

Wandong Medical Product Configuration Details

Product name: Mobile C-arm X-ray machine Model: Hypernova-Y Plus

1. Configuration list (product composition):

- Hardware standard configuration

serial number	Part Name	model	quantity
1	High frequency and high voltage generating device	WD-GFS5-1	1 set
2	X-ray tube	KL66-0.3/0.6-130	1 set
3	dynamic flat panel detector	Mercu0909X	1 set
4	collimator	WD-XS01	1 set
5	Anti-scatter grid	JPI Grid-1000	1 set
6	workstation	OptiPlex XE4	1 set
7	monitor	SE3223Q, 32 inches, IPS display, Dell × 1 P1917S, 19 inches, capacitive touch screen, Dell (touch tail length 15cm) × 1	1 set
8	Mobile C -arm rack	WD-CMJ01	1 set
9	Mobile trolley	WD-CMC01	1 set

- Software standard configuration

serial number	name of software	quantity
1	Image acquisition system software [Model specifications: WD-Hypernova]	set

2. Technical specifications:

System standard configuration

Part Name	instructions
High frequency and high voltage generating device	<p>Model: WD-GFS5-1</p> <p>High Frequency 5KW Generator</p> <p>X-ray tube voltage:</p> <p>Photography mode: 40 kV ~ 125 kV, continuously adjustable, step size is 1 kV;</p> <p>Continuous fluoroscopy: 40 kV ~ 110 kV, continuously adjustable, step size is 1 kV;</p> <p>Pulse fluoroscopy: 40 kV ~ 125 kV, continuously adjustable, step size is 1 kV.</p> <p>The deviation of the X-ray tube voltage value should not be greater than 8%.</p> <p>X-ray tube current</p> <p>Photography mode: 2 mA ~ 100 mA; R'10 number system;</p> <p>Continuous fluoroscopy: 0.5 mA ~ 6.3 mA; continuously adjustable, step size is 0.1 mA;</p> <p>Pulse perspective: 0.5 mA ~ 32mA; continuously adjustable, 0.5mA ~ 8mA in steps of 0.1 mA, 8 mA ~ 32 mA in steps of 1 mA.</p> <p>The deviation of the X-ray tube current value should not be greater than 20%.</p> <p>Loading time</p> <p>Adjustment range and adjustment method: 10 ms ~ 1600 ms , using R'10 number system.</p> <p>The deviation value of loading time should not be greater than $\pm(10\%+1\text{ms})$.</p> <p>Current time product</p> <p>Adjustment range: 0.2 mAs ~ 100 mAs ;</p> <p>Adjustment method: Current time integral gear adjustment, using R'10 number system;</p> <p>The deviation of the current time product should not be greater than $\pm(10\%+0.2\text{ mAs})$.</p> <p>Power supply conditions (rated grid voltage, number of phases, frequency): 220V, single phase, 50 Hz \pm 1 Hz;</p> <p>High voltage frequency: non-power frequency, inverter frequency 36kHz</p> <p>Anode type: rotating anode</p> <p>Maximum anode heat capacity: 150kJ (200kHU)</p> <p>Maximum continuous heat dissipation of anode: 300 W</p> <p>Target material: rhenium tungsten target surface, molybdenum target</p> <p>Anode target angle: 10°</p> <p>Nominal focus size: 0.3/0.6</p> <p>Deviation between focus and reference axis: \pm 1mm</p>

Part Name	instructions
	Inherent filtration: 0.7 mm Al / 75 kV Additional filtration: equivalent filtration of 3.5 mmAl Total filtration: equivalent filtration of 4.2 mmAl
dynamic flat panel detector	Model: Mercu0909X Receiver Type: Amorphous Silicon Scintillator type: CsI AD conversion digits: 16 bit Quantum detection efficiency: 1Gy 70% @ 0LP/mm 58% @ 0.5LP/mm 48% @ 1.0LP/mm 42% @ 1.5LP/mm 33% @ 2.0LP/mm 22% @ 2.5LP/mm 17% @ 3.0LP/mm 12% @ 3.5LP/mm Spatial resolution: in photography mode: ≥ 3.6 lp /mm In perspective mode: ≥ 3.4 lp /mm Effective imaging area: 212.6mm×212.6mm Pixel matrix: 1530×1530 Dimensions: 241mm×241mm×37.5mm Weight: 2.75kg ± 50g
collimator	Model: WD-XS01 Minimum size of X-ray field: no larger than 5 cm×5 cm (SID is 100 cm) X-ray field : no larger than 35 cm×35 cm (SID is 65 cm) Control mode: electric Dimensions: 249mm×122mm×106mm Weight: 3.0kg±0.3kg
Anti-scatter grid	Model: JPI Grid-1000 Material: Aluminum-based aluminum cover plate Dimensions: 266mm×251mm Density: 150 L/INCH Gate ratio: 10:1 Focal length: 100cm
Image processing workstation	Model: WD-IPW02 Hardware parts Minimum workstation performance:

Part Name	instructions
	<p>CPU: Intel Core i5 or above, main frequency 2.4G Hz or above; Memory: $\geq 8G$; Hard disk: ≥ 500 GB; Operating system: Windows 10 64-bit and compatible systems; Bandwidth: Gigabit network.</p> <p>Monitor Minimum Performance (Mobile C -Arm Rack): Screen size: 19 inches; Type: LCD, color; Resolution: 1280*1024; Maximum brightness: 250cd/m2.</p> <p>Monitor minimum performance (mobile trolley): Screen size: 32 inches; Type: LCD, color; Resolution: 3840×2160; Maximum brightness: 300cd/m2.</p> <p>Software part (image acquisition system software)</p> <p>The image acquisition system software has the functions of inspection management, image acquisition, image preview, image output, and system management.</p> <ul style="list-style-type: none"> • Examination management: Register patient information, display work lists and examination lists, and perform information management. In the local registration interface, you can register patient information and select examination protocols or examination items; the work list interface can display, query, and delete cases to be examined; the examination list interface can query, browse, delete, and store examined cases. • Image acquisition: Mainly controls the patient image acquisition, including examination items, exposure conditions, examination patient body shape, shooting position, examination items, examination protocols, parameter settings, and thumbnails , etc. • Image preview: With image processing functions, you can crop, flip up and down, enlarge, reduce and other operations on images; you can measure images, including distance measurement, angle measurement, rectangle measurement, etc.; you can add logos to images; you can do photography Advanced processing of images (including contrast, edges, noise suppression and gamma). • Image output: It has functions such as image archiving, image burning, image export, image printing, and image reporting.

Part Name	instructions
	<p>Images can be archived, and the currently collected patient images and information can be sent to the PACS server according to the examination process. The standard used is the DICOM storage service protocol.</p> <p>Images can be burned or exported, generating ISO files or burned directly to disc.</p> <p>The image can be printed. For the image to be printed, you can adjust the window width and level , adjust the collection area, move, zoom and other operations; select the arrangement and layout of the pictures; select the film size, film direction and other operations.</p> <ul style="list-style-type: none"> • System management: including basic parameter settings, hardware parameter configuration, network parameter settings, inspection management configuration, user management, etc.
Mobile C -arm rack	<p>Model: WD-CMJ01</p> <p>C -arm sliding angle range: $-33^{\circ} \sim 117^{\circ}$.</p> <p>C -arm rotation angle range: $\pm 225^{\circ}$.</p> <p>C -arm vertical lifting range: 0mm ~ 400mm.</p> <p>The horizontal movement range is 0mm~200mm.</p> <p>Horizontal swing range $\pm 15^{\circ}$.</p> <p>of the C -arm and the image receiver is 1080 mm, and the deviation value is within $\pm 5\%$ of the specified value.</p> <p>of the C- shaped arm is 708 mm, and the deviation value is within $\pm 5\%$ of the specified value.</p> <p>of the C -arm is 884 mm, and the deviation value is within $\pm 5\%$ of the specified value.</p>
Mobile trolley	<p>Model WD-CMC01</p> <p>the operating surface from the ground is about 1030mm, the left and right width is about 670m, and the front and rear width is about 660mm.</p> <p>The size of the printer's reserved opening is approximately 360 mm × 280 mm × 260 mm (length × width × height).</p> <p>mobile C -arm X-ray machine on a flat concrete floor is not less than 200 N.</p> <p>The mobile C -arm X-ray machine moves on a flat cement floor, and its starting push (pull) force is not greater than 250 N.</p>