General specifications

	Phoenix V|tome|x M
X-ray tube type	Open directional high-power microfocus X-ray tube, closed cooling water circuit. Optional additional (open) transmission high-power nanofocus X-ray tube
Max. voltage / power	300 kV / 500 W. Alternatively available with 240 kV / 320 W microfocus X-ray tube
	Dual|tube option for nanoCT®: additional 180 kV / 15 W high-power nanofocus tube with Diamond|window, precision rotation unit with air bearings, easy tube exchange just by a push of a button
Geometrical magnification (3D)	1.3 x to 100 x; up to 200 x with nanofocus tube
Detail detectability	Down to < 1 µm (microfocus tube); optional down to 0.2 µm (nanofocus tube)
Min. voxel size	Down to 2 µm (microfocus), opt. 1 µm with 41|100
	Optional down to <0.5 µm (nanofocus + dyn. 41|100)
Measurement accuracy	SD ≤ (3.8 + L/100 mm) µm referring to VDI 2630-1.3 guideline *
Detector type (all according US ASTM E2597 standard)	Temperature stabilized Dynamic 41|200 large area detector with superior image and result quality, 410 x 410 mm (16" x 16"), 200 µm pixel size, 2036 x 2036 pixels (4 MP), extremely high dynamic range > 10000:1
	Optional Dynamic 41|100 detector 410 x 410 mm (16" x 16"), 100 µm pixel size, 4048 x 4048 pixels (16 MP) for doubled CT resolution
Manipulation	Granite based precision 4-axes manipulator
Focus-detector-distance	800 mm
Max. sample diameter x height	360 mm x 600 mm; up to 500 x 600 mm with limited travel range, max. 3D scan size up to 420 mm Ø x 400 mm
Max. sample weight	50 kg (110 lbs.), high accuracy CT up to ~20 kg (44 lbs.)
Max. focus object distance	600 mm (microfocus tube)
System dimensions W x H x D	2,620 mm x 2,060 mm x 1,570 mm (103" x 81" x 62"); D 2,980 mm (117.3") with user panel and generators
System weight	Appr. 7,960 kg / 17,550 lbs. (without ext. components)
Temperature stabilization	Active X-ray tube cooling | temperature controlled cabinet | temperature stabilized detector
Optional patented Scatter|correct hard-/software bundle (also upgrade option)	CT quality like 2D fan beam CT with minimized scatter radiation artifacts. Max. scan diameter: 260 mm, geom. magnification 1,51x - 100x
Optional High-flux|target	2 times faster CT scans or doubled resolution; X-ray inspection power up to 100 W
Opt. 2D inspection bundle	Tilt and rotation axes for tilted 2D inspection of samples up to 10 kg (22 lbs.), 2D inspection software with Flash!Filters™
Opt. Metrology|edition ** **(also upgrade option)**	phoenix Datos|x CT software package "metrology"
	The patented Ruby|plate allows for 3x faster, automated verification of the specified measurement accuracy referring to VDI 2630-1.3 guideline* probed with Ruby|plate phantom, which has a longest measurement length of 130 mm. This allows for a faster setup of CT scans with higher measurement accuracy.
Opt. Helix|CT & Offset|CT	Advanced scanning trajectories for improved scanning volume and data quality: Helix|CT for long part scans with less artifacts and better quality, Offset|CT to scan bigger parts or same size with higher resolution
Opt. Click&measure|CT	included
Opt. Production|edition	Fully automated with collaborative robot on request
Software	Phoenix Datos|x 3D computed tomography acquisition and reconstruction software. Different 3D evaluation software packages for 3D metrology, failure or structure analysis on request
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) with True\|position and Ruby\|plate, method details referring to VDI 2630-1.3 guideline on request, valid only for Phoenix V\|tome\|x M Metrology\|edition

** with advanced artifact reduction algorithms like advanced Scatter\|correct filters and automated beam hardening correction for multi-material samples.