
Aerospace — Nuts, barrel, self-locking, floating, self-aligning, with MJ threads, classifications: 900 MPa (at ambient temperature)/235 °C, 1 100 MPa (at ambient temperature)/235 °C, 1 250 MPa (at ambient temperature)/235 °C and 1 550 MPa (at ambient temperature)/235 °C — Dimensions

Aéronautique et espace — Écrous à portée cylindrique, à freinage interne, flottants, orientables, à filetage MJ, classifications: 900 MPa (à température ambiante)/235 °C, 1 100 MPa (à température ambiante)/235 °C, 1 250 MPa (à température ambiante)/235 °C et 1 550 MPa (à température ambiante)/235 °C — Dimensions



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.

International Standard ISO 12278 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 4, *Aerospace fastener systems*.

STANDARDSISO.COM : Click to view the full PDF of ISO 12278:1999

© ISO 1999

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Internet iso@iso.ch

Printed in Switzerland

Introduction

The dimensions specified in this International Standard have been determined to allow production of a part which will satisfy the requirements of the procurement specification ISO 5858:1999, *Aerospace — Self-locking nuts with maximum operating temperature less than or equal to 425 °C — Procurement specification*.

STANDARDSISO.COM : Click to view the full PDF of ISO 12278:1999

**Aerospace — Nuts, barrel, self-locking, floating, self-aligning, with MJ threads, classifications:
900 MPa (at ambient temperature)/235 °C, 1 100 MPa (at ambient temperature)/235 °C, 1 250 MPa (at ambient temperature)/235 °C and 1 550 MPa (at ambient temperature)/235 °C — Dimensions**

1 Scope

This International Standard specifies the dimensions of self-locking, floating, self-aligning barrel nuts, with MJ threads, for classifications: 900 MPa¹⁾/235 °C²⁾, 1 100 MPa¹⁾/235 °C²⁾, 1 250 MPa¹⁾/235 °C²⁾ and 1 550 MPa¹⁾/235 °C²⁾.

This International Standard is only applicable for the compilation of aerospace product standards.

2 Normative reference

The following normative document contains 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 edition of the normative document 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 5855-2:1999, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts*.

3 Configuration and dimensions

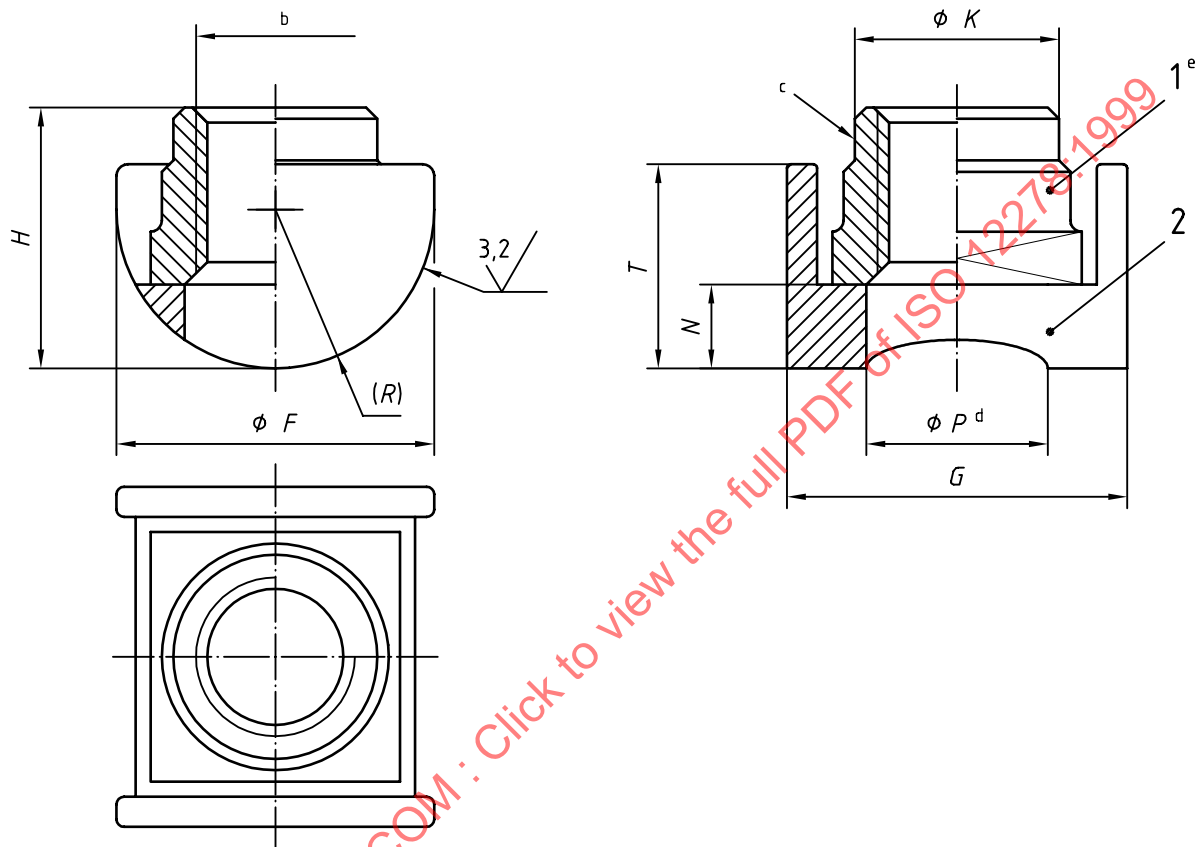
See Figure 1 and Table 1. Dimensions and tolerances are expressed in millimetres. They apply after any surface coating(s) but before the application of any lubricant.

¹⁾ Corresponds to the minimum tensile stress which the nut is able to withstand at ambient temperature without breaking or cracking when tested with a bolt of a higher strength class.

²⁾ Maximum temperature that the nut is able to withstand, without permanent alteration to its original characteristics, after ambient temperature has been restored. The maximum temperature is conditioned by the surface treatment.

$$6,3 / \left(\sqrt{3,2} \right)^a$$

Remove sharp edges 0,1 to 0,4.



Key

- 1 Thread element
- 2 Cradle

NOTE Details of form not stated are at the manufacturer's option.

^a These values, in micrometres, apply before any surface coating(s) is(are) applied. The values do not apply to threads, punched holes or shear edges the surface texture of which will be as achieved by the usual manufacturing methods.

^b Thread

^c Form out-of-round in this area to achieve the self-locking torque requirement. Tooling marks permissible in this area.

^d Means of retaining nut in cradle are manufacturer's option providing envelope and performance requirements are met.

^e Radial float: 0,4 min.

Figure 1