€ 19.–

# RAD
# BOOK

The Radiology Guide to Technology & Informatics in Europe

O-ARM®

# 2009

The Medtronic O-arm® System is a fully mobile 2D and 3D intra-operative X-ray imaging system, using digital flat panel technology and designed to transform the surgical workflow with seamless integration with surgical navigation.

# RIS PACS SOLUTIONS

RAD·BOOK 2009

**RIS**

| Company | Multi-client capability | Citrix supported | ASP model | Supporting workflow | Workplace profiles | Guarantee on uptime (99,9% yearly) | Product |
|---|:---:|:---:|:---:|:---:|:---:|:---:|---|
| **Agfa** HealthCare, Septestraat 27, B – 2640 Mortsel | ● | ● | ● | ● | ● | ● | IMPAX RIS |
| **aycan** Digitalsysteme GmbH, Innere Aumuehlstrasse 5, D – 97076 Wuerzburg | | | | | | | |
| **CHILI** GmbH, Burgstrasse 61, D – 69121 Heidelberg | | | | | | | |
| **FUJIFILM** EUROPE GMBH, Heesenstr. 31, D – 40549 Duesseldorf | | | | | | | |
| **GE** Healthcare, Lerchenbergstr. 15, D – 89160 Dornstadt | ● | ● | ● | ● | ● | ● | Centricity RIS |
| **GEMED** GmbH, Ortsstr. 56, D – 89081 Ulm | | | | | | | |
| **iSOFT Health** GmbH, Am Exerzierplatz 14, D – 68167 Mannheim | ● | ● | ● | ● | ● | ● | RadCentre |
| **KONICA MINOLTA** Medical, Frankfurtstraat 40, NL – 1175 RH Lijnden | | | | | | | |
| **medavis** GmbH, Bannwaldallee 60, D – 76185 Karlsruhe | ● | ● | ● | ● | ● | ● | medavis RIS |
| **medigration** GmbH, Schuhstr. 30, D – 91052 Erlangen | | | | | | | |
| **Merge** Healthcare, Spegelt 34, NL – 5674 CD Nuenen | ● | ● | ● | ● | ● | ● | FUSION RIS GL |
| **OR Technology**, Waldemarstraße 20 g/h, D – 18057 Rostock | | | | | | | |
| **PROTEC** GmbH & Co. KG, Lichtenberger Str. 35, D – 71720 Oberstenfeld | | | | | | | |
| **Rogan-Delft** BV, Wiltonstraat 41, NL – 3905 KW Veenendaal | | | | | | | |
| **Sectra Imtec** AB, Teknikringen 20, SE – 583 30 Linkoeping | ● | | | | ● | ● | Sectra RIS™ |
| **Siemens AG,** Healthcare Sector, Henkestr. 127, D – Erlangen | ● | ● | ● | ● | ● | ● | syngo® Workflow |
| **Visage** Imaging GmbH, Lepsiusstrasse 70, D – 12163 Berlin | | | | | | | |
| **VISUS** Technology Transfer GmbH, Universitätsstraße 136, D – 44799 Bochum | | | | | | | |
| **Vital Images Europe B.V.**, Muzenstraat 89, NL – 2511 WB Den Haag | | | | | | | |

*access time <5 seconds
**diagnostic quality

Legend (left group):
- **W**eb-based
- **U**nlimited users (Diagnostic licenses, web-user)
- **S**calable
- **F**ast online-archive (image on demand)*
- **I**ntegr. image & diagnosis distribution**
- **S**oftware upgrades included

Legend (right group):
- **A**SP model
- **H**ardware upgrades included
- **G**uarantee on uptime (99,9% yearly)
- **C**omplete offsite disaster recovery
- **2**4h LIVE tech support
- **P**roactive remote monitoring

| Product | W | U | S | F | I | S | A | H | G | C | 2 | P | Contact |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IMPAX 6 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ✆ +32 3 444 94 44 — www.agfa.com |
| aycan store | | ● | ● | | | ● | ● | ● | | | | | ✆ +49 931 270409 0 — info@aycan.de — www.aycan.com |
| CHILI PACS, CHILI/Web | ● | ● | ● | ● | ● | ● | | | ● | | | | ✆ +49 6221 18079-10 — info@chili-radiology.com — www.chili-radiology.com |
| Synapse | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ✆ +49 211 5089-246 — www.fujifilm.de/medical |
| Centricity PACS | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ✆ +49 7348 9861-0 — www.gehealthcare.com |
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| PROPAXX | | ● | ● | ● | | ● | ● | | ● | | | | ✆ +49 7062 92550 — protec@protec-med.com — www.protec-med.com |
| Rogan OnLine XS Archive | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ✆ +31 318 583 450 — rogan-info@delftdi.com — www.rogan-delft.com |
| Sectra PACS | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ✆ +46 13235200 — info.imtec@sectra.se — www.sectra.se/medical |
| syngo® Imaging / syngo® Imaging XS / syngo® WebSpace | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ✆ +49 9131 84-0 — www.siemens.com/healthcare |
| Visage PACS/CS | ● | ● | ● | ● | ● | ● | | | | | | ● | ✆ +49 30 700 968-0 — www.visageimaging.com |
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# Dear Reader,

Radiology is – and will remain – the innovation driver in medical technology. Today, those hospitals where the radiologists saw the writing on the wall and pushed for digitalisation rather than saving money by using cheap x-ray films are the top performers. They considered process management more important than cutting costs at any price.

The parallels between the European automobile industry and the healthcare system are obvious. Ignatio Lopez, whom VW lured away from Opel because he had the reputation of being a tough cost cutter, forced the suppliers to their knees – and drove Volkswagen to the brink of bankruptcy. These days, VW is being kept alive by Porsche, formerly a medium-sized enterprise looking into the abyss of insolvency before a courageous management engineered a successful turn-around.

Just like Porsche's Wendelin Wiedeking, forward-looking managers of hospitals and radiology practices have to seriously rethink their structures. Purchasing state-of-the-art technology such as RIS, PACS, multislice CT, high-field MRI or digital x-ray and ultrasound systems won't suffice. Nevertheless, high-performance modalities and IT systems are the foundation of any healthcare service provider with a long-tern success strategy. In times of economic crisis it is more important than ever to look ahead, choose the right direction and make future-oriented investment decisions. This is our firm conviction.

With RadBook 2009 Guido Gebhardt (www.radiologieforum.de) and Daniela Zimmermann (www.european-hospital.com) are again pleased to share with you their knowledge of an international radiology market and their experience with European healthcare systems.

Sincerely,
**Daniela Zimmermann**
**Guido Gebhardt**

EDITORIAL

# 4 CONTENTS

Alliance Medical

GE Healthcare

iba Dosimetry

HITACHI Inspire the Next

HOLOGIC CLARITY OF VISION

Medicor

PTW

RTI

SIEMENS

TOMOVATION

TOSHIBA

ulrich medical

## ▶ GE Healthcare LightSpeed–series

| | VCT | VCT XT | VCT XTe |
|---|---|---|---|
| **Channels** | 64 | 64 | |
| **Power in kW** | 85 | 100 | |
| **Coverage/ rotation in mm** | 40 mm isotropic 0.35 mm resolution | | |

▶ **Highlights**
– VCT XTe:  Up to 35 frames reconstruction / sec (WIP)
– VCT XTe: Adaptive Statistical lterativee Reconstruction (ASIR)
– VCT XTe: Volume HelicalShuttle up to 500 effective slices (WIP)
– VCT XT: 5-beat cardiac acquisition, up to 70% dose reduction
– VCT XT: from one to 6 mSv for cardiac CTA
– VCT XT: expanded coverage to 80 mm for CT perfusion
– VCT: 5-beat cardiac imaging: resolution, coverage, fast scanning
– VCT: a true 64-channel DAS

## ▶ GE Healthcare BrightSpeed–series

| | BS 4 | BS 8 | BS 16 | BS 16 Elite |
|---|---|---|---|---|
| **Channels** | 16 | 8 | 16 | 16 |
| **Power in kW** | 42 | 42 | 42 | 53.3 |
| **Coverage/ rotation in mm** | 4 x 1.25 4 x 2.5 | 8 x 1.25 8 x 2.5 | 16 x 0.625 1.25 | 16 x 0.625 1.25 |

▶ **Highlights**
– LightSpeed VCT Technology inside
– BS 4: perform long coverage and high grade CT-A
– BS 8: any organ in a breath-hold
– BS 16: Sub-mm microvoxels for incredible detail
– BS 16 Elite: faster routine scanning with variable speed rotations

## ▶ GE Healthcare HiSpeed CT Dual

| | HiSpeed Dual |
|---|---|
| **Channels** | 2 |
| **Power in kW** | 24 |
| **Coverage/ rotation in mm** | 2 x 10 mm |

▶ **Highlights**
– Xtream productivity
– As easy as 1-2-3 with GE's SmartGantry
– Patient concious design
– Multi-slice scanning for everyone and everywhere
– Increased speed and greater clinical flexibility

## ▶ GE Healthcare LightSpeed RT

| | LightSpeed RT 4 | LightSpeed RT 16 |
|---|---|---|
| **Channels** | 4 | 16 |
| **Power in kW** | 53.2 | 100 |
| **Coverage/ rotation in mm** | 1.25 slice thickness, 1.0 sec rotation speed | 1.25 – 0.625 slice thickness, 0.8 sec to 0.5 rotation speed |

▶ **Highlights**
– Multi-slice wide bore radiation oncology CT scanner
– Large 80 cm opening
– 65 cm field of view
– Full RT connectivity
– Complete radiotherapy simulation solution

## ▶ GE Healthcare Discovery CT 750 HD

▶ **Highlights**
– See more, know more, less dose
  New GemStone Detector plus complete new imaging chain
– 230 Micron Resolution over 2 m coverage
– Dual Energy with 1 Tube and 50 cm FOV
– Volume HelicalShuttle up to 500 effective slices
– Adaptive Statistical lterative Reconstruction (ASIR)
– Dose reduction up to 50% over the intire body up to 83% for cardiac examination
– Up to 35 frames reconstruction / sec (WIP)

## ▶ Hitachi Medical Systems ECLOS 4/8/16

| | |
|---|---|
| **Slices** | 4/8/16 |
| **Power in kW** | 42 |
| **Coverage/rot ation in mm** | |

▶ **Highlights**
– X-ray tube: 3.5 to 5.0 MHU
– Sub-second, real-time image reconstruction
– Minimum scan time 0.8 sec and maximum field of view 500 mm
– Preventive examination supported by fatPointer or riskPointer
– Straight forward patient registration and easy system handling

## ▶ NeuroLogica CereTom® Portable CT-Scanner

| | |
|---|---|
| **Slices** | 8 |
| **Power** | 1.4 kW |
| **Adjustable slice thickness** | 1.25, 2.5, 5, 10 mm |

▶ **Highlights**
– Rotation speed 0,5 sec
– KV Range 80-140 kV at 7,5 mA
– Patient dose CTDI 41mGy
– Field of view 25 cm
– Images compatible with surgical navigation systems
– Wireless connectivity to PACS and DICOM 3 compliant with modality worklist
– Intraoperative scanning capabilities with DORO® CERETOM® Intraoperative Cranial Stabilisation system
– Immediate 2D, 3D and MPR images with custom pre-set protocols
– Advanced visualisation solutions powered by Barco's Voxar 3TTM

## ▶ Philips Brilliance iCT scanners

| | Brilliance iCT | Brilliance iCT SP |
|---|---|---|
| **Channels** | 256 | 128 |
| **Power in kW** | 120 | 100 |
| **Coverage/ rotation in mm** | 80 | 40 |

▶ **Highlights**
– Enhanced performance for routine and emerging applications
– Patient-specific acquisition protocols to balance image quality and dose utility
– Revolutionary AirGlide Gantry for whisper-quiet performance at 220 rpms
– Exclusive dose-saving features like the Eclipse Collimator, Step & Shoot Cardiac and Dedicated Pediatric Protocols.
– Life-cycle benefits through a scalable hardware and software platform

## ▶ Philips Brilliance CT 64

| | Brilliance 64 with Essence technology |
|---|---|
| **Channels** | 64 |
| **Power in kW** | 60 |
| **Coverage/ rotation in mm** | 40 |

▶ **Highlights**
– Myocardial perfusion, CTA and whole brain perfusion
– CT stroke assessment, 80 mm coverage through Jog Scan
– Brilliance CT workspace user environment improves productivity by working the way you do
– DoseWise design delivers optimal dose efficiency without compromising image quality
– Submillimeter isotropic accuracy
– Essence technology is a set of x-ray tube, detector and reconstruction advancements improving image quality

## ▶ Philips Brilliance CT 6/16

| | Brilliance 6 | Brilliance 16 |
|---|---|---|
| **Channels** | 6 | 16 |
| **Power in kW** | 48 | 48 |
| **Coverage/ rotation in mm** | 24 | 24 |

▶ **Highlights**
– Advanced performance systems for routine imaging needs with fast acquisition and high quality image results
– Diagnoses of small lesions with submillimeter slices
– Brilliance CT workspace user environment improves productivity by working the way you do
– DoseWise design delivers optimal dose efficiency, without compromising image quality
– Scalable platform for growth and future applications, making it a secure, long-term investment

## ▶ Philips MX CT scanners

| | MX 4000 Dual | MX 6000 Dual |
|---|---|---|
| **Channels** | 2 | 2 |
| **Power in kW** | 28 | 42 |
| **Coverage/ rotation in mm** | 20 | 20 |
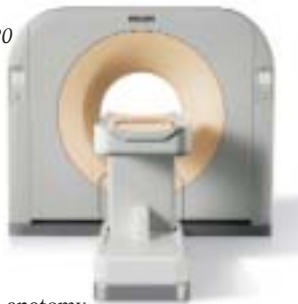
▶ **Highlights**
– Multislice technology doubles performance for hard-to-image anatomy
– Advanced applications right at console: 3D, MIP, MPR, volume rendering, CTA, virtual endoscopy, brain perfusion etc.
– 0.8* sec rotation; 0.9* sec reconstruction; 0.8* mm slices
– People-centric design improves user productivity and patient comfort

## ▶ Philips Brilliance CT Big Bore

| | |
|---|---|
| **Channels** | 16 |
| **Power in kW** | 60 |
| **Coverage/ rotation in mm** | 24 |

▶ **Highlights Radiology**
– Answers many unique clinical challenges in the emergency department
– Table supports 295 kg
– 85 cm bore
– 60 cm true scan field-of-view (FOV)
– Extended display FOV to 70 cm

▶ **Highlights Oncology**
– Respiratory correlated imaging
– TG66 compliant table
– 85 cm bore
– 60 cm true scan field-of-view (FOV)
– Extended display FOV to 70 cm

## ▸ Philips MX 16-slice CT scanner

| | |
|---|---|
| **Channels** | 16 |
| **Power in kW** | 50 |
| **Coverage/ rotation in mm** | 24 |

### ▸ Highlights
– Easy-to-use workflow for efficient operation
– Widest detector coverage in 16-slice class
– One of the industry's smallest site requirements at 18 square meters
– Fully compatible with Brilliance Workspace, Extended Brilliance Workspace and the Brilliance Workspace Portal

## ▸ Siemens SOMATOM Definition Flash

| | |
|---|---|
| **Channels** | 2 x 128 slices |
| **Power in kW** | 200 kW |
| **Coverage/** | 480 mm (with A4DS) |
| **rotation in mm** | 0.24 mm resolution |

### ▸ Highlights
– Flash speed. Lowest dose.
– Split-second thorax imaging without the need for breath hold
– Sub-mSv heart scanning to cover the entire heart in only 250 ms
– Single dose Dual Energy for a 2nd contrast in daily routine
– Organ-sensitive dose protection + the widest range of dose reduction features

## ▸ Siemens SOMATOM Definition

| | |
|---|---|
| **Channels** | 2 x 64 slices |
| **Power in kW** | 160 kW |
| **Coverage/** | 200 mm (with A4DS) |
| **rotation in mm** | 0.24 mm resolution |

### ▸ Highlights
– The world's first Dual Source CT
– Faster than every beating heart without the need for beta-blockers
– Full cardiac detail at half the dose required for a conventional single source CT
– One-stop diagnosis in acute care for acute chest pain, abdominal pain, trauma, and neuro imaging
– Beyond visualization with Dual Energy by enabling tissue classification for the first time

## ▸ Siemens SOMATOM Sensation 40/64

| | | |
|---|---|---|
| **Channels** | 64 slices | 40 slices |
| **Power in kW** | 80 kW | 70 kW |
| **Coverage/** | 28.8 mm | 28.8 mm |
| **rotation in mm** | 0.24 mm resolution | 0.33 mm resolution |

### ▸ Highlights
– Performance in CT
– Speed, Resolution, and Coverage without Compromise
– Industry's highest isotropic resolution
– »Zero Delay« CT Workflow

## ▸ Siemens SOMATOM Definition AS

| | | |
|---|---|---|
| **Channels** | 128 slices | 64 slices |
| **Power in kW** | 100 kW | 80 kW |
| **Coverage/** | 271 mm (with A4DS) | 67 mm (with A4DS) |
| **rotation in mm** | 0.24 mm resolution | 0.24 mm resolution |

| | | |
|---|---|---|
| **Channels** | 40 slices | 20 slices |
| **Power in kW** | 80 kW | 80 kW |
| **Coverage/** | 67 mm (with A4DS) | |
| **rotation in mm** | 0.24 mm resolution | 67 mm (with A4DS) |

### ▸ Highlights
– The world's first adaptive scanner
– Adapts to any patient, e.g. cardiac, pediatric, obese, trauma, intervention
– Adapts for complete dose protection with elimination of over-scanning radiation
– Adapts for new dimensions with whole organ perfusion coverage of up to 27 cm
– Adapts to your space with on-site upgradeability from 20 to 128 slice configuration

## ▸ Siemens SOMATOM Sensation Open

| | |
|---|---|
| **Channels** | *40 slices* |
| **Power in kW** | *50 kW* |
| **Coverage/** | *28.8 mm* |
| **rotation in mm** | *0.33 mm resolution* |

▸ **Highlights**
– Performance in CT
– 82 cm large bore with 82 cm FOV
– 280 kg high capacity patient table
– Designed for RT planning
– Advanced CT interventional procedures

## ▸ Siemens SOMATOM Emotion 6/16

| | | |
|---|---|---|
| **Channels** | *16 slices* | *6 slices* |
| **Power in kW** | *50 kW* | *50 kW* |
| **Coverage/** | | |
| **rotation in mm** | *19,2 mm* | *18 mm* |
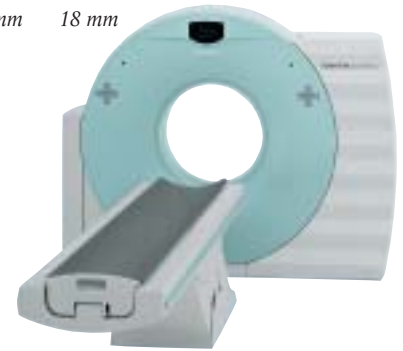
▸ **Highlights**
– The Most Popular CT in the World
– Perfection in image detail with the smallest tube focal spot size and up to 68% dose reduction with CAREDose 4D
– Clinical efficiency simplified with the breathing indicator and CT storage box in gantry
– Savings in every scan with the smallest space required for installation and lowest power and air-conditioning requirements

## ▸ Siemens SOMATOM Spirit

| | |
|---|---|
| **Channels** | *2 slices* |
| **Power in kW** | *40 kW* |
| **Coverage/** | |
| **rotation in mm** | *10 mm* |

▸ **Highlights**
– Join the World of CT
– New technology, more performance, less cost
– Easy user interface
– New level of cost-effectiveness
– New dimension in patient-friendliness

## ▸ Toshiba Aquilion ONE

| | |
|---|---|
| **Slices** | *640* |
| **Coverage/rotation** | *16 cm* |
| **Rotation speed** | *0,35 s* |

▸ **Highlights**
– Worlds first Dynamic Volume CT
– Dynamic CT DSA
– ConeXact™ 3D volume reconstruction for super resolution imaging
– Isophasic ONE-beat cardiac imaging
– Isophasic ONE rotation cardiac imaging
– Isophasic 16 cm dynamic volume imaging with 20 volumes/s
– Whole organ perfusion without table movement, e.g. brain, liver, pancreas, kidney, etc.
– 4D-Volume shuttle technology for areas larger 16 cm
– Lateral table movement *(option)*
– 0,5 mm detector technology with best low contrast resolution 2 mm @ 3HU
– Morphology and moving joints

## ▸ Toshiba Aquilion Premium

| | |
|---|---|
| **Slices** | *320 – upgradeable to 640 slices* |
| **Coverage/rotation** | *8 cm* |
| **Rotation speed** | *0,35 s* |

▸ **Highlights**
– Dynamic volume CT
– Dynamic CT DSA
– ConeXact™ 3D volume reconstruction for super resolution imaging
– Cardiac volume imaging
– Wide area organ perfusion
– Isophasic 8 cm dynamic volume imaging with 20 volumes/s
– 4D-Volume shuttle technology for areas larger 8 cm
– Lateral table movement *(option)*
– 0,5 mm detector technology with best low contrast resolution 2 mm @ 3HU

## ▸ Toshiba Aquilion CX

| | |
|---|---|
| **Slices** | *128* |
| **Coverage/rotation** | *3,2 cm* |
| **Rotation speed** | *up to 0,35 s* |

▸ **Highlights**
– ConeXact™ 3D volume reconstruction for super resolution imaging
– CT DSA with SureSubtraction *(option)*
– SureCardio-Prospective for helical cardiac imaging with lowest dose *(option)*
– Up to 35 ms temporal resolution *(option)*
– Patient specific automatic optimization of cardiac scan parameter
– Variable helical pitch to combine two scans in one run (e.g. ECG-gated and Run-off )
– 0,5 mm detector technology with best low contrast resolution 2 mm @ 3HU

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A91CC-9016-A3-7600

## ▶ Toshiba Aquilion 32 / 64

| | |
|---|---|
| **Slices** | *32 / 64 – upgradeable to Aquilion CX* |
| **Coverage/rotation** | *3,2 cm* |
| **Rotation speed** | *up to 0,35 s* |
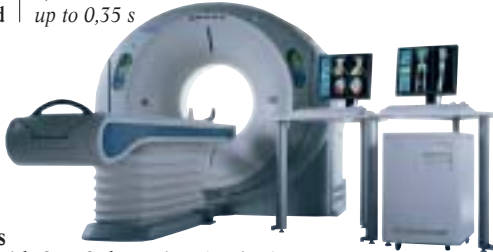
▶ **Highlights**
- CT DSA with SureSubtraction *(option)*
- SureCardio-Prospective for helical cardiac imaging with lowest dose *(option)*
- up to 35 ms temporal resolution *(option)*
- Patient specific automatic optimization of cardiac scan parameter
- Variable helical pitch to combine two scans in one run (e.g. ECG-gated and Run-off) *(option)*
- 0,5 mm detector technology with best low contrast resolution 2 mm @ 3HU

## ▶ Toshiba Aquilion 16

| | |
|---|---|
| **Slices** | *16* |
| **Coverage/rotation** | *3,2 cm* |
| **Rotation speed** | *up to 0,4 s* |

▶ **Highlights**
- CT DSA with SureSubtraction *(option)*
- Helical cardiac imaging, incl. cardiac CTA
- up to 40 ms temporal resolution *(option)*
- Patient specific automatic optimization of cardiac scan parameter
- Advanced 3D, automatic bone removal, etc.
- Ultra low dose scanning
- 0,5 mm detector technology with best low contrast resolution 2 mm @ 3HU

## ▶ Toshiba Aquilion Large Bore

| | |
|---|---|
| **Slices** | *16* |
| **Coverage/rotation** | *3,2 cm* |
| **Rotation speed** | *0,5 s* |
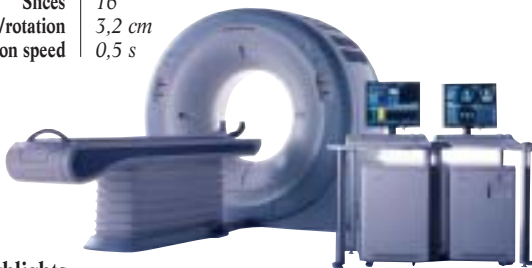
▶ **Highlights**
- 4D CT - for respiratory triggered radio therapy
- 90 cm gantry bore
- 85 cm extended field of view *(option)*
- 70 cm standard field of view
- Superior homogeneity for high precision radiation therapy planning
- 0,35 mm isotropic spatial resolution
- 0,5 mm detector technology with best low contrast resolution 2 mm @ 3HU
- Real time multislice open bore fluoroscopy

## ▶ Toshiba Activion 16

| | |
|---|---|
| **Slices** | *16* |
| **Coverage/rotation** | *2,0 cm* |
| **Rotation speed** | *0,75 s* |

▶ **Highlights**
- CT DSA with Sure Subtraction *(option)*
- Powerful 3D software with auto bone removal
- 0,35 mm isotropic spatial resolution
- Easy "Ready-Set-Go" user concept
- Ultra low dose scanning
- Real time multislice fluoroscopy
- 0,5 mm detector technology with best low contrast resolution 2 mm @ 3HU

## ▶ Toshiba Asteion S4

| | |
|---|---|
| **Slices** | *4* |
| **Coverage/rotation** | *2,0 cm* |
| **Rotation speed** | *0,75 s* |

▶ **Highlights**
- Extended field of view: 68 cm
- Powerful 3D software with auto bone removal
- Easy "Ready-Set-Go" user concept
- Ultra low dose scanning
- Real time multislice fluoroscopy
- 0,5 mm detector technology with best low contrast resolution 2 mm

# CT ACCESSORIES

## ▶ Alliance Medical – leading provider of diagnostic imaging services

▶ **Highlights**
- Outsourced fixed imaging centres
- Mobile route services
- Mobile interim rentals

## ▶ Alliance Medical Interim Solutions



▶ **Highlights**
– Mobile imaging: CT, MR, Cath Lab, PET/CT
– Upgrading, installing or replacing?
– Immediate access to imaging equipment.
– Delivered at your site, you can have full use 24/7

## ▶ Hologic ImageChecker D



▶ **Highlights**
– Industry GOLD standard for CAD
– Highest sensitivity at comparable false marker rates
– Seamless integration of ImageChecker and review workstation
– Powered by R2 technology,
  the most trusted and fieldproven CAD technology
– Customized CAD results

## ▶ IBA Dosimetry Dosimax plus A HV

Dosimeter for measuring simultaneously dose, dose rate,
exposure time and dose length product



▶ **Highlights**
– Designed according to IEC 61674
– For use with solid state detectors or ionization chambers
– For CDTI determination in
  combination with head and body phantom

## ▸ PTW CT Dosimetry

Quality control equipment for CT dose measurements

**▸ Highlights**
– Combined head & body phantom available
– CT chamber for precise dose length product measurements and CTDI determination

## ▸ RTI Electronics CT Slice Probe

*The CT Slice Probe is designed to make CTDI measurement more exact and has also the ability to further analyze the result. Following parameters are achived from a single exposure: CTDI100, CTDIvol, DCTIw, CT dose profile, DLP, Point Dose, Performance of the AEC, FWHM and Scatter Index.*

**▸ Highlights**
– All in One Shot
– Quick and Simple Set up
– Accurate and Sensitive
– No limitations due to the beam width

## ▸ TeraRecon Aquarius

| | | |
|---|---|---|
| **Product** | *Aquarius workstation* | *AquariusNET server* |
| **Technology** | *3D diagnostic workstation* | *Client-server 3D architecture* |
| **Resolution** | – | – |
| **Size** | – | |
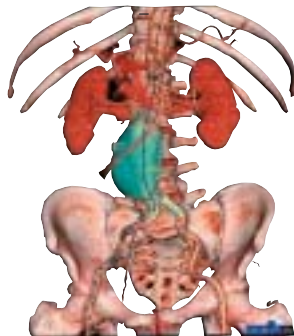
**▸ Highlights**
– Thin client-server solution enterprise-wide
– VolumePro: handling many 3D sessions at once
– Rendering on central server, results streamed to PC
– Fast and efficient in the reading workflow
– AquariusNET runs on almost any standard PC

## ▸ TOMOVATION – Rental of mobile diagnostic systems MRI, CT

**▸ Systems**
– CT GE LightSpeed 16 Cardiac
– CT container – Siemens SOMATOM Emotion 6

## ▸ TOMOVATION – Modular buildings CT / MRI / PET

**▸ Highlights**
– Rent or sale including or excluding diagnostic equipment

## ▸ ulrich medical– $CO_2$ Insufflator for virtual coloscopy

| | |
|---|---|
| **Pressure** | *0-30 mmHG, infinitely variable, preselectable* |
| **Insufflation rate** | *1-4 l/min, arbitrary* |
| **Setting** | *supported by voice confirmation system* |

**▸ Highlights**
– Automatic insufflation of $CO_2$ into the colon for virtual coloscopy examinations in CT
– Significant improvement of diagnostic results compared to manual room air insufflation
– Increase of patient comfort due to automatic adjustment of over pressure and faster resorption
– Easy setting of gas volume and pressure
– Display of gas consumption
– Four adjustable flow rates

**Alliance Medical**

**GE Healthcare**

**HITACHI** Inspire the Next

**Medicor**

**Medtronic**

**PARAmed**

**ONI Medical Systems, Inc.**

**SCHILLER** The Art of Diagnostics

**SIEMENS**

**TOMOVATION**

**TOSHIBA**

Esaote · Invivo · NordicImagingLab · Philips · Wandong

## ▸ Esaote C-Scan

| Field | 0.2 T |
|---|---|
| Gradient | ±10 mT/m |
| Slewrate | 40 mT/m/ms |

▸ **Highlights**
– In-office MRI unit for the
  MRI diagnosis of the upper and lower extremities
– Permanent magnet with integrated
  RF-shielding, no external RF-shielding necessary
– Direct operator – patient contact
– Patient positioning outside the magnet
– Only 9 m² room size needed

## ▸ Esaote S-Scan

| Field | 0.25 T |
|---|---|
| Gradient | ±20 mT/m |
| Slewrate | 25 mT/m/ms |

▸ **Highlights**
– MRI unit for all musculoskeletal MRI,
  from foot to shoulders including the most
  important spine segments such as Lumbar and Cervical Spine.
– Open permanent magnet design
– High efficiency
– Only 18m² room size needed

## ▸ Esaote Opera

| Field | 0.2 T |
|---|---|
| Gradient | ±20 mT/m |
| Slewrate | 25 mT/m/ms |

▸ **Highlights**
– E-MRI unit for the MRI
  diagnosis of the upper and
  lower extremities incl. shoulder and hip
– Open permanent magnet design
– Extremely patient friendly, no claustrophobia effects
– Easy to use
– Only 15 m² room size needed

## ▸ Esaote G-Scan

| Field | 0.25 T |
|---|---|
| Gradient | ±20 mT/m |
| Slewrate | 25 mT/m/ms |

▸ **Highlights**
– MRI unit for weight bearing musculoskeletal examinations
– Open permanent magnet design
– Tilting magnet mechanism 0° – 90°
– Weight bearing examinations of lumbar spine, knee and foot
– Functional MRI of the cervical spine in seated patient
  positioning

## ▸ GE Healthcare Discovery MR750 3.0T & MR450 1.5T

| | MR750 | MR450 |
|---|---|---|
| Field | 3.0T | 1.5T |

▸ **Highlights**
**Powerfully simple**
– Express preparation exam
– »Can't miss« applications and HD coils

**Simply powerful**
– Shorter TE/TR & faster
  acquisitions with unique gradients architecture
– Faster reconstruction
– 27 % more SNR with optical RF technology

## ▸ GE Healthcare Signa HDx and HDxt 3.0T

| Field | 3.0 T |
|---|---|

▸ **Highlights**
– HD technology for
  diagnostic power and confidence
– Engineered for high definition:
  HD applications and HD coils
– Designed for productivity:
  optimized workflow and expanded applications
– Built for longevity:
  upgradeability and continued enhancement to every user

## ▶ GE Healthcare Signa HDx, HDi and HDxt 1.5T

**Field** | *1.5 T*

▶ **Highlights**
– HD technology for diagnostic power and confidence
– Engineered for high definition: HD applications and HD coils
– Designed for productivity: optimized workflow
  and expanded applications
– Built for longevity: upgradeability and
  continued enhancement to every user

## ▶ GE Healthcare Signa OpenSpeed EXCITE 0.7T

**Field** | *0.7 T*

▶ **Highlights**
– Comfort and speed with high field performance
– Innovative superconductive open high field magnet
– Fastest pulse sequences in open MRI
– Latest advanced neuro and vascular applications
– Spacious opening for claustrophobic patients

## ▶ GE Healthcare Signa HDe 1.5T

**Field** | *1.5 T*

▶ **Highlights**
– Compact MR design – only 25 m² siting space
– Low operating costs – 25% less than other 1.5 T systems
– High fidelity gradients to achieve accurate gradient pulses
– Broad range of high density coils for all applications
– Exclusive HD applications
– Consumes 41% less energy than previous
  generation systems, GE »ecomagination« certified

## ▶ GE Healthcare Signa Ovation HD 0.35T

**Field** | *0.35 T*

▶ **Highlights**
– Patient-friendly wide open bore
– High definition MR technology delivers definitive diagnosis
– High resolution, high speed imaging
– Latest advanced neuro and vascular applications

## ▶ GE Healthcare Signa HD Profile 0.2T

**Field** | *0.2 T*

▶ **Highlights**
– Patient-friendly wide open bore
– Superb magnet homogeneity
– Broad choice of multi-channel phased array coils
– Latest advanced spine applications

## ▶ GE Healthcare MRgFUS (MR-guided focused ultrasound)

**Technology** | *Combination of MR imaging and highly intense ultrasound ExAblate 2000 (InSightec)*

**Clinical Applications** | *Uterine fibroids / bone tumors* / breast cancer* liver tumors* / prostate cancer*  * Investigational use*

▶ **Highlights**
– No radiation
– Visualizes and controls treatment by
  monitoring tissue effect real time
– Limited conscious sedation
  (except for liver application general anaesthetic; necessary)
– Quick recovery, low rate of complications

# Practical Strategies
## to Prevent Contrast–induced Nephropathy

Contrast–induced nephropathy (CIN) remains a common cause of acute kidney injury and is associated with increased health–resource utilization and risk for in–hospital death. Procedures that employ intravascular radiocontrast media are increasingly frequently used for both diagnostic and therapeutic purposes, while the major risk factor for CIN – chronic kidney disease (CKD) – is growing in prevalence. These observations suggest that the incidence of this iatrogenic condition will increase in the future. Multiple pharmacological agents have been investigated for their capacity to prevent CIN, yet none has definitively demonstrated efficacy.

Many procedures that utilize intravascular radiocontrast are scheduled days or weeks in advance, providing sufficient time to identify high-risk patients and implement preventive care. The principal patient-related risk factor for CIN is underlying renal insufficiency, while concomitant diabetes mellitus increases this risk. Therefore, pre-procedure screening of subjects undergoing radiocontrast procedures should focus on the identification of patients with reduced glomerular filtration rate (GFR), particularly with concomitant diabetes mellitus. Additional risk factors that should be noted include intravascular volume depletion, advanced heart failure, and the concurrent use of nephrotoxic agents such as selective and non-selective non-steroidal anti-inflammatory agents.

## Prevention of Contrast-induced Nephropathy

Efforts to identify effective preventive strategies for CIN have focused on three approaches: the use of pre-emptive renal replacement therapy to remove radiocontrast from the circulation, the administration of pharmacological agents to counteract the nephrotoxic effects of radiocontrast, and the modification of the chemical composition of radiocontrast media to reduce their deleterious effects on the kidney. To date, there is no sound evidence supporting the routine use of renal replacement therapy to prevent CIN. Of the many pharmacological agents that have been investigated, several have been found to be ineffective. A series of studies has suggested that ascorbic acid, statins, aminophylline, and theophylline may be effective; however, there are insufficient data to recommend the routine use of these agents.

## Intravenous Fluids

Intravenous (IV) volume expansion has been investigated in many studies of CIN. In one of the most commonly cited studies, Solomon et al. randomized 78 patients with CKD who were undergoing coronary angiography. The incidence of CIN was significantly lower in subjects receiving IV fluids alone (11%) than in patients treated with IV fluids and mannitol (28%) or IV fluids and furosemide (40%). These findings established that volume expansion provides superior prophylaxis against CIN than forced dieresis resulting from the combined administration of saline with diuretics or mannitol.

Until 2002, little was known about the impact of fluid tonicity on the incidence of CIN. More recently, the hypothesis that IV fluid containing sodium bicarbonate (NaHCO3) may decrease the incidence of CIN compared with NaCl was tested in three clinical trials. Merten et al. randomized patients to receive either isotonic NaHCO3 or isotonic NaCl. Although the rate of CIN among post-randomization registry patients was nearly identical to that observed in patients who had been randomized to receive NaHCO3, the relatively small sample size increased the possibility that the primary result could have represented a false-positive finding. Nonetheless, this study demonstrated a low rate of CIN associated with an abbreviated IV fluid regimen.

More recently, Briguori and colleagues randomized 326 patients undergoing coronary or peripheral angiography to receive IV isotonic NaHCO3 with NAC or IV isotonic NaCl with NAC alone or NAC and ascorbic acid. This study suffered from a relatively small sample of patients and did not compare equivalent volumes of NaHCO3 and NaCl.

A recent study by Recio-Mayoral compared IV isotonic NaHCO3 mixed with NAC with IV NaCl for the prevention of CIN in 111 patients undergoing emergent coronary procedures. CIN occurred less frequently in patients who received NaHCO3 compared with NaCl. However, patients in the NaHCO3 group received pre-procedure volume expansion (5ml/kg/hr for one hour) and IV NAC, which were not administered to the NaCl group. Moreover, the rate of post-procedure fluid administration was greater in patients who received NaHCO3 compared with NaCl (1.5ml/kg/hr versus 1ml/kg/hr). While these data suggest a potential benefit of NaHCO3 compared with NaCl, they cannot be considered conclusive due to the relatively small size of the study population and differences in the rates and volumes of IV fluids.

Future trials that are adequately powered will be needed to validate the findings of these preliminary studies. There have been efforts to assess the efficacy of oral fluids compared with IV fluids for the prevention of CIN.

## Type of Radiocontrast

Radiocontrast media used for clinical purposes can be classified as either ionic or non-ionic, and are of variable osmolarity compared with plasma. The osmolarity of conventional 'high' osmolar agents is approximately 1,500mOsm/kg. In fact, 'low' osmolar agents are hyperosmolar (600-800mOsm/kg) relative to plasma,

Identify patients at increased risk

↓

Clinical risk factors present?
- Renal insufficiency
- Diabetes mellitus
- Volume-depleted state
- Receipt of intravascular contrast within previous seven days
- Advanced congestive heart failure
- Concomitant nephrotoxin use

Yes ↓          No →

Alternative radiographic test available?          No additional prophylactic measures required

No ↓                              Yes →

- Administer isotonic IV NaCl or NaHCO₃
- Limit dose of contrast
- Use low-osmolar contrast in moderate-risk patients
- Use iso-osmolar contrast in highest-risk patients
- Discontinue NSAIDs/COX-2 inhibitors
- Discontinue IV loop diuretics
- Administer oral N-acetylcysteine
- Monitor serum creatine

- Perform alternative imaging technique
- Consider risk of NSF with gadolinium

although they have a lower osmolarity than conventional radiocontrast agents.

In a large randomized, controlled trial of 1,196 patients, Rudnick et al. demonstrated a reduction in renal injury with the use of iohexol – a low-osmolar (non-ionic) contrast agent – in patients with pre-existing renal insufficiency, with or without diabetes, compared with diatrizoate, a high-osmolar compound. More recently, studies have focused on comparing low-osmolar agents with iodixanol, the first of a new class of iso-osmolar (290mOsm/kg) radiocontrast agents.

There have been a series of meta-analyses and systematic reviews that have compared iodixanol with low-osmolar radiocontrast. While they have yielded different results when pooled analyses are based on patient-level data, some data suggest a lower rate of CIN with iso-osmolar radiocontrast in the highest-risk patients (i.e. those with CKD and concomitant diabetes mellitus). Among patients at low to moderate risk, there are no significant differences between iso-osmolar and low-osmolar radiocontrast. A series of recently completed clinical trials comparing iodixanol with low-osmolar agents may further clarify the differences among these compounds.

## N–acetylcysteine

NAC has been studied as a potential prophylactic therapy for CIN based on its antioxidant properties. In 2000, Tepel et al. randomized 83 patients who were undergoing procedures with IV radiocontrast to receive 600mg of NAC or place-bo twice daily on the day prior to and the day of the imaging procedure. CIN developed in fewer patients who received NAC than among patients enrolled in the placebo arm (2 versus 21%; p=0.01). However, this study enrolled a small number of patients and failed to assess other important patient outcomes including mortality, hospital length of stay, and costs, although none of the subjects who developed CIN required renal replacement therapy. There have been recent efforts to determine the efficacy of IV NAC. Additional studies will be needed to determine whether IV NAC is in fact effective, as this treatment is considerably more expensive than oral NAC therapy.

## Practical Approaches to Prevention

Based on the available data, there are practical, evidence-based steps providers can take to reduce the risk for CIN (see Figure 1). The most effective approach to prevent CIN is simple avoidance of the use of iodinated radiocontrast. Whenever possible, use of alternate imaging procedures that do not require the use of iodinated radiocontrast should be considered. Of note, recent observational data have linked the use of gadolinium, a non-iodinated contrast agent used with magnetic resonance imaging (MRI), to a devastating systemic disorder – nephrogenic systemic fibrosis (NSF) – in patients with near-end-stage and end-stage renal disease.50 Therefore, the risk for CIN in patients with advanced, non-dialysis-dependent CKD must be balanced with the potential risk for NSF with gadolinium exposure. Specific modifiable risks for the development of CIN should be addressed. Non-selective, non-steroidal anti-inflammatory medications and cyclo-oxygenase-2 inhibitors should be held for at least 24 hours prior to and 24–48 hours following the procedure. IV diuretics should be stopped before and at the time of the procedure. IV isotonic NaCl or NaHCO3 should be administered prior to and following the procedure, and when possible given at a rate of 1ml/kg/hr for 12 hours preceding and 12 hours following the procedure. For high-risk patients undergoing elective outpatient procedures or emergent procedures, similar volumes of isotonic fluid comprising either NaCl or NaHCO3, administered over a shorter duration, may provide a more practical alternative. IV fluids should not be withheld from patients with a history of congestive heart failure. Rather, careful intravascular volume expansion should be accompanied by close vigilance for signs or symptoms of pulmonary compromise. The lowest dose possible of low-osmolar radiocontrast should be administered to patients at low or moderate risk (preserved kidney function or early CKD). Among the highest-risk patients, specifically those with more advanced baseline renal impairment and concomitant diabetes, iodixanol may be the least nephrotoxic agent, and should be given in the lowest volume required. If effective, it stands to reason that higher doses of oral NAC would provide greater benefit than lower doses based on the low bioavailability of this agent.

Therefore, while there is still uncertainty regarding the efficacy of NAC, given its low potential for toxicity and low cost we recommend administering 1,200mg orally twice daily on the day prior to and the day of contrast administration. Monitoring of renal function following the administration of radiocontrast is also important in patients at increased risk for CIN. At a minimum, the Scr concentration should be measured 48–72 hours following the procedure in all high-risk patients.

## ▶ GE Healthcare MR Surgical suite

| | |
|---|---|
| **Technology** | *An MR – OR transfer solutions with all ancillary MR compatible devisces* |
| **Clinical Applications** | *IntraOperative MR for neurosurgery* |
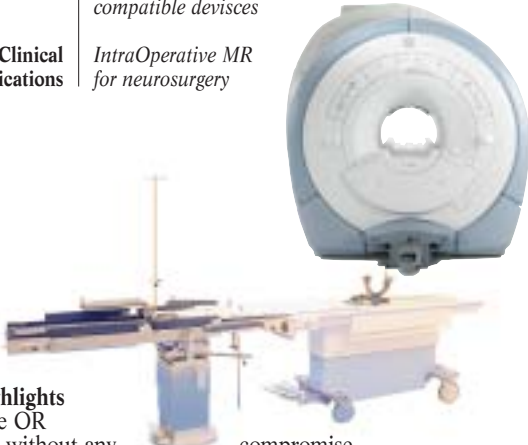
▶ **Highlights**
– True OR
– MR without any         compromise
– Two rooms concept allows standard surgery devices usage and state-of-the-art MR performance

## ▶ Hitachi Medical Systems OASIS

| | |
|---|---|
| **Field** | *1.2 T* |
| **Gradient** | *33 mT/m* |
| **Slewrate** | *100 T/m/s* |

▶ **Highlights**
– Highest field strength superconductive open MRI system.
– 8 Channel Zenith RF system and coils
– HOSS™ – Higher order shimming system
– RAPID™ – Parallel imaging
– VERTEX™ computer system and ORIGIN™ operating software

## ▶ Hitachi Echelon

| | |
|---|---|
| **Field** | *1.5 T* |
| **Gradient** | *30 mT/m* |
| **Slewrate** | *150 mT/m/ms* |
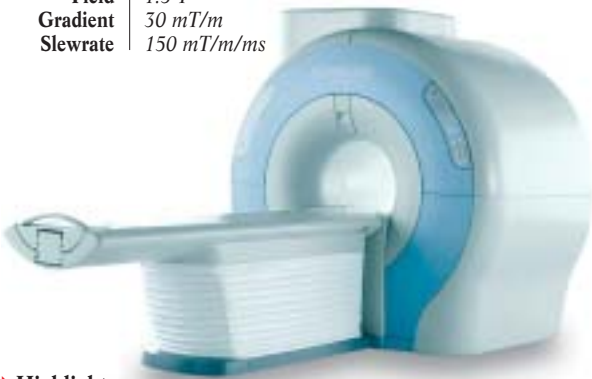
▶ **Highlights**
– Short-bore, super-conductive magnet
– Low cryogen boil-off technology
– Scaleable RF systems up to 32 channels
– Powerful VERTEX™ image reconstruction engine
– Long stroke patient table

## ▶ Hitachi Medical Systems APERTO

| | |
|---|---|
| **Field** | *0.4 T* |
| **Gradient** | *24 mT/m* |
| **Slewrate** | *55 mT/m/ms* |

▶ **Highlights**
– High-end MRI, at the cost of a permanent system
– Outstanding image quality in all applications, including traumatology, general radiology and emergency examinations
– 320° panoramic opening
– Fully motorised patient table
– Short examination time and high throughput

## ▶ Hitachi Medical Systems AIRIS Elite

| | |
|---|---|
| **Field** | *0.3 T* |
| **Gradient** | *21 mT/m* |
| **Slewrate** | *55 mT/m/ms* |

▶ **Highlights**
– Advanced mid-field MRI
– Variety of fat-saturation techniques
– Fully motorized patient table
– Lateral table movement ±100 mm
– Very cost effective open MRI

## ▶ Medtronic Polestar® Surgical MRI System

| | |
|---|---|
| **Field** | *0.15 T* |
| **Gradient** | *0.25 mT/m* |
| | *Compact & Mobile* |

▶ **Highlights**
– Designed for seamless integra-tion in most OR with mobile RF shielding.
– Fits under OR table during procedure.
– Compatible with most existing surgical equipment.
– Perfect match to neurosurgical workflow.
– Standard patient positioning and no patient motion during the procedure.
– Integrated Image Guided Surgery System to maintain Navigational accuracy.
– Confirmation of resection prior closing.

## ▶ Oni MRI

**Orthone**
| | |
|---|---|
| **Field** | 1.0 T |
| **Gradient** | 70 mT/m |
| **Slewrate** | 200 mT/m/ms |

**MSK Extreme**
| | |
|---|---|
| **Field** | 1.5 T |
| **Gradient** | 70 mT/m |
| **Slewrate** | 200 mT/m/ms |

▶ **Highlights**
– Power of high field
– Low siting costs
– Patient comfort, truly open
– Optimized performance, high resolution
– Ease of use

## ▶ PARAMED AURORA

| | |
|---|---|
| **Field** | 1.5 T |
| **Gradient** | 6 21 mT/m |
| **Slewrate** | 45 mT/m/msec |
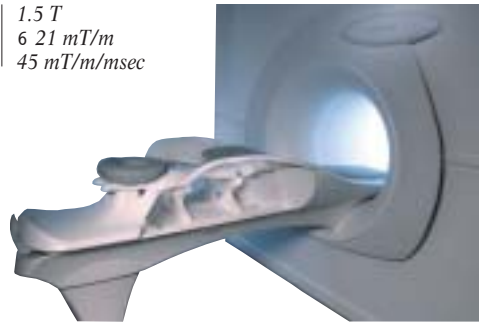
▶ **Highlights**
– The only one FDA-cleared, truly dedicated MRI system designed specifically for breast imaging
– Fully integrated, user friendly MRI guided interventional system
– Revolutionary acquisition technology, SpiralRODEO™, provides far superior image quality
– Integrated Aurora-CAD™ software, the new standard in breast MRI software

## ▶ PARAMED MrJ

| | |
|---|---|
| **Field** | 0.22 T |
| **Gradient** | 6 15 mT/m |
| **Slewrate** | 25 mT/m/msec |

▶ **Highlights**
– Dedicated, in-office MRI, with largest magnet opening
– Designed specifically for the complete study of the joints
– Possibility to include C-Spine and L-Spine
– Easy to install, extremely reliable, quick financial break-even

## ▶ PARAMED MrOPEN

| | |
|---|---|
| **Field** | 0.5 T |
| **Gradient** | 6 20 mT/m |
| **Slewrate** | 33 mT/m/msec |

▶ **Highlights**
– Revolutionary high temperature cryogen-free superconductive magnet
– Unique U-shaped magnet design eliminates any claustrophobic reaction
– Unprecedented patient comfort and clinical flexibility
– Dynamic imaging, weight-bearing imaging, and interventional application

## ▶ Philips Achieva 3.0T TX

| | |
|---|---|
| **Field** | 3.0 T |
| **Gradient** | 80 mT/m |
| **Slewrate** | 200 mT/m/ms |

▶ **Highlights**
– MultiTransmit technology for enhanced speed, image quality and consistency through patient-adaptive imaging
– Productivity and efficiency with SmartExam: 1 click for consistent and reproducible MR exams. Available for Brain, Spine, Knee, Shoulder and Breast
– Advanced functionality: high SENSE acceleration capabilities, ultra-fast MR angiography with 4D-TRAK, cardiac imaging with k-t BLAST, 2k Imaging for ultra-high spatial resolution and unique applications like DWIBS, ASL & SENSE spectroscopy

## ▶ Philips Achieva 3.0T X–series

| | |
|---|---|
| **Field** | 3.0 T |
| **Gradient** | 80 mT/m |
| **Slewrate** | 200 mT/m/ms |

▶ **Highlights**
– Wide open, patient-friendly, flared short bore design with 50 cm imaging coverage for comfortable and efficient patient imaging
– High productivity and efficiency with SmartExam: 1 click for consistent and reproducible MR exams. Available for Brain, Spine, Knee and Shoulder
– Advanced functionality for speed and resolution: high SENSE acceleration capabilities, ultra-fast MR angiography with 4D-TRAK, cardiac imaging with k-t BLAST, 2k Imaging for ultra-high spatial resolution

## ▸ Philips Achieva XR

| | |
|---|---|
| **Field** | 1.5 T rampable to 3.0 T |
| **Gradient** | 80 mT/m |
| **Slewrate** | 200 mT/m/ms |

▸ **Highlights**
– Superb 1.5T clinical solution:
  Covers wide ranging applica-
  tions including advanced capa-
  bilities such as Body Diffusion
  (DWIBS), non-contrast perfusion (ASL),
  DTI and fiber tractography and Cardiac
– Easy and economic transition to 3T: avoids typical
  downtime, construction and operational costs
– 3.0T value inside: XR system retains high residual
  value with 3.0T magnet and gradients built-in

## ▸ Philips Achieva 1.5T A-series

| | |
|---|---|
| **Field** | 1.5 T |
| **Gradient** | 66 mT/m |
| **Slewrate** | 160 mT/m/ms |

▸ **Highlights**
– SmartExam – 1 click for consistent
  and reproducible MR scans
– 4D Angio's (Time resolved) with
  4D TRAK and SENSE parallal imaging
– A full range of high-channel SENSE
  coils for high resolution and speed
– New contrast in oncology applications with
  DWIBS whole body diffusion
– Advanced 3D cardiac, neuro, breast and spectro imaging

## ▸ Philips Achieva 1.5T SE

| | |
|---|---|
| **Field** | 1.5 T |
| **Gradient** | 33 mT/m |
| **Slewrate** | 122 mT/m/ms |

▸ **Highlights**
– A true value-for-money 1.5T
  system with comprehensive imaging capabilities
– Smarter economics with PowerSave (reduces energy bill by up
  to 50 %) and compact siting (only 27m²)
– Built on proven Achieva platform offering wide choice of
  easy and economical upgrade paths

## ▸ Philips Intera 1.5 T

| | |
|---|---|
| **Field** | 1.5 T |
| **Gradient** | 33 mT/m |
| **Slewrate** | 80 mT/m/ms |

▸ **Highlights**
– SmartExam – 1 click for consistent and
  reproducible MR scans
– NetForum community access with ExamCards for all studies
– Investment value – FreeWave platform based – ready for new
  applications
– SENSE for fast imaging in all applications

## ▸ Philips Panorama HFO

| | |
|---|---|
| **Field** | 1.0 T |
| **Gradient** | 28 mT/m |
| **Slewrate** | 120 mT/m/ms |

▸ **Highlights**
– Patient friendly: three times
  larger patient aperture than conven-
  tional MR to handle stressed and
  claustrophobic patients, children,
  elderly and large patients
– High-field performance comparable to 1.5 T in
  a truly open configuration
– Increased productivity with SmartExam, one-click
  planning, scanning and processing
– Enables unique applications not possible with cylindrical
  systems

## ▸ Siemens Magnetom Verio: I-class / T-class

| | |
|---|---|
| **Field** | 3.0 T |
| **Gradient** | 45 mT/m |
| **Slewrate** | 200 mT/m/s |

▸ **Highlights**
– Unique combination of 3.0 T, 70 cm open bore and Tim
  (Total imaging matrix)
– Shortest 3.0 T system in the market (173 cm)
– Especially appreciated by obese claustrophobic and ICU
– TrueForm design offers enhanced image quality optimizing
  the homogeneity

## ▶ Siemens Magnetom Trio – A Tim System: I-class / T-class

| | |
|---|---|
| **Field** | 3.0 T |
| **Gradient** | 45 mT/m |
| **Slewrate** | 200 T/m/s |

▶ **Highlights**
– Best 3.0 T magnet with unmatched homogeneity
  and strong gradients with AudioComfort
– Tim with up to 32 RF channels for unmatched image quality,
  unmatched speed and unmatched flexibility
– New trendsetting applications make the extraordinary routine

## ▶ Siemens Magnetom Espree: I-class / T-class

| | |
|---|---|
| **Field** | 1.5 T |
| **Gradient** | 33 mT/m |
| **Slewrate** | 170 T/m/s |

▶ **Highlights**
– First MR with 70 cm open bore,
  proven with more than 600 installations
– Shortest system length of 125 cm only
– Especially appreciated by obese or claustrophobic patients
– Tim (Total imaging matrix) coils can be flexibly combined
– Field of view up to 205 cm with syngo TimCT

## ▶ Siemens Magnetom Avanto: I-class / T-class

| | |
|---|---|
| **Field** | 1.5 T |
| **Gradient** | 45 mT/m |
| **Slewrate** | 200 T/m/s |

▶ **Highlights**
– Leading applications with Tim (Total imaging matrix)
– 7 out of the top ten U.S. hospitals work with the
  Magnetom Avanto
– 500 mm field of view, zero eddy-currents
– AudioComfort: ear protection not mandatory
– Parallel imaging from head to toe

## ▶ Siemens Magnetom Symphony: A Tim System: I-Class / T-Class

| | |
|---|---|
| **Field** | 1.5 T |
| **Gradient** | 30 mT/m |
| **Slewrate** | 125 T/m/s |

▶ **Highlights**
– Improved image quality with Tim
– Complete range of applications powered by Tim
– Advanced applications, like non-contrast enhanced applica-
  tions syngo ASL (Arterial Spin Labeling) and syngo NATIVE
– Whole-body capabilities with up to 200 cm Field of View
– Higher throughput with Tim's revolutionary coil concept

## ▶ Siemens Magnetom Symphony: Power-class

| | |
|---|---|
| **Field** | 1.5 T |
| **Gradient** | 30 mT/m |
| **Slewrate** | 125 T/m/s |

▶ **Highlights**
– Proven success with over 2.500 systems installed
– BLADE motion correction or SWI for hemorrhage detection
– Parallel imaging contributes efficient
– Integrated Panoramic Array (IPA)
– Combines up to 4 coils with up to 16 CP elements

## ▶ Siemens Magnetom ESSENZA

| | |
|---|---|
| **Field** | 1.5 T |
| **Gradient** | 30 mT/m |
| **Slewrate** | 100 mT/m/s |

▶ **Highlights**
– The most affordable*, all-new 1.5 T MRI – low initial
  investment, low set-up and running cost, reduced siting costs
– Helps to enhance business opportunities by providing a
  broader range of applications and higher throughput with Tim
– Enhance patient comfort with a new, ultra-short (145 cm)
  1.5 T system and ultra-light weight coils
– Optimize image quality with the IsoCenter Matrix
* Results may vary. Data on file

## ▶ Siemens Magnetom Espree – Pink

| Field | 1.5 T |
| Gradient | 33 mT/m |
| Slewrate | 170 T/m/s |

▶ **Highlights**
– First dedicated 70 cm Open Bore breast scanner
  with shortest system length of only 125 cm
– Pink Comfort with Open Coil design and variable coil
  geometry (VCG) for both imaging and biopsy – Sentinelle
  Vanguard for Siemens
– Pink Applications offering a complete portfolio for all needs
– Pink Workflow including dedicated workplace for reading and
  biopsy planning: syngo BreVis and syngo BreVis Biopsy

## ▶ Siemens Magnetom C!

| Field | 0.35 T |
| Gradient | 24 mT/m |
| Slewrate | 55 mT/m/ms |

▶ **Highlights**
– Patient friendly exams due to side loading
– 270° accessibility assistance in reach of the patient
– Can be sited in less than 30 m²/323 sqft
– Offers a comprehensive set of clinical applications
– Excellent return-on investments:
  decreased costs – optimized profitability

## ▶ Toshiba Excelart Vantage powered by Atlas

| Field | 1.5 T |
| Gradient | 30 or 33 mT/m |
| Slewrate | 130 or 200 mT/m/ms |

| Field | 3.0 T |
| Gradient | 45 mT/m |
| Slewrate | 200 mT/m/ms |

▶ **Highlights**
– Pianissimo gradient system
– Connectivity of up to 128 coil
  elements with 16 or 32 channel-readout
– Image reconstruction rate of up to 4.000 images/sec
– FBI MR angiography without contrast medium
– 55 x 55 x 205 cm scanning region

## ▶ Toshiba Excelart Vantage

| Field | 1.5 T |
| Gradient | 30 mT/m |
| Slewrate | 50 or 130 mT/m/s |
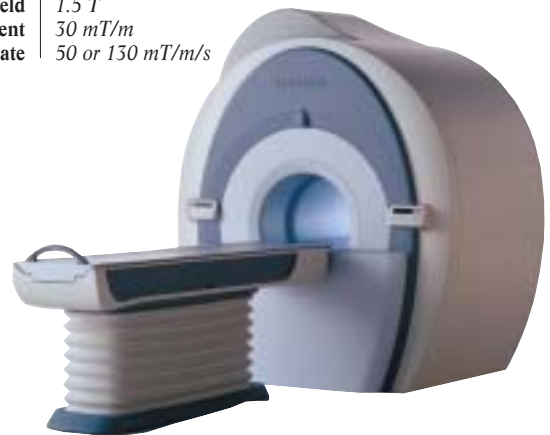
▶ **Highlights**
– Pianissimo gradient system
– FBI MR angiography without contrast medium

## ▶ Toshiba Excelart Vantage TITAN

| Field | 1.5 T |
| Gradient | 30 mT/m |
| Slewrate | 130 mT/m/ms |
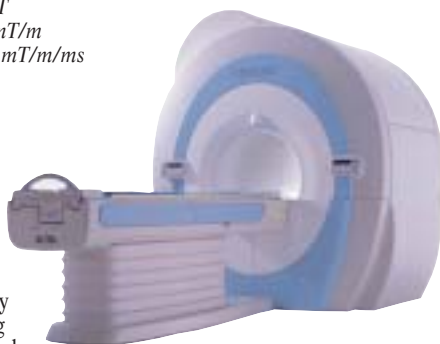
▶ **Highlights**
– Patient-friendly
  71 cm opening
  with full clinical
  FOV of 55 x 55 x 50 cm
– Pianissimo gradient system
– Up to 128 coil elements connected to
  up to 32 channel-readout
– Next generation of contrast-free angiography:
  FBI, CIA, t-slip, TSA
– Image reconstruction rate of up to 4.000 images/sec

## ▶ Wandong i-Open C-Shape Permanent MRI system

| Field | 0.36 T |
| Gradient | 15 mT/m |
| Slewrate | 55 mT/m/s |

▶ **Highlights**
– Permanent MRI system
– Wide range of pulse sequences & excellent image
– Friendly interface & easy-operating
– Prompt and comprehensive service
– Extremely high cost-effective

## Alliance Medical – leading provider of diagnostic imaging services
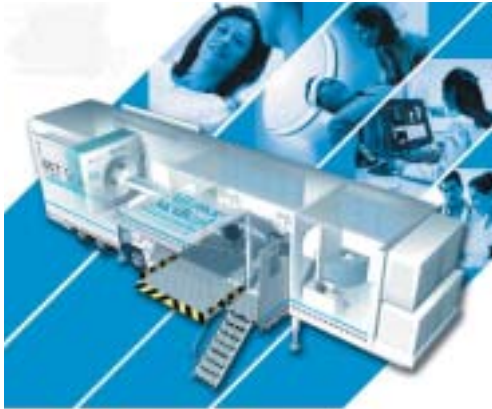


**Highlights**
– Outsourced fixed imaging centres
– Mobile route services
– Mobile interim rentals

## Alliance Medical Interim Solutions



**Highlights**
– Mobile imaging: CT, MR, Cath Lab, PET/CT
– Upgrading, installing or replacing?
– Immediate access to imaging equipment.
– Delivered at your site, you can have full use 24/7.

## Invivo DynaCAD



**Highlights**
– Comprehensive tool for automatic image processing
– Improves workflow and diagnostic confidence
– Automatic calculation of subtractions, MPRs and MIPs
– Volume analysis feature for therapy response monitoring
– Fast, accurate interventional planning

## Invivo Precess



**Highlights**
– Precess brings you the
  future of MRI patient monitoring
– Wireless ECG and SPO2
– Wireless remote display
– 5.000 Gauss Compliant
– 3.0 T compatible

## Invivo Eloquence



**Highlights**
– Eloquence is a complete, fully integrated fMRI solution
– Critical goals may be achieved with ease
– Integrated in-magnet compatible components
– Operator room control of both experiment and analysis
– High performance tools for postprocessing fMRI data

## Invivo Foot and Ankle Array Coil



**Highlights**
– Produces exquisite MR images of the foot, ankle and toes
– »Ski Boot« design for fast and easy patient set-up
– Three 5° cradle tilt settings for patient comfort
– Patient comfort pads to reduce motion artifact
– Optimized for parallel imaging

### ▸ NordicImagingLab: nordicICE Perfusion Module
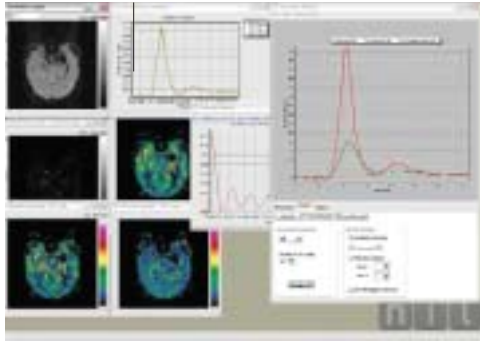


▸ **Highlights**
– »One-button« perfusion analysis
– Manual, semi-automatic or fully
  automatic selection of vascular input function
– State-of-the-art deconvolution techniques
– Fast generation of hemodynamic maps
– Easy image fusion (drag & drop)

### ▸ NordicImagingLab: nordicICE Diffusion Module



▸ **Highlights**
– Fast generation of diffusion maps
– Efficient DTI fiber tracking
– 3D visualization of reconstructed fiber tracts
– Superimposing BOLD fMRI activation as 3D »blobs«
– Save 3D snapshots & animations

### ▸ Schiller MAGLIFE Serenity

*MRI compatible up to 3 Tesla*
*Mains and Battery driven (1,5 and 6 hours)*
*12,1" TFT Display*



▸ **Highlights**
– Optical core and skin temperature
– Configuration for Anaesthesia, cardiac und Intensive care applications
– Patented artefact inhibition
– 6 optical Gating outputs
– Optimized for Adult children and neonates

### ▸ Schiller MAGLIFE light

*MRI compatible up to 3 Tesla*
*Parameter: SPO2 and/or NIBP*
*Mains and Battery driven (1,5 hours)*



▸ **Highlights**
– Optimized for day to
  day application
– No installation necessary
– HTML printing function
– Optimized for Adult children and neonates

### ▸ TOMOVATION – Modular buildings CT / MRI / PET



▸ **Highlights**
– Rent or sale including or excluding diagnostic equipment.

### ▸ TOMOVATION – Rental of mobile diagnostic systems MRI, CT



▸ **Systems**
– MRI Siemens MAGNETOM Impact Expert 1.0 T
– MRI Siemens MAGNETOM Harmony
– MRI GE Signa HighSpeed 1.0 T
– MRI Philips Intera 1.0 T
– MRI modular building – Siemens MAGNETOM Essenza 1.5 T

### ▶ GE Healthcare Innova 4100 IQ

| | |
|---|---|
| **Design** | *Floor-mounted c-arm* |
| **Detector** | *2k a-Si* |
| **Resolution** | *2.7 lp/mm* |
| **Size** | *41 x 41 cm* |

▶ **Highlights**
– Large field of view
– Wide dynamic range
– Highest DQE for significant dose savings
– Advanced applications
– FP-CT techniques

### ▶ GE Healthcare Innova 3100 IQ

| | |
|---|---|
| **Design** | *Floor-mounted c-arm* |
| **Detector** | *1.5k a-Si* |
| **Resolution** | *2.7 lp/mm* |
| **Size** | *30 x 30 cm* |

▶ **Highlights**
– Optimal detector size for mixed applications
– Fast gantry with smart patient sensing system
– Highest DQE for significant dose savings
– FP-CT techniques
– Total in-room control

### ▶ GE Healthcare Innova 3131 IQ

| | |
|---|---|
| **Design** | *3131 IQ* |
| **Detector** | *Biplane Angio system* |
| **Resolution** | *1.5k a-Si* |
| **Size** | *2.7 lp/mm* |
| | *31 x 31 cm frontal, 31 x 31 cm lateral* |

▶ **Highlights**
– Optimal detector size for dedicated neuro applications
– Highest DQE for significant dose savings
– FP-CT techniques
– Powerful 3D-processing tools
– Total in-room control

### ▶ GE Healthcare Innova 2100 IQ

| | |
|---|---|
| **Design** | *Floor-mounted c-arm* |
| **Detector** | *1k a-Si* |
| **Resolution** | *2.7 lp/mm* |
| **Size** | *20 x 20 cm* |
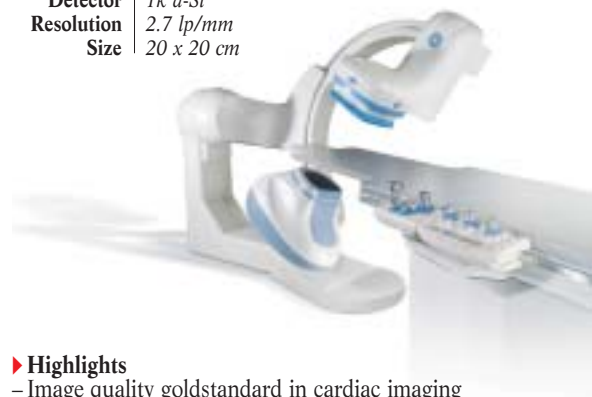
▶ **Highlights**
– Image quality goldstandard in cardiac imaging
– Fast gantry with smart patient sensing system
– Highest DQE for significant dose savings
– Complete integration of intra-vascular-ultrasound
– Seamless data exchange for comprehensive workflow solution

### ▶ GE Healthcare Innova 2121 IQ

| | |
|---|---|
| **Design** | *2121 IQ* |
| **Detector** | *Biplane Cardiac system* |
| **Resolution** | *1k a-Si* |
| **Size** | *2.7 lp/mm* |
| | *20 x 20 cm frontal, 20 x 20 cm lateral* |

▶ **Highlights**
– Image quality goldstandard in cardiac imaging
– Smart gantry for optimal C-arm positioning
– Highest DQE for significant dose savings
– Complete integration of Intra-Vascular-Ultrasound
– Seamless data exchange for comprehensive workflow solution

### ▶ Philips Allura Xper FD 20/10

| | |
|---|---|
| **Design** | *Biplane* |
| **Detector** | *a-Si* |
| **Resolution** | *0.154 mm* |
| **Size** | *38 x 30 cm* |

▶ **Highlights**
– Live 3D guidance with XperGuide for needle planning and guidance and Dynamic 3D Roadmap for easy navigation
– ISoft tissue information available with XperCT, controllable at tableside
– Xper Workspace integration for instant recall and viewing of all related multimodality images – from CT, MR and precious x-ray cases – at tableside during the intervention
– Flat detector with 2k digital imaging chain featuring; complete 2048 x 2048 pixel, digital imaging chain

## Philips Allura Xper FD 20

| | |
|---|---|
| **Design** | *Ceiling-mounted* |
| **Detector** | *a-Si* |
| **Resolution** | *0.154 mm* |
| **Size** | *38 x 30 cm* |

### ▶ Highlights
– Live 3D needle guidance, bringing back needle
  guided interventions into the angio suite with XperGuide
– Complete 2048 x 2048 pixel, digital imaging chain
– Image area of 30 x 40 cm adjustable to a square image of 16 cm
– Powerful set of diagnostic tools,
  e.g. Bolus Chase, Rotational Scan
– Accessibility to innovations such as high-speed
  XperCT and 3D Roadmapping

## Shimadzu HeartSpeed 10

| | |
|---|---|
| **Design** | *Cath-lab system* |
| **II-format** | *9" and 12"* |
| **Image system** | *Digital* |

### ▶ Highlights
– Floor or ceiling-mounted
– Real time operations
– Noise reduction
– Dose management
– Flexibility and reliability with triple pivots
– Grid controlled x-ray tube for accurate imaging
– Up to 60°/sec rotational DSA

## Shimadzu Bransist Safire Bi-plane

| | |
|---|---|
| **Technology** | *Direct conversion FPD (amorphous selenium)* |
| **Resolution** | *3.3 lp/mm* |
| **Size** | *9" x 9" (22 x 22 cm)* |

### ▶ Highlights
– Direct conversation FPD techno-
  logy for outstanding image quality
– 150 μm pixel size
– Grid controlled x-ray tube for superior dose management
– Exclusive »Cyber Chase« feature to keep the ROI
  automatically in bi-plane rotation
– Excellent coverage without moving a patient
– Motion-artefact-free by patented mask-less DSA technology

## Shimadzu Bransist Safire (Ceiling)

| | |
|---|---|
| **Technology** | *Direct conversion FPD (amorphous selenium)* |
| **Resolution** | *3.3 lp/mm* |
| **Size** | *9" x 9" (22 x 22 cm) or 17" x 17" (43 x 43 cm)* |

### ▶ Highlights
– Ceiling – mounted C-arm
– Direct conversation FPD for outstanding image quality
– 150 μm pixel size
– Grid controlled x-ray tube for superior dose management
– High speed C-arm up to 60°/sec. rotational DSA
– Excellent coverage without moving a patient

## Shimadzu Bransist Safire (Floor)

| | |
|---|---|
| **Technology** | *Direct conversion FPD (amorphous selenium)* |
| **Resolution** | *3.3 lp/mm* |
| **Size** | *9" x 9" (22 x 22 cm) or 17" x 17" (43 x 43 cm)* |

### ▶ Highlights
– Floor – mounted C-arm
– Direct conversation FPD for outstanding image quality
– 150 μm pixel size
– Grid controlled x-ray tube for superior dose management
– High speed C-arm up to 60°/sec. rotational DSA
– Excellent coverage without moving a patient
– Flexibility and reliability with triple pivots

## Siemens Artis zee floor-mounted

| | |
|---|---|
| **Design** | *Universal floor-mounted flat detector angiography system* |
| **Detector** | *2k a-Si with CsI scintillator* |
| **Resolution** | *1920 x 2480 pixel, 3.25 lp/mm* |
| **Size** | *30 x 40* |

### ▶ Highlights
– Advanced 3D imaging at low dose
– Slim-line design and flexible positioning capabilities for easy
  patient access with full body coverage
– New ergonomic system controls for smooth table-side operation
– Complete 3D portfolio including cross-sectional imaging with
  syngo DynaCT

**The future of mobile 2 and 3 dimensional intraoperative X–ray imaging today**

O–arm® System and Mobile View Station (MVS). The large 30" flat screen of the MVS provides the surgeon excellent visibility of the scans from the operative field.

# The O-arm® System – Changing Surgery

In the modern OR, two dimensional (2D) and three dimensional (3D) imaging is increasingly important for the surgical team striving for the best patient outcomes. The O-arm® System from Medtronic is a new innovative solution that offers both, full 3D volumetric scans and simple 2D fluoroscopic images.

The fully motorized system brings intra-operative X-ray imaging to a new level by providing excellent image quality, a large field of view and unparalleled ease of use to optimally support the surgical workflow.

Beyond imaging, the seamless interface with the StealthStation® navigation system makes surgical navigation easier than ever before. The unique combination of the O-arm® System with the StealthStation® navigation allows the surgical team to simplify their workflow and to treat complicated cases with confidence while reducing X-ray dose for surgeons and staff.

2D-fluoroscopy using C-arms has been the standard work horse for intra-operative spinal and orthopedic imaging for decades. Today, most hospitals are still limited to 2D fluoroscopy using standard C-arms, leaving it to the surgical team to figure out the true 3D anatomy of the patient. Recently, 3D C-arms and intra-operative CTs have been utilized to provide 3D imaging in the OR. While these systems have some drawbacks in terms of usability in the OR, the O-arm® System is designed to take advantage of modern flat panel imaging technology and to optimally support the surgical workflow allowing the OR-team to fully concentrate on the patient.

"The clinical need for intra-operative imaging is driven by surgeons' desire to take advantage of minimally invasive procedures performed in critical areas provided that conditions of maximum safety are guaranteed. The O-arm® System satisfies entirely these requirements in spinal surgery." says Dr. D. Boscherini, Vice-Primario Neurochirurgia, Servizio Cantonale di Neurochirurgia, Lugano, Switzerland.

## State-of-the-art Digital Imaging

The system's 2D and 3D imaging is based on the use of distortion free state-of-the-art digital flat panel technology. The 30cm x 40cm, 3 Megapixel (1.5k x 2k) detector enables an enhanced dynamic range and high spatial resolution. It provides high image quality and a large field of view.

The O-arm® System combines the flat panel detector with a powerful 32kW X-ray generator to enable imaging of heavier patients or of hard to image regions like the cervical-thoracic junction.

Depending on the information needed, the surgical team can decide to obtain a full 3D scan or a simple fluoroscopic image.

In 2D-mode the imaged region is approximately three times bigger than the one shown by a classic 9" C-arm, simplifying the treatment of larger fractures and complicated trauma cases.

A 3D volumetric scan takes only 13 seconds. The closed O-arm® gantry allows the tube and detector to quickly rotate a full 360º without the risk of collision with the patient or OR equipment. A few seconds later the surgeon is presented with a multi-planar (axial, coronal & sagittal) 3D volume, similar to data from computed tomography (CT). This allows the user to see the scanned volume under any angle and provides precise information to the surgeon while the patient is still in the OR.

"We had the opportunity to clinically test different 3D intra-operative imaging devices before opting for the O-arm® Sys-
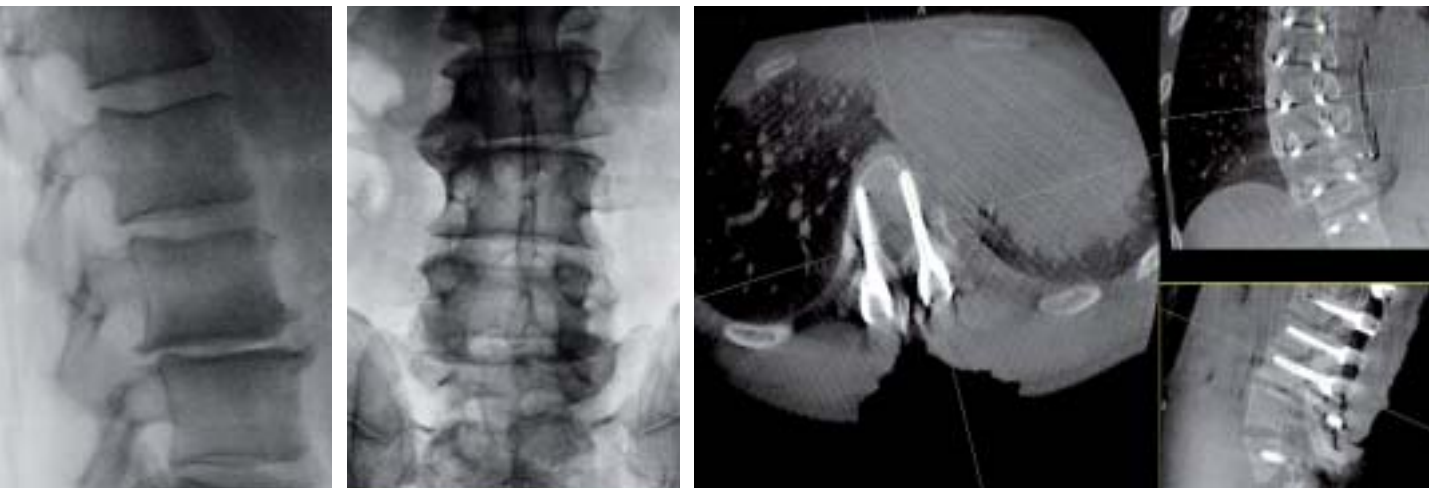
**2 D Fluoroscopic image of the lumbar spine and 3D oblique view of a thoracic deformity case.**

tem. Among other advantages, the fast acquisition time of 13 sec made a major difference for us. For example, imaging in the thoracic spine, which is a critical area for surgeon and more susceptible to respiratory movements, is explorable without compromise on image quality" says Dr. Boscherini.

The system's large 3D scan volume reduces the need for image re-centering and allows surgeons to comfortably treat cases where a large image volume is needed. For example, a 13 second scan can typically capture the entire cervical spine. The O-arm® system supports the surgeon in critical cases or in hard to image regions like the thoracic spine where previously little or no imaging information was available. Surgeons can now evaluate the outcome of the surgery with a 3D volumetric scan before closing the patient and potentially avoid revision surgery.

In addition, the use of the O-arm® System can simplify the workflow and free up the Hospital's CT for other patients by reducing the need for additional CT imaging before, during, and after surgery.

## Designed to support the surgical workflow

When designing the O-arm® System, special care was taken to offer ease of use and to optimally support the surgical workflow to overcome the hurdles that today still limit 3D imaging in the OR.

All motions of the unit are motor driven and can be controlled by the touch of a button on the simple central control panel. This allows every staff member to handle it easily, and to maneuver it in the crowded OR setting.

The O-shaped gantry can be opened and allows lateral access to the operating table, which is crucial to fit into the OR workflow. Once opened, the gantry can be draped in seconds to optimize the sterile environment during the entire surgery.

During surgery, the system allows storage of 4 user determined optimal image positions and a Park position. By simply pushing one button, these positions can be recalled whenever needed during surgery. When a new acquisition is required, the gantry is quickly recalled to the exact same imaging position as the earlier acquisition. This capability can eliminate the need for additional scout shots thereby limiting x-ray exposure and time loss to get back to the previous position.

**O–arm® System used in combination with navigation during surgery.**

The ability to store multiple positions normally eliminates the need for multiple C-arms and allows the surgeon to within seconds 'park' the gantry out of his/her way. Motorization and position memory are time effective solutions that reduce the risk of errors due to manual movements and that help create a controlled environment for the surgery.

In my OR, the scrub nurses prefer to use the O-arm® System, rather than the 2D fluoroscopy, because of its robotic functions. With one touch on a button, the O-arm® System slides carefully into the correct position. It therefore is time-saving and limits X-Ray exposure to the personnel to the minimum." says Dr. E. Van de Kelft, Neurosurgeon, AZ Nikolaas, Sint-Niklaas, Belgium.

### O-arm® and Navigation – Enabling Advanced Surgery

Radiation free surgical navigation tracking technology provides the surgeon with full 3D information about the position of surgical instruments in relationship to the patient's anatomy, thereby, reducing the X-ray exposure to patient, surgeon and staff.

The O-arm® System seamlessly interfaces with the StealthStation® navigation



**Full 3D information available on the screen of the StealthStation navigation system guides the surgeon. If needed updated image information is imported automatically from the O–arm® System.**

### Features and Benefits of the O–arm® System

**Motion Control of gantry**
- **Linear x,y,z**
- **Rotational Wag**
- **Iso –Wag™**
- **Tilt**
- **Up to 5 preset memory positions including detector position and x-ray settings**

**Screen control with wireless sterile mouse**

**3D Scan**
- **Volume 15cm (height) x 20cm (diameter)**
- **0.83mm axial slice thickness, 0.415 coronal and sagital slice thickness**

**Digital Data Transfer**
- **fully DICOM 3 compatible**
- **USB stick, CD/DVD-ROM**

system. This solution provides automatic data transfer of the patient's 3D data as well as of the AP and lateral images. Automatic patient registration eliminates the need for lengthy manual patient registration and allows the surgeon to navigate on 3D images of their patient in the actual operative position, taken less than a minute earlier. If needed, updated image information can be easily obtained from the O-arm® System at any time. This fully empowers the use of navigation. The combined use of the O-arm® System with StealthStation® navigation enables advanced surgery. It is an ideal tool to support the surgeon in the treatment of difficult cases like complex deformities or fractures, while increasing patient security and reducing X-ray exposure of surgeon, staff and patient.

"The combination of 3D intra-operative imaging and surgical navigation with reduced radiation exposure guarantees the highest possible level of excellence in surgical treatment of complex spine patients", says Dr. M. Oertel, Neurosur-

geon, University Clinic in Giessen, Germany. This combination is also an ideal tool for hospitals interested in minimally invasive surgery (MIS). MIS has the potential to reduce patient trauma, hospital stay and to speed up return to work.

"O-arm® System assisted navigation technique during minimal invasive TLIF increases safety of the procedure because of high quality 3D images delivered during surgery. In 20 consecutive cases, all screws ware correctly placed as confirmed by the intra-operative as well as post-operative CT- scan." says Dr. E. Van de Kelft.

### Conclusion

In conclusion, the O-arm® System is an outstanding imaging tool for the modern OR that will allow a hospital to stand out in its health community and to attract patients and surgeons.

Its intra-operative 3D image capabilities and the combination with surgical navigation allow the surgical team to approach their cases in new ways and to treat complicated cases with confidence. The additional image information and the better controlled environment will potentially improve patient security and outcome of the surgery.

## ▶ Siemens Artis zee ceiling-mounted

| | |
|---|---|
| **Design** | *Universal ceiling-mounted flat detector angiography system* |
| **Detector** | *2k a-Si with CsI scintillator* |
| **Resolution** | *1920 x 2480 pixel, 3.25 lp/mm* |
| **Size** | *30 x 40* |

▶ **Highlights**
– Advanced 3D imaging at low dose
– Slim-line design and flexible positioning capabilities for easy patient access with full body coverage
– New ergonomic system controls for smooth table-side operation
– Complete 3D portfolio including cross-sectional imaging with syngo DynaCT

## ▶ Siemens Artis zee biplane

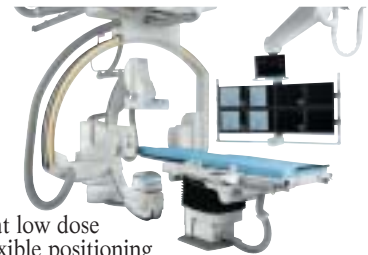| | |
|---|---|
| **Design** | *Biplane flat detector angiography system* |
| **Detector** | *2k a-Si with CsI scintillator* |
| **Resolution** | *1920 x 2480 pixel, 3.25 lp/mm* |
| **Size** | *30 x 40 per plane* |

▶ **Highlights**
– Advanced 3D imaging at low dose
– Slim-line design and flexible positioning capabilities for easy patient access with full body coverage
– Largest biplane anatomical coverage available today
– Clinical flexibility – from neurovascular to spine and abdominal imaging
– New ergonomic system controls for smooth table-side operation
– Complete 3D portfolio including cross-sectional imaging with syngo DynaCT

## ▶ Siemens Artis zeego

| | |
|---|---|
| **Design** | *Multi-axis flat detector angiography system* |
| **Detector** | *2k a-Si with CsI scintillator* |
| **Resolution** | *1920 x 2480 pixel, 3.25 lp/mm* |
| **Size** | *30 x 40* |

▶ **Highlights**
– Cross-sectional imaging with Large Volume syngo DynaCT to visualize the whole liver or the whole lumbar spine
– Complete 3D portfolio
– Small footprint and multiple park positions
– Ideally suited for the OR environment
– Flexible working height reduces fatigue associated with long procedures
– Pre- and post-operative high-end imaging directly in the OR

## ▶ Toshiba Infinix–CFi/BP

| | |
|---|---|
| **Design** | *Biplane C-Arm + Omega-Arm* |
| **Detector** | *20 x 20 cm; 30 x 30 cm* |
| **Tube** | *3 MHU , 200 mA pulsed* |

▶ **Highlights**
– Single User Operation
– Sequential Navigation for fast and easy throughput
– Hyper Handle for One Hand Operation
– FollowME Concept
– Full 3D capacity for Angiography
– Full range of Dose optimization techniques

## ▶ Toshiba Infinix –VCi/BP

| | |
|---|---|
| **Design** | *Biplane C-Arm + Omega-Arm* |
| **Detector** | *20 x 20 cm; 30 x 30 cm* |
| **Tube** | *3 MHU , 200 mA pulsed* |

▶ **Highlights**
– Single User Operation
– Sequential Navigation for fast and easy throughput
– Hyper Handle for One Hand Operation
– FollowME Concept
– Low Contrast Imaging
– 3D rotational angiography
– Full range of Dose optimization techniques

## ▶ Toshiba Infinix –CFi/SP

| | |
|---|---|
| **Design** | *Mono C-Arm floor mounted* |
| **Detector** | *20 x 20 cm or 30 x 30 cm* |
| **Tube** | *3 MHU , 200 mA pulsed* |

▶ **Highlights**
– Five Axis System for maximum freedom and flexibility
– Single User Operation
– Sequential Navigation for fast and easy throughput
– Hyper Handle for One Hand Operation
– FollowME Concept
– Full 3D capacity for Angiography
– Full range of Dose optimization techniques

## ▸ Toshiba Infinix –VFi/SP

| | |
|---|---|
| **Design** | *Mono C-Arm floor mounted* |
| **Detector** | *20 x 20 cm or 30 x 30 cm* |
| **Tube** | *3 MHU , 200 mA pulsed* |

▸ **Highlights**
– Single User Operation
– Five Axis System for maximum freedom and flexibility
– Sequential Navigation for fast and easy throughput
– Hyper Handle for One Hand Operation
– FollowME Concept
– Low Contrast Imaging
– 3D rotational angiography
– Full range of Dose optimization techniques

## ▸ Toshiba Infinix –CCI

| | |
|---|---|
| **Design** | *Mono C-Arm ceiling mounted* |
| **Detector** | *20x20 cm or 30 x 30 cm* |
| **Tube** | *3 MHU, 200 mA pulsed* |

▸ **Highlights**
– Single User Operation
– Sequential Navigation for fast and easy throughput
– Hyper Handle for One Hand Operation
– FollowME Concept
– Full 3D capacity for Angiography
– Full range of Dose optimization techniques

# FLUOROSCOPY SYSTEMS

## ▸ Toshiba Infinix –VCi

| | |
|---|---|
| **Design** | *Mono C-Arm ceiling mounted* |
| **Detector** | *20 x 20 cm or 30 x 30 cm* |
| **Tube** | *3 MHU , 200 mA pulsed* |

▸ **Highlights**
– Single User Operation
– Sequential Navigation for fast and easy throughput
– Hyper Handle for One Hand Operation
– FollowME Concept
– Low Contrast Imaging
– 3D rotational angiography
– Full range of Dose optimization techniques

## ▸ Apelem Unix+

| | |
|---|---|
| **Design** | *Multipurpose digital c-arm table* |
| **II-format** | *9" to 16"* |
| **Image system** | *1024 x 1024 x 12 bits digital imaging system* |

▸ **Highlights**
– Full range of R/F, interventional RAD and angiography
– Versatility and fast auto positioning exams
– 1024 x 1024 x 12 bits digital imaging system
– Compact system with ultimate customization for increased workflow
– Dose reduction

## ▸ Apelem BACCARA dRF43

| | |
|---|---|
| **Design** | *Remote controlled table with dynamic flat panel detector* |
| **II-format** | |
| **Image system** | *Rad and fluoro* |

▸ **Highlights**
– Tomography
– 43 x 43 cm full field dynamic flat panel detector
– Very easy table access
– Real-time fluoroscopy for GI procedures and DSA applications
– Ideal for diagnostic and interventional RAD
– Fully DICOM 3 compliant with RIS and APR workflow optimization

## ▸ Apelem BACCARA 90/20 – 90/25 remote controlled table

| | |
|---|---|
| **Design** | *Remote controlled table* |
| **II-format** | *9" to 16"* |
| **Image system** | *Digital imaging system R/F* |

▸ **Highlights**
– User-friendly, compact & ergonomic
– Fix height or elevating
– Tomography
– Image intensifier from 9" to 16" with optional 1024 x 1024 digital R/F
– Upgradable with the new dRf43 dynamic flat panel detector

# Stryker and Ziehm Imaging announce cooperation

**With the joint development of the Ziehm NaviPort 3D, Ziehm Imaging and Stryker have successfully integrated the 2D and 3D images acquired by C–arms into Stryker's infra–red navigation system. Stryker is currently the only globally operating provider of navigations systems that supports the new flat–panel C–arm Ziehm Vision FD Vario 3D. The now achieved level of quality in imaging and navigation is particularly to the advantage of users in the minimally–invasive orthopedic, trauma and spinal surgery.**

With the recently released interface, Ziehm Imaging and Stryker present a link to Stryker navigation system for image-guided surgery. This means that for the first time, doctors are able to integrate images acquired intra-operatively by the latest generation of flat-panel C-arms into Stryker's navigation system. Ziehm Vision FD Vario 3D offers outstanding 2D image quality without the distortion known from image intensifiers as well as efficient intra-operative 3D imaging.

## Ziehm Vision FD Vario 3D– distortion free 3D imaging

Surgeons and the OR team both benefit from an improved orientation during surgery and save themselves and the patients dose during the intervention. Moreover, post-operative computer tomography scans are dispensable in many cases.

Dr. Hubbe, senior physician at the Neurocenter of the University Medical Center Freiburg successfully carried out the first spinal surgery worldwide with this new technology. He explained: „The high precision of the navigation system and the wide opening of the c-arm allow us to continue our clinical routine without being forced to adjust to a new clinical workflow, which sometimes is required by latest technologies. The system easily adapts existing clinical workflows and benefit both patients and users by using latest treatment solutions."

Joachim Sprung, Marketing Manager Navigation for Stryker added: "The better the quality of the 3D data is which is transferred to our navigation system, the more precise the navigation will be. Thanks to our active infra-red camera system, which permits accuracy up to 0.07 mm and our latest software generation, we are able to optimally use the high quality intra-operative images from the Ziehm Imaging C-arms for navigated surgery. Doctors and patients benefit from the increased precision in the operating theatre. The high image quality contributes systematically to the improvement of clinical results."

## ▶ GE Healthcare Precision RXi

| | |
|---|---|
| **Design** | *Remote controlled R+F system* |
| **II-format** | *32 or 40 cm* |
| **Image system** | *1024 x 1024, 12 bit CCD* |

▶ **Highlights**
- Extended patient coverage
- Efficient dose management
- High resolution image chain
- Digital system tailored to customer needs
- Seamless digital workflow

## ▶ GE Healthcare Precision 500D

| | |
|---|---|
| **Design** | *Nearby controlled R+F System* |
| **II-format** | *32 or 40 cm* |
| **Image system** | *1024 x 1024, 12 bit CCD* |

▶ **Highlights**
- AutoEx – fully parameter optimization
- Efficient dose management
- High resolution image chain
- Innovative user interface
- Seamless digital workflow

## ▶ Philips MultiDiagnost Eleva FD

| | |
|---|---|
| **Design** | *Multifunctional C-arm* |
| **Detector** | *a-Si with CsI scintillator* |
| **Resolution** | *up to 2K, 14 bits* |
| **Size** | *30 x 40 cm* |

▶ **Highlights**
- Covers a broad range of applications from RF, orthopedics up to interventional and vascular exams
- Easily absorbs changes in application mix
- Ultimate customization by adjusting the system to preferences
- Proven scan principle with c-arm moving around the patients
- 180 degree isocentric c-arm rotation increases projection flexibility

## ▶ Philips MultiDiagnost Eleva

| | |
|---|---|
| **Design** | *Multifunctional c-arm* |
| **II-format** | *38 cm* |
| **Image system** | *1k, 12 bit CCD* |
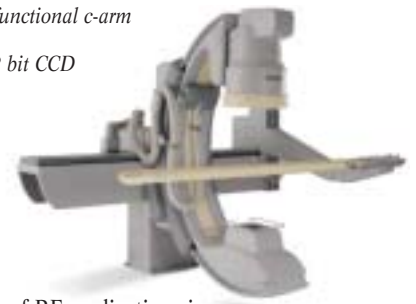
▶ **Highlights**
- Covers broad range of RF applications in vascular and interventional procedures
- Easily absorbs changes in application mix and adds to departmental efficiency as overflow system for dedicated rooms
- Offers ultimate customization by adjusting the system to preferences
- Proven scan principle with c-arm moving around the patients
- 180 degree isocentric c-arm rotation increases projection flexibility

## ▶ Philips Essenta RC

| | |
|---|---|
| **Design** | *Remote controlled system* |
| **II-format** | *23/31 cm* |
| **Image system** | *1k, 12 bit CCD* |

▶ **Highlights**
- All-you need fluoroscopy system that covers a comprehensive rsange of applications
- Offers also nearby controlled functionality
- Excellent price-performance ratio
- Workflow integration with RIS capability and APR
- Seamless integration into DICOM network

## ▶ Philips OmniDiagnost Eleva

| | |
|---|---|
| **Design** | *Remote-controlled system, u-arm* |
| **II-format** | *31/38 cm* |
| **Image system** | *1k, 12 bit CCD* |
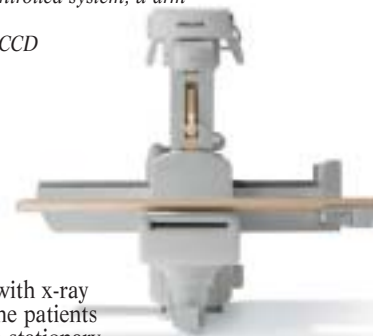
▶ **Highlights**
- Unique scan principle with x-ray beam moving around the patients so that they can remain stationary during all scan movements, increasing comfort and safety
- Left- or right-hand suspended tabletop provides exceptional accessibility and facilitates easy patient transfer
- Self-centering curved tabletop ensures patient comfort and security
- Freedom of movement control as system can be controlled from any location in the exam or control room

## ▶ Philips DuoDiagnost

| | |
|---|---|
| **Design** | *Free arm system* |
| **II-format** | *23/31/38 cm* |
| **Image system** | *1k* |

▶ **Highlights**
– Unique design that provides
  both radiography and fluoroscopy in one system
– Compact design that allows it to be installed in small rooms
– Digital version of DuoDiagnost provides all benefits of digital
  technology: time, cost and dose savings
– Seamless integration into DICOM network
– The excellent image quality at the low x-ray dose with Philips'
  unique dose wise concept

## ▶ Philips EasyDiagnost Eleva

| | |
|---|---|
| **Design** | *Nearby controlled system* |
| **II-format** | *23/31/38 cm* |
| **Image system** | *1k, 12 bit CCD* |

▶ **Highlights**
– Intelligent design offering work
  environment with top
  of the line convenience
– EasyLat – unique fold-out cassette holder
– Comprehensive dose management
– Up to 250 kg table load covering all types of patients
– Eleva concept offers ultimate customization by adjusting
  system to preferences

## ▶ Shimadzu Fluorospeed 300

| | |
|---|---|
| **Design** | *90/90 Digital local R/F table* |
| **II-format** | *16" and 12"* |
| **Image system** | *Digital* |
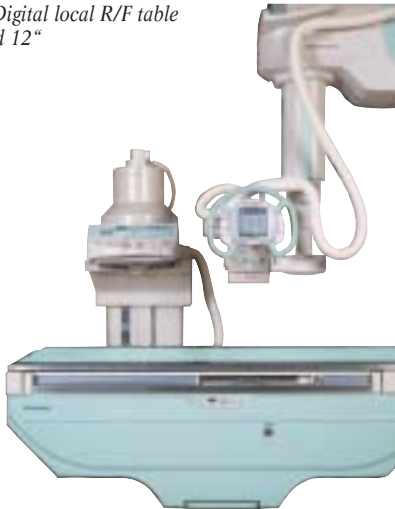
▶ **Highlights**
– High performance
– GI to angiographic
  studies
– High image quality
– High reliability
– High throughput

## ▶ Shimadzu Flexavision

| | |
|---|---|
| **Design** | *90/30 Digital or analog local R/F table* |
| **II-format** | *12" and 9"* |
| **Image system** | *Digital or analog* |

▶ **Highlights**
– Flexible configuration
– Meets all requirements for
  routine R/F exams
– High reliability
– Turnable footrest

## ▶ Shimadzu Sonialvision Versa 80/100

| | |
|---|---|
| **Design** | *Universal remote R/F table* |
| **II-format** | *12" and 16"* |
| **Image system** | *Digital* |

▶ **Highlights**
– Large storage capacity
– 1 million pixel camera
– Proven reliability
– Perfect design
– Wide range of functions
– 90/90 tilting (Versa 100)

## ▶ Shimadzu Sonialvision SAFIRE (R/F)

| | |
|---|---|
| **Technology** | *Direct conversion (amorphous selenium)* |
| **Resolution** | *3.3 lp/mm* |
| **Size** | *17" x 17" (43 x 43 cm)* |

▶ **Highlights**
– Direct conversion
– 150 µm pixel size
– Digital tomosynthesis
– Dual energy subraction
– Slot radiography

## ▶ Siemens Artis zee multi-purpose

| | |
|---|---|
| **Design** | *Multi-purpose flat detector fluoroscopy and angiography system* |
| **Detector** | *2k a-Si with CsI scintillator* |
| **Resolution** | *1920 x 2480 pixel, 3.25 lp/mm* |
| **Size** | *30 x 40* |

▶ **Highlights**
– 3D applications
– New multi-host imaging
  system
– Right or left side
  suspension for endoscopic applications
– 2k-acquisition available
– New ergonomic system controls for smooth table-side operation
– Undertable/overtable positioning
– Full in-room-control (on trolley)
– Remote controls for room operation available

## ▶ Siemens AXIOM Iconos MD

| | |
|---|---|
| **Design** | *Digital remote-controlled R/F system* |
| **Technology** | *1 k x 1 k matrix* |
| **Resolution** | |
| **II-format** | *33 cm* |
| **Image system** | |
| **Size** | |

▶ **Highlights**
– Complete patient coverage with
  8-way tabletop travel and large
  receptor movements
– Single-handed cassette handling:
  automatic loading, centering, format sensing and collimation
– FLUOROSPOT Compact high-resolution digital imaging
  system with intuitive user interface and DICOM 3.0 interfaces
– Seamless integration into DICOM network
– Dose-saving fluoroscopy with SUPERVISION (option)
– Bucky wall stand (option)

## ▶ Siemens AXIOM Iconos R200

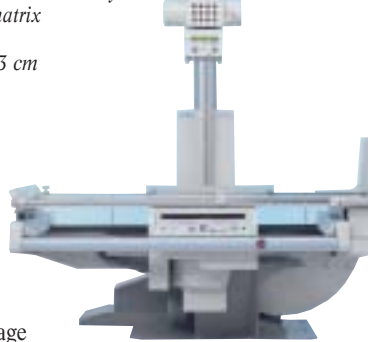| | |
|---|---|
| **Design** | *Universal digital remote-controlled R/F system* |
| **Technology** | *1 k x 1 k matrix* |
| **Resolution** | |
| **II-format** | *33 cm or 40 cm* |
| **Image system** | |
| **Size** | |

▶ **Highlights**
– Modular design for universal
  applications including diagnostic angiography (option)
– Complete patient coverage with 8-way tabletop travel and
  large receptor movements
– Single-handed cassette handling: automatic loading, centering,
  format sensing and collimation
– FLUOROSPOT Compact high-resolution digital imaging
  system with intuitive user interface and DICOM 3.0 interfaces
– Seamless integration into DICOM network
– Comprehensive CARE dose reduction package

## ▶ Siemens Luminos RF Classic

| | |
|---|---|
| **Design** | *Remote-controlled R/F system* |
| **Technology** | *1 k x 1 k matrix* |
| **Resolution** | |
| **II-format** | *23 cm or 33 cm* |
| **Image system** | |
| **Size** | |

▶ **Highlights**
– Complete patient coverage
  with 8-way tabletop travel and large receptor movements
– Single-handed cassette handling: automatic loading, centering,
  format sensing and collimation
– Intuitive and fast operation with innovative control console
– Dose-saving fluoroscopy with SUPERVISION (Option)
– Bucky wall stand (Option)
– Excellent price-performance ratio

## ▶ Siemens AXIOM Luminos TF

| | |
|---|---|
| **Design** | *Digital tableside controlled R/F system* |
| **Technology** | *1 k x 1 k matrix* |
| **Resolution** | |
| **II-format** | *33 cm or 40 cm* |
| **Image system** | |
| **Size** | |

▶ **Highlights**
– One digital system for
  fluoroscopy and radiography from pediatrics to bariatrics
– Open design to accommodate bariatric patients up to 272 kg
– Ergonomic single-handed system operation with OPTI Grip handle
– FLUOROSPOT Compact high-resolution digital imaging
  system with intuitive user interface and DICOM 3.0 interfaces
– Comprehensive CARE dose reduction package
– Mobile flat detector (option) for fully digital radiography workflow

## ▶ Siemens AXIOM Artis U

| | |
|---|---|
| **Design** | *Universal, floor-mounted* |
| **II-format** | *23 cm or 33 cm* |
| **Image system** | *1024 x 1024 pixel, 12 bit-CCD* |

▶ **Highlights**
– High-power output for excellent image quality
– High heat capacity x-ray tube virtually eliminates
  overheating issues
– Compact and »room-mobile« design
– Broad application spectrum
– Excellent price-performance ratio

## Siemens AXIOM Luminos dRF

| | |
|---|---|
| **Design** | *Remote-controlled 2-in-1 system with dynamic flat detector* |
| **Technology** | *Amorphous-Silicon with Cesium Iodide scintillator* |
| **Resolution** | *Up to 3.4 lp/mm* |
| **II-format** | |
| **Image system** | |
| **Size** | *43 cm x 43 cm* |

▶ **Highlights**
– Fully digital 2-in-1 solution
  for dynamic and static
  high-resolution imaging including DSA procedures (option)
– Easy patient transfer at 48 cm lowest table height
– Dynamic Density Optimization (DDO) and DiamondView
  Plus for excellent detail contrast
– FLUOROSPOT Compact high-resolution digital imaging
  system with intuitive user interface and DICOM 3.0 interfaces
– Comprehensive CARE dose reduction package
– Limitless projection flexibility with optional ceiling-suspended
  tube and wireless detector wi-D

## Toshiba Ultimax-I

| | |
|---|---|
| **Design** | *Multifunctional C-arm, table* |
| **Detector** | *43 x 43 cm* |
| **Technique** | *RF; DA, DSA* |

▶ **Highlights**
– Complete clinical flexibility
– New Harmony User Interface
– Full anatomical coverage
– Stepping DSA
– Easy and quick handling
– Full range of Dose optimization techniques

## Toshiba ZEXIRA

| | |
|---|---|
| **Design** | *True 2 in 1 System for fluoroscopy and radiography* |
| **Detector** | *43 x43 cm* |

▶ **Highlights**
– Full clinical flexibility: G.I; Venography; Urology; ERCP;
  Angiography; Radiography, Oblique Imaging, etc.
– Easy Userinterface
– Full patient coverage
– Full range of Dose optimization techniques

### ▸ Apelem Evo/Evo–R



▶ **Highlights**
– Rotating or fixed anode
– Virtual collimation
– 0 dose digital rotation
– Available with memory or digital processor, including DSA

### ▸ GE Healthcare OEC 9900 Elite

| Power | 15 kW |
|---|---|
| II-Format | 11, 15, 23 and 31 cm |



▶ **Highlights**
– DRM (Dynamic Range Management)
– Intuitive touch- screen interface
– Comfortable viewing with flat screen monitors
– Easy archiving: CD/DVD and DICOM
– Fully motorized imaging system

### ▸ GE Healthcare OEC FluoroStar 7900

| Power | 2.2 kW |
|---|---|
| II-Format | 11, 15 and 23 cm |



▶ **Highlights**
– Compact monitor cart & c-arm
– Superb image quality – 1k x 1k
– Simple touchscreen interface
– Innovative connectivity solution: CD/DVD, USB and DICOM
– Available as Compact, Compact², Compact+ and Series

### ▸ GE Healthcare OEC EverView 7500 PRO

| Power | 2.2 kW |
|---|---|
| II-Format | 10, 15 and 23cm |



▶ **Highlights**
– Procedural flexibility
– Reliable image quality
– CD, USB and up to 80.000 image storage

### ▸ Hologic Fluoroscan InSight™ mini c-arm system



▶ **Highlights**
– Ultra-fine fluoroscopy images
– Precision and versatility in extremity surgery
– Tremendous maneuverability
– Automated adjustments that deliver the optimum image every time for every patient

### ▸ Landwind mobile c-arm system

| Power | 3.5/5.0 KW |
|---|---|
| II-Format | 15/23 cm |



▶ **Highlights**
– proven mobile c-arm quality
– unique double control panel operation design
– unmatched flexiblity
– low-dose pulse fluoroscopy
– precise automatic brightness control settings

## ▸ Medtronic O-arm® System

| | |
|---|---|
| **Power** | *32 kW* |
| **II-Format** | *Digital flat panel detector 30 x 40 cm* |

▸ **Highlights**
– Flexible intraoperative 2D and 3D imaging
– Fast 13 sec 3D scan
– Large 2D image size and large 3D scan volume
– Fully mobile
– Seamless integration in OR workflow
– Easy of use: All motions motorized, simple control panel
– Position memory remembers scan positions
– Easy draping of the breakable gantry.
– Seamless integrating with StealthStation® Navigation
– Full DICOM3, USB, CD/DVD interfacing

## ▸ Philips Veradius: photo:see separate attachment

| | |
|---|---|
| **Power** | *15 kW* |
| **Field of view** | *27 x 27 cm* |

▸ **Highlights**
– Super thin flat detector frees up valuable space
– Superb contrast thanks to high dynamic range
– Insensitive to magnetic fields
– No geometrical distortions

## ▸ Philips BV Pulsera with 3D–RX

| | |
|---|---|
| **Power** | *15 kW* |
| **II-Format** | *31/23/17 cm* |

▸ **Highlights**
– Based on the BV pulsera
– Unique combination of conventional 2D c-arm flexibility and top-quality 3D imaging in a single compact system
– 12" image intensifier for largest 3D reconstruction, expanding clinical applications
– Motorized propeller movement of 200 degrees in only 30 seconds acquisition

## ▸ Philips BV Pulsera 2

| | |
|---|---|
| **Power** | *15 kW* |
| **II-Format** | *31/23/17 cm* |

▸ **Highlights**
– An interventional powerhouse, covering the widest range of applications, including cardiac interventions
– SmartVision – a fully digital imaging chain including powerful image processing functions
– High quality images at a low dose, time after time
– Pulsed acquisition 30 pulses/sec
– Rotating anode power

## ▸ Philips BV Endura 2

| | |
|---|---|
| **Power** | *3.15 kW* |
| **II-Format** | *31/23/17 cm* |

▸ **Highlights**
– Versatile workhorse designed for routine and vascular interventions
– SmartVision – a fully digital imaging chain including powerful image processing functions
– High quality images at a low dose, time after time
– Optimally designed mobile view station providing a unique intelligent viewing concept
– Extended rotation

## ▸ Philips BV Libra

| | |
|---|---|
| **Power** | *3.15 kW* |
| **II-Format** | *23/17/14 cm* |

▸ **Highlights**
– Most compact and lightweight mobile fluoroscopy system for routine procedures
– Cost-effective performance
– Best possible images time after time, at a low dose
– Excellent maneuverability
– Ease of operation

## ▸ Shimadzu Opescope Pleno

| | |
|---|---|
| **Power** | 2.0 kW |
| **II-Format** | 9" (22 cm)/6" (16 cm) |

▸ **Highlights**
– Fully balanced
  c-arm for fast and easy positioning
– High resolution CCD camera (1k x 1k)
– Realtime DSA/RSM DSA
– Virtual collimation and virtual camera rotation
– Two 18" LCD monitors standard
– APR control on c-arm through touchpanel
– 100 kHU fixed anode x-ray tube

## ▸ Shimadzu Opescope Activo

| | |
|---|---|
| **Power** | 2.0 kW |
| **II-Format** | 9" (22 cm)/ 6" (16 cm) |

▸ **Highlights**
– Fully balanced
  c-arm for fast and easy positioning
– Pulsed fluoroscopy at up to
  15 frames/sec
– Digital image processing functions
– Clean design, no external cables
– 100 kHU fixed anode
  x-ray tube

## ▸ Siemens SIREMOBIL Compact L

| | |
|---|---|
| **Power** | 1.4 kW |
| **II-Format** | 17 and 23 cm |

▸ **Highlights**
– High projection flexibility of 130°
– Minimum radiation with CARE
  (Combined Applications to Reduce Exposure)
– MEMOSKOP CX provides a large image memory
  with up to 5.000 images
– Optional DICOM compatibility

## ▸ Siemens ARCADIS Avantic

| | |
|---|---|
| **Power** | 25 kW |
| **II-Format** | 33 cm |
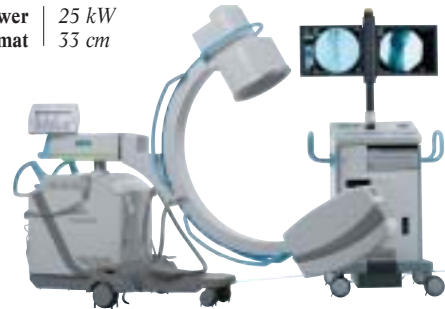
▸ **Highlights**
– Maximum overview through industry leading
  13" (33 cm) image intensifier
– Excellent performance due to its large power reserve of 25 kW
– Brilliant images in every situation thanks to EASY
  (Enhanced Acquisition System)
– Remote user interface for direct control from
  within the sterile field
– Full DICOM compatibility

## ▸ Siemens ARCADIS Orbic/Orbic 3D

| | |
|---|---|
| **Power** | 2.3 kW |
| **II-Format** | 23 cm |

▸ **Highlights**
– Highly versatile intraoperative 3D imaging based on truly
  isocentric design
– Brilliant images in every situation thanks to EASY
  (Enhanced Acquisition System)
– Full DICOM compatibility
– NaviLink interface for 3D navigation

## ▸ Siemens ARCADIS Varic

| | |
|---|---|
| **Power** | 2.3 kW |
| **II-Format** | 23 cm |

▸ **Highlights**
– Intuitive system operation
– Small footprint and lightweight design
– Continuous 1K² digital imaging chain with up to 23 mA tube
  current
– Brilliant images in every situation thanks to EASY
  (Enhanced Acquisition System)
– Full DICOM compatibility

## ▶ Ziehm Imaging – Ziehm Compact

| Power | 2 kW |
|---|---|
| II-Format | 15 cm / 23 cm |



**▶ Highlights**
– Monitor mounted on mobile stand
– No separate monitor cart needed
– Small and lightweight design
– Self-explaining user interface
– Customizable start-up configuration

## ▶ Ziehm Imaging – Ziehm 8000

| Power | 2 kW |
|---|---|
| II-Format | 15 cm / 23 cm / 31 cm |



**▶ Highlights**
– Proven mobile c-arm quality
– Increased imaging performance
– Unrivaled mobility
– Self-explaining user interface
– Programmable function »F« key

# Pioneering

Every discipline has its leader. Ziehm Vision RFD marks a new milestone in mobile imaging thanks to its large flat-panel, wide dynamic range, distortion-free image quality and ergonomic design. Experience Ziehm Vision RFD – the mobile intervention suite.

→ For more information please visit www.ziehm.com

**ziehm**imaging
dedicated to clinical innovation

## ▸ Ziehm Imaging – Ziehm Vision

| | |
|---|---|
| **Power** | *2 kW* |
| **II-Format** | *23 cm / 31 cm* |

▸ **Highlights**
– Perfect 1k x 1k image quality
– Unique ODDC software
– Intuitive Vision Center TFT-User Interface
– Anatomical programs
– Pulsed generator (up to 30 frames/s)

## ▸ Ziehm Imaging – Ziehm Vision FD

| | |
|---|---|
| **Power** | *2 kW* |
| **II-Format** | *Digital flat-panel detector 20 cm x 20 cm* |

▸ **Highlights**
– Integrated a-Si detector 1k x 1k
– Larger c-arm opening
– Fully digital, distortion free imaging
– Highest dynamic range
– Optimal soft tissue & skeleton imaging

## ▸ Ziehm Imaging – Ziehm Vision R

| | |
|---|---|
| **Power** | *7.5 kW* |
| **II-Format** | *23 cm / 31 cm* |

▸ **Highlights**
– High power monoblock (rotating anode)
– Unique ODDC software
– Excellent image quality
– Lowest possible dose
– Almost unlimited fluoroscopy time

## ▸ Ziehm Imaging – Ziehm Vision RFD

| | |
|---|---|
| **Power** | *7.5 kW* |
| **II-Format** | *Digital flat-panel detector 30 cm x 30 cm* |

▸ **Highlights**
– Larger field of view
– High power monoblock (rotating anode)
– Outstanding image quality
– 165° orbital rotation
– Almost unlimited fluoroscopy time

## ▸ Ziehm Imaging – Ziehm Vision Vario 3D

| | |
|---|---|
| **Power** | *2 kW* |
| **II-Format** | *23 cm* |

▸ **Highlights**
– Flexible intraoperative 3D imaging
– Variable isocenter
– Fully automatic isocentric scan
– Intuitive Vario Center TFT-User Interface
– Ziehm NaviPort Interface

## ▸ Ziehm Imaging – Ziehm Vision FD Vario 3D

| | |
|---|---|
| **Power** | *2 kW* |
| **II-Format** | *Digital Flat Pane Detector 20 cm x 20 cm* |

▸ **Highlights**
– Integrated a-Si detector 1k x 1k
– Flexible intraoperative 3D imaging
– Fully digital, distortion free imaging
– Variable isocenter
– Ziehm NaviPort Interface

## ▸ BrainLAB Digital Lightbox

*Integrated Workstation*   *PACS/DICOM Interface*
*30" 4MP and 20" 2MP*   *4 USB ports, DVD/CD drive*
*Dual IR Touchscreen*   *IP54 (front side) sterile use compatible*



▸**Highlights**
– Visualisation and manipulation of all major image modalities
– Supports multiple formats – DICOM, bmp, jpg, video
– MPR (Multiple Planar Reconstruction)
– Image Fusion between CT, MR and PET/SPECT image sets
– Connectivity to web-enabled services – HIS, RIS and EPR
– Seamless integration with all major PACS vendors
– Access to images on DVD/CD and USB compatible devices

## ▸ IBA Multimeter MagicMax

Simultaneous measurement of dose, dose rate, exposure time, kV, dose/pulse, pulse rate, HVL and total filtration



▸**Highlights**
– Small device with separate multifunction detector
– Connected via USB to PC or Notebook
– Intuitive use via PC interface
– Time resolution: 100 µs
– Optimized solutions for all applications

## ▸ IBA Dosimetry Primus

Test device for checking image quality parameters at fluoroscopic units
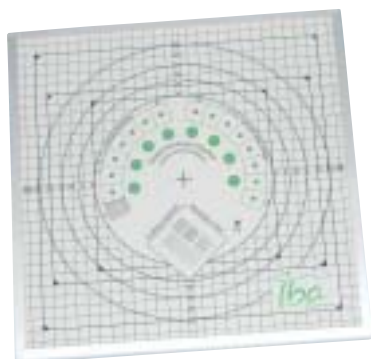


▸**Highlights**
– Modular construction:
  structural plate and separated attenuator
– Check of spatial and contrast resolution, size of the radiation field, artefacts; kV test area
– Compact Al pre-attenuator or PMMA and Cu plates
– Available in two different sizes

## ▸ PTW DIAMENTOR C2

Dual channel dose area product (DAP) meter for patient dosimetry and quality control



▸**Highlights**
– Prized for biplane units
– Integrated printer
– Built-in test function for fast calibration and constancy checks
– Easy connection to a RIS or PACS

## ▸ PTW DIAVOLT UNIVERSAL Multimeter

Compact X-ray multimeter for kVp, PPV, dose and irradiation time measurements



▸**Highlights**
– Very fast 13 kHz sampling frequency for precise measurements even on units with a ripple up to 30 %!
– Independent of orientation, angle, field size and distance
– Long operating time by means of rechargeable batteries (non stop: up to 7 hours)
– Data evaluation by means of the DiaControl *expert* software

## ▸ PTW NORMI 4 FLU

Test object for quality control of digital fluoroscopic X-ray units
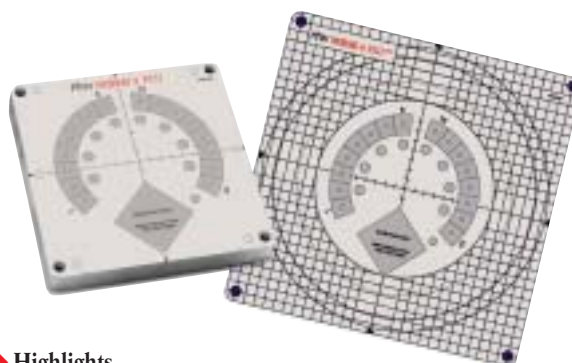


▸**Highlights**
– Checks all imaging quality parameters (dynamic range, spatial resolution, low contrast, artefacts, radiation field, etc.)
– Convenient use at over and under couch tubes
– Patient equivalent absorber (Al or PMMA) included
– Small version for C-arms available

## ▶ Radcal ACCU–PRO™

X-Ray Analyzer
Simultaneous dose, rate, time, kVp. HVL, filtration, mA/mAs, and more

**▶ Highlights**
– Use for manufacturing, installation, QA, and service
– R/F, mammography, CT, dental, leakage
– Ion chamber based dosimetry, no corrections required
– Correctly measure AEC fluoro and filtered beams
– Remote control, waveforms, and archiving with XLPRO software
– Compact, easy to use

## ▶ Radcal PDC-DAP/KAP verification meter

**▶ Highlights**
– Newly patented Patient Dose Calibrator
– Use to calibrate DAP/KAP and rate
– Also measures dose and rate
– Optical and radiographic alignment markers
– Simple to use with optional computer control

## ▶ RTI Electronics Piranha

*The Piranha is designed as a truly self-contained, all-in-one, X-ray multi-function meter that assures accurate results in one shot. kV, time, dose, dose rate, HVL and total filtration*

**▶ Highlights**
– Self-Contained, All-in-One
– Auto-Compensation
– R&F, Mammo, Dental and CT
– Quick and Simple Set-up
– Enhanced Graphical Display
– Built-In Bluetooth for PC and PDA
– mA, mAs, and Light Probes
– Fits in the Palm of Your Hand

## ▶ RTI Electronics Barracuada

*The Barracuda X-ray multimeter has a cabinet that can house up to six different application modules, and can measure on all modalities; R/F, mammography, flouroscopy, pulsed flouroscopy, dental, panoramic dental and CT systems*

**▶ Highlights**
– All in One, All at Once
– Auto-Compensation
– Enhanced Graphical PDA Display
– R&F, Mammo, Dental and CT
– Ionization Chambers
– Built-In Bluetooth for PC and PDA
– mAs, and Light Probes
– Fits in the Palm of Your Hand

AGFA HealthCare

GE Healthcare

Iba Dosimetry

FUJiFILM

medigration The Digital Company

HOLOGIC® CLARITY OF VISION

KONICA MINOLTA

Medicor

Planmed

PTW

RTI

SECTRA

SIEMENS

Imaging Diagnostic Systems • Philips

## ▶ Fujifilm AMULETT

| | |
|---|---|
| **Technology** | *double-layer a-Se* |
| **Resolution** | *50 μm, pixel size* |
| **Size** | *18 x 24 cm /* |
| | *24 x 30 cm* |

▶ **Highlights**
– High DQE and high MTF
– Direct Optical Switch
  eliminates the TFT (no dead pixels)
– Ergonomic design with higher comfort for patients
– Up to 200 shots/h

## ▶ GE Healthcare Senographe Essential

| | |
|---|---|
| **Technology** | *a-Silizium* |
| **Resolution** | *100 μm* |
| **Size** | *24 x 31 cm* |

▶ **Highlights**
– High patient throughput
– Dual track tube Mo/Rh
– Automatic Optimization of Parameters (AOP)
– Ergonomic paddles that shape to the breast
– Stereo-Option available

## ▶ GE Healthcare Senographe DS

| | |
|---|---|
| **Technology** | *a-Silizium* |
| **Resolution** | *100 μm* |
| **Size** | *19 x 23 cm* |

▶ **Highlights**
– High patient throughput
– Dual track tube Mo/Rh
– Automatic Optimization of Parameters (AOP)
– Ergonomic paddles that shape to the breast
– Stereo-Option available

## ▶ GE Healthcare Senographe 2000D

| | |
|---|---|
| **Technology** | *a-Silizium* |
| **Resolution** | *100 μm* |
| **Size** | *19 x 23 cm* |
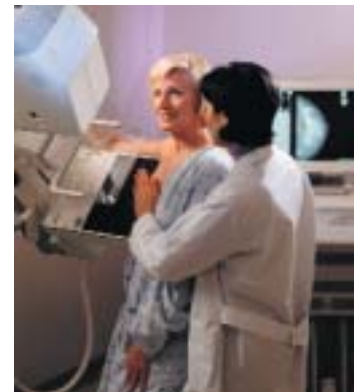
▶ **Highlights**
– Automatic and fast image processing
– Dual track tube Mo/Rh
– Automatic Optimization of Parameters (AOP)
– DICOM connectivity for digital workflow
– Proven technology

## ▶ GE Healthcare Performa

| | |
|---|---|
| **Anode** | *Mo* |
| **Filter** | *Mo/Rh* |
| **kV Range** | *20 – 35* |

▶ **Highlights**
– Bi-directional compression ECS
– Enhanced patient comfort
– Increased amount of breast tissue images
– VectorPoint-AEC for optimized image quality
– Compact, small system

## ▶ Hologic Selenia™ Dimensions™ breast tomosynthesis*

▶ **Highlights**
– Combines traditional
  mammography and
  multi slice 3D tomo-
  synthesis imaging capabilities
– Reconstructed tomosynthesis slices
  reduce or eliminate the problems caused
  by tissue overlap and structure noise in
  mammography imaging offering improved
  diagnostic confidence and enhanced patient care
* Warning: Selenia Dimensions breast tomosynthesis is cleared for sale in the European
  Community and awaiting FDA clearance in the U.S.
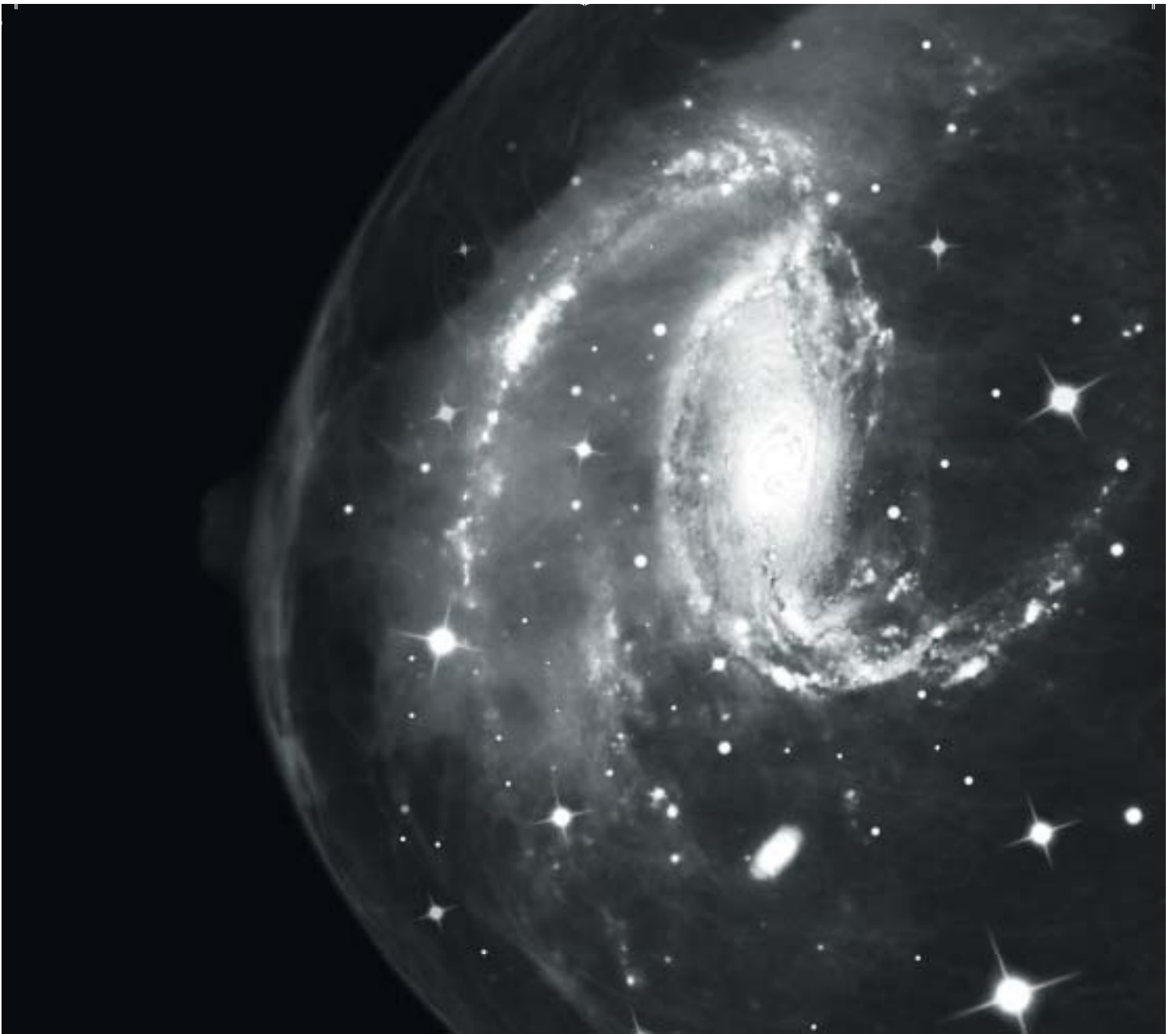
James Culley, PhD,
Director of Strategic Projects,
Hologic, Inc.

# Emerging Trends in Breast Cancer Screening in Europe

Breast cancer is a major health burden worldwide. It is the most common cause of cancer among women in both developed and developing countries and is the primary cause of cancer death among women globally. In the United States an estimated one in eight women will get breast cancer in her lifetime. There are substantial differences in breast cancer incidence and mortality from country to country as shown in Figure 1 below.

In recent years there has been a reported decline in breast cancer mortality which is attributed to improvements in imaging systems and a higher degree of disease awareness and educational programs. Some of the more promising new breast imaging technologies include digital mammography, computer-aided detection (CAD), and breast tomosynthesis.

## Digital Mammography

The biggest trend in mammography screening in recent years is the move to digital mammography. First commercialized in Europe and the United States in 2000, digital mammography systems use digital detectors to convert x-ray photons to digital signals for display on high-resolution monitors. These systems offer capabilities not provided by screen-film and computed radiography (CR) mammography. One of the most attractive features offered by digital mammography is its ability to use a variety of tools to manipulate images. Brightness and contrast can be adjusted, images can be inverted, and digital magnification can be applied to selected regions of the image. Digital mammography also provides the following advantages over screen-film and CR mammography:

- The images are insensitive to exposure variations, so retakes are minimized,
- Reduces exam times,
- Image processing provides improved visibility from the chest wall to the skin line,
- Reduces storage space requirements.
- Transfers information more easily,
- Enables transfer of information to remote locations.

After 8 years on the market, the FDA reports that 48% of all U.S. mammography sites now have at least one digital mammography system.

**Figure 1: Breast Cancer Incidence in Selected Countries**

| Country | Value |
|---|---|
| Iceland | 39.4 |
| Denmark | 30.4 |
| The Netherlands | 28.7 |
| Belgium | 28.7 |
| New Zealand | 28.0 |
| Ireland | 27.5 |
| Hungary | 26.6 |
| United Kingdom | 26.0 |
| Germany | 23.5 |
| Canada | 22.6 |
| Czech Republic | 22.2 |
| Italy | 22.0 |
| France | 21.7 |
| Australia | 21.6 |
| Austria | 21.5 |
| Norway | 21.3 |
| United States | 21.2 |
| Luxembourg | 21.0 |
| Spain | 19.5 |
| Portugal | 19.3 |
| Slovakia | 19.2 |
| Sweden | 18.5 |
| Finland | 18.1 |
| Poland | 17.9 |
| Greece | 16.8 |
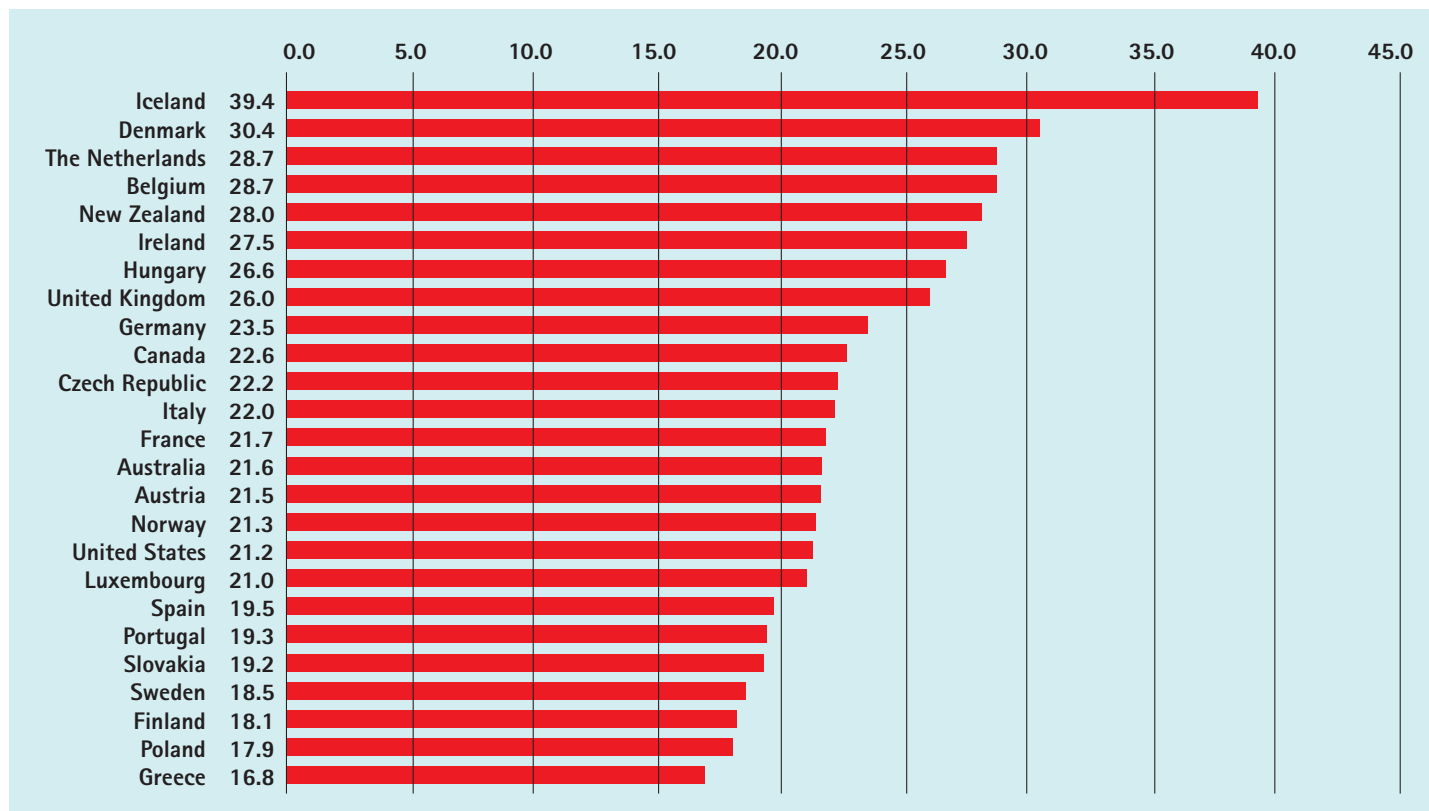
The most developed digital mammography breast cancer screening program in Europe is in The Netherlands. When the last of the new systems is installed in 2010, the country will have over 130 digital mammography and digital breast tomosynthesis systems and over 1 million Dutch women a year will be screened for breast cancer using digital mammography systems. This is a remarkable feat for a country with just over 2 million women aged 45 to 64.

### Computer-Aided Detection (CAD)

In 1998, when the United States Food and Drug Administration granted marketing approval for applying CAD algorithms to screen-film mammography images, CAD began to take off in the United States. CAD found its first home in breast cancer detection for a number of reasons:

- The complex structure of the breast
- The widely varying appearance of normal breast tissue
- The often subtle characteristics of breast disease
- The large number of mostly normal screening mammograms reviewed each day,

**With a stroke of the pen, Mr. M Steinbusch, Director, Bevolkings–onderzoek Zuid, (left front row) signs an order for14 digital mammography systems for the North Brabant and North Limburg parts of The Netherlands. This is the 4th and final series of awards in The Netherlands National Screening Mammography tender. Looking on are (top row, left to right) Mrs. M. Bakker, Sector Manager Screening and Mrs. H. Melis, Coördinator Equipment Management, Bevolkingsonderzoek Zuid, Mr. M. Wink, CCO Tromp Medical BV and (bottom row, right) Mr. Eddy Coppens, Sales Director for Hologic**

- The need to be highly sensitive to abnormalities while minimizing unnecessary patient recalls.

Vendors say that CAD's most striking advantage in improving breast cancer screening lies not in the actual number of cancer cases the technology can detect, but in CAD's ability to detect cancer at an earlier point in screening. Early-stage breast cancer detection provides more treatment options that are generally less invasive and less morbid, and can markedly increase the likelihood of survival.

Although CAD is widely accepted in the United States with nearly all diagnostic mammography workstations being ordered with the feature, CAD has been slower to penetrate the European market where double reading is the more common practice. With a growing shortage of radiologists and the cost of doing double reads, some think that CAD will start to see greater acceptance in Europe in the years ahead. Helping to support the growth of CAD in Europe is Dr. Fiona Gilbert and her colleagues' in the United Kingdom 2008 study of the screening results from 31,057 women undergoing routine screening by film mammography. The researchers found that a single reader with CAD produced comparable cancer detection rates to double reading without CAD

### Digital Breast Tomosynthesis

The newest trend in breast cancer screening in Europe is the use of digital breast tomosynthesis systems. All the major women's imaging companies are rushing to introduce breast tomosynthesis but only one has a commercial system on the market in Europe. Breast tomosynthesis is a three-dimensional imaging technology that involves acquiring images of a stationary compressed breast at multiple angles during a short scan. The individual images are then reconstructed into a series of thin high-resolution slices that can be displayed individually or in a dynamic ciné mode.

Reconstructed tomosynthesis slices reduce or eliminate the problems caused by tissue overlap and structure noise in single slice two-dimensional mammography imaging. Digital breast tomosynthesis also offers a number of exciting opportunities including improved diagnostic and screening accuracy, fewer recalls, greater radiologist confidence, and 3D lesion localization.

There are many exciting new technologies being applied to the problem of breast cancer detection. All of them are designed to address the accuracy limitations of conventional screen-film and computed radiography mammography.

## ▶ Hologic Selenia™ digital mammography

**▶ Highlights**
– Exceptionally sharp digital images better contrast and resolution at the lowest possible radiation dose
– Flexible and interactive tools for the mammographer to use to increase productivity and optimize workflow
– Seamless integration with hospital infrastructure, assuring the best possible care
– Smart paddle system streamlines technologist workflow

## ▶ Hologic Selenia™ low dose digital mammography

**▶ Highlights**
– Selenia with tungsten x-ray tubes and rhodium and silver filters
– Minimizes dose with excellent image quality
– Allows for important dose reductions on the order of 30%
– Optimal for use with all breast thicknesses

## ▶ Hologic MammoSite® targeted radiation therapy

**▶ Highlights**
– 5-day radiation therapy after breast lumpectomy instead of the conventional 5–7 week whole breast radiation treatment
– Targets area where cancer is most likely to recur
– Spares healthy tissue and organs from the side effects of radiation

## ▶ Hologic Digital StereoLoc® II stereotactic upright biopsy

**▶ Highlights**
– Upright stereotactic biopsy system
– Exceptional image quality
– Precise needle guidance
– Provides easy transition from Selenia™ digital mammography to stereotactic breast biopsy

## ▶ Hologic SecurView™ diagnostic workstation

**▶ Highlights**
– Review digital images from mammograms, MRI, PET, and ultrasound
– Flexible, intuitive image review capabilities
– Unlimited hanging configurations
– Work interactively and intelligently through information-sharing

## ▶ Hologic R2™ computer-aided detection (CAD)

**▶ Highlights**
– R2 CAD sophisticated pattern recognition software proven to help find breast cancers at an earlier stage
– Identifies features and brings them to the radiologist's attention in order to decrease false negative readings
– Often compared to a second pair of eyes, it serves as an interpretive aid during image review

## ▶ Hologic ATEC® automated tissue excision and collection system



▶ **Highlights**
– One system for use under all
  3 imaging modalities (stereotactic, MRI and ultrasound)
– Consistently larger and more
  complete specimens for a confident diagnosis
– Fast tissue acquisition - every 4.5 seconds
– Safe, fully closed system limits fluid exposure
– Saline lavage irrigates and aspirates the cavity
– Pain medication can be
  continuously delivered direct to the biopsy site

## ▶ Hologic MammoPad® radiolucent breast cushion
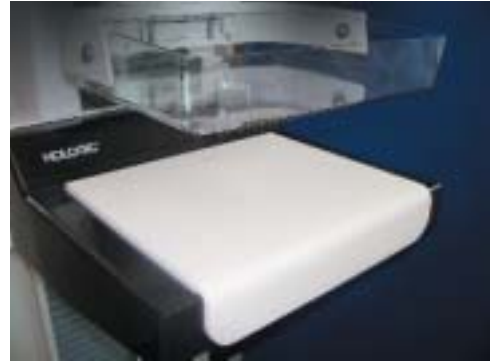


▶ **Highlights**
– Soft breast cushion that helps to relax the patient
– Often results in better tissue acquisition
– Does not create a need for increased dose
– Does not compromise high level of
  image quality needed for a routine mammogram

## ▶ Hologic MultiCare® Platinum prone biopsy table



▶ **Highlights**
– Minimally invasive stereotactic breast biopsy table
– Pinpoint accuracy
– Enhanced patient comfort and optimized efficiency
– Superb image quality
– Adjustable breast tray compensates for breast thickness
– Cartesian coordinates system ensures accurate targeting
– True 360 degree access

## ▶ Hologic SecurView™ technologist workstation



▶ **Highlights**
– Powerful technologist
  workstation for the
  mammography suite
– Fast access to patient
  images
– Flexible, intuitive image
  review capabilities
– Work interactively and
  intelligently through
  information-sharing

## ▶ Hologic Quantra™ volumetric assessment for breast density
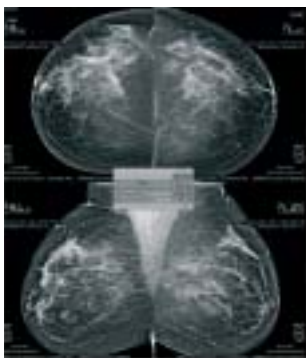


▶ **Highlights**
– A break-through technology
  that estimates volumes in the breast and calculates the
  volumetric fraction of fibroglandular tissue
– Aggregates volumetric measurements from each view
  in a study into a simple, concise assessment for each breast

## ▶ Imaging Diagnostic Systems CT Laser Mammography (CTLM) system

**Technology** | *CT laser breast imaging scanner/molecular imaging*



▶ **Highlights**
– No radiation; laser instead of x-ray
– No compression
– Complement to mammography
– Noninvasive; no contrast agent required
– Provides 3-D images

## ▸ Konica Minolta Regius PUREVIEW M

| Anode | Mo |
|---|---|
| Filter | Mo/Rh |
| kV Range | 20 – 35 |

▸ **Highlights**
– Revolutionary new x-ray mammography system based on phase contrast technology
– Sharpness and spatial resolution highly improved by the use of phase contrast technology
– Reading at 43.75 µm thus equivalent to resolution of around 70 million pixels
– Flex AEC 48 independent detectors

## ▸ Konica Minolta Acies Mammo Workstation

▸ **Highlights**
– Easy to use diagnostic workstation for digital mammography
– Advanced configurable hanging protocol
– Multi-viewing modality
– DICOM compliance

## ▸ medigration MammoView

▸ **Highlights**
– Ease-of-use. The software is designed to simplify routine tasks
– Special tools. You are supported by tools such as automatic image layout, nagivation by dedicated keypad, step through images in 1:1 Pixel-resolution (»quadrant zoom«)
– Vendor independent
– Designed for Screening (PAS 1054). Fast reading with patient switching times below 2 seconds, screening worklists, double reading, anonymized second reading, integrated dedicated reporting and other features for efficient use in screening centers (Workflow Manager needed.)
– Integration. You prefer your RIS-client to the integrated reporting? You want to read Mammo-MR in your dedicated viewer? You are using a tumor-documentation system? MammoWorkstation provides sophisticated interfaces to synchronize with other Software on the same PC
– Compatible with MaSc and MammaSoft

## ▸ Philips MammoDiagnost DR

| Technology | Amorphous Selenium |
|---|---|
| Resolution | 85 µm |
| Size | 24 x 30 cm |

▸ **Highlights**
– Comfortable and efficient workflow thanks to the intuitive Eleva User Interface and ergonomic design award winning system
– Excellent, UNIQUE-processed images for a reliable diagnosis
– Smooth procedures and diagnostic security make your patients feel at ease

## ▸ Philips MammoDiagnost

| Anode | Mo/W (Dual Track) |
|---|---|
| Filter | Mo/Rh |
| kV Range | 23 – 35 |

▸ **Highlights**
– Efficient workflow for screening, diagnosis and interventions
– Perfect image quality for reliable a diagnosis
– Smooth procedures and diagnostic security make your patients feel at ease

## ▸ Planmed Nuance Excel

| Anode | Mo or W (optional) |
|---|---|
| Filter | Mo/Rh or Rh/Ag (optional) |
| kV Range | 20 – 35 |

▸ **Highlights**
– Low dose FFDM Unit with 23.9 x 30.5 cm a-Se detector and fully automatic Flex-AEC with tissue type recognition
– Acquisition Workstation (AWS) with 3 megapixel TFT monitor and optional Nuance Acquire Station with motorized height adjustment
– Integrated MaxView Breast Positioning System
– Side Access for optimal patient positioning and ergonomics
– Optional stereotactics with Nuance Excel DigiGuide

## Imagerive in Geneva

# Focusing on women's health

**Radiologist Dr. Jean-Charles Piguet discovered the advantages of digital mammography at an early stage. Through his involvement and cooperation with various companies, he was able to use his experience to push forward decisively with the development of mammography systems. With the establishment of Imagerive in Geneva – a medical diagnostics center focusing on women's health – he highlights the importance of detecting breast cancer as early as possible. For this purpose, alongside two FFDM systems, the physician uses an MRI and modern ultrasound systems.**

Already in 1997, Dr. Jean-Charles Piguet closely followed the latest developments in digital mammography. Soon afterwards, he became a member of the Medical Advisory Board of a US equipment manufacturer and was thus aware of new product releases two years before they actually hit the market.

The era of digital mammography began in Geneva in 1999. Immediately after the first examination, the benefits of digital mammography were apparent. "There was a huge reduction in examination time and the gains in terms of image information were clear for all to see," Dr. Piguet recalls. The advantage was so obvious that no one wanted to use the analog mammography modalities any longer and very soon, nearly all examinations were being conducted digitally.



**Image quality and patient comfort are top priorities at the Imagerive diagnostics center in Geneva. The referring doctors appreciate the modern equipment, the low dose and the high-quality diagnoses.**

### Photon-counting revolutionizes digital mammography

Dr. Jean-Charles Piguet: "The introduction of the photon-counting technology by Sectra was a quantum leap for mammography. The system from the Swedish producer – Sectra MicroDose Mammography – not only provided better images than all other systems available, it also required only 50% of the dose for the examination. Combined with its high throughput, this makes it excellent for mammography screening."

One explanation for the low dose is that Sectra's detector technology converts the X-ray directly into an electric signal without any conversion steps between analogue and digital signals- a process that will always add some noise to the image. A further unique feature of the detector is its multi-slit scanning geometry, resulting in no scattered radiation, zero dead pixels and the highest DQE (Detector Quantum Efficiency) on the market.

"The photon-counting technology is the start of a new development in mammography. That is something I am certain of," contends Dr. Jean-Charles Piguet. "Mammography systems will develop rapidly in the same way as CT did with the evolution of the acquisition of multiple levels to the multislice scanner."

Digital mammography is the method of choice to detect microcalcifications. Dr. Jean-Charles Piguet and the development team at Sectra are conducting joint work on image processing to further enhance detection of microcalcification.

**Dr. Jean–Charles Piguet very much appreciates the standard hanging protocols of images offered by the Sectra system. The pre–settings also work perfectly for prostheses.**

## Sharp images

From the very first day, Dr. Piguet and the diagnostic team from Imagerive were convinced by the Sectra MicroDose system. They were searching for an FFDM system with a large detector and found a system that corresponded to nearly all of their requirements. The necessary system optimizations were implemented by the Swiss radiologist in cooperation with Professor Mats Danielsson, inventor of the MicroDose system, and Sectra's development team. "The fascinating aspect of Sectra is its open communications structure. All of those we spoke with were not only willing to listen to our suggestions for improvements, but contributed to putting them into practice immediately," says Dr. Piguet, describing the fruitful cooperation with the Swedish company.

With the MicroDose system, the radiographers succeed in taking excellent images even of the largest breasts in cranio-caudal view. Thanks to the 24- to 26-cm field of view and the curved patient support, the system is optimal in all projections for positioning and compressing the breast.

From the outset, the image quality met the expectations of the Swiss radiologists. Sectra succeeded in further improving the signal to noise ratio. A resolution of 50µm and a system DQE of 65% are excellent values.

The presentation of the images required no manual fine-tuning. "We can analyze the images as they appear on the screen. Regardless of whether it involves natural breasts or patients with implants, only in rare cases do the images need to be reworked," relates Dr. Piguet. This allows the Imagerive radiologists to keep their diagnosis at the same pace as the MicroDose with its capacity of up to 12 examinations per hour.

**In only a few seconds, the system displays an image for quality control on the acquisition workstation. The workflow is only one of the many benefits offered by Sectra's digital mammography.**

**Dr. Jean–Charles Piguet: "Sectra's photon-counting technology revolutionized digital mammography. Through the high resolution and throughput and the low dose, this system is really the only viable option for a screening program."**

## Perfect PACS and CAD integration

In their diagnosis, the radiologists have had the support of a CAD system for some time now. In the screening program, computer-aided detection helps them to rapidly localize suspicious areas in the image.

If one examination involves images from several different modalities, Sectra's mammography workstation is of great advantage. The MRI images can be opened in MPR view without any difficulty and be shown alongside digital mammograms or ultrasound images.

Dr. Piguet studies screening examinations using the workstation's special keypad, navigating securely and rapidly through the various projections with the help of standardized hanging protocols.

Both Sectra systems are linked with the RIS over a DICOM interface and receive their worklist information in this manner. They transmit the images directly to PACS. Through the Sectra Breast Imaging PACS, the radiologists have direct access to the approximately 100,000 mammograms, which have been taken throughout the years using various digital machines from several manufacturers.

The gynecologists in the area can rely on Dr. Jean-Charles Piguet and his colleagues. They know that the progressive radiologist not only uses the latest equipment, but also carefully considers the dose to which the women are exposed. Confident diagnosis using low dose is the trademark of Dr. Piguet's Imagerive and Sectra MicroDose Mammography.

**Dr. Jean–Charles Piguet and the team from Imagerive in Geneva played a decisive role in the application development of the digital mammography systems.**

IMAGERIVE
INSTITUT DE RADIOLOGIE SPÉCIALISÉE

Dr Philippe BRAUDE

Dr Frédéric COUSON

Dr Gérard de GEER

Dr Martina MARTINS FAVRE

Dr Bernard ODY

Dr Jean-Charles PIGUET

## ▶ Planmed Nuance

| | |
|---|---|
| **Anode** | *Mo* |
| **Filter** | *Mo/Rh* |
| **kV Range** | *20 – 35* |

▶ **Highlights**
– FFDM Unit with 17.1 x 23.9 cm a-Se detector and fully automatic Flex-AEC with tissue type recognition
– Acquisition Workstation (AWS) with 3 megapixel TFT monitor and optional Nuance Acquire Station with motorized height adjustment
– Integrated MaxView Breast Positioning System
– Side Access for optimal patient positioning and ergonomics
– Optional stereotactics with Nuance DigiGuide

## ▶ Planmed Nuance Classic

| | |
|---|---|
| **Anode** | *Mo* |
| **Filter** | *Mo/Rh* |
| **kV Range** | *20 – 35* |

▶ **Highlights**
– High-end analog mammography unit with Flex-AEC
– Field upgradeable to Full Field Digital Mammography
– Side Access Patient Positioning
– Optional MaxView Breast Positioning System
– Film or digital stereotactics system DigiGuide available as an add-on
– Network ID camera and CR interface available

## ▶ Planmed Sophie Classic MVR

| | |
|---|---|
| **Anode** | *Mo* |
| **Filter** | *Mo/Rh* |
| **kV Range** | *20 – 35* |

▶ **Highlights**
– Versatile mid-tier film unit with multiple options
– Optional Flex-AEC with tissue type recognition
– Optional MaxView or TwinComp compression systems
– Optional magnification and film or digital stereotactics
– Optional CR interface

## ▶ Planmed Sophie Classic Mobile

| | |
|---|---|
| **Anode** | *Mo* |
| **Filter** | *Mo/Rh* |
| **kV Range** | *20 – 35* |

▶ **Highlights**
– Robust, mobile analog unit with integrated, telescopic radiation protection screen
– Optional battery backup
– Active brake system with lockable front wheels
– Versatility with optional Flex-AEC, magnification, MaxView Breast Positioning System or TwinComp and film or digital stereotactics
– Network ID camera and CR interface available

## ▶ Sectra MicroDose Mammography

| | |
|---|---|
| **Technology** | *Photon-counting* |
| **Resolution** | *50 μm, 14 bit* |
| **Size** | *24 x 26 cm* |

▶ **Highlights**
– Unique photon counting detector
– 50% dose reduction compared with other FFDM systems
– Highest image quality
– Superior workflow and ergonomic design enabling unsurpassed throughput
– Complete screening solution with Sectra Breast Imaging PACS

## ▶ Sectra mammography workstation

| | |
|---|---|
| **Technology** | *Photon-counting* |
| **Resolution** | *50 μm, 14 bit* |
| **Size** | *24 x 26 cm* |

▶ **Highlights**
– A multimodality workstation with dedicated software tools to meet the special workflow and throughput requirements of mammography
– Fast image display
– Dedicated keypad
– Automatic display protocols

# MAMMOGRAPHY

## ▶ Siemens MAMMOMAT Inspiration

| | |
|---|---|
| **Technology** | *W/Rh, a-Se* |
| **Resolution** | *85 μm* |
| **Detector size** | *24 x 30 cm* |

▶ **Highlights**
– Screening, upgradable to
  stereotactic biopsy and, in the future,
  3D imaging with tomosynthesis
– Dual target anode W/Rh
  reduces dose up to 50% especially
  for dense breasts
– Comprehensive system solution
  with syngo-based acquisition workstation
– Streamlined workflow: One-click-to-image
– Special MoodLight function

## ▶ Siemens MAMMOMAT 3000 Nova

| | |
|---|---|
| **Anode** | *Mo/W* |
| **Filter** | *Mo/Rh* |
| **kV Range** | *23 – 35* |

▶ **Highlights**
– Pivoting buckys, easy
  switching between
  18 x 24 and 24 x 30
– Prepared for stereo biopsy
– Opdose auto-selects best
  anode/filter combination
  (Mo/Mo, Mo/Rh, W/Rh)
– Lowest dose according to
  individual breast
  characteristics
– Opcomp – Siemens'
  exclusive optimized
  compression system

## ▶ Siemens MAMMOMAT Inspiration with 3D Tomosynthesis

| | |
|---|---|
| **Technology** | *W/Rh, a-Se* |
| **Resolution** | *85 μm* |
| **Detector size** | *24 x 30 cm* |

▶ **Highlights**
– Platform for multiple mammography
  applications: Screening, diagnostics,
  stereotactic biopsy and Tomosynthesis
  (WIP) in one system and one
  Acquisition Workstation
– 3D imaging via the acquisition of
  breast images taken at multiple angles
  (+25° to –25°): Improved capability
  to diagnose especially very dense
  breasts
– The only installed system which offers
  all applications and can be upgraded
  to 3D tomosynthesis
– The largest angular range in industry
  increases depth resolution and
  contrast

## ▸ Siemens MAMMOMAT 1000

| | |
|---|---|
| **Anode** | *Mo* |
| **Filter** | *Mo/Rh* |
| **kV Range** | *23 – 35* |

▸**Highlights**
– Remote Control – adjusting height and angulation – remotely
– Opcomp – Siemens' exclusive optimized compression system
– Free standing X-ray and generator with face shield
– Optional digital spot imaging with Opdima®
– Soft speed – two speed compression

## ▸ Siemens ACUSON S2000 Automated Breast Volume Scanner

| | |
|---|---|
| **Technology** | *Ultrasound* |
| **Size** | *15.4 cm x 16.8 cm Transducer* |

▸**Highlights**
– High patient load
– Acquisition of full-field volumes of the breast automatically, quickly and comfortably
– Efficient and comprehensive analysis of the volume data
– Comprehensive BI-RADS® reporting capabilities
– Patient friendly - minimal compression
– No radiation

# MAMMO ACCESSORIES

## ▸ Siemens syngo MammoReport

| | |
|---|---|
| **CPU** | *Dual-core Xeon 5130 2.00 GHz or faster* |
| **Displays** | *Dual high-contrast 5 MP monitors, 2.5 x 2 k* |
| **User Interface** | *Dedicated keypad customized to user's individual workflow* |

▸**Highlights**
– Customization to personal workflow and image arrangement, controllable with a single key
– Supports CAD and a CAD-driven workflow
– Multi-modality and third-party viewing
– Advanced hanging protocols for different demands
– DICOM compliance
– IHE workflow compliance

## ▸ Agfa HealthCare iCAD SecondLook Digital
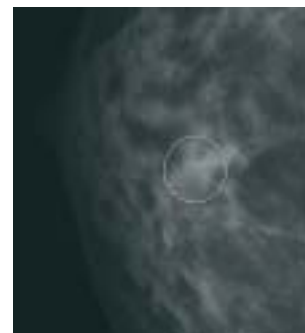
▸**Highlights**
– SecondLook$^R$ Digital is a second opinion tool for Agfa HealthCare's CR Mammography
– Adds value in daily routine
– Can be used in mammography screening as well as by diagnostic HealthCare providers
– Markers that indicate potential microcalcifications and/or masses are visible on Agfa HealthCare's IMPAX Breast Imaging Workstation

## ▸ Siemens syngo MammoCAD

| | |
|---|---|
| **CPU** | *Dual processor Intel Xeon 3.60 HT/800, 1 MB, EM64T* |

▸**Highlights**
– Advanced image processing capabilities with state-of-the-art pattern recognition technology
– Up to 4 DICOM input connections
– Up to 10 DICOM output connections
– CAD processing of a four-image case within less than 90 seconds
– Designed for MAMMOMAT Novation and MAMMOMAT Inspiration*

*work in progress

## ▸ PTW NORMI PAS

Modular test object for quality control of digital mammography X-ray units
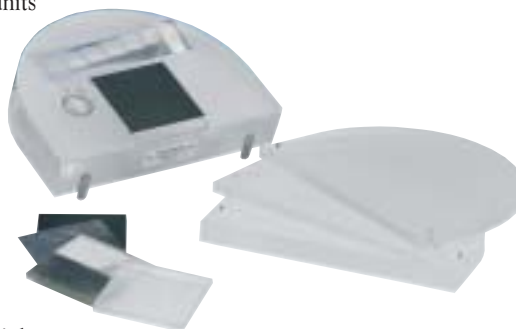
▸**Highlights**
– Checks all imaging quality parameters (high contrast, low contrast, spatial resolution, signal-to-noise ratio, dynamic range, artefacts, thoracic wall side limitation, etc.)
– Test element based on the Mammographic Accreditation Phantom of the ACR included
– Acrylic absorbers for AEC testing included

## ▸ IBA Dosimetry PASMAM

Test device for checking spatial resolution, contrast resolution, signal to noise ratio, dynamic range, image limitation towards the chest wall, AEC performance

▸ **Highlights**
– Modular construction
– Different test inserts
– Basic plate with Al step wedge
– Structural plate with turnable spatial resolution test
– Additional attenuation plates

## ▸ PTW DIADOS E Dosemeter

High sensitive dosemeter for absolute dosimetry, acceptance testing and quality control

▸ **Highlights**
– Measures dose, dose rate, dose/pulse, pulses, dose length product, irradiation time
– Wide dynamic measuring range
– New mammography qualities like Mo/Mo, Mo/Rh, Rh/Rh, W/Rh, W/Al, etc. available
– Data evaluation by means of the DiaControl *expert* software

---

KONICA MINOLTA

# LASER IMAGER
# DRYPRO
## MODEL 873

## A New Dimension in Laser Imagers

World's fastest dry imager. Unparalled image stability and high-speed technology. Designed for printing digital mammography.

• DICOM 3.0 Support

• Density 4.0

• Resolution 43.75μm

• 180 sheets per hour

The essentials of imaging

iba

GE Healthcare

HOLOGIC®
CLARITY OF VISION

PROVOTEC....
X-RAY FROM FSPFI KAMP I GERMANY

PTW

Radcal®

RTI

SEDECAL

SHIMADZU

SIEMENS

TOSHIBA

ulrich
medical

## GE Healthcare Proteus XR/a

| | |
|---|---|
| **Design** | *3D ceiling-mounted* |
| **Table** | *Height adjustable* |
| **Power** | *50, 65, 80 kW* |

### ▶ Highlights
– Low table height 50 cm
– Foot pedal for hand free
  table control
– OTS with innovative
  user interface
– Patient coverage
– User-friendly generator touchscreen

## GE Healthcare Proteus XR/i

| | |
|---|---|
| **Design** | *Floor-mounted* |
| **Table** | *Height adjustable* |
| **Power** | *50, 64 kW* |

### ▶ Highlights
– Very flexible positioning
– Rotatable tube stand
– Transverse tube travel
– Anatomical programs
– Tomographic option

## Philips BuckyDiagnost Chest room

| | |
|---|---|
| **Design** | *Ceiling/floor-mounted dedicated system for thorax and orthopedic exposures of upright patients* |
| **Table** | *n.a.* |
| **Power** | *30 – 85 kW* |

### ▶ Highlights
– Dedicated system for
  high patient throughput,
  also suitable as overflow
  room
– Convenient system
  design including
  automatic collimation,
  tracking and remote control functionality of collimator
– Flexible and customizable system set-up with choice of floor
  mounted or ceiling suspended tube carrier
– Adjustable to small room layouts
– Future-proof with digital upgrade possibilities via PCR Eleva
  or digital detector

## Philips BuckyDiagnost High–performance room

| | |
|---|---|
| **Design** | *Ceiling-mounted tube carrier for standard bed exposures* |
| **Table** | *Fixed or hight adjustable (optional) with various table top sizes* |
| **Power** | *30 – 85 kW with several options* |

### ▶ Highlights
– Optional generator
  functionalities are
  AEC, APR, automatic
  collimation, tracking,
  and tomography
– Flexible, interchangeable components with a large range of
  tables, stands, tube carriers, tubes and generators
– Same handling and options for floor-mounted system and
  ceiling-mounted tube carrier
– Future-proof with digital upgrade possibilities via
  PCR Eleva or digital detector
– Ergonomic design enabling easy handling and near
  patient control

## Philips BuckyDiagnost Standard room

| | |
|---|---|
| **Design** | *Floor-mounted system (floor, floor/wall or floor/ceiling)* |
| **Table** | *Fixed or hight adjustable (optional) with various table top sizes* |
| **Power** | *30 – 85 kW with several options* |

### ▶ Highlights
– Optional generator
  functionalities are AEC,
  APR, automatic collimation, tracking and tomography
– Flexible, interchangeable components with a large range of
  tables, stands, tube carriers, tubes and generators
– Same handling and options for floor-mounted system and
  ceiling-mounted tube carrier
– Digital upgrade possibilities via PCR Eleva or digital detector
– Ergonomic design enabling easy handling and
  near patient control

## Philips Essenta RAD

| | |
|---|---|
| **Design** | *Floor-mounted system* |
| **Table** | *Fixed table with floating table top* |
| **Power** | *30 or 50 kW* |

### ▶ Highlights
– Compact and reliable
  radiography system
  for a tough day's work
– Easy and intuitive to use
– Total flexibility for broad
  application range and flexible room layout

## ▶ Philips MRS

| Design | Floor-mounted system carrier (all in one) |
|---|---|
| Table | Trolley |
| Power | 30 kW |

**▶ Highlights**
- Meets the standards of the World Health Imaging System Radiography (WHIS-RAD)
- Broad range of applications including chest, abdomen, head, soft tissue and skeleton examinations
- Low weight of the system permits its installation in almost any room
- Can be operated for several days without mains power supply due to rechargeable battery
- Examination with vertical and horizontal beam direction (PA and lateral)

## ▶ Philips Cosmos BS

| Design | Floor-mounted system carrier (all in one) |
|---|---|
| Table | Trolley |
| Power | 30 – 85 kW |

**▶ Highlights**
- Column with swivel arm for a broad range of applications
- Particularly economical unit thanks to its small space requirement
- Oblique beam positioning due to the tiltable Bucky
- Selectable SID and motorized adjustment
- Easy to handle and service

## ▶ PROVOTEC PRS 500 ES

| Design | Floor-mounted |
|---|---|
| Table | Height adjustable |
| Power | 50, 60, 80 kW |

**▶ Highlights**
- Compact bucky system for minimal space requirement
- 50 kW ProVario 50 generator integrated into the table
- Elevating and floating table top
- Automatic coupling device to center tube and bucky
- Including wall bucky stand

## ▶ PROVOTEC PRS 500

| Design | Floor-mounted |
|---|---|
| Table | Fixed height |
| Power | 50 kW |
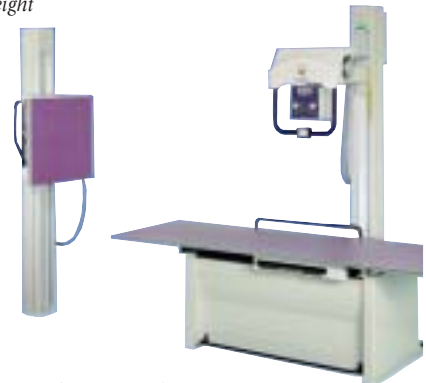
**▶ Highlights**
- Compact bucky system for minimal space requirement
- 50 kW ProVario 50 generator integrated into the table
- Anatomical programs and AEC
- Automatic coupling device to center tube and bucky
- Including wall bucky stand

## ▶ PROVOTEC Prognost XPE

| Design | Movable |
|---|---|
| Table | Height adjustable |
| Power | Line or battery |

**▶ Highlights**
- Mobile to position the patient directly above the corresponding image receptor
- For digital DR detectors or with bucky tray integrated
- Elevating and floating cabon fibre table top
- Line connection or battery powered

## ▶ PROVOTEC ProStar FS

| Design | Open design Floor-mounted |
|---|---|
| Table | Compact, modular, economic |
| Power | Line 230 Vac, 50/60 Hz |

**▶ Highlights**
- Bucky table with different sizes of floating table tops
- Elevating or fixed height versions
- Open design with large space suitable for different image receptors like Bucky for analogue and CR cassettes or for housings for DR-Detector Systems
- Tube column and Bucky/Detector are linked via an automatic clutch which means X-ray unit and Bucky are centred all the time

## Shimadzu Radspeed Series

| | |
|---|---|
| **Design** | *Floor-mounted and/or ceiling-suspended* |
| **Table** | *Motorised height adjustable* |
| **Power** | *50 – 65 – 80 kW* |

**▶ Highlights**
– Upgradeable for Safire (direct conversion) flatpanel
– Automatic SID and bucky tracking
– Autopositioning feature
– Generator and APR controls on x-ray tube head
– Up to 400 pre-settable APR's

## Siemens Multix Swing

| | |
|---|---|
| **Design** | *Floor-mounted* |
| **Table** | *Weight capacity of 450 kg* |
| **Power** | *30 or 55 kW* |

**▶ Highlights**
– Cost-efficient, all-in-one X-ray room solution
– Generator is integrated into the table for minimal space requirements
– Floating tabletop with weight capacity of up to 450 kg
– Synchronized tube and bucky tray movements
– Tube can be rotated for cross-table exposures

## Siemens Multix Pro

| | |
|---|---|
| **Design** | *Floor-mounted* |
| **Table** | *Height adjustable* |
| **Power** | *30, 55, 65, 80 kW* |
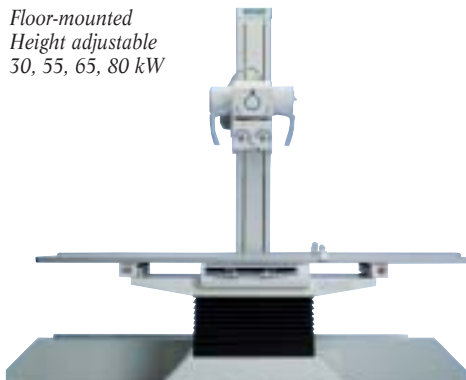
**▶ Highlights**
– Conventional radiography solution with integrated X-ray tube
– Robust and easy-to-use, accommodating a wide range of clinical imaging
– Wide range of tabletop movements with table height adjustments
– Automatic exposure control

## Siemens Multix Top

| | |
|---|---|
| **Design** | *3D-ceiling-mounted* |
| **Table** | *Height adjustable* |
| **Power** | *30, 55, 65, 80 kW* |

**▶ Highlights**
– Ceiling-mounted, conventional radiography solution
– Robust and a real workhorse, suitable for high-throughput radiography rooms
– Easy, colour-coded ceiling tube handling
– TOP alignment of x-ray field for dose reduction during chest examinations
– Upgradeable to flat detector technology

## MOBILE

## Toshiba Radrex-I

| | | |
|---|---|---|
| **Design** | *Ceiling mounted* | *Ceiling mounted* |
| | *Dual Panel System* | *Single Panel System* |
| | *2x fixed FPD* | *1 portable FPD* |
| **Power** | *80 kW* | *80 kW* |

**▶ Highlights**
– Easy Operation for high throughput
– In Room Image Review
– Big size OTC Interface for easy Operation
– Automated FollowME Concept e.g. Auto Tracking, -processing, -imagedistribution, -image stitching, etc.
– Full Dicom functionalities included
– Optional wired portable FPD

## GE Healthcare AMX 4+

| | |
|---|---|
| **Power** | *12.5 kW* |
| **kV Range** | *50 – 125* |
| **mAs Range** | *0.4 – 320* |

**▶ Highlights**
– High usable battery power storage
– Wide mAs range for variety of applications
– Unique column rotation
– AEC for consistent image quality
– Excellent maneuverability with motor drive

## ▸ GE Healthcare TMX+ / TMX R+

| | TMX R+ | TMX+ |
|---|---|---|
| **Power** | 30 kW | 30 kW |
| **kV Range** | 40 – 125 | 40 – 125 |
| **mAs Range** | 0.2 – 220 | 0.2 – 220 |

▸ **Highlights**
– Powerful system for variety of applications
– Anatomic programs
– Dose level selection
– Dual focal spot: 0.8 and 1.3 mm
– TMX R+: column rotation for easy positioning

## ▸ Philips Practix Convenio

| | |
|---|---|
| **Power** | 30 kW |
| **kV Range** | 40 – 125 |
| **mAs Range** | 0.63 – 320 (large focal spot) |
| | 0.1 – 200 (small focal spot) |

▸ **Highlights**
– Robust electrical and technical concept with swiveling column and telescopic tube arm
– Powerful motor drive for outstanding maneuverability on the spot, on ramps and over obstacles
– Long-life batteries due to intelligent single charging management
– Ergonomic design and intuitive user guidance – winner of the iF and the I.D. design award 2006
– Digital with Philips Computed Radiography and UNIQUE image processing

## ▸ Philips Practix 400

| | |
|---|---|
| **Power** | 40 kW |
| **kV Range** | 40 – 125 |
| **mAs Range** | 0.1 – 320 (large focal spot) |
| | 0.1 – 100 (small focal spot) |

▸ **Highlights**
– Optimal for pediatrics, orthopedics and in emergency rooms
– Swivelling telescopic tube arm for quick tube positioning and easy patient access
– Wide mAs range ensures advanced options and widest range of applications
– Microprocessor-controlled 40 kW x-ray high-power generator

## ▸ Philips Practix 300

| | |
|---|---|
| **Power** | 30 kW |
| **kV Range** | 40 – 125 |
| **mAs Range** | 0.1 – 200 (large focal spot) |
| | 0.2 – 64 (small focal spot) |

▸ **Highlights**
– Preferred by practitioners for thorax examinations and in emergency rooms
– Swivelling telescopic tube arm for quick tube positioning and easy patient access
– High power for short exposure times
– Microprocessor-controlled 30 kW x-ray high-power generator

## ▸ Philips Practix 160

| | |
|---|---|
| **Power** | 16 kW |
| **kV Range** | 40 – 125 |
| **mAs Range** | 0.2 – 200 |

▸ **Highlights**
– Brilliant at routine work, including thorax in intensive care and recovery rooms
– Very low weight combined with high maneuverability including side travel capability
– Microprocessor-controlled 16 kW x-ray converter generator

## ▸ Philips Practix 33 plus

| | |
|---|---|
| **Power** | 3.3 kW |
| **kV Range** | 40 – 110 |
| **mAs Range** | 0.2 – 250 |

▸ **Highlights**
– Cost-effective solution for all basic needs in plaster rooms and healthcare programs
– Small and solid workhorse for rough environments
– Easy handling, high system reliability and wide application range
– Microprocessor-controlled 3.3 kW x-ray converter generator

## ▶ Shimadzu MobileArt Plus

| | |
|---|---|
| **Power** | *12.5 kW* |
| **kV Range** | *40 – 125* |
| **mAs Range** | *0.32 – 320* |

▶ **Highlights**
– Excellent ease-of-use
– Battery powered move
  and exposure
– Smooth positioning by
  collimator buttons
– User-friendly operation panel (72 APR)
– Free-tilting telescopic arm

## ▶ Shimadzu MobileArt eco

| | |
|---|---|
| **Power** | *12.5 kW* |
| **kV Range** | *40 – 125* |
| **mAs Range** | *0.32 – 100* |
| | *(200 as option)* |

▶ **Highlights**
– Telescopic arm
– Easy positioning
– Wide coverage
– Compact design
– Sophisticated radiographic functions

## ▶ Siemens MOBILETT Family

| | |
|---|---|
| | **MOBILETT XP** |
| **Power** | *30 kW, 450 mA (max.)* |
| **kV Range** | *40 – 133* |
| **mAs Range** | *0.32 – 200* |

| | |
|---|---|
| | **MOBILETT XP Hybrid** |
| **Power** | *30 kW, 450 mA (max.)* |
| **kV Range** | *40 – 133* |
| **mAs Range** | *0.32 – 360* |

| | |
|---|---|
| | **MOBILETT XP Eco** |
| **Power** | *20 kW, 400 mA (max.)* |
| **kV Range** | *40 – 125* |
| **mAs Range** | *0.5 – 125* |

▶ **Highlights**
– Self-calibrating high image output with
  up to 30 kW and 360 mAs
– Extremely short exposure time as low as 1 ms
– Optimal for semi-sterile environments
  such as ICU, neonatal and pediatric departments
– Lightest system in its class, offers
  outstanding maneuverability
– Supports a wide range of applications

## ▶ Siemens POLYMOBIL

| | POLYMOBIL III | POLYMOBIL Plus |
|---|---|---|
| **Power** | *2.5 kW* | *16 kW* |
| **kV Range** | *40 – 100* | *40 – 125* |
| **mAs Range** | *0.32 – 200* | *0.5 – 250* |

▶ **Highlights**
– Lightweight
– Minimum exposure
  time 4 ms for reduced
  motion artifacts
– Touchscreen keys and
  digital display for easy
  and quick settings
– Adjustable collimator
– Compact design

# X-RAY ACCESSORIES

## ▶ E-Z-EM PROTOCO$_2$L CO$_2$-Insufflator

▶ **Highlights**
– Provides optimum insufflation of the bowel for virtual
  colonoscopy
– CO$_2$ insufflation provides for uniform distention of the
  complete colon
– Reproducible distention through pressure control up to
  25 mmHg in the colon
– Automatic insufflation by automatically replacing gas lost
  during the procedure
– CO$_2$ gas does not cause spasms – the patient is pain-free
  after a short period of time
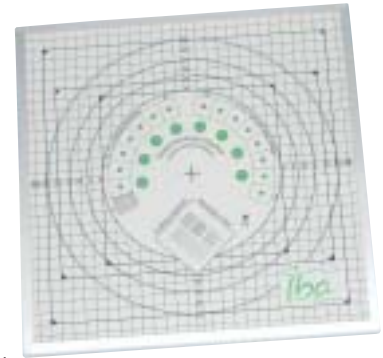
## ▶ Hologic Discovery™ bone densitometer



### ▶ Highlights

– Accurate and precise bone density measurements of the spine, hip, whole body and forearm
– Provides the industry's highest resolution vertebral imaging which dramatically improves the detection of vertebral fractures
– Vertebral imaging (IVA-HD) capability can also be used for the assessment of aortic calcification, a significant indicator of heart disease

## ▶ IBA Dosimetry Primus

Test device for checking image quality parameters at fluoroscopic units



### ▶ Highlights

– Modular construction: structural plate and separated attenuator
– Check of spatial and contrast resolution, size of the radiation field, artefacts; kV test area
– Compact Al pre-attenuator or PMMA and Cu plates
– Available in two different sizes

## ▶ IBA Dosimetry DIGI–13

Test device for checking image quality parameters at digital radiographic units



### ▶ Highlights

– Compact device with separated Al pre-attenuator
– With integrated copper plate
– Check of homogeneity, spatial and contrast resolution, size of the radiation field, artefacts
– Easy-to-use

## ▶ IBA Multimeter MagicMax

Simultaneous measurement of dose, dose rate, exposure time, kV, dose/pulse, pulse rate, HVL and total filtration



### ▶ Highlights

– Small device with separate multifunction detector
– Connected via USB to PC or Notebook
– Intuitive use via PC interface
– Time resolution: 100 μs
– Optimized solutions for all applications

## ▶ PROVOTEC ProVario Screen

| Design | Power unit floor-mounted |
| Table | Control console placed on a desk |
| Power | 50 kW |



### ▶ Highlights

– High frequency generator for x-ray diagnostic
– Easy operation by monitor – or touchscreen
– Digital control of nearly unlimited organ programs
– Safety device against undue radiation for each organ with AEC-technique
– X-ray book for storing patient name with generator exposure data
– Upgradeable for using CR- and DR-systems

## ▶ PTW DIAMENTOR CM

Miniature dose area product (DAP) meter for patient dosimetry and quality control



### ▶ Highlights

– Compact solution - ideal for integration in mobile units
– Built-in test function for fast calibration and constancy checks
– Easy connection to a RIS or PACS

## ▸ Radcal ACCU-PRO™

X-Ray Analyzer
Simultaneous dose, rate, time, kVp. HVL, filtration, mA/mAs, and more

▸ **Highlights**
– Use for manufacturing, installation, QA, and service
– R/F, mammography, CT, dental, leakage
– Ion chamber based dosimetry, no corrections required
– Correctly measure AEC fluoro and filtered beams
– Remote control, waveforms, and archiving with XLPRO software
– Compact, easy to use

## ▸ Radcal RAPIDOSE

PC X-ray Analyzer

▸ **Highlights**
– Plug into a laptop USB port for an inexpensive X-ray analyzer
– Simultaneous dose, rate, kVp, time, HVL, waveforms, and more
– Revolutionary inherent remote measurement operation
– Easy use, genuine time saver
– Data archiving and analysis using your Excel

## ▸ Radcal PDC-DAP/KAP verification meter

▸ **Highlights**
– Newly patented Patient Dose Calibrator
– Use to calibrate DAP/KAP and rate
– Also measures dose and rate
– Optical and radiographic alignment markers
– Simple to use with optional computer control

## ▸ RTI Electronics Piranha

*The Piranha is designed as a truly self-contained, all-in-one, X-ray multi-function meter that assures accurate results in one shot. kV, time, dose, dose rate, HVL and total filtration*

▸ **Highlights**
– Self-Contained, All-in-One
– Auto-Compensation
– R&F, Mammo, Dental and CT
– Quick and Simple Set-up
– Enhanced Graphical Display
– Built-In Bluetooth for PC and PDA
– mA, mAs, and Light Probes
– Fits in the Palm of Your Hand

## ▸ RTI Electronics Barracuada

*The Barracuda X-ray multimeter has a cabinet that can house up to six different application modules, and can measure on all modalities; R/F, mammography, flouroscopy, pulsed flouroscopy, dental, panoramic dental and CT systems*

▸ **Highlights**
– All in One, All at Once
– Auto-Compensation
– Enhanced Graphical PDA Display
– R&F, Mammo, Dental and CT
– Ionization Chambers
– Built-In Bluetooth for PC and PDA
– mAs, and Light Probes
– Fits in the Palm of Your Hand

## ▸ ulrich medical – CO₂ Insufflator for virtual coloscopy

| | |
|---|---|
| **Pressure** | 0-30 mmHG, infinitely variable, preselectable |
| **Insufflation rate** | 1-4 l/min, arbitrary |
| **Setting** | supported by voice confirmation system |

▸ **Highlights**
– Automatic insufflation of $CO_2$ into the colon for virtual coloscopy examinations in CT
– Significant improvement of diagnostic results compared to manual room air insufflation
– Increase of patient comfort due to automatic adjustment of over pressure and faster resorption
– Easy setting of gas volume and pressure
– Display of gas consumption
– Four adjustable flow rates

**AGFA** *Agfa*
HealthCare

APELEM

**Canon**

**FUJiFILM**

GE Healthcare

iba
Dosimetry

KONICA MINOLTA

medigration
The Digital Company

PROTEC
medical solutions

PROVOTEC....
X-RAY FROM PSPPI-AAMP (GERMANY)

PTW

SHIMADZU

RTI

SIEMENS

X STORE

## ▸ Agfa HealthCare DX-S

| | |
|---|---|
| **Slots** | *1* |
| **Capacity** | *Up to 130 plates/h* |
| **Resolution** | *50 µm* |

▸ **Highlights**
– High throughput decentralized digitizer, resulting from two major technology shifts (DirectriX and Scanhead)
– Bridges the gap between CR and DR, offering the best of both worlds
– Precision image quality
– Dose reduction
– Broad range of applications: general radiography, pediatrics and emergency

## ▸ Agfa HealthCare CR 85-X

| | |
|---|---|
| **Slots** | *1 – 10 cassettes: drop and go buffer* |
| **Capacity** | *112 plates/h* |
| **Resolution** | *50 – 100 – 150 µm* |

▸ **Highlights**
– Multi-user digitizer for centralized use
– Unique drop and go buffer system
– Broad range of applications: mammography (outside US), orthopedics, dentistry, pediatrics, general radiography

## ▸ Agfa HealthCare CR 35-X

| | |
|---|---|
| **Slots** | *1* |
| **Capacity** | *Up to 71 plates/h* |
| **Resolution** | *50 – 100 – 150 µm* |

▸ **Highlights**
– Multi application digitizer
– Ideal for decentralized environments
– Broad range of applications: radiotherapy, mammography diagnostic and screening (outside US), orthopedics, dentistry, pediatrics, general radiography
– Three different resolution modes

## ▸ Agfa HealthCare CR 30-X

| | |
|---|---|
| **Slots** | *1* |
| **Capacity** | *Up to 82 plates/h* |
| **Resolution** | *10 pixel/mm* |

▸ **Highlights**
– Tabletop digitizers
– Broad range of applications: general radiology, orthopedics, chiropractic, dentistry
– Low total cost of ownership
– Mobile use

## ▸ Fujifilm FCR Profect CS

| | |
|---|---|
| **Slots** | *4* |
| **Capacity** | *165 Imaging plates (IPs)/h* |
| **Resolution** | *5 – 20 pixel/mm* |

▸ **Highlights**
– EUREF & PAS 1054 compliant
– First mammography CR system approved by FDA
– Fastest mammography system available
– Needs 30% less dosage for pediatric exams
– Worldwide more than 5.000 FCR Profect installed

## ▸ Fujifilm FCR XG5000

| | |
|---|---|
| **Slots** | *4* |
| **Capacity** | *165 Imaging plates (IPs)/h* |
| **Resolution** | *5 – 10 pixel/mm* |

▸ **Highlights**
– Worldwide more than 52.000 Fujifilm CR systems installed
– Universal applicable
– IHE certified
– Wide dynamic range
– Optimized workflow

### ▶ Fujifilm FCR Profect One

| | |
|---|---|
| **Slots** | 1 |
| **Capacity** | 85 Imaging plates (IPs)/h |
| **Resolution** | 5 – 20 pixel/mm |

▶ **Highlights**
– Worldwide more than 5.000 FCR Profect installed
– EUREF & PAS 1054 compliant
– First mammography CR system approved by FDA
– Needs 30% less dosage for pediatric exams
– Compact system

### ▶ Fujifilm FCR Capsula X / XL II

| | |
|---|---|
| **Slots** | 1 |
| **Capacity** | 72/94 Imaging plates (IPs)/h |
| **Resolution** | 5 – 10 pixel/mm |

▶ **Highlights**
– Extremely compact system, mobile model available
– IHE certified
– Universal applicable, wide dynamic range
– Ideal for medium radiologists (e.g. orthopedic doctors)
– Optimized workflow

### ▶ iCRco iCR1000/iCR2600

| | **iCR1000** | **iCR2600** |
|---|---|---|
| **Slots** | 1 | 1 |
| **Capacity** | < 70 plates/h | < 90 plates/h |
| **Resolution** | 10 pixel/mm | 10 pixel/mm |

▶ **Highlights**
– Incorporates a true flat scan path
– Imaging plates fixed to rigid back panel
– Nothing touches active area of the phosphor plate
– Small footprint and the optional wall-mount
– Dual unit with integrated film-digitizer available

### ▶ iCRco iCR3600

| | |
|---|---|
| **Slots** | |
| **Capacity** | 94 plates p/hour |
| **Resolution** | 10 pixels p/mm |

▶ **Highlights**
– Optional mammography, wall-mount or table top, complete solution with viewing, post processing and archiving features
– Nothing touches the active area of the phosphor plates producing 300.000+ artifact free images per plate
– Ideal for general radiology

### ▶ iCRco iCR3600SF

| | |
|---|---|
| **Slots** | |
| **Capacity** | 83 plates p/hour |
| **Resolution** | 10 pixels p/mm |

▶ **Highlights**
– World's smallest fully automatic small format CR
– Only 9 kg
– Complete solution with viewing, post-processing and archiving features
– Ideal for podiatry and extremities
– Nothing touches the active area of the phosphor plates, producing 300.000+ artifact free images per plate

### ▶ Konica Minolta Regius 190 HPS^MAMMO

| | |
|---|---|
| **Slots** | 4 |
| **Capacity** | 204 screens/h |
| **Resolution** | 175 µm/87,5 µm/ 43.5 µm/6 – 22 pixel/mm |

▶ **Highlights**
– Innovative technology and modern design
– Simultaneous reading of 2 cassettes
– High throughput performance
– High resolution mammo mode 43.75 µm for mammo cassettes
– Normal & high quality mode for all standard cassettes (175 µm/87.5 µm)

## ▶ Konica Minolta Regius 190<sup>MAMMO</sup>

| | |
|---|---|
| **Slots** | 2 |
| **Capacity** | 102 screens/h |
| **Resolution** | 175 µm/87,5 µm/ |
| | 43,5 µm/6 – 22 pixel/mm |

▶ **Highlights**
– Innovative technology and modern design
– High resolution mammo mode 43.75 µm for mammo cassettes
– Flexible workflow integration
– Normal & high quality mode for all standard cassettes (175 µm/87.5 µm)

## ▶ Konica Minolta Regius 190

| | |
|---|---|
| **Slots** | 2 |
| **Capacity** | 102 screens/h |
| **Resolution** | 175 µm/87.5 µm/ 6 – 11 pixel/mm |

▶ **Highlights**
– Innovative technology and modern design
– Flexible workflow integration
– Normal & high quality mode for all cassettes (175 µm/87.5 µm)

## ▶ Konica Minolta Regius 110

| | |
|---|---|
| **Slots** | 1 |
| **Capacity** | 80 screens/h (14 x 14 cm) |
| **Resolution** | 175 µm/87,5 µm/ 6 – 11 pixel/mm |

▶ **Highlights**
– Very compact and flexible design
– Normal & high quality mode for all cassettes (175 µm/87.5 µm)
– Integration in Regius 190 network
– Cost efficient CR solution

## ▶ Philips PCR Eleva CosimaX

| | |
|---|---|
| **Slots** | 4 |
| **Capacity** | 165 cassettes/h (18 x 24 cm, standard readout) |
| | 80 cassettes/h (18 x 24 cm, dual-side readout) |
| | 5 – 10 pixel/mm; |
| **Resolution** | 20 pixel/mm with dual-side reading |
| | for HR-BD and |
| | ST-BD cassettes |

▶ **Highlights**
– Features simultaneous dual-side reading for small imaging plates
– 50% increase of DQE and enabling high-resolution imaging like mammography
– Low-dose imaging for pediatrics (ST-BD cassettes)
– Dedicated for mammography or pediatrics environments
– Orthopedic automatic image stitching and direct access to Philips iSite PACS

## ▶ Philips PCR Eleva Corado

| | |
|---|---|
| **Slots** | 4 |
| **Capacity** | 165 cassettes/h (18 x 24 cm) 143 cassettes/h (35 x 35 cm, in high-speed mode) |
| | 10 pixel/mm, |
| **Resolution** | 5 pixel/mm in high-speed mode |

▶ **Highlights**
– High-throughput, multi-slot system, for environments using a central reader
– For general radiographic applications including orthopedics
– Orthopedic automatic image stitching and direct access to Philips iSite PACS
– RIS and DICOM connectivity
– Integrated virus scanner

## ▶ Philips PCR Eleva S Hi–res

| | |
|---|---|
| **Slots** | 1 |
| **Capacity** | 94 plates/h (18 x 24 cm, standard readout) |
| | 52 plates/h (18 x 24 cm, dual-side readout |
| | 5 – 10 pixel/mm; |
| **Resolution** | 20 pixel/mm with dual-side reading |
| | for HR-BD and |
| | ST-BD cassettes |

▶ **Highlights**
– Features simultaneous dual-side reading for small imaging plates
– 50% increase of DQE and enabling high-resolution imaging like mammography
– Low-dose imaging for pediatrics (ST-BD cassettes)
– Orthopedic automatic image stitching and direct access to Philips iSite PACS
– RIS and DICOM connectivity

## ▶ Philips PCR Eleva S Plus

| | |
|---|---|
| **Slots** | *1* |
| **Capacity** | *97 plates/h (18 x 24 cm); 94 plates/h (35 x 35 cm, in high-speed mode)* |
| **Resolution** | *10 pixel/mm, 5 pixel/mm in high-speed mode 20 pixel/mm with HR cassettes (option)* |

▶ **Highlights**
– For environments with high throughput requirements
– For general applications, including orthopedic and dental applications
– Orthopedic automatic image stitching and direct access to Philips iSite PACS
– RIS and DICOM connectivity
– Integrated virus scanner

## ▶ Philips PCR Eleva S

| | |
|---|---|
| **Slots** | *1* |
| **Capacity** | *78 plates/h (18 x 24 cm)* |
| **Resolution** | *10 pixel/mm* |

▶ **Highlights**
– Suitable in environments with moderate performance requirements
– For general applications, including orthopedic and dental applications
– Orthopedic automatic image stitching and direct access to Philips iSite PACS
– RIS and DICOM connectivity
– Integrated virus scanner

## ▶ PROTEC PROSCAN 35E CR–System

| | |
|---|---|
| **Slots** | *1* |
| **Capacity** | *52 – 110 screens/h* |
| **Resolution** | *up to 20 pixel/mm* |

▶ **Highlights**
– 16 bit grayscale resolution
– Smallest physical pixel size is 12.5 μm
– Can read IPs in odd formats, e.g. 18 x 35 cm for lumbar spine images and faster readout
– CONAXX image acquisition software included in standard delivery
– Fully DICOM compatible
– Independent modality or easy integration to PACS

## ▶ PROTEC PROSCAN 36A CR–System

| | |
|---|---|
| **Slots** | *1* |
| **Capacity** | *40 – 65 screens/h* |
| **Resolution** | *8 pixel/mm* |

▶ **Highlights**
– 16 bit grayscale resolution
– Touch-free IP transport
– Stand-alone, console-based CR mounted on wheels
– CONAXX image acquisition software included in standard delivery
– Fully DICOM compatible
– Independent modality or easy integration to PACS

# DIGITAL RADIOLOGY

## ▶ PROTEC PROSCAN 43DS CR–System

| | |
|---|---|
| **Slots** | *2* |
| **Capacity** | *62 – 78 screens/h* |
| **Resolution** | *Up to 20 pixel/mm* |

▶ **Highlights**
– 16 bit grayscale resolution
– Smallest physical pixel size is 12.5 μm
– Touch-free IP transport
– Installation table top or on cabinet (option)
– Extremely small footprint
– CONAXX image acquisition software included in standard delivery
– Fully DICOM compatible
– Network-compatible
– RFID chip for cassette identification and workflow optimization
– Independent modality or easy integration to PACS

## ▶ Agfa HealthCare DX-S*i*

| | |
|---|---|
| **Technology** | *DirectriX and ScanHead* |
| **Resolution** | *50 μm* |
| **Size** | *35 x 43 cm, 24 x 30 cm, 18 x 24 cm, 15 x 30 cm* |

▶ **Highlights**
– Integrated digital radiography solution
– In room integration/ workflow for all general radiography applications
– Flexibility to create multiple tailor made configurations
– High throughput system: up to 130 plates/h
– Dose reduction

## ▶ Apelem DA VINCI Solo – universal single detector solution

| Technology | CsI |
|---|---|
| Resolution | 143 μm |
| Size | 43 x 43 cm |

▶ **Highlights**
- For gen rad, orthopedics and trauma applications
- Maximum space saving
- Fast and easy installation
- Fast and easy patient positioning
- Dose reduction and excellent DQE
- Fully DICOM 3 compliant and RIS integration – workflow optimization

## ▶ Apelem DA VINCI Verso – multi-purpose single detector

| Technology | CsI |
|---|---|
| Resolution | 143 μm |
| Size | 43 x 43 cm |

▶ **Highlights**
- Elevating four way mobile table with auto tracking capability
- Auto positioning
- Dose reduction and excellent DQE
- Single touchscreen console controls generator and ceiling suspension
- Full HIS/RIS and PACS integration

## ▶ Apelem DA VINCI Duo – high performance double detector solution

| Technology | CsI |
|---|---|
| Resolution | 143 μm |
| Size | 43 x 43 cm |

▶ **Highlights**
- Adapted for very high patient workflow
- Fully motorized ceiling suspension with auto tracking and auto positioning capabilities
- Programmable protocols for all exams with automatic setting of parameters thanks to full RIS integration

## ▶ Apelem LEO detector – portable flat panel detector

| Technology | CsI |
|---|---|
| Resolution | 143 μm |
| Size | 35 x 43 cm |

▶ **Highlights**
- Wireless/Wi-Fi connected flat panel detector
- Mobile and easy to handle: <5 kg
- Very high quality image: 144 μm pixel size
- Real-time imaging: 3 sec in preview
- Dose reduction thanks to the CsI scintillator

## ▶ Canon CXDI-60G

| Technology | 60 G: a-Silicon Gadolinium OxiSulfide scintillator |
|---|---|
| Resolution | 160 μm |
| Size | 23 x 28 cm |

▶ **Highlights**
- For portable applications where normally CR technology is used
- 23 x 28 cm imaging area
- 1 tile robust construction
- 2.7 kg
- Smallest and lightest DR panel on the market

## ▶ Canon CXDI-50G/50C

| Technology | 50 C: Cesium Iodide Scintillator; 50 G: Gadolinium OxiSulfide scintillator |
|---|---|
| Resolution | 160 μm |
| Size | 35 x 43 cm |

▶ **Highlights**
- For table, upright and portable applications
- 35 x 43 cm imaging area
- 1 tile robust construction
- Powerful image processing software
- No cooling required

## ▸ Canon CXDI–40EG/40EC

| | |
|---|---|
| **Technology** | *40 EC: Cesium Iodide Scintillator;* |
| | *40 EG Gadolinium OxiSulfide scintillator* |
| **Resolution** | *160 µm* |
| **Size** | *43 x 43 cm* |
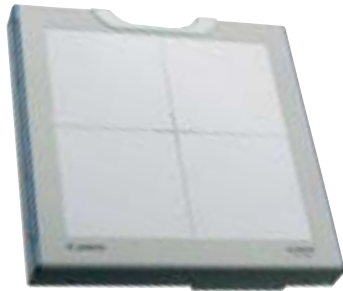
▸ **Highlights**
– For table and upright applications
– 43 x 43 cm imaging area
– 73 % DQE at 0 LP/mm (CsI)
– 1 tile robust construction
– Powerful image processing software
– No cooling required

## ▸ Fujifilm DR Velocity U$_{fp}$

| | |
|---|---|
| **Technology** | *Focused phosphor* |
| **Resolution** | *10 pixel/mm* |
| **Size** | *43 x 43 cm* |

▸ **Highlights**
– Suitable for all upright examinations
– New detector technology
– 240 shots/h
– Outreaching image quality
– Possible dose reduction
  of up to 30%

## ▸ Fujifilm DR Velocity T$_{fp}$

| | |
|---|---|
| **Technology** | *Focused phosphor* |
| **Resolution** | *10 pixel/mm* |
| **Size** | *43 x 43 cm* |

▸ **Highlights**
– Suitable for supine-position examinations
– New detector technology
– Fully adjustable table
– Outreaching image quality
– Possible dose reduction of up to 30%

## ▸ Fujifilm Velocity Unity (DR or FCR)

| | **DR** | **FCR** |
|---|---|---|
| **Technology** | *Focused Phosphor* | *HD line scan* |
| **Resolution** | *10 pixel/mm* | *10 pixel/mm* |
| **Size** | *43 x 43 cm* | *43 x 43 cm* |

▸ **Highlights** DR
– Suitable for all examinations
– New detector technology
– 240 shots/h
– Outreaching image quality
– Possible dose reduction of
  up to 30 %
– Automatic positioning
  system (remote controlled)

▸ **Highlights** FCR
– Suitable for all examinations
– Next generation CR
– Suited for radiology and
  orthopedic clinics
– Fast and efficient exam
  procedures
– Automatic positioning
  system (remote controlled)

## ▸ GE Healthcare Definium 5000

| | |
|---|---|
| **Technology** | *a-Silicon* |
| **Resolution** | *2022 x 2022 pixel, 14 bit* |
| **Size** | *41 x 41 cm* |

▸ **Highlights**
– Flexible DR solution with
  fast and proven detector technology
– Excellent image quality at low dose
– Easy to install and operate
– Seamless digital workflow
– Pasting optional

## ▸ GE Healthcare Definium 6000

| | |
|---|---|
| **Technology** | *a-Silicon* |
| **Resolution** | *2022 x 2022 pixel, 14 bit* |
| **Size** | *41 x 41 cm* |

▸ **Highlights**
– Fast and proven detector technology
– More flexibility with mobile »flying« detector
– Fully motorized wall stand
– OTS with vertical auto-tracking
– Optional Advanced Applications
– Seamless digital workflow
– Flexible configurations, including cost-effective 1-detector
  shared solution

## GE Healthcare Definium 8000/8000 XL

| | |
|---|---|
| **Technology** | *a-Silicon* |
| **Resolution** | *2022 x 2022 pixel, 14 bit* |
| **Size** | *41 x 41 cm* |

**Highlights**
– High patient throughput
– Auto positioning
– Auto pasting
– Dual Energy
– VolumeRAD
– Seamless digital workflow
– Cost-effective 1-detector solution with the 8000 XL

## IDC X2200 Series

| | |
|---|---|
| **Technology** | *Single CCD detector: 16 Megapixel* |
| **Resolution** | *108 micron / 4.6 Lp/mm; 14 bits* |
| **Size** | *17" x 17" FOV (without tiling)* |

**Highlights**
– Two receptor configuration includes one detector integrated in a fixed, elevating, 4-way float-top table and a second detector on a vertical stand
– Provides all the advantages of cassetteless DR
– Reducing the process and positioning adjustment
– Patented passive trigger technology
– The 2200 X-Series can be efficiently interfaced to existing x-ray generating equipment to reduce investment cost

## IDC X1600 Plus Series

| | |
|---|---|
| **Technology** | *Single CCD detector: 16 Megapixel* |
| **Resolution** | *108 micron / 4.6 Lp/mm; 14 bits* |
| **Size** | *17" x 17" FOV (without tiling)* |

**Highlights**
– Provides busy imaging environments with a one-stop solution
– Floor-mounted, multi-axis positioning device
– Includes the tube and generator
– Large LCD screen populated with patient information, arm-angle indicator, motorized collimator and remote control functions
– Cost-effective and efficient DR solution

## IDC X1600 Series

| | |
|---|---|
| **Technology** | *Single CCD detector: 16 Megapixel* |
| **Resolution** | *108 micron / 4.6 Lp/mm; 14 bits* |
| **Size** | *17" x 17" FOV (without tiling)* |

**Highlights**
– Highest resolution images without requiring the use of cassettes
– Designed for all radiography environments, including outpatient clinics, imaging centers, private clinics and orthopaedic clinics
– Total solution for any location – including cross table examinations
– Complete DR solution with a floor-mounted, multi-axis positioning device, attached x-ray tube, collimator and generator
– Very affordable price

## IDC X1590 Series

| | |
|---|---|
| **Technology** | *Single CCD detector: 16 Megapixel* |
| **Resolution** | *108 micron / 4.6 Lp/mm; 14 bits* |
| **Size** | *17" x 17" FOV (without tiling)* |

**Highlights**
– A motorized DR system
– The imaging detector can rotate +/–90° and has a stand movement range of 180° for optimal positioning
– Can be configured for any room with optional imaging detector handedness on either side of the stand
– Attached control pad with programmable automatic positioning is standard
– Imaging detectors and workstations are covered by a 3-year standard warranty, five-year extended

## IDC X1500 Series

| | |
|---|---|
| **Technology** | *Single CCD detector: 16 Megapixel* |
| **Resolution** | *108 micron / 4.6 Lp/mm; 14 bits* |
| **Size** | *17" x 17" FOV (without tiling)* |

**Highlights**
– Can be adapted to any existing x-ray generator
– Variable Focus-Detektor-Distance
– Floor-mounted flexible positioning device

## ▶ Konica Minolta FlexDR C30

| | |
|---|---|
| **Technology** | a-SI |
| **Resolution** | 3.6 lp per mm |
| **Size** | 43 x 43 cm |

▶ **Highlights**
– User-friendly design
  provides maximum opera-
  bility for both patient and technologist
– High throughput for efficient workflow
– Touchscreen preview display
– Acquisition station controls both DR and CR imaging
– Connectible to different generators

## ▶ medigration DigiRoebs

| | |
|---|---|
| **Technology** | CsI Scintilator |
| **Resolution** | 143 x 143 µm |
| **Size** | 43 cm x 43 cm |
| **Matrix** | 3000 x 3000 Pixel with 16 bit |
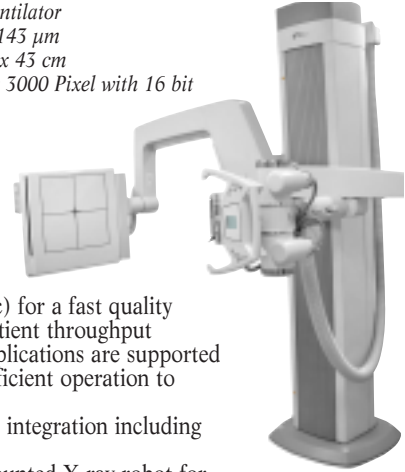
▶ **Highlights**
– Innovative
  CsI Scintilator
  technology en-
  sures superior
  image quality
– Instant image (3 sec) for a fast quality
  control and high patient throughput
– All radiographic applications are supported
– Comfortable and efficient operation to
  optimize workflow
– Easy PACS and RIS integration including
  work list and MPPS
– Motorized, floor mounted X-ray robot for
  all exam techniques
– Proven X-ray generator and high quality X-ray tube

## ▶ medigration DigiRoebs wireless

| | |
|---|---|
| **Technology** | CsI Pixium Scintilator |
| **Resolution** | 144 µm |
| **Image field** | 342 x 432 mm |
| **Matrix** | 2372 x 3000 pixels |

▶ **Highlights**
– Portable flat panel detector
– Flexible insertable
– Complete DICOM Data
– Full integration X-ray inviroments
– Highest image quality

## ▶ Philips DigitalDiagnost High–performance room – Dual detector

| | |
|---|---|
| **Technology** | a-Si, CsJ-Scintillator |
| **Resolution** | 3k x 3k image matrix, 143 µm pixel size |
| **Size** | 43 x 43 cm |

▶ **Highlights**
– 50 kW, 65 kW or 80 kW
– Easy switch from table to chest exams with two detectors
– Automated functions such as auto collimation
  and move-to-position
– Easy orthopedic imaging with automatic
  image acquisition and stitching
– Vertical stand (moveable or fixed) with integrated detector,
  digital bucky table with integrated detector and ceiling-based
  tube carrier

## ▶ Philips DigitalDiagnost Multi–purpose standard room – single detector

| | |
|---|---|
| **Technology** | a-Si, CsJ-Scintillator |
| **Resolution** | 3k x 3k image matrix, 143 µm pixel size |
| **Size** | 43 x 43 cm |

▶ **Highlights**
– 50 kW, 65 kW or 80 kW
– Versatile single detector room for medium to high patient load
– Extended move-to-position functionality
– Easy orthopedic imaging with automatic image acquisition
  and stitching
– Moveable multi-purpose stand with swiveling c-arm and
  integrated detector, ceiling-based tube carrier and single side
  suspended table

## ▶ Philips DigitalDiagnost Compact room – Single detector

| | |
|---|---|
| **Technology** | a-Si, CsJ-Scintillator |
| **Resolution** | 3k x 3k image matrix, 143 µm pixel size |
| **Size** | 43 x 43 cm |

▶ **Highlights**
– For multi-purpose
  use and medium
  workflow requirements
– Often used as chest room which also serves as back-up
  general DR room
– Tracking and move-to-position
– Fixed multi-purpose stand with swiveling c-arm and integrated
  detector, ceiling-based tube carrier plus height adjustable trolley
– 50 kW, 65 kW or 80 kW

## ▶ Philips DigitalDiagnost with wireless portable detector

| | |
|---|---|
| **Technology** | (s)-Scintillator |
| **Resolution** | 3k x 2.4k image matrix, 143 µm pixel size |
| **Size** | 35 x 43 cm |

▶ **Highlights**
- The wireless portable detector is available as an additional detector for all DigitalDiagnost single and dual detector configurations
- More flexibility: The wireless portable detector carries out even the most difficult projections projections at table, patient bed, wheelchair or trolley
- More efficiency: Smooth digital workflow with instant results at the Eleva workspot
- More freedom: Convenient handling and high hygienic standards thanks to the wireless detector's cable-free design

## ▶ Philips DigitalDiagnost Chest room – Single detector

| | |
|---|---|
| **Technology** | a-Si, CsJ-Scintillator |
| **Resolution** | 3k x 3k image matrix, 143 µm pixel size |
| **Size** | 43 x 43 cm |

▶ **Highlights**
- 50 kW, 65 kW or 80 kW
- Highly automated workflow with workstation controlled collimation, asymmetric beam alignment, automatic tracking
- Extended application range for skeletal examinations with tiltable vertical stand
- Option for Philips CAD solution, xLNA
- Floor or ceiling based tube carrier plus vertical stand

## ▶ Philips Essenta DR

| | |
|---|---|
| **Technology** | a-Si, CsJ-Scintillator |
| **Resolution** | 3k x 3k image matrix, 143 µm pixel size |
| **Size** | 43 x 43 cm |

▶ **Highlights**
- 50 kW, 65 kW or 80 kW
- Cost-effective flat detector technology for state-of-the-art direct digital imaging
- Easy handling through motorized movements
- Tiltable detector and rotatable tube for unlimited patient positioning incl. free cassette exposures
- Floor-mounted, u-arm based

## ▶ Philips DRF room solution

| | |
|---|---|
| **Technology** | a-Si, CsJ-Scintillator |
| **Resolution** | 3k x 3k image matrix, 143 µm pixel size |
| **Size** | 43 x 43 cm |

▶ **Highlights**
- Maximized room utilization with high-quality digital radiography and fluoroscopy applications in just one room
- Filmless workflow with DR technology for high throughput
- Excellent image quality with UNIQUE image processing and DoseWise concept
- One room for all types of patients from infants to obese adults

## ▶ PROTEC RAPIXX 43 WiFi DR-System

| | |
|---|---|
| **Technology** | CsI |
| **Resolution** | 144 µm |
| **Size** | 36 x 43 cm |

▶ **Highlights**
- 16 bit dynamic range
- Wireless system connection (WiFi)
- Portable and easy to handle: 4,8 kg
- Images in 3 sec. result in high productivity
- Versatile and robust design for long lifespan
- Simple integration and upgrade into existing conventional X-ray units
- Outstanding flexibility: close at hand, close at patients, just one panel required for bucky table and wall integration
- Docking station, interface box, power supply and CONAXX image acquisition software included in standard delivery
- Fully DICOM compatible for integration to PACS

## ▶ PROTEC RAPIXX 4336M DR-System

| | |
|---|---|
| **Technology** | Gd$_2$O$_2$ or CsI |
| **Resolution** | 139 µm |
| **Size** | 36 x 43 cm |

▶ **Highlights**
- 16 bit dynamic range
- Cable connection
- Lightweight: 3,6 kg
- Minimal cycle time: 8 sec.
- Predestined for simplest retrofitting of existing X-ray units due to dimensions equal to conventional X-ray cassette
- High shock tolerance and water resistant portable flatpanel detector
- Interface box, power supply and CONAXX image acquisition software included in standard delivery
- Fully DICOM compatible for integration to PACS

## ▸ PROTEC RAPIXX 4343M DR–System

| | |
|---|---|
| **Technology** | *Gd₂O₂ or CsI* |
| **Resolution** | *139 µm* |
| **Size** | *43 x 43 cm* |

▸ **Highlights**
– 16 bit dynamic range
– Cable connection
– Weight: 7,5 kg
– Minimal cycle time: 6 sec.
– For integration and upgrade into existing conventional X-ray units / intended for constant mounting in a X-ray unit
– Interface box, power supply and CONAXX image acquisition software included in standard delivery
– Fully DICOM compatible for integration to PACS

## ▸ PROVOTEC ProWing EDE

| | |
|---|---|
| **Design** | *Floor-wall mounted* |
| **Table** | *Prognost XP series, optional* |
| **Power** | *50 kW* |

▸ **Highlights**
– DR-System with dig. flat panel detector
– Variable SID 120 – 180 cm
– Rotatable u-arm 360°
– Rotatable DR-detector

## ▸ PROVOTEC PEDS 800 System

| | |
|---|---|
| **Design** | *Ceiling and floor-mounted* |
| **Table** | *Prognost XP series, optional* |
| **Power** | *50, 60, 80 kW* |

▸ **Highlights**
– For patient on table (optional) or for chest examination
– DR-System with digital flat panel detector
– Stand with detector rotatable and height adjustable
– Ceiling suspension movable in x-,y-,z-direction
– X-ray tube and collimator rotatable
– Master – slave control, optional
– Collimator controlled with DROC (Digital Radiographic Operator Console)

## ▸ Shimadzu RadSpeed Safire (DR)

| | |
|---|---|
| **Technology** | *Direct conversion (amorphous Selenium)* |
| **Resolution** | *3.3 lp/mm* |
| **Size** | *17" x 17" (43 x 43 cm)* |
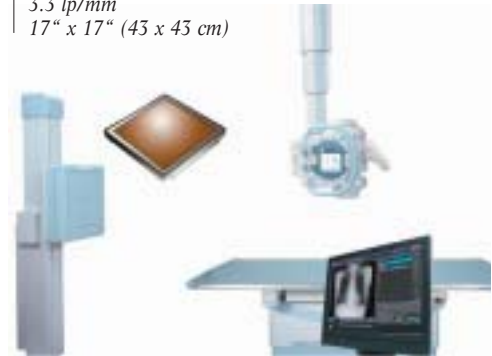
▸ **Highlights**
– Direct conversion
– 150 µm pixel size
– Ceiling wuspension
– 1 or 2 FPD
– Best image quality

## ▸ Shimadzu Radspeed Series

| | |
|---|---|
| **Design** | *Floor-mounted and/or ceiling-suspended* |
| **Table** | *Motorised height adjustable* |
| **Power** | *50 – 65 – 80 kW* |

▸ **Highlights**
– Upgradeable for Safire (direct conversion) flatpanel
– Automatic SID and bucky tracking
– Autopositioning feature
– Generator and APR controls on x-ray tube head
– Up to 400 pre-settable APR's

## ▸ Siemens AXIOM Aristos FX Plus

| | |
|---|---|
| **Technology** | *Amorphous-Silicon with Cesium Iodide scintillator* |
| **Detector** | *143 µm, 3k x 3k, 14 bit* |
| **Size** | *43 x 43 cm* |
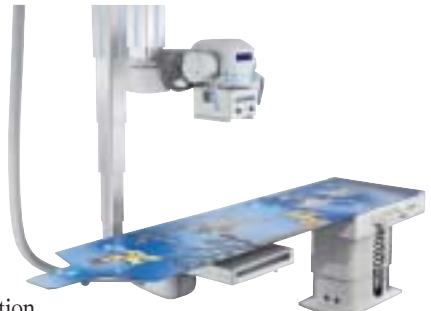
▸ **Highlights**
– Universal digital flat detector solution
– Fully-automated system positioning via organ programs
– Tube and detector independently mounted on the ceiling
– Auto tracking of X-ray tube and detector in x-, y- and z-direction
– Automated ortho acquisition of entire spine and long legs
– Excellent detail contrast with DiamondView

## ▸ Siemens AXIOM Aristos MX

| | |
|---|---|
| **Technology** | *Amorphous-Silicon with Cesium Iodide scintillator* |
| **Detector** | *143 μm, 3k x 3k, 14 bit* |
| **Size** | *43 x 43 cm* |

▶ **Highlights**
– Universal digital
 flat detector solution
– Auto tracking of X-ray
 tube and detector in all
 directions
– Motorized grid removal via
 organ programs
– Pull-out detector for ease of patient positioning
– Excellent detail contrast with DiamondView

## ▸ Siemens AXIOM Aristos VX and VX Plus

| | |
|---|---|
| **Technology** | *Amorphous-Silicon with Cesium Iodide scintillator* |
| **Detector** | *143 μm, 3k x 3k, 14 bit* |
| **Size** | *43 x 43 cm* |

▶ **Highlights**
– Digital flat
 detector solu-
 tions for chest
 and skeletal applications
– Auto tracking in the vertical direction
– Comprehensive control of parameters via organ programs
– TOP alignment of X-ray field for dose reduction
– Automated ortho acquisition of entire spine and long legs

## ▸ Siemens AXIOM Aristos TX

| | |
|---|---|
| **Technology** | *Amorphous-Silicon with Cesium Iodide scintillator* |
| **Detector** | *143 μm, 3k x 3k, 14 bit* |
| **Size** | *43 x 43 cm* |

▶ **Highlights**
– Dedicated flat detector solution for chest imaging
– Automated workflow processes for high patient throughput
– Comprehensive control of parameters via organ programs
– TOP alignment of X-ray field for dose reduction
– Excellent detail contrast with DiamondView

## ▸ Siemens AXIOM Multix M

| | |
|---|---|
| **Technology** | *Amorphous-Silicon with Gadolinium Oxysulfide scintillator* |
| **Detector** | *160 μm, 2688 x 2208 pixel* |
| **Size** | *35 x 43 cm* |

▶ **Highlights**
– Universal digital radiography solution
 with mobile flat detector
– Flexible and easy handling – positions just like a cassette
– Electronic tomography possible (option)
– Ceiling-mounted and floor-mounted solutions available

## ▸ Siemens AXIOM Vertix MD Trauma

| | |
|---|---|
| **Technology** | *Amorphous-Silicon with Cesium Iodide scintillator* |
| **Detector** | *160 μm, 2688 x 2208 pixel* |
| **Size** | *35 x 43 cm* |

▶ **Highlights**
– Digital radiography solution with mobile flat detector
– Ceiling-mounted u-arm for maximal flexibility
– X-ray tube is constantly centered to flat detector in all planes
– All exposures with one detector, in or out of the holder
– Fast image preview available within 5 seconds

## ▸ Siemens Ysio

| | |
|---|---|
| **Technology** | *Amorphous-Silicon with Cesium Iodide scintillator* |
| **Detector** | *Fixed detector (148 μm), 14 bit* |
| | *Wireless detector, wi-D with (144 μm), 16 bit* |
| **Size** | *43 x 43 cm* |
| | *35 x 43 cm* |

▶ **Highlights**
– Flat detector, digital radiography (DR) solutions
– Choice between fully automated or fully synchronised systems
– Digital flat detectors with newest detector technology
– Ceiling-mounted tube with MaxTouch – a color touchscreen
 for enhanced workflow
– Automated system positioning and synchronised tracking of
 X-ray tube and detector in different planes
– Excellent detail contrast with DiamondView Plus

## ▸ Siemens AXIOM Luminos *d*RF

| | |
|---|---|
| **Design** | *Remote-controlled 2-in-1 system with dynamic flat detector* |
| **Technology** | *Amorphous-Silicon with Cesium Iodide scintillator* |
| **Resolution** | *Up to 3.4 lp/mm* |
| **II-format** | |
| **Image system** | |
| **Size** | *43 x 43 cm* |

▸ **Highlights**
– Fully digital 2-in-1 solution for dynamic and static high-resolu-
 tion imaging including DSA procedures *(option)*
– Easy patient transfer at 48 cm lowest table height
– Dynamic Density Optimization (DDO) and DiamondView Plus
– FLUOROSPOT Compact high-resolution digital imaging
 system with intuitive user interface and DICOM 3.0 interfaces
– Comprehensive CARE dose reduction package
– Limitless projection flexibility with optional ceiling-suspended
 tube and wireless detector wi-D

## ▸ Siemens Multix Swing mFD

| | |
|---|---|
| **Technology** | *Amorphous-Silicon with Oxysulfide scintillator* |
| **Detector** | *160 μm* |
| **Size** | *2688 x 2208 pixel* |
| | *35 x 43 cm* |

▸ **Highlights**
– Cost-efficient, all-in-one
 DR solution with mobile Flat Detector
– Flexible positioning of mobile detector in table,
 wall stand and for free exposures
– Generator is integrated into the table for minimal
 space requirements
– Accomodates wide range of exams for cost-conscious
 digital imaging
– Synchronized tube and bucky tray movements

## ▸ Swissray ddRCompact / ddRCompact Plus

| | |
|---|---|
| **Technology** | *HD-3000™ HD Silicon Solid State* |
| **Resolution** | *3.3 lp/mm* |
| **Size** | *44 x 44 cm* |

▸ **Highlights**
– APS™ – Automated Positioning System
– eXpert™ control desk
– Off-center imaging
– »AutoStitching« function
– Motorized X-ray tube rotation

## ▸ Swissray ddRCompact Chest

| | |
|---|---|
| **Technology** | *HD-3000™ HD Silicon Solid State* |
| **Resolution** | *3.3 lp/mm* |
| **Size** | *44 x 44 cm* |

▸ **Highlights**
– APS™ – Automated Positioning System
– eXpert™ control desk
– Chest imaging package
– Proactive realtime monitoring

## ▸ Swissray ddRFormula / ddRFormula Plus

| | |
|---|---|
| **Technology** | *FP-5000™ Amorphous Silicon Flat Panel* |
| **Resolution** | *3.5 lp/mm* |
| **Size** | *43 x 43 cm* |

▸ **Highlights**
– APS™ – Automated Positioning System
– 3P™ – Panel Protection Program
– eXpert™ control desk with realtime viewing
– »AutoStitching« function
– Motorized X-ray tube rotation, off-center imaging

## ▸ Swissray ddRCombi Plus FP

| | |
|---|---|
| **Technology** | *FP-5000™ Amorphous Silicon Flat Panel* |
| **Resolution** | *3.5 lp/mm* |
| **Size** | *43 x 43 cm* |

▸ **Highlights**
– APS™ – Automated
 Positioning System
– »FollowMe™« function
– 3P™ – Panel Protection Program
– »AutoStitching« function
– Proactive realtime monitoring

## ▸ Swissray ddRCombi Trauma

| Technology | FP-5000™ Amorphous Silicon Flat Panel |
|---|---|
| Resolution | 3.5 lp/mm |
| Size | 43 x 43 cm |

**▸Highlights**
– APS™ – Automated Positioning System
– »FollowMe™« function
– 3P™ – Panel Protection Program
– »AutoStitching« function
– Proactive realtime monitoring

## ▸ Swissray ddRPortable

| Technology | Amorphous Silicon Flat Panel |
|---|---|
| Resolution | 3.5 lp/mm |
| Size | 35 x 43 cm |

**▸Highlights**
– Large enough for chest and abdominal X-rays
– Imaging on stretcher and wheelchair patients

# CR/DR MOBILE

## ▸ Valmex X Store DR

| Technology | Selenium type direct conversion detector or Cesium Iodide-Scintillator detector |
|---|---|
| Resolution | From 129 µm up to 168 µm pixel size |
| Size | 20 x 25 cm, 35 x 43 cm, 43 x 43 cm |

**▸Highlights**
– Plug&Ray© Bucky
  System for existing x-ray units
– Slim form factor – portable or stationary type
– High frame rate with up to 225 exposures per hour
– Dynamic bandwidth – one exposure for all purposes
– Moving pendulum grid to exclude artificial grid suppression
  for better diagnosis
  X Store© Image Viewer acquisition Software
  X Store© Generator Software
  X Store© PACS Software

## ▸ Fujifilm Go

| Power | 15 kW |
|---|---|
| kV Range | 40 – 130 |
| mAs Range | 0.5 – 200 mAs |

**▸Highlights**
– Flexible & high-performance portable digital X-ray unit
– Dual motor drive allows free and smooth steering
– Easy positioning with telescopic arm
– Smart and easy to use with additional controls at the tube head
– For use in every department, even NICU and OR

## ▸ GE Healthcare Definium 700

| | AMX 700 |
|---|---|
| Detector | a-Si |
| Resolution/Size | 2022 x 2022 pixel, 41 x 41 cm |
| Power | 12.5 kW |
| kV Range | 50 – 125 |
| mAs Range | 0.4 – 320 |

**▸Highlights**
– Increased image consistency
  through detector performance
– Automatic and fast image
  processing
– DICOM connectivity for
  digital workflow
– Unique column rotation
– Excellent maneuverability with motor drive

## ▸ Shimadzu Mobile DaRt Evolution

| Power | 32 kW |
|---|---|
| kV Range | 40 – 133 |
| mAs Range | 0.32 – 320 |

**▸Highlights**
– Efficient workflow
– Immediate results
– Superior DR-image quality
– Portable Flat Panel Detector
  Size: 14 x 17 inch
        9 x 11 inch (for Pediatric)
– Fully DICOM compliant
– Inch mover

## ▶ Siemens MOBILETT XP Digital

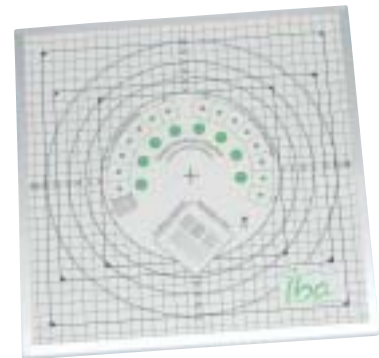| | |
|---|---|
| **Detector** | *a-Si* |
| **Resolution** | *2688 x 2208 pixel* |
| **Power** | *30 kW* |
| **kV Range** | *40 – 133* |
| **mAs Range** | *0.32 – 360* |



▶ **Highlights**
– Integrated flat detector
  for fully digital imaging
– Instant bedside imaging
– Direct organ selection program
– Fully DICOM compatible
– WLAN connectivity for improved workflow

## ▶ IBA Dosimetry Primus

Test device for checking image quality parameters at fluoroscopic units



▶ **Highlights**
– Modular construction:
  structural plate and separated attenuator
– Check of spatial and contrast resolution, size of the radiation field, artefacts; kV test area
– Compact Al pre-attenuator or PMMA and Cu plates
– Available in two different sizes

## ▶ IBA Dosimetry DIGI–13

Test device for checking image quality parameters at digital radiographic units



▶ **Highlights**
– Compact device with separated Al pre-attenuator
– With integrated copper plate
– Check of homogeneity, spatial and contrast resolution, size of the radiation field, artefacts
– Easy-to-use

## ▶ IBA Multimeter MagicMax

Simultaneous measurement of dose, dose rate, exposure time, kV, dose/pulse, pulse rate, HVL and total filtration



▶ **Highlights**
– Small device with separate multifunction detector
– Connected via USB to PC or Notebook
– Intuitive use via PC interface
– Time resolution: 100 µs
– Optimized solutions for all applications

## ▶ medigration CD–Imager



▶ **Highlights**
– Rimage 2000i
  CD-Imager with
  2 DVD Drives
– 2 Plextor 16x DVD-R /
  48x CD-R Dual Layer Drives
– Capacity: max. to 60 CDS/h or 30 DVDs/h
– Rimage 480i ink jet printer (integrated) , 4800 dpi
– In-/Output magazine for 100 CD´s or DVD´s

## ▶ PROVOTEC DROC

| | |
|---|---|
| **Design** | *Placed on a desk* |
| **Table** | *Desktop* |
| **Power** | *Line connected* |



▶ **Highlights**
– DROC – Digital Radiographic Operator Console
– For DR-detectors and CR-units
– Automatic image optimization and instantaneous acquisition time
– Advanced noise reduction and optimized image calibration technology
– Full DICOM 3.0 compatibility
– Support DR-detector and generator
– Remote online system diagnosis

## ▶ PTW NORMI 13

Test object for quality control of digital radiography X-ray units
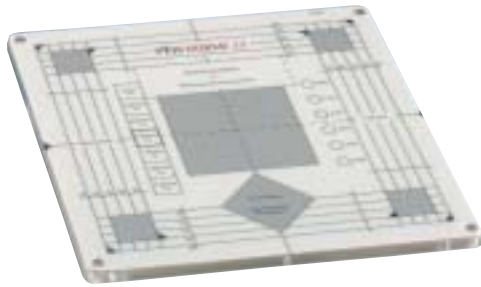


▶ **Highlights**
– Checks all imaging quality parameters (dynamic range, spatial resolution, low contrast, artefacts, radiation field, etc.)
– Convenient use at bucky units
– Patient equivalent absorber (Al or PMMA) included

## ▶ Radcal ACCU-PRO™

X-Ray Analyzer
Simultaneous dose, rate, time, kVp. HVL, filtration, mA/mAs, and more



▶ **Highlights**
– Use for manufacturing, installation, QA, and service
– R/F, mammography, CT, dental, leakage
– Ion chamber based dosimetry, no corrections required
– Correctly measure AEC fluoro and filtered beams
– Remote control, waveforms, and archiving with XLPRO software
– Compact, easy to use

## ▶ Radcal RAPIDOSE

PC X-ray Analyzer



▶ **Highlights**
– Plug into a laptop USB port for an inexpensive X-ray analyzer
– Simultaneous dose, rate, kVp, time, HVL, waveforms, and more
– Revolutionary inherent remote measurement operation
– Easy use, genuine time saver
– Data archiving and analysis using your Excel

## ▶ Radcal PDC-DAP/KAP verification meter



▶ **Highlights**
– Newly patented Patient Dose Calibrator
– Use to calibrate DAP/KAP and rate
– Also measures dose and rate
– Optical and radiographic alignment markers
– Simple to use with optional computer control

## ▶ RTI Electronics Piranha

*The Piranha is designed as a truly self-contained, all-in-one, X-ray multi-function meter that assures accurate results in one shot. kV, time, dose, dose rate, HVL and total filtration.*



▶ **Highlights**
– Self-Contained, All-in-One
– Auto-Compensation
– R/F, Mammo, Dental and CT
– Quick and Simple Set-up
– Enhanced Graphical Display
– Built-In Bluetooth for PC and PDA
– mA, mAs, and Light Probes
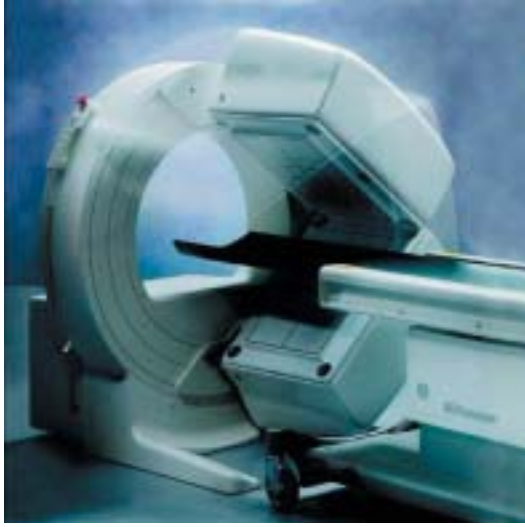– Fits in the Palm of Your Hand

## ▶ RTI Electronics Barracuada

*The Barracuda X-ray multimeter has a cabinet that can house up to six different application modules, and can measure on all modalities; R/F, mammography, flouroscopy, pulsed flouroscopy, dental, panoramic dental and CT systems.*



▶ **Highlights**
– All in One, All at Once
– Auto-Compensation
– Enhanced Graphical PDA Display
– R&F, Mammo, Dental and CT
– Ionization Chambers
– Built-In Bluetooth for PC and PDA
– mAs, and Light Probes
– Fits in the Palm of Your Hand

## GE Healthcare Infinia

| Resolution | 3.8 mm intrinsic FWHM |
|---|---|
| Sensitivity | 270 cpm/μCi (LEGP) |
| Field of View | UFOV: 540 x 400 mm |

**Highlights**
- High performance variable dual head system
- Unmatched productivity – time saving up to 15 %
- Excellent clinical versatility & unlimited flexibility
- Advanced image quality
- High reliability and excellent serviceability

## GE Healthcare Infinia Hawkeye 4

| Resolution | 3.8 mm intrinsic FWHM |
|---|---|
| Sensitivity | 270 cpm/μCi (LEGP) |
| Field of View | UFOV: 540 x 400 mm |

**Highlights**
- True integrated hybrid imaging system
- Four slice axial/helical CT scanning
- Superior image quality & flexibility
- Ultra low dose CT technology
- Leading economic value

## GE Healthcare Millennium MG

| Resolution | 3.9 mm intrinsic FWHM |
|---|---|
| Sensitivity | 262 cpm/μCi (LEGP) |
| Field of View | UFOV: 510 x 360 mm |
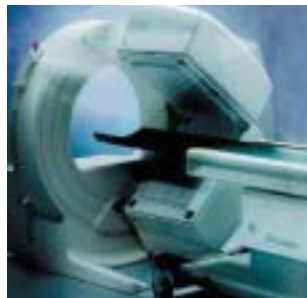
**Highlights**
- Variable multi-purpose dual head system
- Unmatched scanning efficiency
- Excellent clinical versatility – all applications
- Extreme small footprint & gantry size
- High reliability and excellent serviceability

## GE Healthcare Millennium MPR

| Resolution | 3.9 mm intrinsic FWHM |
|---|---|
| Sensitivity | 262 cpm/μCi (LEGP) |
| Field of View | UFOV: 510 x 360 mm |

**Highlights**
- Multi-purpose single head system
- Operational ease and flexibility
- Open gantry – extra large detector
- Excellent clinical versatility – all applications
- High reliability and excellent serviceability

## GE Healthcare Ventri

| Resolution | 3.7 mm intrinsic FWHM |
|---|---|
| Sensitivity | 325 cpm/μCi (LEGP) |
| Field of View | UFOV: 370 x 190 mm |

**Highlights**
- Fixed angle dual head cardio system
- Designed for all patient sizes
- Uncompromized patient comfort
- Superior image quality
- Extreme small footprint & gantry size

## GE Healthcare Discovery VCT XT

| Resolution @ 1cm | 5.0 mm |
|---|---|
| NECR @ 6 kBq/cc | 64 kcps |
| Transaxial PET Field of View | 70 cm |

**Highlights**
- Volume CT inside
- Uncompromized between high sensitivity and resolution
- 5-beat cardiac CT angio
- Snapshot Pulse – 70% dose reduction for CT angio
- VUE point HD 3D iterative reconstruction

### ▸ GE Healthcare Discovery ST

| | |
|---|---|
| **Resolution @ 1cm** | *6.1 mm* |
| **NECR @ 6 kBq/cc** | *57 kcps* |
| **Transaxial PET Field of View** | *70 cm* |

▸ **Highlights**
– Optimized for 3D and 2D imaging
– Dynamic and gated PET, CT and PET/CT acquisition
– MotionFree technology
– VUE point HD 3D iterative reconstruction
– Designed for maximum flexibility

### ▸ GE Healthcare Discovery STE

| | |
|---|---|
| **Resolution @ 1cm** | *5.0 mm* |
| **NECR @ 6 kBq/cc** | *64 kcps* |
| **Transaxial PET Field of View** | *70 cm* |

▸ **Highlights**
– Uncompromized between high sensitivity and resolution
– Highest NECR in clinical range*
– Optimized for 3D and 2D imaging
– VUE point HD 3D iterative reconstruction
– MotionFree technology          (* based on NEMA 2001)

### ▸ GE Healthcare Discovery 600

| | |
|---|---|
| **Resolution** | *5.0 mm* |
| **Peak NECR** | *75 kcps @ 15 kBq/ml* |
| **Transaxial PET Field of View** | *70 cm* |

▸ **Highlights**
– Motion Free PET/CT
– Optimized for gated and dynamic PET- and CT-acquisitions
– VUE Point HD 3D iterative reconstruction
– IBM Blade Center for fastest reconstruction
– Highest NECR in clinical range

### ▸ GE Healthcare Discovery 690

| | |
|---|---|
| **Resolution** | *4.9 mm* |
| **Peak NECR** | *110 kcps @ 20 kBq/ml* |
| **Transaxial PET Field of View** | *70 cm* |

▸ **Highlights**
– Motion Free PET/CT
– Stable timing resolution, independent of countrate
– Time of Flight PET acquisition
– VUE Point HD 3D iterative reconstruction with time of flight information
– IBM Blade Center for fastest reconstruction

### ▸ Philips CardioMD

| | |
|---|---|
| **Resolution** | *3.8 mm, FWHM intrinsic* |
| **Sensitivity** | *277 cpm/µm Ci (LEGP)* |
| **Field of view** | *37 x 21.4 cm* |

▸ **Highlights**
– Minimal patient-to-detector distance for excellent image quality
– Compact design fits easily into a 2.4 x 3 m room
– Fixed-90 dual head design and cardiac workflow are optimized for high throughput
– Comprehensive suite of cardiac image applications
– Vantage Pro clinically validated non-uniform attenuation correction

### ▸ Philips Forte with JETStream acquisition and AZ detectors

| | |
|---|---|
| **Resolution** | *3.3 mm, FWHM intrinsic* |
| **Sensitivity** | *265 cpm/µm Ci (LEGP)* |
| **Field of view** | *38.1 x 50.8 cm* |

▸ **Highlights**
– High throughput capability for all nuclear medicine procedures
– VantagePro clinically validated non-uniform attenuation correction
– Automatic acquisition workflow
– Concurrent imaging allows a single acquisition step to be saved simultaneously in up to 15 unique data sets
– Energy independent detectors provide high performance with reduced quality control time

## ▶ Philips SKYLight

| | |
|---|---|
| **Resolution** | 3.3 mm, FWHM intrinsic |
| **Sensitivity** | 265 cpm/μm Ci (LEGP) |
| **Field of view** | 38.1 x 50.8 cm |

**▶ Highlights**
– Gantry-free design for clinical flexibility and openness
– DualPlanar capability to acquire two patients simultaneously
– Automatic acquisition workflow
– Concurrent imaging allows a single acquisition step to be saved simultaneously in up to 15 unique data sets
– Fully automatic collimator exchange

## ▶ Philips BrightView

| | |
|---|---|
| **Resolution** | 3.3 mm, FWHM intrinsic |
| **Sensitivity** | 277 cpm/μm Ci (LEGP) |
| **Field of view** | 40.6 x 54 cm |

**▶ Highlights**
– Patient focus for an open experience with all patients and sizes
– Maximized image quality with CloseUp technologies
– Improved workflow efficiency, BodyGuard automatic contouring
– Rich in capability yet compact in design
– Scalable to match the capabilities with practice

## ▶ Philips GEMINI TF PET/CT – GXL PET/CT

| | **TF PET/CT** | | **GXL PET/CT** |
|---|---|---|---|
| **Peak NECR** | 210 kcps | **Peak NECR** | 70 kcps |
| **PET Spatial Resolution** | 4.3 mm | **PET Spatial Resolution** | 4.5 mm |
| **CT Configuration** | 16-slice or 64-channel | **CT Configuration** | 6 or 16-slice |

**▶ Highlights TF**
– World's first commercially available time-of-flight PET/CT
– Fast scans (10 min) with low dose
– Premium Brilliance CT image quality & applications
– 190 cm PET/CT scan length
– Exclusive OpenView gantry design

**▶ Highlights GXL**
– Fast scans (15 min) with low dose
– Fully 3D LOR PET reconstruction
– Premium Brilliance CT image quality & applications
– 190 cm PET/CT scan length
– Exclusive OpenView gantry design

## ▶ Philips Precedence SPECT/CT

| | |
|---|---|
| **Resolution** | 3.3 mm, FWHM intrinsic |
| **Sensitivity** | 265 cpm/umCi (LEGP) |
| **Field of view** | 38.1 x 50.8 cm |
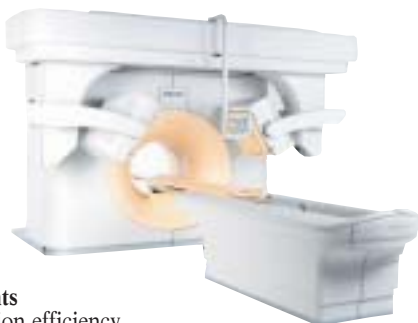
**▶ Highlights**
– Acquisition efficiency
– Reconstruction leadership
– Ease-of-use
– System efficiency
– Superior diagnostic CT image quality

## ▶ Siemens c.cam

| | |
|---|---|
| **Resolution** | ≤3.7 mm FWHM in UVOF |
| **Sensitivity** | 290 cpm/μCi (LEAP at 10 cm at 140 keV) |
| **Field of view** | 37 x 21.4 cm |

**▶ Highlights**
– Dedicated cardiac camera
– Award winning design
– Open and patient-friendly
– Reclining position improves image quality
– Easy to install, learn and use
– Comprehensive quantification and viewing software
– Field upgradeable with c.clear attenuation correction

## ▸ Siemens Symbia E

| | |
|---|---|
| **Resolution** | ≤3.8 mm FWHM in UVOF (3/8") |
| **Sensitivity** | 202 cpm/µCi (LEAR 3/8"at 10 cm) |
| **Field of view** | 53.3 x 38.7 cm |
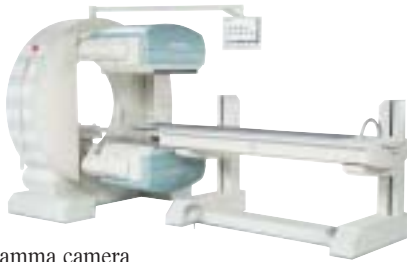
▸ **Highlights**
– Premium gamma camera
  for SPECT and general nuclear medicine
– Work with confidence through Siemens HD detectors, c.clear
  attenuation correction and Siemens remote services
– Accelerate your workflow through fast acquistion,
  autocontour, syngo workflows and physician worklist
– Experience versatility through detector flexibility, clinical
  engines, specialized pallets and investment protection

## ▸ Siemens Symbia S

| | |
|---|---|
| **Resolution** | ≤3.8 mm FWHM in CVOF (3/8") |
| **Sensitivity** | 202 cpm/µCi (LEHR, 3/8") |
| **Field of view** | 533 x 387 mm |

▸ **Highlights**
– Premium gamma camera,
  upgradeable to TruePoint SPECT•CT
– Superior image quality with HD detector technology, thin
  pallet, autocontour and 30% more sensitive AutoForm
  collimators
– Patient comfort with 227 kg maximum
  patient weight in any imaging configuration
– Increased productivity with automatic collimator
  changer and quality control

## ▸ Siemens Symbia TruePoint SPECT•CT

| | |
|---|---|
| **Resolution** | ≤3.8 mm FWHM in CVOF (3/8") |
| **Sensitivity** | 202 cpm/µCi (LEHR, 3/8") |
| **Field of view** | 533 x 387 mm |
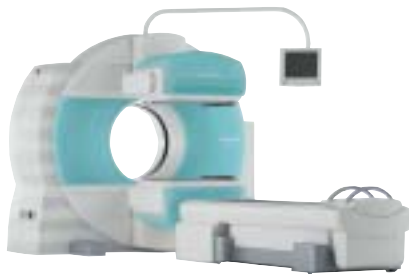
▸ **Highlights**
– Premium SPECT•CT system integrating SPECT and
  diagnostic multi-slice CT
– State-of-the-art SPECT image quality with HD detector
  technology
– Highest efficiency with integrated and automated collimator
  changer and quality control
– 2, 6 and 16 slice CT configurations

## ▸ Siemens Biograph TruePoint PET•CT

| | |
|---|---|
| **Resolution** | 4.2 mm axial, 4.7 mm transaxial FWHM at 1 cm (HI-REZ) |
| **Sensitivity** | 7.6 cps/kBq at 435 keV (TrueV) |
| **Field of view** | 605 mm transaxial, 216 mm axial (TrueV) |
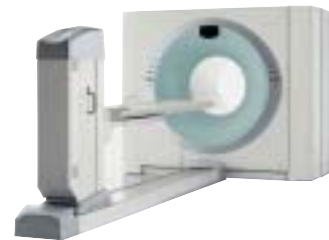
▸ **Highlights**
– 6, 16, 40, 64 slice CT configurations
– HD•PET providing a new level of PET performance including
  uniform resolution and 2x improvement in signal-to-noise ratio
– LSO crystals for faster scans
– HI-REZ offering unsurpassed resolution
– TrueV providing the longest axial field of view
– TrueC offering model-based scatter correction calculated
  independently for every patient and bed position
– UFC detectors providing stunning CT image quality

## SPECT / PET–CT ACCESSORIES

## ▸ Siemens Biograph mCT

| | |
|---|---|
| **Resolution** | 4.4 mm axial, 4.7 mm transaxial FWHM at 1 cm (HI-REZ) |
| **Sensitivity** | 8.5 cps/kBq at 435 keV (TrueV) |
| **Field of view** | 700 mm transaxial, 216 mm axial (TrueV) |

▸ **Highlights**
– 40, 64, 128 slice CT configurations
– ultraHD•PET gives you the ultimate in PET capabilities,
  offering uniform resolution and 4x improvement in
  signal-to-noise ratio
– LSO crystals for faster scans
– HI-REZ offering unsurpassed resolution
– TrueV providing the longest axial field of view
– TrueC offering model-based scatter correction calculated
  independently for every patient and bed position
– STRATON X-ray tube, Adaptive Dose Shield, z-Sharp
  technology and UFC detectors

## ▸ Alliance Medical Interim Solutions

▸ **Highlights**
– Mobile imaging: CT, MR, Cath Lab, PET/CT
– Upgrading, installing or replacing?
– Immediate access to imaging equipment
– Delivered at your site, you can have full use 24/7

▶ TOMOVATION – Rental of mobile PET systems

▶ **Highlight**s
– Mobile PET system SIEMENS ECAT EXACT 47 (with e-soft software) for regular daily rentals (once a week or once a month)

## ▶ Barco Coronis Fusion 6 MP DL

| | |
|---|---|
| **Name** | *Wide-screen diagnostic color display system – Coronis Fusion 6 MP DL* |
| **Technology** | *Color LCD* |
| **Resolution** | *6 Megapixel (3280 x 2048)* |
| **Size** | *30 inch* |

**▶ Highlights**
– Bezel-free 30 inch desktop for multi-modality PACS imaging
– Unmatched viewing characteristics
– High-performance image processing
– Automated Quality Assurance
– 5-year warranty

## ▶ Barco Nio and Coronis Family

| | |
|---|---|
| **Name** | *Full range of diagnostic display system – Nio and Coronis Family* |
| **Technology** | *Color and grayscale LCD* |
| **Resolution** | *2MP – 3MP – 4MP – 5MP – 6MP* |
| **Size** | *20 inch – 21 inch – 30 inch* |

**▶ Highlights**
– Full breadth of color and grayscale display systems
– Proven technology for long-term image confidence
– Fully transparent calibration and QA
– High-speed image processing
– 5-year warranty

## ▶ Barco Mammography Displays

| | |
|---|---|
| **Name** | *Mammography display system – Coronis 5 MP Mammo* |
| **Technology** | *Grayscale LCD* |
| **Resolution** | *5 Megapixel (2048 x 2560)* |
| **Size** | *21 inch* |

**▶ Highlights**
– Pixel-perfect diagnostic precision
– Uniform luminance across the screen
– Ultra-fast image processing
– Transparent calibration and QA
– 5-year warranty

## ▶ Barco Clinical Review Displays

| | |
|---|---|
| **Name** | *Clinical review displays – MDRC Series* |
| **Technology** | *Color LCD* |
| **Resolution** | *1MP – 2MP* |
| **Size** | *19 inch – 20 inch* |

**▶ Highlights**
– Providing consistent DICOM images anywhere, anytime
– Professional LCD Quality
– Approved for medical use
– Backlight output stabilization
– User-friendly Quality Assurance

## ▶ Barco Surgical Displays

| | |
|---|---|
| **Name** | *Full range of endoscopic and surgical displays – MDSC and HD Series* |
| **Technology** | *Color LCD* |
| **Resolution** | *1.3MP – 4MP – High Definition* |
| **Size** | *19 inch – 24 inch – 30 inch – 42 inch – 47 inch* |

**▶ Highlights**
– Full breadth of surgical and endoscopy displays
– High Definition image quality
– Smooth, artifact-free video images
– Easy cleaning and disinfection
– Approved for medical use

## ▶ EIZO Digital Mammography Monitors

| | |
|---|---|
| **5 MP** | **GS** |
| | *GS520* |
| | *SMD 21510* |

**▶ Highlights**
– Pre-calibrated gamma mode selection
– Luminance uniformity correction
– Fully automated luminance stability
– 10 bit DVI input
– Long-life backlight ideal for prolonged use

## ▸ EIZO Diagnostic Monitors

|        | GS         | Color     |
|--------|------------|-----------|
| 1 MP   | G11        | RS110     |
|        | SMD 19102  | SCD 19102 |
| 2 MP   | GS220      | RX211     |
|        | GX220      | SHD 21205 |
| 3 MP   | GS310      | R31       |
|        | GS320      | RX320     |
|        | GX320      | SCD 21310 |

▸ **Highlights**
– Pre-calibrated
  gamma mode selection
– Luminance uniformity
  correction
– Fully automated luminance stability
– Wide range of graphics boards supported
– Backlight saver

## ▸ EIZO Clinical Review Monitors

|            | Color   |
|------------|---------|
| 1 MP       | MX190S  |
| 2 MP       | MX210   |
| 2.3 MP Wide| MX240W  |
| 4 MP Wide  | MX300W  |

▸ **Highlights**
– Compliant with DICOM Part 14
– Luminance uniformity correction
– Wide viewing angles
– Ergonomic design
– Backlight saver

## ▸ EIZO Surgical Monitors

|        | GS        | Color     |
|--------|-----------|-----------|
| 1 MP   | SMD 19102 | SCD 19102 |
| 8 MP   | –         | LS560W    |
|        |           | LX560W    |

▸ **Highlights**
– Pre-calibrated gamma mode selection
– Luminance uniformity correction
– Fully automated luminance stability
– DICOM Part 14 compliant grayscale
– Wide range of signal inputs

## ▸ FIMI Philips  Diagnostic & Referral  Displays

| Resolution | 1.0 MP |          |
|------------|--------|----------|
| Grayscale  | X1M-CC / X1M-LS | |
| Color      | –      |          |

| Resolution | 2.0 MP |
|------------|--------|
| Grayscale  | X2M / X2M-LS |
| Color      | –      |

| Resolution | 3.0 MP |
|------------|--------|
| Grayscale  | X3M / X3M-HB |
| Color      | X3C-HB |

| Resolution | 4.0 MP | 5.0 MP |
|------------|--------|--------|
| Grayscale  | –      | X5M    |
| Color      | –      | X5M-HB |

▸ **Highlights**
– Wide viewing angle (> 170°)
– Stabilized backlight
– High brightness models (X3M-HB, X3C-HB, X5M-HB)
– Up to 10 bit greyscale rendition
– Compatible with legacy systems for easy CRT to LCD
  replacement (X1M- LS & X2M-LS)

## ▸ FIMI Philips  Modality Displays

| Resolution | 1.0 MP |
|------------|--------|
| Grayscale  | X1M – XIM-HB |
| Color      | E15 – E19 – X1C – X1C-HB |

▸ **Highlights**
– Wide viewing angle (> 170°)
– Backlight stabilization, LED-based backlight
– High brightness for GS, colour models
– Specifically designed for endoscopy (E15, E19)
– Customised models available for US

## ▸ FIMI Philips  Clinical Data Displays

| Resolution | <1.0 MP | 1.0 MP |
|------------|---------|--------|
| Grayscale  | –       | –      |
| Color      | ProScribe/P15 | P17/Q1C |

▸ **Highlights**
– Wide viewing angle (> 170°)
– For Patient monitoring and other graphics/data applications
– UL 60601, IEC 60601, Medical equipment std. approvals
– 12.5" wireless portable terminal for clinical applications
  (ProScribe)

**Mr. Vedda,**
**Director of the Salus clinic**
**in Rome**



# The new way of printing

## The new, fast, reliable and high quality printing solution

Our clinic Salus is a modern and customer-friendly clinic located in the centre of Rome. We are focussed on diagnostic examinations using general x-ray and mammography.

The change from conventional to digital radiography was made to improve and extend the service to our customers. The time had come to change our clinic completely and go digital. To ensure a smooth and flexible transition, we decided for the Konica Minolta Regius CR 190 system, with the latest techniques and their new and fast printer "Drypro 873".

The small footprint of the devices and the easy and user-friendly interface perfectly matched our requirements.

The ease of printing surprised even us. The high quality mammography films with the maximum density of 4.0 and the general films were printed fast, easily and with high quality.

Of course we are also looking to the future, so the new printer of Konica Minolta fitted perfectly in our plans. The Drypro 873 can adapt easily to the expansion of the Salus Clinic. In the future

we will easily be able to print MR or CT exams with the same equipment.

The printer can also manage inputs from other modalities, because of the DICOM 3.0 compatibility. With this proven and tested interface we have the

option to expand our business and there is no concern about the compatibility with other modalities.

Thanks to the Drypro 873 characteristics we where able to start working with the system after only one day of installation. The short installation time enabled us to help our customers with only a minimal delay in scheduling.



**Salus Centro Medico Diagnostico SRL**
**Via Alessandro Volta, 37**
**00153 Roma (Lazio), Italy**

## ▶ Matrox AuroraVX™ Series

**Tech Specs** | *Up to 1 x 2 mp @ 1600 x 1200*
*Up to 2 x 3 mp @ 1536 x 2048*
*Low-profile PCIe x16*



▶ **Highlights**
– Powers 3 displays from 1 board
– One Navigation Console (NC)
– Twin Imaging Displays (TIDs)
– Pivot, landscape, color, grayscale
– DICOM Part 14 grayscale compliant

## ▶ Matrox MED™ Series

**Tech Specs** | *Up to 2 x 5 mp @ 2048 x 2560*
*10 bit output*
*PCI 64/66, 256 MB*



▶ **Highlights**
– Ultimate solution for accurate display representation
– For PACS, CT, MRI, DR
– Up to 1024 distinct shades of gray
– Pivot, landscape, color, grayscale
– DICOM Part 14 grayscale compliant

## ▶ Matrox RAD™ Series

**Tech Specs** | *Up to 2 x 3 mp @ 1536 x 2048*
*8 bit output*
*AGP, PCI, PCIe x16*



▶ **Highlights**
– For reviewing, assessing and diagnosing
– Cost-effective & flexible
– Up to 256 distinct shades of gray
– Pivot, landscape, color, grayscale
– DICOM Part 14 grayscale compliant

## ▶ Matrox TheatreVUE™ Series

**Tech Specs** | *Primary: up to 3 mp*
*Secondary: 2 mp analog*
*PCI 64/66, 256 MB*
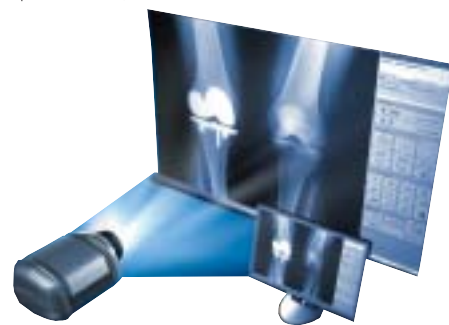


▶ **Highlights**
– For medical presentations and operating rooms
– Clone any portion or entire main medical display onto a projector
– Pivot, landscape, color, grayscale
– DICOM Part 14 grayscale compliant

## ▶ Matrox Xenia Series

**Tech Specs** | *Up to 1 x 4 mp*
*Up to 2 x 8 mp*
*1 GB RAM, PCIe x16*
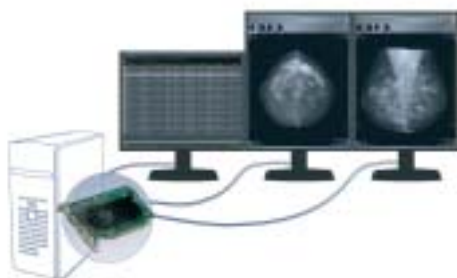


▶ **Highlights**
– Powers 3 displays from 1 board
– One Navigation Console (NC)
– Twin Imaging Displays (TIDs)
– 8-, 10- and 13-bit independent GAMMA LUTs
– Pivot, landscape, colour, greyscale
– DICOM Pt 14 grayscale compliant

## ▶ MeDiSol – Totoku Diagnostic Imaging Monitors

| Resolution | | |
|---|---|---|
| **Grayscale** | *1.3 MP* | *2.0 MP* |
| **Color** | *ME 181L/r, ME 183L* | *ME 201L/r, ME 253i²* |
| | *CCL 182 /r, CCL 192 plus* | *CCL 204, CCL 252i², CCL 254i²* |
| | *3.0 MP* | *5.0 MP* |
| | *ME 355i²* | *ME 551i²* |
| | *CCL 352i², CCL 354i²* | *–* |



▶ **Highlights**
– 1.3, 2.0, 3.0 and 5.0 megapixel solutions
– 5-years full warranty for all i²-models
– Remote calibration capability
– Uniformity correction (i²-Series)
– High brightness color-LCDs
– Full hardware calibration with integrated LUT
– Approved stabilzation systems

## ▸ MeDiSol – VIEWMEDIC Viewing Displays

| Resolution | 1.3 MP | 2.0 MP and higher |
|---|---|---|
| Grayscale | RV-M218 | – |
| Color | RV-C119, RV-C219 | RV-C220, RV-C121, RV-C221, RV-C226 |



▸ **Highlights**
– DICOM preset
– Stabilization circuit
– Diagonals up to 26"

## ▸ MeDiSol – VIEWMEDIC Large Screen Displays

| Resolution | HD-TV |
|---|---|
| Color | RV-C342, RV-C442, RV-C342 IP, RV-C442 IP RV-C347, RV-C447, RV-C352 IP, RV-C452 IP |



▸ **Highlights**
– DICOM preset
– Metall housing, IP-protection
– Diagonals from 42" to 52"
– High quality LCD panels

## ▸ MeDiSol – VIEWMEDIC Projectors

▸ **Highlights**
– DLP™ technology
– Super silent
– DICOM preset
– Resolution 1400 x 1050
– Multiple signal inputs



## ▸ NDS surgical imaging E-Series

| 1 MP | – |
|---|---|
| 2 MP | GS E2 |
| 3 MP | GS E3 |
| 4 MP | – |
| 5 MP | GS E5 |



▸ **Highlights**
– FDA 510(k) cleared
– Automatic DICOM calibration
– 3061 unique shades of grey
– Fanless display
– High operating brightness

## ▸ NDS surgical imaging Ec-Series

| 1 MP | – |
|---|---|
| 2 MP | E2colour |
| 3 MP | E3colour |
| 4 MP | E4colour |
| 5 MP | – |



▸ **Highlights**
– FDA 510(k) cleared
– Automatic DICOM calibration
– Fanless display
– High operating brightness
– Flexibility of colour and DICOM calibrated greyscale imaging

## ▸ NDS surgical imaging Dome Dashboard



▸ **Highlights**
– Simplifies network display management in healthcare environment
– Monitor and maintenance console for multiple workstations
– Supporting Dome medical imaging displays and the Dome CXtra software
– Operates within Windows framework
– Provides intuitive features and functions

## ▶ NDS surgical imaging Dome GX 2MP
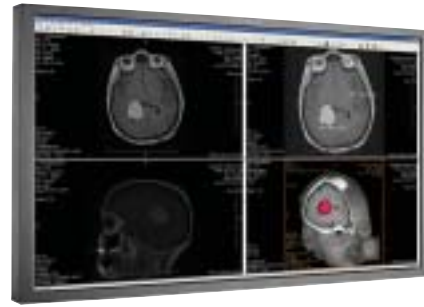
**Resolution** | *MP Color*
**Size** | *20,1"*

### ▶ Highlights
– Superior visual quality with .255mm pixel pitch
– 16 ms response time
– Outstanding 1000:1 contrast ratio
– 300 cd/m²luminance
– Dome CXtra™ for DICOM Calibration

## ▶ NDS surgical imaging Dome GX 46

**Resolution** | *full 1080p HD*

### ▶ Highlights
– DVI and analog connectivity
– Non-reflective front cover
– VESA mounting
– DICOM calibration for PACS
– Fanless, low noise design

## ▶ NEC MD GS–Series

**MD21GS-2MP**
21.3" (2.0 MP image resolution: 1200 x 1600 pixels in portrait orientation)
### ▶ Highlights
– Unique XLight® Backlight System for long lasting stable white point
– Individual factory calibrated DICOM gamma correction curve
– Precise DICOM GSDF calibration using internal 10-bit look-up table

**MD21GS-3MP**
21.3" (3.0 MP image resolution: 1536 x 2048 pixels in portrait orientation)
### ▶ Highlights
– Unique XLight® Backlight System for long lasting stable white point
– Individual factory calibrated DICOM gamma correction curve
– Precise DICOM GSDF calibration using internal 10-bit look-up table

**MD205MG / MD205MG**
20.1" SA-SuperFine Grayscale TFT glass
### ▶ Highlights
– 5.0 MP image resolution: 2048 x 2560 pixels in portrait orientation
– Up to 1024 simultanious shades of gray out of a pallette of 3061 (10bit image reproduction)
– High adjustable stand (Range: 120 mm)

## ▶ NEC MD Color–Series
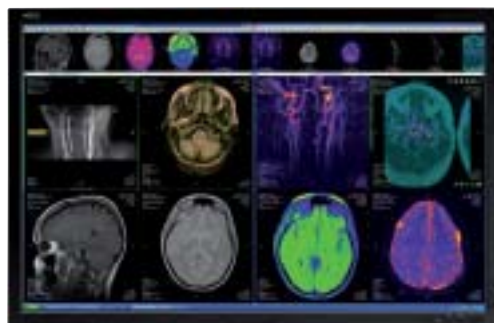
**MD213MC**
21.3" (**3.0** MP image resolution: **2048 x 1560** pixels in portrait orientation)
### ▶ Highlights
– Unique XLight® Pro Backlight System for long lasting stable white point
– Individual factory calibrated DICOM gamma correction curve
– Precise DICOM GSDF calibration using internal 10-bit look-up table

**MD304MC**
29.8" (4.0 MP image resolution: 2560 x 1600 pixels)
### ▶ Highlights
– High performance H-IPS TFT display
– Stand-alone calibration and matching to ensure efficient onsite colour temperature matching, with 12-bit LUT and precise DICOM GSDF grayscale
– Medical certification conforming to 93/42/EC (MDD) and FDA510k pending

**MD212MC**
21.3" (2.0 MP image resolution: 1200 x 1600 pixels in portrait orientation)
### ▶ Highlights
– Unique X-Light® 3 Backlight System for long lasting stable white point
– Individual factory calibrated DICOM gamma correction curve
– Pre cise DICOM GSDF calibration using internal 12-bit look-up table

**MD21M**
21.3" (2.0 MP image resolution: 1600 x 1200 pixels)
### ▶ Highlights
– Factory pre-set DICOM gamma curve
– Digital Uniformity Control (DUC) for enhanced spatial uniformity
– Complies with DIN V6868-578 Cat.B and AAPM TG18 Secondary Class

## ▶ NEC MDview Series Colour Displays

**MDview193**
19.0" (1.3 MP image resolution: 1280 x 1024 pixels)

▶ **Highlights**
– Real Hardware-DICOM Calibration including Ambient Light compensation
– Quick and easy setup utilizing the factory pre-set DICOM curve
– Long distances to modalities and workstations without compromise in display quality

**MDview 202**
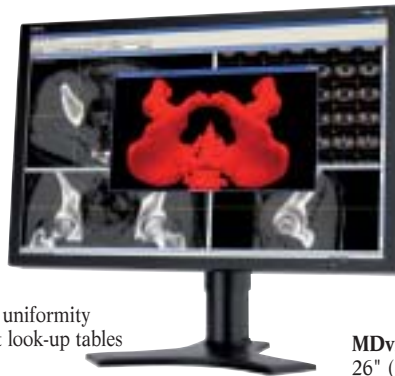20.1" (2.0 MP image resolution: 1600 x 1200 pixels)

▶ **Highlights**
– Factory pre-set DICOM gamma curve
– Digital Uniformity Control (DUC) for enhanced spatial uniformity
– Precise DICOM GSDF calibration using 3 internal 12-bit look-up tables

**MDview 212**
21.3" (2.0 MP image resolution: 1600 x 1200 pixels)

▶ **Highlights**
– Factory pre-set DICOM gamma curve
– Digital Uniformity Control (DUC) for enhanced spatial uniformity
– Precise DICOM GSDF calibration using 3 internal 12-bit look-up tables

**MDview 242**
24.1" (21.3 MP image resolution: 1920 x 1200 pixels)

▶ **Highlights**
– Factory pre-set DICOM gamma curve
– Digital Uniformity Control (DUC) for enhanced spatial uniformity
– Precise DICOM GSDF calibration using 3 internal 12-bit look-up tables

**MDview 262**
26" (2.3 MP image resolution: 1920 x 1200 pixels)

▶ **Highlights**
– XLight® Pro: Backlight system for stabilised white luminance and colour
– Factory pre-set DICOM gamma curve
– Digital Uniformity Control (DUC) for enhanced spatial uniformity

## ▶ NEC DICOM–ready LCD Public Displays

**MULTEOS M40 ( AV)**
View 3 or 4 Full Screens Simultaneously

▶ **Highlights**
– Ideal Lightbox Replacement
– 40" DICOM Preset
– 3 Year Comprehensive Warranty

**MULTEOS M46 ( AV)**
View 3 or 4 Full Screens Simultaneously

▶ **Highlights**
– Ideal Lightbox Replacement
– 46" DICOM Preset
– 3 Year Comprehensive Warranty

**MultiSync 5220**
Ultra-thin frame (19 mm)

▶ **Highlights**
– High brightness up to 700 cd/m_
– Sophisticated overheating protection with two temperature controlled fans

**MultiSync 6520L**
65 inch Public Display with professional LCD panel

▶ **Highlights**
– Optimized for landscape orientation only
– Sophisticated overheating protection with two temperature controlled fans
– 60.000h life time (backlights)

**MDview 262**
65 inch Public Display with professional LCD panel

▶ **Highlights**
– Optimized for portrait orientation only.
– Sophisticated overheating protection with two temperature controlled fans
– 60.000h life time (backlights)

## ▶ NEC 90s Series DICOM–ready LCD Displays

**MultiSync 1990 SX**
19 inch, 1,3 MP Native Resolution (1280 x 1024 Pixel)

▶ **Highlights**
– Dicom ready" by programmable gamma correction
– Cable Comp allows cable lengths up to 30 m digital and 100 m analogue
– Height-adjustable stand (150 mm) with 90° portrait capability

**MultiSync 2090 UXi**
21.3 inch, 2 MP Native Resolution (1600 x 1200 Pixel)

▶ **Highlights**
– Dicom ready" by programmable gamma correction
– SF-SFT Panel for ideal greyscale reproduction
– Height-adjustable stand (150 mm) with 90° portrait capability

**MultiSync 2190 UXi**
21.3 inch, 2 MP Native Resolution (1600 x 1200 Pixel)

▶ **Highlights**
– Dicom ready" by programmable gamma correction
• SF-SFT Panel for ideal greyscale reproduction
• Height-adjustable stand (150 mm) with 90° portrait capability

**MultiSync 2490 WUXi**
Consistent colour from any angle with IPS 16:10 TFT display

▶ **Highlights**
– Dicom ready" via programmable gamma correction
– Height-adjustable stand (150 mm) with 90° Pivot features
– Best economics and reduced Total Cost of Ownership

**MultiSync 2690 WUXi2**
26 inch, 2.3 MP Native Resolution (1920 x 1200 Pixel)

▶ **Highlights**
– Dicom ready" via programmable gamma correction
– H-IPS Panel for ideal greyscale reproduction
– Height-adjustable stand (150 mm) with 90° portrait capability

**MultiSync 3090WQXi**
29.8 inch, 4 MP Native Resolution (2560 x 1600 Pixel)
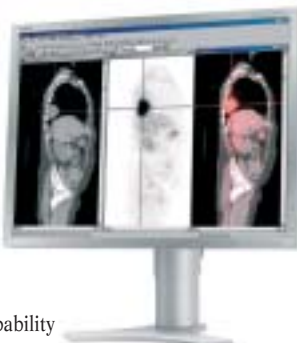
▶ **Highlights**
– Dicom ready" by programmable gamma correction
– Backlight technology for stable white luminance and colour
– Cable Comp allows cable lengths up to 30 m digital and 100 m analogue

## ▶ NEC Projectors with DICOM Simulation

**NP 905**
3 x 1.6 cm (0.63") p-Si with MLA LCD Panel

▶ **Highlights**
– IHigh brightness with 3000 ANSI lumens
– HQV™ Processing for best image quality
– Plug&Play W-LAN through
  Windows Vista™

**NP 901 W**
3 x 1.4 cm (0.56") p-Si with MLA LCD Panel

▶ **Highlights**
– High brightness with 2000 ANSI lumens
– HQV™ Processing for best image quality
– Plug&Play W-LAN through
  Windows Vista™

**NP 1150**
3 x 2.03 cm (0.8") p-Si with MLA LCD Panel (AR 4:3)

▶ **Highlights**
– Native Resolution: 1024 x 768 (XGA)
– Brightness: 3700 ANSI Lumens
– Lens Shift (vertical and horizontal)

**NP 2150**
3 x 2.03 cm (0.8" ) p-Si with MLA LCD Panel (AR 4:3)

▶ **Highlights**
–Native Resolution: 1024 x 768 (XGA)
– Brightness: 4200 ANSI Lumens
  Lens Shift (vertical and horizontal)

**NP 3150**
3 x 2.03 cm (0.8" ) p-Si with MLA LCD Panel (AR 4:3)

▶ **Highlights**
– Native Resolution: 1024 x 768 (XGA)
– Brightness: 5000 ANSI Lumens
– Lens Shift (vertical and horizontal)

**NP 3151 W**
3 x 1.879 cm (0.74") p-Si with MLA LCD Panel (AR 16:10)

▶ **Highlights**
– Native Resolution: 1280 x 800 (WXGA)
– Brightness: 4000 ANSI Lumens
– Lens Shift (vertical and horizontal)

## ▶ PROVOTEC ProVario Screen

| | |
|---|---|
| **Design** | *Power unit floor-mounted* |
| **Table** | *Control console placed on a desk* |
| **Power** | *50 kW* |

▶ **Highlights**
– High frequency generator for x-ray diagnostic
– Easy operation by monitor – or touchscreen
– Digital control of nearly unlimited organ programs
– Safety device against undue radiation for each organ with
  AEC-technique
– X-ray book for storing patient name with generator exposure data
– Upgradeable for using CR- and DR-systems

## ▶ Totoku Mammography Display

| | |
|---|---|
| **15 MP** | **Grayscale** *MS51i2* |

▶ **Highlights**
– ISD Technologie to
  support »Super high resolution« of 15 megapixel
– Supports 5 megapixel videoboards thanks to ISD technologie
– Luminance uniformity correction
– Remote calibration and management
– New developed AR coating for an improved resolution
– Increased lifetime with backlight dimming system

## ▶ Totoku Modality Displays

| | Grayscale | Color |
|---|---|---|
| **1 MP** | | *CCL192plus* |
| **1 MP** | *ME193L, ME183L* | |

▶ **Highlights**
– Backlight stabilisation system
– Wide input and timing range to fit most common modalities
– Several gamma presets for best image reproduction
– Medical approval

## ▶ Totoku Diagnostic Displays

| | Grayscale | Color |
|---|---|---|
| **5 MP** | *ME551i2* | |
| **3 MP** | *ME351i2* | *CCL354i2, CCL352i2* |
| **2 MP** | *ME253i2, ME201L* | *CCL254i2 , CCL252i2,* |
| **1 MP** | *CCL204* | |
| | *ME181L* | *CCL182* |

▶ **Highlights**
– Up to 5-years warranty
– High brightness color displays
  up to 800 cd/m²
– Luminance uniformity correction
– Remote calibration and management
– Up to true 11 bit grayscale
– Increased lifetime with backlight dimming system

## ▶ Totoku Review Displays

|        | **Color** |
|--------|-----------|
| **1 MP** | *CV1950* |
| **2 MP** | *CV2050* |

**▶ Highlights**
– DICOM preset
– Medical approved
– Backlight stabilisation system
– High contrast ratio

## ▶ Agfa HealthCare DRYSTAR 5503

| **Capacity** | *100 films/h (14 x 17")* |
|--------------|--------------------------|
| **Resolution** | *508 dpi/50 µm pixelsize* |
| **System** | *Direct Digital Imaging* |

**▶ Highlights**
– Multi-modality, high throughput imager with film sorter
– Ideal for centralized work-flow, can easily be connected to the network
– Integrated A#Sharp techno-logy for optimized image quality
– 3 multi-format trays, each supporting different film sizes and types
– Suitable for CT, MRI, DSA, digital R&F, CR, DR and optional mammography applications

## ▶ Agfa HealthCare DRYSTAR 5302

| **Capacity** | *75 films/h (14 x 17")* |
|--------------|-------------------------|
| **Resolution** | *320 dpi* |
| **System** | *Direct Digital Imaging* |

**▶ Highlights**
– Suitable for all applications and ideal for CR/DR
– A#Sharp technology for optimized image quality
– Convenient imaging with two media sizes on-line (multi-format)
– Very short acces time ensures fast printing of small print jobs

## ▶ Agfa HealthCare DRYSTAR 5300

| **Capacity** | *70 films/h (14 x 17")* |
|--------------|-------------------------|
| **Resolution** | *320 dpi* |
| **System** | *Direct Digital Imaging* |

**▶ Highlights**
– Tabletop, next-to-application Direct Digital Imager
– Suitable for all applications and ideal for CT/MR
– Reliable, low maintenance printer
– A#Sharp image enhancement for excellent quality
– Very short acces time ensures fast printing of small print jobs

## ▶ Agfa HealthCare DRYSTAR AXYS

| **Capacity** | *75 films/h (14 x 17")* |
|--------------|-------------------------|
| **Resolution** | *508 dpi/50 µm pixelsize* |
| **System** | *Direct Digital Imaging* |

**▶ Highlights**
– Flexible, tabletop imager delivering mammography-quality images
– Multi-application hardcopy solution
– Integrated A#Sharp technology for optimized image quality
– 2 multi-format trays, each supporting different film sizes and types
– Very short access time for extremely fast delivery of first four prints

## ▶ Codonics Horizon XL

| **Speed** | *100 sheets/h* |
|-----------|----------------|
| **Capacity** | *300 copies* |
| **Resolution** | *320 dpi – 126 cm spatial resolution, 4096 pixel contrast resolution, shades gray* |
| **System** | *Direct thermographic (grayscale) and dye-diffusion (color)* |

**▶ Highlights**
– 14" x 36" and 14" x 51" long dry film
– Perfect for scoliosis, long bone studies
– »True-size« imaging up to 51" in length
– Saves space and eliminates wet film processing
– Also prints on standard sizes of film
– Low-cost grayscale paper and color paper

## ▶ aycan xray-print

### ▶ Highlights
– DICOM print system for standard paper
– Superior image quality
– Individual quality adjustment for each modality to accurately match monitors
– Fully DICOM print compliant
– Operated like a film camera
– Print color (except 5550) or grayscale images
– Cost per black & white paper print less than 10 cent (in most countries)

| Model | 7655 | 7760 |
|---|---|---|
| Copier | ✔ | – |
| Scanner | *optional* | – |
| Paper sizes | *DIN A3/tabloid, DIN A4/letter* | *DIN A3/tabloid, DIN A4/letter* |
| Print resolution | *2400 x 2400 dpi* | *1200 x 1200 dpi* |
| Color/grayscale | ✔/✔ | ✔/✔ |

| Model | 5550 | 6360 |
|---|---|---|
| Copier | – | – |
| Scanner | – | – |
| Paper sizes | *DIN A3/tabloid, DIN A4/letter* | *DIN A4/letter* |
| Print resolution | *1200 x 1200 dpi* | *2400 x 600 dpi* |
| Color/grayscale | – /✔ | ✔/✔ |

## ▶ Codonics Horizon Ci / GS / SF

### ▶ Highlights
– Read in room light with convenient grayscale or color paper (Ci, GS and SF)
– Outstanding image quality, prints on all standard sizes of clear/blue dry film
– Compact design with the fastest print speed in its class
– Economical sunrise express swap warranty provides a replacement imager
– Network printer with up to 24 DICOM connections, no additional hardware required
– Validated with all major OEMs, modalities, PACS and workstations

| **Horizon Ci** | |
|---|---|
| Speed | *100 sheets/h* |
| Capacity | *300 copies* |
| Resolution | *320 dpi – 126 cm spatial resolution, 4096 pixel contrast resolution, shades gray* |
| System | *Direct thermographic (grayscale) and dye-diffusion (color)* |

| **Horizon GS** | |
|---|---|
| Speed | *100 sheets/h* |
| Capacity | *300 copies* |
| Resolution | *320 dpi – 126 cm spatial resolution, 4096 pixel contrast resolution, shades gray* |
| System | *Direct thermographic (grayscale)* |

| **Horizon SF** | |
|---|---|
| Speed | *100 sheets/h* |
| Capacity | *300 copies* |
| Resolution | *320 dpi – 126 cm spatial resolution, 4096 pixel contrast resolution, shades gray* |
| System | *Direct thermographic (grayscale) and dye-diffusion (color)* |

## ▶ CPS DICOM PaperPrint Server

| Color Laser Printer | DocuColor 242 | WorkCentre 7665 | WorkCentre 7328 |
|---|---|---|---|
| Copier | *yes* | *yes* | *yes* |
| Scanner | *yes* | *yes* | *yes* |
| Paper sizes | *A3/A4 and many other* | *A3/A4 and many other* | *A3/A4 and many other* |
| Print resolution | *2400 x 2400 dpi* | *2400 x 2400 dpi* | *600 x 600 x 8, 1200 x 1200 dpi* |
| Printout | *color, black & white* | *color, black & white* | *color, black & white* |

| Color Laser Printer | WorkCentre 7232 | Phaser 7760 | Phaser 5550 |
|---|---|---|---|
| Copier | *yes* | – | – |
| Scanner | *yes* | – | – |
| Paper sizes | *A3/A4 and many other* | *A3/A4 and many other* | *A3/A4 and many other* |
| Print resolution | *600 x 600 x 4 dpi* | *1200 x 1200 dpi* | *1200 x 1200 dpi* |
| Printout | *color, black & white* | *color, black & white* | *black & white* |

### ▶ Highlights
– Full DICOM 3.0 Basic Grayscale and Color Print Management
– Single licence for unlimited number of modalities and printers
– Individual header and footer including text and graphic logos
– Individual LUT in color and black & white for every modality, user and printer
– Print-Presentation-LUT
– full immediate online-support for printer, server and software by CPS
– Low average cost per page, about 1 cent in black&white and 8 cent in color

## ▶ Fujifilm DryPix 2000

| | |
|---|---|
| **Capacity** | *90 films/h* |
| **Resolution** | *84.7 μm/12 bit* |
| **System** | *Thermal* |

▶ **Highlights**
– Tabletop printer
– 1 or 2 film trays
– Footprint: 0.31 m²
– Fully DICOM compatible
– Non-DICOM modalities can be connected via DryPix Link

## ▶ Fujifilm DryPix 4000

| | |
|---|---|
| **Capacity** | *160 films/h* |
| **Resolution** | *50 μm/14 bit* |
| **System** | *Laser* |

▶ **Highlights**
– Available formats:
   8 x 10", 10 x 12",
   26 x 36 cm, 35 x 43 cm
– 1 or 2 film trays
– On-top sorter optional available
– High resolution for mammography
– High density for mammography ($D_{max}$=4.0)

## ▶ Fujifilm DryPix 7000

| | |
|---|---|
| **Capacity** | *240 films/h* |
| **Resolution** | *50 μm/14 bit* |
| **System** | *Laser* |

▶ **Highlights**
– Available formats:
   8 x 10", 10 x 12",
   26 x 36 cm, 35 x 43 cm
– 2 or 3 film trays
– 10 bin sorter optional available
– High resolution for mammography
– High density for mammography ($D_{max}$=4.0)

## ▶ Konica Minolta DryPro 832

| | |
|---|---|
| **Capacity** | *90 films/h* |
| **Resolution** | *78,6 μm/12 bit* |
| **System** | *Laser* |

▶ **Highlights**
– Smallest laser imager
– Fastest time for first film print out (50 s)
– Ready for up to 2 film trays
– Support of 5 different film sizes

## ▶ Konica Minolta DryPro 793

| | |
|---|---|
| **Capacity** | *120 films/h* |
| **Resolution** | *43.75 μm/14 bit* |
| **System** | *Laser* |

▶ **Highlights**
– Central print solution
   for multi-modality environment
– Ready for up to 3 film trays
– Support 5 different film sizes
– Optional sorter available
– Supports mammography

## ▶ Konica Minolta DryPro 873

| | |
|---|---|
| **Capacity** | *180 films/h* |
| **Resolution** | *43,75 μm* |
| **System** | *Laser* |

▶ **Highlights**
– Fast multi-modality printer
   for optimal performance
– High density printing for
   mammography – Dmax 4.0
– Fully DICOM compatible
– Ready for up to 3 film trays
– Optional sorter available

> **medigration Paperprint**

| | |
|---|---|
| **Colour Laser Printer** | **XEROX DocuColor 242** |
| **Copier** | ✔ |
| **Scanner** | ✔ |
| **Paper Sizes (max.)** | *DIN A3/ 11 x 17 inch* |
| **Print Resolution** | *2400 x 2400 dpi* |
| **Printout** | *Colour, black & white* |

| | | |
|---|---|---|
| **Colour Laser Printer** | **XEROX WorkCentre 7328** | **XEROX Phaser 5550** |
| **Copier** | ✔ | – |
| **Scanner** | *optional* | – |
| **Paper Sizes (max.)** | *DIN A3/ 11 x 17 inch* | *DIN A3/ 11 x 17 inch* |
| **Print Resolution** | *1200 x 1200 dpi* | *1200 x 1200 dpi* |
| **Printout** | *Colour, black & white* | *black & white* |

> **Highlights**
– Supports all DICOM 3.0 modalities (e.g. CT, MRT, CR, DR, US, NUK etc)
– Supports one or more PostScript printers within the network
– General licence package (no restrictions on how many DICOM modalities are connected)
– Image header and footer customizable incl. physician logo
– Separate LUT (Look Up Table) for each printing system
– GSDF calibration according IHE

---

> **Mitsubishi Printer P93E**

| | |
|---|---|
| **Capacity** | *Approx. 260 print roll, max. 923 sheets/h* |
| **Resolution** | *325 dpi/1280 x 600 (PAL/normal)* |
| **System** | *B&w video printer, direct thermal* |

> **Highlights**
– User-friendly settings with control switches
– Extremely compact dimensions and lightweight design
– Fast print speed due to BAS/FBAS, BNC connector
– 7 different picture formats
– Picture memory for 10 individually selectable frames

> **Mitsubishi Printer P93DW**

| | |
|---|---|
| **Capacity** | *Approx. 260 print roll, max. 973 sheets/h* |
| **Resolution** | *325 dpi/1280 x 5760 (panorama)* |
| **System** | *B&w digital printer, direct thermal* |

> **Highlights**
– USB Version 2.0 guarantees print speed from 3.7 seconds
– Compact size of only 154 x 90 x 256 mm
– Quick and easy adjustment on the front panel
– Panorama-print up to 100 x 150 mm
– Extensive adjustment possibilities using the printer driver

---

> **Mitsubishi Printer CP31W**

| | |
|---|---|
| **Capacity** | *80 prints set, max. 225 sheets/h* |
| **Resolution** | *423 dpi/1600 x 2100* |
| **System** | *Color video printer, dye sublimation* |

> **Highlights**
– Front-loading system on rails for paper and ink sheet cassette
– Compact and ergonomic design
– Integrated control panel
– Integrated paper tray with illuminated exit slot
– PAL & NTSC compatible with common S-Video and Composite Video

> **Mitsubishi Printer CP30W**

| | |
|---|---|
| **Capacity** | *80 prints set, max. 225 sheets/h* |
| **Resolution** | *423 dpi/1600 x 2100* |
| **System** | *Color video printer, dye sublimation* |

> **Highlights**
– Front-loading system on rails for paper and ink sheet cassette
– Compact and ergonomic design
– Integrated control panel
– Integrated paper tray with illuminated exit slot
– PAL & NTSC compatible, all standard interfaces

## ▶ Mitsubishi Printer CP30DW

| | |
|---|---|
| **Capacity** | *80 prints set, max. 225 sheets/h* |
| **Resolution** | *423 dpi/1600 x 2100* |
| **System** | *Color digital printer, dye sublimation* |

**▶ Highlights**
- Front-loading system on rails for paper and ink sheet cassette
- Compact and ergonomic design
- High-speed USB interface (Version 2.0)
- Large integrated paper tray
- Illuminated paper exit slot

## ▶ Sony UP-DF500 Filmstation

| | |
|---|---|
| **Capacity** | *70 sheets/h* |
| **Resolution** | *320 dpi* |
| **System** | *Direct thermal* |

**▶ Highlights**
- The FILM STATION™ reproduces diagnosis images at a rate of up to 70 sheets of film per hour on 14 x 17 inch thermal film
- The smallest footprint in its class (600 x 251 x 688 mm) thanks to vertical installation capability
- Capable of edge-to-edge printing
- A newly developed thermal printing head combined with an improved PQC (Picture Quality Control) allow clear and accurate reproduction of images

## ▶ Sony UP-D72XR Filmprinter

| | |
|---|---|
| **Capacity** | *100 sheets* |
| **Resolution** | *300 dpi* |
| **System** | *Direct thermal* |

**▶ Highlights**
- The UP-D72XR incorporates Sony direct thermal-printing technology, which enables photo-quality prints to be reproduced with a high resolution of approximately 300 dpi
- Ideal for time-critical medical applications, offers an impressive printout time of just 45 seconds for an 8 x 10 inch image
- Compact, lightweight design
- The UP-D72XR is equipped with USB and IEEE1284 interfaces, both of which allow data to be transferred to it at high speed from external devices

## ▶ Sony UP-D74XRD

**▶ Highlights**
- Sony dry-processing technology provides the optimum solution for printing
- High-end reference images, particularly for digital X-ray, CT and MRI
- Supports both 8 x 10 inch: blue thermal film and thermal printing paper
- Delivers photo-quality: film and paper prints with 512-step grayscale
- Incorporates both DICOM and USB interfaces: manually selectable from the front panel
- DICOM interface allows unlimited connectivity to other systems, including PACS and HIS (Hospital Information System)

## ▶ Sony UP-DF550

| | |
|---|---|
| **Capacity** | *64 sheets/h* |
| **Resolution** | *320 dpi* |
| **System** | *Direct thermal* |

**▶ Highlights**
- Two film supply trays to accommodate multiple film sizes
- The printing mechanism also enables the UP-FD550 to be oriented vertically as well as horizontally
- Easy network parameter settings
- Edge-to-edge-like printing: 14 x 17 inch (4.360 x 5.232 pixels) film print area
- Gamma curve settings
- Quick warm-up time
- Reliable Sony blue thermal film

## ▶ Sony UP-21MD

**▶ Highlights**
- 1, 2 or 4 images can be reproduced in one print
- Two different print packs can be used with the UP-21MD
- Prints can be produced in 17 seconds* with the durable, recently developed A6 format print media
  *in high-speed mode with the UPC-21S colour print pack
- 212 mm (W) x 125 mm (H) x 395 mm (D), 6.5 kg
- The UP-21MD accepts analogue RGB, S-video (Y/C) and composite video signals
- RS-232C connector

## ▶ Sony UP-DF 750

| | |
|---|---|
| **Capacity** | *75 sheets/h* |
| **Resolution** | *604 dpi* |
| **System** | *Direct thermal* |

▶ **Highlights**
– Multiple Film Sizes for Various Radiology Modalities
– New Blue Thermal Film for Mammography
– Two Film Trays Compatible with All Film Sizes
– Large Effective Print Area and Edge-to-edge-like Printing
– Easy Network Parameter Settings
– DICOM Connectivity

## ▶ SONY UP-DR80MD

| | |
|---|---|
| **Capacity** | *50 sheets/h* |
| **Resolution** | *301 dpi* |
| **System** | *Dye Sublimation Thermal Printing* |

▶ **Highlights**
– Superb Print Quality
– Stylish Design and Compact Size
– Useful Front Operation
– Easy Color Adjustment
– Color Look Up Table
– Gray Balance Adjustment

# DISPLAYS/PRINTERS ACCESSORIES

## ▶ Codonics Virtua Medical Disc Publisher

▶ **Highlights**
– Burns up to 60 CDs or 30 DVDs an hour
– Auto records patient studies and reports without tying up workstation or employee resources
– Touchscreen interface for optimized workflow
– Full-color disc labels creator
– DICOM compliant network appliance
– Burn speeds based on a typical clinical study with full color label. Not all features available on all models. Specifications subject to change

| | |
|---|---|
| | **Virtua Medical Disc Publisher** |
| **Capacity** | *Two 50-disc input bins; 100 disc total capacity* |
| **Drives/Recordable Format** | *DVD±R / CD-R dual-layer drives, CD-R, DVD-R, DVD+R* |
| **Printer** | *Inkjet 4800 dpi* |
| | **Virtua XR Medical Disc Publisher** |
| **Capacity** | *Two 50-disc input bins; 100 disc total capacity* |
| **Drives/Recordable Format** | *Two dual-layer, DVD±R / CD-R drives, CD-R, DVD-R, DVD+R* |
| **Printer** | *Inkjet 4800 dpi* |

## ▶ Codonics Integrity Medical Image Importer

| | |
|---|---|
| **User Interface** | *Remote web browser access* |
| **Import Formats** | *DICOM 3.0, IHE PDI, ACR NEMA, older DICOM image files* |
| **Processor** | *Intel® Core™ 2 Duo* |
| **Search Rules** | *Configurable* |
| **Dimensions** | *6.49" (16.5 cm) W, 6.49" (16.5 cm) D, 1.96" (5 cm) H* |
| **Weight** | *2.41 lbs. (1.46 kg)* |

▶ **Highlights**
– Compact, stand alone solution to read, reconcile and store medical studies from CD/DVD
– Improves workflow by bringing the reconciliation process to the user
– Automatically scans for viruses to protect your data
– Reconciles patient data with facility's own modality worklist
– Displays the original imported data as well as the matching MWL or PACS data

## ▶ IBA Dosimetry LXcan

Spot luminance meter for quality tests at displays

▶ **Highlights**
– Luminance and illuminance measurements
– Display: 1.2" TFT
– Targeting device: integrated camera
– Ultrasonic distance sensor; alignment sensor
– USB interface

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## ▶ Aloka ProSound Alpha 10 PREMIER

| | |
|---|---|
| **Modes** | *B-mode, M-mode, CW/PW, Color Doppler, D-eFlow, TDI, Strain, 4D, Contrast harmonic echo, stress-echo, free angular M-mode* |
| **Scan format** | *Convex, linear, phased array, 4D, radial, EUS Olympus* |
| **Transducer inputs** | *4* |

▶ **Highlights**
– Premium radiology and shared service solution
– Exceptional image quality: 4 harmonic levels selectable with 6 AIP levels (real-time speckle reduction hardware: no FR reduction even with phased-array probes)
– Spatial compound/trapezoidal scan/ extended field of view/DICOM SR
– Advanced 4D capabilities: up to 30 volumes/second!
– Directional eFlow: enhance dramatically the detection of any blood flow
– E-tracking: vessel property measurement/visualization of flow in 3D Flow mode

## ▶ Aloka ProSound Alpha 7

| | |
|---|---|
| **Modes** | *B-mode, M-mode, CW/PW, Color Doppler, D-eFlow, TDI, Strain, 4D, Contrast harmonic echo, stress-echo, free angular M-mode* |
| **Scan format** | *Convex, linear, phased array, 4D, radial* |
| **Transducer inputs** | *3* |

▶ **Highlights**
– Powerful & compact premium ultrasound system
– Fully prepared for GI, shared service, OB/GY, cardiovascular applications
– Exceptional image quality: 4 harmonic levels/edge optimizer mode
– Advanced 4D capabilities/user-friendly & ergonomic focused design
– Directional eFlow: enhance dramatically the detection of any blood flow
– Digital image management, USB memory stick compatible, DICOM SR

## ▶ Aloka ProSound Alpha 5

| | |
|---|---|
| **Modes** | *B-mode, M-mode, CW/PW, Color Doppler, 4D, Contrast harmonic echo, stress-echo, free angular M-mode* |
| **Scan format** | *Convex, linear, phased array, 4D, radial, EUS Olympus* |
| **Transducer inputs** | *3* |

▶ **Highlights**
– Pure sound transmission by controlling waveform to obtain high sensitivity & resolution
– Tissue harmonic echo, contrast harmonic imaging
– Integrated data management system for Dicom networking and stress echo
– Real-time free angular M-mode
– Real-time 3D/4D imaging

## ▶ Aloka ProSound SSD–4000

| | |
|---|---|
| **Modes** | *B-mode, M-mode, CW/PW, Color Doppler, 4D, Contrast harmonic echo, stress-echo, free angular M-Mode* |
| **Scan format** | *Convex, linear, phased array, 4D, radial, EUS Olympus* |
| **Transducer inputs** | *3* |

▶ **Highlights**
– PHD – Pure harmonic detection technology
– Tissue harmonic echo, contrast harmonic imaging
– Integrated data management system for DICOM networking and stress echo
– Quint frequency imaging, real time free angular M-mode
– Real-time 3D/4D imaging

## ▶ Aloka ProSound SSD–3500SX

| | |
|---|---|
| **Modes** | *B-mode, M-mode, PW, Color Doppler, 4D, free angular M-mode* |
| **Scan format** | *Convex, linear, 4D* |
| **Transducer inputs** | *2 (+1 optional)* |

▶ **Highlights**
– High-performance compact digital color system
– 4D capability designed for private/ public requests
– Latest LCD monitor technology: higher resolution
– User-friendly/ergonomic design/ DICOM
– Digital image management, built, USB port

## ▶ Aloka ProSound C3

| | |
|---|---|
| **Modes** | *B-mode, M-mode, CW/PW, Triplex, Harmonic echo, TDI, free angular M-mode, stress-echo* |
| **Scan format** | *Convex, linear* |
| **Transducer inputs** | *2* |

▶ **Highlights**
– High-end color portable ultrasound solution for GI & shared service
– Superior image quality/high color flow sensitivity
– 15" high resolution TFT monitor/large & ergonomic backlight user interface
– Macbook Pro based/latest dual core CPU technology
– Built-in CD/DVD burner/USB port/DICOM

## ▶ Aloka ProSound 6

| | |
|---|---|
| **Modes** | *B-mode, M-mode* |
| **Scan format** | *Convex, linear* |
| **Transducer inputs** | *2* |

▶ **Highlights**
– Compact & mobile B/W ultrasound system
– Premium B/W image quality: harmonic echo, AIP (optional)
– Latest LCD monitor technology: higher resolution
– Large range of new specialized probes
– Digital image management, built-in compact flash memory, USB port, CD-R drive

## ▶ Aloka ProSound 4

| | |
|---|---|
| **Modes** | *B-mode, M-mode* |
| **Scan format** | *Convex, linear* |
| **Transducer inputs** | *2* |

▶ **Highlights**
– New compact & mobile B/W ultrasound system
– Exceptional B/W image quality: harmonic echo
– Latest LCD monitor technology: higher resolution
– Large range of new specialized probes
– Digital image management, built-in compact flash memory, USB port

## ▶ Aloka ProSound 2

| | |
|---|---|
| **Modes** | *B-mode, M-mode* |
| **Scan format** | *Convex, linear* |
| **Transducer inputs** | *2* |
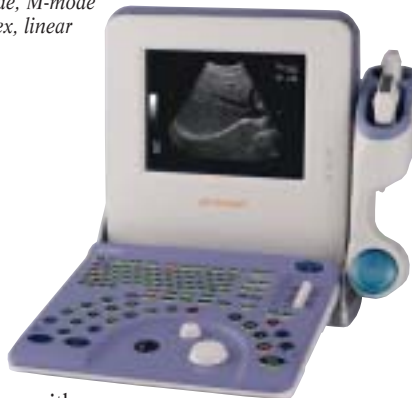
▶ **Highlights**
– Portable B/W system with excellent image quality and comprehensive functions
– Multifrequency imaging
– Extended Pure Harmonic Detection (ExPHD)
– Edge Enhancement Function

## ▶ CHISON iVIs60 Plus

| | |
|---|---|
| **Modes** | *B-mode, M-mode, Power Doppler, CFM, PW, HPRF, Triplex, Harmonic Imaging, 3D/4D* |
| **Scan format** | *Linear (trapezoidal), convex, microconvex, phased array* |
| **Transducer inputs** | *3* |

▶ **Highlights**
– Premium 3D/4D ultrasound
– Auto doppler
– Harmonic imaging
– Real-time triplex
– Raw data image
– Post-processing

## ▶ CHISON 8300

| | |
|---|---|
| **Modes** | *B, B/B, 4B, M, B/M* |
| **Scan format** | *Linear, convex, micro-convex* |
| **Transducer inputs** | *2* |

▶ **Highlights**
– Full digital beam-former
– Harmonic imaging
– Ergonomic keyboard
– Enhanced image and cine storage
– USB ports, DICOM

## ▶ Esaote MyLab25 XVGold

| | |
|---|---|
| **Modes** | *B-mode, M-mode, color-, high sensitivity power doppler, PW-, CW doppler, TEI, CMM, TVM, TP-View, VPan* |
| **Scan format** | *3D/4D* |
| **Transducer inputs** | *2+1 probe connectors. Probes: LA, CA, PA, microconvex, pencil* |

▶ **Highlights**
– 15"monitor
– high frequency imaging up to 18 MHz
– brilliant images (XView)
– Compound Imaging (MView)
– CnTI™ (contrast enhanced ultrasound)
– PC-workstation MyLabDesk™
– opt. Li-Ion battery (up to 1h)

## ▶ Esaote MyLab70 XV Gold

| | |
|---|---|
| **Modes** | *B-mode, M-mode, color-, high sensitivity power doppler, PW-, CW doppler, TEI, TVM, CMM, TP-View, VPan* |
| **Scan format** | *3D/4D linear and convex* |
| **Transducer inputs** | *4+1 probe connectors. Probes: LA, CA, PA, microconvex, pencil* |

▶ **Highlights**
– 19"monitor
– high frequency imaging up to 18 MHz
– brilliant images (XView), Compound Imaging
– CnTI™ (contrast enhanced us)
– Elastographie
– QIMT
– Fusion Imaging
– MyLabDesk™, 120 GB

## ▶ GE Healthcare LOGIQ E9

| | |
|---|---|
| **Modes** | *B-Mode, M-Mode, CFM-Mode, Doppler, Amplitude modulated contrast mode, Realtime4D* |
| **Scan format** | *Linear, convex, microconvex, sector phased array, trapezoid* |
| **Transducer inputs** | *4* |

▶ **Highlights**
– Matrix array transducer technology
– 3D/4D Volume scan
– Depth independed contrast imaging thanks to new amplitude modulation technology
– True spatial image fusion of CT/MRT Images and realtime ultrasound
– Volume navigation
– Agile, adaptive beamformer

## ▶ GE Healthcare Voluson E 8

| | |
|---|---|
| **Modes** | *B-Mode, M-Mode, CFM-Mode, Doppler, HD-Flow, Realtime4D* |
| **Scan format** | *Linear, convex, microconvex, sector phased array* |
| **Transducer inputs** | *3* |

▶ **Highlights**
– Realtime 4D up to 40 volumes/sec.
– Automatic volumetric analysis
– STIC (Realtime 4D view of the fetal heart)
– CRI (Compound Resolution Imaging)
– HD-Flow (high sensitive Power Doppler)

## ▶ GE Healthcare LOGIQ 9

| | |
|---|---|
| **Modes** | *B-Mode, M-Mode, CFM-Mode, Doppler, B-Flow, coded contrast Harmonic, Realtime4D* |
| **Scan format** | *Linear, convex, microconvex, sector phased array, trapezoid* |
| **Transducer inputs** | *4* |

▶ **Highlights**
– Volume ultrasound (3D and contrast harmonic imaging, VOCAL II, 16 Mhz volume probe)
– TUI (Tomographic Ultrasound Imaging)
– CrossBeam realtime compound (up to 9 angles)
– Matrix array transducer technology
– LOGIQView (panoramic imaging)
– Ergonomic design with swiveling keyboard, LCD monitor, VoiceScan

## ▶ GE Healthcare LOGIQ 7

| | |
|---|---|
| **Modes** | *B-Mode, M-Mode, CFM-Mode, Doppler, B-Flow color, Coded Contrast Harmonic, StressEcho, anatomical M-Mode* |
| **Scan format** | *Linear, convex, micro-convex, sector phased array, trapezoid* |
| **Transducer inputs** | *4* |

▶ **Highlights**
– High end shared service system
– B-Flow color (digitally subtraction technique)
– Matrix array transducer support
– CrossBeam realtime compound and speckle reduction imaging
– Contrast harmonic imaging with DualView and TIC analysis

## ▶ GE Healthcare LOGIQ S6

| | |
|---|---|
| **Modes** | *B-Mode, M-Mode, CFM-Mode, Doppler, B-Flow colour, Coded Contrast Harmonic, StressEcho, Anatomical M-Mode* |
| **Scan format** | *Linear, convex, microconvex, sector phased array, trapezoid* |
| **Transducer inputs** | *3* |

▶ **Highlights**
– Compact shared service system
– B-Flow color (digitally subtraction technique)
– Matrix array transducer support
– CrossBeam realtime compound and speckle reduction imaging
– Digitally archive with RawData support

## ▶ GE Healthcare LOGIQ P6

| | |
|---|---|
| **Modes** | *B-Mode, M-Mode, CFM-Mode, Doppler, B-Flow color, Coded Contrast Harmonic, StressEcho, Anatomical M-Mode* |
| **Scan format** | *Linear, convex, microconvex, sector phased array, trapezoid* |
| **Transducer inputs** | *3* |

### ▶ Highlights
– Compact shared service system B-Flow color (digitally substraction technique)
– CrossBeam realtime compound and speckle reduction imaging
– LOGIQView (panoramic imaging)
– Auto optimize (For B-Mode, color, Doppler)
– Digitally archive with RawData support

## ▶ GE Healthcare LOGIQ A5 / P5 Premium

| | |
|---|---|
| **Modes** | *Modular configurable from b/w system up to color triplex system (B-Mode, M-Mode, CFM-Mode, Doppler, B-Flow, cardiology)* |
| **Scan format** | *Linear, convex, microconvex, sector phased array, trapezoid* |
| **Transducer inputs** | *3* |

### ▶ Highlights
– Compact lightweight and modern design with 15" LCD monitor
– CrossBeam and speckle reduction Imaging
– LOGIQView (panoramic imaging)
– Auto optimize (for B-Mode, color, Doppler)
– Digitally archive with RawData support

## ▶ GE Healthcare LOGIQ e

| | |
|---|---|
| **Modes** | *B-Mode, M-Mode, CFM-Mode, Doppler* |
| **Scan format** | *Linear, convex, microconvex, sector phased array, trapezoid* |
| **Transducer inputs** | *1* |

### ▶ Highlights
– Portable premium system with shared service capabilities
– High frequency modul (for vascular and SmallParts diagnostic)
– Sector phased array modul (for cardiology)
– CrossBeam
– LOGIQView (panoramic imaging)

## ▶ HAIYING HY5580 Digital Ultrasound System

| | |
|---|---|
| **Modes** | *B, B/B,4B, B/M, M* |
| **Scan format** | *Electronic Convex/Electronic Linear/Electronic micro-convex* |
| **Transducer inputs** | *3* |

### ▶ Highlights
– Leading full digital forming image technology
– Latest generation of digital beam forming technology
– Whole range real time continuous dynamic focusing
– Dynamic frequency scanning
– Real-time dynamic aperture
– Tissue harmonic image
– Image displaying precisely and finely(PIP)
– Multiple image display in real-time
– Reliable digital PC platform
– Intelligent incorporated work station

## ▶ HAIYING HY5511 Portable Digital Ultrasound System

| | |
|---|---|
| **Modes** | *B, B/B,4B, B/M, M, A* |
| **Scan format** | *Electronic Convex, Electronic Linear* |
| **Transducer inputs** | *2* |

### ▶ Highlights
– High precision digital beam forming technology
– Real-time dynamic aperture Dynamic frequency scanning
– Multiple image display
– Local zoom in real-time
– Probe with broad band multi-frequency and high density
– Dual probe ports switched electronically
– Full digital image transfer ports with USB

## ▶ Hitachi Medical Systems HI VISION PREIRUS

| | |
|---|---|
| **Modes** | *B-Mode, M-Mode, Doppler mode, CFM mode, Tissue Doppler mode, Biplane mode, Tissue harmonic mode, Coded imaging, Compound function* |
| **Scan format** | *Linear, convex, phased array, multi-frequency, endovaginal, endorectal, Intraoperative, EUS, miniprobes, biopsy, thru-crystal , laparoscopic* |
| **Transducer inputs** | *3 active ports* |

### ▶ Highlights
– Unique ergonomic design for maximum comfort in diagnosis
– Smart Touch graphic user interface for intuitive operation
– PSS (Patient Scanning Selector) to optimise patient specific scan parameters
– Enhanced image quality and diagnostic performance using Hitachi Real-time Tissue Elastography (HI-RTE) and innovative Fine Flow Doppler
– Maintains compatibility with our diverse range of transducers

## ▶ Hitachi Medical Systems HI VISION 900

| | |
|---|---|
| **Modes** | B-Mode, M-Mode, Doppler mode, CFM mode, Tissue Doppler mode, Biplane mode, Tissue harmonic mode, Coded Imaging, Compound function |
| **Scan format** | Linear, convex, phased array, multi-frequency, endovaginal, endorectal, Fingertip Interventional, Intraoperative, EUS, mini-probes, thru-crystal, laparoscopic |
| **Transducer inputs** | 3 active ports |

▶ **Highlights**
– Advanced Image Processing
– Hitachi Real-time Tissue Elastography (HI-RTE) and Hitachi Real-time Virtual Sonography (HI RVS) for superior image guidance of interventional procedures
– Customisable mode keys and toolbars
– Extension, rotation and height adjustment of control panel and monitor
– New graphical user interface featuring Hitachi's Ultrasound Cockpit
– Compatibility with more than 40 transducers

## ▶ Hitachi Medical Systems EUB–7500 HV

| | |
|---|---|
| **Modes** | B-Mode, M-Mode, Doppler mode, CFM mode, Tissue Doppler mode, Biplane mode, Tissue harmonic mode, Compound function |
| **Scan format** | Linear, convex, phased array, multi-frequency, endovaginal, endorectal, Fingertip Interventional, Intraoperative, EUS, min-proes, thru-crystal, laparoscopic |
| **Transducer inputs** | 3 active ports |

▶ **Highlights**
– Superior image processing to maximise diagnostic confidence
– Compatibility with more than 40 transducers
– Hitachi Real-time Tissue Elastography (HI-RTE) and Hitachi Real-time Virtual Sonography (HI RVS) for superior image guidance of interventional procedures
– Advanced measurement capabilities including sophisticated cardiac tissue-tracking modalities

## ▶ Hitachi Medical Systems EUB–7000 HV

| | |
|---|---|
| **Modes** | B-Mode, M-Mode, Doppler mode, CFM mode, Tissue Doppler mode, Biplane mode, Tissue harmonic mode, Compund function |
| **Scan format** | Linear, convex, phased array, multi-frequency, endovaginal, endorectal, Fingertip Interventional, Intraoperative, EUS, mini-probes, thru-crystal, laparoscopic |
| **Transducer inputs** | 3 active ports |

▶ **Highlights**
– Economical while highly efficient
– Convincing image quality in all applications
– Compact and ergonomic design
– Digital LCD display
– Compatibility with more than 40 transducers

## ▶ Kontron Medical Imagic

| | |
|---|---|
| **Modes** | B mode, Smart Harmonic Imaging, M-Mode, Color M-Mode, Anatomical M-Mode, Spectral Doppler (CW/PW), Color Doppler (CFM), High PRF, Power Doppler, Tissue Doppler Imaging (TDI) |
| **Scan format** | phased array, convex, linear, pencil |
| **Transducer inputs** | 4 + 2 |

▶ **Highlights**
– Open and complete digital architecture
– Multi-beam processing and FCI compound technology imaging
– 160 GB hard disk supports fast processing and wide memory capacity
– Possibility to connect 4 electronic transducers plus 2 pencil transducers simultaneously
– Fully integrated communications – TCP/IP – DICOM 3.0

## ▶ Kontron Imagic Maestro

| | |
|---|---|
| **Modes** | B-mode, angle free M-mode, CFM, directional power doppler, TDI, PW/CW, Multi-angle imaging mode, real time 4D, contrast media |
| **Scan format** | linear, convex, microconvex, phased array, trapezoid |
| **Transducer inputs** | 4 |

▶ **Highlights**
– Ergonomic & Ecologic concept design
– Multidisciplinary & Modular platform
– Multiangle real time compound & digital imaging processing
– epMode( Panoramic Imaging)
– MiniPACS (ImagicDesk)

## ▶ Kontron Imagic Agile

| | |
|---|---|
| **Modes** | Modular configurable from B/W system up to CFM and real time 4D |
| **Scan format** | linear, convex, microconvex, phased array, trapezoid |
| **Transducer inputs** | 2 + 1 |

▶ **Highlights**
– High-end Portable system without compromise
– Dedicated trolley for maxima comfort
– Multiapplication capability for shared service
– Extreme flexibility in system configuration
– Multiangle real time compound & digital imaging processing
– MiniPACS (ImagicDesk)

# Innovation you can touch



Viamo's
**built-in touch
screen enables seamless
workflow and intuitive operation
of the system.**

**JC Schlegel, PhD
Marketing Manager
Ultrasound Business Group
Toshiba Medical Systems
Europe**

At Toshiba Medical Systems we make every effort to provide you with the best quality products and services to meet the challenging demands of your daily clinical practice. Continuous #1 ratings in customer satisfaction surveys such as KLAS [1] or MD Buyline [2] are both incentive and commitment to us. Our product development is driven by our customers' requirements and focuses on values that are most important to you: uncompromised image quality, state of the art ergonomics, workflow support, economic efficiency, longevity and sustainability.

With that philosophy in mind and with the decades-long experience of Toshiba in the development of both laptop PCs and diagnostic imaging equipment we have now created the first ultraportable diagnostic ultrasound device with premium image quality and built-in touch screen to provide uncompromised diagnostic performance and joy of use – Viamo.

## Diagnostic quality without compromise

Viamo shares its core imaging technology with Aplio XG, Toshiba's premium cart-based ultrasound system, which means that industry-leading features like Pulse Subtraction, ApliPure or Advanced Dynamic Flow can be migrated from Aplio XG to Viamo to provide the highest image quality also in situations where unlimited portability is required.

Viamo shares its transducer technology with our premium cart-based systems as well. A whole range of Aplio XG transducers is connectable to Viamo. The standard transducers are equipped with small-size connectors to attach them directly to Viamo's main unit. The system is also capable of sharing specialty transducers with a cart-based system by means of a full-size connector, which is available for Viamo's pole cart. This option can help you leverage your full diagnostic potential while minimizing your investment into expensive specialty transducers.

Viamo's brilliant 15 inch monitor displays the ultrasonic images with high resolution, allowing the user to appreciate even small objects or subtle differences in echogenicity with ease. This makes interventional work more secure. But it also means that diagnoses made with Viamo are of the same quality as those made with full-sized equipment and no re-scans will be required for a definite diagnosis.

## Intuitive operation with built-in touch screen

Operability and workflow limitations are common problems in portable devices. Full size panels are simply shrunk to laptop dimensions resulting in tiny keys. Advanced functions are moved into awkward popup menus or to additional screens attached to the cart. Not so with Viamo. The system is equipped with a built-in touch screen with dedicated user interface to allow a totally seamless and outstandingly comfortable and intuitive operation of the system.

Although Viamo can be fully operated via its touch screen, it is complemented by a concise console holding 15 hard keys. The hybrid operation using the reduced console and touch screen enables the user to control the system as easily and comfortably as a full-sized cart. Individual key functions on Viamo's console as well as on the touch screen



**Viamo's monitor can
be rotated to allow free
positioning and both
laptop and tablet
style operation
of the machine.**

**Viamo's height adjustable pole cart is extremely slim and easy to manoeuvre.**

are user programmable to suit specific diagnostic requirements or personal preferences. A soft keyboard allows the user to enter patient data or comments whenever required.

Viamo's monitor can be rotated to allow free positioning of the screen and both laptop and tablet style operation of the system. Viamo's height adjustable pole cart is extremely slim and enables the user to freely manoeuvre and position the device. Viamo's touch screen can also be operated while wearing gloves or through a transparent sterile cover whenever required.

The battery-powered system is operational within just five seconds when opened, which makes the system instantaneously available also in critical situations. The power supply is elegantly integrated into Viamo's pole cart allowing the system to be moved easily. The cart offers storage space for cables, napkins and other utensils.

## Seamless workflow tailored to your needs

A whole range of workflow automation functions is available on Viamo. One-touch QuickScan helps you to achieve greater workflow consistency in less time. With a simple push of a button, you can automatically optimize image quality with acoustic precision while suppressing white noise in echo-weak regions. And Viamo's SonoSet function lets

you carry out routine exams by executing freely programmable protocols simply at the touch of a button. SonoSet also combines multiple operations into a single keystroke. This unique tool can make standard scans easier and a lot faster.

Viamo features the same comfort as full-sized systems not only in terms of imaging and operation, but it is also equipped with a fully featured Patient and Image Management System. Clinical images and clips acquired with the system can be stored on Viamo's integrated hard disk, sent to a PACS through its integrated DICOM interface, or exported in PC compatible formats to USB memory stick. Viamo's pole cart can be

**When opened, Viamo is operational within just 5 seconds, which makes it instantaneously available in any situation.**

equipped with a black and white printer for documentation on paper. The system is also capable of printing clinical images directly into simplified PDF reports, which are then stored on USB memory stick and can be printed or forwarded electronically from any PC.

To protect your property against theft or damage, a Kensington Cable Lock slot is located at the rear of the main unit, and a custom-made Rimowa suitcase is available for you to carry the system securely.

## Conclusion

Viamo combines all the advantages of a portable system with the diagnostic quality and the ease of use known and appreciated from premium cart-based systems. As a full-fledged ultrasound system, Viamo is ideally suited not only for all mobile clinical and out-patient applications, but also for physician's offices where space might be an issue – but diagnostic quality is not.

**References**
1 http://www.klasresearch.com/
2 http://www.mdbuyline.com/

**Remarks**
*Some of the features described here are works in progress and currently not commercially available on Viamo.*

## ▶ Landwind Mirror 2 Color Doppler

| | |
|---|---|
| **Modes** | *B-mode, M-mode, Color Doppler mode, Power Doppler, Directional Power Doppler, Pulsed Wave(PW) Spectral Doppler mode, HPRF, Duplex mode* |
| **Scan format** | *Curved array, Endocavity, Linear array* |
| **Transducer inputs** | *2* |

**▶ Highlights**
– Multi-beam Parallel imaging
– Real-time Dynamic Receiving Focusing
– Premium Vascular Imaging increase spectrum resolution and reduce the overflow and motion artifact
– Superior Aptitude Filter provide accurate diagnosis information by eliminating spectrum noise and sharp the boundary
– Magic Focus adjust space between focuses to improve resolution and provide more diagnostic information

## ▶ Medison Accuvix V20

| | |
|---|---|
| **Modes** | *B-mode, Tissue- and Pulse inversion Harmonic Imaging, DynamicMR™, M-mode, Anatomical M-mode, CFM-mode, Power Doppler, Spectral Doppler (PWD/CWD), Pulsed Wave Tissue Doppler Imaging, Live 3D™/4D and 3D XI™* |
| **Scan format** | *Linear, trapezoidal, compound linear, 3D linear, convex, micro convex, 3D Convex, phased array sector and pencil* |
| **Transducer inputs** | *4 + 1* |

**▶ Highlights**
– Multi-speciality live 3D™/4D ultrasound system
– High resolution (1280 x 1024) 17" LCD monitor
– Live 3D™ with extreme volume rates
– 3D XI™ Multi Slice View™, Oblique view™ and VolumeCT™
– 3D XI STIC™, VOCAL and XI VOCAL™
– Highly sensitive directional Power Doppler

## ▶ Medison Accuvix V10

| | |
|---|---|
| **Modes** | *B-mode, Tissue- and Pulse inversion Harmonic Imaging, DynamicMR™, M-mode, Anatomical M-mode, CFM-mode, Power Doppler, Spectral Doppler (PWD/CWD), Pulsed Wave Tissue Doppler Imaging, Live 3D™/4D and 3D XI™* |
| **Scan format** | *Linear, trapezoidal, compound linear, convex, micro convex, 3D convex, phased array sector and pencil* |
| **Transducer inputs** | *3 + 1* |

**▶ Highlights**
– Multi-speciality live 3D™/4D ultrasound system
– High resolution (1280x1024) 17"LCD monitor
– Live 3D™ with extreme volume rates
– 3D XI™ Multi Slice View™, Oblique view™ and VolumeCT™
– 3D XI STIC™, VOCAL and XI VOCAL™
– Highly sensitive directional Power Doppler
– Elastoscan

## ▶ Medison Sonoace X8

| | |
|---|---|
| **Modes** | *B-mode, Tissue- and Pulse inversion Harmonic Imaging, DynamicMR™, M-mode, Anatomical M-mode, CFM-mode, Power Doppler, Spectral Doppler (PWD/CWD), Pulsed Wave Tissue Doppler Imaging, Live 3D™/4D and 3D XI™* |
| **Scan format** | *Linear, trapezoidal, compound line ar, convex, micro convex, 3D convex, phased array sector and pencil* |
| **Transducer inputs** | *3 + 1* |

**▶ Highlights**
– Popular class multi-speciality live 3D™/4D ultrasound system
– High resolution (1280 x 1024) 17" LCD monitor
– Live 3D™ with extreme volume rates
– 3D XI™, Multi Slice View™, Oblique view™ and VolumeCT™
– Highly sensitive directional Power Doppler

## ▶ Medison Sonoace X6

| | |
|---|---|
| **Modes** | *B-mode, Tissue- and Pulse inversion Harmonic Imaging, DynamicMR™, M-mode, Anatomical M-mode, CFM-mode, Power Doppler, Spectral Doppler (PWD/CWD), Pulsed Wave Tissue Doppler Imaging* |
| **Scan format** | *Linear, trapezoidal, compound linear, convex, micro convex, 3D convex, phased array sector and pencil* |
| **Transducer inputs** | *3 + 1* |

**▶ Highlights**
– Economical multi-speciality digital color ultrasound system
– Full Spectrum™ and Tissue Harmonic Imaging
– Color and Power Doppler
– Free hand 3D imaging
– High resolution (LCD monitor)

## ▶ Medison Sonoace Pico

| | |
|---|---|
| **Modes** | *B-mode, freehand 3D, M-mode, CFM-mode, Power Doppler and PW Spectral Doppler* |
| **Scan format** | *Linear, trapezoidal, convex and micro convex* |
| **Transducer inputs** | *1 (opt. 2)* |

**▶ Highlights**
– Portable digital color ultrasound system
– Full Spectrum™ and Tissue Harmonic Imaging
– Color and Power Doppler
– Freehand 3D imaging

## ▶ Medison Sonoace X4

| | |
|---|---|
| **Modes** | *B-mode, freehand 3D, M-mode and PW Spectral Doppler* |
| **Scan format** | *Linear, convex and micro convex* |
| **Transducer inputs** | *1 (opt. 2)* |

▶ **Highlights**
– Premium B/W and Doppler ultrasound system
– Digital multi-beam-forming channels
– Full Spectrum™ imaging
– Free hand 3D imaging

## ▶ Mindray DC-3

| | |
|---|---|
| **Modes** | *B,2B,4B, B/M, M, Color Doppler Flowing Imaging, HPRF, Power, Dirpower* |
| **Scan format** | *Linear Array, Convex Array, Micro Convex, Endocavity, Intrarectal, Phased array, T-type linear, Biplanar* |
| **Transducer inputs** | *4* |

▶ **Highlights**
– Compact system with full ergonomic design
– iClear™: Speckle reduction technology
– THI(Tissue Harmonic Imaging), Smart 3D™, Trapezoid imaging, iScape™ view and Free Xros™ imaging
– iTouch™: Intelligent one-touch image optimization
– iStation™: Intelligent patient management platform
– DVD-R/W, USB, DICOM 3.0, and ECG module
– Height adjustable and rotatable control panel

## ▶ Mindray M5

| | |
|---|---|
| **Modes** | *B,2B,4B, B/M, M, Color Doppler Flowing Imaging, HPRF, Power, Dirpower* |
| **Scan format** | *Linear Array, Convex Array, Micro Convex, Endocavity, Intrarectal, Phased array, T-type linear, Biplanar* |
| **Transducer inputs** | *2* |
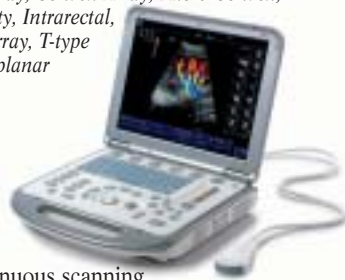
▶ **Highlights**
– 6.5 Kg and 15 inch high resolution TFT screen
– Integrated battery for continuous scanning
– iClear™: Speckle reduction technology
– THI (Tissue Harmonic Imaging), Smart 3D™, Trapezoid imaging, iScape™ view and Free Xros™ imaging
– iTouch™: Intelligent one-touch image optimization
– iStation™: Intelligent patient management platform
– 80G HDD, DVD-R/W, DVD recorder, USB, DICOM 3.0 and ECG module

## ▶ Philips HD7

| | |
|---|---|
| **Modes** | *Microfine 2D focusing, Color Doppler, Color Power Angio imaging, Pulsed Wave Doppler, 3D, Stress Echo, M-mode and Anatomical M-mode, pulse inversion, Tissue Harmonic Imaging' DICOM SR and contrast* |
| **Scan format** | *Curved, linear and sector arrays* |
| **Transducer inputs** | *up to 4* |

▶ **Highlights**
– User centric functions and design
– Exceptional HD performance with Broadband beamformer and broadband transducers
– Optimized workflow with simple 2D, color and spectral Doppler optimization
– All type of clinical applications:
– Data Management with USB access through user interface
– Transducer compatibility with other Philips systems

## ▶ Philips iU22

| | |
|---|---|
| **Modes** | *2D, Tissue Harmonic, M-Mode, advanced volumetric modes including Live xPlane (simultaneous display of 2 live images), PW-Doppler, CW-Doppler, panoramic, contrast, Color Power Angio* |
| **Scan format** | *Curved, linear, sector (PureWave) and xMATRIX arrays* |
| **Transducer inputs** | *3* |

▶ **Highlights**
– Exceptional image quality as a result of leading-edge technologies
– Advanced volumetric imaging with freehand, automated and electronic (xMATRIX) acquisition
– Unique system design provides unparalleled ergonomics
– Built-in automation – optimal image quality with the push of a button
– Full range of applications including abdominal, ob/gyn, TCD, musculoskeletal, adult cardiac (including stress echo), vascular and small parts

## ▶ Philips HD11 XE

| | |
|---|---|
| **Modes** | *2D, Tissue Harmonic, M-Mode, PW-Doppler, Color Power Angio, CW-Doppler, panoramic, trapezoidal, contrast* |
| **Scan format** | *Curved and linear arrays* |
| **Transducer inputs** | *5* |

▶ **Highlights**
– Fully equipped to cover a full range of applications: abdominal, small parts/musculokeletal, ob/gyn, vasclar, cardiac and TCD
– Advanced imaging capabilities with volumetric imaging and manipulation tools: iSlice, STIC, Colour invert
– Cardiac imaging supported with stress echo, anatomical M-mode and tissue Doppler imaging
– Superb ergnomics and mobility – the system goes where you need it

## ▶ Philips EnVisor HD

| | |
|---|---|
| **Modes** | *2D, Tissue Harmonic, PW-Doppler, CW-Doppler, M-Mode, trapezoid, panoramic, 3D, contrast* |
| **Scan format** | *Sector, curved and linear arrays* |
| **Transducer inputs** | *4* |

▶ **Highlights**
– Optimized workflow for the demanding practice
– Full range of transducers support a wide variety of exams, including abdominal, cardiac (including TEE), ob/gyn, vascular and musculoskeletal/small parts
– Workstation quality data management at the point of care
– Affordably priced

## ▶ Philips HD3

| | |
|---|---|
| **Modes** | *B-Mode, M-Mode, Color Doppler, VeloPower, PW-Doppler, HPRF, CW-Doppler, Tissue Harmonic Imaging, Color Power Angio Imaging, Grayscale 3D* |
| **Scan format** | *Curved and linear arrays* |
| **Transducer inputs** | *3 + 1* |

▶ **Highlights**
– Powerful capabilities in a compact package
– HD performance in a small, easy-to-use, mobile system
– Easy to maneuver and ergonomically adjustable
– Extremely affordable

## ▶ Shenzhen Emperor EMP-830

▶ **Highlights**
– Dual power supply system (with battery)
– LCD display
– Obstetrics, gynecology, urology, cardiology software package
– Lightweight for easier carry
– Car power supply
– Software upgradable
– USB port, software update, video pinter, laser printer, footswitch

## ▶ Shenzhen Emperor EMP-2100

▶ **Highlights**
– Leading digital technology
– Extensive software package
– 4B mode for multi-angle examination
– Adjustable scanning depth
– Cineloop storage and speed control
– Swift storage for high effciency
– Outstanding pre-setting and user-defined features
– USB port, software update, video pinter, laser printer, footswitch

## ▶ Shimadzu SDU-2200 PRO

| | |
|---|---|
| **Modes** | *B- and M-Mode, PW- and CW-Doppler, Color Doppler, Power Doppler, Tissue Harmonic Imaging, Chromatic, 3D Grayscale, 3D Color, 4D OB* |
| **Scan format** | *Curved, linear and sector arrays* |
| **Transducer inputs** | *3* |

▶ **Highlights**
– Advanced digital beam forming technology delivers excellent high-definition images and high frame rates
– Full range of transducer supporting interdisciplinary examinations
– Including phased array technology for cardiac imaging
– Integratable 3D/4D-option for general imaging and obstetrics

## ▶ Shimadzu SDU-1200 PRO

| | |
|---|---|
| **Modes** | *B- and M-Mode, PW- and CW-Doppler, Color Doppler, Power Doppler, Tissue Harmonic Imaging, Chromatic, 3D Grayscale, 3D Color, 4D OB* |
| **Scan format** | *Curved, linear and sector arrays* |
| **Transducer inputs** | *3* |

▶ **Highlights**
– On-board workstation for easy data management
– Advanced application software for wide range of clinical examinations
– High sensitive doppler imaging modules
– Panoramic view for endocavity probes
– True broad bandwidth technology up to 15 MHz
– Integratable 3D/4D-option for general imaging and obstetrics

## ▶ Shimadzu SDU–1100

| | |
|---|---|
| **Modes** | *B- and M-Mode, PW-Doppler, Color Doppler, Power Doppler, Tissue Harmonic Imaging, Chromatic, 3D Grayscale, 3D Color, 4D OB* |
| **Scan format** | *Curved and linear arrays* |
| **Transducer inputs** | *2 and 3* |

### ▶ Highlights
– Powerful platform supports wide range of examinations
– 15" high resolution monitor for an optimized observation
– True customized pre-settings for a smart workflow
– Digital image archiving and network capabilities

## ▶ Shimadzu Sarano

| | |
|---|---|
| **Modes** | *B-Mode, M-Mode, Tissue Harmonic Imaging* |
| **Scan format** | *Curved and linear arrays* |
| **Transducer inputs** | *2 and 3* |

### ▶ Highlights
– Next generation digital beam former provides outstanding image quality including HDR technology
– Smart design concept: efficient workflow, easy handling within the clinical areas
– Full range of high resolution probes with wide bandwidth technology up to 15 MHz
– Panoramic view for endocavity probes
– Digital image archiving and network capabilities

## ▶ Siemens ACUSON S2000

| | |
|---|---|
| **Modes** | *B-mode, Color Doppler, Power Doppler, PW Doppler (Duplex, Triplex), Doppler Tissue Imaging (Color and PW), CW spectral Doppler, M-mode and Color Doppler M-mode* |
| **Scan format** | *Curved array, phased array, linear, endocavity, 3D/4D imaging, pencil 3* |
| **Transducer inputs** | |

### ▶ Highlights
– Advanced transducer technology including micro-pinless connectors, Hanafy lens and matrix arrays, and silicon-ready
– Advanced breast imaging application with eSieTouch™ elasticity imaging and Fatty Tissue Imaging technologies including option to add ABVS Automated Breast (see Mammography)
– Advanced SieClear™ spatial compounding with dynamic TCE™ technology with speckle reduction in 3D
– Advanced fourSight™ technology
– Automatic measurement of lesions with syngo® e-Sie Calcs native tracing software

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see it all ● ● ●

# MEDISON

## ACCUVIX V20

# The Supreme 3D/4D Ultrasound

**VolumeOS**
VOLUME OPERATING SYSTEM

**ACCUVIX V20 has the most advanced innovative VolumeOS (Volume Operating System) among 3D/4D ultrasound systems. VolumeOS user environment incorporates a variety of technologies, including 3D XI™, XI VOCAL™ and OVIX™ (Oblique VIew eXtended). VolumeOS utilizes an effective, innovative user interface that enables doctors to minimize examination time without losing the important details to come to an enhanced diagnosis.**

## ▸ Siemens ACUSON Antares

| | |
|---|---|
| **Modes** | *B-mode, Color Doppler, Power Doppler, PW Doppler (Duplex, Triplex), Doppler Tissue Imaging (Color and PW), CW spectral Doppler, M-mode and Color Doppler M-mode* |
| **Scan for mat** | *Curved array, phased array, linear, endocavity, 3D/4D imaging, pencil* |
| **Transducer inputs** | *3* |

▸ **Highlights**
– High-end ultrasound system
– 3D/4D imaging
– Advanced breast imaging application with eSieTouch™ elasticity imaging and fatty tissue imaging technologies
– Cadence CPS Contrast enhanced imaging
– Hanafy lens transducer technology
– MultiHertz™ multiple frequency imaging technology
– Advanced SieClear™ spatial compounding with dynamic TCE™ technology
– Advanced fourSight™ technology
– TEQ™ ultrasound technology: Clarify™ vascular enhancement technology, syngo® auto OB measurements

## ▸ Siemens ACUSON X300

| | |
|---|---|
| **Modes** | *B-mode, Color M-mode, M-mode, Color Doppler Velocity mode, Power Doppler mode, Pulsed Wave (PW) spectral Doppler mode, CW Continuous Wave spectral Doppler mode* |
| **Scan format** | *Phased array, curved array, endocavity, linear array* |
| **Transducer inputs** | *3* |

▸ **Highlights**
– Hanafy lens transducer technology
– Tissue harmonic imaging
– DTI™ Doppler tissue imaging capability
– Multi-beam formation technology
– Streamlined clinical workflow with integrated DIMAQ-IP workstation, a user customizable control panel, and TGO™ tissue grayscale optimization technology
– ErgoDynamic™ imaging system design with flat panel display and articulating arm

## ▸ Siemens ACUSON X150

| | |
|---|---|
| **Modes** | *B-mode, M-mode, Color Doppler Velocity mode, Power Doppler mode, Pulsed Wave (PW) spectral Doppler mode, Duplex mode, Triplex mode* |
| **Scan format** | *Phased array, curved array, endocavity, linear array* |
| **Transducer inputs** | *2 + 1 optional* |

▸ **Highlights**
– Top diagnostic performance and scalability
– Superior 2D-mode imaging
– Color imaging option
– Cardiac screening option and phased array transducers fully integrate 3-Scape™ real-time 3D imaging application to easily acquire real-time 3D images during freehand acquisition
– Intuitively simple, yet powerful user interface with highly functional ergonomics

## ▸ Siemens ACUSON P10

| | |
|---|---|
| **Modes** | *B-Mode, harmonic modes* |
| **Scan format** | *Phased array* |
| **Transducer inputs** | *Single handheld unit with integrated transducer* |

▸ **Highlights**
– Excellent image quality
– Instant power-up
– Removable, rechargeable battery
– Simple, intuitive user interface
– TGO™ tissue grayscale optimization technology
– Application presets
– SD memory card and USB port
– Offline image review software

## ▸ SonoScape Portable digital ultrasound A6

| | |
|---|---|
| **Modes** | *4B, Tissue Harmonic Imaging, B, B/M, M, B/B* |
| **Scan format** | *Linear Array, Convex Array, Micro Convex Array* |
| **Transducer inputs** | *2* |

▸ **Highlights**
– Portability with large 12" LCD display
– Super high physical processing channel
– HD very broadband 5-frequency-selection probes
– Full digital Beam former
– Seamlessly multi-focus technology
– Clipboard
– Dual USB 2.0 and DICOM 3.0
– USB software upgrade

## ▸ SonoScape Portable Colour Doppler S8

| | |
|---|---|
| **Modes** | *B-mode, Steer M-mode, TDI, CFM, PDI, PWD, CWD, 3D/4D, Color M-mode, Tissue Harmonic Imaging, Tissue Doppler Imaging* |
| **Scan format** | *Linear (trapezoidal) Array, Convex array, Micro Convex Array, Phased Array, TEE* |
| **Transducer inputs** | *2* |

▸ **Highlights**
– Premium multi-specialty 4D ultrasound
– Micro scan real-time compound imaging
– Multi-Beam Parallel Processing Technology
– Tissue Doppler imaging
– Steer M-mode
– M-turning function
– Panoramic Imaging
– Hot swap

## ▶ SonoScape Colour Doppler SSI–8000

| | |
|---|---|
| **Modes** | *B-mode, Steer M-mode, TDI, CFM, PDI, PWD, CWD, 3D/4D, Color M-mode, Tissue Harmonic Imaging, Tissue Doppler Imaging* |
| **Scan format** | *Linear (trapezoidal) Array, Convex array, Micro Convex Array, Phased Array, TEE* |
| **Transducer inputs** | *4* |

▶ **Highlights**
– Premium multi-specialty 4D ultrasound
– Micro scan real-time compound imaging
– Multi-Beam Parallel Processing Technology
– Tissue Doppler imaging
– Steer M-mode
– M-turning function
– Panoramic Imaging
– Hot swap

## ▶ Sonosite MicroMaxx

| | |
|---|---|
| **Modes** | *2D, Tissue Harmonic Imaging, M-mode, Velocity Colour Dopppler, Color Power Doppler, PW, PW Tissue Doppler and CW* |
| **Scan format** | *Linear array, curved array, phased array, multiplane TEE and micro-convex* |
| **Transducer inputs** | *3* |

▶ **Highlights**
– Image quality
– Portable
– Ease-of-use
– Durable
– Reliable

## ▶ Sonosite M–Turbo

| | |
|---|---|
| **Modes** | *2 D, Tissue Harmonic Imaging, M-Mode, Velocity Colour Doppler, Colour Power Doppler, PW, PW Tissue Doppler and CW* |
| **Scan format** | *Linear array, curved array, phased array, micro convex, multidriven multiplane TEE, pencil probe, intraoperative transducer and vaginal probe* |
| **Transducer inputs** | *1 and 3* |

▶ **Highlights** – Portability – weight 3.8 kg; lithium-ion battery; full activity at the point of care
– Ease-of-use – booth up in a few seconds; clearly arranged user guidance
– Reliability – drop tested to withstand the real world (1.50 m)
– Durability – unique 5-year warranty
– SonoHD™ – high resoluted image quality; 8 GB storage capability (pictures and videos up to 60 seconds)
– SonoMB™ – multibeam, real-time compound imaging
– SonoAdapt™ – tissue optimization
– SonoCalc IMT – intima media thickness measurement tool, automatic edge detection with mean and maximum thickness reporting, internal and external
– Auto-gain for 2D imaging

## ▶ Toshiba Aplio XG

| | |
|---|---|
| **Modes** | *2D, 3D, 4D, M modes; PW/CW Doppler; high PRF; color flow Doppler* |
| **Scan format** | *Linear, convex, matrix, and phased arrays; biopsy & 4D volume probes (linear and convex); Motorised-TEE; rectal, vaginal & pencil probe* |
| **Transducer inputs** | *3 + 1 (pencil)* |

▶ **Highlights**
– Precision Imaging, MicroPure and Elastography
– ApliPure Plus: Advanced realtime compound imaging
– Differential THI: better resolution and depth of penetration
– Advanced Dynamic Flow: Broadband colour flow Doppler
– Contrast imaging: Low MI, VRI, microflow imaging
– Whole body 4D imaging with linear and convex transducers; Volume view; Multiview

## ▶ Toshiba Viamo

| | |
|---|---|
| **Modes** | *2D, M modes; spectral Doppler; high PRF; color flow Doppler* |
| **Scan format** | *Linear, convex and phased arrays* |
| **Transducer inputs** | *1 + 1* |

– Hybrid operation with touch screen and programmable panel
– Versatile mounting in desktop, cart and tablet modes
– Instant image optimisation
– One-click workflow control

▶ **Highlights**
– Premium image quality
– 5 seconds bootup time

## ▶ Toshiba Xario XG

| | |
|---|---|
| **Modes** | *2D, 3D, 4D, M modes; PW/CW Doppler; HPRF; color flow Doppler* |
| **Scan format** | *Linear, convex and phased arrays; biopsy probe; 4D volume probes (linear and convex); Motorised-TEE; rectal and vaginal probe; pencil probe* |
| **Transducer inputs** | *3 + 1 (pencil)* |

▶ **Highlights**
– Precision Imaging and MicroPure
– Aplipure Plus: advanced real-time compound imaging
– Differential THI: better resolution and depth of penetration
– Advanced Dynamic Flow: broadband color flow doppler
– Quick Scan: image optimisation with just one click
– Whole body 4D imaging with linear and convex transducers; Volume view; Multiview

## ▶ Toshiba Xario

| | |
|---|---|
| **Modes** | 2D, 3D, 4D, M modes; PW/CW Doppler; high PRF; color flow Doppler |
| **Scan format** | Linear, convex, and phased arrays; biopsy probe; 4D volume probe; Motorised-TEE; rectal and vaginal probe; pencil probe |
| **Transducer inputs** | 3 + 1 (pencil) |

▶ **Highlights**
– Precision Imaging and 4D Convex
– ApliPure: Realtime compound imaging
– Advanced Dynamic Flow: Broadband colour flow Doppler
– Quick Scan: image optimization with just one click
– User defined programming of operating console
– IASSIST: Remote control via handheld Bluetooth controller

## ▶ Toshiba Nemio XG

| | |
|---|---|
| **Modes** | 2D, 3D, 4D, M modes; PW/CW Doppler; HPRF; color flow Doppler |
| **Scan format** | Linear, convex and phased arrays; biopsy probe; 4D volume probe; TEE; rectal and vaginal probe; pencil probe, endoscopic FNA, Laparoscopic |
| **Transducer inputs** | 3 + 1 (pencil) |

▶ **Highlights**
– ApliPure: Realtime Compound Imaging
– Advanced dynamic flow: broadband color flow Doppler
– SonoSet: Workflow control with just one click
– User defined programming of menus and buttons
– Onboard reporting, DICOM, DVD, USB, and export to PC

## ▶ Toshiba Famio XG

| | |
|---|---|
| **Modes** | 2D, M modes; THI |
| **Scan format** | Linear and convex arrays; biopsy probe; rectal and vaginal probe |
| **Transducer inputs** | 2 |

▶ **Highlights**
– 100% digital signal processing
– Broadband technology
– Image optimization option
– User defined programming of the operating console
– Image and loop storage on hard-disk and CD, DICOM

## ▶ Ultrasonix Medical Corporation Sonix OP

| | |
|---|---|
| **Modes** | 3D, B, Dual B, Quad B, B-mode, M-mode, Split B/Color mode, Pulsed Wave Doppler, trapezoidal, spatial compounding |
| **Scan format** | Linear array, curved array, endocavity microconvex array, phased array |
| **Transducer inputs** | 3 |

▶ **Highlights**
– Intuitive console design, Q Sonix quick exam button
– Compact design, small foot print, and easy to maneuver
– 17" LCD flat panel monitor DVI input
– CD/DVD-RW, front load USB, 80 GB onboard hard drive
– 4 lockable wheels

## ▶ Ultrasonix Medical Corporation Sonix SP

| | |
|---|---|
| **Modes** | 3D, 4D, B, Dual B, Quad B, B-mode, M-mode, Split B/Color mode, Pulsed Wave Doppler, trapezoidal, spatial compounding |
| **Scan format** | Linear array, curved array, endocavity microconvex array, phased array |
| **Transducer inputs** | 3 |

▶ **Highlights**
– Intuitive console design, Q Sonix quick exam button
– Compact design, small foot print, and easy to maneuver
– 17" LCD flat panel monitor DVI input
– 4D imaging capability
– CD/DVD-RW, front load USB, 80 GB onboard hard drive

## ▶ Ultrasonix SonixTOUCH

| | |
|---|---|
| **Modes** | B, Dual B, Quad B, Spatial Compound, Trapezoidal, B-mode steering, Extended Sector, CFM Color Doppler, Power Doppler, Directional Power Doppler, Color steering, PW Doppler, Pulsed Doppler steering, CW Doppler, M, 3-D, Panoramic, Harmonic, Duplex, Triplex, 4D/Live 3D, Elastography |
| **Scan format** | Linear, Convex, Microconvex, Phased Array, Endocavity |
| **Transducer inputs** | 3 |

▶ **Highlights**
– Touch Screen Technology
– Premium Image Quality
– Easy to use
– Easy to maneuver
– Compact design, small foot print, fold down 17" DVI display
– Battery Powered (option)
– OpenSONIX platform: Increased expansion options
– Online updates

## ▶ Ultrasonix SonixMDP

| | |
|---|---|
| **Modes** | B, Dual B, Quad B, Spatial Compound, Trapezoidal, B-mode steering, Extended Sector, CFM Color Doppler, Power Doppler, Directional Power Doppler, Color steering, PW Doppler, Pulsed Doppler steering, CW Doppler, M, 3-D, Panoramic, Harmonic, Duplex, Triplex, 4D/Live 3D, Elastography |
| **Scan format** | Linear, Convex, Microconvex, Phased Array, Endocavity |
| **Transducer inputs** | 3 |

▶ **Highlights**
– Intuitive console design, QSONIX quick exam button
– Premium Image Quality 17" LCD display, DVI input
– CD/DVD-RW, Front load USB, large onboard hard drive
– 4 Lockable wheels
– OpenSONIX platform: Increased expansion options
– Online updates

## ▶ Well.D WED–160

| | |
|---|---|
| **Modes** | B,B+B,B+M,M,4B |
| **Scan format** | Convex, linear, micro-convex |
| **Transducer inputs** | 2 |
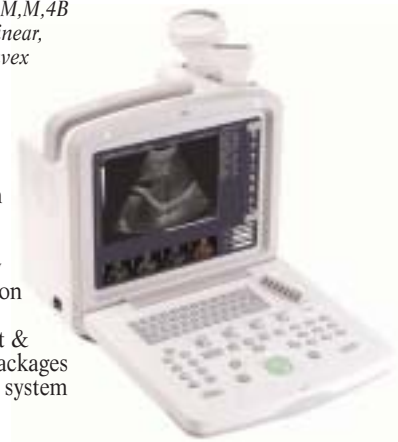
▶ **Highlights**
– Windows xp operation system based
– 4 sets of scroll menus mouse control friendly
– Ultrasound Work-station managing system
– Powerful measurement & calculation software packages
– Patient data managing system
– 4X windows
– Pseudo color
– Dicom 3.0
– 12 inch LCD
– Full range of probes

## ▶ Well.D WED–180

| | |
|---|---|
| **Modes** | B,B+B,B+M,M,4B,B+2B,6B,12B |
| **Scan format** | Convex, linear, micro-convex |
| **Transducer inputs** | 2 |

▶ **Highlights**
– Net weight:6.1kg
– 12 inch TFT color LCD (1024*768)
– THI (tissue harmonic imaging)
– Automatic report generation (Normal/OB)
– Pseudo color
– 2 USB port
– Full range of probes

## ▶ Well.D WED–660

| | |
|---|---|
| **Modes** | B,B+B,B+M,M,4B |
| **Scan format** | Convex, linear, micro-convex |
| **Transducer inputs** | 2 |

▶ **Highlights**
– Windows xp operation system based
– sets of scroll menus mouse control friendly
– Ultrasound Work-station managing system
– Powerful measurement & calculation software packages
– Patient data managing system
– THI (tissue harmonic imaging)
– 4X images
– Pseudo color
– Dicom 3.0
– 15 inch LCD
– Full range of probes

## ▶ Well.D WED–3000

| | |
|---|---|
| **Modes** | B,B+B,B+M,M,4B |
| **Scan format** | Convex, linear |
| **Transducer inputs** | 1 |

▶ **Highlights**
– Easy handcarrying
– Excellent image quality
– Easy-to use controls and menus
– 6.4 inch TFT color LCD
– 3hrs continuous operate
– 1.3 Kg (including the battery)
– Multi-frequency probes
– Car charger

## ▶ Well.D WED–2000A

| | |
|---|---|
| **Modes** | B,B+B,B+M,M |
| **Scan format** | Mechanical Sector |
| **Transducer inputs** | 1 |
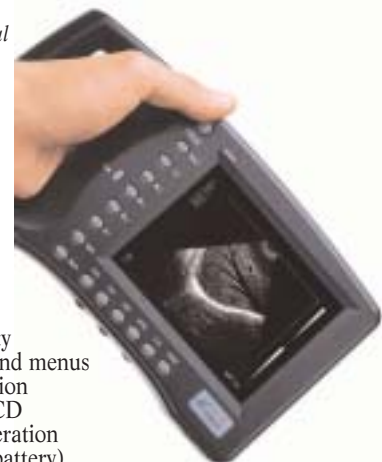
▶ **Highlights**
– Easy handcarrying
– Excellent image quality
– Easy-to use controls and menus
– Low power consumption
– 5.0 inch TFT color LCD
– 3.5hrs continuous operation
– 650 g (including the battery)
– Car charger

## z.one *ultra*

| | |
|---|---|
| Technology Mode | Zone Sonography™ Technology 2D / B-Mode, M-Mode, Tissue Harmonic Doppler Imaging, Compound Harmonics, Color Doppler, Color Power Doppler, PW-Doppler, CW-Doppler, Simultaneous Dual Imaging, 3D-Imaging, Elastography, Real-Time Triplex |
| Scan Transducer inputs | Curved Array (Micro-convex), Linear Array, Phased Array, Virtual Apex Array (trapezoidal) |
| | 1 – Z.ONE Scan Engine only (portable use) |
| | 3 – Z.ONE ultra (Scan Engine combined with SmartCart Workstation) |

### Highlights
- ZST Zone Speed Technology
- ZSI Zone Speed Index
- AUTO-OPT Automatic Optimization
- IQ Scan / Retrospective Imaging (The Virtual Patient)
- Utilizing the power of DSP Digital Signal Processing chip technology
- Convertible / Hybrid Ultrasound Concept
- Battery Pack for SmartCart Workstation

## Siemens ACUSON S2000 Automated Breast Volume Scanner

### Highlights
- High patient load
- Acquisition of full-field volumes of the breast automatically, quickly and comfortably
- Efficient and comprehensive analysis of the volume data
- Comprehensive BI-RADS® reporting capabilities
- Patient friendly - minimal compression
- No radiation

COVIDIEN
Formerly Tyco Healthcare

EZ EM
Visualize a healthier world

MED(TRON® AG

Nemoto

TOMOVATION®

ulrich
medical
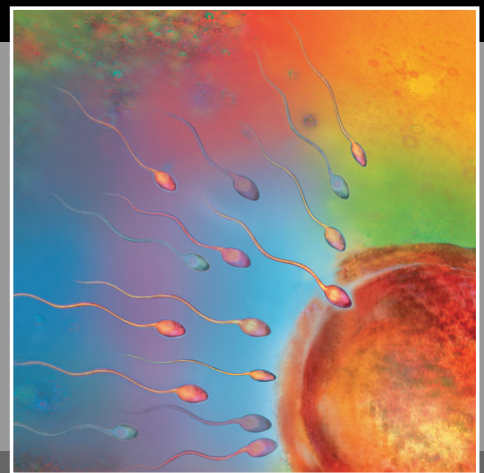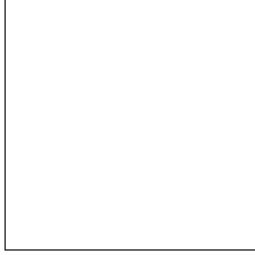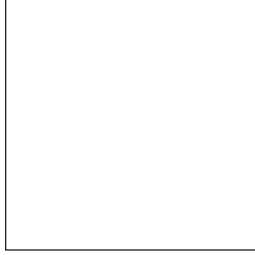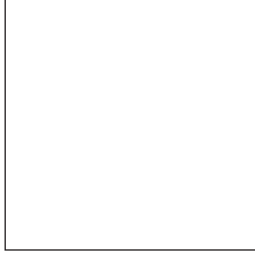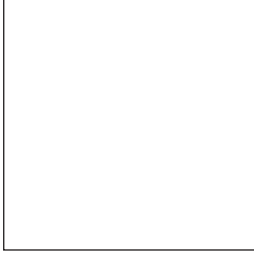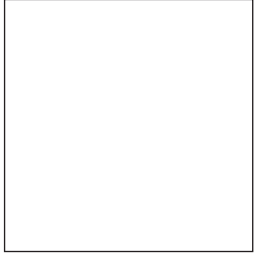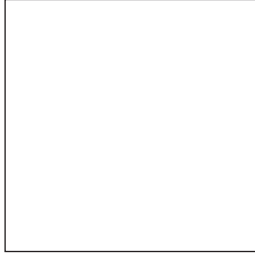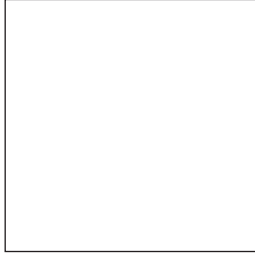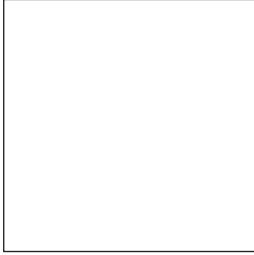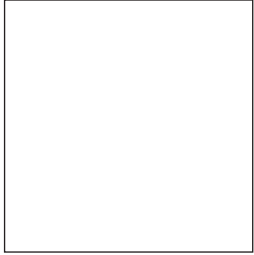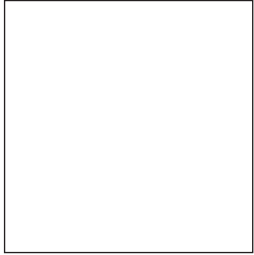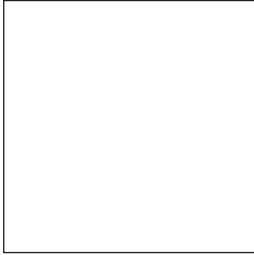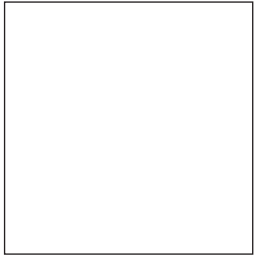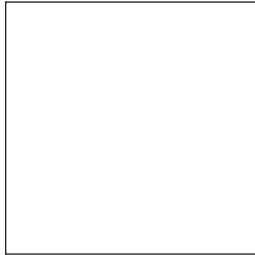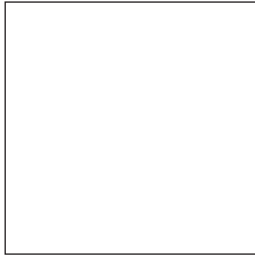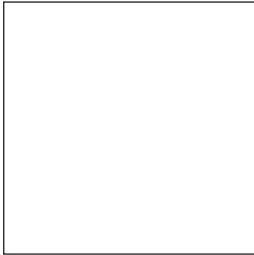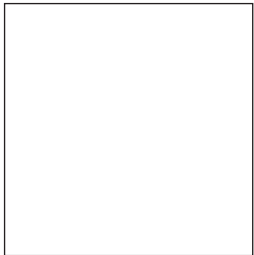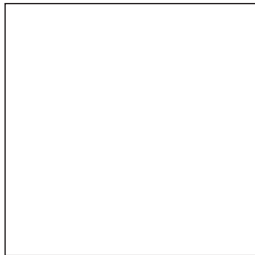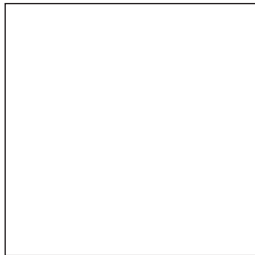
## ▶ Covidien CT 9000™ ADV CT injector

| | |
|---|---|
| **Capacity** | 30, 50 ml hand held; 50, 75, 100, 125 ml high pressure prefilled; 200 ml empty |
| **Pressure limit** | 25 – 300 psi (1.7 – 20.7 bar) |
| **Flow rate** | 0.1 – 9.9 ml/s |

▶ **Highlights**
– Contrast delivery injector for computed tomography
– New easy to read color touchscreen
– Requires only 3 simple key strokes to activate injection
– Accommodates front loading 200 ml disposable syringes and prefilled syringes
– Highly visible LED display

## ▶ Covidien Optistat™ Multi use injector

| | |
|---|---|
| **Capacity** | 50, 75, 100, 125 ml high pressure prefilled; 130 ml empty |
| **Pressure limit** | 225 psi (up to 15.5 bar) |
| **Flow rate** | 0.1 – 6.0 ml/s |

▶ **Highlights**
– Multi-use contrast delivery system
– Small and lightweight powerhead allows single-handed operation
– Simple attachment to the CT 9000/CT 9000 ADV, infusion rack or to another Optistat injector
– Use prefilled syringes or 130 ml empty syringes

## ▶ Covidien Angiomat™ Illumena™ Angiography injector

| | |
|---|---|
| **Capacity** | 50, 75, 100, 125 ml high pressure prefilled; 150 ml, 200 ml empty |
| **Pressure limit** | 75 – 1200 psi (5.17 – 82.74 bar) in angio-cardiac and peripheral modes, 75 – 300 psi (5.2 – 20.7 bar) in CT mode |
| **Flow rate** | 0.1 – 40.0 ml/s angio-cardiac and peripheral modes; 0.1 – 10.0 ml/s CT mode |

▶ **Highlights**
– Injector for angiography, cardiology and CT contrast delivery
– Digital powerhead display
– Automatically »flips« as powerhead is rotated
– Fill control bar allows easy, one finger operation
– Latex free and transparent syringes provide crystal clear view of the contrast medium
– Sensitive touchscreen display for direct and easy setup

## ▶ Covidien Optivantage™ DH Dual Head CT injector

| | |
|---|---|
| **Capacity** | 50, 75, 100, 125 ml high pressure prefilled; 200 ml empty |
| **Pressure limit** | 50 – 325 psi (3.5 – 22.4 bar) |
| **Flow rate** | 0.1 – 10.0 ml/s |

▶ **Highlights**
– Contrast delivery injector for dual head injector protocols
– Fully programmable powerhead: color coded display
– Patency check feature: saline flush prior to injection
– Timing bolus feature: to determine ideal scan
– Auto-fill feature: automatically filling of syringes
– Drip mode: changing drip rate, volume and duration

## ▶ Covidien Optistar™ Elite MRI injector

| | |
|---|---|
| **Capacity** | 10, 15, 20, 30 ml high pressure prefilled; 60 ml empty |
| **Pressure limit** | 20 – 150 psi (1.4 – 10.3 bar) for 60 ml syringes |
| **Flow rate** | 0.1 – 0.8 ml/s |

▶ **Highlights**
– Dual syringe injector for magnetic resonance tomography
– Battery free operation
– Single bolus and dual phase injections
– Full color touchscreen for a greater visibility
– Switch from injection to drip mode at any time
– Drop in syringe loading reduces preparation time

## ▶ E–Z–EM EMPOWER CTA

| | |
|---|---|
| **Syringe Volume** | 1 – 200 ml in user-specified increments of 1 ml |
| **Pressure** | 40 – 300 psi in user-specified increments of 1 psi |
| **Flow rate** | 0.1 – 10 ml/sec in increments of 0.1 ml/sec |

▶ **Highlights**
– Double-barrel injector, floor stand or ceiling mount
– Ease-of-operation through intuitive operators interface
– 10 ml/sec maximum flow rate with »change on the fly« control
– Extravasation detection (EDA) stops injecting if an extravasation is detected
– Networkable through IrisCT and CANopen interfaces

## ▶ E–Z–EM EMPOWER MR

| | |
|---|---|
| **Syringe Volume** | 1 – 100 ml in user-specified increments of 1 ml |
| **Pressure** | 40 – 300 psi in user-specified increments of 1 psi |
| **Flow rate** | 0.1 – 10 ml/sec in increments of 0.1 ml/sec |

▶ **Highlights**
– 7 T tested, no minimum
  distance requirement from
  magnet
– Hydraulic technology – no
  motor, no battery in the MR suite
– No interference with magnetic field,
  no magnetic attractive force
– Double-barrel injector, floor stand mounted
– Ease-of-operation through intuitive operators interface

## ▶ Medrad Dual syringe–CT–Injector Stellant DX

| | |
|---|---|
| **Capacity** | A: 200 ml – B: 200 ml |
| **Delivery Pressure** | 325 psi (22.1 bar) |
| **Flow range** | A: 0.1 – 10 ml/s in 0.1 ml/s increments |
| | B: 0.1 – 10 ml/s in 0.1 ml/s increments |

▶ **Highlights**
– Color touchscreen
– Upgradeable firmware
– Intelligent user interface
– Automated injector head features
– Optional DualFlow program

## ▶ Medrad MR-Injector Spectris Solaris EP

| | |
|---|---|
| **Capacity** | A: 65 ml – B: 115 ml |
| **Delivery Pressure** | 325 psi (22.1 bar) |
| **Flow range** | 0.01 – 10 ml/s in 0.01 ml/s increments |
| | 0.01 – 3.1 ml/s in 0.01 ml/s increments |
| | 3.1 – 10 ml/s in 0.1 ml/s increments |

▶ **Highlights**
– Battery or
  mains operated
– Color touchscreen
– Upgradeable
  firmware
– Intelligent user
  interface
– Dual syringe system

## ▶ MEDTRON Accutron CT–D

| | |
|---|---|
| **Capacity** | 200 ml (CM), |
| | 200 ml (NaCl) Easy Loading Syringe (ELS) |
| **Delivery Pressure** | 21 bar (304 psi) |
| **Flow range** | For both injection units: |
| | 0.1 – 10 ml/s, programmable in steps of 0.1 ml/s |

▶ **Highlights**
– Absolutely wireless injector unit
  with rechargeable batteries
– Integrated heated syringe holder for
  Easy Loading Syringe (ELS)
– Wireless touchscreen remote control
– Use of prefilled syringes *(as an option)*
– Up to 6 phases
– Secured injection position
  (built-in sensor)
– Alternatively, display of injection
  parameters or pressure graph
– Aluminium housing
– Wall or ceiling syspension system
  *(as an option)*
– CANopen Interface *(as an option)*

## ▶ MEDTRON Accutron MR

| | |
|---|---|
| **Capacity** | 65 ml or 200 ml (CM), |
| | 65 ml or 200 ml (NaCl) |
| **Delivery Pressure** | Easy Loading Syringe (ELS) |
| | 21 bar (304 psi) |
| **Flow range** | For both injection units: |
| | 0.1 – 10 ml/s, programmable |
| | in steps of 0.1 ml/s |

▶ **Highlights**
– Absolutely wireless injector unit with
  rechargeable batteries
– Touchscreen control panel with different
  languages
– Wireless touchscreen remote control
– Up to 6 phases
– Secured injection position
  (built-in sensor)
– Use of prefilled syringes
  *(as an option)*
– Alternatively, input of flow rate or
  phase duration
– Pressure graph
– Aluminium housing

## ▶ MEDTRON Injektron 82 HP

| | |
|---|---|
| **Capacity** | 200 ml (NaCl) |
| **Delivery Pressure** | Angio mode: 83 bar (1203 psi), |
| | CT mode: 21 bar (304 psi) |
| **Flow range** | Angio mode: 0.1 – 30 ml/s, |
| | CT mode: 0.1 – 10 ml/s |

▶ **Highlights**
– Integrated heated syringe holder
  with Easy Loading Syringe (ELS) 200 ml
– Fully digital, user programmable injector
– Remote control *(as an option)*
– Pressure jacket for prefilled syringes
  *(as an option)*
– Wall or ceiling suspension system
  *(as an option)*
– Interface on request *(as an option)*
– 100 injection protocols can be
  defined and stored by the user
  (50 protocols Angio-Mode/
  50 protocols CT-Mode)
– Aluminium housing

## MEDTRON Accutron HP-D

| | |
|---|---|
| Capacity | 200 ml (CM), 200 ml (NaCl) Easy Loading Syringe (ELS) |
| Delivery Pressure | 83 bar (1203 psi) |
| Flow range | 0.1 – 30 ml/s, programmable in steps of 0.1 ml/s |

### Highlights
– Absolutely wireless injector unit with rechargeable batteries
– Multiphase program controlled injection of CM and NaCl
– Single or multi injection mode
– Integrated heated syringe holder for Easy Loading Syringe (ELS)
– Touchscreen control panel with different languages
– Wireless touchscreen remote control
– Up to 3 phases
– Pressure graph
– Secured injection position (built-in sensor)
– 60 injection protocols can be definded and stored by the user
– Interface (as an option)
– Aluminium housing

## MEDTRON Accutron CT

| | |
|---|---|
| Capacity | 200 ml Easy Loading Syringe (ELS) |
| Delivery Pressure | 21 bar (304 psi) |
| Flow range | 0.1 – 10 ml/s, programmable in steps of 0.1 ml/s |

### Highlights
– Absolutely wireless injector unit, rechargeable batteries
– Integrated heated syringe holder with Easy Loading Syringe (ELS) 200 ml
– Touchscreen control panel with different languages
– Wireless touchscreen remote control
– Secured injection position (built-in sensor)
– Up to 6 phases
– Use of prefilled syringes (as an option)
– Alternatively, input of flow rate or phase duration
– Display of injection parameter or pressure graph at the remote control
– Interface capability (as an option)
– Aluminium housing

## Nemoto Dual Syringe-CT-Injektor DualShot GX

| | |
|---|---|
| Syringes | A: Contrastmedia A: 200 ml, 100 ml with adapter B: Saline 50 ml |
| Pressure | A: 300 psi, B: 300 psi |
| Throughput | A: 1–100 ml/200 ml in 1 ml steps B: 1–50 ml in 1 ml steps |

### Highlights
– Needle positioning test
– Progammable autofillfunction
– Program memory on CF memory card
– Creation of an optimized program by input of injection parameters

## Nemoto Dual Syringe-CT-Injector DualShot Alpha

| | |
|---|---|
| Syringes | A: Contrastmedia A: 200 ml, 100 ml with adapter B: Saline 100 ml |
| Pressure | A: 300 psi, B: 300 psi |
| Throughput | A: 1 – 100 ml/200 ml in 1 ml steps B: 1 – 100 ml in 1 ml steps |

### Highlights
– Needle positioning test
– Progammable autofillfunction
– Program memory on CF memory card
– Advanced Programming Functions
– Timing Bolus option

## Nemoto CT-Injector A 60

| | |
|---|---|
| Syringes | 200 ml, 100 ml with adapter |
| Pressure | 300 psi |
| Throughput | 0.1–10 ml/s in 0.1-ml/s steps |

### Highlights
– LCD-display
– Real time monitoring of the injection parameters
– Economical entrance model

## Nemoto MR-Injector Sonic Shot GX

| | |
|---|---|
| Syringes | A: MR Contrastmedia A: 60 ml standard; 10, 15, 20 ml with adapter (for prefilled syringe) B: Saline |
| Pressure | A: 200 psi, B: 200 psi |
| Throughput | A: 0.1 – 10 ml/s in steps of 0.1 ml/s B: 0.1 – 10 ml/s in steps of 0.1 ml/s |

### Highlights
– Needle positioning test
– Progammable autofillfunction
– Injector with MRI-compatible ceiling suspension available
– To be used for prefilled syringe

## ▶ Nemoto Angio-Injektor RemPress

| | |
|---|---|
| **Syringes** | *150 ml* |
| **Pressure** | *50–1200 psi* |
| **Throughput** | *0.1–25 ml/s in 0.1-ml/s steps* |

▶ **Highlights**
– Test Shot Mode
– Various installation styles
– Easy handling
– Infusion Mode
– 21 cm touch screen monitor

## ▶ ulrich medical CT/MRI injector mississippi (XD 2000)

| | |
|---|---|
| **Media containers** | *CA max. 2 x 1.000 ml (for CT),* *CA max. 2 x 100 ml (for MRI)* *NaCl max. 1 x 2.000 ml* |
| **Injection volume** | *400 ml/patient* |
| **Pressure** | *16 bar* |
| **Flow rate** | *0.2 – 8.0 ml/s, by increments* *of 0.1 ml/s* |

▶ **Highlights**
– Roll pump injector for CT and MRI
– Several injections consecutively
  out of one media container
  (multi dosing)
– Battery operated
– Proven hygienic safety
– Different software options available

## ▶ ulrich medical CT injector missouri (XD 2001)

| | |
|---|---|
| **Media containers** | *CA max. 2 x 1.000 ml,* *NaCl max. 1 x 2.000 ml* |
| **Injection volume** | *400 ml/patient* |
| **Pressure** | *16 bar* |
| **Flow rate** | *0.2 – 8.0 ml/s,* *by increments of 0.1 ml/s* |

▶ **Highlights**
– Roll pump injector
– Several injections consecutively out
  of one media container (multi dosing)
– Economic consumption of disposables
– Proven hygienic safety
– Different software options available

## ▶ ulrich medical CT injector ohio tandem (XD 2002)

| | |
|---|---|
| **Media containers** | *CA max. 2 x 1.000 ml,* *NaCl max. 1 x 2.000 ml* |
| **Injection volume** | *400 ml/patient* |
| **Pressure** | *16 bar* |
| **Flow rate** | *0.2 – 8.0 ml/s,* *by increments of 0.1 ml/s* |

▶ **Highlights**
– Roll pump injector
– Several injections consecutively out of
  one media container (multi dosing)
– Tandem function for different
  contrast agents without previous
  change of media containers
– Proven hygienic safety
– Different software options available

## ▶ ulrich medical CT/MRI injector ohio M with tandem function

| | |
|---|---|
| **Media containers** | *CA max. 2 x 1.000 ml (for CT),* *CA max. 2 x 100 ml (for MRI)* *NaCl max. 1 x 2.000 ml* |
| **Injection volume** | *400 ml/patient* |
| **Pressure** | *16 bar* |
| **Flow rate** | *0.2 – 8.0 ml/s, by increments* *of 0.1 ml/s* |

▶ **Highlights**
– Roll pump injector for CT and MRI
– Several injections consecutively out
  of one media container (multi dosing)
– Battery operated
– Tandem function for different
  contrast agents without previous change
  of media containers
– Proven hygienic safety

## ▶ ulrich medical MRI injector tennessee (XD 2003)

| | |
|---|---|
| **Media containers** | *CA max. 2 x 1.000 ml (for CT),* *CA max. 2 x 100 ml (for MRI)* *NaCl max. 1 x 2.000 ml* |
| **Injection volume** | *400 ml/patient* |
| **Pressure** | *16 bar* |
| **Flow rate** | *0.2 – 8.0 ml/s, by increments* *of 0.1 ml/s* |

▶ **Highlights**
– Roll pump injector for MRI –
  accumulator free
– Several injections consecutively
  out of one media container
  (multi dosing)
– Ready for use anytime
– Smooth workflow without
  interruption of daily workflow
– Proven hygienic safety

Column categories:

- **M**ammography
- **C**omputed Tomography
- **M**agnetic Resonance
- **C**T/MR Accessories
- **X**-Ray Accessories
- **X**-Ray
- **I**njectors
- **R**IS
- **P**ACS
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| **aycan** Digitalsysteme GmbH, Innere Aumuehlstrasse 5, D – 97076 Wuerzburg | | ● | ● | | ● | | Merge eFilm Workstation™ / aycan workstation OsiriX<sup>PRO</sup> |
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| **FUJIFILM** EUROPE GMBH, Heesenstr. 31, D – 40549 Duesseldorf | ● | ● | ● | ● | ● | ● | Synapse |
| **GE** Healthcare, Lerchenbergstr. 15, D – 89160 Dornstadt | ● | ● | ● | ● | ● | ● | Centricity RIS/RA1000 / Centricity RIS/PACS-IW |
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| **iSOFT Health** GmbH, Am Exerzierplatz 14, D – 68167 Mannheim | ● | ● | ● | ● | ● | ● | MERLIN Diagnostic Workcenter |
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| **medigration** GmbH, Schuhstr. 30, D – 91052 Erlangen | ● | ● | ● | ● | ● | ● | medigration PACS/ImageVision |
| **Merge** Healthcare, Spegelt 34, NL – 5674 CD Nuenen | ● | ● | ● | ● | ● | ● | FUSION PACS GL |
| **OR Technology**, Waldemarstraße 20 g/h, D – 18057 Rostock | ● | ● | ● | ● | ● | | dicomPACS® Diagnostic Workstation |
| **PROTEC** GmbH & Co. KG, Lichtenberger Str. 35, D – 71720 Oberstenfeld | ● | | ● | | ● | | PROPAXX |
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| **Sectra Imtec** AB, Teknikringen 20, SE – 583 30 Linkoeping | ● | ● | ● | ● | ● | | IDS |
| **Siemens AG,** Healthcare Sector, Henkestr. 127, D – Erlangen | ● | ● | ● | ● | ● | ● | syngo® Applications |
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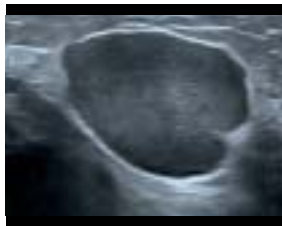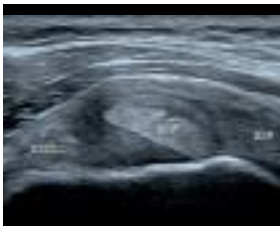


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