

Aerospace — MJ threads — Gauging

ICS 49.030.10

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

BSI
Documents



Document Sharing Hub

National foreword

This British Standard reproduces verbatim ISO 10959:2000 and implements it as the UK national standard.

The UK participation in its preparation was entrusted by Technical Committee ACE/12, Aerospace fasteners and fastening systems, to Subcommittee ACE/12/1, Aerospace fasteners and fastening systems, to Subcommittee ACE/12/1, (international), which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, the ISO title page, pages ii to v, a blank page, pages 1 to 19 and a back cover.

The BSI copyright notice displayed in this document indicates when the document was last issued.

This British Standard, having been prepared under the direction of the Engineering Sector Committee, was published under the authority of the Standards Committee and comes into effect on 15 April 2000

© BSI 04-2000

Amendments issued since publication

Amd. No.	Date	Comments

ISBN 0 580 34661 7

INTERNATIONAL STANDARD

**ISO
10959**

First edition
2000-02-01

Aerospace — MJ threads — Gauging

Aéronautique et espace — Filetage MJ — Vérification par calibres



Reference number
ISO 10959:2000(E)

AVA Documents
Document Sharing Hub

Contents

Page

Foreword.....	4
Introduction	5
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Types of gauges.....	2
4.1 Gauges and setting plugs for external product threads.....	2
4.2 Gauges for internal product threads	2
5 Reference temperature.....	2
6 Function, design and use of gauges	3
6.1 Gauges for external threads	3
6.2 Gauging for internal threads	4
7 Setting gauges	5
8 Gauging of threads.....	5
Annex A (normative) Prevalence of gauging by GO gauges.....	18
Bibliography	19

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 10959 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 4, *Aerospace fastener systems*.

Introduction

The purpose of this International Standard, which differs from ISO 1502, is to take into account the basic characteristics of the ISO MJ threads (restricted form variation and increased root radius of the external thread) as well as the specific tolerances and to standardize the gauging principles for ISO MJ threads, intended for products for aerospace applications.

Aerospace — MJ threads — Gauging

1 Scope

This International Standard contains information for the gauging of ISO MJ threads in accordance with ISO 5855-1, ISO 5855-2 and ISO 5855-3.

Other methods of ensuring that the product is within the specified limits may be used provided correlation with the specified gauges is established [see 8.2 e)].

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 1:1975, *Standard reference temperature for industrial length measurements*.

ISO 1502:1996, *ISO general-purpose metric screw threads — Gauges and gauging*.

ISO 5408:1983, *Cylindrical screw threads — Vocabulary*.

ISO 5855-1:1999, *Aerospace — MJ threads — Part 1: General requirements*.

ISO 5855-2:1999, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts*.

ISO 5855-3:1999, *Aerospace — MJ threads — Part 3: Limit dimensions for fittings for fluid systems*.

3 Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 5408 and the following apply.

3.1

best wire size

cylinder or sphere which has a radius so that it will contact the thread flanks at the pitch cylinder intersection

NOTE The radius of the best wire or sphere is theoretically equal to $0,288\ 68\ P$.

3.2

indicating gauge

device having contacts which will precisely compare the size of a work piece thread to a setting standard of known dimensions

NOTE The value for the indicated characteristic thus established is the dimensional value attributed to the work piece. An indicating gauge may have contacts designed to measure any thread characteristic. This International Standard specifies the characteristics and designs for ISO MJ threads.