Review

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IS:5204 – 1969 Specification for Research Microscope; *Amendment No.1 – December 1979; Amendment No.2 - September 1980; Amendment No.3 – May 1983*

The standard though prepared and adopted in 1969 (with periodic amendments) is well composed and hase been in wide usage by the Indian Microscope manufacturers for the last few decades.

It is very well serving its purpose till now meeting most of the requirements in academia, industry & in R&D (to some extent).

However, it would be necessary to update this standard, as this standard is 55 years old.

In the last six decades, the magnification & resolution requirements in academia & industry have increased multi-fold.

Hence, it is imperative to update this standard keeping in view the current & future requirements (in terms of magnification & resolution) at college / university level & precision component production industry.

A study of the current international standards would be a good starting point for the proposed endeavour.

ISO has an array of multiple standards on microscopes. In fact, A Technical Sub Committee TC 172 SC 5 (with Four Working Groups with clear work description as given below) is exclusively constituted to process the standards on Microscopes & Endoscopes.

The Working Group WG 3 (of TC 172 / SC 5) deals with the Terms & Definitions;
The Working Group WG 9 (of TC 172 / SC 5) deals with the Optical Performance of Microscope Components;
The Working Group WG 10 (of TC 172 / SC 5) deals with the Microscope Systems.

BIS, India is a Participating Member (along with Belgium, China, France, Germany, Japan, Republic of Korea, Saudi Arabia, Switzerland, UK & USA) in this Technical Sub-Committee.

Hence, it proposed to the Committee that a new Sub Committee is to be constituted with members from PDG 22 & PGD 39 (with experts from academia, industry and R&D in the domains of in Optical Instrumentation, Opto-Mechanical Instrumentation, Precision Instrumentation) at the earliest with specific terms of reference and mandate period. It would be beneficial to include the Technical Committee Members from BIS, who are involved in TC 172 / SC 5 / WG 3; TC 172 / SC 5 / WG 9 & TC 172 / SC 5 / WG 10.

Some important ISO Standards dealing with Microscopes:

(01) ISO 15189:2022
(02) ISO 9022-11

(03) ISO 8036:2015
(04) ISO 8037-1: 1986
(05) ISO 8037-2: 1997
(06) ISO 8037-2: 1997 / Cor 1:2002
(07) ISO 8039: 2014
(08) ISO 8255-1:2017
(09) ISO 8255-2:2013
(10) ISO 8576:1996
(11) ISO 8578:2012
(12) ISO 9344:2016
(13) ISO 9435:2019
(14) ISO 10934:2020
(15) ISO 10935:2009
(16) ISO 10936-1:2017
(17) ISO 11882:1997
(18) ISO 11883:1997
(19) ISO 11884-1:2006
(20) ISO 11884-2:2007
(21) ISO 12853:2015
(22) ISO 15227:2000
(23) ISO 15362:2014
(24) ISO 18221:2016
(13) ISO 19012-1:2013
(14) ISO 19012-2:2013
(15) ISO 19012-3:2015
(16) ISO 19012-4:2024
(17) ISO 19055:2015
(18) ISO 19056-1:2015
(19) ISO 19056-3:2022
(20) ISO 21073:2019
(21) ISO/DIS 10934 (Under Development)
(22) ISO/DIS 18221 (Under Development)
(23) ISO 19012-11: 1994 (Parts 1-20)
(24) ISO 10936-2:2010
(25) ISO 18221:2016
(26) ISO 19056-2:2019