

# *Q-Rad*

*Radiographic Systems*



**Quantum**  
MEDICAL IMAGING  
Division of Carestream

# *“Q-Rad” Radiographic Systems*

*Exceptional Value, Precision and Reliable Solutions for All Imaging Applications...*

## **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-Rad Ceiling-Mounted Systems**

Quantum's ceiling-mounted radiographic systems are designed for hospital emergency 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.



## **System Flexibility**

Quantum's wide selection of system configurations and extensive options, as well as its line of powerful high frequency x-ray generators accommodate every type of radiographic system requirement and exam. The systems are flexible enough to meet various room size requirements, as well as different facility budgets.



## **Q-Rad-DIGITAL Systems**

All Quantum Q-Rad systems and components are already 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 better results. Q-Rad-DIGITAL systems are a secure investment today and in the future.







STEP 1



Select anatomical region

STEP 2



Select anatomical view

STEP 3



Ready for exposure

## TECHVISION™: A QUANTUM EXCLUSIVE

Quantum's TechVision™ is truly an innovation for the technologist. Technologists can 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.

### TechVision Features:

- Multi-Color (16 Bit; 800 x 600 Pixel; 8.4" display) Touchscreen
- Technologist controls generator technique selection at tube-side
- Full APR, AEC and Manual technique selection
- Improved patient care, as technologist remains close to the patient during exam set-up procedure
- Improved patient through-put, by reducing steps taken by the technologist during exam set-up procedure
- Digital Imaging Ready - Provides actual digital image "PREVIEW" and "Study Review" (with select DR solutions)

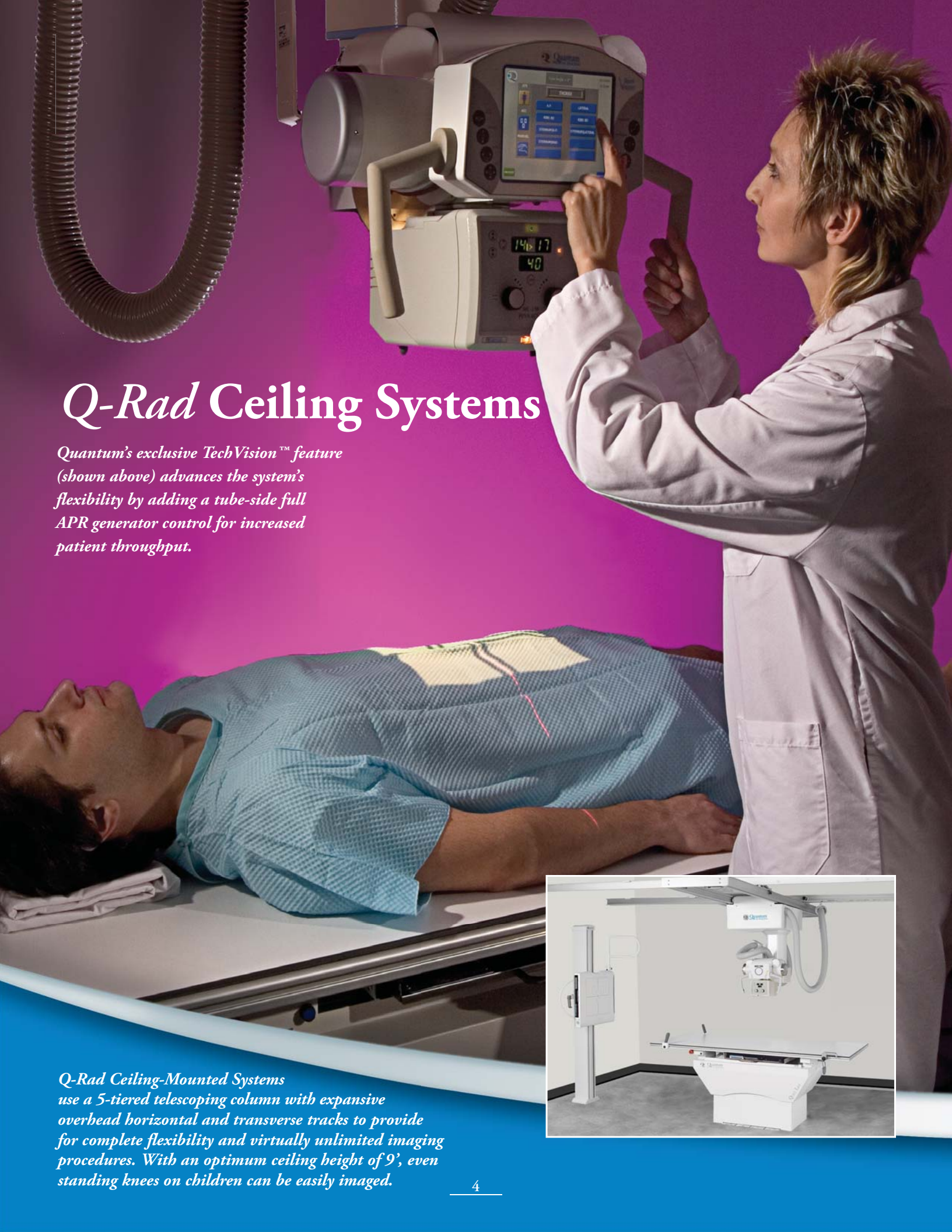
## Q-VISION HF SERIES

The Q-VISION Series™ integrates revolutionary high frequency design with superb functionality, resulting in the most advanced radiographic generator ever developed. The Q-VISION Series™ generators provide power levels up to 80 kW and outputs of up to 150kVp, 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 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.







# Q-Rad Ceiling Systems

*Quantum's exclusive TechVision™ feature (shown above) advances the system's flexibility by adding a tube-side full APR generator control for increased patient throughput.*



*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.*

## CEILING-MOUNTED TUBE SUPPORT (RS-580)

Centralized hand grips with dual soft-grips provide smooth, responsive system adjustments. Positioning of the x-ray tube is directed through a series of color-coded fingertip switches on the operator hand control, which coincide with the colors on the various rails, for vertical, horizontal and transverse movements. A convenient “All-Locks” release switch is 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.

## MOTORIZED SERVO-DRIVE (RS-580-MAC) with “Q-TRACK” Technology

Quantum Ceiling Systems equipped with SERVO-DRIVE and “Q-TRACK” technology provide automatic motorized alignment to the vertical wall stand (chest unit), as well as adjusting to the variable height of the elevating table.

**Q-TRACK**, assists the technologist with automation for:

- faster patient positioning
- increased patient throughput
- better imaging accuracy, since the x-ray beam maintains constant alignment with the center of the image receptor

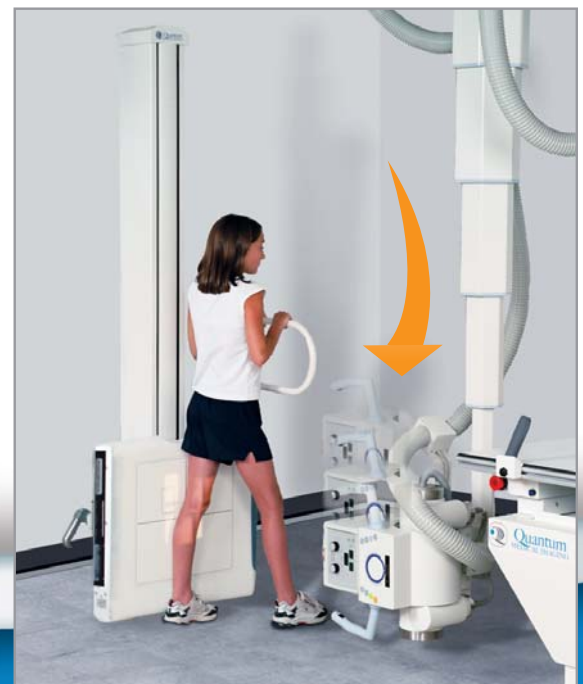
This saves staff considerable time and effort, and places their focus completely on the patient and the exam procedure.



*Collision-avoidance electronics, a FAIL-SAFE braking system and an operator lock-out switch provide for an exceptionally safe working environment.*

## 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 Systems



*Lateral Cassette Holder (LCH)  
is available to assist with  
cross table exams.*



*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 TUBE STAND (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 ( $\pm 90^\circ$ ), tube angulation ( $\pm 135^\circ$ ), and trunnion rotation ( $+45^\circ/-20^\circ$ ), 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.



*The table control handle has the ability to drive the table up and down, as well as enabling the float-top feature.*

## 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.



## "QUIET-LIFT" ELEVATING FLOAT-TOP TABLE (QT-750)

Quantum's revolutionary design of the "QUIET-LIFT" Elevating 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 breaking system and collision-avoidance electronics ensures patient and operator safety. The table lowers easily to accommodate a variety of stretcher and wheelchair patients. Quantum's QT-740 Series table has all the same key features with the exception of table elevation.

## MOTORIZED SERVO-DRIVE FLOOR MOUNT (QS-550-MAC), with "Q-TRACK" Technology

Q-Rad Floor Systems are available with SERVO-DRIVE and "Q-TRACK" technology, which provides motorized synchronization between the central beam of the x-ray and the center of the image receptor, keeping them in alignment. This feature allows the technologist to save time and effort, by eliminating the need to constantly align the tubestand to the wall bucky, while ensuring a greater precision. "Q-TRACK" also automatically maintains the proper SID with the elevating table during vertical adjustments.



# Q-Rad System Flexibility / Options

## "VERTI-Q" WALL STAND (QW-420)

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 can be matched with multi-speed reciprocating buckies, automatic cassette loading systems, fixed grids, or digital receptors.

A FAIL-SAFE electromagnetic braking system with integral counterbalancing ensures patient safety and ease of use.

A wide variety of patient exams are possible with the VERTI-Q Wall Stand: Extensive vertical travel from 13.75" minimal focal spot-to-floor distance for weight bearing knees on pediatric patients, up to 74.25" for upright exams on adults.



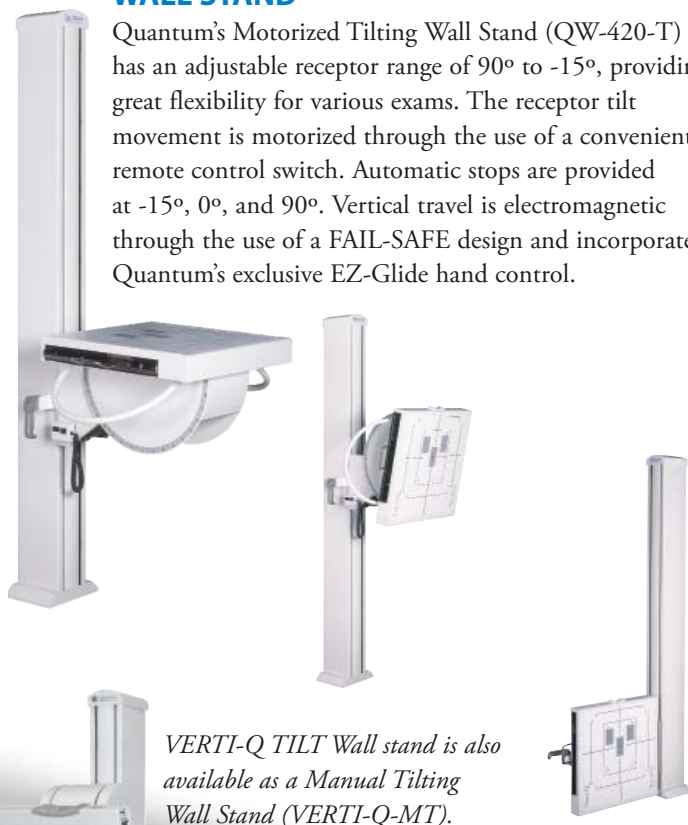
*Patient overhead and side-mounted hand grips are available to stabilize patients during standing and weight bearing exams.*



*A 8" column offset kit is available to facilitate seated gurney or wheelchair examinations, by increasing the distance between the column and the receptor.*

## "VERTI-Q TILT" MOTORIZED TILTING WALL STAND

Quantum's Motorized Tilting Wall Stand (QW-420-T) has an adjustable receptor range of 90° to -15°, providing great flexibility for various exams. The receptor tilt movement is motorized through the use of a convenient remote control switch. 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.



*VERTI-Q TILT Wall stand is also available as a Manual Tilting Wall Stand (VERTI-Q-MT).*

## "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.

By actually pivoting on its axis (+105°), the EZ-Glide hand control maximizes technologist efficiency and comfort during vertical adjustment of the image receptor.



## "VERTI-Q SIDE MOUNT" VERTICAL WALL STAND (QW-420-S)

This side mounted wall stand incorporates a space saving design for installation in rooms where space may be limited.



## "VERTI-Q 14 X 36" VERTICAL WALL STAND (QW-421)

This wall stand facilitates long leg and scoliosis examinations, using a 14" X 36" cassette. It also allows the use of all standard cassette sizes.





# Q-Rad System Specifications

## "CMT" Ceiling Mounted Tube Support: RS-580

- Telescopic column with Vertical travel: 59" (150 cm)
- Longitudinal travel: 140" (356 cm) with rail length of 14' (4.25 meters)
- Transverse travel 87.5" (222 cm) with rail length of 10' (3 meters)
- Tube rotation about Vertical axis: +154°/-182°, detents at 0° and +/- 90°
- Tube rotation about Horizontal axis: +/- 120°, detents at 0° and +/- 90°
- Operator Handgrips with digital display, dual "All Lock" release switch in grips
- Cable concealment and management system

## Motorized (SERVO) Ceiling Mounted Tube Support: RS-580-MAC

- Same as RS-580, but includes "MOTORIZED" Vertical Drive Movement and SERVO Tracking

## Deluxe Floor Mounted Tubestand: QS-550

- 10 ft. long tracks 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: +/- 135° with detents at 0° and +/- 90°
- Cable concealment and management system
- \* Available with Trunnion mount (QS-55T) which allows for the tube head rotation +45°/-20° with dual angle guide

## "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 32" (82 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 foot 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 Cassette Holder (QT-LCH)

## Float Top Radiographic Table: QT-740

- \* Same features as QT-750, with exception of elevating capability

## "VERTI-Q" Vertical Wall Stand: QW-420

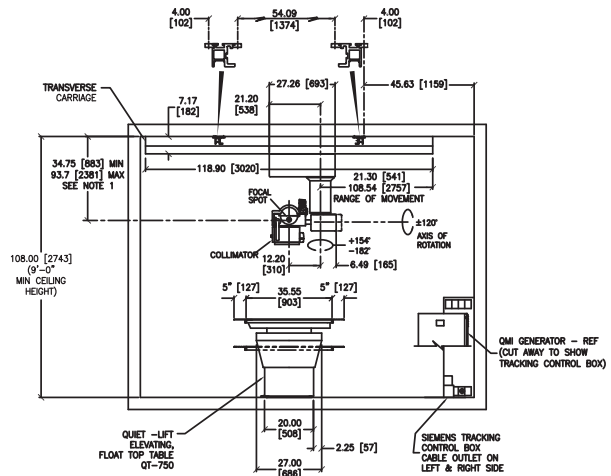
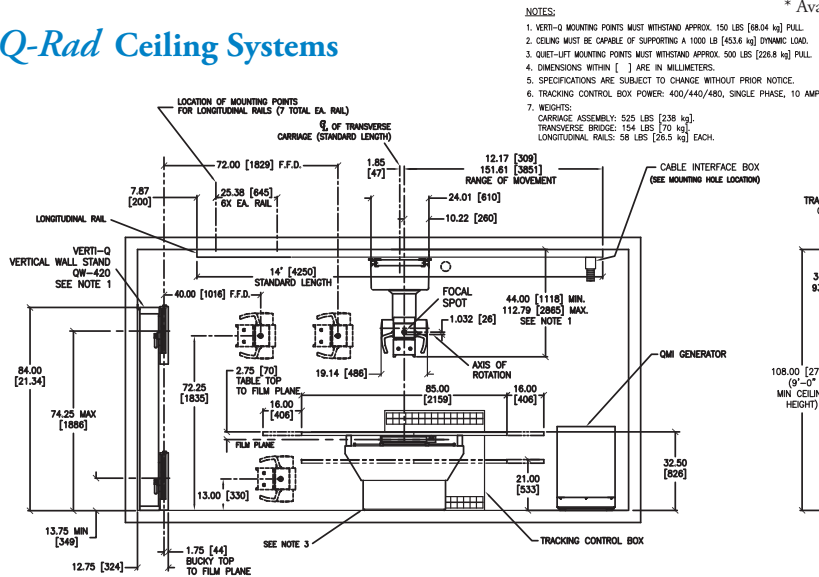
- Vertical Travel: 60.5" (154 cm)
- Minimum Focal Spot-to-Floor Distance: 13.75" (35 cm)
- "EZ-Glide" Hand control, grip rotates +105° for comfort
- Enclosed receptor frame with patient chin rest
- Low absorption front cover material with cassette and AEC Indicators
- FAIL-SAFE electromagnetic braking 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

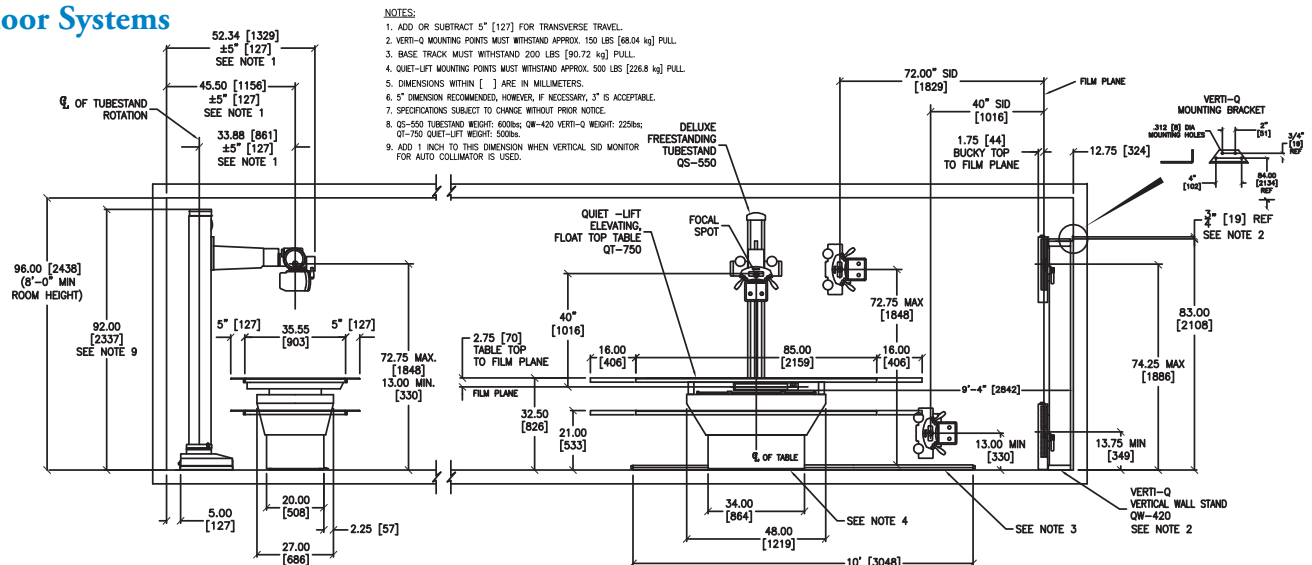
- \* Available with motorized tilting feature (+90°/-15°): QW-420-T

- \* Available for 14" x 36" cassette size: QW-421

## Q-Rad Ceiling Systems



## Q-Rad Floor Systems



# 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.

**\*All Quantum Radiographic Systems are "fully upgradable to integrated DR technology", providing for a very secure investment.**



## WIRELESS CASSETTE

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.

Powered by  
**Carestream**



## MULTIPLE DETECTOR COMBINATIONS

Q-Rad-DIGITAL: "DRX-Series" offers flexible digital panel combinations

**Single-detector:** 14"x 17" wireless cassette, shared among the wall stand, table/table top

**Dual-detector:** Fixed 17"x 17" in wall stand and 14"x 17" wireless cassette for table/table top.

**Dual-detector:** Two (2) 14"x 17" wireless cassettes for wall stand and table/table top

*Offered with Cesium-Iodide scintillator for low dose imaging*

*\*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.*



## SPEED WITH PRECISION

Digital detector technology allows images to be previewed within seconds after the exposure. The results can be automatically sent to other viewing stations, printers and archive servers on the facilities network.



## SHARED PANEL SOLUTION

## INCREASED WORKFLOW OF WIRELESS CASSETTE

- Wireless transmission and instant image availability reduces exam time
- Fast forwarding to multiple network destinations speeds throughput
- Wireless Cassette offers positioning freedom of conventional cassettes



*Pioneering technology from the premiere innovator in imaging...*



## **QUANTUM MEDICAL IMAGING - A DIVISION OF CARESTREAM**

Quantum Medical Imaging is a highly innovative company which designs and manufactures high quality medical radiographic systems for hospitals, orthopedic facilities and imaging centers. 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.

## **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 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.



Quantum Medical Imaging

### **Dealer Information**

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