

**JB**

**INDUSTRY STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**JB/T 10815-2007**

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**Non-destructive testing - Image resolution indicators for  
radioscopic testing**

无损检测 射线透视检测用分辨率测试计

**(English Translation)**

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Table 1 Line Pair Dimension

Table 2 Test Items of Image Resolution Indicator

## 1 Scope

This standard specifies the classification, technical requirements and test methods of image resolution indicators for radiography.

This standard is applicable to image resolution indicators made of lead alloy or metal with equivalent density.

This standard is applicable to the type test and end-of-manufacturing test of image resolution indicators, and it may also be used as the acceptance basis for the ordered goods of the users.

## 2 Normative References

The following normative documents contain provisions which, through reference in this standard, constitute provisions of this standard. For dated reference, subsequent amendments (excluding corrigendum contents) to, or revisions of, any of these publications do not apply. However, all parties coming to an agreement according to this standard are encouraged to study whether the latest editions of these documents are applicable. For undated references, the latest edition of the normative document referred to applies.

GB/T 1470 Lead and Lead-antimony Alloy Plate

GB/T 12604.2 Non-destructive Testing - Terminology - Terms Used in Radiographic Testing (GB/T 12604.2-2005, ISO 5576:1997, IDT)

GB/T 15481 General Requirements for the Competence of Testing and Calibration Laboratories (GB/T 15481-2000, idt ISO/IEC 17025:1999)

GB/T 19001 Quality Management Systems - Requirements (GB/T 19001-2000, idt ISO 9001:2000)

## 3 Terminologies and Definitions

For the purpose of this part, the terms and definitions established in GB/T 12604.2 as well as the followings apply.

### 3.1 Line

Metal wires with specified length and width in the image resolution indicator, which are generally made of heavy metal such as lead, tantalum or tungsten.

### 3.2 Line pair

A line pair is composed of a piece of line and the adjacent spacing which has the same width as the line.

### 3.3 Density of line pair

The total number of line pair per unit length in width direction of the line pair, LP/mm.

### 3.4 Fagot of line pair

Fagot of line pair is composed of  $n$  pieces of lines with same length and width and  $n-1$  pieces of spacing (space) which are between the lines and have the same length and width as the lines.

## 4 Classifications

The image resolution indicators applicable to this standard may be classified:

a) According to the arrangement regularity of fagot of line pair:

- 1) Arithmetic arrangement;
- 2) Geometric arrangement.

b) According to the arrangement of fagot of line pair:

- 1) Parallel arrangement;
- 2) Non-parallel arrangement.

### 5.1 General

Image resolution indicator is composed of metal fagot of line pair and metal absorber. As for metal fagot of line pair, it is to select several continuous fagots of line pair from Table 1. Metal absorber shall be placed on the side of fagot of line pair with minimum density of line pair.

The selected cladding material should be non-absorbent; and double cladding shall be adopted with one side being transparent. The thickness of cladding material shall not be greater than 1.5mm.

Appendix A illustrates the schematic diagrams for several types of image resolution

indicators.