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**Welding consumables — Test methods —**

Part 3:

**Classification testing of positional  
capacity and root penetration of welding  
consumables in a fillet weld**

*Produits consommables pour le soudage — Méthodes d'essai —*

*Partie 3: Évaluation de l'aptitude au soudage en position et de la  
pénétration en racine des produits consommables pour les soudures  
d'angle*

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Reference number  
ISO 15792-3:2011(E)

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Published in Switzerland

## Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 15792-3 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 3, *Welding consumables*.

This second edition cancels and replaces the first edition (ISO 15792-3:2000). It also incorporates the Technical Corrigendum ISO 15792-3:2000/Cor.1:2006.

ISO 15792 consists of the following parts, under the general title *Welding consumables — Test methods*:

- *Part 1: Test methods for all-weld metal test specimens in steel, nickel and nickel alloys*
- *Part 2: Preparation of single-run and two-run technique test specimens in steel*
- *Part 3: Classification testing of positional capacity and root penetration of welding consumables in a fillet weld*

Requests for official interpretations of any aspect of this part of ISO 15792 should be directed to the Secretariat of ISO/TC 44/SC 3 via your national standards body. A complete listing of these bodies can be found at [www.iso.org](http://www.iso.org).

## Introduction

This part of ISO 15792 specifies the preparation and assessment of fillet weld test pieces.

The test conditions specified and results required should not be considered to be requirements or expectations for a procedure qualification.

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# Welding consumables — Test methods —

## Part 3: Classification testing of positional capacity and root penetration of welding consumables in a fillet weld

### 1 Scope

This part of ISO 15792 specifies the preparation and assessment of fillet weld test pieces for conformity assessment of positional usability and root penetration requirements for consumables classification standards for welding non-alloy and fine grain steels, low alloy steels, stainless steels, and nickel base alloys.

This part of ISO 15792 does not specify acceptance requirements.

### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6947, *Welding and allied processes — Welding positions*

### 3 General requirements

Samples of welding consumables (electrodes or wires) to be tested shall be representative of the manufacturer's products being classified. Test pieces shall be prepared and tested as specified in Clauses 5 and 6, as well as in the classification standard. The test results shall fulfil the requirements of the classification standard.

### 4 Test plate material

The plate material shall be selected from the range of materials and material thicknesses specified in the classification standard. The surfaces to be welded shall be free of scale, rust, and other contaminants.

### 5 Preparation of the test piece

**5.1** Before assembly, the web piece of the assembly shall have one edge of the web flat and square throughout its length so that, when the web is set on the flange, which shall be straight and smooth, there will be intimate contact along the entire length of the joint. The web and flange shall be assembled as shown in Figure 1. Both ends of the joint shall be secured by tack welds to maintain intimate contact along the length of the joint and to maintain the 90° angle between the web and flange. The web and flange dimensions shall be in accordance with those given in the electrode classification standard.