1 The technology Beam Filtration reduces dose exposure for all CMOSline systems in comparison with conventional filtration techniques (status before September 2017). Data on file. Results may vary.

2 The SmartDose Concept includes a variety of hardware 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.

3 Gosch D. et al. “Influence of grid and ODDR on radiation exposure and image quality using mobile C-arms – First results,” RöFo, 09/07

CMOSline represents a system configuration that is based on a Ziehm Imaging CMOS flat-panel detector.
Ziehm Solo FD. As the size of hospital and surgery center ORs decreases and equipment quantity rises, the demand for imaging systems with smaller footprints is growing. With its all-in-one design, the Ziehm Solo FD is one of the most compact C-arms for even the smallest treatment scenarios on the market. The system is equipped with CMOS flat-panel technology to perform a broad portfolio of applications. Versatile viewing options and new dimensions in user friendliness offer maximum flexibility in the OR to support your clinical workflow. With the enhanced SmartDose Concept, the Ziehm Solo FD ensures best image quality at a minimized dose.
01/ Achieve significantly more details with CMOS flat-panel technology

Optimal soft tissue and bone contrast as well as high spatial resolution and a wide dynamic range are key to displaying detail-rich images of even the smallest anatomical structures. CMOS detector technology delivers on all counts, helping physicians to improve image quality.

→ CMOS flat-panel technology
Image quality and efficiency are the most important but also challenging factors in daily clinical routine. In comparison with conventional C-arms, the latest CMOS flat-panel technology achieves higher spatial resolution due to smaller pixel sizes combined with lower noise levels and a higher read-out speed at full resolution. True resolution, especially in the magnification modes, makes interpolation unnecessary. Because of these features, CMOS technology enables improved overall efficiency.

→ Higher level of performance
The compact monoblock generator provides short, sharp pulses, producing razor-sharp images even if the patient is moving. This intelligent pulse technology also improves dose management. The flat-panel technology is unaffected by magnetic fields and enables distortion-free imaging, with no loss in image quality and more than 65,000 shades of gray.

→ Contrast-rich visualization
The Ziehm Solo FD offers a high-brightness and high-contrast 19” DUO monitor. Even from a distance, the high-end monitors provide the physician with optimal insights by visualizing the finest details – from any angle.
02/Ensure maximum flexibility with a versatile design

As space in the OR is limited, the demand for imaging systems with smaller footprints is growing. Thanks to the compact design and viewing options, the Ziehm Solo FD enables the hospital to fit every individual need.

→ Compact design
The Ziehm Solo FD is one of the smallest C-arms on the market. It comes as standard with a 19" dual flatscreen mounted on an articulating monitor arm, eliminating the need for a separate monitor cart. Despite the compact design, 165 degrees of orbital movement enhances easy patient coverage and ensures a maximum of flexibility in the OR – fully counter-balanced in every position.
Flexible configurations

In addition to the compact design of the system, three different viewing options enhance flexibility during interventions to allow the product range to suit individual needs.

These options allow you to conveniently operate the system from the Ziehm Viewing Station, the Remote Solo Center and the C-arm.

Option 1: wall- or ceiling-mounted monitors
This space-saving configuration maximizes available space in the OR and can benefit from wireless integration.

Option 2: Remote Solo Center
Create sufficient scope for sterile operation with the Remote Solo Center, flexibly mounted to the sides of the OR table or on a separate stand.

Option 3: Ziehm Viewing Station
The C-arm can be easily supplemented with an extra Viewing Station featuring a high-brightness FullHD 27” split monitor or a high-brightness and high-contrast 19” DUO monitor.

Ziehm Solo FD with integrated monitor
This versatile mobile C-arm comes as standard with an integrated monitor to ensure a compact design for small ORs. Furthermore, it can be extended with three different viewing options.
Optimize process efficiency with advanced clinical workflows

In the face of time and efficiency pressure, compatible clinical workflows help to operate the C-arm in an easy and intuitive way. Unmistakable communication increases safety in the OR and optimizes efficient patient handling.

**Wireless Freedom**
Ziehm Imaging’s Wireless Freedom Concept bundles three different opportunities to increase efficiency and safety in the OR. Firstly, WLAN allows operators to transfer images wirelessly to the PACS from any location. Secondly, with the Ziehm Wireless Video option, live images can be transferred to wall- or ceiling-mounted monitors in real time for even greater flexibility. Thirdly, key functions such as X-rays can be actuated with the wireless dual-plus footswitch. The footswitch has the added bonus of increasing safety by reducing cables on the OR floor.

**Fit for the future**
The Solo Center is a touchscreen with a modular software architecture, ensuring maximum flexibility. This interface can be easily upgraded and expanded with additional software modules without the need for hardware changes.

**Seamless integration**
The interface, Ziehm NetPort, enables easy integration into existing IT networks. X-ray images saved in DICOM 3.0 format are transferred to the PACS, and patient data can be exchanged with HIS/RIS. X-ray images can be retrieved at any time. They can also be backed up to DVD or USB stick and printed on transparencies or paper.
04/Reduce exposure significantly with the next-generation SmartDose

The Ziehm Solo FD is designed to meet growing demand among surgeons and their staff for minimized dose exposure without compromising on image quality. New filtration enhancements and advanced anatomical programs deliver on these demands, making this device perfect for dose-sensitive applications.

→ Best image quality. Minimized dose.
The comprehensive concept consists of a broad, clinically proven application portfolio to address daily challenges of low dose and high image quality. With significant dose savings, Ziehm Imaging sets the benchmark in user-friendly adjustments of dose exposure. Our latest improvements in SmartDose help display even the smallest details of complex anatomical areas and reduce dose with intelligent pulse regulation and optimized anatomical programs. Furthermore, dedicated SmartDose functions significantly reduce exposure in pediatric surgery.

→ Beam Filtration for reduced skin entrance dose
Our feature-rich SmartDose concept now comes in a further developed version with the groundbreaking Beam Filtration technology. The new dose reduction technique for an optimized X-ray spectrum supports our enhanced CMOS imaging chain. This combination enables an exceptional reduction in the skin entrance dose for all CMOSLine systems. In a nutshell, the premium line of Ziehm Imaging C-arms provides excellent image quality with a lower dose.
05/Features at a glance

In a challenging healthcare environment, where space and cost are at a premium, the Ziehm Solo FD meets evolving needs with support for a wide range of applications and a host of individualized options.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Optionality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Footprint</td>
<td>0.8 m²</td>
</tr>
<tr>
<td>C-arm opening</td>
<td>87 cm</td>
</tr>
<tr>
<td>2k x 2k CMOS technology</td>
<td>Optional</td>
</tr>
<tr>
<td>Touchscreen user interface</td>
<td>Optional</td>
</tr>
<tr>
<td>Ziehm SmartEye with SmartControl</td>
<td>Optional</td>
</tr>
<tr>
<td>SmartArchive</td>
<td>Optional</td>
</tr>
<tr>
<td>Color-coded scales and handles</td>
<td>Optional</td>
</tr>
<tr>
<td>Pulsed monoblock generator</td>
<td>Optional</td>
</tr>
<tr>
<td>Anatomical Marking Tool (AMT)</td>
<td>Optional</td>
</tr>
<tr>
<td>Ziehm Viewing Station</td>
<td>Optional</td>
</tr>
<tr>
<td>Ziehm NetPort</td>
<td>Optional</td>
</tr>
<tr>
<td>Interface to 2D navigation systems</td>
<td>Optional</td>
</tr>
<tr>
<td>Printer / DVD</td>
<td>Optional</td>
</tr>
<tr>
<td>Cineloop / DSA</td>
<td>Optional</td>
</tr>
<tr>
<td>Wireless freedom integration (WLAN, Wireless Footswitch and Wireless Video)</td>
<td>Optional</td>
</tr>
</tbody>
</table>

Offices
1. Nuremberg (Germany)
2. Paris (France)
3. Reggio Emilia (Italy)
4. Tulln an der Donau (Austria)
5. Kerava (Finland)
6. Tokyo (Japan)
7. Shanghai (China)
8. Guangzhou (China)
9. Singapore (Singapore)
10. Midrand (South Africa)
11. São Paulo (Brazil)
12. Orlando, FL (USA)
13. Scottsdale, AZ, OrthoScan (USA)

MAXIMIZE YOUR UPTIME
Make sure to get the best service for your daily business.
Rely on Ziehm Imaging for flexible and fast service to stay at the cutting edge of technology. Tailored service packages, remote service and individual upgrade paths keep you competitive in your daily hospital routine.
The technology Beam Filtration reduces dose exposure for all CMOSline systems in comparison with conventional filtration techniques (status before September 2017). Data on file. Results may vary.

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