

# General specifications

	Phoenix V tome x C	V tome x C Scatter correct / HS
Minifocus X-ray tube	Closed ISOVOLT 450 M2/0.4-1.0HP (optional 450 kV Mesofocus for non HS or Metrology edition)	
Max. voltage / power	450 kV @ 700 W/1,500 W	
Focal spot	0.4 mm (max. power 700 W) / 1.0 mm (max. power 1,500 W)	
Focus Detector Distance (FDD)	1,300 mm	1,150 mm
Voxelsize range	100 - 146 µm	87-139 µm
Geometrical magnification (3D)	1.37-2x	1.44-2.3x
Spatial CT resolution	2.5 lp/mm at 130 µm voxel resolution referring to ASTM E1695	
Detail detectability	Down to ~100 µm	
Opt. Metrology edition measurement accuracy	SD ≤ (15 ± L/50 mm) µm referring to VDI 2630-1.3 guideline*	
Fan beam CT line detector array (LDA)	LDA detector package "fan": 16 bit Linear Detector Array 820 mm sensitive width, 2,050 pixels, 400 µm pitch. Linear subpixel-shift axis for resolution improvement and quality enhancement	
Cone beam CT Dynamic 41 200 detector (on request)	Dynamic 41 200 large area detector with superior image and result quality, 410 x 410 mm (16" x 16"), 200 µm pixel size, 2,036 x 2,036 pixels (4 MP), virtual detector enlargement for large samples, 14 bit high-contrast with extremely high dynamic range >10,000:1	
Cone beam CT Dynamic 41 100 detector (on request)	Dynamic 41 100 detector 410 x 410 mm (16" x 16"), 100 µm pixel size, 4,048 x 4,048 pixels (16MP) for doubled CT resolution, virtual detector enlargement for large samples, 14 bit high-contrast with extremely high dynamic range >10,000:1	
Dual detector configuration (option)	Alternative detector package „cone & fan“: Combination of LDA and flat panel detector, each with detector shift and easy switching between fan beam and cone beam CT mode	
Granite based high precision Manipulation	4 automated axes R, Y, Z, X	
Max. 3D scan area d x h / max. weight	500 x 1,000 mm (270 x 1,000 mm Scatter correct) / up to 50 kg (110 lbs.) or optionally up to 100 kg (220 lbs.)	
Max. 3D scan area d x h / max. weight HS		270 x 310 mm / up to 10 kg (rotation unit HS) 100 x 125 mm / up to 3 kg (Quick pick gripper)
Focus object distance	650-950 mm	500-800 mm
System dimensions W x H x D	2,310 mm x 2,750 mm x 2,870 mm (91" x 108" x 113") excluding console	
System weight	~15,000 kg / 33,070 lbs.	
Phoenix Datos x CT software	For highly automated One-button CT including multiple modules for CT data and workflow optimization. Different 3D evaluation software packages for 3D metrology, failure or structure analysis on request	
Phoenix Datos x measurement package (option)	Surface extraction – automatic generation of surface data   Easy calib – module for CT system calibration   Calibration object – 1 calibration tool with certificate	
Velo CT II package (option)	For ultrafast volume reconstruction	
Filter changer (option)	Automated change of up to 4 filters for maximum flexibility and quality at automated batch CT	
Cabinet crane (option)	For ergonomic handling of heavy samples up to 50 kg (110 lbs.) or optionally up to 100 kg (220 lbs.)	
Barcode reader (option)	For easy sample identification	
Radiation protection	Radiation safety cabinet for full protective installation without type approval according to German StrSchG/StrSchV. It complies with French NFC 74 100 and the US Performance Standard 21 CFR Subchapter J. For operation, other official licenses may be necessary	

\* Measured as deviation of sphere distance in tomographic static mode SD(TS), method details referring to VDI 2630 guideline on request