

INTERNATIONAL STANDARD

ISO
7721-2

First edition
1990-09-01

Countersunk flat head screws —

Part 2:

Penetration depth of cross recesses

iTeh Standards

(<https://standards.iteh.ai>)

Vis à métaux à tête fraisée —

Partie 2: Profondeur de pénétration des empreintes cruciformes

Document Preview

[ISO 7721-2:1990](#)

<https://standards.iteh.ai/catalog/standards/iso/d363bb8c-c271-4c1e-9ab0-f9ea402f7b4c/iso-7721-2-1990>



Reference number
ISO 7721-2:1990(E)

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.

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 7721-2 was prepared by Technical Committee ISO/TC 2, *Fasteners*.

ISO 7721 consists of the following parts, under the general title *Countersunk flat head screws*:

- *Part 1: Head configuration and gauging*
- *Part 2: Penetration depth of cross recesses*

Annex A of this part of ISO 7721 is for information only.

Introduction

The penetration depth of cross recesses for countersunk flat head screws has to satisfy two requirements which act in opposite directions for a given head dimension.

First, there is the requirement for sufficient head strength to attain the proof and breaking loads of the respective property class. A shallow cross recess increases the head strength. On the other hand, the wrenchability of the screw should be satisfactory; this can only be achieved by a sufficiently deep cross recess.

ISO 7721-2 was developed in order to find a compromise which, as far as possible, would meet both requirements.

This part of ISO 7721 specifies deep cross recesses for countersunk head screws of low strength: a good wrenchability is achieved and the head strength is still sufficient. This execution will be used in ISO 7046-1 (see annex A).

For screws of higher strength, sufficient head strength can only be attained by a shallower penetration depth of the cross recesses. If such screws also require good wrenchability, then, under the conditions of the common head style, a shoulder has to be provided under the head, in addition to the larger penetration depth, in order to guarantee sufficient head strength.

This compromise, which unfortunately results in different but interchangeable types of cross recessed flat countersunk head screws, is at the moment the only way of reaching an agreement at the international level.

iTeh Standards
(<https://standards.itih.ai>)
Document Preview

This page intentionally left blank

[ISO 7721-2:1990](#)

<https://standards.itih.ai/catalog/standards/iso/d363bb8c-c271-4c1e-9ab0-f9ea402f7b4c/iso-7721-2-1990>