PHILIPS

Image Guided Therapy

Mobile C-arm System 3000

Zenition 30

Philips Image Guided Therapy Mobile C-arm System 3000 – Zenition 30

Specifications

Give your surgical teams simple, more flexible imaging to make fast, informed decisions with Philips Image Guided Therapy Mobile C-arm System 3000 – Zenition 30. Benefit from Flat Detector technology, advanced imaging algorithms and a Personalized IQ feature that provides outstanding image quality and dose efficiency, helping you to perform a wide variety of surgical procedures. In addition to its 2.1 kW configuration, Zenition 30 is also available in a 4 kW configuration, allowing you to meet the diverse needs of your OR. Unique surgeon control and the Touch Screen Module empower end users by giving them more control, while the Unify workflow helps promote ease of use. Built on the foundations of the Zenition platform, this system is designed to meet your economic and business goals.

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1 - System overview

Speciali chirurgo rankena ir elektromagnetiniai stabdžiai
Pagreitinkite procedūras lengvai keisdami C-lanko poziciją su intuityviais elektromagnetinių stabdžių mygtukais ir chirurgo rankena

1 **Unique surgeon control and electromagnetic brakes**
Accelerate procedure by easily adjusting the C-arm position through intuitive electromagnetic brake buttons and a surgeon handle

T9

2 **Personalized IQ**
Surgeons can simply link their desired image quality parameters and general parameters to their profile, reflecting their individual preferences

3 **Touch Screen Module**
Save time by viewing images and quickly adjusting imaging settings at the table side with this intuitive module which facilitates smooth and efficient communication in the OR

4 **Space-saving design**
Take up less OR space with the compact footprint of the C-arm

5 **Unify workflow**
With the Unify workflow's navigation aids, surgical teams experienced smoother interactions and less miscommunication in a usability study[1]. The workflow consists of:
- Tablet-like UI
- ClearGuide
- Color Coding
- Position Memory

6 **Reduce total cost of ownership and avoid obsolescence**
Achieve high uptime with easy serviceability and remote support options that can handle many service issues without an on-site visit. Extend your system's clinical performance with the standard Windows® platform – ready to incorporate new innovations and software upgrades


2
3
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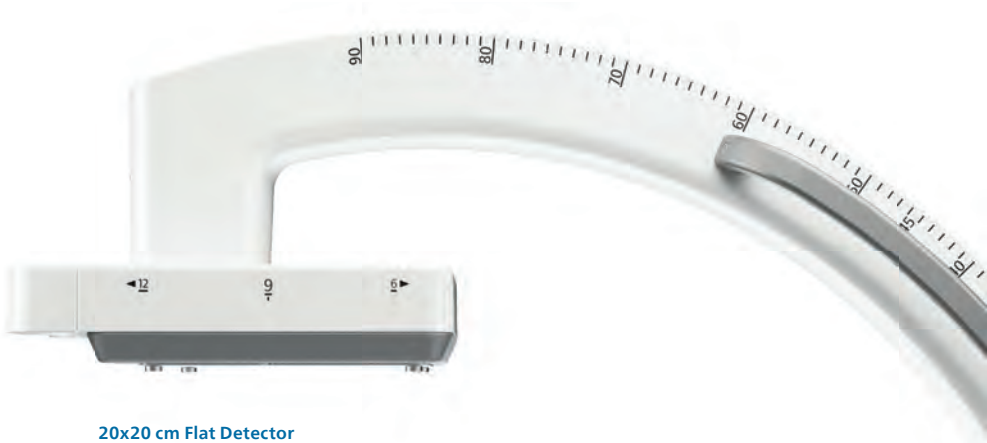
2 - Flat Detector



20x20 cm Flat Detector

The Zenition 30 system comes with a 20x20 cm Flat Detector that delivers distortion-free images with superb resolution and dose efficiency for performing a wide variety of surgical procedures.

	Specifications	FD 20x20 cm
	Flat Detector type	Trixell amorphous silicon detector
	Scintillator	Cesium iodide
1.6.3.	Matrix detektoriaus matrica 1024x1024 taškų	1024 x 1024 pixels
1.6.1.	Field of view detektoriaus aktyvios zonos dydis 20 x 20 cm	20 cm x 20 cm (7.9" x 7.9") Zoom: 20 cm / 14.4 cm / 10.4 cm (7.9" / 5.7" / 4.1")
T6 1.6.2.	Pixel pitch pikselio dydis 200 µm	200 µm
	Dynamic range	81 dB
1.6.5.	A/D conversion pilkumo skalė 16 bitų	16 bit
1.6.4.	DQE (@ 0 lp/mm)	0.75 detektoriaus kvantinis efektyvumas prie 0 linijų/mm 0.75 (75%)
	MTF (@ 1 lp/mm)	0.53
	Spatial resolution measured on grid surface, no filters in beam	OV: 2.2 lp/mm Z1: 2.5 lp/mm Z2: 2.8 lp/mm
	Nyquist frequency	2.5 lp/mm
	Grid lines / cm	57
	Grid material	Carbon fibre
	Grid ratio	13:1
	Anti-scatter grid	Removable

3 - Geometry

Fast and convenient positioning for a wide variety of patients.

3.1 C-arm stand specifications

	1.2.4.	**Angulation**	156° rotation (+90°/-66°) Orbitalinė rotacija 156 laipsniai
T1	1.2.1.	**Motorized height movement**	490 mm / 19.3" Motorizuotas vertikalus judesys 490 mm Speed: > 1.0 cm/s, < 2.5 cm/s
	1.2.2.	**Longitudinal movement**	200 mm / 7.9" Išilginis judesys 200 mm
	1.2.5.	**Panning movement (swivel)**	± 10° lateralinė rotacija +-10 laipsnių
T2	1.2.3.	**Rotation**	± 200° rotacija +-200 laipsnių
		Lowest lateral position	1060 mm
	1.2.6.	**Source to Image Distance (SID)**	1000 mm / 39.4" atstumas nuo šaltinio iki detektoriaus 1000mm
	1.2.8.	**Free space in C-arm**	765 mm / 30.1" laisva C lanko erdvė 765 mm
T3	1.2.7.	**C-arm depth** C lanko gylis 730 mm	730 mm / 29" (when measured with 20 cm spacer)
		Parallel movement	Dedicated parallel movement with rear-wheel steering, for easy positioning along operating table
		C-arm stand length	1838 mm (without push bar and surgeon handle) 2067 mm (with push bar and surgeon handle)
		Weight	Max. 295 kg
		C-arm stand width	850 mm
		C-arm stand height	In lowest position: 1638 mm In transport position: 1718 mm In highest position: 2128 mm
		Brakes on all movements	Yes, electromagnetic (angulation, rotation, longitudinal), wigwag manual
		Steering	Rear wheels
		Cable deflectors	Yes
		Surgeon control handle (optional)	Angulation, rotation, longitudinal movements control through electromagnetic brakes available on Flat Detector

Mobile Viewing Station

1.3.2.

Front view

Rear view

Side view

3.2. Mobile Viewing Station specifications

Depth	702 mm
Width	702 mm (monitors folded) 943 mm (monitors unfolded)
Height	1850 mm (maximum) 1650 mm (minimum)
Weight (including options)	Max. 140 kg
Monitor height movement	200 mm

3.3. C-arm stand UI specifications

Depth	53.9 mm
Width	311 mm
Height	213.1 mm
Weight (including options)	2.1 kg
Native pixel matrix	1280 x 800
Viewing angle	160°
Monitor size	12.1″ wide screen
Brightness	360 ±20 Cd/m^2

Touch Screen Module

3.4 Touch Screen Module specifications (optional)

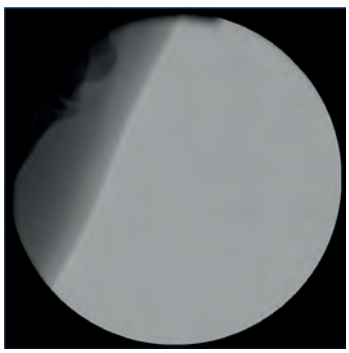
Depth	53.9 mm
Width	311 mm
Height	213.1 mm
Weight (including options)	2.1 kg
Display matrix	1280 x 800
Size	12.1″ LCD

4 – Imaging

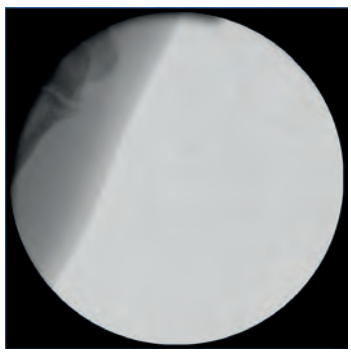
Mūsų visiškai automatinė "MetalSmart" funkcija pašalina metalo artefaktus, atsirandančius dėl metalinių implantų, ir užtikrina geresnę vaizdo kokybę bei veiksmingą dozės kontrolę atliekant ortopedines ir kitas procedūras, palyginti su sistemomis be metalo pašalinimo.

"Philips" aukščiausios kokybės vaizdavimo technologija leidžia automatiškai koreguoti vaizdą pacientui ar stalui judant realiuoju laiku.

Specifications	
SmartVision	• Flat Detector active matrix: FD 20x20 cm (1024 x 1024) pixels • Unique BodySmart software allows free positioning of the anatomy, even at the edge of the image detector. It automatically detects anatomy and adjusts parameters to produce high-quality images • Contrast and brightness can be adjusted automatically or manually in real time. 1.8.4. • Our fully automatic MetalSmart feature excludes metal artifacts caused by metal implants to provide higher image quality and efficient dose control for orthopedic and other procedures, compared to systems without metal exclusion 1.8.5. • Philips premium imaging technology enables automatic image adjustments in the event of patient or table movement, in real time on live images; reduces noise and artifacts on moving structures and objects; enhances image and sharpens edges
DoseWise	• **Imaging modes:** - Fluoro mode options of different X-ray dose levels, enabling dose savings when desired or enhanced image quality when necessary - Three different pulse rates for fluoro modes; the lower pulse rate can help manage X-ray dose • **Collimation:** - Graphical shutter, iris and image orientation on Last Image Hold image on C-arm stand without applying radiation - Real lead asymmetrical shutters - Independent shutter positioning - Automatic electronic blanking (AEB) following the lead shutters and iris to enhance image quality • Automatic shutter positioning (ASP) sets shutters to the anatomy of interest for excellent image quality at the touch of a button • The integrated laser allows staff to position the C-arm without using radiation • Several features contribute to increased dose awareness, including dose reporting, dose display, and an alert when exceeding a pre-defined procedure dose level



Without BodySmart



With BodySmart

Without MetalSmart

With MetalSmart

Specifications

Acquisition settings	Preset acquisition settings apply dedicated fluoroscopy settings to obtain superb image quality for the anatomy of interest without applying more X-ray dose than necessary. Within each program, there are different X-ray modes available (depending on the anatomy of interest): • Low-dose fluoroscopy • Normal-dose fluoroscopy • FluoTap • Exposure run to produce high-quality images • Single shot exposure, for extra-sharp, single snapshot images • Auto Contrast Brightness (ACB) on/off settings • Subtraction (Digital Subtraction Angiography) • Trace • CO_2 (carbon dioxide) • Roadmap Blur reduction and noise reduction buttons to further adjust the level of temporal noise reduction to the amount of movement in the region of interest
Real-time processing functions	
Feature	• Feed-forward gain control • White compression • Adaptive temporal recursive noise reduction • Adaptive multi-resolution brightness/contrast/edge enhancement/spatial noise reduction • Automatic Electronic Blanking (AEB) • Video invert • Digital image rotation • Mirroring • Flipping • Manual/auto contrast/brightness
Post-processing functions	360 laipsnių skaitmeninis pavertimas į kairę/dešinę, aukštyn/žemyn
Feature	1.8.3. • 360° digital rotation, mirror left/right and up/down without radiation • Contrast and brightness/edge enhancement • Annotation (for a single image or all images in an examination) • Video invert (negative) 1.8.2. • Zoom and roam (factor 2x real-time magnification, freely movable to any section of an image) vaizdo padidinimas • Pixel-shift, landmarking and view trace 1.8.1. • Measurement (to precisely quantify lengths and angles in images) • Manual Electronic Blanking (MEB)
	Matavimai (norint tiksliai kiekybiškai įvertinti ilgius ir kampus vaizduose)

Mobile Viewing Station monitors	Standard monitors	High-brightness monitors (optional)
Resolution	1280 x 1024 pixels	1280 x 1024 pixels
Maximum light output	330 cd/m²	650 cd/m²
Contrast ratio	900:1	1000:1
Viewing angle	178° in horizontal and vertical direction	178° in horizontal and vertical direction
Tablet-like UI	Offers easy access to post-processing of acquired images, patient demographics as well as patient administration and data export (live monitor)	Offers easy access to post-processing of acquired images, patient demographics as well as patient administration and data export (live monitor)
Monitors	Two 19" standard color LCD monitors for diagnostic image quality display. Monitor LUT: • DICOM GSDF compliant	Two 19" high-brightness color LCD monitors for diagnostic image quality display. Monitor LUT: • DICOM GSDF compliant
Touchscreen (optional)	Left monitor only, near touch, infrared	Left monitor only, near touch, infrared

1.3.4. maksimalus monitoriaus skaistis

vertikalus ir horizontalus apžvalgos kampas 178 laipsnių

1.3.5.

1.3.1.
1.3.3.
Du 19 colių didelio ryškumo spalvoti LCD monitoriai diagnostinės kokybės vaizdų pateikimui

5 – X-ray generation

	Specifications	
	X-ray generator	Zenition 30 uses a monoblock architecture with the generator in the X-ray tank. With the monoblock, there is no need to transmit pulses over high-voltage cables, which can result in a ramping-up and ramping-down effect, due to the electrical impedance of the cables. Because the monoblock generator operates at high frequencies (40 kHz), it produces sharp pulses, which results in fewer motion artifacts in the image. This also allows less soft radiation to be used and produces less heat
1.4.1.		Monoblock tipo aukšto dažnio 40 kHz generatorius
	X-ray tube	Zenition 30 systems have a fixed anode and high-power generator with excellent heat management to perform the most demanding interventional procedures
	Tube type	Fixed anode X-ray tube
	Nominal x-ray tube assembly voltage	110 kV
1.4.8.	Nominal focal spot values	0.6 and 1.2 mm Židinio dėmės dydžiai 0,6 ir 1,2 mm
T5 1.4.9.	Maximum anode heat content	57 kJ = 79.8 kHU Maksimali anodo šiluminė talpa 79.8 kHU
	Max. uninterrupted fluoro time	20 min
	Maximum anode cooling rate	600 W = 36 kJ/min = 50.4 kHU/min
	Anode target angle	9°
	Anode material	Tungsten
1.4.10.	Maximum housing heat content	1056 kJ = 1478 kHU Rentgeno vamzdžio šiluminė talpa 1478 kHU
	Maximum continuous housing heat dissipation	90 W = 5.4 kJ/min = 7.56 kHU/min
T8	Cooling method	Active oil-circulation cooling Aktyvus integruotas aušinimas tepalu
	Inherent filtration of x-ray tube	1.8 mm Al equivalent
	Integrated beam filter	3.8 mm Al equivalent + 0.1 mm Cu
1.4.11.	Total beam filtration	>=6.0 mm Al equivalent @ 75 kV Bendro filtro storis 6 mm Al ekvivalentas
1.4.2.	Max. generator output	2.1 kW or 4 kW Generatoriaus galia 2.1 kW

pulsinė rentgenoskopija

	Specifications	Zenition 30 2.1 kW	Zenition 30 4 kW
1.1.1.	Operating values with pulsed fluoroscopy		
1.4.3.	**kV range** įtampos keitimo diapazonas	40-110 kV	40 - 110 kV
1.4.4.	**Highest X-ray tube current (peak)**	7.2 mA (at 110 kV) maksimali srovė (pulsinės rentgenoskopijos režime)	7.2 mA (at 110kV)
	Highest electric power (peak)	792 W	792 W
	Highest electric power (average)	594 W	594 W
1.4.7.	**Pulse width** pulso plotis (minimalus) pulsinės rentgenoskopijos režime	14.81 ms to 222.22 ms	14.81 ms to 222.22 ms
T4 1.4.6.	**Pulse rate** Maksimalus pulsų dažnis pulsinės rentgenoskopijos režime	1 - 2 - 4- 7.5 - 15 - 30	1 - 2 - 4- 7.5 - 15 - 30
	Operating values with exposure runs		
	kV range	40-110 kV	40-110 kV
	Highest X-ray tube current (peak)	25 mA (at 70 kV), 16 mA (at 110 kV)	30 mA (at 110 kV)
	Highest electric power (peak)	1760 W	3300 W
	Highest electric power (average)	110 kV x 7.2 mA = 792 W 70 kV x 11.21 mA = 792 W	110 kV x 9 mA = 990 W 70 kV x 14.14 mA = 990 W
	Pulse width	33.33 ms to 222.22 ms	10 ms to 222.22 ms
	Pulse rate skaitmeninė rentgenografija	2 - 4 - 7.5 - 15 - 30	2 - 4 - 7.5 - 15 - 30
1.1.2.	Operating values with single-shot exposure (snapshot)		
	kV range maksimali srovė rentgenografijos režime	40-110 kV	40-110 kV
1.4.5.	**Highest X-ray tube current (peak)**	19.1 mA (at 110 kV)	36.0 mA (at 110 kV)
	Highest electric power (peak)	2101 W	3960 W
	Highest electric power (average)	2101 W	3960 W
	Pulse width	200 ms	100 ms

Specifications		Zenition 30 palengvina kolimavimą. Švinines kolimavimo užuolaidas galima nepriklausomai pasukti ir reguliuoti
X-ray collimation Rentgeno kolimavimas	1.5.	Zenition 30 makes collimation easy. Its lead shutters can be rotated and moved independently, and the unique Philips Automatic Shutter Positioning (ASP) feature automatically positions shutters for excellent image quality at the touch of a button. You can position shutters or adjust the iris on the last X-ray image (Last Image Hold on stand UI), enabling the shutters or iris to be positioned without the need for live fluoroscopy
Shutters		Two independent lead shutters with steel wedge: shutters can be coupled for rotation and translation, or moved individually for asymmetric collimation
Automatic shutter positioning		Automatic shutter placement based on image content
Shutter material		3 mm Pb
Rotation of shutter		360°
Wedge material		0.2 to 2.5 mm stainless steel
Adjustment of shutter and iris		Stepless
Iris material		Lead with 5% antimony: Pb (Sb5%)
Iris diameter (at detector)		FD 11 iris diameter: 200 mm (7.9") circular Minimum beam diameter at detector entrance for all formats: < 50 mm at detector
Square Fixed Diaphragm (at detector)		FD 11 SFD size 200 x 200 mm
Position indication		On screen and also on last image hold without radiation on Stand UI

6 - Workflow

Specifications	
Unify workflow	Unify workflow brings intuitive control and handling to your system to increase efficiency of training and enhance teamwork
• Tablet-like UI	Physicians and operators experience a whole new level of simplicity with our tablet-like user interface on the C-arm and intelligent workflow. Now you can just touch the screen with a finger to drag the shutters and iris into position on Last Image Hold. At each step you only see the features you need, making it easy to find the right selections. The Personalized IQ feature provides outstanding image quality and dose efficiency, helping you to perform a wide variety of surgical procedures
• ClearGuide and Color Coding	Our unique ClearGuide, in combination with Color Coding on the C-arm, speeds up positioning. ClearGuide provides a uniform reference for the operator and physician to use during positioning. A set of numbers (3, 6, 9, 12) on the detector corresponds to the same numbers displayed on the clinical image. The numbers always match up, even if the image is rotated, flipped, or mirrored
• Position Memory (optional)	Returning the C-arm to the exact position to check placement of an implant-like pedicle screw during spinal surgery can require additional scout images without extra positioning guidance. With Position Memory, you can store a previous position and recall it when needed to speed up re-positioning
Mobile Viewing Station	The compact Mobile Viewing Station fits perfectly into the surgical workflow. Its intelligent design provides the user with easy system set-up, enhanced viewing capabilities and easy transportation. The design is easy to clean. All system controls are at your fingertips on the live monitor of the Mobile Viewing Station. With this tablet-like UI, you can intuitively set up an exam, post-process images, or export a case to PACS. The touch screen monitors use infra-red technology to prevent impacts on the image quality and brightness
Compact Flat Detector	The compact Flat Detector frees up valuable workspace around the patient during challenging procedures. It gives you more room to see your patient, see team members, and coordinate tasks

ClearGuide

Color coding

Specifications

Connectivity	• Wireless data transfer allows users to connect to the RIS/HIS to send and retrieve images or other relevant data wirelessly and reduce the amount of cable clutter in the OR • Optional digital video out to display live and reference images on additional monitors (e.g. ceiling-mounted) without a loss of resolution • Optional video in allows you to conveniently display external video signals such as endoscopy or ultrasound on the right C-arm monitor, so all the information needed is in one single view • USB storage provides a convenient way to store and images for use in reports or presentations
DICOM	DICOM is integrated into the system for digital image to DICOM translation. A highly intuitive user interface simplifies use. 1.9.4. • DICOM print 1.9.1. • DICOM store DICOM worklist (darbų sąrašo) valdymo funkcija 1.9.2. • Basic worklist management (optional) 1.9.5. • Modality-performed procedure step (MPPS) (optional) • Storage commit (optional) 1.10.1. • DICOM storage to DVD or USB memory (optional) DICOM vaizdų išsaugojimas į DVD arba USB 1.9.3. • DICOM query/retrieve (optional) 1.9.6. • DICOM radiation dose structured reports **DICOM image formats:** • Secondary capture (SC) with/without text • Angiography (XA – multi-frame) • Patient dose report
Integrated Healthcare Enterprise (IHE)	Zenition 30 is compliant with the IHE Scheduled Workflow Integration Profile as an Acquisition Modality Actor.
Digital video out (optional)	2 DVI connectors live and reference monitor
Video in (optional)	S-Video, DVI (digital and analog), SDI
USB storage 1.10.2.	PNG, MP4, BMP vaizdų išsaugojimas į USB laikmenas PNG, MP4, BMP formatais
IP addressing	Static IP, DHCP
Wireless standards supported	IEEE 802.11a / b / g / n / ac (2.4 GHz and 5 GHz band) FIPS 140-2:compliant
Number of antennas	2 (embedded within the system, not visible)
User-configurable SSID support	Up to 16 SSIDs, each with a unique MAC address and configurable SSID broadcast
Authentication protocols	PSK, IEEE 802.1x EAP-TLS and PEAP AES, TKIP and WEP encryption FIPS 140-2 compliant
Security	Secure boot and whitelisting to prevent malware
External room X-ray indication	Yes (optional)
Digital navigation link	Support for third-party systems (e.g. navigation system) which need single image data (LIH) and some controlling information. Available only with 4 kW configuration as an option.

Specifications

Number of USB ports	2 USB 2.0 and 1 high-speed USB 3.0 port
Storage	Up to 140,000 images
DICOM store (DVD/USB) and retrieve (USB/DVD/PACS) (optional)	Yes
Embedded multi-modality viewer (MMV) (optional)	Image viewer
Service tools (PSC, Remote, LOTS)	On-system service tool (Philips Support Connect), remote service/remote assistance (Look Over The Shoulder)
Operating system • **Processor speed** • **RAM** • **Storage type**	Windows® 10 LTSC 2019 Intel Core™ i7-4790S (4 GHz) 8 GB: 2x DDR3 1600 MHz 4 GB SO-DIMM 2x 500 GB HDD
Image processing bits	FD subsystem: 16 bits, system image processing: 14 bits
Image matrix	1 k x 1 k
Storage capacity in GB	2 x 500 GB HDD of which ~300 GB or 140,000 images for image storage
Storage image bits	14-bit image data + 1-bit measuring field

7 - Clinical extensions

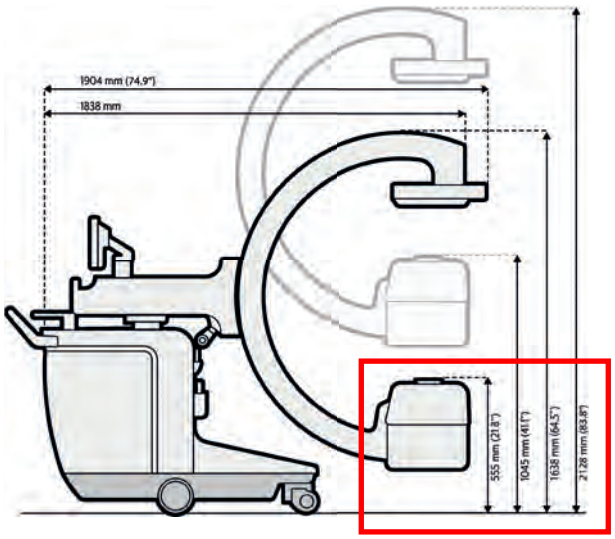
Specifications	
Outlining*	The outlining tool allows users to draw an outline digitally on an image on the tablet-like UI using finger or your externally connected mouse
Pain management extension**	The pain management extension offers digital subtraction functionality to enable enhanced visualization of contrast medium injections.
Cardiac extension**	This combination of dedicated cardiac exam types, high pulse rates and expanded image memory of 140,000 images is the ideal package for cardiac interventions. The cardiac extension includes dedicated anatomical programmed fluoroscopy parameters. With motion stopping x-ray of up to 30 frames per second and 36 mA single shot, the Zenition 30 captures sharp images of fast-moving anatomy in the region of interest. Larger memory (140,000 images) provides capacity to record long cases at high frame rates
Vascular extension**	The vascular extension offers you the full support for vascular cases, providing an extensive range of vascular imaging tools. Most vascular functions can be controlled by handheld remote or at the user interface on the Mobile Viewing Station. • Subtracted fluoroscopy mode displays images in subtracted mode • Trace mode shows the maximum opacification of the vessels (iodine and CO_2) in real time • Roadmap images support catheter guidance • Remask lets you reselect the most suitable image in your run as a mask image for contrast runs • SmartMask helps manage dose and contrast medium usage by re-using previously acquired images for roadmapping • Landmarking provides a non-subtracted background image for anatomical reference • Manual pixel-shift compensates for movement artifacts • Subtraction on/off simplifies the orientation for subtracted images during roadmap procedures (controlled by remote control or user interface on the Mobile Viewing Station) • View trace creates a trace image in post-processing (Iodine + CO_2) • CO_2 mode is available for subtraction, trace white and roadmap with SmartMask and View Trace • Bolus chase helps in tracking progress of contrast medium in angiography
Pediatric extension**	Dedicated pediatric mode allows exam settings to enable low dose modes for pediatrics. Further dose can be managed by removing the x-ray grid.

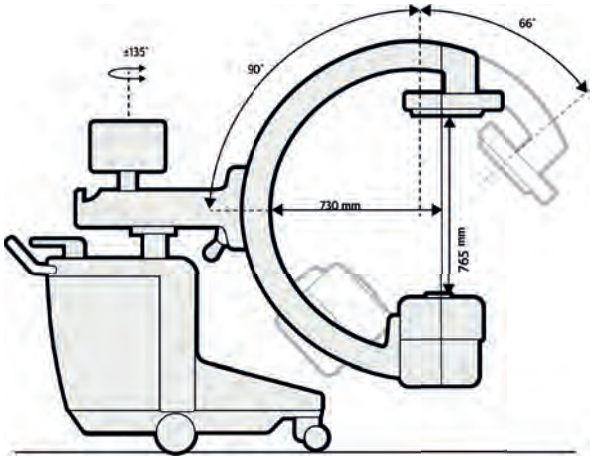
* Optional for 2.1 kW and standard for 4 kW

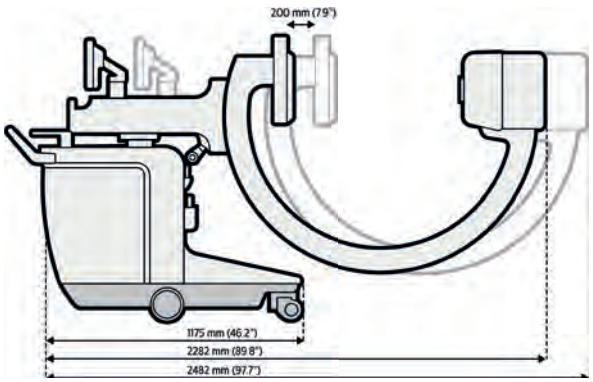
** Optional

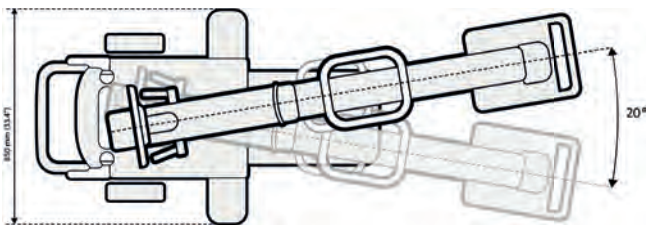
8 - Dimensions

Specifications	FD 20x20 cm
C-arm stand	• Flat Detector assembly: height x width x depth: 10.6 cm x 30.1 cm x 39.4 cm • Tube Tank assembly: height x width x depth: 38 cm x 16.5 cm x 35.8 cm • Nominal Source Image Distance (SID): 100 cm • Source Skin Distance: 20.3 cm (IEC 20 cm spacer cover); 30.3 cm (HHS 30 cm spacer cover)
Mobile Viewing Station	Find drawings on the next page

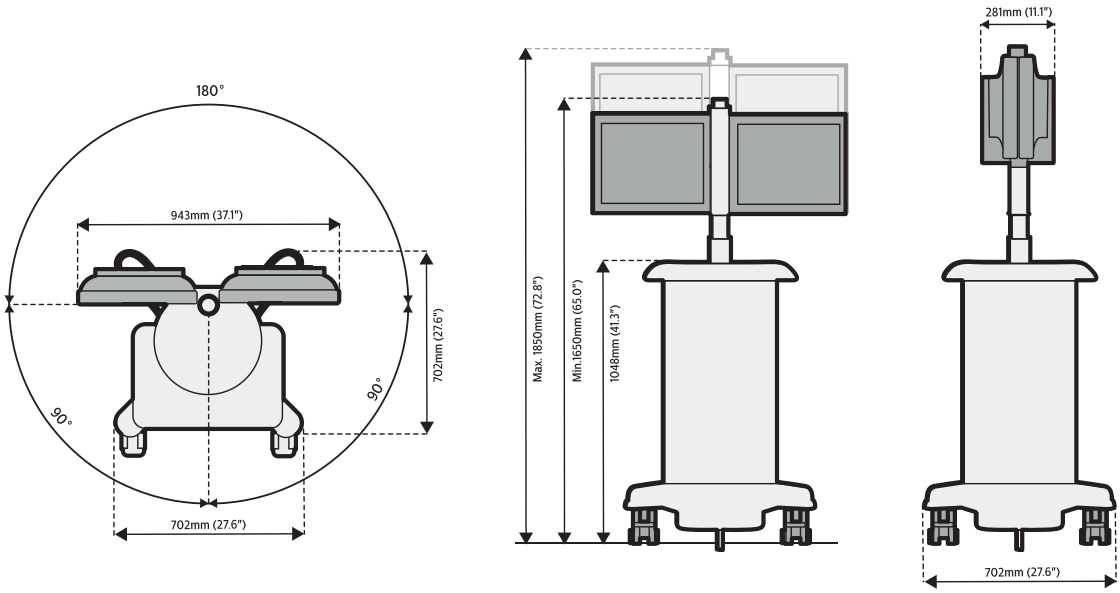








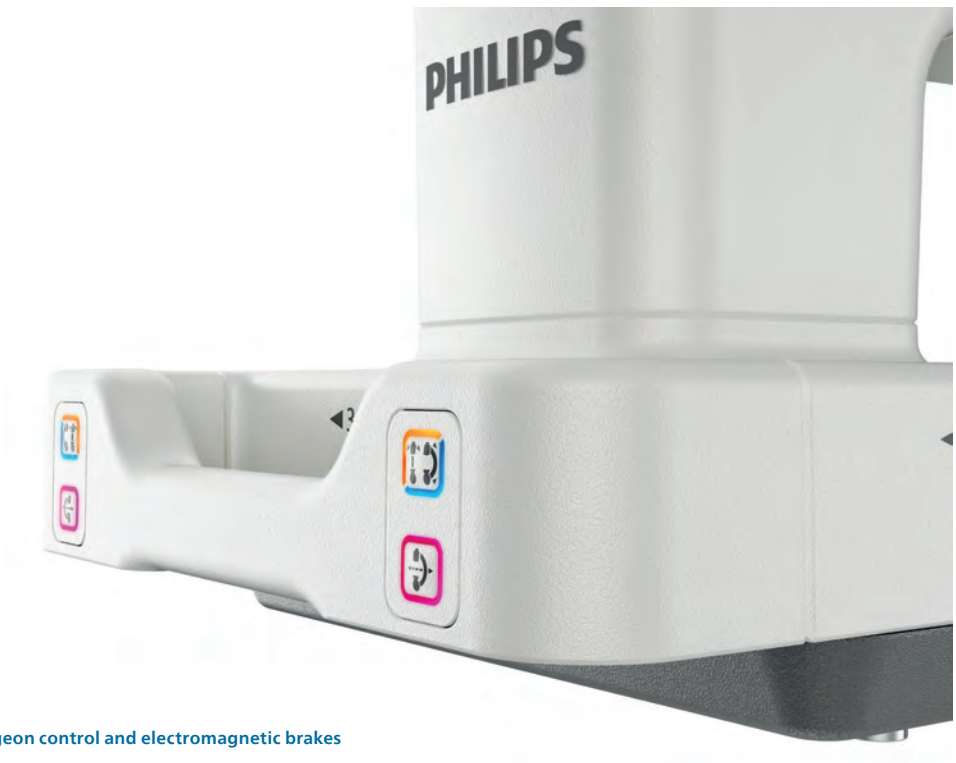
Zenition 30 with 20x20 cm Flat Detector



Mobile Viewing Station

9 - Options

Specifications	
Position tracking and Position Memory	With Position Memory, you can store up to three positions (which includes C-arm rotation, angulation, height and longitudinal positions) and recall them later on the screen when needed to speed up re-positioning. The system displays both the current position and the saved position on the C-arm stand monitor, helping to guide the operator back to the exact projection required. It is possible to recall the position of every stored image
Tank laser aiming device	Laser projects a crosshair from the X-ray tank towards the Flat Detector, indicating the centre of the X-ray beam and enabling alignment of the C-arm without X-ray
Flat Detector side laser	Integrated laser in the Flat Detector housing, can be activated and deactivated, at the touch of a button that enables positioning of the C-arm without radiation. 635 nm Maximum output < 10 m W Laser class 1 (IEC)
Surgeon control and electromagnetic brakes	Unique surgeon control* and electromagnetic brakes accelerate procedures by easily adjusting the C-arm position through intuitive electromagnetic brake control on the surgeon handle
Video paper printer	Thermal printer to print video images from the live (left) monitor onto paper during or after examinations. Print 1, 2, 4, or 6 images on one page in landscape or portrait format
DICOM 3.0 and IHE	Zenition 30 can be equipped with the Philips Integrated DICOM solution, which transfers images from the Zenition 30 onto the hospital network in a Secondary Capture DICOM SC or a DICOM XA format. The basic DICOM package supports DICOM Print and DICOM Store. The advanced DICOM/IHE package* supports: • Modality worklist management • Modality performed procedure step • Storage commit • Full compliance with the IHE Scheduled Workflow integration profile as an Acquisition Modality Actor • Query/retrieve (image viewer option)
PC encryption	The system provides hard disk for encryption for data. This option is to be provided during ordering of the system. Hard disk drive encryption is a data protection feature that integrates with the operating system and addresses the threats of data theft. The system shall use fixed storage media and data encryption in compliance to FIPS140.2 standards



Surgeon control and electromagnetic brakes

* Optional for 2.1 kW and standard for 4 kW

Specifications

Image viewer	Offers an intuitive multi-purpose platform for retrieving and handling DICOM images from different modalities. It lets you compare pre-operative images side-by-side with the live fluoroscopy images. 500 GB hard disk. MIP / MPR - maximum intensity projection singles out high-intensity areas for 2D projection of a 3D volume
Handheld remote control	The remote control unit is a handheld infrared keypad used to control the main image handling functions. For sterile operation, it can be used in a transparent sterile plastic cover. The functions include: • Run cycle review • Overview run/page • Retrieve the previous image/run • Retrieve the next image/run • Park image on the reference monitor • Retrieve the image from the reference monitor • Protect image/release image • Acquisition mode selection • Detector-format selection • Subtraction on/off
Footswitch	Wired footswitch cable length: 3.5 m
Touch Screen Module	With the intuitive Touch Screen Module, you save time by viewing images and quickly adjusting imaging settings at the tableside. Available only with 4 kW configuration as an option.
Sterilizable covers and springbow	• Sterilizable covers for Flat Detector, C-arm and the x-ray tank • A springbow for C-arm that holds the sterile cover of the C-arm in position, while allowing free movement of the C-arm

Handheld remote control

Wired footswitch

10 - Services

A comprehensive portfolio of services

The success of your organization depends on people. Philips Services are designed with that in mind, helping to create healing environments, develop your staff, improve your organization's performance, and increase patient satisfaction.

The resources, training, and support we offer enable you to focus on what's most important – your patients. Philips provides a complete portfolio of services designed around your patients, your people, and your organization.

Remote expert connect

An efficient workflow

Philips technical experts can log in to your computer screen and guide you through a service issue to save time. Remote diagnostics help reduce on-site visits and speed up issue resolution. Remote service scheduling allows you to give access to your system for remote work, at a convenient time. Configuration, customization, log file analysis and other services that previously required on-site visits are now available by connecting to our remote experts.

Education and training

Meaningful learning for enhanced patient care

To help departments unlock the full potential of equipment and staff, Philips provides a flexible, hands-on and personalized education program, tailored to the learning needs of clinicians and other staff. By improving clinical workflows and standardizing on best practices, Philips supports healthcare professionals to use technologies with greater confidence and accuracy, while keeping their knowledge and competencies up to date.

Technology Maximizer

Stay clinically advanced, maximize imaging investment

Technology Maximizer is a program that keeps your system in state-of-the-art condition with regards to cyber security, clinical, and operational advancements throughout the program term.
When you opt into the Technology Maximizer program, you receive the latest available software and hardware technology releases for a reasonable, predictable fee.

Key benefits

Stay clinically advanced to maximize the value of the investments and be first to market innovations.

Be predictable in your costs while keeping your systems up to date.

Keep your imaging systems secure and stay protected from obsolescence.

Philips Healthcare Operational Services*

Future-forward, tailor-made service agreements that keep your equipment up and running

Our service agreement portfolio contains 8 types of contracts tailored to your needs and goals.

Choose from a diverse range of direct-support options, where you effectively rely on Philips, or tiered support, where your own in-house capabilities are complemented by Philips support and expertise.

Philips Healthcare Operational Service agreements include access to clinical and technical expertise via our customer care solutions centers.

8 types of flexible service agreements, tailored to your needs

*Healthcare Operational Services availability is subject to market release. Please check with your regional sales representative for suitable service contracts.

11 - Sustainability

When you choose Philips, you are choosing a partner committed to meeting sustainability and circular economy ambitions. As a leading health technology company, our purpose is to improve people's health and well-being through meaningful innovation, positively impacting 2.5 billion lives per year by 2030.

The Zenition 30 is the result of our EcoDesign process and offers significant environmental improvements:

Product life improved by **25%**[2]

Power efficiency improved by**6%**[2]

Parts recovery during servicing, with recycling passport available to ensure high-quality disassembly and recycling

Zenition 30 is manufactured at a **site certified** for Environmental Management (ISO14001), Occupational Health and Safety (ISO45001)

[2] As compared to predecessor products.

[1] Results obtained during user tests performed in November 2013 by Use-lab GmbH, an independent company. The tests involved 30 USA based clinicians (15 physicians teamed up with 15 nurses or X-ray technicians), who performed simulated procedures using Philips mobile X-ray systems in a simulated OR environment. None of them had worked with each other before.

Few clinical images are from BV Vectra, BV Endura and Zenition 70 and do not represent the final image quality of the Zenition 30 mobile C-arm systems.

510k certification pending for Zenition 30 mobile C-arm system.

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