

Product Note

Using Black Piranha on Fujifilm Amulet Innovality

New Calibrations for Fujifilm Amulet Innovality available for Black Piranha

From release in December 2015 of Ocean 2014, two new calibrations for support of Fujifilm Amulet Innovality become available for the Black Piranha.

W/0.7 mm Al (Innovality) [M19]

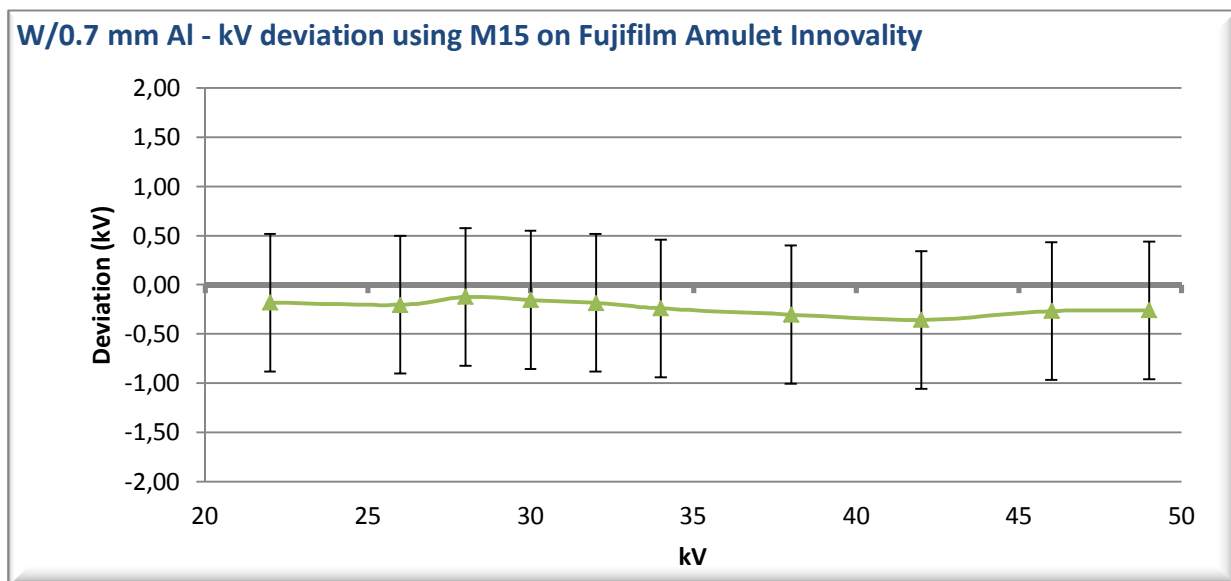
W/50 μ m Rh (Innovality) [M20]

The new calibrations for the Black Piranha require re-calibration for mammography radiation qualities at one of the RTI service centers in Sweden or in New Jersey (US). New manufactured Black Piranhas comes with these calibrations. Current users of Black Piranha have to send the meter for re-calibration, and upgrade to current version of Ocean 2014.

Current users who don't have these calibrations

Current users of Black Piranha that uses the standard calibrations for W/0.7 mm Al [M15], and W/50 μ m Rh [M6], will face some deviations in readings of kV and dose. The graphs below show the expected difference in comparison to use of the new implemented calibrations for the Fujifilm Amulet Innovality [M19] and [M20]. Note that variations between individual Piranhas may be present.

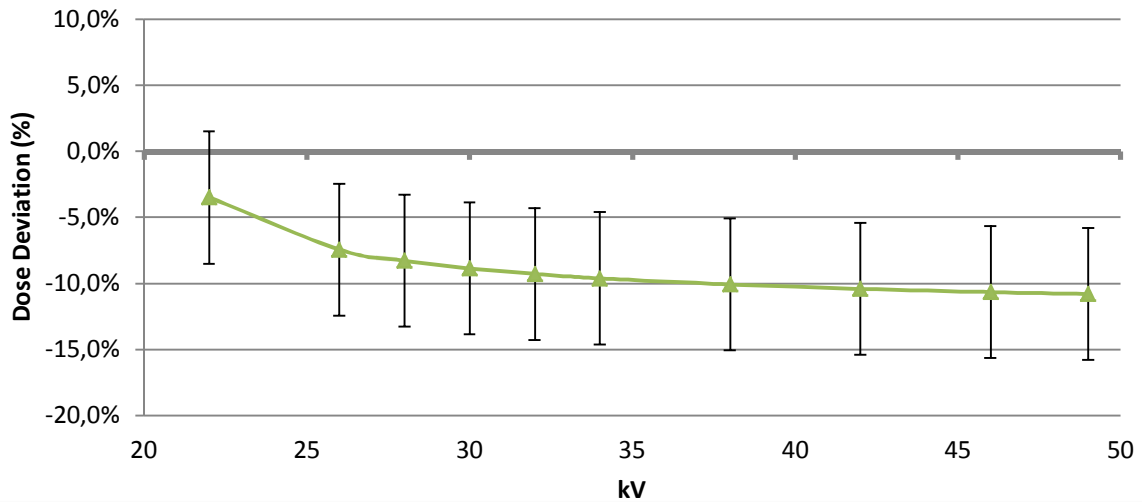
W/0.7 mm Al – [M15] compared to [M19]



The graph above shows how the Black Piranha on average can be expected to behave on a Fujifilm Amulet Innovality on W/0.7 mm Al using calibration M15. The expanded uncertainty of 0.7 kV is marked in the graph.

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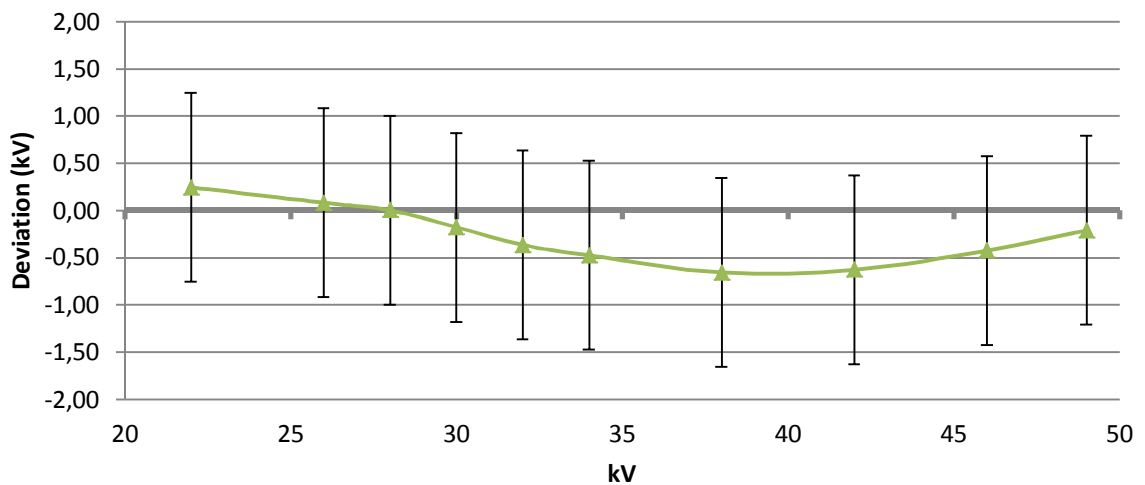
W/0.7 mm Al - Dose deviation using M15 on Fujifilm Amulet Innovality



The graph above shows how the Black Piranha on average can be expected to behave on a Fujifilm Amulet Innovality on W/0.7 mm Al using calibration M15. The expanded uncertainty of 5% is marked in the graph.

W/50 μ m Rh – [M6] compared to [M20]

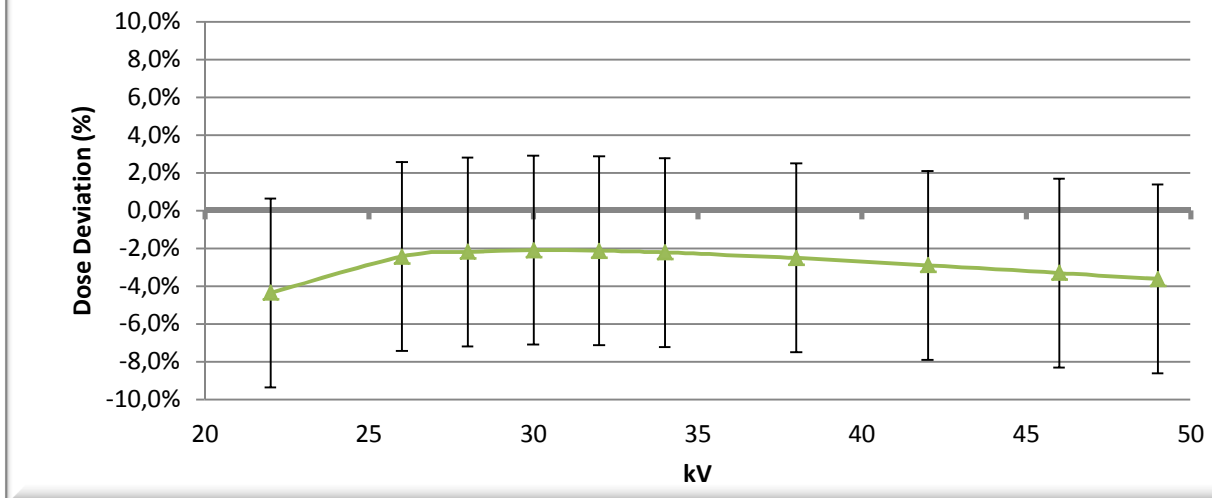
W/50 μ m Rh - kV deviation using M6 on Fujifilm Amulet Innovality



The graph above shows how the Black Piranha on average can be expected to behave on a Fujifilm Amulet Innovality on W/50 μ m Rh using calibration M6. The expanded uncertainty of 1 kV is marked in the graph.

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W/50 μ m Rh - Dose deviation using M6 on Fujifilm Amulet Innovality



The graph above shows how the Black Piranha on average can be expected to behave on a Fujifilm Amulet Innovality on W/50 μ m Rh using calibration M6. The expanded uncertainty of 5% is marked in the graph.

Why is there a difference?

Non-Invasive meters that are used in mammography have dependence to variations in the x-ray spectra. In mammography x-ray, small variations in the geometry have a high influence on the x-ray spectra. It can be variations in thickness of the Al or Rh filters. It can be other material like thin layers carbon or polycarbonate used in some models of mammography x-ray machines. Anode angle will have a high influence on the x-ray spectra. The anode angle will not only depend on tube model. It will also depend on how the tube is mounted in the x-ray machine. In some models the tube is mounted in an angle which makes the effective anode angle different between models.

This in all makes the meter measure differently on some machines. That is why the Black Piranha has got a number of brand specific calibrations. Using the proper brand specific calibration ensures the highest possible measuring accuracy.

Red Piranhas and Barracuda

The support for Fujifilm Amulet Innovality will **not** become available for Red Piranha or Barracuda. For upgrade or trade in offer, please contact your local RTI representative.

RTI Handheld and QABrowser

The support for Fujifilm Amulet Innovality will **not** become available for RTI Handheld with QABrowser. Ocean 2014 will have to be used.

If you have any questions or want to be updated on current situation, please contact your local RTI representative or RTI support at support@rtigroup.com.

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