



ziehm imaging

... dedicated to clinical innovation

Ziehm Vista.

Most Versatile C-arm.



TECHNICAL SPECIFICATIONS

C-Arm Mobile Stand

Dimensions & Mechanics

- Motor-driven vertical travel:
 - 43 cm
 - 63 cm (option only for 23 cm i.i.)
- Horizontal travel: 22 cm
- Orbital rotation:
 - 90° / +25°
 - 90° / +45° (option only for 23 cm i.i.)
- Angulation: $\pm 225^\circ$
- Swiveling (panning): $\pm 10^\circ$
- Source/image receptor distance: 97 cm
- C-arm vertical free space: 76 cm
- C-arm depth: 68 cm
- Width: 80 cm
- Length: 160 cm / 182 cm
- Height: 171 cm / 214 cm

Brakes

- Patented steering & braking lever, with parallel movement of the mobile stand in all directions

X-ray Generator

- X-ray tube: stationary-anode tube
- Dual focus: 0.5/1.5 mm
- Generator type:
 - 20 kHz high frequency
 - microprocessor-controlled

Operating Values

- Nominal output (100 kV): 2,000 W
- Maximum output: 2,200 W
- Fluoroscopy: 40-110 kV, 0.2-6 mA
- Digital radiography (snapshot): 40-110 kV, 8 mA
- Radiography: 40-110 kV, 20 mA

Output

- Fluoroscopy: 660 W (max.)
- Digital radiography (snapshot): 880 W
- Tube housing heat capacity:
 - 800 kJ
 - 1.14 million HU
- Option:
 - with water cooling (Active Cooling) 3,500 KJ
 - equivalent to 5 million HU
 - system cooling rate: 32 kHU /min.
 - continuous fluoroscopy: 400 W

Filtering

- Total filtering: ≥ 4 mm Al equivalent
- Additional filtering: 0.06 mm Cu

Collimator System

- Collimator rotation: $\pm 90^\circ$
- Iris collimator:
 - 23 cm i.i.: diam. 50-230 mm
 - 31 cm i.i.: diam. 50-310 mm
- Virtual collimator display without radiation

Image Intensifier

- Type: cesium iodide
- DQE (IEC): 65 %
- Conversion factor: 240 Cd m⁻²/mR s⁻¹
- Anti-scatter grid: Pb 8/40, f₀ 90

15 cm I.I.

- Central resolution 15-10 cm: 46-50 lp/cm
- Contrast ratio: 20:1

23 cm I.I.

- Central resolution 23-15-10 cm: 52-58-68 lp/cm
- Contrast ratio: 30:1

31 cm I.I.

- Central resolution 31-23-15 cm: 44-50-56 lp/cm
- Contrast ratio: 22:1

Digital Video Chain

Digital Video Camera (high contrast, non-interlaced)

- Active pixels: 442,000
- Camera matrix: 768 x 576 pixels
- Bandwidth of video signal: 7.5 MHz
- Bandwidth of video amplifier: 25 MHz
- Video: CCIR / 625 lines
- Signal-to-noise ratio: 60 dB
- Control: ADR / AVR

I.I./ TV Overall Resolution

- 15 cm: 20 lp/cm
- 23 cm: 16 lp/cm
- 31 cm: 12 lp/cm

Monitor Cart

Monitors

- Super-high-resolution and high-brightness twin flat-screen monitors
 - screen size: 18.1" (46 cm)
 - native resolution: 1280 x 1024 pixels
 - viewing angle (horizontal & vertical): 170°
 - contrast ratio: 800:1
 - dimensions: 41 x 34 x 7 cm

Digital Image Processing

Real-Time Image Processing Functions

- Recursive filter: 4 levels
- Stack filter ('Last Image Hold'): 5 levels
- Edge enhancement filter: 5 levels
- Windowing and step windowing
- Digital image rotation and reversal without radiation

DSA Package (Option)

- DSA real-time subtraction with re-masking capability
- MSA max. opacification sequence
- RSA roadmapping
- Pixel shift / landmarking
- Digital measurement functions (distance/angle)

Cine Loop (Option)

- Sequential image storage and display
 - 1-8 frames/s
 - 12.5 and 25 frames/s
- Cine loop start, stop and replay rate controls

CO₂ Package (Option)

- Automatic image optimization when using negative contrast medium in DSA modes

Postprocessing Functions

- Edge enhancement: 5 levels
- Zoom: 7 levels
- Image rotation
- Windowing
- Grayscale inversion

Digital Memory

- Storage capacity: 1000 images
 - option: 5000 images
- Memory matrix: 1024 x 512 pixels
- Image matrix: 576 x 576 pixels
- Digital image processing: 16 bit

Data Organization

- Patient-based data management with 16-image mosaic display

Archiving

- Video printer
 - paper: Sony® UP 960
 - paper and film: Sony® UP 980
- 3.5" floppy disk
 - storage capacity: 4 images
 - formats: DICOM, TIFF
- CD ROM
 - storage capacity: 1000 images
 - formats: DICOM, TIFF

Networking

- Ziehm NetPort (option):
DICOM 3.0 interface (RJ45 or F0 connection)
for digital network integration
- 'Primary Capture' mode
- Available DICOM Classes:
 - Storage Class incl. multiframe capability and Storage Commitment
 - Print Class
 - Media Class
 - Worklist Class incl. Modality Performed Procedure Step (MPPS)
 - Query/Retrieve Class
 - Verification Class

Weight

- Mobile stand (23 cm i.i.): 286 kg
- Mobile stand (Active Cooling): 296 kg
- Monitor cart (Vista): 177 kg
- Monitor cart (Vista Endo): 226 kg

Accessories

- Disposable sterile covers for all sizes
- Hand surgery table
- Universal film cassette holder
- Laser imaging system

Approvals

- CE mark in accordance with MDD 93/42/EEC
- IEC 60601-1
- IEC 60601-1-1
- IEC 60601-1-2
- IEC 60601-1-3
- IEC 60601-1-4
- IEC 60601-2-7
- IEC 60601-2-28
- IEC 60601-2-32
- IEC 60825-1

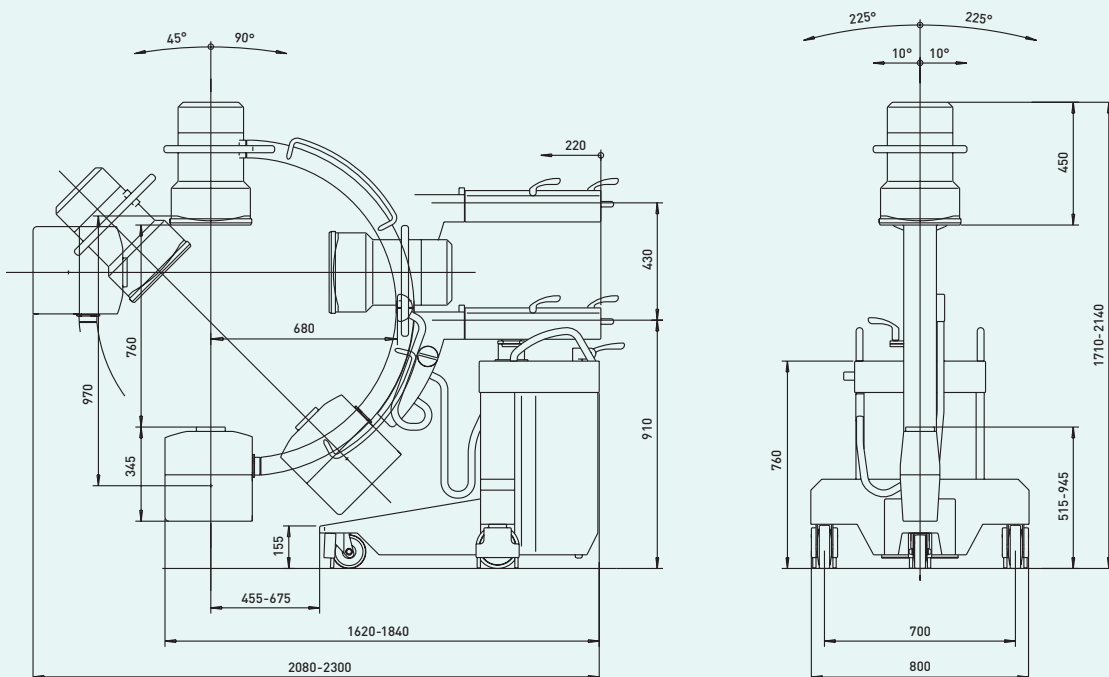
Electrical Requirements

- Power supply: 230 V_{AC}, 50 Hz
- Current consumption: 8 A continuous
15 A short-time
- Max. impedance: $\leq 0.6 \Omega$
- Class I equipment, Type B applied parts

Options

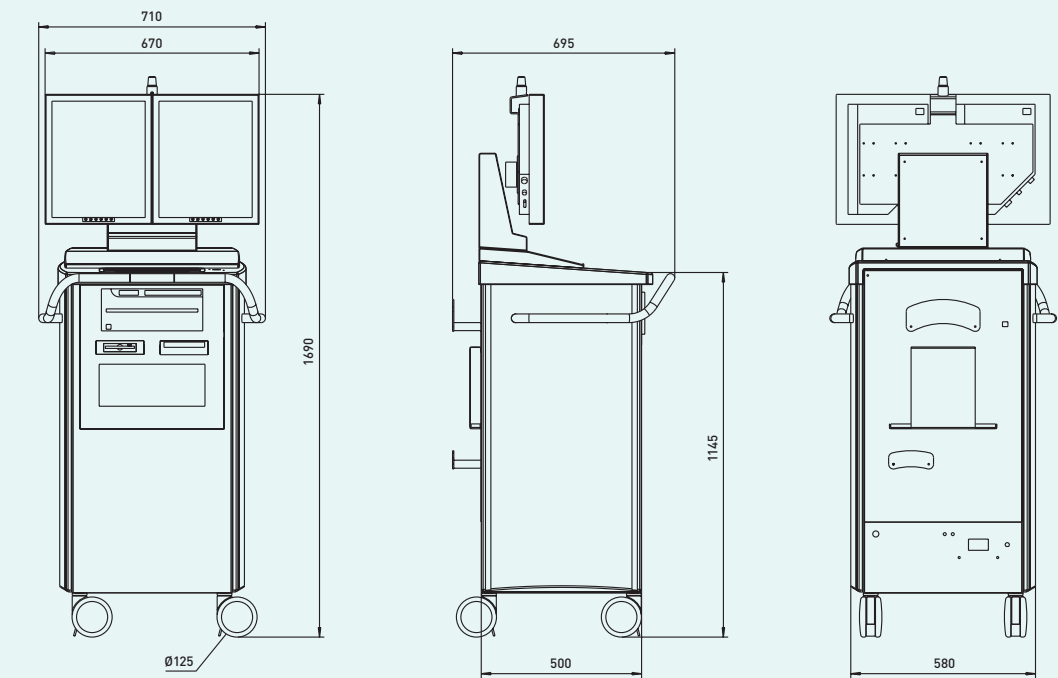
- Active Cooling for almost unlimited operation time
- Ziehm Vista Endo
– colour monitor
(Sony Trinitron® Colour Video Monitor)
- Video cassette recorder, S-VHS system with automatic recording control
- Laser positioning device, mounted on image intensifier and/or generator
- Dose area product meter, with digital display
- Security key switch
- Connection for external radiation warning lamp (incl. software)
- Hand rail around the image intensifier

Ziehm Vista (C-Arm Mobile Stand) Dimensions



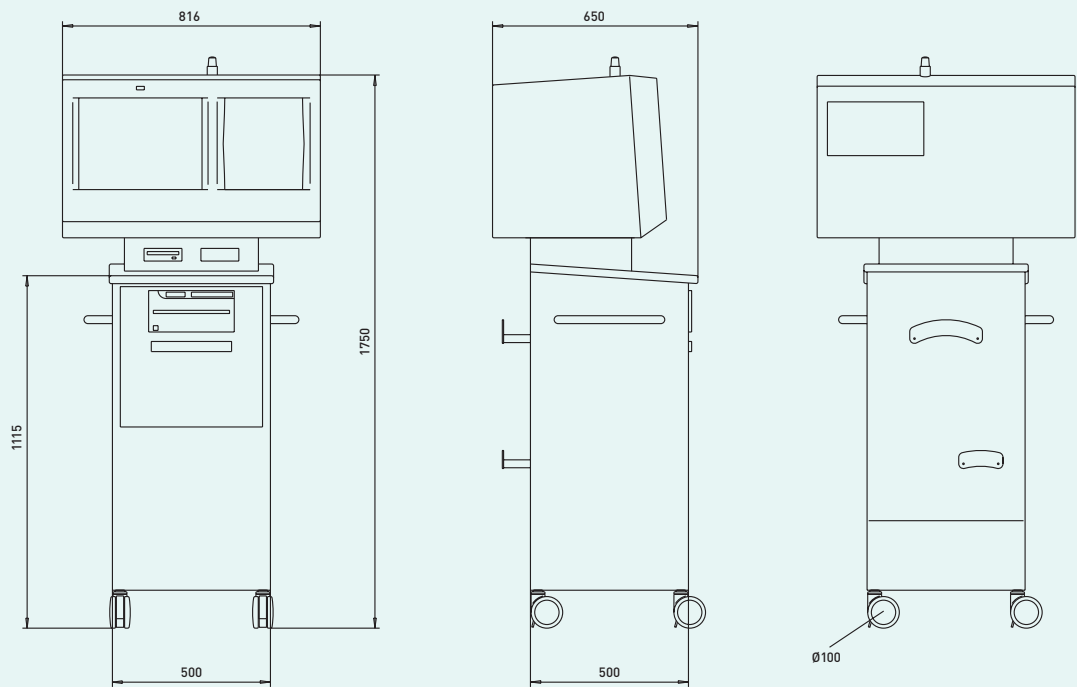
All dimensions in mm.

Ziehm Vista (Monitor Cart) Dimensions



All dimensions in mm.

Ziehm Vista Endo (Monitor Cart) Dimensions



All dimensions in mm.



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Manufacturing complies with DIN EN ISO 9001:2000.

Ziehm Imaging is constantly improving its products and reserves the right to change these specifications without notice.

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