

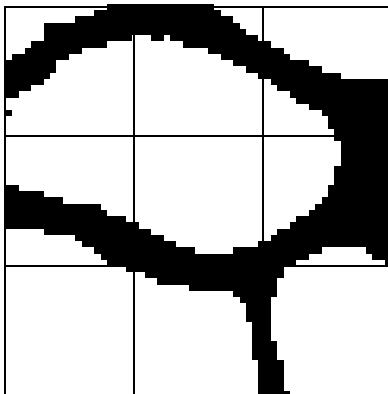
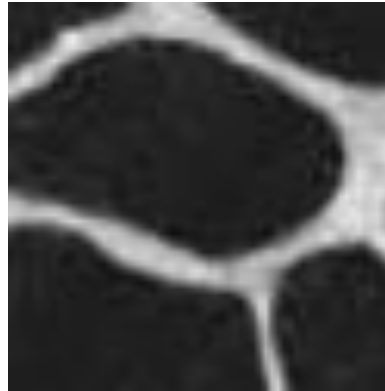
What is resolution?

There are several different definitions of resolution including spatial resolution, also called 10% MTF resolution, and nominal resolution. Moreover, terms such as voxel size and detectability are also used.

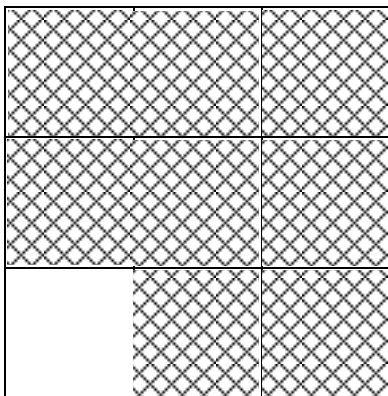
Resolution is the distance between objects (or cavities) at which they can still be identified as independent from each other in an image. Resolution is usually given as a characteristic size (μm) or a spatial frequency (line pairs per mm).

Resolution setting can be changed via selection of **resolution AND tube diameter** in the [control-file](#) before scanning.

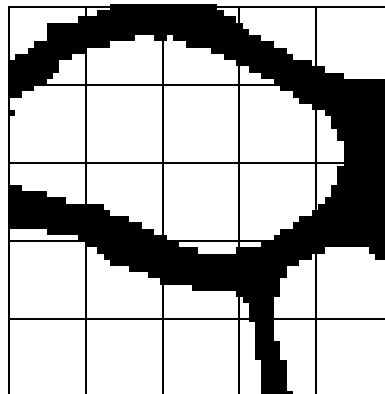
How the resolution affects the results



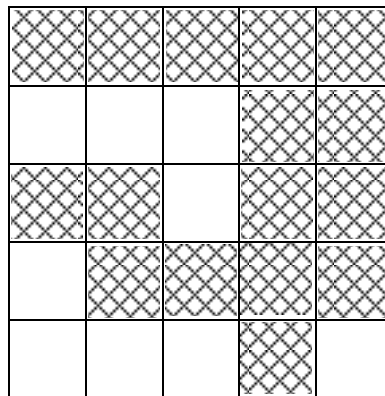
Resolution = 30 microns



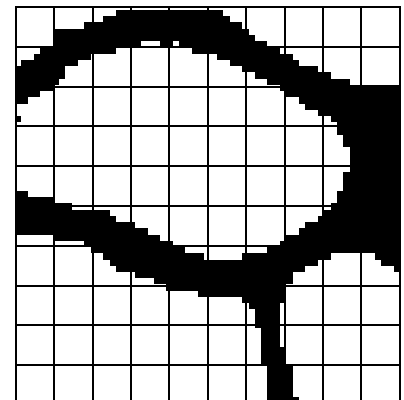
2D Bone Volume = 0.0072 mm^2



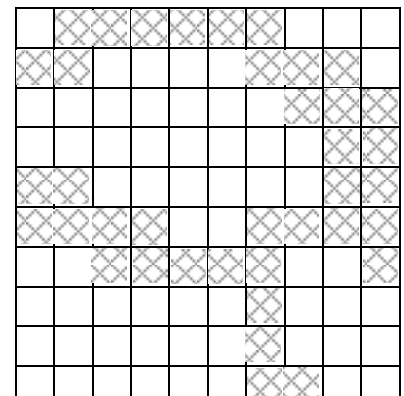
Resolution = 20 microns



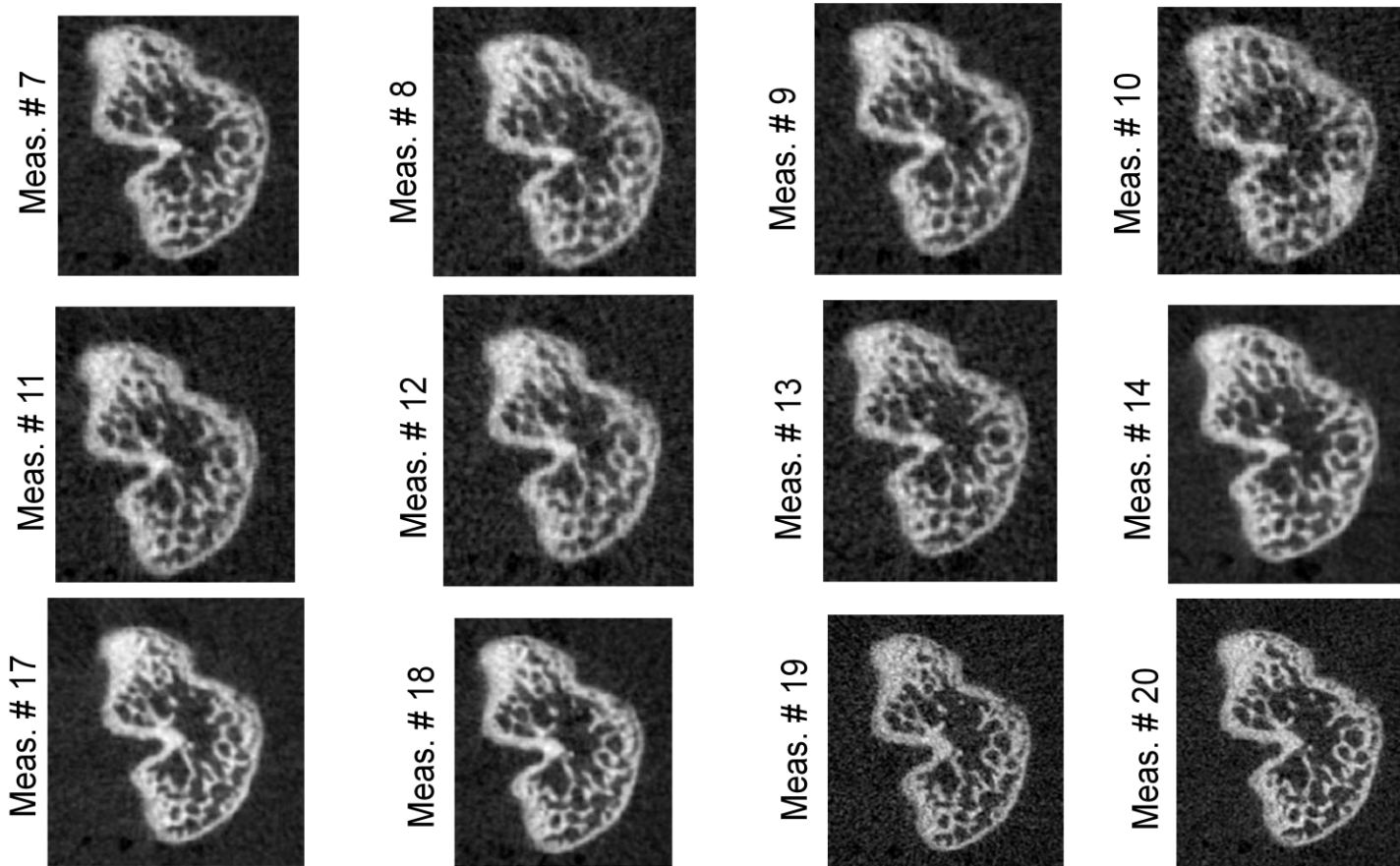
2D Bone Volume = 0.0064 mm^2



Resolution = 10 microns



2D Bone Volume = 0.0040 mm^2



Measurement #	kVp	uA	Resolution	Integration Time (ms)	Avg Data	Voxel Size
7	70	57	Med	500	1	21
8	70	57	Standard	500	1	21
9	55	72	Standard	500	1	21
10	55	72	Standard	200	1	21
11	55	72	Standard	200	2	21
12	70	57	Standard	200	2	21
13	70	57	Med	200	1	21
14	70	57	Med	500	2	21
17	70	57	Med	800	1	21
18	55	72	Med	500	1	21
19	70	57	High	200	1	10.5
20	70	57	High	380	1	10.5