

USER MANUAL: REACT RULERS

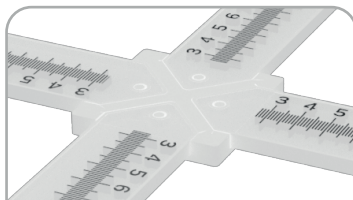
THE **REACT RULERS** DEVELOPED BY FIBERMATRIX ARE **MILLIMETRIC, RADIOPAQUE, AND SCINTILLATING**. THEY CAN BE USED ON THE FULL RANGE OF IMAGING DEVICES, THUS REPLACING GAFCHROMIC FILMS, PHOTOSTIMULABLE PHOSPHOR PLATES AS WELL AS LEAD RULERS USED DURING QUALITY CONTROL.

THE FOLLOWING RECOMMENDATIONS HELP IN OPTIMIZING THEIR USE.

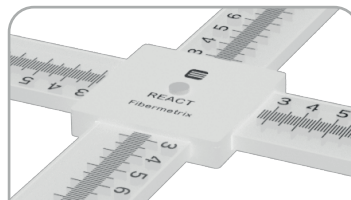
STEP 1

INSTALLATION OF THE RULERS

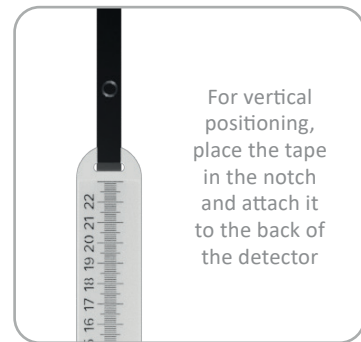
The **REACT** rulers are provided in a set of four including a cross-assembling kit. The following steps will guide you in assembling the different pieces of the kit.



Position the Rulers crosswise using the dedicated cross-assembling kit



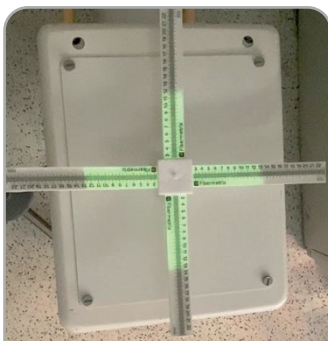
Position the upper part of the cross-assembling kit and tighten both parts using the provided screw and nut



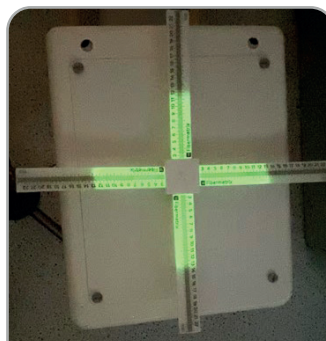
For vertical positioning, place the tape in the notch and attach it to the back of the detector

STEP 2

ADAPTATION TO THE ROOM ENVIRONMENT



Room with the light turned on



Room with the light turned off

To enhance the visualization of scintillation, particularly on low-irradiating devices, prefer a darker environment in the room.

To this aim, turn off the lights and if possible, close the window blinds.

Also, if feasible, cover any extraneous lights such as the device's indicator ones.

Exemple : photos taken in the same irradiation conditions (c-arm 120kV, 6mA)

STEP 3

SET UP THE PHONE TO CAPTURE THE PHOTOS



The type of tripod will help you fix your phone easily, for instance, by wrapping it around a pole.

During the control, and for obvious radiation protection reasons, it is strongly recommended not to remain close to the device to observe the scintillation.

Therefore, we recommend using your smartphone (or another camera with high quality) along with the flexible tripod and Bluetooth remote control provided.



STEP 4

ADJUSTING THE CAMERA SETTINGS

Two capturing modes are available: photo mode, using the timer or Bluetooth button, or video mode, where you can select the desired photo afterward. The Photo mode is recommended when the room lighting is low.

By default, focus the camera on the rulers under the room's lighting conditions. If your phone's camera allows it, use the "night" mode. If your camera also allows it, you can increase the ISO sensitivity or exposure time for a photo.

You can also use the **REACT application** for capturing the photos.

STEP 5

CONFIGURATION OF THE IMAGING DEVICE

Prefer dosing parameters for a better visualization of the scintillation. On a c-arm, setting the parameters around 110 kV and 3 mA has shown the best high-quality photos.

To best visualize the radiopaque graduations on the image, opt for less dosing parameters such as 40 kV and 0.3 mA on a c-arm.

Tip n°1 : Place a lead or copper plate under the rulers to help optimize the parameters for the visualization of the scintillation while protecting the detector.

Tip n°2 : A compromise allowing visualization of both the radiopaque graduations and the scintillation is suggested. For example, placing a copper plate under the rulers with a voltage of 75 kV and maximum mA can be applied.

Tip n°3 : **A one-second exposure is enough to carry out your control.**

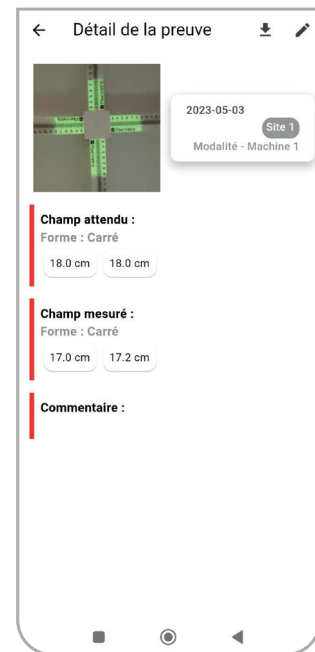
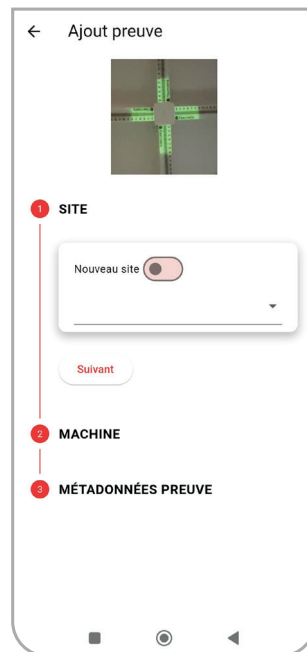
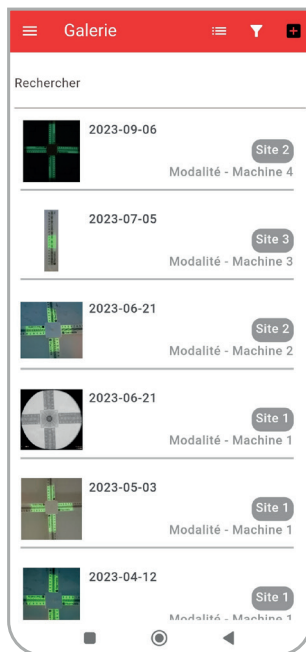
REACT APPLICATION

DATA STORAGE

The **REACT** application facilitates the storage, annotation, and sharing of field-size measurement photos.

To add a new proof, press the "+" button on the homepage. Select an image and add annotations.

To share an image, select the proof from the list and press the share button to generate a PDF file including all the information.



GUIDELINES

TRANSPORT

- After use, disassemble and store the kit in the hard case included.

STOCKAGE

- Store in a clean, dry, temperate place.
- Do not expose to direct sunlight.
- Do not leave rulers in a car in direct sunlight.

APPLICATION

- Do not bend rulers.
- Not for consumption.
- Do not throw in the garbage. Return the product to Fibermatrix, who will dispose of or recycle it in accordance with regulations.
- Carefully read and follow the user manual.