Quantum Design and Innovation

Q-Rad Systems provide precision and reliability through “Smart-System Design” technology. Innovations such as TechVision™, Q-VISION HF Series Generator Controls, 650 lb patient weight capacity, FAIL-SAFE electromagnetic braking systems, collision avoidance electronics and EZ-Glide handle controls are just some of the unique and valuable advantages of Quantum’s Q-Rad Radiographic Systems.

Q-VISION Series™ Generator featuring TechVision™
Quantum’s Q-VISION Series™ Generator featuring TechVision™ is truly an innovation for the Technologist. Technologists can use the color touch display to easily view and set up all technique parameters, as well as access set-up functions right at tube-side.

Q-Rad Ceiling-Mounted Systems
Quantum’s Q-Rad Ceiling-Mounted Radiographic Systems are designed for hospital radiology departments, trauma rooms, imaging centers and orthopedic facilities which demand not only high quality, but maximum flexibility, in order to accommodate all types of imaging exams. Q-Rad systems are not only aesthetically pleasing, but designed with input directly from technologists.

Q-Rad Floor-Mounted Systems
Designed for high patient volumes within hospital radiology departments, imaging centers, orthopedic facilities, surgery centers, and urgent care clinics. Quantum’s Q-Rad Floor-Mounted Systems are feature-rich and offer full positioning functionality, while providing the highest degree of image quality and patient care.

Verti-Q Wall Stands
Quantum’s Vertical Wall Stand enhances comfort and clinical flexibility. The stylized Wall Stand comes in right-handed and left-handed load models featuring the EZ-Glide hand control which rotates 105° enabling adjustments from a comfortable standing position.

Q-Rad-Digital Systems
All Quantum Q-Rad Radiographic Systems and components are designed to allow use of Direct-Digital Imaging Technology (DR), as well as all CR solutions. Upgrade ability is fast, easy and affordable with any Quantum Q-Rad system. Quantum also offers an extensive line of Q-Rad-Digital "DRX Series" Systems, offering Ceiling and Floor-Mounted Systems incorporating Wireless Detector Technology for faster and enhanced results. Q-Rad-Digital Systems are a secure investment today and in the future.

Quantum’s Q-Rad Radiographic Systems are designed to cost effectively meet your current and future needs with a clear upgrade path to digital radiography that ensures high value and state-of-the-art performance for years to come.

All Systems are designed for use in Hospitals, Clinics and Surgery Centers
The Q-VISION Series™ Generator featuring TechVision™

Quantum’s TechVision™ is truly an innovation for the Technologist. Technologists can use the color touch display to easily view and set up all technique parameters, as well as access set-up functions right at tube-side.

TechVision™ eliminates going back-and-forth from the generator’s Operator Control Panel to the patient, in order to prepare for patient exams. The operator has complete control to adjust exposure parameters right at the tube-side, just as if they were at the generator’s Operator Control Panel. This synchronized generator solution greatly streamlines the imaging process and decreases overall examination time, while allowing the technologist to remain close to the patient, for increased patient care.

The Q-VISION Series™ integrates an innovative high-frequency design along with superb functionality, resulting in revolutionary radiographic generator technology.

Quantum generators provide power levels up to 80 kW and outputs of up to 150 kVp, meeting the needs of any imaging environment. Designed for all aspects of general X-ray imaging and operating at a near-constant potential of up to 120 kHz.

The Q-VISION Series™ provides High Frequency imaging for highly efficient X-ray production. Radiographic imaging is optimized through the Q-VISION’s innovative and simple GUI design, which permits a wide variety of routine, specialized and custom procedures.

Wide Screen Control with Touch-Technology
Q-Rad Ceiling Systems

Q-Rad Ceiling-Mounted Systems use a 5-tiered telescoping column with expansive overhead horizontal and transverse tracks to provide for complete flexibility and virtually unlimited imaging procedures. With an optimum ceiling height of 9’, even standing knees on children can be easily imaged.

Quantum’s exclusive TechVision™ feature (shown) advances the system’s flexibility by adding a tube-side full APR generator control for increased patient throughput.
CEILING-MOUNTED TUBE SUPPORT (RS-590)
The Q-Rad Ceiling-Mounted System uses a 5-tiered telescoping column with expansive overhead horizontal and transverse tracks to provide complete flexibility and virtually unlimited imaging procedures.

Positioning of the RS-590 Ceiling Mounted x-ray tube is directed through a series of color-coded fingertip switches on the operator hand control. These colors correspond with the colors on the various rails for vertical, horizontal and transverse movements. Ergonomic hand grips with multi-function locks provide smooth, responsive system adjustments.

A convenient “All-Locks” release switch is also built into each of the soft-grip controls. Lighted display windows indicate system navigation for SID, tube angle and lock functions, to assist the operator with easy and precise positioning.

“QUIET-LIFT” ELEVATING, FLOAT-TOP TABLE (QT-750)
Quantum’s “QUIET-LIFT” elevating, float-top table eases patient transfer and positioning. With a 650 lbs. (295 kg) patient capacity and a rugged lifting mechanism, the table elevates smoothly and quietly. The extra-wide (35”), and completely flat-top table surface simplifies patient transfer and positioning, while providing comfort for larger patients.

Float-top motion and elevating capability is controlled through both recessed foot controls, as well as float-top multi-function hand control switch. Adjustable patient hand grips are included, and can be positioned along the concealed accessory rails to help stabilize the patient during exam positioning.

VERTI-Q VERTICAL WALL STAND (QW-420)
Quantum’s Vertical Wall Stand, VERTI-Q, allows for a variety of imaging: from skull through lower extremities, with its counterbalanced travel and minimum focal spot-to-floor distance.
Q-Rad Floor-Mounted Systems are the ideal choice for the busy imaging center, orthopedic facility or hospital. The advanced features and unique design aspects of the system allow the technologist to fully concentrate on the patient during the examination.
**DELUXE FLOOR-MOUNTED TUBESTAND (QS-550)**

The versatility of the QS-550 Deluxe tubestand provides extended freedom of movement of the tube assembly, allowing for a wide array of examinations. Tubestand positioning is controlled through a series of accessible fingertip switches on the operator hand control. A single switch releases all tubestand locks for multi-directional adjustments. An easy-to-read indicator displays system position.

Expansive longitudinal and transverse travel, column rotation (+/- 90°), tube angulation (+/- 135°), and trunnion rotation (+45°/-20°), assure complete radiographic coverage. Even the most challenging views, such as weight-bearing, cross-table and off-table studies are simplified through the system’s generous range of motion and flexibility.

**FLOAT-TOP RADIOGRAPHIC TABLE (QT-740)**

Quantum’s revolutionary design of the Float-Top Table, provides a number of innovative features. With a patient weight capacity of 650 lb and an extra-wide design, the table is able to support the full range of patient types comfortably. Additionally, its FAIL-SAFE electromagnetic braking system and collision-detection electronics ensures patient and operator safety. Quantum’s QT-740 Series table has all the same key features with the exception of table elevation.

**VERTI-Q VERTICAL WALL STAND (QW-420)**

Standing examinations are easily accomplished with Quantum’s VERTI-Q Vertical Wall Stand, due to the extensive range of vertical travel.
VERTI-Q Wall Stands

Quantum’s Vertical Wall Stand enhances comfort and clinical flexibility. The stylized Wall Stand comes in right-handed and left-handed load models featuring the EZ-Glide hand control which rotates 105° enabling adjustments from a comfortable standing position.

QW-420 “VERTI-Q” Wall Stand
Quantum’s Vertical Wall Stand “VERTI-Q” is a stylized, single-column structure with an attractive receptor enclosure. The low-absorption front cover includes cassette centering lines and AEC chamber indicators for precise patient positioning. The VERTI-Q Wall Stand can be matched with multi-speed reciprocating buckies, automatic cassette loading systems, fixed grids, or digital receptors.

“EZ-GLIDE” HAND CONTROL
All VERTI-Q Wall Stands integrate Quantum’s exclusive EZ-Glide hand control, which is ergonomically designed to allow operator adjustment from a comfortable standing position, with minimal effort and maximizes technologist efficiency during vertical adjustment of the image receptor.

QW-420-MT “VERTI-Q TILT” Manual Tilting Wall Stand
Quantum’s Tilting Wall Stands have an adjustable receptor range of 90° to -15°, providing great flexibility for various exams. Automatic stops are provided at -15°, 0°, and 90°. Vertical travel is electromagnetic through the use of a FAIL-SAFE design and incorporates Quantum’s exclusive EZ-Glide hand control.

QW-420-T “VERTI-Q TILT” Motorized Tilting Wall Stand
Same as Manual but the receptor tilt movement is motorized through the use of a convenient remote control switch.

QW-420-S “VERTI-Q SIDE MOUNTED” Space Saving Wall Stand
This side mounted wall stand incorporates a space saving design for installation in rooms where space may be limited.
**Q-Rad System Specifications**

**RS-590 “CMT” Ceiling Mounted Tube Support:**
- Telescopic column with 65" (165.1 cm) of vertical travel, with focus-floor distance of 10" (25.4 cm), in a 9' ceiling.
  (Telescopic column can achieve up to 70.86" (180 cm) of vertical travel, if installed in a 9'-10.89" (302 cm) ceiling room)
- Longitudinal travel range of 137.75" (350 cm), with standard rail length of 14’ (426.72 cm)
- Transverse travel range of 84.64” (215 cm) with standard rail length of 10’ (304.8 cm)
- Tube rotation about Vertical axis: -154°/ +182°, with detents at 0° and +/- 90°
- Tube rotation about Horizontal axis: +/- 120°, with detents at 0° and +/- 90°
- Operator Handgrips with multi-function switches
- Cable concealment and management system

**NOTE:** Includes Unistrut Mounting Hardware

**“QUIET-LIFT” Elevating / Float Top Radiographic Table: QT-750**
- Patient weight capacity: 650 lb (295.5 kg)
- Elevating Range: 21" - 32.5" (53 - 83 cm)
- Collision avoidance electronics with built-in table sensors
- Tabletop Length: 85" (216 cm); with 30.5° (77.5 cm) of longitudinal travel
- Tabletop Width: 35.5" (90 cm); with 10" (25 cm) of transverse travel
  - "Extra Wide" design, for Large Patient comfort
- Flat top design for easy patient transfer and cleaning with low absorption material
- FAIL-SAFE electromagnetic braking system for safety
- Recessed floor switches for all table movements, with safety lock-out control switch
- Float-top multi-function hand control switch, adjustable position (for elevation and float control)
- Adjustable patient handgrips along concealed accessory rails
  - Options: Compression Band (R90-CB) and Lateral Cather Case Holder (QT-LCH)

**Q-Rad Floor Systems**

**Deluxe Floor Mounted Tubestand: QS-550**
- 10 ft. long track with 98" (249 cm) of longitudinal travel
- Deluxe Handgrips: multi-function with fingertip controls for all motions
- All-Locks release switch and auto-stop sensors for horizontal and vertical positioning
- Vertical Travel: 60.5" (154 cm), minimum floor to focus distance of 13.75" (35 cm)
- FAIL-SAFE electromagnetic braking system and integral counterbalancing
- Column Rotation: +/- 180°, Transverse Arm: 10" (25 cm)
- Tube angulations: +/- 15° with detents at 0° and +/- 90°
- Cable concealment and management system
  - Available with Tension mount (QS-55T) which allows for the tube head rotation +45°/-20° with dual angle guide

**“VERTI-Q” Vertical Wall Stand: QW-420**
- Vertical Travel: 60.5" (154 cm)
- Minimum Focal Spot-to-Floor Distance: 13.75" (35 cm)
- "EZ-Glide" Hand control, grip rotates +105° for comfort
- Enclosed receptor frame with patient chin rest
- Low absorption front cover material with cassette and AFC Indicators
- FAIL-SAFE electromagnetic braking system with integral counterbalancing
  - Options: Patient "Side Mounted" Grips (QW-HG20)
  - Patient "Overhead" Grip (QW-HG30)
  - Extension kit (QW-EX8)
  - Available as side-mounted stand (space saving): QW-420-S
  - Available with manual tilting feature (+90°/-15°): QW-420-MT
  - Available with motorized tilting feature (+90°/-15°): QW-420-T

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- Float-top multi-function hand control switch, adjustable position (for elevation and float control)
- Adjustable patient handgrips along concealed accessory rails
  - Options: Compression Band (R90-CB) and Lateral Cather Case Holder (QT-LCH)

**Q-Rad Ceiling Systems**

**Q-Rad Floor Systems**

Specifications subject to change without prior notice.
Upgrade To “Digital” Radiography

**Q-Rad-DIGITAL DRX SERIES**

*Fully Integrated Digital Radiography System*

**QUANTUM: LEADING THE WAY IN DIGITAL IMAGING**
Quantum’s Q-Rad-DIGITAL DRX-Series are fully integrated Digital Radiographic Systems, featuring Carestream DRX Technology. Smart-System innovations; such as TechVision™, Operator Touch-Control Center, and the flexibility of Wireless or Wired DR solutions are available in either Ceiling or Floor mounted configurations. All systems provide advanced operational and ergonomic features, with virtually unlimited positioning capabilities.

**FLEXIBLE DIGITAL PANEL COMBINATIONS**
*Choose the DRX detector option best suited to your needs. These include:*

- **DRX Wireless Detector** 14 in. x 17 in. (35 x 43 cm) with gadolinium oxysulfide (GOS) scintillator for general radiographic imaging or cesium iodide (CsI), with increased DQE and MTF, for dose-sensitive applications.

- **DRX Fixed Detector** 17 in. x 17 in. (43 x 43 cm) with gadolinium oxysulfide (GOS), or a low-dose cesium iodide (CsI) flat-panel option for facilities that prefer a larger, non-portable detector

- **DRX 2530C Wireless Detector** 11 in. x 16 in. (28 x 41 cm) with cesium iodide (CsI) design for dose-sensitive pediatric applications

**INCREASED WORKFLOW OF WIRELESS CASSETTE**

- Wireless transmission & instant image availability reduces exam time
- Wireless Cassette offers positioning freedom of conventional cassettes

**SHARED PANEL SOLUTION**

**DRX Wireless Cassettes may also be used within other areas of the hospital such as mobile x-ray, providing a maximizing utilization of this advanced technology and sharing resources.**
The “DRX SERIES” systems provide superior positioning flexibility by using a wireless cassette-size detector in either the table or wall stand. The light weight design, large imaging area and fast display times of the innovative detector technology makes it easy to capture high quality diagnostic images for routine diagnosis, as well as in challenging trauma positioning.

*All Quantum Radiographic Systems are “fully upgradable to integrated DR technology”, providing for a very secure investment.
Quantum Medical Imaging is a highly innovative company which designs and manufactures medical radiographic systems (both DR and CR digital solutions), for hospitals, imaging centers, orthopedics, clinics and private offices around the world. The company's mission is to supply the radiographic imaging industry with superior products for enhanced diagnostic capability.

As a Division of Carestream, Quantum’s reach expands around the globe, offering highly innovative digital radiographic system solutions, utilizing the most advanced CR or DR technologies. Quantum systems and products are sold and installed in over 150 countries around the globe.

**QUANTUM MEDICAL IMAGING | DIVISION OF CARESTREAM**

**DESIGNED FOR TECHNOLOGISTS**

Designed by a team of engineers with extensive input from technologists, Q-Rad systems are highly refined for logical and efficient operation. This unique approach to system development simplifies radiographic examinations and assures that Quantum products meet the growing needs of radiology.

Quantum’s technology is proven in thousands of clinical installations worldwide.

From the design stage through final product testing, Quantum Q-Rad Series systems integrate high quality, durable materials for robust construction and advanced electronics for optimal performance. Rigorous manufacturing standards and a commitment to evolving technologies assure long-term system value and customer satisfaction.

The company’s radiographic system solutions are backed by our “Gold Star” network of factory-authorized dealers, for sales and service.