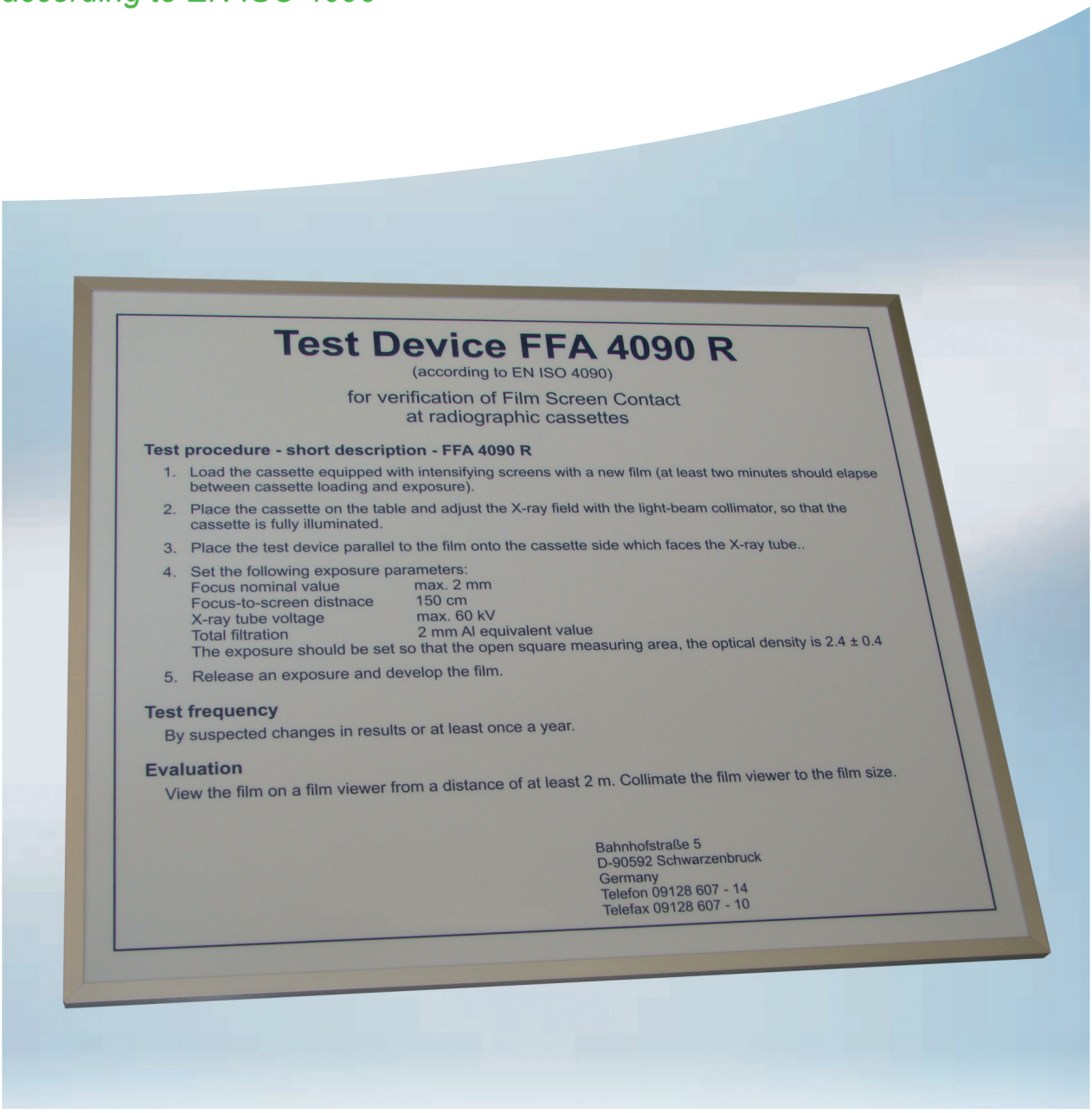
Quality Assurance in Radiodiagnostics

Verification of Film Screen Contact |

according to EN ISO 4090



TEST DEVICE FFA 4090 R FOR RADIOGRAPHIC CASSETTES

Quality Assurance in Radiodiagnostics |

Verification of film screen contact and of the screen quality of radiographic cassettes/mammographic cassettes according to EN ISO 4090

A bad film-screen contact is causing a significant loss of sharpness of the x-ray. An important aspect of quality control – though often underestimated – therefore is the regular inspection of all cassettes in view of an even pressing of x-ray film and screen and also the screen integrity.

- **This verification of the film-screen contact can be easily effected with:**
  - the Test Device **FFA 4090 R** for radiographic cassettes
  - the Test Device **FFA 4090 M** for mammographic cassettes

- **Test procedure – short description – FFA 4090 R**
  - Load the cassette equipped with intensifying screens with a new film (at least two minutes should elapse between cassette loading and exposure).
  - Place the cassette on the table and adjust the x-ray field with the light-beam collimator, so that the cassette is fully illuminated.
  - Place the test plate parallel to the film onto the cassette side which faces the X-ray tube.
  - Set the following exposure parameters
    Focus nominal value: max. 2 mm, Focus-to-screen distance: 150 cm,
    X-ray tube voltage: max. 60 kV, Total filtration: 2 mm Al;
    The exposure should be set so that within the open square measuring area, the optical density is 2.4 ± 0.4.
  - Release an exposure and develop the film.

- **Test frequency**
  By suspected changes in results or at least once annually

- **Evaluation**
  View the film on a film viewer from a distance of at least 2 m.
  Collimate the film viewer to the film size.

- **Result**
  Good pressure is seen on the film by an even distribution of density over the whole film area. Spots with bad contact show a higher density and are seen as dark areas on the film. Spots with less density can be caused by damaged intensifying screens (e.g. due to chemical influences).

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Technical data are subject to change without notice.