

The American College of  
Radiology Radiography  
and Fluoroscopy  
Accreditation Program –  
an Overview  
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# Chest Accreditation Program Killed!



# Modules-

Chest Radiography

General Radiography

Fluoroscopy

# Equipment not included

- dedicated head units
- standing extremity units
- dental units
- portable c-arm units
- bone density units
- dedicated cystography units
- dedicated vascular and cardiac interventional units
- dedicated magnification units
- lithotripter units

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# Required Clinical Image Submissions

- Abdomen
- Chest
- Cervical Spine
- Elbow
- DCBE Spot film



# Phantom Image Submission

- INCLUDE ALL IMAGE RECEPTOR ASSEMBLYS- Use Clinical Technique for chest, abdomen, and DCBE
- Chest Phantom/wall bucky
- Abdomen Phantom/ table bucky
- Abdomen Phantom/Spot film device

# Phantom Image Evaluates

- Minimum detectable contrast(%)
- Low contrast resolution(contrast - detail)
- High contrast resolution
- Optical density(film)
- Entrance skin dose- dosimeter

# Phantom Design Directives





# Phantom Design Directives

- A single modular phantom for Chest, General Radiographic, Fluoro, and Interventional
- Simple enough for techs to use
- "Cheap" enough for each facility to own

# Wisconsin Phantom

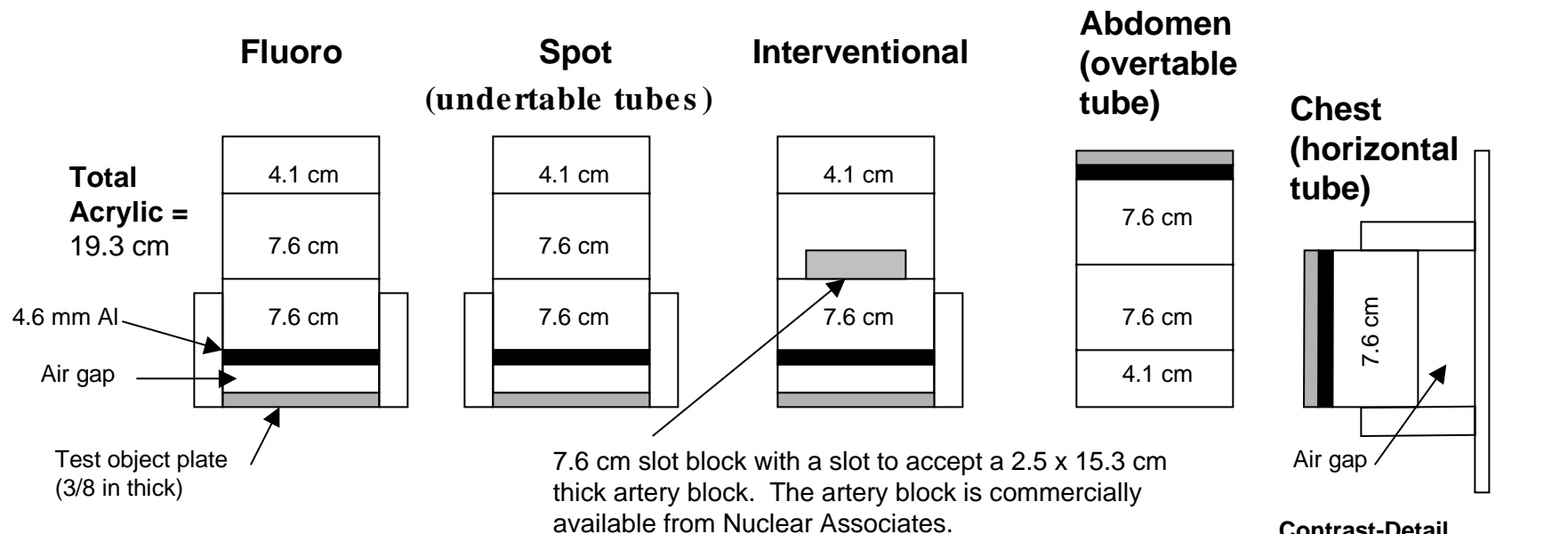


# North Carolina Phantom



# Radiography/Fluoroscopy and Interventional Accreditation Phantom

## Side View

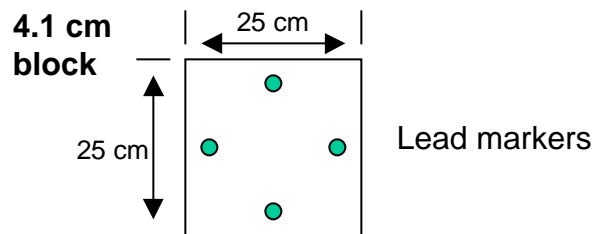


**Contrast-Detail test object**, (placed 7cm from center of Test Plate object on axis that bisects corners of Test plate object and does not overlay lead markers from 4.1 cm block)

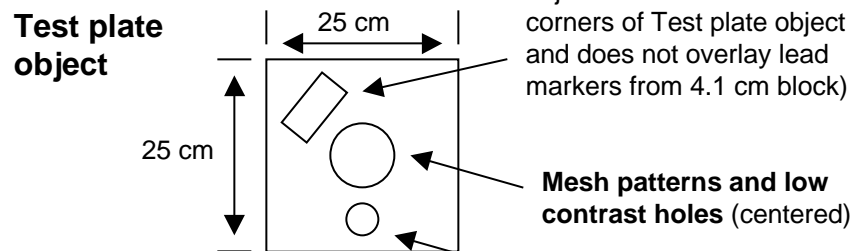
**Mesh patterns and low contrast holes (centered)**

**Small aluminum disk** ( 6cm from center of Test plate object and 12.5 cm from adjacent sides)

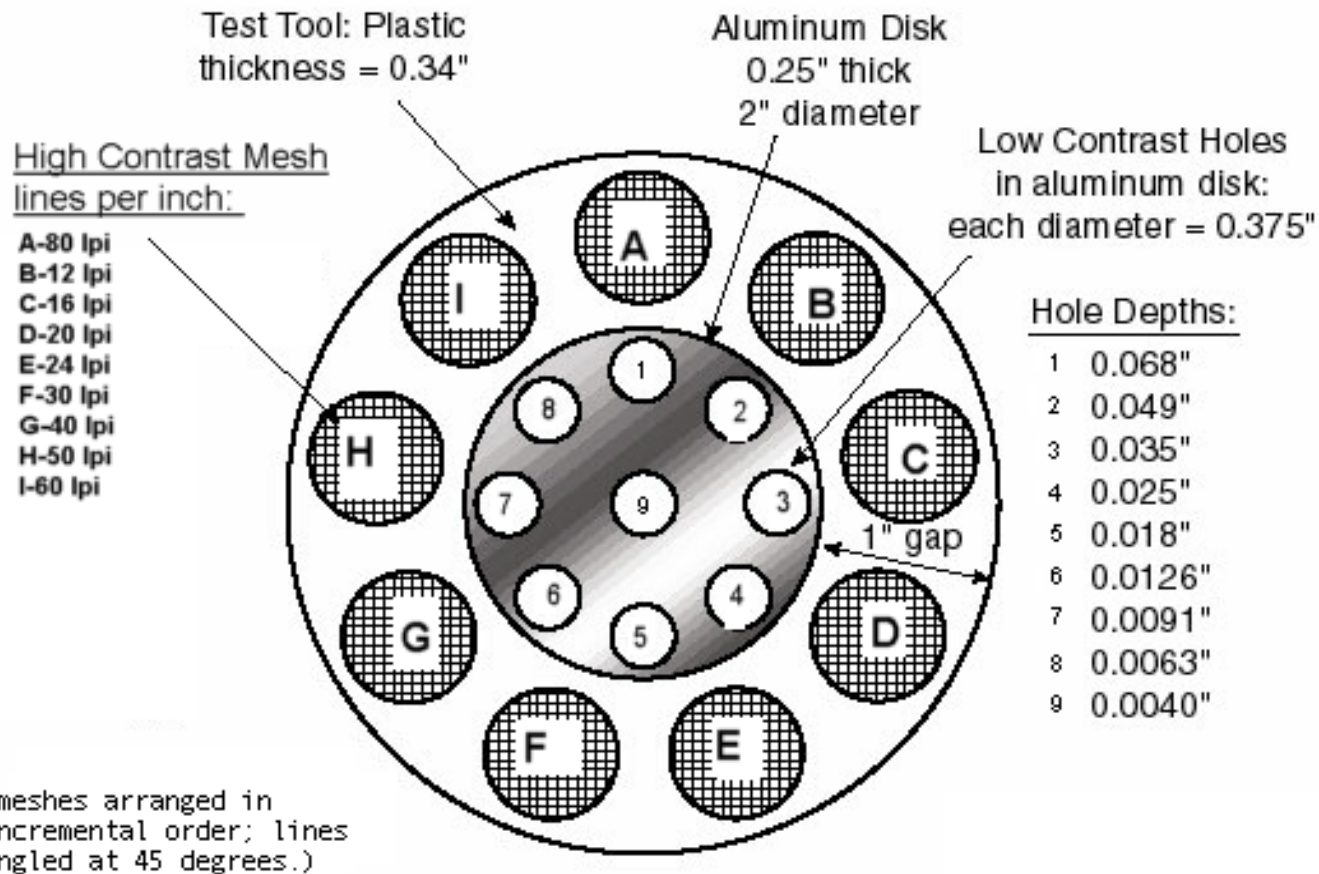
## Top View



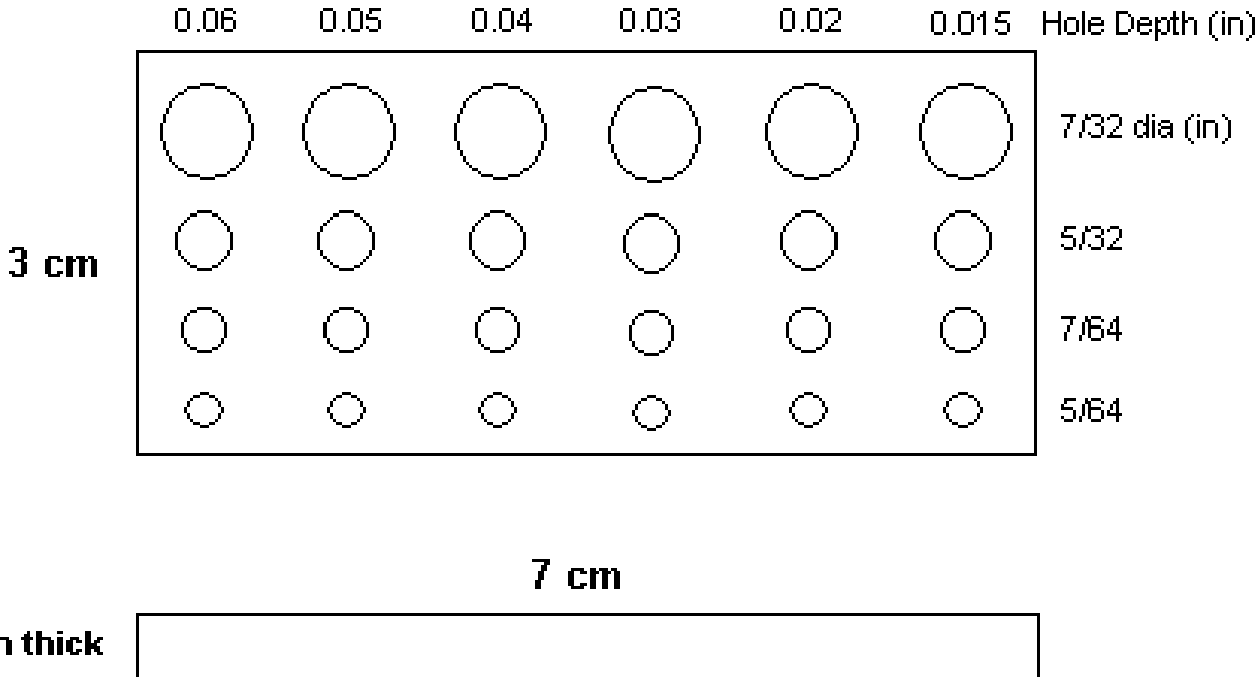
The distance from the center of the block to the lead markers is 7 cm



## "Hockey Puck"



# Contrast-Detail Test Object



# Abdomen Phantom



# Spot Film





# Chest Phantom



# Fluoro Equipment

- Image intensifier with at least a 9" FOV
- kVp > 100
- Automatic Brightness Control
- Spot film device

# Fluoroscopy

- The Medical Physicist must provide real-time fluoro image performance data using Abdomen phantom configuration

# Fluoro- Medical Physicist

- Resolution
- Minimum % contrast detectable
- Entrance Exposure rate

# Required QC Tests

- Technologist- daily to annually
- Physicist- annually

# Technologist QC Tests

- Processor QC- daily
- Darkroom Cleanliness- Weekly
- Phantom Image- Quarterly
- Viewboxes- Quarterly
- Repeat Analysis- Quarterly
- Darkroom fog- Semiannually
- Screen cleanliness- Annually

# Physicist QC- annual

- Phantom image quality evaluation(score and artifacts)
- Radiographic- chest/ abdomen
- Fluoro- real time
- Fluoro- Spot film
- ESE for all the above

# Pilot Program





**КРАСНАЯ**



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**СОБАКА**