Fluoroscan® InSight™ FD Mini C-Arm

Be smart with dose. Know the facts.

Limiting the amount of radiation exposure to patients and healthcare professionals is a key topic in healthcare today. When using fluoroscopy, it’s important to be aware of the different methods used to reduce dose and how different manufacturers chose to use them. The Hologic Fluoroscan InSight FD mini C-arm is designed to use dose efficiently, applying the ALARA – “as low as reasonably achievable” – radiation safety principle, to reduce unnecessary radiation exposure to both you and your patients.
The Fluoroscan® InSight™ FD system produces up to **39% less dose** than the competition – without the need for pulsed fluoroscopy.¹,²

**A flat detector tailored for extremity imaging**

Mini C-arms are designed for imaging extremities where the anatomy is often long and narrow. We chose a rectangular shape for our detector to best suit the anatomy it is imaging. Combine our detector’s ability to rotate with its tailored shape for our detector to best suit the anatomy it is imaging.

**Superb image quality at a lower dose**

The InSight FD system is extremely dose efficient, using lower technique factors (kVp and/or mA) than the competition to achieve the same image quality.¹ When imaging smaller anatomy, the system uses **22% less kVp** to acquire the same image. When imaging such highly dense anatomy as shoulders and knees, it still outperforms by requiring up to 10% less kVp for the same image quality as the competition.³

**A collimator with significant dose savings**

In addition to the dose-saving benefits of the flat detector’s shape, size and rotation capabilities, the system’s collimator can also be used to limit the field of view to 125cm² and decrease dose by up to 29%.² The InSight FD system uses up to **30% less dose when collimated** compared to the competition with its same sized collimation.²

**Dual imaging modes to provide options**

The InSight FD system comes with two pre-set imaging modes that use dose differently. For routine imaging, the standard **Auto Mode** provides the greatest dose efficiencies. The **Auto IQ Mode**, which uses slightly more dose, is ideal when there’s a need for lower noise and better definition. In this higher dose mode, the InSight FD system still offers **18% less dose** than the competitor’s highest pulse mode.⁵

**Features designed for speed and efficiency**

When taking a single diagnostic image, it’s important to optimize radiation used to generate each image. The InSight FD system has a **true “snapshot” mode** that applies the ALARA – “as low as reasonably achievable” – radiation safety principle. The user simply presses the X-ray button or pedal, and the system automatically uses the lowest dose possible to get the best image.

Conversely, with the competitor’s system, radiation is entirely user dependent, requiring the user to press the X-ray button or pedal until the image stops adjusting and a clear image is displayed, then release. This manual method can result in more dose than necessary to get an optimal image – or if the X-ray switch is released too soon, a poor image that needs to be retaken. Both can lead to more unnecessary radiation exposure.

The automated dose-saving snapshot mode takes the guesswork out of using dose efficiently.

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**A system engineered to protect you**

By definition, mini C-arm systems are low dose; however, there are clear differences in radiation output by manufacturer.

The same is true for scatter radiation to the operator. When measurements are taken at the head, waist and knee height, the InSight FD system produces, on average, **55% less scatter radiation** to the operator compared to the competition.¹ Even when compared to its lower pulse rate of 15pps, the InSight FD system has **46% lower scatter radiation** on average.⁶

It’s important to protect everyone – the patient, the surgeon and the staff – from unnecessary radiation exposure.

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**Table: Comparison of Radiation Output**

<table>
<thead>
<tr>
<th></th>
<th>Operator Head</th>
<th>Operator Waist</th>
<th>Operator Knees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthoscan High 30pH</td>
<td><strong>6.56</strong></td>
<td><strong>3.69</strong></td>
<td><strong>2.86</strong></td>
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<tr>
<td>Hologic Auto 25pH</td>
<td><strong>5.79</strong></td>
<td><strong>3.59</strong></td>
<td><strong>2.76</strong></td>
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<tr>
<td>Hologic Auto 30pH</td>
<td><strong>5.99</strong></td>
<td><strong>3.59</strong></td>
<td><strong>2.76</strong></td>
</tr>
<tr>
<td>Hologic Med 15pH</td>
<td><strong>5.10</strong></td>
<td><strong>3.69</strong></td>
<td><strong>2.86</strong></td>
</tr>
</tbody>
</table>

**Notes:**

¹ When imaging the same anatomical region.

² InSight FD system compared to competitor at the same sized collimation.

³ Orthoscan 15” x 15” detector vs Hologic 12” x 15” detector.

⁴ InSight FD system compared to competitor when normalized to reach the appropriate technique factors.

⁵ This saves time and reduces unnecessary radiation.

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**Graphic:**

- **Graph 1:** Skin Entry Dose Comparison
  - Orthoscan
  - Hologic Auto 25pH
  - Hologic Auto 30pH
  - Hologic Med 15pH
  - Orthoscan 15” x 15” detector 125cm²

- **Graph 2:** Dose Area Product Comparison
  - Orthoscan
  - Hologic Auto 25pH
  - Hologic Auto 30pH
  - Hologic Med 15pH
  - Orthoscan 15” x 15” detector 125cm²

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**Images:**

- Pictures show competitor’s images using a square detector. Outline represents the InSight FD system’s rectangular detector. Its rotating capability enables of relevant anatomy to be captured.

- Diagram showing the InSight FD system’s rectangular detector and the competitive system’s square detector.

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**Graph:**

- Graph comparing scatter radiation to the operator.

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**Text:**

- “SKIN ENTRY DOSE” graph
  - X-axis: Patient Shape
  - Y-axis: Skin Entry Dose
  - Data points for each system

- “DOSE AREA PRODUCT” graph
  - X-axis: Patient Shape
  - Y-axis: Dose Area Product
  - Data points for each system

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