

**Kvalitetskrav för smältsvetsning av metalliska material –**

Del 1: Kriterier för val av tillämplig nivå för kvalitetskrav (ISO 3834-1:2005)

**Quality requirements for fusion welding of metallic materials –**

Part 1: Criteria for the selection of the appropriate level of quality requirements (ISO 3834-1:2005)

Europastandarden EN ISO 3834-1:2005 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN ISO 3834-1:2005.

Denna standard ersätter SS-EN 729-1, utgåva 1.

The European Standard EN ISO 3834-1:2005 has the status of a Swedish Standard. This document contains the official English version of EN ISO 3834-1:2005.

This standard supersedes the Swedish Standard SS-EN 729-1, edition 1.

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English Version

**Quality requirements for fusion welding of metallic materials -  
Part 1: Criteria for the selection of the appropriate level of quality  
requirements (ISO 3834-1:2005)**

Exigences de qualité en soudage par fusion des matériaux  
métalliques - Partie 1: Critères pour la sélection du niveau  
approprié d'exigences de qualité (ISO 3834-1:2005)

Qualitätsanforderungen für das Schmelzschweißen von  
metallischen Werkstoffen - Teil 1: Kriterien für die Auswahl  
der geeigneten Stufe der Qualitätsanforderungen (ISO  
3834-1:2005)

This European Standard was approved by CEN on 28 October 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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<b>Contents</b>	<b>Page</b>
<b>Foreword</b> .....	<b>iii</b>
<b>Introduction</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 General outline of ISO 3834</b> .....	<b>2</b>
<b>5 Selection of quality requirements</b> .....	<b>3</b>
<b>6 Elements to be considered for a quality management system to complement ISO 3834</b> .....	<b>4</b>
<b>Annex A (informative) Criteria which assist in the selection of the appropriate part of ISO 3834</b> .....	<b>5</b>
<b>Bibliography</b> .....	<b>7</b>

## Foreword

This document (EN ISO 3834-1:2005) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with Technical Committee CEN/TC 121 "Welding", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2006, and conflicting national standards shall be withdrawn at the latest by June 2006.

This document supersedes EN 729-1:1994.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

### Endorsement notice

The text of ISO 3834-1:2005 has been approved by CEN as EN ISO 3834-1:2005 without any modifications.

## EN ISO 3834-1:2005 (E)

### Introduction

Processes such as fusion welding are widely used to manufacture many products. In some companies, they are the key feature of production. Products may range from simple to complex. Examples include pressure vessels, domestic and agricultural equipment, cranes, bridges, transport vehicles and other items.

These processes exert a profound influence on the cost of manufacture and quality of the product. It is important, therefore, to ensure that these processes are carried out in the most effective way and that appropriate control is exercised over all aspects of the operation.

It is emphasised that ISO 3834 is not a quality management system standard replacing ISO 9001:2000. However, it can be a useful tool when ISO 9001:2000 is applied by manufacturers.

Specification of quality requirements for welding processes is important because the quality of these processes cannot be readily verified. Therefore, they are considered to be special processes as noted by ISO 9000:2000.

Quality cannot be inspected into a product, it has to be built in. Even the most extensive and sophisticated non-destructive testing does not improve the quality of the product.

For products to be free from serious problems in production and in service, it is necessary to provide controls, from the design phase, through material selection, into manufacture and subsequent inspection. For example, poor design may create serious and costly difficulties in the workshop, on site, or in service. Incorrect material selection may result in problems, such as cracking in welded joints.

To ensure sound and effective manufacturing, management needs to understand and appreciate the sources of potential trouble and to implement appropriate procedures for their control.

ISO 3834 identifies measures that are applicable for different situations. Typically, they may be applied in the following circumstances:

- in contractual situations: specification of welding quality requirements;
- by manufacturers: establishment and maintenance of welding quality requirements;
- by committees drafting manufacturing codes or application standards: specification of welding quality requirements;
- by organizations assessing welding quality performance, e.g. third parties, customers, or manufacturers.

ISO 3834 can be used by internal and external organizations, including certification bodies, to assess the manufacturer's ability to meet customer, regulatory or the manufacturer's own requirements.