

**CTB-01254 Rev 003****Date:** *April 23, 2024***Author:** R & D**Product:** Selenia Dimensions / **Subsystem:** FAST Mode  
3Dimensions**Subject:** Thickness Indicator Quality Control Testing for FAST Mode on  
Selenia Dimensions and 3Dimensions Systems [Updated]

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**Purpose**

The purpose of this technical bulletin is to provide customers with instructions on performing Hologic recommended spot testing of the compression thickness indicator for Fully Automatic Self-Adjusting Tilt (FAST) mode on Selenia Dimensions and 3Dimensions systems. This is an updated version of the bulletin.

The test will go into the next revision of the Hologic QC manual. Currently, the next QC manual revision is targeted for the next software release. It is up to the discretion of the facility working with the site physicist to consider this test as part of the site's QC program since it is not currently in the Hologic QC manual.

**Scope**

This bulletin applies to all Selenia Dimensions and 3Dimensions systems.

**Reason**

Regular checks of the compression device in FAST mode are recommended to assure that the indicated compression thickness is consistent with the indicated thickness when FAST mode is disengaged.

**Instructions**

The radiologic technologist should perform the following procedure in addition to the Compression Thickness Indicator test described in Section 4.7 of the Hologic Selenia Dimensions/3Dimensions QC Manual (MAN-03706).

# Technical Bulletin (cont.)

## Frequency

Biweekly (every two weeks)

## Suggested Equipment

- 24 x 29 cm flat compression paddle
- 18 x 24 cm flat compression paddle

## Test Procedure



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### Note

This test procedure provides guidance on using the 18 x 24 cm paddle as a “phantom” of a fixed thickness that will be compressed by the 24 x 29 cm paddle.

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1. Engage FAST mode.
  2. Place the 18 x 24 cm flat paddle upside down again on the patient support, ensuring that the bottom surface of the 24 x 29 cm paddle is in contact with the bottom surface of the 18 x 24 cm paddle.
  3. Position the AEC sensor position 1 of one paddle over AEC sensor 1 of the other paddle. See Figure 1.
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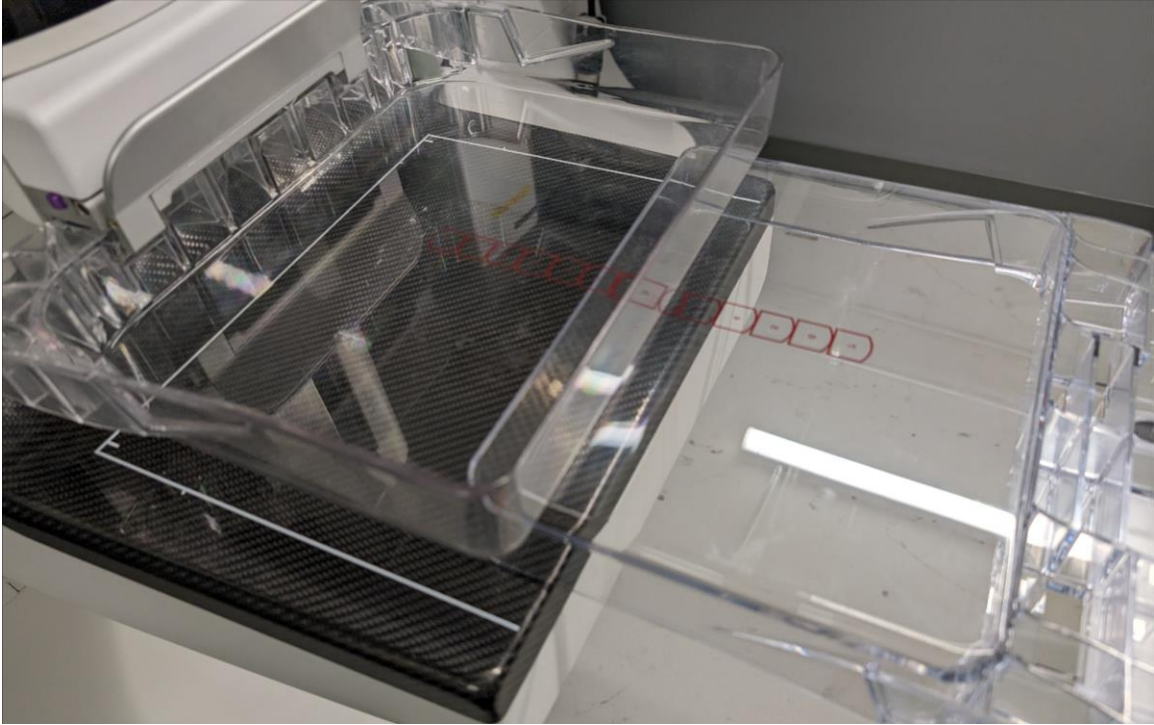
### Note

Only a small portion of the 18 x 24 cm paddle is compressed in this step to allow the 24 x 29 cm paddle to tilt at more of an angle in FAST mode.

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4. Apply between 20 and 25 pounds of compression force.
5. Record the thickness indicated on the compression device on the record form for FAST mode.

## Technical Bulletin (cont.)



**Figure 1: Placement of 18 x 24 cm Flat Paddle for Compression with FAST Mode Enabled.**

### **Records Forms**

Use "FAST Mode Compression Thickness Indicator" form in Appendix A of this bulletin to track the results.

### **Data Analysis and Interpretation**

Subtract the actual thickness of the paddle (4.5 cm) from the thickness indicated on the compression device with FAST mode engaged and record the result on the record form.

### **Recommended Performance Criteria and Corrective Action**

The compression thickness indicator in FAST mode must always be accurate to  $\pm 0.5$  cm from the actual thickness.

If the recommended performance criteria are not met, FAST mode should not be used for patient imaging. The source of the problem must be identified, and corrective action must be taken within thirty days of the test date.

