



Mini C-arms

Specially developed for imaging
of extremities and pediatric use

Orthoscan is the leader in the mini C-arm market with a worldwide installed base. Its mini C-arms are used in orthopedic surgery and for digital diagnostic imaging in offices and clinical environments. Mini C-arms are the ideal solution for fluoroscopy of the extremities at minimized dose levels. Due to their light weight, the systems are easy to handle in small spaces and operating rooms and guarantee ease of transfer between exam rooms.

Since 2017 Ziehm Imaging has full distribution rights for the Orthoscan mini C-arms and is the official sales and service representative for these products in Europe, Middle East and Africa. Thus, Ziehm Imaging now covers the complete range of mobile fluoroscopy systems from mini C-arms to high-end full-size C-arms.





Orthoscan TAU 2020

Orthoscan FD Pulse

Orthoscan FD-OR

Orthoscan Mobile DI

	First and only mini C-arm approved for pediatric use	First mini C-arm with pulsed fluoroscopy
Imaging technology	CMOS, flat-panel, 20.0 cm x 20.0 cm	CMOS, flat-panel, 15.0 cm x 15.0 cm
Detector resolution	2.0k x 2.0k	1.5k x 1.5k
Pulsed fluoroscopy	▪	▪
Viewing option	27" high-resolution LCD monitor	24" high-resolution monitor
Touchscreen	▪	▪
Sterile field controls	Bilateral	Bilateral
Footprint	73.7 cm x 83.9 cm	71.1 cm x 83.8 cm
Weight	215.5kg	181.4 kg
Orbital movement	160°	150°

	Affordable flat-panel imaging	Clinical & off-site extremity imaging
Imaging technology	CMOS, flat-panel, 15.0 cm x 12.0 cm	CMOS, flat-panel, 15.0 cm x 12.0 cm
Detector resolution	2.0k x 1.5k	2.0k x 1.5k
Pulsed fluoroscopy	-	-
Viewing option	24" high-resolution monitor	24" high-resolution monitor
Touchscreen	▪	▪
Sterile field controls	Bilateral	Single
Footprint	71.1 cm x 83.8 cm	30.5 cm x 48.3 cm
Weight	181.4 kg	15.9 kg
Orbital movement	150°	-

available ▪ | not available -



01 / Orthoscan TAU 2020. Do more, dose less.

→ Orthoscan TAU 2020 shows more anatomy in full view

With the largest field of view on a mini C-arm, Orthoscan TAU 2020 shows more anatomy in full view. By minimizing the number of views required, patient dose and procedure time is saved, increasing efficiency. The stepless, motorized collimator minimizes the exposure field to only the area of interest in order to reduce radiation, while also contributing to produce the perfect image. Equipped with the next generation CMOS detector, image quality is improved as a result of higher contrast and detail-rich content.

→ Intelligent Dose Reduction (IDR)

Orthoscan TAU 2020 includes cutting-edge Intelligent Dose Reduction technology, that provides the best in diagnostic image quality while reducing exposure to both patients and staff. Pulsed fluoroscopy with selectable pulse rates of 30, 15, 7.5 and 2 pulses per second, decreases dose levels without loss of image quality. By engaging the Optimized Dose Filters, such as a patented copper filter, Orthoscan TAU 2020 can reduce dose significantly in children and adults. That's why Orthoscan TAU 2020 is the first mini C-arm approved for pediatric use.

→ Increased usability

The advanced Orthotouch™ 2.0 touchscreen user interface now comes in an updated version including new features such as anatomically programmed selections, on-screen help and dedicated pediatric settings. Improved bilateral controls, located on each side of the tube head, provide easy access to imaging and documentation functions within the sterile field. For additional illumination of the surgical field, LED lights are located on the underside of the tube head to remove any shadows.

→ 27" high resolution monitor

With the largest screen available on a mini, the 27" high brightness monitor aids viewing comfort and convenience as well as providing more image information. The monitor arm enables easy adjustment for the optimum viewing position when standing or seated.



Specifications: Orthoscan TAU 2020

Detector

Detector resolution	2.0 k x 2.0 k
Field of view: full	20.0 cm x 20.0 cm
Field of view: collimated	10.2 cm x 10.2 cm
Useful array	20.0 cm x 20.0 cm
Pixel spacing	99 microns
Dose rate	AKR, DAP

X-ray monoblock

Focal spot	42.5 microns
kV range	40 – 78 kVp
mA range	0.04 – 0.160 mA
Selectable pulse rate	Cont / 30 pps / 15 pps / 7.5 pps / 2 pps
Collimator	Stepless (4 leaf, 2 axis)
Pediatric filter	Yes

Documentation

Wireless communication	Optional
DICOM 3.0 compliant	Yes
Image capacity	26,000
Video capacity	14.4 min
Cine loop export	Yes
Cine loop frame rate	30 fps
Printer	Yes

Software

Operating system	Windows 8.1 embedded
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C-arm

Free space	35.0 cm (13.8")
Arc depth	50.8 cm (20.0")
Pivot	430°
Lateral rotate (wig-wag)	320°
Orbital rotate	160°
Vertical range	67.3 cm (26.5")
Distance to cabinet	149.9 cm (59.0")
Distance to wheel base	114.3 cm (45.0")

Display

Monitor	68.6 cm (27") LCD
Built-in DICOM calibration	Yes
Extendible monitor arm	Yes
Arm lateral rotation	216° + 370° + 200°
Arm horizontal reach	66 cm (26.0")
Arm vertical travel	35.6 cm (14.0")
Arm vertical height	48.3 cm (19.0")
HDMI (External monitor)	Yes
Monitor brightness	450 cd/m ²
Touchscreen	Yes

Imaging

Surgical LED lights	Yes
Sterile field controls	Bilateral
Start up time	~60 sec
Edge enhancement	Yes
Post process brightness/contrast	Yes
Adaptive noise suppression	Automatic
Manual noise suppression	3 modes
Laser alignment	Yes
Multifunction wireless foot switch	Yes

Dimensions

Weight	215.5 kg (475.0 lb)
Height	121.9 cm (48.0")
Footprint (W x L)	73.7 cm x 83.9 cm (29.0" x 33.0")

02/Orthoscan FD Pulse. The first mini C-arm with pulsed fluoroscopy.

→ Reduced dose

Moving from continuous fluoroscopy to pulsed fluoroscopy with 30 pulses per second, Orthoscan is able to reduce the dose without loss of image quality or detail. Selectable pulse rates – between 30, 15, 7.5, and 2 pps – allow the user to reduce the dose depending upon their imaging needs.

→ Extended image information

At 15 cm x 15 cm, the large flat-panel detector enables the user to see more anatomy. The FD Pulse utilizes the thinnest flat-panel detector housing on the market, allowing the user to place the detector directly on the operating surface and leave the C-arm in the field to reduce OR time and decrease sterility risks.

→ Over-rotation

The Orthoscan mini C-arm design allows for an orbital rotation of 150°. This enables the user to take advantage of the larger field of view without making mechanical adjustments required by competitive equipment.

→ Advanced touchscreen Interface

The advanced Orthotouch™ user interface allows seamless operation of system controls while still allowing for keyboard functions. Orthotouch™ provides a familiar experience – similar to a smartphone or tablet – that enhances interaction while viewing detailed anatomy.

→ 24" high resolution monitor

The 24" high resolution diagnostic widescreen monitor allows for a 20% larger viewing area. For viewing fine details of relevant anatomy, the FD Pulse offers a large primary image and a wider viewing angle for increased visibility.



"I value the Orthoscan FD Pulse for its fast and effortless maneuvering in the OR. For me the mini C-arm truly makes my daily clinical work more efficient."

DR. ULF BERTRAM
VULPIUS CLINIC, BAD RAPPENAU, GERMANY



Specifications: Orthoscan FD Pulse

Detector

Detector resolution	1.5k x 1.5k
Field of view: full	14.0 cm x 14.0 cm
Field of view: collimated	10.9 cm x 10.9 cm
Useful array	15.0 cm x 15.0 cm
Pixel spacing	99 microns
Dose rate	AKR, DAP

X-ray monoblock

Focal spot	42.5 microns
kV range	40 – 78 kVp
mA range	0.04 – 0.160 mA
Selectable pulse rate	Cont/30 pps/15 pps/7.5 pps/2 pps

Documentation

Wireless communication	Capable
DICOM 3.0 compliant	Yes
MPPS	Capable
Image capacity	25,000
Video capacity	15 min
Cine loop export	Yes
USB 2.0 ports	Yes
Printer options	2

Software

Operating system	Windows 8.1 embedded
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C-arm

Free space	35.0 cm (13.8")
Arc depth	48.3 cm (19.0")
Pivot	430°
Lateral rotate (wig-wag)	320°
Orbital rotate	150°
Vertical range	86.4 cm (34.0")
Distance to cabinet	max 172.7 cm (68.0")
Distance to wheel base	max 114.3 cm (45.0")

Display

Monitor	61 cm (24") LCD
Primary "live" image	30.5 cm x 30.5 cm (12.0" x 12.0")
Dual reference images	12.7 cm x 12.7 cm (5.0" x 5.0")
Built-in DICOM calibration	Yes
Extendible monitor arm	Yes – 68.6 cm (27")
Left/right arm swivel & rotation	216° + 370° + 200°
Height adjustable arm	Yes
Monitor handles	Yes
Video output	Yes
Monitor brightness	600 cd/m ²
Touchscreen	Yes

Imaging

Surgical LED lights	Yes
Sterile field controls	Bilateral
Start up time	~50 sec
Temporary image hold	512 images
Cine loop frame rate	30 fps
Snapshot capabilities	Yes
Edge enhancement	Yes
Post process brightness/contrast	Yes
Adaptive noise suppression	Automatic
Manual noise suppression	3 modes
Laser alignment	Yes
Multifunction wireless foot switch	Yes

Dimensions

Weight	181.4 kg (400 lb)
Height	113.0 cm (44.5")
Footprint (W x L)	71.1 cm x 83.8 cm (28.0" x 33.0")

03/Orthoscan FD-OR. Set new standards in mini C-arm imaging.

→ Thinnest flat-panel detector

The FD-OR utilizes the thinnest flat-panel detector housing on the market, allowing the user to place the detector directly on the operating surface and leave the C-arm in the field to reduce OR time and decrease sterility risks. The compact form factor allows for additional maneuverability during cases and improves workflow.

→ Over-rotation

The Orthoscan mini C-arm design allows for an orbital rotation of 150°. This enables the user to take advantage of the larger field of view without making mechanical adjustments required by competitive equipment.

→ Advanced touchscreen interface

The advanced Orthotouch™ user interface allows seamless operation of system controls while still allowing for keyboard functions. Orthotouch™ provides a familiar experience – similar to a smartphone or tablet – that enhances interaction while viewing detailed anatomy.

→ 24" high resolution monitor

The 24" high resolution diagnostic widescreen monitor allows for a 20% larger viewing area. For viewing fine details of relevant anatomy, the FD-OR offers a large primary image and a wider viewing angle for increased visibility.



"I've never seen such detail with any other C-arm unit, both large and small."

ROBERT H. KANG, M.D., F.A.C.S.
CLINICAL ASST. PROFESSOR OF SURGERY, UNIVERSITY OF PITTSBURGH



Specifications: Orthoscan FD-OR

Detector

Detector resolution	2,0 k x 1.5 k
Field of view: full	14.0 cm x 10.9 cm
Field of view: collimated	10.9 cm x 8.4 cm
Useful array	15.0 cm x 12.0 cm
Pixel spacing	75 microns
Dose rate	AKR, DAP

X-ray monoblock

Focal spot	42.5 microns
kV range	40 – 78 kVp
mA range	0.04 – 0.160 mA

Documentation

Wireless communication	Capable
DICOM 3.0 compliant	Yes
MPPS	Capable
Image capacity	25,000
Video capacity	15 min
Cine loop export	Yes
USB 2.0 ports	Yes
Printer options	2

Software

Operating system	Windows 8.1 embedded
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C-arm

Free space	35.0 cm (13.8")
Arc depth	48.3 cm (19.0")
Pivot	430°
Lateral rotate (wig-wag)	320°
Orbital rotate	150°
Vertical range	86.4 cm (34.0")
Distance to cabinet	max 172.7 cm (68.0")
Distance to wheel base	max 114.3 cm (45.0")

Display

Monitor	61 cm (24") LCD
Primary "live" image	30.5 cm x 24.1 cm (12.0" x 9.5")
Dual reference images	12.7 cm x 10.1 cm (5.0" x 4.0")
Built-in DICOM calibration	Yes
Extendible monitor arm	Yes – 68.6 cm (27.0")
Left/right arm swivel & rotation	216° + 370° + 200°
Height adjustable arm	Yes
Monitor handles	Yes
Video output	Yes
Monitor brightness	600 cd/m ²
Touchscreen	Yes

Imaging

Surgical LED lights	Yes
Sterile field controls	Bilateral
Start up time	~50 sec
Temporary image hold	512 images
Cine loop frame rate	30 fps
Snapshot capabilities	Yes
Edge enhancement	Yes
Post process brightness/contrast	Yes
Adaptive noise suppression	Automatic
Manual noise suppression	4 modes
Laser alignment	Yes
Multifunction wireless foot switch	Yes

Dimensions

Weight	181.4 kg (400 lb)
Height	113.0 cm (44.5")
Footprint (W x L)	71.1 cm x 83.8 cm (28.0" x 33.0")

04/Orthoscan Mobile DI. Digital diagnostic imaging and fluoroscopy.

→ Digital portable imaging & fluoroscopy

Designed for the office or clinic, Mobile DI is a 16 kg self-contained portable mini C-arm capable of digital imaging and fluoroscopy. Mobile DI possesses the smallest footprint on the market for mini C-arms. With the optional wheeled storage case, Mobile DI can be easily transported between satellite clinics and offsite locations.

→ Mobile accessory cart

The optional Mobile DI accessory cart offers ease of movement between exam rooms, with improved features for users and patients to view X-ray images in real-time. A new articulating mid-mount monitor arm, with increased vertical and horizontal motion, allows for optimal positioning of the display while seated or standing. A redesigned keyboard tray includes conveniently located sidemounted handles for easy manipulation.

→ Additional procedures

Mobile DI allows for additional procedures in the office, improved workflow, and patient satisfaction. Benefits include reductions in patient lead times and potential for increased reimbursement.

→ Advanced touchscreen interface

The advanced Orthotouch™ user interface allows seamless operation of system controls while still allowing for keyboard functions. Orthotouch™ provides a familiar experience – similar to a smartphone or tablet – that enhances interaction while viewing detailed anatomy.

→ 24" high resolution monitor

The 24" high resolution diagnostic widescreen monitor allows for a 20% larger viewing area. For viewing fine details of relevant anatomy, the Mobile DI offers a large primary image and a wider viewing angle for increased visibility.



Accessories

Orthoscan offers a range of accessory and connectivity options that expand the diagnostic capability of Mobile DI, allow for additional portability, and maintain clinical excellence.

- Mobile accessory cart
- Weight-bearing foot bench
- Wheeled storage case
- Custom covers and drapes
- Desktop setup



Specifications: Orthoscan Mobile DI

Detector

Detector resolution	2,0 k x 1.5 k
Field of view: full	14.0 cm x 10.9 cm
Field of view: collimated	10.9 cm x 8.4 cm
Useful array	15.0 cm x 12.0 cm
Pixel spacing	75 microns
Dose rate	AKR, DAP

X-ray monoblock

Focal spot	42.5 microns
kV range	40 – 78 kVp
mA range	0.04 – 0.160 mA

Documentation

Wireless communication	Capable
DICOM 3.0 compliant	Yes
MPPS	Capable
Image capacity	25,000
Video capacity	15 min
Cine loop export	Yes
USB 2.0 ports	Yes
Printer options	2

Software

Operating system	Windows 8.1 embedded
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Display

Monitor	61 cm (24") LCD
Video output	HDMI
Monitor brightness	600 cd/m ²
Touchscreen	Yes

Imaging

Weight-bearing foot bench	Optional
Field controls	Single
Start up time	~50 sec
Temporary image hold	512 images
Cine loop frame rate	30 fps
Snapshot capabilities	Yes
Edge enhancement	Yes
Post process brightness/contrast	Yes
Adaptive noise suppression	Automatic
Manual noise suppression	4 modes
Laser alignment	Yes
Wired hand or foot switch	Capable

Dimensions

Free space	35.0 cm (13.8")
Mobile DI weight	15.9 kg (35 lb)
Mobile DI height	63.5 cm (25.0")
Mobile DI footprint (W x L)	30.5 cm x 48.3 cm (12.0" x 19.0")
Accessory cart weight	70.3 kg (155 lb)
Accessory cart height	151.4 cm (60.0")
Accessory cart footprint (W x L)	61.0 cm x 67.3 cm (24.0" x 27.0")

Orthoscan EMEA Service Center



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

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2. Paris (France)
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