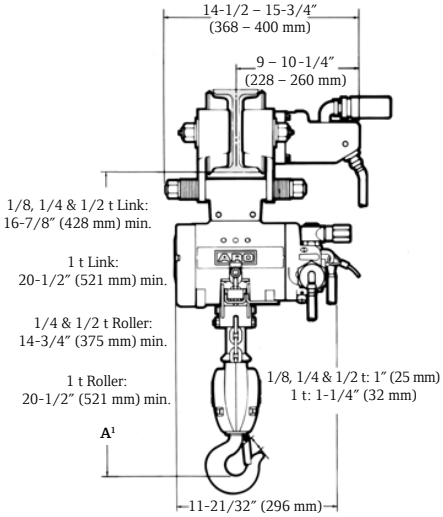
Hook Mounted

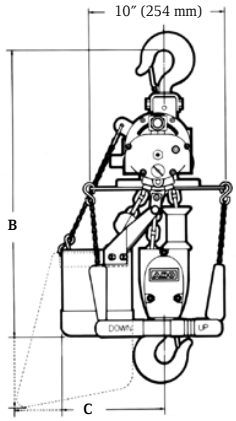


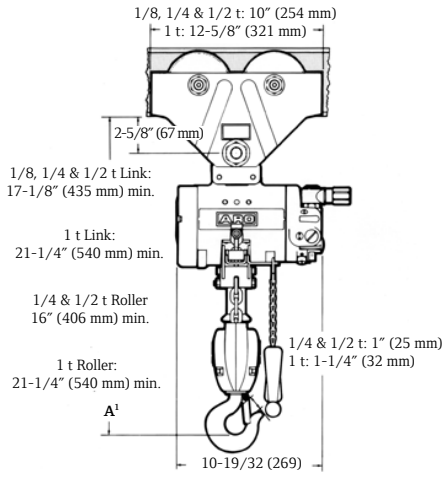
Trolley Mounted

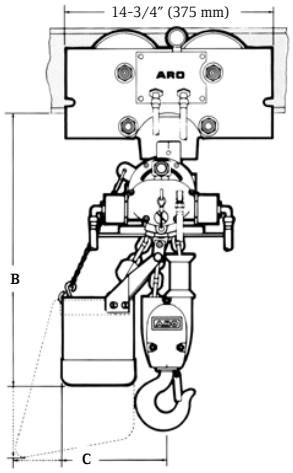


Motorized Trolley Mounted









Note:
(1) Dimension "A" for the 7700 Series 0.125-, 0.25- and 0.50-ton hoists increases 1 inch for each Bullard hook used.

Basket Capacity (ft)	Hook Mt (in) B	Hook Mt (in) C	Trolley Mt (in) B	Trolley Mt (in) C	Motorized Trly (in) B	Motorized Trly (in) C
LINK TYPE						
20	21	7.8	21.5	7.8	20.2	7.8
32	25.5	7.8	26	7.8	24.7	7.8
56	31.5	7.8	32	7.8	30.7	7.8

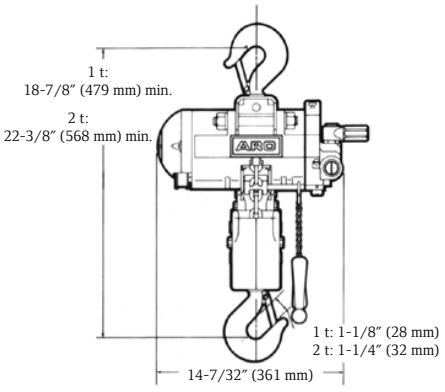
Basket Capacity (ft)	Hook Mt (in) B	Hook Mt (in) C	Trolley Mt (in) B	Trolley Mt (in) C	Motorized Trly (in) B	Motorized Trly (in) C
ROLLER TYPE						
10	25.4	11.2	25.9	11.2	24.9	11.2
16	29.3	14.4	29.8	14.4	28.7	14.4
40	39.9	20.6	40.4	20.6	39.4	20.6

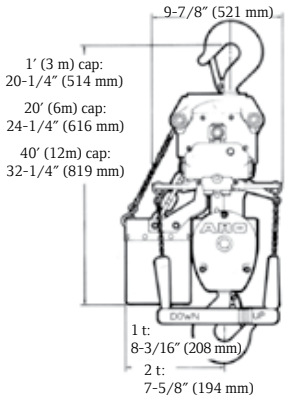
Dimensional drawings

7790 Series Air Chain Hoists

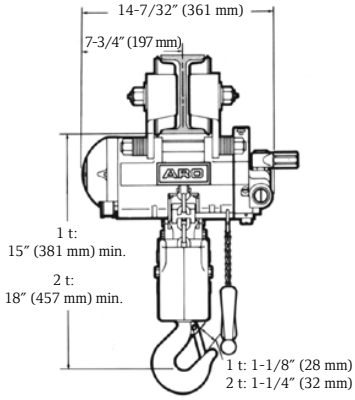
Typical headroom dimensions (A) are indicated in dimensional drawings.

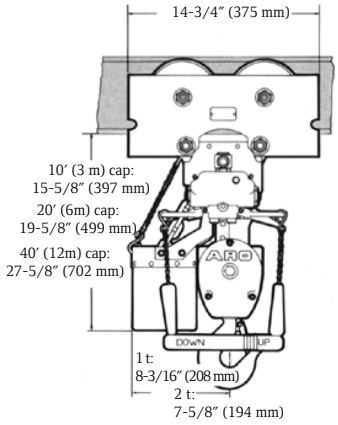
Hook Mounted



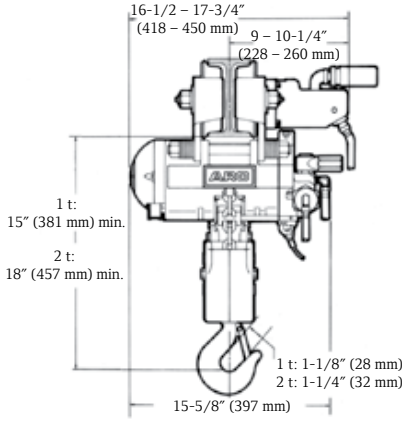


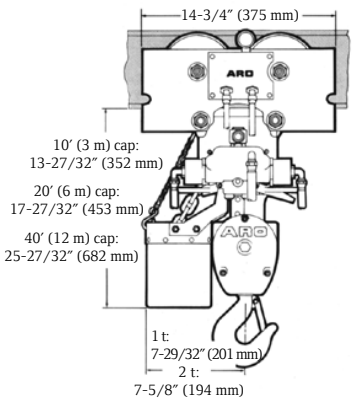
Trolley Mounted





Motorized Trolley Mounted





Note:
Headroom dimension for the 7790 Series 1-ton hoist increases 1.25″ for each Bullard hook used.
Headroom dimension for the 7790 Series 2-ton hoist increases 1.50″ for each Bullard hook used.

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7700 Series and 7790 Series

0.125 to 2 metric ton lifting capacities

HOW TO ORDER

Specify complete model number as shown. This model code includes: Base Model - Control Option, Upper Suspension, Lift - Lower Suspension, Control Length, and Options.

Base –

Zinc plated steel link chain models:

7770E = 0.125 ton
7718E = 0.25 ton
7756E = 0.50 ton
7776E = 1 ton
7790A = 1 ton
7792A = 2 ton

Spark resistant stainless steel link chain models:

7712EL = 550 lb
7714EL = 1,500 lb
7796AL = 1,500 lb
7798AL = 2,400 lb
7790AL = 3,000 lb

Control Option

0 = No controls
1 = Pull chain
2 = Pendent control
3 = 2 motor pendent
4 = 3 motor pendent

Upper Suspension

A = Lug / adapter
C = Steel snap hook
E = Eye bolt (7740 only)
K = Bullard hook, manual close (3)
R = Bronze snap hook (2)
DA = Rigid RT or TIR push trolley A flange
DD = Rigid TIR push trolley D flange
FxxA = Hand geared trolley A flange
FxxD = Hand geared trolley D flange
HA = Powered trolley A flange
HD = Powered trolley D flange

Lift (feet) –

10 = Standard
XXX = Specify length

Lower Hook

C = Steel snap hook
K = Bullard hook, manual close (3)
G = Self latching hook (1) (3)
R = Bronze hook (2)

Lift (feet)

6 = Standard
XXX = Specify length

Options

P = Piped exhaust kit (1)
U = Canvas chain container
S = Steel chain container (1) (3)

NOTES:
(2) Standard on spark-resistant models
(3) Not available on spark-resistant models

Pricing example: 7712EL-3HA20 -R16U

Spark-resistant, 550 lb capacity, stainless link chain, 1 chain fall, 50 fpm lifting speed. Unit is specified with two motor pendent control, power trolley suspension (A flange), 20 ft of lift, bronze lower hook, 16 ft of pendent length and a canvas basket.

Electric Chain Hoists

Ingersoll Rand Quantum QCH Series electric chain hoists bring outstanding control, reliability, long life, and safety to your load handling operations. Available in both single and dual-speed options — as well as lifting capacities ranging from 0.125 to 5 ton — Quantum QCH Series hoists meet or exceed H3 duty-cycle standards for world-class performance. They are also the only hoist family UL and C-UL listed, with third-party evaluation limiting liability.

Quantum QCH Series hoists feature geared limit switches and pendents with e-stops as standard. They offer low-headroom profiles and are easily customized to your application.

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Quantum Series

0.125 to 5 metric ton lifting capacities

Features

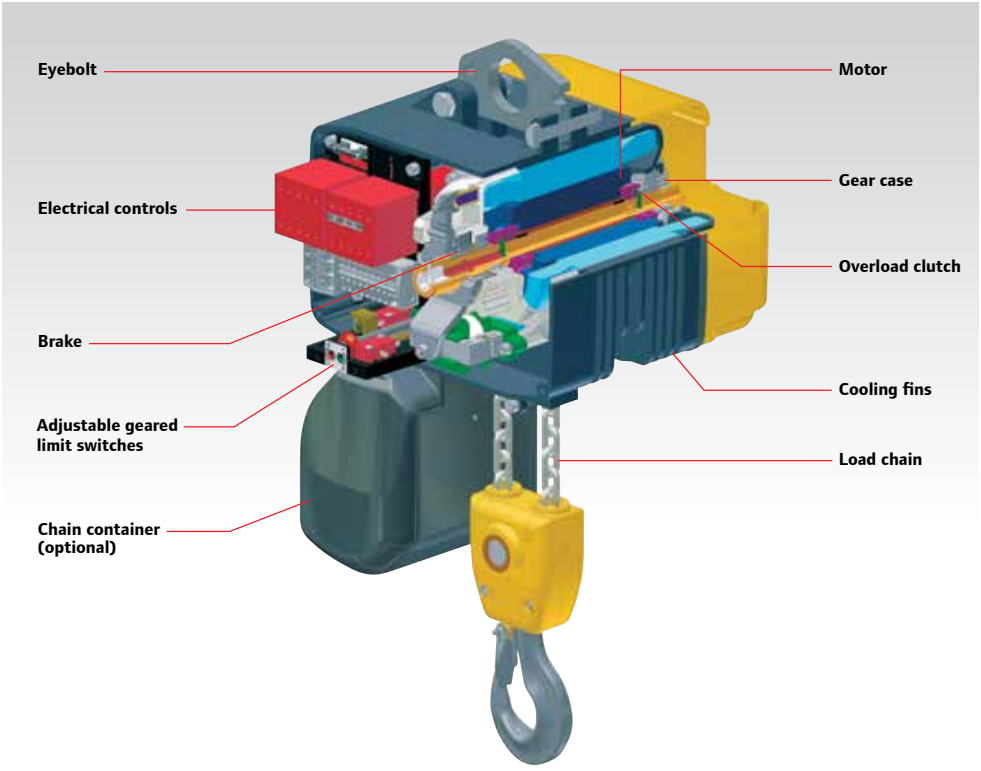
Smooth, quiet operation — Helical / spur gear combination provides smooth movement and quiet, reliable operation. A floating chain guide precisely feeds chain onto a machine-matched, five-pocket chain wheel. This system ensures smooth, jam-resistant operation.

Durability — Quantum load chains are precision-formed from alloy steel, case hardened and zinc-plated. The plating is an Ingersoll Rand proprietary process that resists corrosion better than any standard plating offered for load chain.

Reliability — With high starting torque, Quantum motors use a totally enclosed non-ventilated (TENV) squirrel cage design. Class F insulation provides a total thermal rating of 145°C at a 1.0 service factor, instead of the more common Class B insulation of 120° C.

Safety — State-of-the-art AC motor brakes with all-steel discs. Multiple stacking significantly increases braking surface area, reducing wear and extending life. Quantum brake discs are guaranteed for the life of the hoist. The overload clutch is factory-set to limit Quantum from lifting loads in excess of 150% of rated hoisting capacity.

Ergonomics — Safety-first pendent control handles are comfortable and fit securely in the operator's hand. Each low-voltage (42-volt) control handle integrates a large, red emergency stop button. Operating buttons are clearly marked with high contrast arrows, feature soft-push action, and are horizontally aligned for easier operation.



Quantum Series

0.125 to 5 metric ton lifting capacities

Quantum Series Specifications

Model	Capacity lb	Capacity metric tons	# Falls	Motor hp	Hook Mount Headroom in	Hook Mount Headroom mm	Trolley Mount Headroom in	Trolley Mount Headroom mm	Lifting Speed Rated Load or No Load ft/min	Lifting Speed Rated Load or No Load m/min	Lowering Speed Rated Load or No Load ft/min	Lowering Speed Rated Load or No Load m/min	Chain Weight (per foot of lift) lb	Chain Weight (per foot of lift) kg	Net Weight w/10 ft of lift lb	Net Weight w/10 ft of lift kg
THREE-PHASE (SINGLE SPEED)																
QCH50-1NS12	275	0.125	1	1	17.1	435	17.4	441.3	32	9.8	32	9.8	0.4	0.2	45	20.4
QCH50-1NS25	550	0.25	1	1	17.1	435	17.4	441.3	32	9.8	32	9.8	0.4	0.2	45	20.4
QCH50-1NS50	1,100	0.50	1	1	17.1	435	17.4	441.3	32	9.8	32	9.8	0.4	0.2	45	20.4
QCH50-2NS100	2,200	1	2	1	18.8	476.3	18.9	481	16	4.9	16	4.9	0.7	0.3	50	22.7
QCH100-1NS100	2,200	1	1	2.1	21.8	553.2	21.5	545.3	32	9.8	32	9.8	0.7	0.3	99	44.9
QCH100-2NS200	4,400	2	2	2.1	24.7	627.1	24.4	619.9	16	4.9	16	4.9	1.4	0.6	110	49.9
QCH300-1NS200	4,400	2	1	4.2	25.4	646.1	26.4	671.5	32	8	32	9.8	1.5	0.7	143	64.9
QCH200-2NS300	6,600	3	2	3.2	28.7	727.9	29.8	756.4	16	4.9	16	4.9	3	1.4	161	73
QCH300-2NS400	8,800	4	2	4.2	28.7	727.9	29.7	753.3	16	4.9	16	4.9	3	1.4	168	76.2
QCH500-2NS500	11,000	5	2	4.2	28.7	727.9	29.7	754.9	12.5	3.8	12.5	3.8	3	1.4	168	76.2
THREE-PHASE (DUAL SPEED)																
QCH50-1ND12	275	0.125	1	1	17.1	435	17.4	441.3	32 / 8	9.8 / 2.4	32 / 8	9.8 / 2.4	0.4	0.2	50	22.7
QCH50-1ND25	550	0.25	1	1	17.1	435	17.4	441.3	32 / 8	9.8 / 2.4	32 / 8	9.8 / 2.4	0.4	0.2	50	22.7
QCH50-1HD25	550	0.25	1	1	17.1	435	17.4	441.3	50 / 12	15.2 / 3.7	50 / 12	15.2 / 3.7	0.4	0.2	50	22.7
QCH50-1ND50	1,100	0.50	1	1	17.1	435	17.4	441.3	32 / 8	9.8 / 2.4	32 / 8	9.8 / 2.4	0.4	0.2	50	22.7
QCH50-2ND100	2,200	1	2	1	18.8	476.3	18.9	481	16 / 4	4.9 / 1.2	16 / 4	4.9 / 1.2	0.7	0.3	55	24.9
QCH100-1ND100	2,200	1	1	2.1	21.8	553.2	21.5	545.3	32 / 8	9.8 / 2.4	32 / 8	9.8 / 2.4	0.7	0.3	101	45.8
QCH100-2ND200	4,400	2	2	2.1	24.7	627.1	24.4	619.9	16 / 4	4.9 / 1.2	16 / 4	4.9 / 1.2	1.4	0.6	112	50.8
QCH300-1ND200	4,400	2	1	4.2	25.4	646.1	26.4	671.5	32 / 8	9.8 / 2.4	32 / 8	9.8 / 2.4	1.5	0.7	147	66.7
QCH200-2ND300	6,600	3	2	3.2	28.7	727.9	29.8	756.4	16 / 4	4.9 / 1.2	16 / 4	4.9 / 1.2	3	1.4	165	74.8
QCH300-2ND400	8,800	4	2	4.2	28.7	727.9	29.7	753.3	16 / 4	4.9 / 1.2	16 / 4	4.9 / 1.2	3	1.4	172	78
QCH500-2ND500	11,000	5	2	4.2	28.7	727.9	29.7	754.9	12.5 / 3	3.8 / 0.9	12.5 / 3	3.8 / 0.9	3	1.4	172	78

Eyebolt and hook suspension

Motorized trolley suspension

PT Series plain trolley with hook suspension

Quantum Series

0.125 to 5 metric ton lifting capacities

Handy Handle control — QCH50 models only

This ergonomically designed control enables precise operation at the hook and acts as a robotic power extension of the operator's arm. The load can be positioned and controlled with one hand, freeing the other to position the load.

The Handy Handle can be ordered separately as part of a kit, to convert any 0.125-, 0.25-, and 0.50-ton single-line Quantum hoist, or as an "H" control option on a new hoist. Each Handy Handle comes standard with single- or dual-speed thumb control lever switches and red emergency stop button. A socket connection at the bottom allows the standard hook to be easily replaced by custom-end effectors or grabs.

Quantum Series Motorized Trolley Specifications – M1, M2, and M4

	Traverse Speed ft/min (m/min)			Amperage			Min. in (mm)	Min. in (mm)	Flange Width in (mm)				Weight
Model	M1	M2	M4	230V	460V	575V	Beam Height	Curve Radius	A	B	C	D	lb (kg)
QCH50-1NS12	48 (14.6)	48/16 (14.6/4.9)	72/24 (21.9/7.3)	1.5	0.75	0.6	4 (101.6)	48 (1219.2)	2.0 - 3.9 (50.8 - 99.1)	4.0 - 5.9 (101.6 - 149.9)	6.0 - 7.8 (152.4 - 198.1)	7.9 - 9.4 (200.7 - 238.8)	60 (27.2)
QCH50-1ND12													
QCH50-1NS25													
QCH50-1ND25													
QCH50-1NS50													
QCH50-1ND50													
QCH50-2NS100													
QCH50-2ND100													
QCH100-1NS100							6 (152.4)	60 (1524.0)	3.0 - 5.5 (76.2 - 139.7)	5.6 - 7.8 (142.2 - 198.1)	7.9 - 10.2 (200.7 - 259.1)	10.3 - 12.6 (261.6 - 320.0)	70 (31.7)
QCH100-1ND100													
QCH100-2NS200													
QCH100-2ND200													
QCH300-1NS200							6 (152.4)	72 (1828.8)	2.2 - 4.7 (55.9 - 119.4)	4.8 - 7.0 (121.9 - 177.8)	7.1 - 9.4 (180.3 - 238.8)	9.5 - 11.8 (241.3 - 299.7)	110 (49.9)
QCH300-1ND200													
QCH200-2NS300													
QCH200-2ND300													
QCH300-2NS400													
QCH300-2ND400													
QCH500-2NS500				3	1.5	1.2							
QCH500-2ND500													

Quantum Series

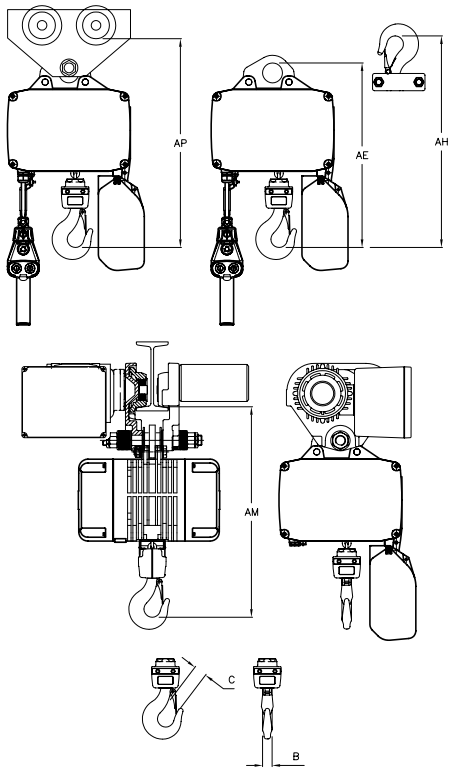
0.125 to 5 metric ton lifting capacities

Quantum Series Dimensions

Capacity				Headroom											
QCH		Metric		Eyebolt (AE)		Hook (AH)		Push Trolley (AP)		Motor Trolley (AM)		Hook (B)		Hook (C)	
Base Model	lb	Tons	Falls	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
THREE PHASE (SINGLE SPEED)															
QCH50-1NS12	275	0.125	1	14.8	375.9	17.1	434.3	17.4	442	16.8	426.7	0.9	22.9	1	25.4
QCH50-1NS25	550	0.25	1	14.8	375.9	17.1	434.3	17.4	442	16.8	426.7	0.9	22.9	1	25.4
QCH50-1NS50	1,100	0.50	1	14.8	375.9	17.1	434.3	17.4	442	16.8	426.7	0.9	22.9	1	25.4
QCH50-2NS100	2,200	1	2	16.4	416.6	18.8	477.5	18.9	480.1	18.3	464.8	0.9	22.9	1	25.4
QCH100-1NS100	2,200	1	1	19	482.6	21.8	553.7	21.5	546.1	21.3	541	1	25.4	1.3	33
QCH100-2NS200	4,400	2	2	21.9	556.3	24.7	627.4	24.4	619.8	24.3	617.2	1	25.4	1.3	33
QCH300-1NS200	4,400	2	1	23.9	607.1	25.4	645.2	26.4	670.6	26.2	665.5	1.5	38.1	1.6	40.6
QCH200-2NS300	6,600	3	2	27.2	690.9	28.7	729	29.8	756.9	29.3	744.2	1.5	38.1	1.6	40.6
QCH300-2NS400	8,800	4	2	27.2	690.9	28.7	729	29.7	754.4	29.3	744.2	1.5	38.1	1.6	40.6
QCH500-2NS500	11,000	5	2	27.2	690.9	28.7	729	29.7	754.4	29.3	744.2	1.5	38.1	1.6	40.6
THREE PHASE (DUAL SPEED)															
QCH50-1ND12	275	0.125	1	14.8	375.9	17.1	434.3	17.4	442	16.8	426.7	0.9	22.9	1	25.4
QCH50-1ND25	550	0.25	1	14.8	375.9	17.1	434.3	17.4	442	16.8	426.7	0.9	22.9	1	25.4
QCH50-1HD25	550	0.25	1	14.8	375.9	17.1	434.3	17.4	442	16.8	426.7	0.9	22.9	1	25.4
QCH50-1ND50	1,100	0.50	1	14.8	375.9	17.1	434.3	17.4	442	16.8	426.7	0.9	22.9	1	25.4
QCH50-2ND100	2,200	1	2	16.4	416.6	18.8	477.5	18.9	480.1	18.3	464.8	0.9	22.9	1	25.4
QCH100-1ND100	2,200	1	1	19	482.6	21.8	553.7	21.5	546.1	21.3	541	1	25.4	1.3	33
QCH100-2ND200	4,400	2	2	21.9	556.3	24.7	627.4	24.4	619.8	24.3	617.2	1	25.4	1.3	33
QCH300-1ND200	4,400	2	1	23.9	607.1	25.4	645.2	26.4	670.6	26.2	665.5	1.5	38.1	1.6	40.6
QCH200-2ND300	6,600	3	2	27.2	690.9	28.7	729	29.8	756.9	29.3	744.2	1.5	38.1	1.6	40.6
QCH300-2ND400	8,800	4	2	27.2	690.9	28.7	729	29.7	754.4	29.3	744.2	1.5	38.1	1.6	40.6
QCH500-2ND500	11,000	5	2	27.2	690.9	28.7	729	29.7	754.4	29.3	744.2	1.5	38.1	1.6	40.6

Quantum Series Weight

QCH	Eyebolt or Hook		Push Trolley		Motor Trolley	
Base Model	lb	kg	lb	kg	lb	kg
THREE PHASE (SINGLE SPEED)						
QCH50-1NS12	45	20.4	65	29.5	105	47.6
QCH50-1NS25	45	20.4	65	29.5	105	47.6
QCH50-1NS50	45	20.4	65	29.5	105	47.6
QCH50-2NS100	50	22.7	80	36.3	110	49.9
QCH100-1NS100	99	44.9	129	58.5	173	78.5
QCH100-2NS200	110	49.9	165	74.8	184	83.4
QCH300-1NS200	143	64.9	198	89.8	257	116.6
QCH200-2NS300	161	73	236	107	281	127.4
QCH300-2NS400	168	76.2	274	124.3	282	127.9
QCH500-2NS500	168	76.2	274	124.3	282	127.9
THREE PHASE (DUAL SPEED)						
QCH50-1ND12	50	22.7	70	31.7	110	49.9
QCH50-1ND25	50	22.7	70	31.7	110	49.9
QCH50-1HD25	50	22.7	70	31.7	110	49.9
QCH50-1ND50	50	22.7	70	31.7	110	49.9
QCH50-2ND100	55	24.9	85	38.5	115	52.2
QCH100-1ND100	101	45.8	131	59.4	175	79.4
QCH100-2ND200	112	50.8	167	75.7	186	84.4
QCH300-1ND200	147	66.7	202	91.6	261	118.4
QCH200-2ND300	165	74.8	240	108.8	285	129.3
QCH300-2ND400	172	78.0	278	126.1	286	129.7
QCH500-2ND500	172	78.0	278	126.1	286	129.7



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Quantum Series

0.125 to 5 metric ton lifting capacities

HOW TO ORDER

Example: QCH100-2NS200M1-21-17B4C

QCH100-2NS200 M1 – 21 – 17 B 4 C

Base model

3 phase single speed

QCH50-1NS12
QCH50-1NS25
QCH50-1NS50
QCH50-2NS100
QCH100-1NS100
QCH100-2NS200
QCH300-1NS200
QCH200-2NS300
QCH300-2NS400
QCH500-2NS500

3 phase dual-speed

QCH50-1ND12
QCH50-1ND25
QCH50-1HD25
QCH50-1ND50
QCH50-2ND100
QCH100-1ND100
QCH100-2ND200
QCH300-1ND200
QCH200-2ND300
QCH300-2ND400
QCH500-2ND500

Suspension type

E = Eye bolt
H = Hook
P = Plain trolley ("PT" Series)
M1 = Motorized trolley (normal speed 48 fpm)
M2 = Motorized trolley (normal/dual speed 48/16 fpm)
M4 = Motorized trolley (high/dual speed 96/24 fpm)

Lift (feet)

10 = Standard
15 = Standard
20 = Standard
XX = Specify length

Pendent drop (feet)

6 = Standard
11 = Standard
16 = Standard
XX = Specify length

Flange width

(See catalog for specifications)
- = Eye bolt or hook mount
A = See flange width chart
B = See flange width chart
C = See flange width chart
D = See flange width chart

Voltage

3 = 230/3/60
4 = 460/4/60
5 = 575/3/60
6 = 380/3/50*
(* = these units have extended lead times and are not UL or C-UL (Canadian UL) listed)

Options

B = Trolley brake
C = Chain container
E = External strain relief
F = XX, specify power cord length (standard is 15 ft on E, H, and P, and 3 ft on M1-M4 suspensions)
H = Handy Handle (QCH50 single fall only)
K = 110 volt control (3 phase models only)
P = Pendent with vertical aligned buttons
P2 = Pendent with 2 extra vertical aligned buttons
P4 = Pendent with 4 extra vertical aligned buttons
Y = Bullard top hook
Z = Bullard bottom hook

ULE2 Ultra-Lo Series

0.25 to 24 ton lifting capacity

Features

The complete line of low-headroom Ingersoll Rand worm-gear-driven electric and air hoists provides smooth, quiet, trouble-free operation. All models are tested in accordance with ANSI B30.16 overhead hoist standards.

- Large-diameter chain wheels for improved chain wear
- Worm gear drive for maximum control and durability
- Plain, motorized, and hand chain trolleys
- Dual up and down limits for added safety
- NEMA-12 enclosure for weather-resistant pendent controls
- Design flexibility allows custom configurations to be offered and priced on request
- Dual- and self-braking worm drive and spring-applied motor brake
- Explosion-proof units and spark- and corrosion-resistant features can be customized to fit applications and priced on request
- Quick response time to quotes and reduced lead time on delivery

ULE2 Electric Series Specifications

	Capacity			Motor	Trolley Mount Headroom		Lifting Speed Rated Load or No Load		Lowering Speed Rated Load or No Load		Net Weight Plain Trolley		Net Weight Geared Trolley		Net Weight Motorized Trolley	
Model	lb	U.S. tons	# Falls	hp	in	mm	ft/min	m/min	ft/min	m/min	lb	kg	lb	kg	lb	kg
ULE2_010-8-6	2,000	1	N/A	2	7	177.8	10	3.1	10	3.1	440	199.5	470	213.2	480	217.7
ULE2_015-8-6	3,000	1.5	N/A	2	7	177.8	10	3.1	10	3.1	440	199.5	470	213.2	480	217.7
ULE2_020-8-6	4,000	2	N/A	2	7	177.8	10	3.1	10	3.1	440	199.5	470	213.2	480	217.7
ULE2_030-8-6	6,000	3	N/A	2	8	203.2	5	1.5	5	1.5	540	244.9	570	258.5	580	263
ULE2_040-8-6	8,000	4	N/A	2	8.5	215.9	5	1.5	5	1.5	540	244.9	570	258.5	580	263
ULE2_050-8-6	10,000	5	N/A	4	9.5	241.3	7	2.1	7	2.1	1,280	580.5	1,340	607.7	1,310	594.1
ULE2_060-8-6	12,000	6	N/A	4	9.5	241.3	7	2.1	7	2.1	1,280	580.5	1,340	607.7	1,310	594.1
ULE2_080-8-6	16,000	8	N/A	4	12	304.8	4	1.2	4	1.2	1,350	612.2	1,480	671.2	1,400	634.9
ULE2_100-8-6	20,000	10	N/A	4	12.5	317.5	3.5	1.1	3.5	1.1	1,730	784.6	1,810	820.9	1,780	807.3
ELE2_120-8-6*	24,000	12	N/A	4	12.5	317.5	3.5	1.1	3.5	1.1	1,730	784.6	1,810	820.9	1,780	807.3
ULE2_160-8-6*	32,000	16	N/A	4	14.5	368.3	2	0.6	2	0.6	2,300	1043.1	2,380	1079.4	2,350	1065.8
ULE2_200-8-6*	40,000	20	N/A	4	18	457.2	1.7	0.5	1.7	0.5	2,650	1201.8	2,810	1274.4	2,750	1247.2
ULE2_240-8-6*	48,000	24	N/A	4	18	457.2	1.7	0.5	1.7	0.5	2,650	1201.8	2,810	1274.4	2,750	1247.2

Notes:
Standard lift is 10 ft.
** For over 10 U.S. ton capacity, straight track operation is recommended.*
Curved radius must be specified on orders, since wheels must be modified to negotiate curves.
Curves less than minimum radius may be fitted upon application. Consult Customer Service for further information.
ULA2 air hoist specifications and dimensions are similar. Consult Customer Service if accurate data is required.

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ULE2 Ultra-Lo Series

0.25 to 24 ton lifting capacity

ULE2 Series Dimensions†

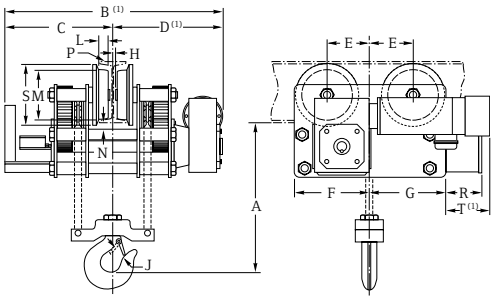
Model	A in	B in	C in	D in	E in	E1 in	F in	G in	H in	J in	L in	M in	N in	P* in	R in	S in	T** in
ULE2_010-8-6	7	33	16.5	16.5	7.8	7.8	12	10	0.6	1.1	1.1	4.5	0.9	S6X12.5	6	6	9.3
ULE2_015-8-6	7	33	16.5	16.5	7.8	7.8	12	10	0.6	1.1	1.1	4.5	0.9	S6X12.5	6	6	9.3
ULE2_020-8-6	7	33	16.5	16.5	7.8	7.8	12	10	0.6	1.1	1.1	4.5	0.9	S6X12.5	6	6	9.3
ULE2_030-8-6	8	33	16.5	16.5	9	9	14	13	0.6	1.3	1.3	6.4	1	S8X18.4	6	8	5.5
ULE2_040-8-6	8.5	33	16.5	16.5	9	9	14	13	0.6	1.7	1.3	6.4	1	S8X18.4	6	8	5.5
ULE2_050-8-6	9.5	50.5	23.5	24.9	7.4	7.4	12	15	0.9	1.7	1.4	7.2	0.9	S10X25.4	6	9	12
ULE2_060-8-6	9.5	50.5	23.5	24.9	7.4	7.4	12	15	0.9	1.7	1.4	7.2	0.9	S10X25.4	6	9	12
ULE2_080-8-6	12	50.5	23.5	24.9	8.4	8.9	14	13.5	0.6	2.1	1.7	8.3	1.1	S10X25.4	6	10	12
ULE2_100-8-6	12.5	50.5	23.5	24.9	8.5	9.8	15.6	14.4	0.6	2.3	1.8	9.8	0.9	S12X31.8	6	11.7	10
ULE2_120-8-6	12.5	50.5	23.5	24.9	8.5	9.8	15.6	14.4	0.6	2.3	1.8	9.8	0.9	S12X31.8	6	11.7	10
ULE2_160-8-6	14.5	54.5	25.5	26.9	11.9	11.9	18.6	18.6	0.6	3	2	11.8	1	S15X42.9	6	13.5	3.5
ULE2_200-8-6	18	54.5	25.5	26.9	12.1	12.4	19.3	19	0.8	3.6	2	11.8	1	S18X54.7	6	13.5	2.5
ULE2_240-8-6	18	54.5	25.5	26.9	12.1	12.4	19.3	19	0.8	3.6	2	11.8	1	S18X54.7	6	13.5	2.5

Notes:

†ULA2 air hoist specifications and dimensions are similar. Consult Customer Service for further information.

**Minimum standard I-beam for proper wheel running clearance. Contact factory for smaller beams. Customer must verify beam is adequate for applied loads.*

***For standard motor and brake only.*



HOW TO ORDER

Example: ULE2-MT-010-10-6TW

ULE2 – **MT** – **010** – **10** – **6** **TW**

Base model
ULA2 = Air
ULE2 = Electric

Trolley options
PT = Plain tapered
PF = Plain flat
MT = Motorized tapered
MF = Motorized flat
GT = Geared tapered
GF = Geared flat

Capacity

010 =	909 kg	= 2,000 lb
015 =	1364 kg	= 3,000 lb
020 =	1818 kg	= 4,000 lb
030 =	2727 kg	= 6,000 lb
040 =	3636 kg	= 8,000 lb
050 =	4545 kg	= 10,000 lb
060 =	5455 kg	= 12,000 lb
080 =	7273 kg	= 16,000 lb
100 =	9091 kg	= 20,000 lb
120 =	10909 kg	= 24,000 lb
160 =	14545 kg	= 32,000 lb
200 =	18182 kg	= 40,000 lb
240 =	21818 kg	= 48,000 lb

Lift (ft)
10 = 10 ft (standard)
XX = Specify length

Pendent drop
6 = 6 ft (standard)
XX = Specify length

Options
C = Chain container
X = Electric mainline power interrupt and pendent buttons
W = Electric (NEMA 4) watertight control box, limit switches and pendent
T = Electric thermal overload relays — each single speed motor
L = Electric fused control per leg of transformer secondary
E = Electric motor fuses — single speed hoist
F = Electric motor fuses — single speed hoist and trolley

NOTES:

S*COR*E options and marine finish are available.
Consult factory for flange widths over - 6″ up to 1 t - 6.625″ up to 1.50 and 2 t 7.25″ on 3 and 4 t - 8.25″ on 5 to 12 t.
Ultra-Lo hoists are not adjustable for varying beam sizes.
Beam type, size, height, width and curve radius required for all orders.
Customer to verify their beam is adequate for loads applied.

Trolleys and Beam Clamps

Ingersoll Rand offers a wide variety of plain, geared, or powered trolleys for use with all Ingersoll Rand hoists. We also offer the MTK air-powered tractor to push and pull a trolley-mounted hoist or other suspended or supported rolling load. Ingersoll Rand trolleys are available in either hook-on or rigid-mount styles.

For maximum convenience and lifting system integrity, we recommended ordering the trolley at the same time as the hoist by using the appropriate model-driver suspension code. Information relating to the various trolleys and MTK Series tractor can be found on the following pages.

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Trolley selection guide

0.50 to 20 metric ton lifting capacities

The chart below cross-references all air chain hoist models and sizes with recommended trolleys. Always follow safe installation and operating procedures with any overhead system. Please call an authorized Ingersoll Rand distributor or representative for assistance with application and selection.

Hoist / Trolley Selection Guide

For Use With Hoist Series	Plain Hook-on	Plain Rigid	Geared Hook-on	Geared Rigid	Motorized Rigid
STANDARD TROLLEYS (SUSPENSION CODE)*					
ML250 / 500K / KS	PT005-8	RT010S-P00AN	GT010-8-10	RT010S-G08AN	RT010S-307AN
ML1000K / S	PT010-8	RT010S-P00AM	GT010-8-10	RT010S-G08AM	RT010S-307AM
ML250KR	PT005-8SB	RT010B-P00AN	GT010-8-10SB	RT010S-G08AN	RT010S-307AN
ML500KR	PT005-8SB	RT010B-P00AM	GT010-8-10SB	RT010S-G08AM	RT010S-307AM
HL1000K	PT010-8	TIR6600S-P00AJ	GT010-8-10	TIR6600S-G08AJ	TIR6600S-307AJ
HL1000KR	PT010-8SB	TIR6600B-P00AJ	GT010-8-10SB	TIR6600B-G08AJ	TIR6600B-307AJ
HL1500K	PT020-8	TIR6600S-P00AJ	GT020-8-10	TIR6600S-G08AJ	TIR6600S-307AJ
HL2000K	PT020-8	TIR6600S-P00AK	GT020-8-10	TIR6600S-G08AK	TIR6600S-307AK
HL3000K	PT030-8	TRI6600S-P00AK	GT030-8-10	TIR6600S-G08AK	TIR6600S-307AK
HL4500K	PT050-8	TIR132S-P00AP	GT050-8-10	TIR132S-G08AP	TIR132S-307AP
HL6000K	TIR132S-P00H	TIR132S-P00AP	GT050-8-10	TRI132S-G08AP	TIR132S-307AP
7700 Series <1 ton	PT005-8	RT010S-P00AR	GT010-8-10	RT010S-G08AR	RT010S-307AR
7700 Series 1 ton	PT010-8	RT010S-P00AR	GT010-8-10	RT010S-G08AR	RT010S-307AR
7790 Series 1 ton	PT010-8	TIR6600S-P00AA	GT010-8-10	TIR6600S-G08AA	TIR6600S-307AA
7792 Series	PT020-8	TIR6600S-P00AA	GT020-8-10	TIR6600S-G08AA	TIR6600S-307AA
7700 Series Spark Resistant	PT005-8SB	RT010B-P00AR	GT010-8-10SB	RT010S-G08AR	RT010S-307AR
7796AL Spark Resistant	PT010-8SB	TIR6600B-P00AA	GT010-8-10SB	TIR6600B-G08AA	TIR6600B-307AA
7798AL / 7799AL Spark Resistant	PT020-8SB	TIR6600B-P00AA	GT020-8-10SB	TIR6600B-G08AA	TIR6600B-307AA
Quantum QCH50-1	PT005-8	N/A	GT010-8-10	N/A	QMT50
Quantum QCH50-2	PT010-8	N/A	GT010-8-10	N/A	QMT50
Quantum QCH100-1	PT010-8	N/A	GT010-8-10	N/A	QMT150
Quantum QCH100-2	PT020-8	N/A	GT020-8-10	N/A	QMT150
Quantum QCH200-2	PT030-8	N/A	GT030-8-10	N/A	QMT300
Quantum QCH300-1	PT020-8	N/A	GT020-8-10	N/A	QMT300
Quantum QCH300-2	PT050-8	N/A	GT050-8-10	N/A	QMT300
Quantum QCH500-2	PT050-8	N/A	GT050-8-10	N/A	QMT300

PT Series

TIR Series

RT Series

GT Series

TIR Series

PT and GT Series trolley

0.50 to 20 metric ton capacities

Features

PT plain and GT hand-geared hook-on style trolley rated for manual or powered hoists having the versatility to fit most types of beams with compatibility to all hoist brands.

- The 5:1 design factor allows use with both manual or powered hoists. Meets pertinent U.S. (ASME/ANSI and CMAA), Canadian and European standards
- The side plates, including the rail sweeps/drop stops, are made of cold-formed steel for strength, durability, and even load distribution
- The wheels are cast iron and the universal tread fits either flat or tapered beams
- Wheels run on sealed, "Lube-for-Life" ball bearings. Smoother rolling with less effort and maintenance
- Additional gearing in the 20-ton trolley allows operation by one hand chain
- Painted black for coordination with hoists of all colors

PT010-8

GT020-8-10

GT100-12-10

Options

- FDA-approved nickel composite plated finish for corrosion resistance — available on PT005 and PT010 only
- Solid bronze alloy wheels for maximum spark resistance
- Wider hanger shaft capabilities allow standard trolleys to fit almost any S-beam or patented track beam, extension shaft kits are stocked

PT and GT Series Hook-on Trolley Specifications

Model	Capacity lb	Capacity metric tons	Flange Adjustment in	Min. Beam Height in	Min. Curve Radius in	Weight lb	Wide Flange Kit no. (order separate)	Flange Adjustment in	Weight lb
STANDARD SERIES									
PT005-8	1,100	0.50	2.6 - 8	4	36	19.7	PT005-WFK	8 - 13	5.5
PT010-8	2,200	1	3 - 8	5	36	30.7	PT010-WFK	8 - 13	9.5
PT020-8	4,400	2	3.3 - 8	6	48	60.5	PT020-WFK	8 - 13	10
PT030-8	6,600	3	3.9 - 8	7	42	73.2	PT030-WFK	8 - 13	16.3
PT050-8	11,000	5	4.6 - 8	8	60	110.3	PT050-WFK	8 - 13	24.8
PT100-12	22,000	10	7 - 13	10	83	205	NA	NA	NA
GT010-8-10	2,200	1	3 - 8	5	36	43.7	PT010-WFK	8 - 13	9.5
GT020-8-10	4,400	2	3.3 - 8	6	48	73.5	PT020-WFK	8 - 13	10
GT030-8-10	6,600	3	3.9 - 8	7	42	86.2	PT030-WFK	8 - 13	16.3
GT-050-8-10	11,000	5	4.6 - 8	8	60	123.3	PT050-WFK	8 - 13	24.8
GT100-12-10	22,000	10	7 - 13	10	83	227	NA	NA	NA
GT200-12	44,000	20	7 - 13	12	138	540	NA	NA	NA

HOW TO ORDER

Example: GT010-8-SB

GT | **010** - **8** - **SB**

Series

GT = Hand-geared hook-on

PT = Push hook-on

Capacity

GT Series		PT Series
010 = 1 metric ton		005 = 0.5 metric tons
020 = 2 metric tons		010 = 1 metric ton
030 = 3 metric tons		020 = 2 metric tons
050 = 5 metric tons		030 = 3 metric tons
100 = 10 metric tons		050 = 5 metric tons
200 = 20 metric tons		100 = 10 metric tons

Hand chain drop

GT Series only

Feet

Options

NC = Nickel-plated trolley (available on PT Series 0.5 and 1 ton models only)

SB = Bronze wheels

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PT and GT Series trolley

0.50 to 20 metric ton capacities

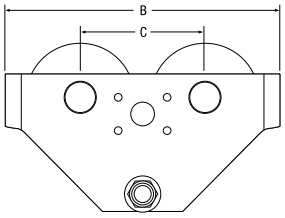
PT and GT Series Hook-on Trolley Dimensions (in)

Model	A	A(-8)	B	C	D	E	F	G	H	J	K	L	M	N	P	P(-8)	R	S	T
STANDARD SERIES																			
PT005-8	2.6	5.9	10	4.5	1	4	1.1	3.5	2.1	0.8	.1	6.6	–	3.9	–	12.3	1.3	1.6	–
PT010-8	2.5	5.9	13	5.2	1.3	4.4	1.6	4.2	2.8	0.8	1	6.9	–	4.3	–	12.9	1.5	1.6	–
PT020-8	2.6	6.1	14.6	6.8	1.3	5.3	1.3	5.8	4.3	1.1	1.2	7.5	-	4.3	-	13.8	1.5	1.6	-
PT030-8	2.6	7.9	14	6.4	1.6	5.5	1.6	5.8	4.5	1.1	1.4	8.6	-	5.4	-	14.1	1.9	2.6	-
PT050-8	2.8	8.1	15.5	7.1	1.6	5.8	2.2	6.2	4.5	1.6	1.4	9.8	-	6.6	-	15.6	2.5	2.6	-
PT100-12	11.8	-	17.9	19.3	20.8	5	7.9	2	7.4	5.9	4.2	1.8	3.2	17.1	3.7	-	1	-	-
GT010-8-10	2.5	5.9	13	5.2	1.3	4.4	1.6	4.2	2.8	0.8	1	6.9	-	4.3	-	12.9	1.5	1.6	7.8
GT020-8-10	2.6	6.1	14.9	6.8	1.3	5.3	1.3	5.8	4.3	1.1	1.2	7.5	-	4.3	-	13.8	1.5	1.6	7.8
GT030-8-10	2.6	7.9	14	6.4	1.6	5.5	1.6	5.8	4.5	1.1	1.4	8.6	-	5.4	-	14.1	1.9	2.6	8.1
GT050-8-10	2.8	8.1	15.5	7.1	1.6	5.8	2.2	6.2	4.5	1.6	1.4	9.8	-	6.6	-	15.6	2.5	2.6	8.5
GT100-12-10	11.8	–	17.9	19.3	20.8	5	7.9	2	7.4	5.9	4.2	1.8	3.2	17.1	3.7	–	1	–	–
GT200-12-10	10.5	–	25.3	24.5	22.5	6.7	11.8	2.6	10.8	7.9	5.9	2.8	4.3	18	4.5	–	4.9	–	–

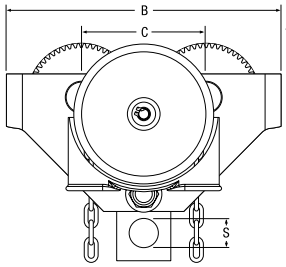
PT Trolley Adapters

Stationary

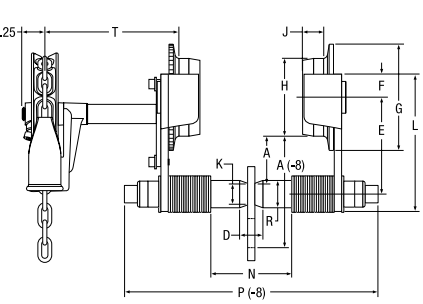
Adapter comes with any 7700 Series hoist ordered as a trolley-suspended model. Adapter can be ordered separately to convert existing hook-suspended 7700 Series hoists for stationary mounting to a PT Series trolley. Order 47717 (shown) for 0.25- and 0.50-ton models; 47716 for 1-ton models. Spacer kits are required. Refer to the price list for details.



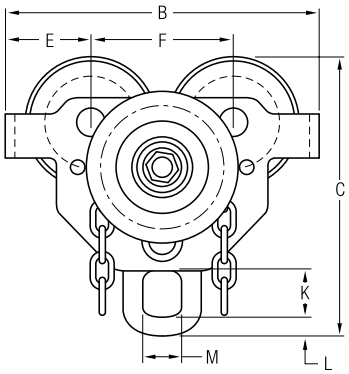
PT010 - PT050
plain trolley/without tag



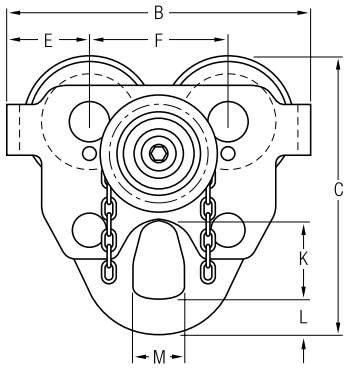
GT010 - GT050
geared trolley



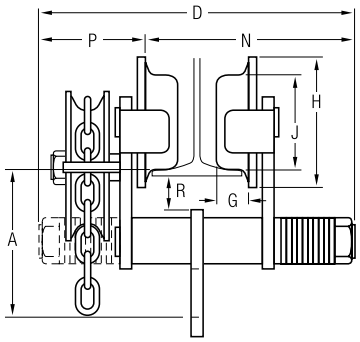
PT010 - PT050 and GT010 - GT050
plain and geared trolley



GT100
geared trolley



GT200
geared trolley



GT100 and GT200
geared trolley

TIR Series

0.25 to 6 metric ton capacities

Features

TIR Series trolleys are supplied as standard equipment for MLK Series, and HLK Series hoists when specified. The TIR trolley may also be used as a hook-on trolley with any hoist.

- Meets ANSI B30.16 for hoisting requirements — 5:1 minimum safety factor
- All-steel construction
- Universal wheels fit both flat and tapered beam flanges
- Rail sweeps are integral with the side plates
- Cast-iron wheels roll easily on permanently greased sealed bearings
- 7′ pendent control or 8′ hand chain length — other lengths available
- Tight turning radius
- Standard 3-ton trolley fits 3.25″ – 6″ flange width, 6-ton fits 4.25″ – 7.25″
- Modular trolley frame allows hook-on, plain rigid, geared, and motorized configurations in the field
- Motorized trolley has automatic disc brake
- Low air consumption at only 35 scfm on motorized versions

Options

- Solid bronze wheels for maximum spark resistance
- Wide flange kit for 3-ton fits 6″ – 12″
- Hook-on adapters
- Lug adapters for rigid-mounting Ingersoll Rand hoist

TIR Series Trolley Specifications

Trolley Type	Capacity		Min. Curve Radius	Standard Flange Adj.	Hand Chain/Pendent Drop	Trolley Weight
	lb	metric tons	in	in	ft	lb
TIR6600 TROLLEY SERIES						
Plain hook-on	550 - 6,600	0.25 - 3	42	3.3 - 6	N/A	31
Plain rigid	550 - 6,600	0.25 - 3	42	3.3 - 6	N/A	34
Geared hook-on	550 - 6,600	0.25 - 3	42	3.3 - 6	7	34
Geared rigid	550 - 6,600	0.25 - 3	42	3.3 - 6	7	37
Motorized	550 - 6,600	0.25 - 3	42	3.3 - 6	7	35
Plain	550 - 6,600	0.25 - 3	42	3.3 - 6	N/A	25
TIR132 TROLLEY SERIES						
Plain hook-on	9,900 - 13,200	4.5 - 6	60	4.3 - 7.3	N/A	154
Plain rigid	9,900 - 13,200	4.5 - 6	60	4.3 - 7.3	N/A	150
Geared hook-on	9,900 - 13,200	4.5 - 6	60	4.3 - 7.3	7	157
Geared rigid	9,900 - 13,200	4.5 - 6	60	4.3 - 7.3	7	153
Motorized	9,900 - 13,200	4.5 - 6	60	4.3 - 7.3	7	155

TIR6600 plain trolley

TIR6600 motorized trolley

TIR Series

0.25 to 6 metric ton capacities

TIR Series Flange and Adapters Kits

Flange Kits	Flange Width (in)	Part Number
Standard	3.3 – 6	49558
Wide	6 – 12	49559
Adapter Kits	**Option Code**	**Part Number**
Hook-on	H	TIR-426
90° Trolley Adapter*		43111

**Used to mount any 7790 Series hoist parallel to suspension beam. Adapter increases headroom dimension by 1.625 inches.*

Motorized Trolley Specifications

Hoist Capacity lb	Hoist Capacity metric tons	Trolley Speed On Beam* fpm
550	0.25	95
1,100	0.50	93
2,200	1	88
3,300	1.50	84
4,400	2	80
6,600	3	71
9,900	4.50	60
12,000	6	45

Note:
**Beam in good condition.*

HOW TO ORDER

Example: TIR6600S-G08DP

TIR | **6600** | **S** | **-** | **G** | **08** | **D** | **P**

Series
- **TIR**
- RT

Capacity
- **6600** = 6,600 lb/ 3 ton
- 132 = Standard
- 010 = 2,200 lb/ 1 ton

Standard or S*COR*E
- **S** = Standard cast iron wheels
- B = Standard bronze wheels for S*COR*E features

Type
- P = Plain trolley(1)
- **G** = Hand chain gear driven
- 0 = Vane motor air driven, no pendent
- 2 = Vane motor air driven, 1 motor pendent(2)
- 3 = Vane motor air driven, 2 motor pendent(2)
- 4 = Vane motor air driven, 3 motor pendent(2)

Chain or pendent length
- 07 = 7 ft (standard for pendent)
- **08** = 8 ft (standard for hand chain)
- XX = Specify length in feet
- 00 = No pendent or hand chain or a plain trolley

Flange width (in)
- A = Fits 3 ton (3.3 - 6) 6 ton (4.3 - 7.3)
- **D** = Fits 3 ton (6 - 12) 6 ton (N/A)

Suspension type
- **P** = Plain (without lug)(1)
- A = 7790 plain, no adapter
- E = 7700 0.25-1 ton to TIR6600 adapter
- J = HLK 1 and 1.5 ton lug adapter(1)
- K = HLK 2 and 3 ton lug adapter(1)
- H = Hook adapter (3 and ton TIR6600 only)
- M = MLK to TIR6600 lug adapter (TIR6600 only)
- R = 7700 0.25-1 ton to RT adapter
- T = RT rigid lug adapter

NOTE:

(1) Required to install TIR6600 trolley on HLK1-3t hoist with top lug manufactured July 1995 or before, or to convert any hook mount to rigid trolley.

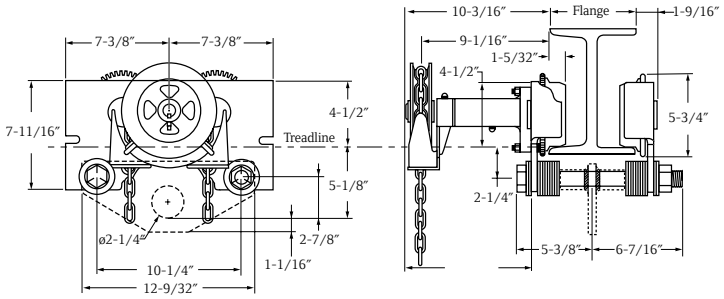
(2) Standard pendents are full flow for the TIR trolley. Pilot and full flow for the second and third function. If control length exceeds 20 ft, quick exhaust valves are required. See table and associated pricing, as with the MTK tractor.

TIR Series

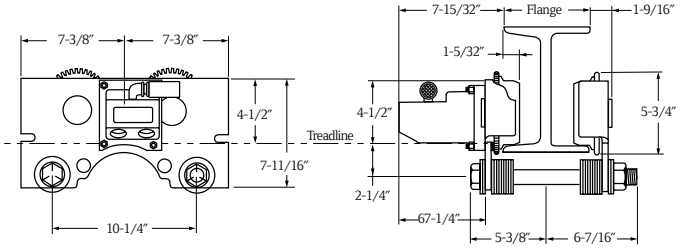
0.25 to 6 metric ton capacities

TIR6600, TIR132, and RT010 dimensions

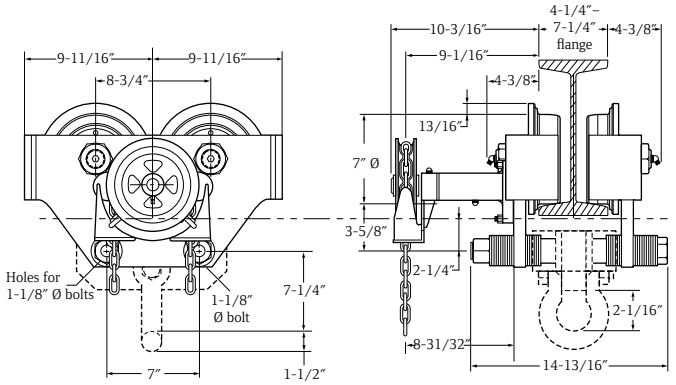
TIR6600 plain, geared, and lug-mounted trolley



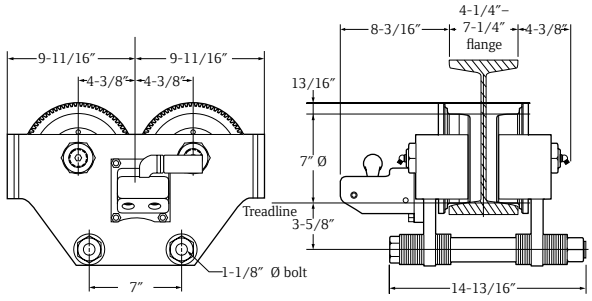
TIR6600 motorized trolley



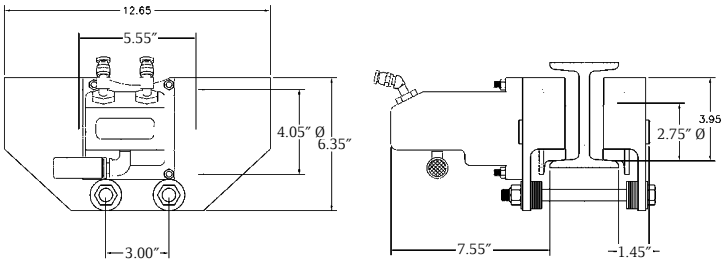
TIR132 plain, geared, and hook-mounted trolley



TIR132 motorized trolley



RT010 motorized trolley



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RT Series trolley

1 metric ton capacity

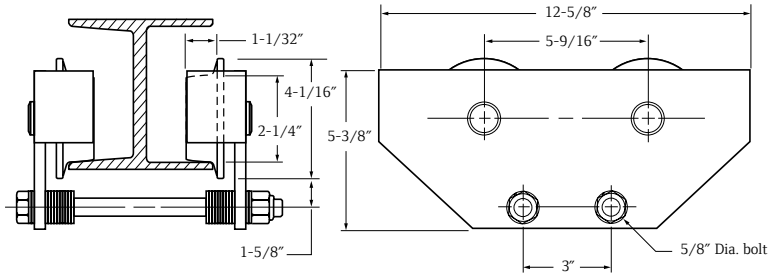
Plain and rigid

Cousin to the PT Series trolley, the twin suspension shaft RT Series trolley offers a rigid connection for the MLK, MLKS, and MLKR Series of air chain hoists. Like the PT Series, the RT Series uses universal tread wheels for use on flat or tapered flange beams.

RT010 Series Trolley Specifications

Trolley Part Number	Capacity metric tons	Fits Beam Flange Width in	Minimum Turning Radius in
RT010	0.25 - 1	2.7 - 6	36

Wheels have universal tread for use on flat or tapered beams.



BC Series

1 to 10 metric ton capacities

Beam clamp features

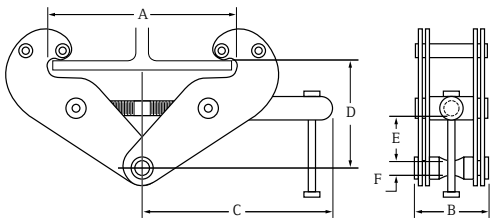
Ingersoll Rand beam clamps provide temporary or permanent mounting options for a wide range of tapered or flat beams. These units have been designed and verified — by actual pull testing — to achieve a minimum design factor of 5:1 for vertical lifting with a powered or manual hoist, which meets ASME B30.16.

These beam clamps offer quick and simple one-handed installation without requiring any tools. Units accommodate hook-mounted hoist or load blocks with minimal loss of headroom. The clamp jaws are designed to reduce beam stress by applying the load inside of the flange edge.

- Quick installation by hand and with no required tools
- Low headroom design adjusts to fit a wide range of flat or tapered beams
- Meets ASME B30.16 for use with powered or manual hoists
- Each unit is serialized and supplied with a test certificate and manual
- Metric rated for vertical lifting at 2,200 lb per ton

BC Series Beam Clamp Specifications and Dimensions

Model	Weight lb	Capacity metric tons	Beam Width A in	B in	C in	D in	E in	F in
BC-1	9.9	1	3 - 10.2	3.1	9.6	4 - 5.9	1.2	0.9
BC-2	11	2	3 - 10.2	3.5	9.6	4. - 5.9	1.2	0.9
BC-3	23.1	3	3.2 - 13.9	4.7	11.2	6 - 8.9	2	0.9
BC-5	24.2	5	3.2 - 13.9	4.9	11.2	6 - 8.9	1.9	1.1
BC-10	35.2	10	3.5 - 14.4	5.7	11.3	6.9 - 9.3	2.2	1.6



MTK Series

6 metric ton towing capacity

Features

MTK Series tractors require less air, making them less expensive to operate. They're designed for use with any hoist, or even alone to push, pull, or position loads on beams.

- Up to 6 metric ton towing capacity
- Interchangeability with MLK Series and HLK Series parts
- Balanced gear package and air motor provide speeds from slow creep to 165 fpm
- Million-cycle performance tested air motor with spring-loaded vanes provides instant starting and slow speed control
- Heat-treated planetary gearing assures longer life and reduced maintenance
- Self-adjusting, spring-applied, non-asbestos disc brake is air-released for smooth starts and stops
- Drive tire is made from extremely durable polyurethane material with a temperature rating of 185° F for excellent adjustable gripping characteristics
- Tight turning radius of 30″
- Universal solid cast-iron wheels fit both flat and tapered beams
- Wheels can be greased for longer life
- Standard tractor fits 2.7″ – 6.3″ beam flange widths
- Roller guides made from high alloy steel keep tractor running smoothly
- Tractor operates with a full-flow pendent, enhancing load-spotting control
- Standard 7′ pendent length
- Tow bar included with tractor

Options

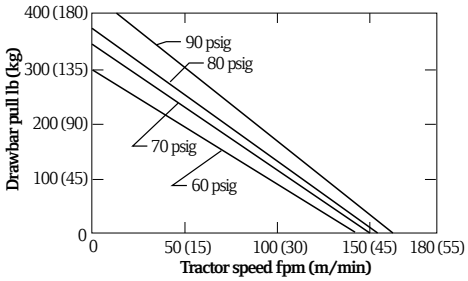
- Free wheel kit that permits moving of tractor without supplying air; attaches directly to tractor without modification
- Wide flange kit fits 6.27 – 12″ beam flange widths
- Pull chain operation
- Bronze wheels for spark-resistant applications
- Gasket repair and manual brake release kits
- Drawbar hitch kit
- External brake release kit relieves auto disc brake without running tractor

MTK Series Tractor Specifications*

Drawbar Pull lb	Capacity Flat, Dry Good metric tons	Capacity Curved, Slick, Poor metric tons	Max Speed fpm	Pendent Length ft	Turning Radius in	Beam Flange Width Standard in	Beam Flange Width Optional in
0	0	0	165	7	30	2.7 - 6.3	6.3 - 12
100	1.50	0.75	117	7	30	2.7 - 6.3	6.3 - 12
200	3	1.50	86	7	30	2.7 - 6.3	6.3 - 12
300	4.25	2.25	57	7	30	2.7 - 6.3	6.3 - 12
400	6	3	21	7	30	2.7 - 6.3	6.3 - 12

**At 90 psi inlet pressure. Average air consumption is 35 scfm; range is 25 to 45 scfm, depending on load and air pressure.*

Draw Bar Load vs. Tractor Speed



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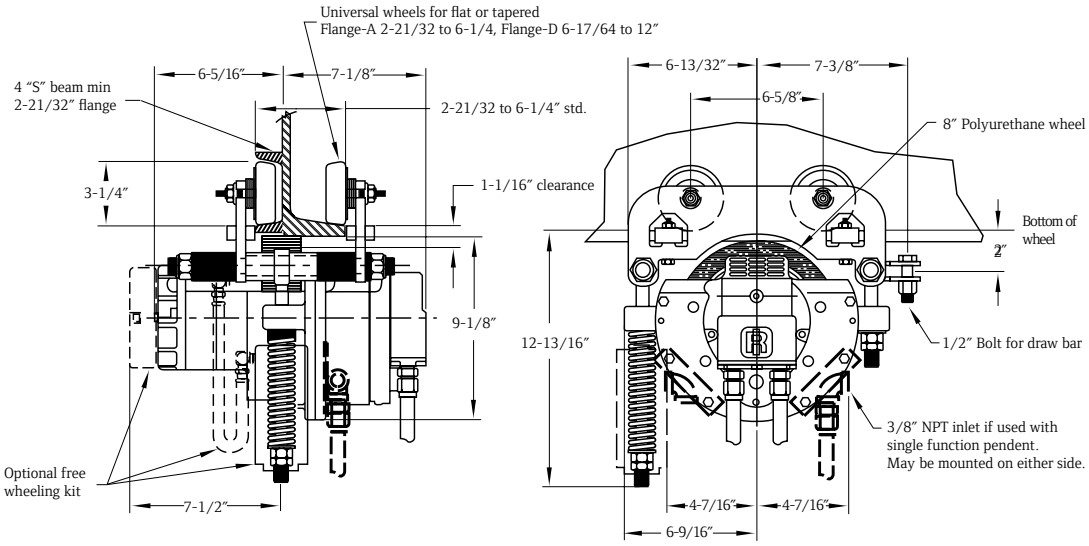
MTK Series

6 metric ton towing capacity



HOW TO ORDER

Specify complete model number as shown. This model code includes: Series, Standard or S*COR*E, type of Trolley, length of chain or pendent drop, flange width, and options Some accessories may be ordered by specifying them as an option code or by ordering separately by part number. See the Accessories and Options charts above.

Example: MTKS-307AM

MTK	S	3	07	A	M
Series	**Standard or S*COR*E**	**Type of control/trolley**	**Chain or pendent length**	**Flange width (in)**	**Options**
MTK	**S** = Standard cast iron wheels	0 = No pendent(1)	**07** = 7 ft (standard)	**A** = Fits 2.66 - 6.25	E = External brake release kit
	B = Standard bronze wheels for S*COR*E features	1 = Pull chain	XX = Specify length in feet	D = Fits 6.26 - 12.00	F = Free wheel
		2 = Single motor pendent(1)	00 = No pendent hose or pull chain		**M** = Manual brake release
		3 = Two motor pendent(2)			P = Piped away exhaust
		4 = Three motor pendent			

(1) Specify when used in combination with hoist on the same order. Specify multiple pendent control function on the hoist only.

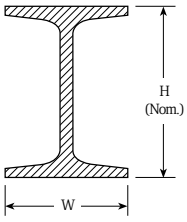
(2) Do not specify if tractor is ordered with a hoist.

I-beam specifications

The following table shows the standard size (H) , flange widths (W), and weights for both American, Standard I-beams, and Wide Flange H-beams. I-beams designated with an asterisk (*) denote New Series applications which conform to ASTM A6 standards, effective September 1, 1978.

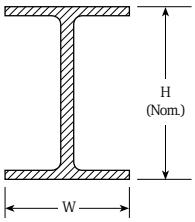
Wide Flange									American Standard		
H in	W in	Weight per ft lb	H in	W in	Weight per ft lb	H in	W in	Weight per ft lb	H in	W in	Weight per ft lb
6	3.94	8.5	10	10.117	66.0	16*	6.985	36	4	2.663	7.7
6*	4.0	9.0	10*	10.130	68.0	16	7.0	40	4	2.796	9.5
6	4.0	12.0	10	10.170	72.0	16*	6.995	40	5	3.004	10.0
6*	4.0	12.0	10	10.190	77.0	16	7.039	45	5	3.284	14.75
6	4.030	16.0	10*	10.190	77.0	16*	7.035	45	6	3.332	12.5
6*	4.030	16.0	10*	10.625	88.0	16	7.073	50	6	3.565	17.25
6*	5.990	15.0	10	10.275	89.0	16*	7.07	50	7	3.662	15.3
6	5.995	15.5	10	10.340	100.0	16*	7.12	57	7	3.860	20.0
6	6.020	20.0	10*	10.340	100.0	16	8.464	58	8	4.001	18.4
6	6.018	20.0	10	10.415	112.0	16*	10.235	67	8	4.171	23.0
6	6.080	25.0	10*	10.415	112.0	16*	10.295	77	10	4.661	25.4
6*	6.080	25.0	12	3.968	14.0	16*	10.365	89	10	4.944	35.0
8	3.940	10.0	12*	3.970	14.0	16*	10.425	100	12	5.0	31.8
8*	3.940	10.0	12*	3.990	16.0	16	11.502	88	12	5.078	35.0
8	4.0	13.0	12	4.0	16.5	16	11.5	96	12	5.252	40.8
8*	4.0	13.0	12	4.005	19.0	18	6.0	35	12	5,477	50.0
8	4.015	15.0	12*	4.007	19.0	18*	6.0	35	15	5.501	42.9
8*	4.015	15.0	12	4.030	22.0	18	6.015	40	15	5.640	50.0
8	5.250	17.0	12*	4.030	22.0	18*	6.015	40	18	6.001	54.7
8*	5.250	18.0	12*	6.490	26.0	18*	6.060	46	18	6.251	70.0
8	5.268	20.0	12	6.497	27.0	18	7.477	45	20	6.25	65.4
8*	5.270	21.0	12*	6.520	30.0	18	7.5	50	20	6.385	75.0
8	6.495	24.0	12	6.525	31.0	18*	7.5	50	20	7.060	86.0
8*	6.5	24.0	12*	6.560	35.0	18	7.532	55	20	7.200	96.0
8	6.535	28.0	12	6.565	36.0	18*	7.530	55	24	7.001	79.9
8*	6.535	28.0	12	8.0	40.0	18	7.558	60	24	7.125	90.0
8	7.995	31.0	12*	8.005	40.0	18*	7.555	60	24	7.245	100.0
8*	7.995	31.0	12	8.042	45.0	18*	7.635	71	24	7.875	105.9
8	8.020	35.0	12*	8.045	45.0	18	8.715	64	24	8.050	121.0
8*	8.020	35.0	12	8.077	50.0	18	8.75	70			
8	8.070	40.0	12*	8.080	50.0	18	8.787	77			
8*	8.070	40.0	12	10.0	53.0	18*	11.035	76			
8	8.110	48.0	12*	9.995	53.0	18*	11.090	86			
8*	8.110	48.0	12	10.014	58.0	18*	11.145	97			
8	8.220	58.0	12*	10.010	58.0	18*	11.200	106			
8*	8.220	58.0	14	5.0	22.0	18*	11.265	119			
8	8.280	67.0	14*	5.0	22.0	18	11.75	96			
8	8.280	67.0	14	5.025	26.0	21	6.5	44			
10	3.950	11.5	14*	5.025	26.0	21*	6.5	44			
10*	3.960	12.0	14	6.730	30.0	21*	6.530	50			
10	4.0	15.0	14*	6.730	30.0	21*	6.555	57			
10*	4.0	15.0	14	6.75	34.0	21	8.215	55			
10	4.010	17.0	14*	6.745	34.0	21	8.240	62			
10*	4.010	17.0	14	6.770	38.0	21*	8.240	62			
10	4.020	19.0	14*	6.770	38.0	21	8.270	68			
10*	4.020	19.0	14	8.0	43.0	21*	8.270	68			
10	5.75	21.0	14*	7.995	43.0	21	8.295	73			
10*	5.75	22.0	14	8.031	48.0	21	8.295	73			
10	5.762	25.0	14*	8.030	48.0	21*	8.355	83			
10*	5.770	26.0	14	8.062	53.0	21*	8.420	93			
10	5.799	29.0	14*	8.060	53.0	21	8.962	82			
10*	5.810	30.0	14	10.0	61.0	24	7.005	55			
10	7.960	33.0	14*	9.995	61.0	24*	7.005	55			
10*	7.960	33.0	14	10.035	68.0	24*	7.040	62			
10	7.985	39.0	14	10.035	68.0	24	8.961	68			
10*	7.985	39.0	14	10.072	74.0	24*	8.965	68			
10	8.020	45.0	14*	10.070	74.0	24	8.965	76			
10*	8.020	45.0	14	12.0	78.0	24*	8.990	76			
10	10.0	49.0	14	14.5	87.0	24	9.015	84			
10*	10.0	49.0	14*	10.130	82.0	24*	9.020	84			
10	10.030	54.0	16	5.5	26.0	24	9.065	94			
10*	10.030	54.0	16	5.525	31.0	24*	9.065	94			
10	10.080	60.0	16*	5.625	31.0	–	–	–			
10*	10.080	60.0	16	6.692	36.0	–	–	–			

American Standard



Tapered " S " Beam

Wide Flange



Tapered " S " Beam

Lubricants

These approved lubricants are suggested for either routine preventive maintenance procedures or for total hoist overhaul.

Part No.	Amount	Product Description	Where Used
29665	1 qt (0.9 L)	Detergent-free spindle oil with viscosity of 155-165 S.U.S. at 100*F and aniline point of 217*F.	In airline lubricator to provide lubrication to hoist air motor.
33153	5 lb (2.3 kg)	EP (extreme pressure) bearing and gear grease, NLGI No. 1 with viscosity of 750 S.U.S. at 100*F.	Pocket wheel, sheave block
50P	1 pt (0.5 L)	Class II lubricant, #50	Hoist and winches
40164	1 qt (0.9 L)	Gear oil	Hoist gearing
50G	1 gal (3.8 L)	Class II lubricant, #50	Hoist and winches
62 1 Gal	1 gal (3.8 L)	Class II #62 oil	Hoist and winch gear boxes
36460	4 oz (118 ml)	Stringy lubricant for rubber seals Triple protection, USDA approved lubricant Extreme pressure formula and corrosion inhibitors, penetrating oils.	"O" rings Load chain or wherever penetrating lubricating oils are used
Lubri-Link Green	16 oz spray bottle	Stringy lubricant for rubber seals Triple protection, USDA approved lubricant Extreme pressure formula and corrosion inhibitors, penetrating oils.	"O" rings Load chain or wherever penetrating lubricating oils are used
LLG-5	5 gal bulk container	Stringy lubricant for rubber seals Triple protection, USDA approved lubricant Extreme pressure formula and corrosion inhibitors, penetrating oils.	"O" rings Load chain or wherever penetrating lubricating oils are used

29665

33153

40164

36460

Lubri-Link Green

Filters - Regulators - Lubricators

Part No.	Size (in) NPTF	Flow Rate scfm	Adj. Pressure Range psig	Bowl Capacity	Height x Width (in)
TRIO UNITS: FILTERS, REGULATORS, LUBRICATORS					
C38341-810	1/2	150	5-250	4 oz	6 x 8.7
C38451-810	3/4	200	5-250	4 oz	8.6 x 11.1
C38461-810	1	215	5-250	4 oz	8.6 x 11.1
Part No.		COMPONENTS			
TRIO #		FILTER	REGULATOR	LUBRICATOR	
C38341-810	1/2	F35341-410	R37341-600	L36341-110	
C38451-810	3/4	F35451-410	R37451-600	L36451-110	
C38461-810	1	F35461-410	R37461-600	L36461-110	

C38451-810

C38341-810

Material Handling Solutions

Case study

Ingersoll Rand routinely provides custom solutions for lifting and pulling applications all over the world. Please contact an authorized Ingersoll Rand distributor or representative for assistance with your application's requirements.

Model

HL2000K/04014E

Application

Nuclear weapon handling hoist and motorized trolley system

Solution

Customer required hoists to be built to ASME NUM-1, *Rules for Construction of Cranes, Monorails, and Hoists,* a design standard for hoists and cranes used in nuclear facilities. Hoists are to be used for the assembly and maintenance of nuclear weapons.

Product Specifications

Model	Capacity	Design Factor	Headroom	Lifting and Lowering Speed	Trolley Travel Speed
HL2000K/04014E	2,000 lb (909 kg)	10:1	22 in (558.8 mm) maximum	Not to exceed 10 fpm (3 m/min)	Not to exceed 16 fpm (4.9 m/min)

Options

- Special quick disconnect pendent manifold
- Positive sealed motor and gearbox — zero tolerance for leakage for "clean room" environment
- Pendent designed to survive a 150 psi overpressure condition
- Custom chain container with drain plug
- Unpainted bare steel bottom hook
- Overload limiter on hoist
- Ecology air preparation package for hoist and trolley
- Custom operation and maintenance manuals and special documentation
- Special customer defined NDE, sound, and load testing requirements
- Long-term storage packaging requirements
- Lightning arrest modifications

HLK2000K/04014E

Distributed by:
Hyspeco Inc. (800) 234-1041 www.Hyspeco.com

Limited Warranty

Industrial Lifting Equipment Limited Warranty

Ingersoll Rand Company (IR) warrants to the original user its industrial lifting equipment (Hoists) to be free of defects in material and workmanship for a period one year from the date of purchase. Ingersoll Rand will repair, without cost, any Hoist found to be defective, including parts and labor charges, or at its option, will replace such Hoist or refund the purchase price less a reasonable allowance for depreciation, in exchange for the hoist. Repairs or replacements are warranted for the remainder of the original warranty period.

If any Hoist proves defective within its original one year warranty period, it should be returned to an appropriate Ingersoll Rand Service Distributor, transportation prepaid with proof of purchase or warranty card.

This warranty does not apply to Hoist that Ingersoll Rand has determined to have been misused or abused, improperly maintained by the purchaser, or where the malfunction or defect can be attributed to the use of non-genuine Ingersoll Rand parts.

Ingersoll Rand makes no other warranty, and all implied warranties including any warranty of merchantability or fitness for a particular purpose are limited to the duration of the expressed warranty period as set for the above. Ingersoll Rand's maximum liability is limited to the purchase price of the Hoist and in no event shall Ingersoll Rand be liable for any consequential, indirect, or special damages of any nature arising from the sale or use of the Hoist, whether based on contract, tort, or otherwise.

Note: Some states do not allow limitations on incidental or consequential damages so that the above limitations may not apply to you. This warranty gives you specific legal rights and you may also have other rights that may vary from state to state.

Product, Parts, Maintenance, Operation, and Safety manuals can be downloaded from irtechpubs.com

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