



Product portfolio

Dedicated to clinical innovations

Ziehm Imaging stands for premium mobile imaging, empowering clinicians with precision, confidence, and improved clinical outcomes – from head to toe.

In the vascular field we now offer Endovascular Navigation<sup>1</sup> for aorto-iliac and peripheral<sup>2</sup> procedures. It delivers a comprehensive, workflow-oriented approach for all kinds of endovascular procedures.

At the same time, innovation at Ziehm Imaging remains multi-dimensional. Even a decade after its introduction, the Ziehm Vision RFD 3D continues to evolve, introducing new imaging and dose-related highlights. Especially with the expanded 3D volume, we unlock new possibilities in intra-operative 3D imaging.

From cardiovascular to orthopedic and trauma applications, our portfolio delivers advanced imaging solutions that shape the future of premium mobile imaging and support better care – today and tomorrow.



The first Endovascular Navigation for peripheral procedures integrated into a mobile C-arm.

# 01 / Orthoscan Mini C-arms<sup>3</sup>



Orthoscan TAU 2020



Orthoscan TAU 1515



Orthoscan TAU 1512

## Orthoscan TAU 2020

With the largest field of view on a mini C-arm, Orthoscan TAU 2020 shows more anatomy in full view. The stepless, motorized collimator minimizes radiation by limiting the area of exposure to the region of interest. Cutting-edge Intelligent Dose Reduction technology and pulsed fluoroscopy provide the best in diagnostic image quality while reducing exposure dose to both patients and staff. That's why TAU mini C-arms are the first ones approved for pediatric use.



## Orthoscan TAU 1515/TAU 1512

Orthoscan TAU 1515 and TAU 1512 show more anatomy as it needs to be seen. Both systems come with a high-resolution monitor and the advanced touchscreen user interface Orthotouch with new features such as anatomically programmed selections as well as dedicated pediatric settings. Cutting-edge Intelligent Dose Reduction technology provides the best in diagnostic image quality while reducing exposure dose to both patients and staff.



## Orthoscan Versa

Orthoscan Versa is a fully portable imaging solution that seamlessly integrates into any clinical setting – whether on a desktop or an articulating monitor cart. The intuitive touchscreen monitor delivers a tablet-like experience, eliminating the need for bulky components and streamlining the clinical workspace. With effortless portability, Versa enables smooth transitions between satellite clinics and off-site locations, optimizing efficiency and patient care.

Flat-panel	20 cm x 20 cm
Image resolution	2,000 x 2,000
Pulsed fluoroscopy	■
High-resolution LCD monitor	32" or opt. 27"
Stepless collimator	■
Additional CU filtration	■
Weight	215.5 kg
Orbital movement	160°

Flat-panel	15 cm x 15 cm / 15 cm x 12 cm	15 cm x 15 cm
Image resolution	1,500 x 1,500 / 1,500 x 1,200	1,500 x 1,500
Pulsed fluoroscopy	■ / -	■
High-resolution LCD monitor	27" or opt. 32" / 24" or opt. 27"	24"
Stepless collimator	-	-
Additional CU filtration	■	■
Weight	215.5 kg	15.9 kg (C-arm), 12.7 kg (monitor), 90.7 kg (cart)
Orbital movement	160°	180°

available ■ | not available -

Mini C-arms

Compact C-arms

Versatile C-arms

Powerful C-arms

Hybrid Solution

Endovascular Navigation

Mobile CathLab

Intra-operative 3D

Ziehm NaviPort

# 02 / Compact C-arms



Ziehm Solo FD, CMOS, 21 cm x 21 cm

## Ziehm Solo FD

With its all-in-one design, the Ziehm Solo FD is one of the most compact C-arms on the market for even the smallest treatment scenarios. The premium variant Ziehm Solo FD CMOSline<sup>4</sup> delivers excellent image quality and offers a large variety of features to cover a wide range of applications. Versatile viewing options offer maximum flexibility in the OR to support your clinical workflow.

The Ziehm Solo FD is also available with a 21 cm x 21 cm and a 31 cm x 31 cm IGZO flat-panel. The bigger detector size allows to cover larger anatomical regions, such as the entire hip in orthopedics. Additionally, with Ziehm Solo FD lite<sup>5</sup>, there is a configuration with a 21 cm x 21 cm flat-panel and a limited option package to serve price-sensitive markets.



Ziehm Solo FD lite<sup>5</sup>



Ziehm Solo FD



Ziehm Solo FD



Flat-panel technology	IGZO, 21 cm x 21 cm
Detector resolution	1.5 k x 1.5 k
Image chain	1 k x 1 k
Image Insights	-
Power generator	2.4 kW, pulsed monoblock generator
Ziehm Usability Concept	■
SmartDose	■
Remote Solo Center	-
Ziehm Viewing Station	-
Advanced heat management	■
Field Transport Solution	-
Orbital movement	165°

Flat-panel technology	IGZO, 21 cm x 21 cm / 31 cm x 31 cm	CMOS, 21 cm x 21 cm
Detector resolution	1.5 k x 1.5 k / 2 k x 2 k	2 k x 2 k
Image chain	1 k x 1 k	2 k x 2 k (QuantumStream)
Image Insights	-	■
Power generator	2.4 kW, pulsed monoblock generator	2.4 kW, pulsed monoblock generator
Ziehm Usability Concept	■	■
SmartDose	■	■
Remote Solo Center	■	■
Ziehm Viewing Station	■	■
Advanced heat management	■	■
Field Transport Solution	■/-	■
Orbital movement	165°	165°

available ■ | not available -

Compact C-arms

Versatile C-arms

Powerful C-arms

Hybrid Solution

Endovascular Navigation

Mobile CathLab

Intra-operative 3D

Ziehm NaviPort

# 03 / Versatile C-arms



## Ziehm Vision FD

The Ziehm Vision FD was the world's first mobile C-arm with a flat-panel detector. The device has proven itself in the market for nearly 20 years. The premium variant Ziehm Vision FD CMOSline features latest flat-panel technology for excellent image quality and – thanks to the Advanced Active Cooling – is designed for continuous use. In addition, finely tuned workflows

and new software features help to optimize patient outcomes and further increase productivity. The Ziehm Vision FD is also available with a new 21 cm x 21 cm IGZO and a 31 cm x 31 cm a-Si flat-panel. The bigger detector size allows to cover larger anatomical regions in orthopedic and vascular surgery.

Ziehm Vision FD, CMOS, 21 cm x 21 cm



Flat-panel technology	IGZO, 21 cm x 21 cm
Detector resolution	1.5 k x 1.5k
Image chain	1 k x 1 k
Image Insights	-
Power generator	2.4 kW, pulsed monoblock generator
Ziehm Usability Concept	■
SmartDose	■
Advanced Active Cooling (AAC)	■
Orbital movement	165°

a-Si, 31 cm x 31 cm	CMOS, 21 cm x 21 cm
2 k x 2 k	2 k x 2 k
1 k x 1 k	2 k x 2 k (QuantumStream)
-	■
2.4 kW, pulsed monoblock generator	2.4 kW, pulsed monoblock generator
■	■
■	■
■	■
165°	165°

available ■ | not available -

Versatile C-arms

Powerful C-arms

Hybrid Solution

Endovascular Navigation

Mobile CathLab

Intra-operative 3D

Ziehm NaviPort

# 04 / Powerful C-arms



Ziehm Vision RFD, CMOS, 31 cm x 31 cm

## Ziehm Vision RFD

The Ziehm Vision RFD is the model of choice for orthopedics and trauma or demanding cardiovascular interventions. The C-arm is equipped with a powerful generator that penetrates even large anatomy. In addition, Advanced Active Cooling facilitates long and demanding

procedures and the intuitive Ziehm Usability Concept<sup>6</sup> helps surgeons ensure consistently high clinical standards. This impressive feature lineup makes the Ziehm Vision RFD ideal for challenging interventions.



Flat-panel technology	a-Si, 30 cm x 30 cm
Detector resolution	1.5 k x 1.5 k
Image chain	1 k x 1 k
Image Insights	-
Power generator	25 kW, pulsed monoblock generator
Ziehm Usability Concept	■
SmartDose	■
Advanced Active Cooling (AAC)	■
Orbital movement	165°

IGZO, 21 cm x 21 cm / 31 cm x 31 cm	CMOS, 21 cm x 21 cm / 31 cm x 31 cm
1.5 k x 1.5 k / 2 k x 2 k	2 k x 2 k / 3 k x 3 k
1 k x 1 k	2 k x 2 k (QuantumStream)
-	■
25 kW, pulsed monoblock generator	30 kW, pulsed monoblock generator
■	■
■	■
■	■
165°	165°

available ■ | not available -

Powerful  
C-arms

Hybrid  
Solution

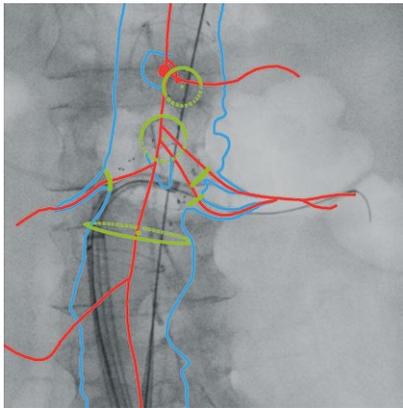
Endovascular  
Navigation

Mobile  
CathLab

Intra-  
operative 3D

Ziehm  
NaviPort

# 05 / Hybrid Room Solution



Ziehm Vision RFD Hybrid Edition, CMOS

## Ziehm Vision RFD Hybrid Edition

The Ziehm Vision RFD Hybrid Edition<sup>7</sup> is more than a mobile C-arm. In combination with a broad variety of components it becomes a fully integrated hybrid imaging solution. This system allows hospitals to perform complex endovascular procedures with the precision and image quality comparable to a fixed installed angio system, but without the associated cost, space requirements, or construction work.

The system is the first mobile C-arm to integrate Endovascular Navigation, with image fusion technology for precise intraoperative navigation for aorto-iliac and peripheral procedures.

Flat-panel technology	a-Si, 30 cm x 30 cm
Detector resolution	1.5 k x 1.5 k
Image chain	1 k x 1 k
Image Insights	-
Power generator	25 kW, pulsed monoblock generator
Ziehm Usability Concept	■
SmartDose	■
Advanced Active Cooling (AAC)	■
Orbital movement	165°
Motorization	Full control of the 4 motorized axes
Vascular Image Fusion	Stand-alone solution: EndoNaut <sup>®</sup>



CMOSLINE

CMOS, 21 cm x 21 cm / 31 cm x 31 cm
2 k x 2 k / 3 k x 3 k
2 k x 2 k (QuantumStream)
■
30 kW, pulsed monoblock generator
■
■
■
165°
Full control of the 4 motorized axes
Stand-alone solution: EndoNaut <sup>®</sup>
Integrated solution: Endovascular Navigation <sup>1</sup>

available ■ | not available -

Hybrid Solution

Endovascular Navigation

Mobile CathLab

Intra-operative 3D

Ziehm NaviPort

# 06 / Endovascular Navigation

Endovascular Navigation enables physicians to perform complex procedures with greater accuracy, confidence, and efficiency. For the first time, navigation with image fusion is integrated directly into a mobile C-arm. This enables advanced navigation in a mobile setting – without the need for a fixed installed angio system, while helping to reduce X-ray dose and the use of contrast agents.

Ziehm Imaging is pioneering with the all-in-one Endovascular Navigation solution that is fully integrated in the Ziehm Vision RFD Hybrid Edition (Cardio) and the Ziehm Vision RFD 3D. It is also offering a stand-alone solution for navigation:

**Endovascular Navigation Aorto-iliac** enables image fusion to match the pre-operative 3D data with live fluoroscopy and to adapt continuously to patient or equipment movement. Intuitive navigation using overlaid anatomical landmarks supports precise tracking of stent or graft deployment. Endovascular Navigation Aorto-iliac is optimized for standard and complex aorto-iliac procedures, such as:

- EVAR (Endovascular Aneurysm Repair)
- FEVAR (Fenestrated Endovascular Aneurysm Repair)
- TEVAR (Thoracic Endovascular Aneurysm Repair)
- Further complex procedures like IBD (Iliac Branch Devices), CERAB (Covered Endovascular Reconstruction of the Aortic Bifurcation), kissing as well as renal artery stenting

**Endovascular Navigation Peripheral<sup>2</sup>** allows for extensive panorama creation and navigation of the lower limb for PAD (Peripheral Artery Disease) conditions. Angiographic and fluoroscopic images of the lower limb are added and stitched automatically. Thrombotic and stenotic areas within the panorama can be easily identified and marked, facilitating the clinical workflow.

The software is optimized for cases of stenosis and thrombosis including:

- Balloon dilation
- Stent implantation
- Artherectomy



Algorithm based on artificial intelligence

## Stand-alone navigation option and endovascular case planning

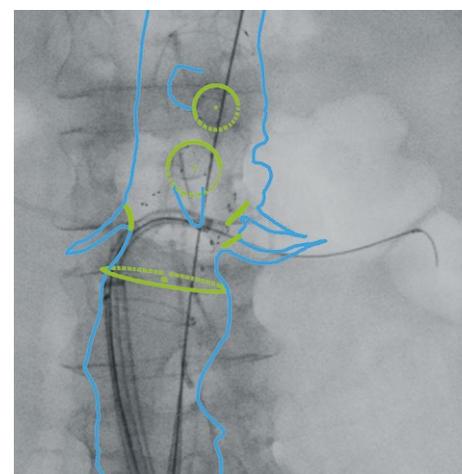


Endovascular case planning with EndoSize<sup>®</sup>

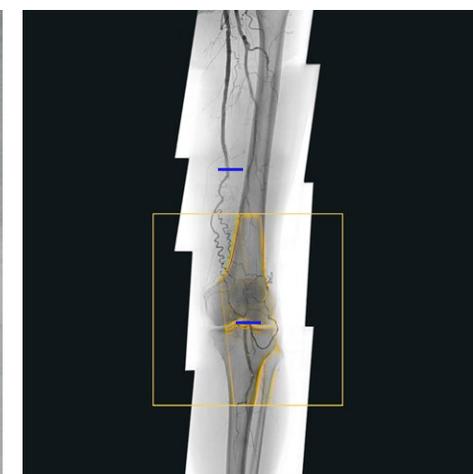


### Stand-alone navigation option with EndoNaut<sup>®</sup>

This plug & play system can be easily added to existing Ziehm Imaging C-arms. It is available for aorto-iliac interventions and procedures on the lower extremities.



Endovascular Navigation for aorto-iliac procedures



Endovascular Navigation for peripheral procedures

# 07 / Mobile CathLab



Ziehm Vision RFD Hybrid Edition, CMOS

## Ziehm Vision RFD Hybrid Edition Cardio

The Ziehm Vision RFD Hybrid Edition Cardio is designed to increase capacity and provide a cost-efficient entry point into interventional cardiology. As an alternative to fixed installed angio systems, this mobile setup is ideal for hospitals with limited space or budget, especially in decentralized care structures or emerging markets.

Connectivity options for hemodynamic workstations or CathLab-ready monitors complete the Mobile CathLab.



CMOSLINE

Flat-panel technology	CMOS, 21 cm x 21 cm / 31 cm x 31 cm
Detector resolution	2 k x 2 k / 3 k x 3 k
Image chain	2 k x 2 k (QuantumStream)
Image Insights	■
Power generator	30 kW, pulsed monoblock generator
Ziehm Usability Concept	■
SmartDose	■
Advanced Active Cooling (AAC)	■
Orbital movement	165°
Motorization	Full control of the 4 motorized axes
Hemodynamic workstation	Fysicon QMAPP <sup>®</sup>
Vascular Image Fusion	Stand-alone solution: EndoNaut <sup>®</sup> Integrated solution: Endovascular Navigation <sup>1</sup>

available ■ | not available –

The innovative PositionPilot<sup>2</sup> allows for straightforward handling of the mobile C-arm and OR table with the intuitive Position Control Center plus (PCCplus). PositionPilot enables fast, reproducible, and reliable intra-operative positioning directly from the sterile field. The surgeon has everything at hand and can operate both devices easily with the PCCplus. For smoother workflows, up to three synchronized C-arm and table positions can be saved and recalled.

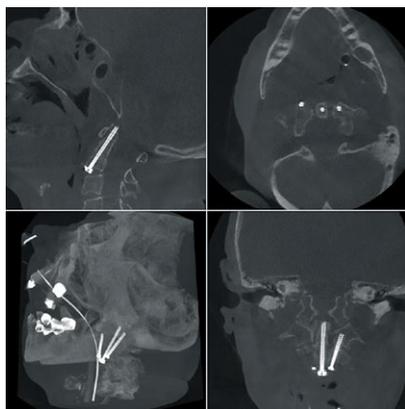


Mobile CathLab

Intra-operative 3D

Ziehm NaviPort

# 08 / Intraoperative 3D devices



Ziehm Vision RFD 3D, CMOS

## Ziehm Vision RFD 3D

Building on almost two decades of experience in 3D imaging, the Ziehm Vision RFD 3D features not only proven a-Si technology, but also the cutting-edge CMOSline<sup>4</sup>. Bundling 2D and 3D functionality for greater



intraoperative control, it reduces the need for post-operative CT scans and costly corrective surgeries. The system is equipped with ZIR (Ziehm Iterative Reconstruction) to minimize fan and

metal artifacts in 3D reconstruction, so far only known from CT imaging. It is ideal for advanced orthopedic procedures as well as highly specialized cochlear, maxillofacial, and bronchoscopy interventions.



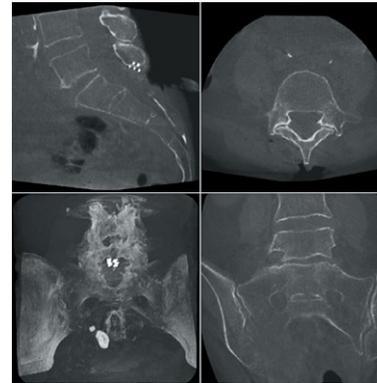
Flat-panel technology	a-Si, 30 cm x 30 cm
3D volume size / voxels	16 cm x 16 cm x 16 cm; 320 <sup>3</sup> voxels opt.: 10 cm x 10 cm x 10 cm; 320 <sup>3</sup> voxels opt.: 19.8 cm x 19.6 cm x 18.0 cm; 320 <sup>3</sup> voxels opt.: 24.9 cm x 19.6 cm x 24.9 cm; 320 <sup>3</sup> voxels
Detector resolution	1.5 k x 1.5 k
Image chain	1 k x 1 k
Image Insights	-
Power generator	25 kW, pulsed monoblock generator
Ziehm Usability Concept	■
SmartDose	■
Advanced Active Cooling (AAC)	■
Motorization	Full control of the 4 motorized axes
3D scanned information	2D: 165° / 3D: 180° (SmartScan)
Open navigation interface (NaviPort 3D)	Brainlab, Globus Medical, Medacta, Medtronic, NuVasive, Stryker
Vascular Image Fusion	Stand-alone solution: EndoNaut <sup>®</sup>

Flat-panel technology	CMOS, 31 cm x 31 cm
3D volume size / voxels	16 cm x 16 cm x 16 cm; 320 <sup>3</sup> /512 <sup>3</sup> voxels opt.: 10 cm x 10 cm x 10 cm; 320 <sup>3</sup> /512 <sup>3</sup> voxels opt.: 19.8 cm x 19.6 cm x 18.0 cm; 320 <sup>3</sup> /512 <sup>3</sup> voxels opt.: 24.9 cm x 19.6 cm x 24.9 cm; 320 <sup>3</sup> /512 <sup>3</sup> voxels
Detector resolution	3 k x 3 k
Image chain	2 k x 2 k (QuantumStream)
Image Insights	■
Power generator	30 kW, pulsed monoblock generator
Ziehm Usability Concept	■
SmartDose	■
Advanced Active Cooling (AAC)	■
Motorization	Full control of the 4 motorized axes
3D scanned information	2D: 165° / 3D: 180° (SmartScan)
Open navigation interface (NaviPort 3D)	Brainlab, Globus Medical, Medacta, Medtronic, NuVasive, Stryker
Vascular Image Fusion	Stand-alone solution: EndoNaut <sup>®</sup> Integrated solution: Endovascular Navigation <sup>1</sup>

available ■ | not available -

# 09 / Ziehm NaviPort 3D

The high-quality intraoperative imaging is the basis for the seamless combination with leading navigation and robotic guidance systems<sup>11</sup>. The proven Ziehm NaviPort 3D interface ensures the safe and automated transfer of high-resolution 3D data, typically removing the need for intraoperative patient registration. The enlarged 3D volume enables navigation of multi-level spinal segments in a single scan – even for patients with a larger habitus – and reduces additional acquisitions. By combining advanced 3D imaging with image-guided surgical technologies, clinicians can minimize invasive approaches, reduce revision surgeries as well as postoperative CT scans, and gain greater confidence in intraoperative decision-making. Seamless integration, long-term investment security, and continuous improvements help systems to remain prepared for future clinical demands.<sup>12,13,14</sup>



Ziehm Vision RFD 3D

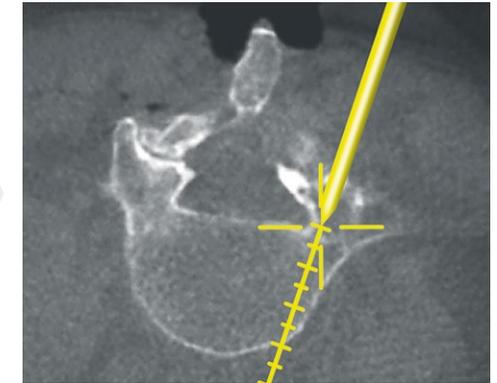


Image-guided navigation



**BRAINLAB**

## Brainlab Spine & Trauma Navigation

Brainlab image-guided surgery platforms Kick and Curve in combination with Ziehm Imaging's intraoperative 3D devices address the demand for meaningful visualization that helps surgeons effectively plan and execute spine and trauma procedures. Surgical instruments are continuously tracked by the infrared camera, with their position visualized on the patient data. This allows for more accurate procedures compared to conventional surgical techniques.



**stryker**

## Stryker Spine Navigation

The navigation systems of Stryker, in combination with Ziehm Imaging's intraoperative 3D devices offer a further excellent solution for navigating spine and trauma procedures. While choosing the right navigation procedure, the infrared camera is set up to track the SpineMask Tracker or patient tracker attached to the patient. For cases not classified as minimally invasive, Stryker also offers an additional registration integrated with a traditional rigidly fixated patient tracker.



**GLOBUS  
MEDICAL**

## Globus Medical Robotic Navigation Platform

Together with ExcelsiusGPS of Globus Medical, Ziehm Imaging supports advanced computer-assisted surgery for spine applications with the Ziehm Vision RFD 3D systems. The ExcelsiusGPS combines a rigid robotic arm and full navigation capabilities into one adaptable platform for precise trajectory alignment and visualization in spine surgery.

[www.ziehm.com/naviport](http://www.ziehm.com/naviport)

Visit our website for more details about further partners like Medacta or NuVasive.



## SmartDose concept

Minimizing dose while maintaining image quality is an important goal worldwide for surgeons, their staff and patients. Ziehm Imaging supports this through further improvements to SmartDose<sup>15</sup> for different applications.



The comprehensive concept consists of a broad, clinically proven application portfolio to address the daily challenges of low dose and high image quality. With significant dose savings, Ziehm Imaging sets the benchmark in user-friendly adjustment of dose exposure.



**LASER POSITIONING DEVICE**  
integrated in flat-panel and generator housing for accurate and dose-free positioning of C-arm



**REDUCTION OF PULSE FREQUENCY**  
manually or fully automatically to lower the accumulated dose



**ANATOMICAL PROGRAMS**  
with automatic optimization of dose and image quality for best results



**HIGH-SPEED ADR**  
for intelligent, fast regulation of pulse rate to lower the dose level



**LOW DOSE MODE**  
in all anatomical programs for particularly dose-sensitive procedures, e.g. in pediatrics



**OBJECT DETECTED DOSE CONTROL (ODDC)**  
to automatically analyze the area of interest and minimize dose while optimizing image quality



**VIRTUAL COLLIMATORS**  
for exposure-free positioning of collimators



**ZAIP ALGORITHM AND FILTERS**  
to display fast-moving objects like guide wires and even the smallest vessels in razor-sharp image quality



**PREMAG**  
for exposure-free magnification of X-ray images



**AUTOMATIC ADJUSTMENT**  
for large patients – with no additional increase in dose



**REMOVABLE GRID**  
to reduce dose in pediatric and other dose-sensitive procedures



**BEAM FILTRATION<sup>16</sup>**  
for reduced entrance skin dose without compromising on image quality

# Ziehm Usability Concept

Heavy case loads and a large number of different users call for OR equipment with a highly standardized and ergonomic design. Ziehm Imaging supports this need with the unique Ziehm Usability Concept<sup>6</sup>. Seamlessly integrated workflows offer unmatched levels of usability – anytime, anyplace.



As the innovation and technology leader, Ziehm Imaging has developed the sophisticated, yet intuitive Ziehm Usability Concept that combines a unique and finely tuned set of hardware features with seamlessly integrated software functionalities. In a challenging clinical environment, the entire concept is geared toward increasing ease of use in daily tasks. It improves process efficiency and ensures standardized quality levels in the OR for optimized patient outcomes.



**COLOR-CODED SCALES AND HANDLES**  
to ensure clear communication in the OR



**WIRELESS DUAL-PLUS FOOTSWITCH**  
to control all imaging functionalities without any disturbing cables



**MOST COMPACT FOOTPRINT WITH 0.8m<sup>2</sup>**  
to fit in even the smallest treatment scenarios



**ZIEHM NETPORT**  
with WLAN enables easy integration into IT networks



**UP TO 165° OF ORBITAL MOVEMENT**  
to support easier patient coverage



**WIRELESS VIDEO**  
transmitting live X-ray images to external monitors



**ZIEHM VISION CENTER**  
featuring an intuitive touchscreen user interface



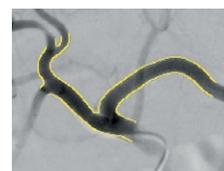
**CONTROL MODULES**  
for a fast and flexible setup in the sterile field; opt. available with PCCplus



**SMART EYE**  
enabling users to keep track of orientation and object position



**VERSATILE VIEWING OPTIONS**  
with various monitor sizes plus ceiling- and trolley-mounted options for maximum flexibility in the OR



**ANATOMICAL MARKING TOOL**  
to easily apply markings and labels to fluoroscopic images



## Ziehm Global Service



Rely on Ziehm Imaging for flexible and fast service to stay on the cutting edge of technology. Tailored service packages, remote service and individual upgrade paths keep you competitive in your daily hospital routine.

1. Nuremberg (Germany)
2. Massy (France)
3. Rennes, Therenva SAS (France)
4. Valencia (Spain)
5. Reggio Emilia (Italy)
6. Tulln an der Donau (Austria)
7. Kerava (Finland)
8. Dubai (UAE)
9. Tokyo (Japan)
10. Shanghai (China)
11. Guangzhou (China)
12. Singapore (Singapore)
13. Sandton (South Africa)
14. São Paulo (Brazil)
15. Orlando, FL (USA)
16. Scottsdale, AZ, Orthoscan (USA)

- <sup>1</sup> Endovascular Navigation represents an optional medical device software package owned by Therenva SAS. Planning is performed with the soft-ware EndoSize, also owned by Therenva SAS. The EndoSize license is included in the Endovascular Navigation software package. Therenva SAS is a subsidiary of Ziehm Imaging GmbH. For more information please visit: [www.ziehm.com](http://www.ziehm.com).
- <sup>2</sup> The product/feature mentioned herein is currently under development. Its future availability cannot be guaranteed.
- <sup>3</sup> Ziehm Imaging is the official Sales and Service representative of Orthoscan mini C-arms in Europe, Middle East and Africa.
- <sup>4</sup> CMOSline represents a system configuration that is based on a Ziehm Imaging CMOS flat-panel detector.
- <sup>5</sup> Ziehm Solo FD lite represents a group of optional hardware and software that creates an option package on the device named Ziehm Solo FD.
- <sup>6</sup> The Usability Concept includes a variety of hard- and software features. Due to regulatory reasons the availability of each feature may vary. Please contact your local Ziehm Imaging sales representative for detailed information.
- <sup>7</sup> Ziehm Vision RFD Hybrid Edition represents a group of optional hardware and software that creates an option package on the device named Ziehm Vision RFD.
- <sup>8</sup> EndoNaut® is a registered trademark of Therenva SAS. In the USA, the EndoNaut® software obtained a substantial equivalence determination and FDA clearance through the CDRH premarket notification process (510(K)). In Europe, the EndoNaut® software is CE marked (class IIb), not eligible for reimbursement. The information provided in the labelling and manual is intended for Healthcare Professionals only. For the safe and successful operation and use of the device, always read the instructions.
- <sup>9</sup> EndoSize® is a registered trademark of Therenva SAS. In the USA, the EndoSize® software obtained a substantial

equivalence determination and FDA clearance through the CDRH premarket notification process (510(K)). In Europe, the EndoSize® software is CE marked (class IIa), not eligible for reimbursement. The information provided in the labelling and manual is intended for healthcare professionals only. For the safe and successful operation and use of the device, always read the instructions.

<sup>10</sup> QMAPP® is a registered trademark of Fysicon B.V.. In the USA, the QMAPP® software obtained a substantial equivalence determination and FDA clearance through the CDRH premarket notification process (510(K)). In Europe, the QMAPP® software is CE marked (class IIb). The information provided in the labelling and manual is intended for Healthcare Professionals only. For the safe and successful operation and use of the device, always read the instructions.

<sup>11</sup> Further partners and country specifications available, see [www.ziehm.com/naviport](http://www.ziehm.com/naviport) for more details.

<sup>12</sup> Recum von, J. et al., Unfallchirurg 2012, 115:196-201, Die intraoperative 3D-C-Bogen-Anwendung. State of the art

<sup>13</sup> Richter et. al., Cervical pedicle screws: conventional versus computer-assisted placement of cannulated screws. Spine (PhilaPa 1976). 2005 Oct 15;30(20):2280-7

<sup>14</sup> Gebhard et al., Does computer assisted spine surgery reduce intraoperative radiation doses? Spine (PhilaPa1976). 2006 Aug 1;31(17)

<sup>15</sup> The SmartDose concept includes a variety of hard- and software features. Due to regulatory reasons the availability of each feature may vary. Please contact your local Ziehm Imaging sales representative for detailed information.

<sup>16</sup> The technology Beam Filtration reduces dose exposure for Ziehm Imaging flat-detector systems in comparison with conventional filtration techniques. Data on File. Results may vary.

