

A Siemens Multitom Rax mobile X-ray unit is shown in a clean, white clinical setting. The unit consists of a large, white, rectangular base with a control panel and a small screen. A long, white, articulated arm extends from the base, supporting a large, flat, rectangular X-ray detector. The arm is suspended from the ceiling by a complex system of white pipes and cables. The background is a plain white wall with recessed ceiling lights.

Move beyond traditional X-ray

Multitom Rax

Member
of the
MAX family

[siemens.com/multitom-rax](https://www.siemens.com/multitom-rax)



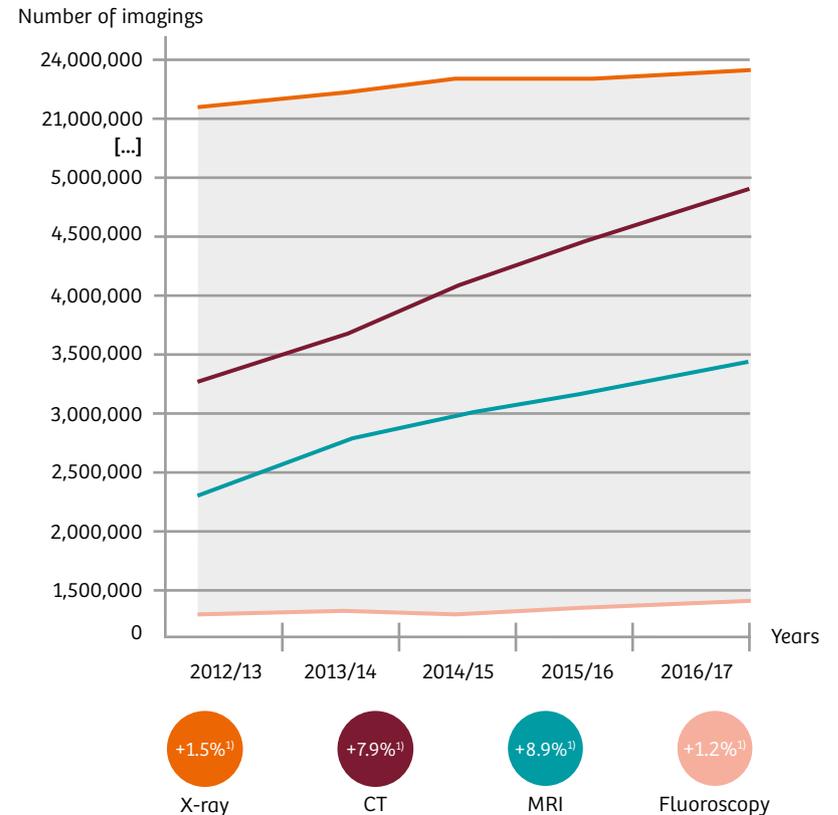
SIEMENS
Healthineers

Flexibility as success factor

Even though the role of diagnostic imaging is steadily increasing, one key issue in the health-care environment is how to improve profitability and efficiency in imaging. Part of this is optimizing asset utilization and room costs. In daily clinical business, not all systems are used to the same extent. Interventional suites or CT scanners, for example, are usually overutilized, which leads to high workloads and long patient wait times – while fluoroscopy rooms might be underutilized, resulting in inefficiencies. Therefore more flexibility is essential to multiply productivity and reduce costs.

Count of NHS imaging activity in England – 2012/13 to 2016/17

While X-ray remains the most widely used modality, other modalities like CT show higher growth rates over the past years.



Source: Diagnostic Imaging Dataset, Annual Statistical Release 2016/17, first published November 23, 2017; www.england.nhs.uk/statistics/statistical-work-areas/diagnostic-imaging-dataset/diagnostic-imaging-dataset-2016-17-data; last visited February 12, 2018

1) Growth is between 2015/16 and 2016/17

Enhance your flexibility with Multitom Rax

The healthcare market is becoming increasingly complex and volatile. To remain competitive in the long run, clinical institutions have to be able to quickly adapt to changes – whether in their patient and case mix, how examinations are reimbursed, or the introduction of new clinical applications into their portfolio. For this, maintaining a high level of flexibility is essential.

With Multitom Rax, you are selecting the most versatile system in the market: besides unlimited radiographic and diagnostic fluoroscopy capabilities,¹⁾ you can also perform select interventions,¹⁾ basic angiographies,¹⁾ and 3D bone imaging.¹⁾ You can flexibly react to individual system peak times and balance asset utilization. Due to the modular system design, Multitom Rax can be easily matched to your clinical needs at any time: simply start with high throughput radiography and add functions as your needs develop. Stay flexible and move beyond traditional X-ray – with Multitom Rax.

1) Option



Experience the MAX effect:
Multiply your gains in standardization, savings, and satisfaction with Multitom Rax.



Discover Multitom Rax

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Multitom Rax at a glance

Stay flexible
with one system

Optimize asset utilization and save on both: systems and rooms. Multitom Rax covers a broad range of X-ray applications – from radiography and fluoroscopy¹⁾ to 3D bone imaging¹⁾ and basic angiography.¹⁾

See reality with
Real 3D

Get new diagnostic insights: Multitom Rax delivers low-dose Real 3D¹⁾ images of the extremities and the lumbar spine – even under natural weight-bearing conditions.

Improve patient
experience

Reduce patient repositioning and transfers and thus pain and risks of injury: perform multiple exams in the same room with the twin robots moving flexibly around the patient.





**Increase
workforce
productivity**

Maximize precision while minimizing work steps: Multitom Rax supports your team in streamlining workflows and delivering consistent high quality of care – independent of the team setup.

**Multiply your full
potential**

Is Multitom Rax your first MAX system? Then it is your door opener to the MAX effect. If you already own a MAX system, you can now enjoy the MAX effect of enhanced standardization, savings, and satisfaction. And the MAX effect will grow with every MAX system you add.

**Keep your
IT secure**

The healthcare environment is becoming increasingly digitalized and connected. Cyberattacks and data theft are just two possible threats. Multitom Rax comes with a high level of cybersecurity to support you in safeguarding your IT and sensitive patient data.

**Personalize when
it matters**

Children have different imaging needs than adult patients. From a very low table height and dedicated low-dose organ programs to special positioning aids, Multitom Rax provides all you need to image children safely and efficiently.

Perform a multitude of X-rays – in just one room

System underutilization results in unjustified capital tie-up and costs, while overutilization leads to a high workload with longer patient wait times. Covering multiple X-ray imaging needs, Multitom Rax lets you experience utmost flexibility to improve your asset utilization.

Discover flexibility at expert level

Multitom Rax offers a previously unseen versatility in X-ray. Besides unlimited radiography and diagnostic fluoroscopy capabilities, the system can also be used for:

- 3D bone imaging¹⁾
- Basic angiography¹⁾
- Select interventional procedures¹⁾

Enhance capabilities and optimize asset utilization

Whether small or large, Multitom Rax is the ideal choice for any institutional size. Combining a broad range of X-ray applications in one, it allows smaller hospitals to consolidate existing rooms and offer a wider variety of exams. Larger institutions can optimize asset utilization and save on additional systems and rooms, for example, by taking minor procedures out of their interventional suites.

Stay flexible today and tomorrow

Thanks to its modular design, Multitom Rax can be configured to match your clinical needs. What's more, you can adapt the system at any time if your requirements changed.



JoAnne Wendt

Director of Radiology,
Ashland Memorial Medical
Center, USA

“When we’re not using it for fluoroscopy, we’re using it for diagnostic X-ray, which we didn’t do in that room before. And we’re working with our interventional radiologists to introduce new capabilities that we can offer our community.”

Stay flexible with Multitom Rax



Broad application mix

Do with one scanner what always required various modalities – until now.

- High-throughput radiography
- Diagnostic fluoroscopy¹⁾
- Selected interventions¹⁾
- Minor procedures¹⁾
- Basic angiographies¹⁾
- 3D bone imaging¹⁾
- ...



Broad case mix

Cover a wide range of clinical needs to optimize room and resource utilization.

- General radiology
- Trauma
- Orthopedic procedures
- Gastrointestinal
- Urogenital
- Interventions
- ...



Broad patient mix

Adapt to any patient and flexibly respond to any requirement.

- Pediatric
- Geriatric
- Bariatric
- Immobile
- Trauma
- ...

See reality with Real 3D¹⁾ – for the first time

Some pathologies, for example of joints, look different when a patient is standing up or lying down. Get the precise anatomical information you need and gain new insights with our unique Real 3D¹⁾ images. And compared to a CT scan, you also reduce dose considerably for your patients in extremity imaging.

Get 2D and Real 3D¹⁾ in one room

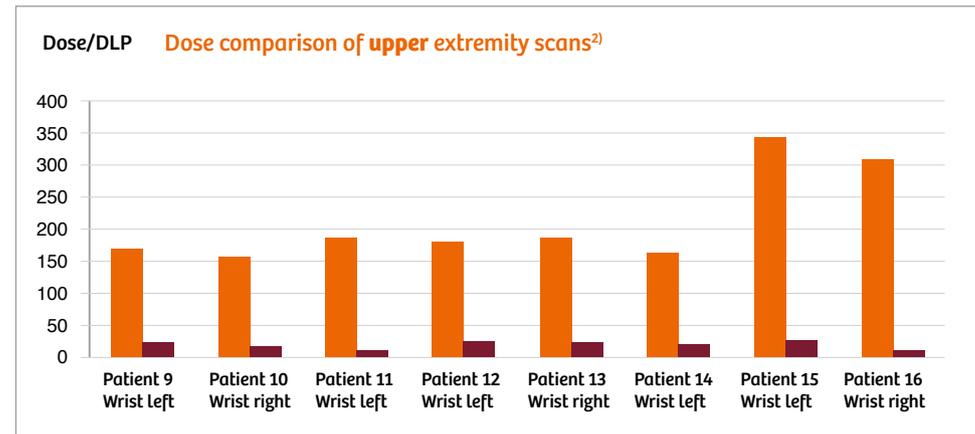
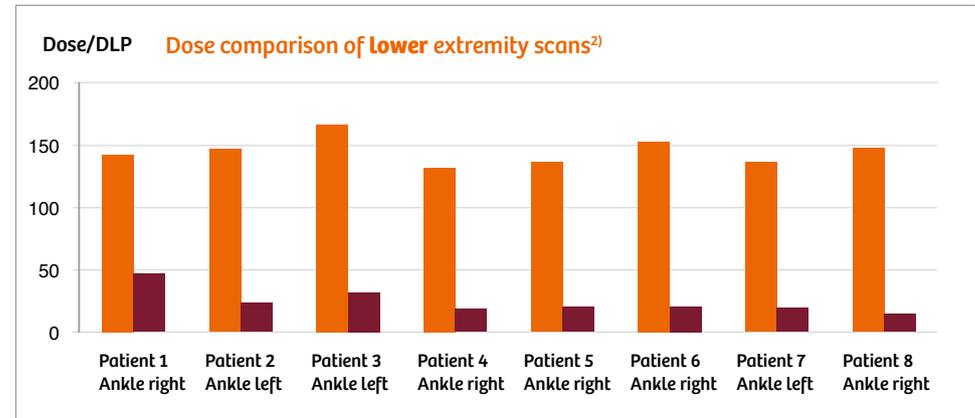
With Multitom Rax, your staff can instantly switch from 2D to 3D without patient transfer or rescheduling. The system offers a wide range of 3D exams on the tabletop, tableside or for standing patients – all with low-dose protocols.

Relieve your CT scanner from peak loads

Multitom Rax delivers low-dose 3D images of the extremities – with high spatial resolution and high bone contrast. This gives you great flexibility because you can simply shift select examinations from your CT to Multitom Rax.

Expand precision medicine

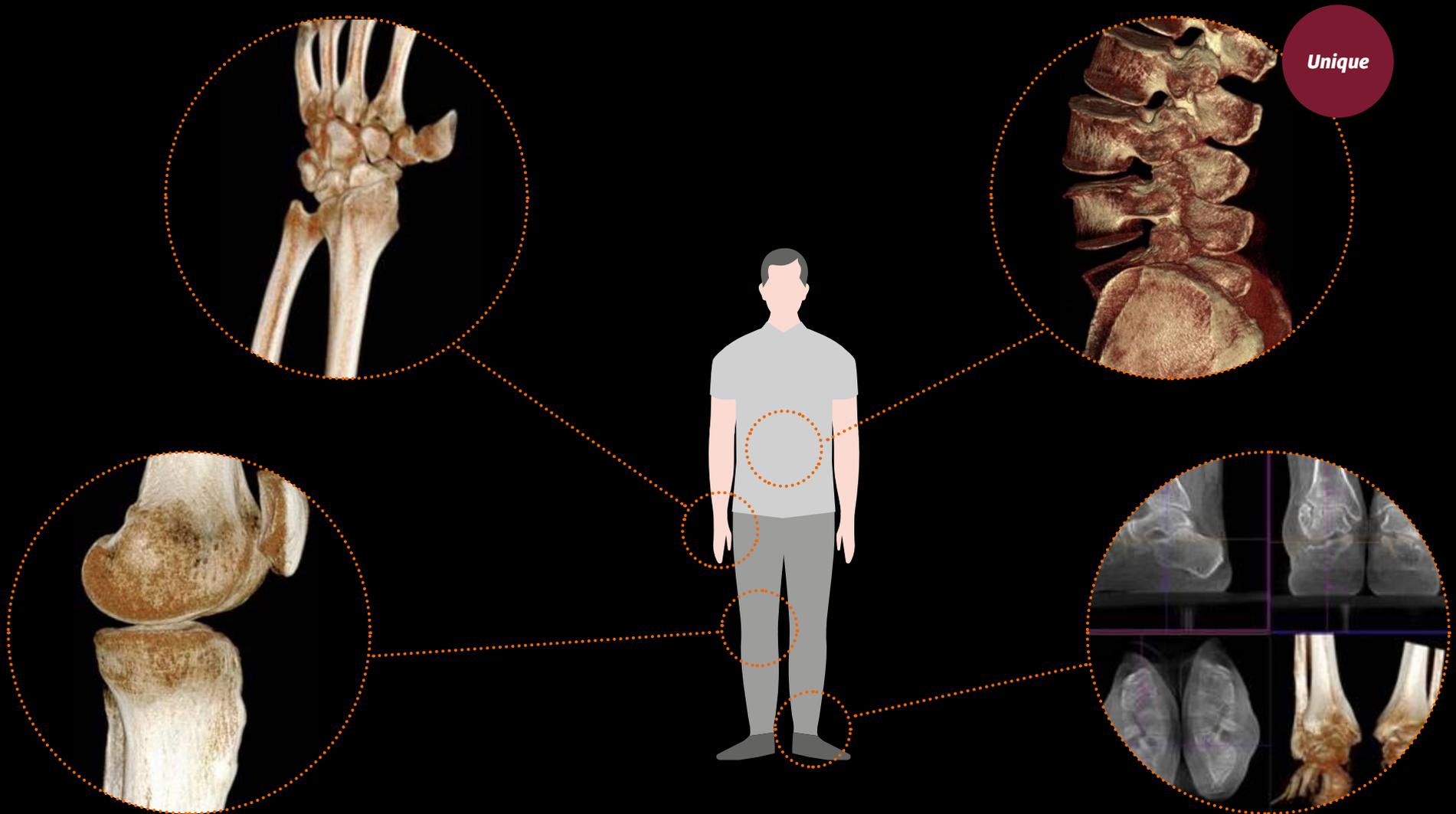
Provide referrers with new insights: with Multitom Rax, images can be acquired not only with patients lying, but also standing under natural weight-bearing conditions – enabling better assessment of pathologies that change under load.



● Dose values CT ● Dose values Multitom Rax

2) The comparison was made with the same patient scanned with Multitom Rax and with a CT scanner. To obtain a direct comparison of Multitom Rax and CT dose values, the dose length product (DLP) was used. DLP is measured in mGy cm. DLP is based on CTDI_{vol} measurements, following IEC 60601-2-44 A1 standard. Source: ECR Lunch Symposium 2017: 3D Tomography with MTR or CT – General Overview of benefits and limitations (A. Falkowski, R.M. Benz, L. Rizzo, E. Sommer, A. Hirschmann). Data on file.

See reality with Real 3D¹⁾: anatomical regions of interest



Let the robots move – not your patients

Every patient movement can cause pain, increase the risk of injury, require physical effort from staff, and cost time. So why not let the scanner move around your patients instead? Multitom Rax precisely positions and aligns itself – even in challenging situations like trauma cases.

Improve patient experience

The highly flexible system and robotic movements of Multitom Rax reduce the need to transfer patients between systems and reposition them during procedures. The benefits include:

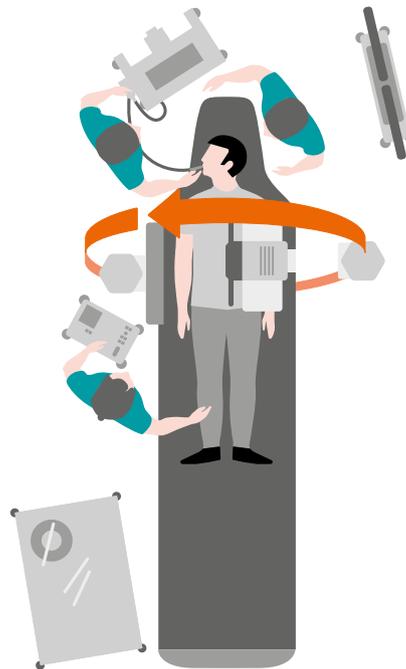
- Less pain and lower risk of injury for your patients
- Shorter examination and wait times
- Faster diagnoses

Increase your patient focus – in every detail

Caring for patients or focusing on technology – with Multitom Rax, there's no question what comes first. Your staff has a barrier-free 360° patient access, even with additional equipment during interventions. And they can control all scanner movements without having to leave their patient's side.

Examine virtually all patients

With its height-adjustable flat tabletop and high table-weight capacity, Multitom Rax can accommodate patients of any age, size, and condition.



Free patient access from all sides

Fabiola Weber, MD
Pediatric interventional
radiologist, Nemours
Children's Hospital, USA

“Patients love how the robotic arms move around them, and they appreciate that we don't have to twist their sore or broken bodies to get the image.”



“The parents have been very pleased as well, because they have easier access to their child. Their child is right there with them. They can stand at the head of the bed, and hold their child’s hand.”

Chris Alsip, MD
Director of Medical Imaging,
Nemours Children’s Hospital, USA



Position even small children safely

Imaging children who are ill and in pain can be challenging. Multitom Rax offers all you need to improve the experience for both children and their families and to provide child-friendly, safe, and efficient ultra-low-dose examinations. Our dedicated accessories for pediatrics help you easily and safely position children and reduce movements during an examination.

Define standards easily – and multiply your productivity

Having limited resources at hand, it can be challenging to keep high-quality standards and provide excellent patient care. With Multitom Rax, you have the chance to do both together. With simplified workflows, standardized results, and increased flexibility.



Streamline workflows and standardize results

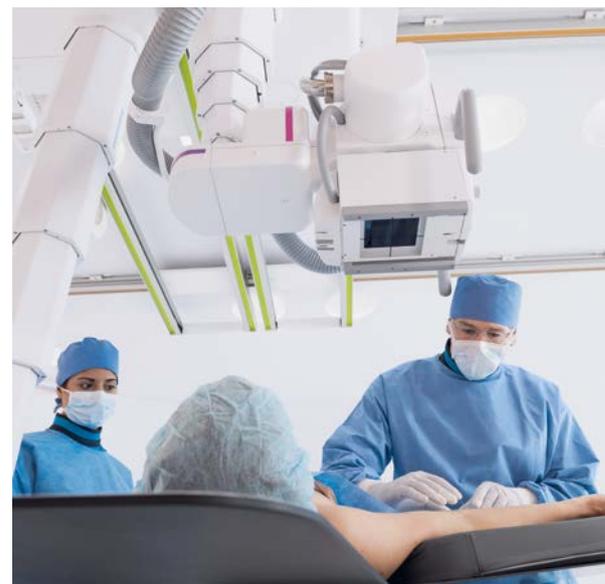
Multitom Rax helps reduce unwarranted variations. Robotic automation minimizes manual work steps and maximizes positioning accuracy. For example, the tube and detector automatically align at the push of a button. The result: streamlined workflows, lower risk, reproducible images, fewer retakes, and consistent quality of care and diagnosis – independent of the team setup.

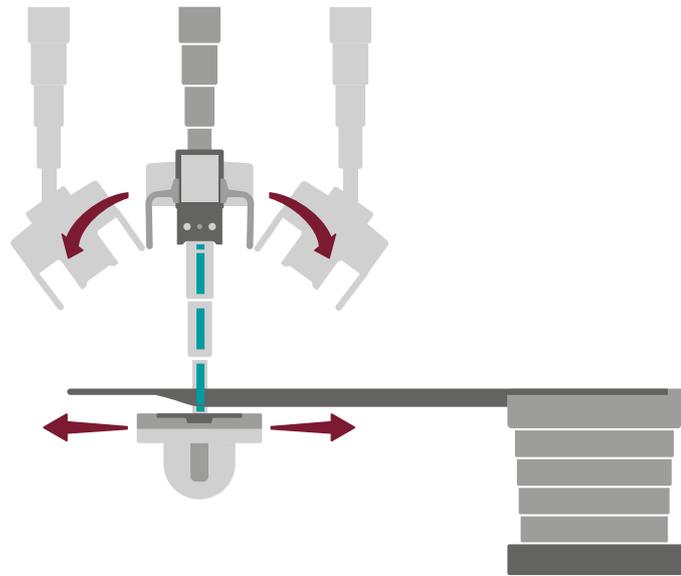
Optimize asset utilization and increase patient capacity

Often, more than one modality is needed for a sound diagnosis and precise treatment. Optimize asset utilization and eliminate transfers and wait times for your patients with Multitom Rax. How? Your staff can perform high-quality, low-dose 3D bone imaging with Multitom Rax, thus relieving the workload at your CT scanner. Furthermore, you can also shift minor procedures to Multitom Rax to free up valuable interventional or OR resources.

Prepare for future changes today

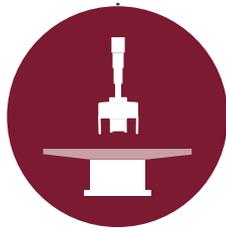
Scanners are a capital-intensive investment. Make a smart investment with Multitom Rax: because the system covers multiple X-ray imaging needs, you can flexibly react to any sudden changes in your patient or case mix.





Enhance system utilization

With Multitom Rax, you can enhance system utilization beyond departmental borders. Increase your flexibility with a solution that offers a multitude of X-ray imaging.



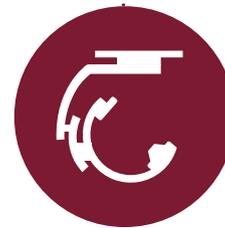
Radiography



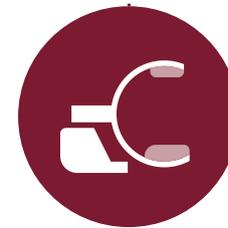
Diagnostic fluoroscopy



3D bone imaging



Selected interventional procedures



Basic angiography

The MAX effect – where gains multiply

Whether healthcare providers have to cope with tighter budgets or want to expand their business: they are forced to do more with less. What if there's a smart way to run a radiology more efficiently?

Take a look at our high-performance MAX systems. They all share the same usability concept and imaging technology over the broadest range of clinical applications on the market. And if you combine two or more MAX systems, you'll experience the MAX effect: unique standardization across your fleet, so you can save both time and costs and ultimately boost your level of satisfaction.

Multiply the full potential of your department – with a winning combination of MAX systems.

Gain standardization

Achieve the same high-quality results throughout sites, rooms, and personnel – always. One MAX platform allows you to standardize workflows and image impressions the way you want. That means faster working and fewer mistakes. Resulting in better outcomes at lower costs.

Gain savings

Discover the smart way to save with the MAX effect: Save investment costs thanks to detector swapping, reduce the number of rooms required with More-in-1 MAX systems, and keep staff training to a minimum thanks to one usability.

Gain satisfaction

Increase satisfaction of all stakeholders through offering more patient comfort and lower dose, less stress and more confidence for staff, fast results, and high diagnostic accuracy at lower costs. For consistent high-quality care and enhanced reputation.





More-in-1 system

Multitom Rax
Twin Robotic X-ray



Mobilett Mira Max
High-end digital mobile X-ray imaging



Multix Fusion Max
High-efficiency radiography



Ysio Max
High-performance radiography



More-in-1 system

Luminos dRF Max
2-in-1 remote fluoroscopy

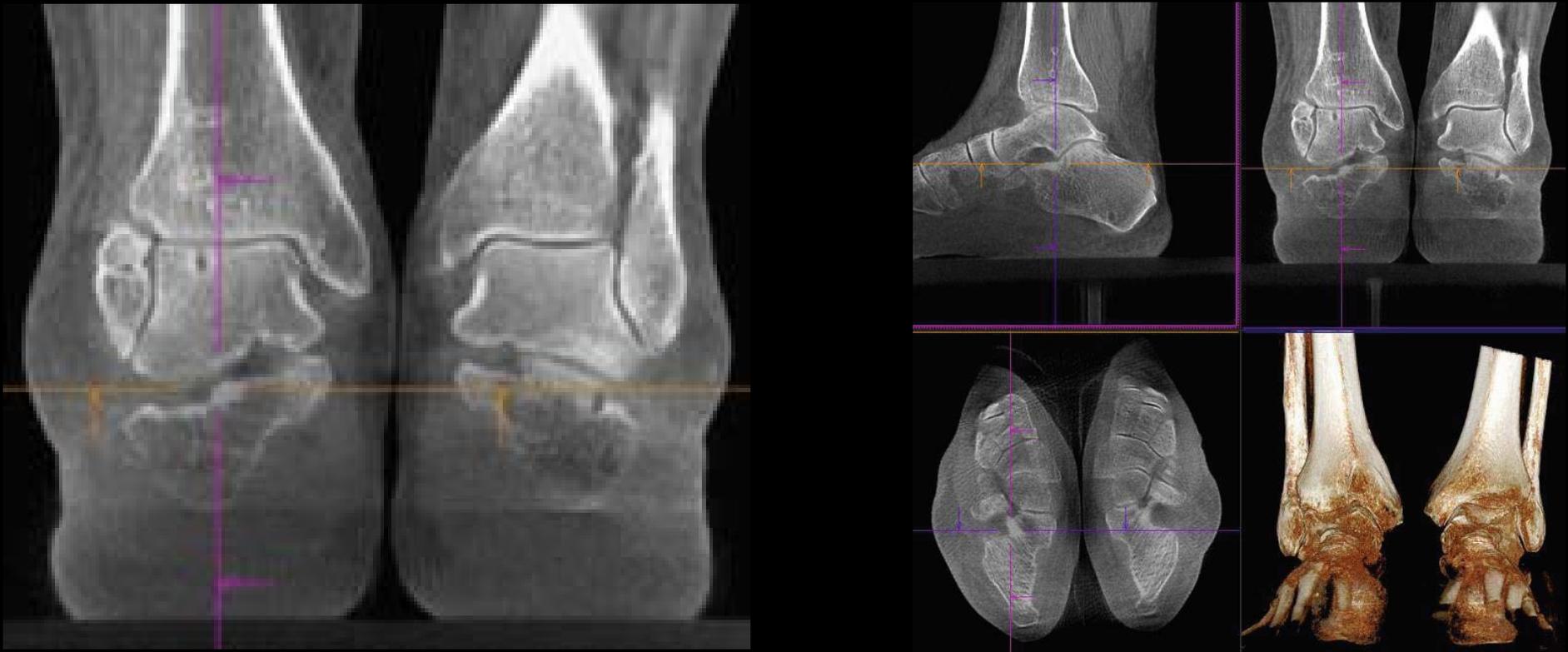


More-in-1 system

Luminos Agile Max
2-in-1 patient-side fluoroscopy

See anatomical details in clear image quality

To make fast and confident diagnostic decisions, you need high image quality. Multitom Rax offers you multiple advanced X-ray imaging technologies – and a large field of view.



Real 3D¹⁾ – bone imaging with high spatial resolution and bone contrast

Fluoroscopy¹⁾



Barium swallow
upright position



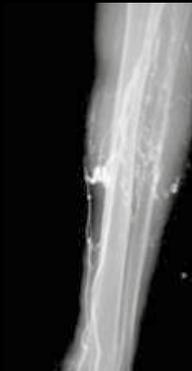
Barium enema
lying position



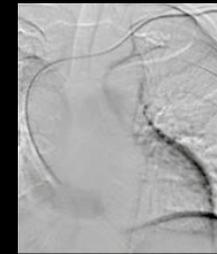
Upper GI
examination



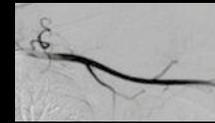
MCUG
pediatric



Phlebography
lower leg



DSA during
port implantation



DSA
upper arm



DSA
upper leg

Routine and Trauma Radiography



X-ray hand on
MAX wi-D



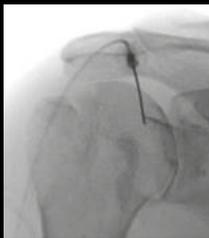
Cross-table
lumbar spine



Full spine¹⁾
standing position



Fluoroscopy
guided positioning



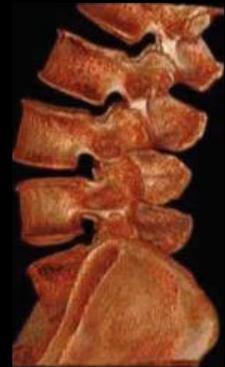
Arthrography¹⁾
shoulder joint



Real 3D¹⁾ of a wrist
res. isotrop



Real 3D¹⁾ of lower
extremities
standing position



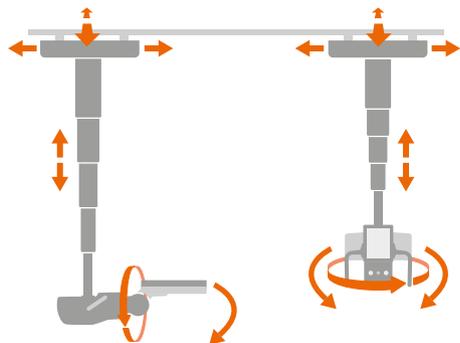
Weight-bearing
Real 3D¹⁾ L-spine

Orthopedic Radiography

Real 3D¹⁾

Explore the technology behind: RAX – Robotic Advanced X-ray

Multitom Rax is the world's first scanner in the new category of Twin Robotic X-ray. Its technological advantages facilitate your daily routine, open up new clinical possibilities – and make the system fun to work with.



Full positioning freedom

Two independent ceiling-suspended robotic arms move the tube head and the RAX detector. They can travel in parallel and independently from each other. The motion concept with five axes each allows virtually unlimited positioning freedom and projections from all angles.

Faster and safer to the target

A patent-protected software algorithm lets both arms slide to any position in the room with fast and ultra-precise movements. Whatever the starting position, they always take the shortest, fastest, and safest route.

Always in the right position

Thanks to the intelligent RAXalign functions, the tube and detector position themselves automatically in an orthogonal position – at the push of a button.



High-precision robotic tracking

Multitom Rax offers extensive twin robotic tracking capabilities: The tube head follows the built-in detector, and vice versa, for streamlined operations and fewer manual work steps.



Additional products and services

To help you tap the full potential of your systems, IT, and staff, we offer you a broad range of matching products and services.

Accessory solutions

Choosing a new imaging system may inspire other equipment renewals or additions at your workplace. Our accessory solutions portfolio offers a broad range of complementary products, such as radiation protection clothing/equipment, uninterrupted power supply solutions, contrast media injectors, and positioning aids. We will gladly tailor a package to your individual needs.

Service and maintenance

Protect your investment over its entire lifecycle and enjoy optimized system availability, consistent image quality, and transparent total cost of ownership. For Multitom Rax, we offer you a dedicated service package including:

- Preventive maintenance to increase system uptime
- Remote diagnosis and repair to help keep service costs down
- Corrective maintenance and comprehensive parts coverage, including tube and detector



LifeNet

LifeNet¹⁾ is our web-based portal that lets you manage the performance and maintenance of all your Siemens Healthineers systems 24/7. Whether you want to plan maintenance activities, monitor the status of your systems and service requests, or document service history, LifeNet gives you full control and confidence at all times. Ease your workday and stay calm, no matter what's happening around you.



PEPconnect – your smarter connection to knowledge

Staffing shortages, cost constraints, greater workloads – and all the while, you have to deliver an ever higher quality of care. One key to overcome these challenges is further education. With our online e-learning experience PEPconnect,¹⁾ you can boost your learning – anytime, anywhere, and from any device.

¹⁾ Subject to country-specific availability

Technical specifications

Discover how you can move beyond traditional X-ray with our Multitom Rax.

Large color touchscreen
Offering access to key image parameters

Tube head
High-speed positioning with robotic precision
Up to 5 axes simultaneously



MAX mini detector
Wireless
Size: 24 cm x 30 cm (10" x 12")
Weight: 1.6 kg (3.5 lbs)
Thickness: 16 mm (0.6")

MAX wi-D detector
Wireless
Size: 35 cm x 43 cm (14" x 17")
Weight: 3.3 kg (7.3 lbs)
Thickness: 19 mm (0.7")

RAX detector
Integrated, for static, dynamic,¹⁾ and 3D¹⁾ imaging
43 x 43 cm (17" x 17")

RAX arm

High-speed, safe positioning
with robotic precision
Up to 5 axes simultaneously

Control console¹⁾

Safe system control only at
the touch of a human hand



Table

Weight capacity: up to 240 kg (529 lbs)
Lowest table height: 50 cm (19.7")

syngo FLC

Workstation for complete
examination from registration
to archiving



Wireless remote control

Automatic positioning
of tube and detector



1) Option

Why Siemens Healthineers?

At Siemens Healthineers, we enable healthcare providers to achieve better outcomes at lower cost by expanding precision medicine, transforming care delivery, improving patient experience, and digitalizing healthcare.

Healthcare providers around the world have long relied upon our engineering excellence – leading-edge, high-quality medical technologies across a broad portfolio. Our technologies touch an estimated 5 million patients globally every day.¹⁾ At the same time, they help hospital departments to continuously improve their clinical, operational, and financial outcomes.

We now consolidate this unprecedented volume of data and insights and turn them into pioneering enterprise and digital health services. With those, we maximize opportunities and share risks of your entire health system.

Partnerships are built on people. With Siemens Healthineers there is no team more committed and more connected than we are to realize your success together.



Multitom Rax is not commercially available in all countries. Its future availability cannot be guaranteed. Please contact your local Siemens Healthineers organization for further details.

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The information in this document contains general descriptions of the technical options available and may not always apply in individual cases.

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In the interest of complying with legal requirements concerning the environmental compatibility of our products (protection of natural resources and waste conservation), it may contain recycled components that adhere to the same quality assurance measures used for factory-new components.

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The statements by Siemens Healthineers customers described herein are based on results that were achieved in the customer's unique setting. Because there is no "typical" hospital or laboratory and many variables exist (e.g., hospital size, samples mix, case mix, level of IT and/or automation adoption) there can be no guarantee that other customers will achieve the same results.

International version.

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