Ziehm Solo
Technical Specifications
High resolution 24" flatscreen mounted on mobile stand

Intuitive touchscreen user interface

1k x 1k imaging chain for high resolution

Single component platform with compact footprint

Pulsed mono-block generator for optimal image quality
Ziehm Solo
(C-Arm Mobile Stand)

Ziehm Solo
(Monitor Cart)

All dimensions in mm.
# C-Arm Mobile Stand

**Dimensions and Mechanics**
- Motor-driven vertical travel: 42 cm
- Horizontal travel: 22 cm
- Orbital rotation: -90° / +45° (23 cm i.i.)
- Angulation: ± 225°
- Swivel (panning): ± 10°
- Source-image receptor distance: 97 cm
- C-arm vertical free space: 76 cm
- C-arm depth: 68 cm
- Width: 80 cm
- Length: 173 cm / 195 cm
- Height: 177 cm / 220 cm
- Weight: 310 kg

**Brakes**
- Patented steering & braking lever, with parallel movement of the mobile stand

**X-Ray Generator**
- X-ray tube: stationary anode
- Single focus: 0.6 (IEC 336)
- Max. anode heat content: 45 kHU / 34 kJ
- Max. anode heat dissipation: 600 W
- Generator type:
  - monoblock
  - 20 kHz high frequency
  - microprocessor-controlled
- Nominal output (100 kV): 2,000 W
- Maximum output: 2,020 W

**Collimator System**
- Collimator rotation: ± 90°
- Iris collimator:
  - 23 cm i.i.: 50-230 mm diameter
- Slot collimator:
  - 23 cm i.i.: 50-230 mm diameter
- Virtual collimation without radiation

**Operating Values**
- Pulsed fluoroscopy:
  - kV range: 40 - 110 kV
  - mA range: 0.2 - 10 mA
  - pulse width: 10 - 30 ms
  - pulse rate: 1, 2, 4, 8, 12.5, 25 pulses/s
- Digital radiography (snapshot):
  - kV range: 40 - 110 kV
  - mA: up to 20 mA
- Radiography:
  - kV range: 40 - 110 kV
  - mA: up to 20 mA

**Filtering**
- Total filtering: ≥ 4 mm Al, including 0.1 mm Cu

**Output**
- Pulsed fluoroscopy: up to 10 mA
- Digital radiography (snapshot): up to 20 mA
- Tube housing heat capacity:
  - powered by integrated advanced heat management system
  - 1.14 million HU system heat capacity
  - cooling rate 32 kHU/min

**Digital Video Camera**
(100 kV)
- Active pixels: 1,048,576
- Camera matrix: 1,024 x 1,024 pixels
- Bandwidth of video signal: 20 MHz
- Bandwidth of video amplifier: 50 MHz
- Signal-to-noise ratio: 68 dB
- Control: ADR / AVR
Real-Time 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
- Grayscale inversion
- Digital shutters

Object Detected Dose Control (ODDC) (Option)
- Object detection
- Motion detection
- Automatic dose reduction
- Automatic metal correction

Image Acquisition
- Autosave
- Cine loop with auto-playback (option)
  - sequential image storage and display: 1, 2, 4, 8 frames/s
  - start, stop and replay rate controls
- Grayscale: 4,096 shades of gray (12 bit)

Postprocessing Functions
- Edge enhancement: 5 levels
- Zoom: 3 levels
- Image rotation
- Windowing
- Grayscale inversion
- Image cropping (digital shutters)

DSA Package (Option)
- DSA real-time subtraction with re-masking capability
- Pixel shift / landmarking
- Digital measurement functions (distance/angle)
Cine Loop
- Sequential image storage and display:
  1, 2, 4, 8 frames/s
- Start, stop and replay rate controls

Digital Memory
- Storage capacity: up to 55,000 images
- Memory matrix: 1,024 x 1,024 pixels
- Image matrix: 1,024 x 1,024 pixels
- Digital image processing: up to 32 bit

Data Organization
- Patient-based data management with 16-image mosaic display
- Pre-registration via DICOM Worklist
- Manual input or emergency registration
- Air Kerma dose display
- DAP value tagged to stored image

Archiving
- Video printer (option):
  paper: Sony® UP 897
- USB port:
  - storage capacity depends on storage medium
  - formats: DICOM, TIFF
  - downsized formats: DICOM, JPG
- DVD-RW drive:
  - 4.7 GB storage capacity
  - formats: DICOM, TIFF, Multimedia (AVI)
  - downsized formats: DICOM, JPG
- DICOM viewer software for DVD and USB device

Networking
- Ziehm NetPort (option): DICOM 3.0 interface (RJ45 or WLAN connection) for digital network integration
- ‘Primary Capture’ mode

Options
- Available DICOM Classes:
  - Storage Class incl. multiframe capability and Storage Commitment
  - Print Class
  - Media Class
  - Worklist Class incl. Modality Performed Procedure Step (MPPS)
  - Query Class
  - Retrieve Class

Accessories
- Disposable sterile covers
- Hand surgery table

Electrical Requirements
- Power supply: 230 V, 50 Hz
- Current consumption:
  10 A continuous, 16 A short-time
- Max. impedance: ≤ 0.6 Ω
- Class I equipment, Type B applied parts

Certifications
- CE mark

Standards and Directives
- IEC 60601-1 ff
- EC directive 93/42/EEC
Monitors Mounted on Ceiling Support (Option)

**Monitors**

• High-resolution and high-brightness splitscreen monitor
  - screen size: 24” (61 cm)
  - native resolution: 1,920 x 1,200 pixels
  - viewing angle (horizontal and vertical): 178°
  - luminance: max. 400 cd/m²
  - contrast ratio: 600:1
  - dimensions: 56 x 37 x 10 cm

• High-resolution and high-brightness twin flatscreen monitors
  - screen size: 2 x 18.1” (46 cm)
  - native resolution: 1,280 x 1,024 pixels
  - viewing angle (horizontal and vertical): 170°
  - luminance: 600 cd/m²
  - contrast ratio: 600:1
  - dimensions: 41 x 34 x 7 cm

**Mechanics**

• Mounting: VESA 100