



# WG ASTMF792-08 Step Wedge Test Object Case





Product Code: 1095-30


## Key Features

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**X-Ray Scanner Testing & Calibration**
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**Meets DHS, DOT, FAA, TSA & Transport Canada Standards**
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**Multiple X-Ray Test Pieces for Evaluation of 9 Areas**
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**Portable**
- 

**Ruggedised Case**



## Overview

The WG ASTMF792-08 Step Wedge Test Object Case is used to calibrate and evaluate the performance levels of X-ray screening systems in nine distinct test areas using multiple x-ray test pieces.

The Step Wedge Case has been designed to meet the enhanced multi-test FAA, DHS, DOT, TSA, & Transport Canada standards for testing sophisticated x-ray systems.

It is supplied in a rugged custom-designed, injection-moulded case with protective foam block that keeps the Step Wedge in place regardless of the case position.

**Note:** We can supply the original WG F792-88 10 Step Wedge if required. We also have larger Step Wedge kits available for vehicle and or container screening testing compliance.

## Features

- Evaluation & Calibration of X-Ray Scanners
- Nine areas of X-Ray Scanner Evaluation Covered
- Meets FAA, DHS, DOT, TSA, & Transport Canada Standards
- Ruggedised Carry Case

# WG ASTMF792-08 Step Wedge Test Object Case



WESTMINSTER  
GROUP PLC

## Tests 1 to 9

The WG ASTMF792-08 Step Wedge Test Object Case contains items to enable the following tests to be carried out on an x-ray scanner.

- **Test 1** – Wire Display – This determines how well an X-ray system displays wires, the test object incorporates a set of wires. The gauge of these wires provides a sufficient range to measure the x-ray scanner to display wires. The wires are laid out on the test object in a sinusoidal pattern
- **Test 2** – Penetrations – To determine the penetration of the of an X-ray system, the test object incorporates a set of wires placed under aluminium which varies in thickness. Both the gauge of these wires and the thickness of the aluminium provides sufficient range to measure x-ray scanners useful Penetration. The wires are laid out on the test object under an aluminium step wedge in a sinusoidal pattern.
- **Test 3** –Spatial Resolution – To determine the spatial resolution of the X-ray scanner the test object incorporates a set of narrowly spaced wires. Both the gauge of these wires and the spacing between them provides sufficient range between them to provide sufficient range to measure the x-ray scanners Spatial Resolution.
- **Test 4** – Simple Penetration – To determine the simple penetration of the X-ray system the test object the incorporates lead digits places on top of the steel, which varies in thickness. The thickness of the steel provides sufficient range to measure the x-ray scanners Simple Penetration.
- **Test 5** – Thin Organic Imaging – To determine the thin organic imaging capability of the x-ray scanner the test object incorporates plastic of various thickness. The thickness of the plastic provides sufficient range to measure the x-ray scanner ability to image thin organic material.
- **Test 6** – Sensitivity – To determine the IQI sensitivity of an x-ray scanner the test object incorporates a set of flat-bottom holes drilled into steel and plastic samples which vary in thickness. The diameter, the depth of these holes and the thickness of the steel and plastic samples shall provide sufficient range to measure the x-ray scanner IQI Sensitivity.
- **Test 7** – Organic/Inorganic Differentiation – To determine the organic/inorganic differentiation capability of the x-ray scanner the test object incorporates a steel and plastic sample.
- **Test 8** – Organic Differentiation – To determine the organic differentiation capability of the x-ray scanner the test object incorporates various samples of plastic. The plastics chosen has different effective atomic numbers but nominally identical attenuation.
- **Test 9** – Useful Organic Differentiation – To determine the useful organic differentiation of an x-ray scanner the test object incorporates various samples of plastic places on top of steel which varies in thickness.