



भारतीय मानक ब्यूरो

(उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण मंत्रालय, भारत सरकार)

BUREAU OF INDIAN STANDARDS

(Ministry of Consumer Affairs, Food & Public Distribution, Govt. of India)

मानक भवन, 9 बहादुरशाह जफर मार्ग नई, दिल्ली-110002

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi-110002

Phones: 23230131 / 23233375 / 23239402

Website: www.bis.org.in, www.bis.gov.in

DRAFT INDIAN STANDARD IN WIDE CIRCULATION

Reference : MTD21/T-83

Date : 20 December 2022

TECHNICAL COMMITTEE : Non-Destructive Testing Sectional Committee, MTD 21

To,

All concerned

Dear Madam/Sir,

The following document has been prepared by the Non-Destructive Testing Sectional Committee Sectional Committee, MTD 21. Please [click here](#) to view the document.

Document Number : MTD 21 (21512) WC

Title of the document : MICRO-FOCAL RADIOGRAPHY FOR INDUSTRIAL COMPONENTS RECOMMENDED PRACTICES

Document Type : New Indian Standard

This document has following salient features which may require specific attention for your valuable comments:

- 1) X-Ray equipments having the focal spot size less than 100 μm are referred as Microfocus system. Currently there are advanced micro-focus systems having focal spot size of even 5 μm . Micro-focus radiography systems have the capability to examine even the miniature details of an article by using the magnified X-ray images, which enhances the capability of flaw detection and the reliability. As there is no penumbra effect, the images obtained have very high resolution.*
- 2) Currently when there is an advancement of technology, cost effectiveness and weight reduction are major factors. Accordingly the detection of finer defects and enhancement of reliability are prime factors for not only for strategic sectors but also for generic applications. These factors necessitates for Microfocus Radiography inspection and hence a need to have a standard.*
- 3) This Indian Standard covers the recommended practice for micro-focal radiography of materials, components and assemblies. The practice outlined in this standard is intended to provide the basis for good working practices for producing high quality radiographs for inspection of welded joints and castings used in strategic sectors like Aerospace, Defence and Nuclear etc, turbine blade inspection to detect fine cracks; Inspection of printed circuit boards (PCB), inspection of tube to tube sheet weld of heat exchangers; inspection of ceramics and composites to detect micro-voids, etc. This standard deals with micro-focal x-ray systems, focal spot measuring techniques, magnification, image recording methods and image quality*

Please examine the document and share your comments regarding further improvement in the document.

Last date for sharing the comments is : 22 January 2023

The comments should be shared in the prescribed template through this portal only; and the comments so received shall be taken up by the Sectional Committee for necessary action. For any other query, please write an email at mtd@bis.gov.in to the undersigned at Bureau of Indian Standard, Manak Bhawan, 9, Bahadur Shah Zafar Marg, New Delhi.

In case no comments are received, we would presume your approval of the documents. However, in case we receive any comments on the document, the same shall be put up to the Sectional Committee for necessary action.

Thanking You,

**Yours faithfully,
(SANJIV MAINI)
Head (Metallurgical Engineering Department)
Email: mtd@bis.gov.in**



व्यापक परिचालन में मसौदा(दे)

हमारा सन्दर्भ : MTD21/T-83

दिनांक : 20-12-2022

तकनीकी समिति : Non-Destructive Testing Sectional Committee Sectional Committee, MTD 21

प्राप्तकर्ता : रूचि रखने वाले सभी निकाय

महोदय/या,

निम्नलिखित मसौदा तैयार किया गया है :

प्रलेख संख्या : MTD 21 (21512) WC

शीर्षक :

कृपया इस/इन मानक(को)/संशोधन(नो) के मसौदे(दो) का अवलोकन करें और अपनी सम्मतियाँ यह बताते हुए भेजें कि यदि ये मानक(को) के संशोधन(नो) के रूप में प्रकाशित हो तो इन पर अमल करने में आपके व्यवसाय अथवा कारोबार में क्या कठिनाइयां आ सकती हैं।

सम्मतियाँ भेजने की अंतिम तिथि : 22 January 2023

सम्मतियाँ, यदि कोई हों तो, कृपया यहाँ क्लिक करके ऑनलाइन पोर्टल के माध्यम से ऊपर दी गयी अंतिम तिथि तक दर्ज कराएं।

यह/ये प्रलेख भारतीय मानक ब्यूरो की वेबसाइट www.bis.gov.in पर भी उपलब्ध है/हैं।

धन्यवाद।

भवदीय/भवदिया,
विभाग प्रमुख का नाम : SANJIV MAINI
(Metallurgical Engineering Department)
ई-मेल : mtd@bis.gov.in