

The Insightful Design **SIREMOBIL Iso-C**



SIREMOBIL Iso-C Unique Innovations

Siemens' tradition of excellence, experience and innovation now takes the surgical C-arm concept to a new evolutionary level. SIREMOBIL Iso-C[™] offers a full range of efficiency features – along with two breakthrough innovations that set a completely new pace for mobile C-arm systems:

- **True Isocentric Design** provides unparalleled operational efficiency for procedures requiring many different projections.
- **190° of Orbital Rotation** allows unrestricted movement to any desired projection. 190° represents 50% greater orbital movement than that of other C-arms in the industry.

clinical benefits, time savings and convenience in mind, SIREMOBIL Iso-C is designed as a full-featured system, ideal for a wide range of applications. Streamlined operation is emphasized, with a user-interface that maximizes ease-of-use.

SIREMOBIL Iso-C continues the tradition of the SIREMOBIL product series, known throughout the world for image quality, dose savings and reliability.

SIREMOBIL Iso-C, for unparalleled efficiency in the OR







SIREMOBIL Iso-C

SIREMOBIL Iso-C Revolutionary Isocentric Design...

SIREMOBIL Iso-C is a fully counterbalanced mobile C-arm featuring a central beam which is truly isocentric.

Isocentricity ensures that the center focus is precisely maintained while the "C" is moved in the angular and orbital directions. In switching between AP and lateral views, for example, there is no need to adjust the C-arm's horizontal travel in or out. Its positioning remains equidistant from the subject, regardless of angle.

The result? Increased accuracy and elimination of time-consuming and tedious readjustments, leading to unsurpassed efficiency and substantial dose-savings.

There isn't a C-arm easier to use than SIREMOBIL Iso-C with its truly isocentric design. But ease-of-use only begins to tell the story...



In traditional non-isocentric C-arm designs, the distance to the object changes with each orbital movement. Adjusting the system to compensate takes time and can lead to unnecessary radiation exposure



With the breakthrough isocentric design of SIREMOBIL Iso-C, the object always remains centered

Because physical positioning between the C-arm and the subject remains constant, the SIREMOBIL Iso-C brings new meaning to the concept of "point & shoot"





...plus 190° Freedom of Movement

SIREMOBIL Iso-C features an unprecedented 190° orbital movement for complete latitude in positioning. Whether the image intensifier is positioned up, down or lateral, orbital range is a full 95° in each direction. Total freedom in rotation yields clinical limitations sometimes posed by traditional C-arms. Repositioning is fast and accurate – once again saving time, and enabling reduced dose.

Not only does SIREMOBIL Iso-C offer complete freedom of rotation, it also has a larger radius than traditional C-arms. This additional free space and C-arm depth enable easier maneuvering and positioning.



Many C-arms are limited to 115° orbital movement which can require tedious repositioning, especially inconvenient when time is of essence



SIREMOBIL Iso-C adds an extra 75° of rotation – always maintaining the same distance from the object. It's not only convenient, it's fast!



Greater orbital movement, isocentric design and increased free space. Never before has a mobile C-arm been this easy to use

SIREMOBIL Iso-C The Unique Advantages of Breakthrough Design



Complementary AP/lateral images, in just one motion

• Many procedures require alternate AP/lateral projections for exact alignment. With SIREMOBIL Iso-C, these views are achieved in a single, smooth movement – no height readjustment, no need to move the entire chassis to acquire the correct images – resulting in significant time- and dose-savings per procedure.

• The unique 190° orbit and the ability to move in ± directions allow overtable imaging for all projections. Keeping the image intensifier over the table minimizes the possibility of contamination, and avoids potential collision between the C-arm and the table pedestal.



A.P. view: Placement of Dynamic Hip Screw

Lateral view: Placement of Dynamic Hip Screw



Room to work, with ample free space

• The large C-arm aperture makes positioning around patient and OR table – especially with extension – much easier and more flexible.

• SIREMOBIL Iso-C easily accommodates complex patient positioning.

• With the growing trend of minimally-invasive procedures utilizing bulky instrumentation, SIREMOBIL Iso-C's additional free space becomes advantageous.

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Extended reach for greater patient access

The unparalleled C-arm depth of the SIREMOBIL Iso-C allows cross-table imaging.

• With the C-arm located on the opposite side of the surgical site, the physician gains an open working environment.

• An assisting physician is easily accommodated on either side of the table.

• The large C-arm depth and cableless design ensure easier sterility and faster cleaning/draping.

Designed to optimize clinical procedures in the OR





SIREMOBIL Iso-C The Details that Make the Difference

Optimize and streamline the clinical operation of the system.

This is the design mandate Siemens used in developing SIREMOBIL Iso-C. The result speaks for itself...

Consider control panel flexibility. To give the technical specialist operating the C-arm the flexibility to operate the system from all sides of the chassis, we gave the control panel **180° rotation** capability. Communication and teamwork of the surgical team are improved. And the streamlined, **single-key control panel** operation optimizes speed and efficiency.

While it's easy to see that **hidden cables** give the system a sleek design, the feature also provides important benefits. A sterile environment is easier to maintain without cables in the working area, as draping and cleaning the SIREMOBIL Iso-C are fast and simple. Four single-touch **electromagnetic brakes,** located on the top of the horizontal support of the C-arm, offer fast, easy control of orbital, angular, scanning, and horizontal movements. Height adjustment is conveniently motorized.

SIREMOBIL Iso-C is equipped with a **simple steering mechanism** for maximum mobility even in small and busy environments.

The comfortable **hand-held fluoro switch** controls release of exposures and image storage on the fly. Finishing touches like the C-arm **handrail** and **integrated wheel cable deflectors** take the SIREMOBIL Iso-C to the pinnacle of mobile C-arm design.

The **hand-held fluoro switch** is ergonomically designed for comfortable operation

SIREMOBIL Iso-C Insightful design in every detail





Integrated wheel cable deflectors sweep away cables and other objects in the path of travel

The operator's control panel can rotate 180° for optimal convenience



The direct steering mechanism enhances the system's mobility

magneto optical disk drive (MOD) stores images DICOM 3.0 format

9

SIREMOBIL Iso-C ...and everything you've come to expect from a SIREMOBIL

Image Quality

SIREMOBIL Iso-C continues Siemens' long-standing reputation for industry-leading image quality in mobile C-arm systems. With proven, ideally-matched, high-quality imaging components, SIREMOBIL Iso-C offers brilliant image quality and maximum resolution at the lowest possible dose.

And our flicker-free, highresolution monitors optimize visualization of fine detail – accentuating the outstanding imaging capabilities of SIREMOBIL Iso-C. Optionally, the industryrenowned SIMOMED[®] monitors offer highest brightness and highest contrast.

The high image quality you have come to expect.

Superior image quality for precise procedures





C.A.R.E.*

In accordance with Siemens' well-established C.A.R.E.* initiative, SIREMOBIL Iso-C includes a variety of features to ensure that dose-levels are kept as low as possible, and that radiation is switched on only when it has inherent clinical value.

During exposure, SIREMOBIL Iso-C ensures that the selected dose is kept at an absolute minimum, while always optimizing image quality. Pulsed fluoroscopy at selectable dose-rates minimizes radiation, as do the organ-specific SIREMATIC[®] pre-programmable fluoroscopy-curves. In addition, an optional measurement chamber with monitor display keeps track of the accumulated dose.

Features such as display of diaphragms and digital image rotation, both with last image hold (LIH), ensure that fine adjustments do not require *any* additional exposure. Likewise, optional laser light localizers – either II-side or tube-side – assist in accurate C-arm pre-positioning – radiation-free.



*Combined Applications to Reduce Exposure

C.A.R.E.* about dose savings with SIREMOBIL Iso-C



Instant display of digital image rotation – without radiation. Upon activating fluoro, the image appears reoriented



Collimator blades are readily visualized as they move in to limit the field





The Laser Aimer, attached on the image intensifier, and the Laser Targeting Device, integrated tube-side, provide accurate positioning without radiation

Vascular Imaging

The subtraction mode of SIREMOBIL Iso-C provides comprehensive and powerful capabilities for a full range of vascular procedures.

Vessel contrast is optimized using the unique iodine (contrast) SIREMATIC curve, which automatically sets the best pre-programmed X-ray values.

Subtraction and roadmap are initiated via the touch of a single key. From the "Inject" prompt through completion of the procedure, SIREMOBIL Iso-C's ease of use and automatically selected parameters ensure consistently highquality images.

Five pre-set organ programs select frame rate and other parameters optimal for the procedure type. And important post-processing functions such as remasking, pixelshift and landmarking are at your fingertips.

SUB features include:

• Digital imaging with autosave for secure documentation and dynamic postprocessing of time-critical procedures

• Digital storage of raw data for selection of image mask and max/min peak opacification

 Pixelshift-function for precise alignment of subtracted and mask images

 Native and subtracted images available simultaneously for reference comparison

• Landmark capability for variable visualization of surrounding anatomy

• Real-time edge-enhancement of subtracted images for optimized visualization and improved contrast

• Capabilities such as roadmapping for fast, easy positioning during catherization and dilitation

• Positive-/negative-image display and documentation

Mobile angiography with precision and convenience

Modularity

Whatever the clinical requirements or environment, the modular design of SIREMOBIL Iso-C has the ability to adapt.

Select from a range of configurations - from a basic system with single-monitor, split-screen capability, to a dual monitor system configured with high-capacity image storage and vascular functions. Adding the quality of SIMOMED monitors enhances visualization on account of high-brightness and high-contrast.

In terms of communication, a wide range of external data exchange and archiving capabilities are available. SIREMOBIL Iso-C can be ordered with a 3 1/2" magneto optical disk drive (MOD) for image storage in TIFF for Microsoft® applications, or in DICOM 3.0 format. A DICOM direct link easily connects SIREMOBIL Iso-C to a hospital network for digital communication and archiving.

Modules can be upgraded at any time, on-site - so SIREMOBIL Iso-C truly is flexible in "growing" with your needs.

A secure investment, today and into the future

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An optional MOD stores images in TIFF or DICOM 3.0 format, with each

540 MB disk holding approximately 1000 images

Connectivity to workstations is possible via MOD or DICOM direct interconnect



reference image. SIMOMEDs

allows split-screen viewing of both last image hold (LIH) and the Decide at any time to upgrade to two monitors, or to the

The single monitor



11

SIREMOBIL Iso-C "Check" How SIREMOBIL Iso-C Compares

Named for its true isocentricity, SIREMOBIL Iso-C has a unique combination of distinctive features. The following table lists some of the most notable features and options, and shows you at a glance how SIREMOBIL Iso-C "meets the specs".

Which C-Arm offers you more? It's easy to compare.		
Feature	SIREMOBIL Iso-C	Another C-arm
Isocentric central beam	\checkmark	□?
Orbital rotation of 190°	\checkmark	□?
Hidden cables	\checkmark	□?
Electromagnetic brakes	\checkmark	□?
180° rotable operator's panel	\checkmark	□?
SIREMATIC curves	\checkmark	_?
Digital image rotation	\checkmark	□?
Electronic horizontal/vertical shutters	\checkmark	□?
C.A.R.E. features	\checkmark	□?
I.Iside/tube-side laser light localizers	\checkmark	□?
SIMOMED high-brightness/high-contrast monitors	\checkmark	□?
On-site upgradeability	\checkmark	□?
MOD with TIFF and DICOM 3.0 format	\checkmark	?
DICOM Direct Connect	\checkmark	□?

SIREMOBIL Iso-C – Insight in Mobile C-Arm Design

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