



Spatial Resolution Line Pair Patterns & Focal Spot Star Patterns

Spatial Resolution Line Pair Patterns

These test patterns are designed for quick quantitative assessments of the limiting spatial resolution of an x-ray system. The line pair patterns consist of a thin foil of Lead sandwiched between plastic plates. In the foil, linear slits are cut with a range of widths, these alternate with linear bars of the foil of equal width. One slit and one bar is referred to as a line pair, and the width of each group of lines is specified in terms of the number of line pairs per mm (LP/mm). The observer counts the number of groups in which he can resolve the slits from the bars and as such can determine the resolving capability of the x-ray system in terms of LP/mm. A wide range of pattern designs is available with varying ranges of LP/mm and foil thicknesses.

Focal Spot Star Patterns

These test patterns are designed for quick quantitative assessments of the focal spot size of an x-ray system. The star pattern comprises a thin foil of Lead into which are cut a pattern of slits diverging from a central point which can be used to measure the X-ray focal spot size. The separation between slits increases linearly with distance from the centre. When imaged with an X-ray source, the finite size of the X-ray source will cause the lines to blur together within a certain distance of the centre. The radius of the blur will be directly proportional to the size of the focal spot.

