

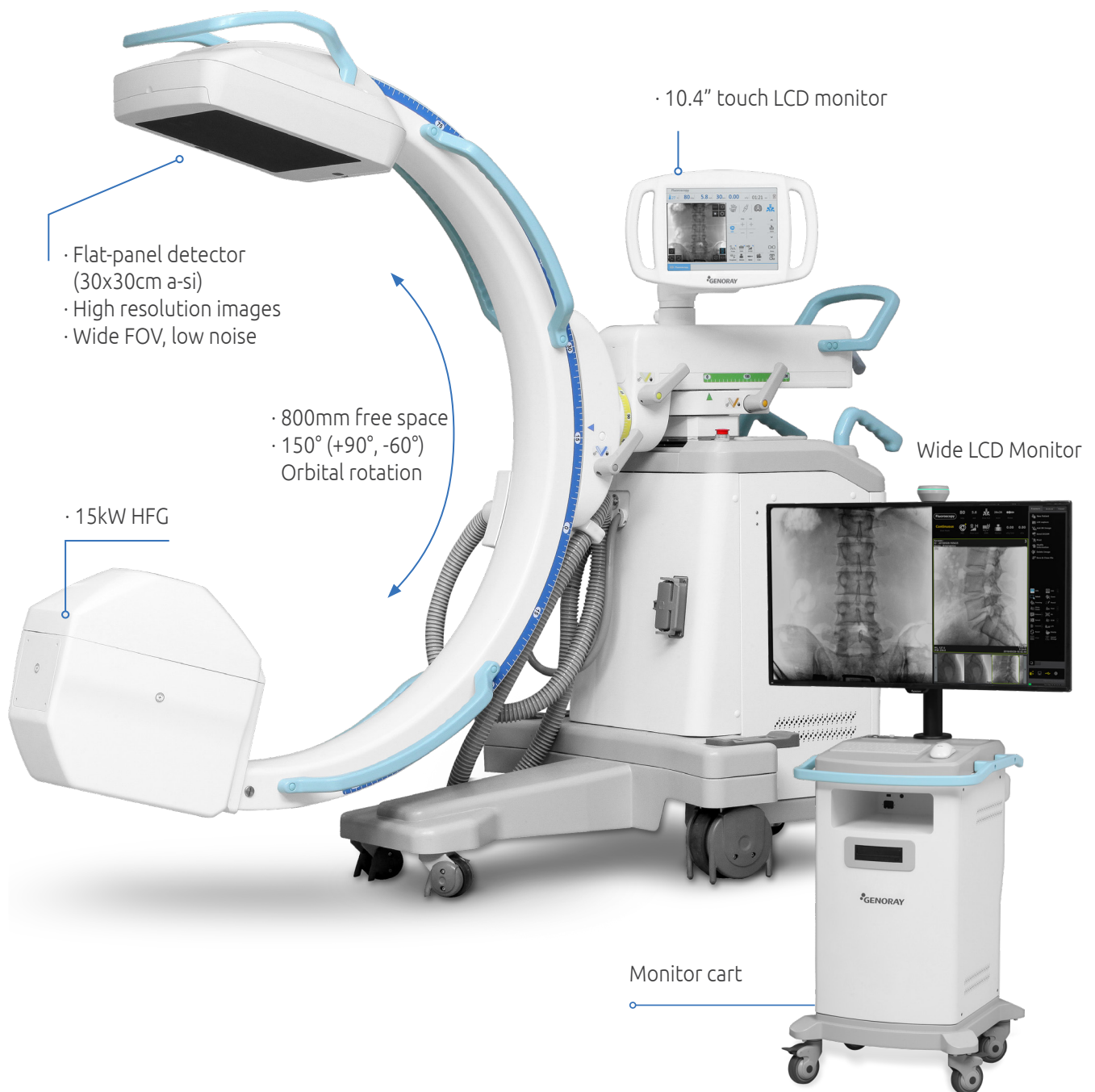
Surgical Mobile C-Arm X-ray System

OSCAR 15FD

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OSCAR 15FD

OSCAR 15 FD offers various operations with exceptional images through Flat-panel detector and 15kW HFG. It is a culmination of several year worth of developmental experience from GENORAY.



1. X-ray Generator (HF Inverter 60kHz)

Input

Phase	Single
Line Frequency (Inverter control frequency)	60kHz
Line Voltage	AC 220V±10%
Nominal Peak Output Power	15kW

Output

Radiography	Film Mode		40–120kV, ~150mA, ~100mAs
Fluoroscopy	Continuous Mode (30f/s)	Small Focus	40kV–120kV, 0.2mA–6.0mA
		Large Focus	Large Focus : 40kV–120kV, 1mA–20.0mA
	Pulse Mode	Small Focus	40kV–120kV, 0.2mA–10.0mA
		Large Focus	40kV–120kV, 3.0mA–50.0mA
	Pulse Rate	1,2,4,8,15,30PPS	
	Digital Snap Shot	40–120kV, 1mA–50mA	

*Power and Dose Management – Easy selection of suitable power and dose levels for each patients

2. X-ray Tube (Dual Focus Rotating Anode Tube)

Electrical Data

Circuit	DC(Center Grounded)
Operational Tube Voltage(Nominal Voltage)	40-120kV
Focal Spot(Nominal Focal Spot Values)	0.3mm / 0.6mm
Input Energy	6kW at 0.3mm, 25kW at 0.6mm

Mechanical Data

Tube Dimension	Tube Length	199mm
	Tube Diameter	95mm
Target angle	10°	
Inherent Filtration	0.7 mm Al	
X-Ray Coverage	350mm x 350mm AT SID 1000mm	

Other Ratings

Anode Heat Storage Capacity	300,000HU (225kJ)
Anode Heat Dissipation	60,000HU / min (750W)
Generator's Heat Unit (Tank Heat Storage Capacity)	1,209,600 HU

3. X-Ray Image Detector (Flat Panel Detector 30x30cm)

Detector Type	a-si TFT Flat Panel Detector
Active Image Area	30cm x 30cm(Full Format)
Maximum Resolution (Resolution on monitor with 30x30cm FPD)	3.4 lp/mm
Frame Rate	30 frames/sec
Number of Pixel	2,024 x 2,024
Pixel Sampling Resolution (Digitization Depth)	16bits
Pixel Pitch	145µm
Detective Quantum Efficiency (DQE)	60% (@0.5 lp/mm)
Modulation Transfer Function (MTF)	78% (@0.5lp/mm)

4. C-Arm and Stand Mechanical Data

C-Arm with Mechanical Brakes

Source to Image-receptor Distance(SID)	1000mm
Free Space	770mm (Remove cone : 800mm)
C-Arm Depth	730mm
Orbital Rotation	150° (90, +60)°
Horizontal Movement	200mm
Vertical Movement	500mm
Panning Motion(Wig/Wag)	±12.5°
Pivot Rotation(Lateral Rotation)	±230°
Lowest Lateral Height	1,010mm
Dimension(W*D*H) / Weight(kg)	860 x 1555 x 1820 mm / 340kg (±5%)
	970 x 695 x 1810 mm / 100kg (±5%)

Collimator

Operation	Manual / Remote Drive
Construction	2Unit
	(a) 4axis Asymmetric Lead Shutter
	(b) Circle Iris Lead Shutter
Velocity	(a) Open-Close : 5sec (Full stroke)
	(b) Rotation : 15sec / 180°

Collimation Modes :

- Virtual : Operator selects desired field of view, while reducing the amount of radiation exposure.
- Automatic : Prevention of unnecessary X-Ray exposure by collimating and focusing on the area of interest.

5. Operation Panel (10.4" Touch Monitor)

Specification

360° Rotational	
Screen	10.4" Color TFT LCD
Resolution	1024 x 768
Aspect Ratio	4:3
Maximum Brightness	400 cd/m ²
Viewing angle (L/R/U/D)	70/70/60/80

Features

Live Image Display and Image Movement: Rotation, Reverse, Flip, Zoom
Automatic Brightness Control / Manual Parameter Setting
Exposure Mode Selection: Pulse Rate, Noise Reduction, Dose Level
Collimator Modes and Area Selection: Iris / 4 Way Shutters
Anatomic Preset Mode Selection
Motion, Metal Detection On/Off
Laser Point On/Off
Save Image

6. Acquisition Workstation

Computer and Software

CPU	Intel I5
GPU	RTX 3060(12GB)
RAM	16GB
SSD	250GB
HDD	2TB
OS	Win10
Removable Storage	CD/DVD & USB3.0

Displays

Screen	43"(107.9cm) LCD Color Display
Image Matrix	3840 x 2160 pixels
Maximum Brightness	300cd/m ²
Contrast Ratio	1200:1
Aspect Ratio	16:9

DICOM Features

DICOM Modality Worklist
DICOM Storage
DICOM Query/Retrieve
DICOM Import/Export (DVD/USB)
DICOM Print
DICOM Worklist MPPS
DICOM Storage Commitment
DICOM Radiation Dose SR

7. Software “ZENIS”

Smart review (Automatic image save)	
DNR(Digital Noise Reduction)	
Edge Enhancement	
Low Dose Mode (Low dose image processing, Structured dose reporting, AKR *, DAP *)	
Tools	Image Layout Mode
	Select / Zoom/ Panning
	Pencil / Calibration
	Invert / Rotation / Horizontal, Vertical change
A-Package (Digital Subtraction Angiography)*	Cine Image Acquisition for DSA
	Land-marking
	Tracing
	Roadmap (Masking, Pixel Shift, Brightness and Contrast Control)

* : Option

8. Operating Environment

For Storage

Temperature	-15 – +45°C
Relative Humidity	10 – 90% RH (no dew condensation)
Atmospheric Pressure	700 – 1060hPa

For Operation

Temperature	+15 – +35°C
Relative Humidity	30 – 75% RH (no dew condensation)

9. Caution

Exposure to moisture

Exposure to direct sunlight

Exposure to dust place

Exposure to high humidity

Exposure to condition has problem with ventilation

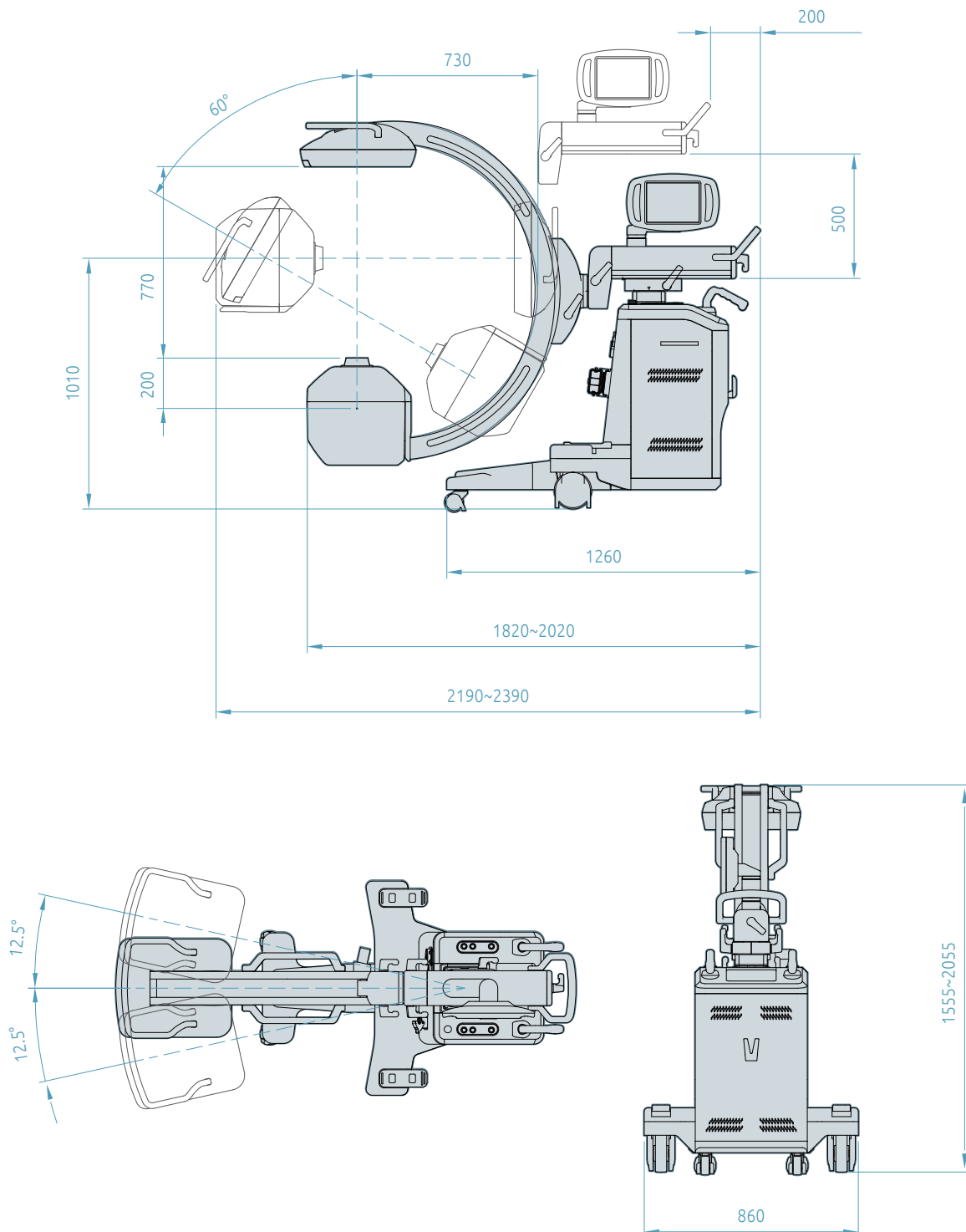
Exposure to salty air

Exposure to chemical or harmful gas

10. Dimension

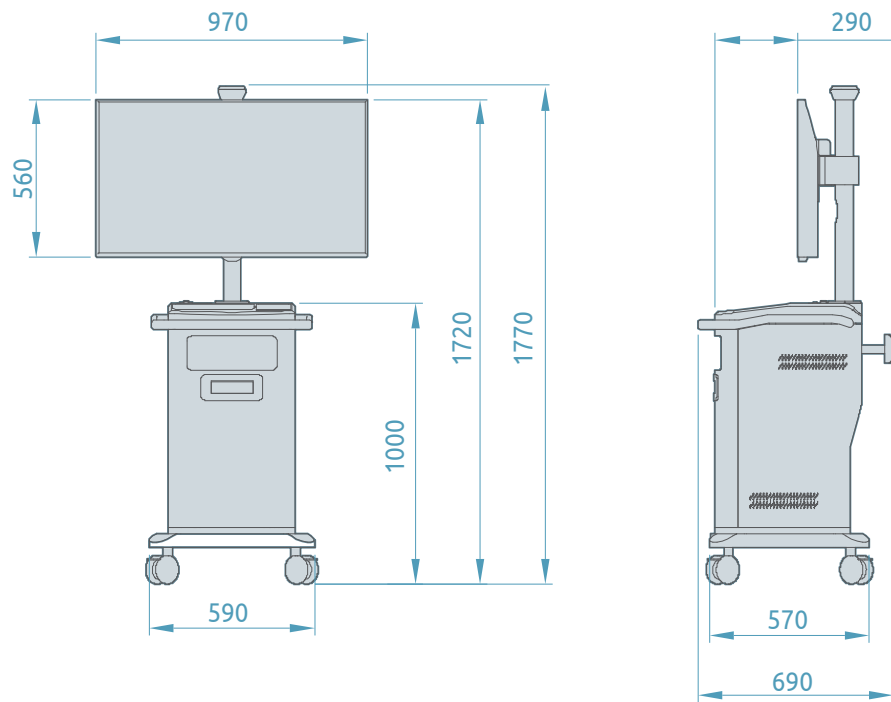
Main Body

*Weight : 340kg



Monitor Cart

*Weight : 100kg



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