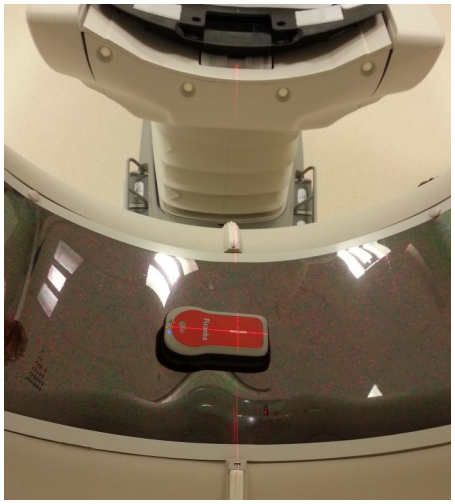
APPLICATION NOTE

RTI Electronics AB, Sweden **Revision A, June 2013**

CT kV with Piranha

Using “Scout Mode”

This application note describes how to measure kV on CT scanners using “Scout Mode”, by placing the Piranha in the gantry with couch staying outside the gantry.



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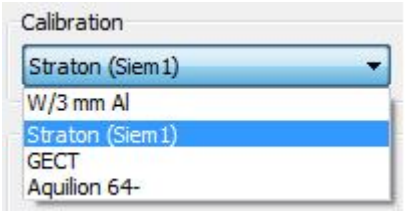
The CT technology has been developed a lot during the past years. Not only the beams are becoming wider and the tubes are rotating faster etc. but also the material and anode angle in the x-ray tubes have been changed compared to conventional x-ray tubes.

For new CT scanners RTI has developed special kV calibrations for Piranha and Barracuda MPD with Version 2 or higher:

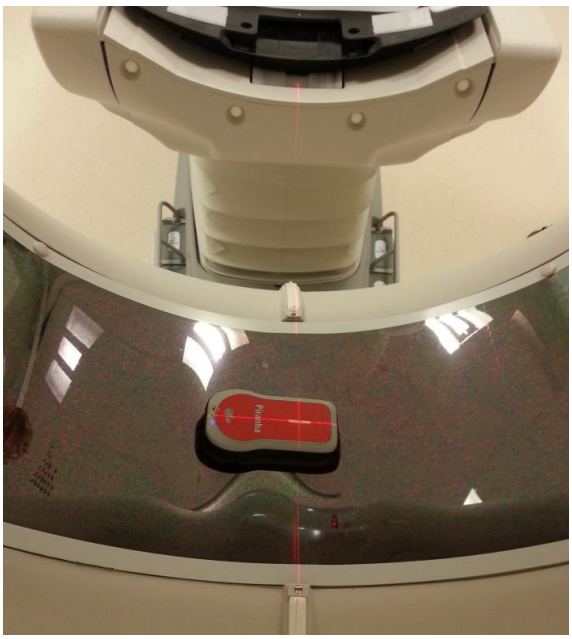
The following calibrations are available:
Straton (Siemens)
GECT (GE systems)
Aquilion 64 (Toshiba systems)

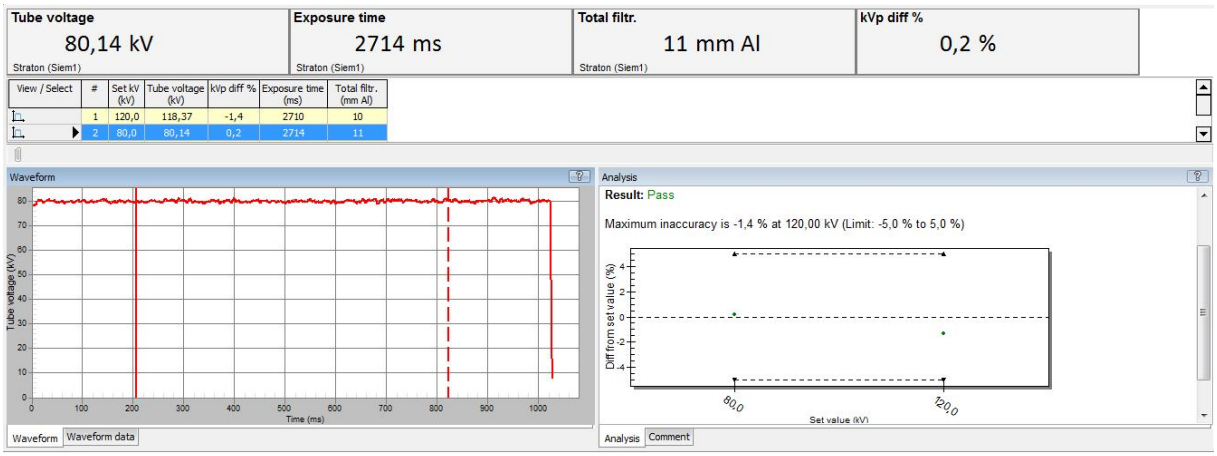


For all old CT units the general W/3 mm Al calibration is valid.

To perform a kV, HVL and Total Filtration measurement in a CT we suggest that you:

1. Remove the neck support from the CT table.
2. Put the Piranha in the CT with the detectors facing the tube. Turn on the lasers and position the detector area in the light.
3. Turn on Ocean or QABrowser and open (or build) a template and choose the right calibration. Prepare a Position Check measurement.
4. Have the tube 12 o´clock and perform a short scout so that the table does not move in to the field.
5. Normally the Position Check should be okay. Repeat the exposure for all different kV you want to verify.





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