

**Hollow bars for machining - Technical
delivery conditions - Part 1: Non alloy
and alloy steels**

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conditions - Part 1: Non alloy and alloy steels

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 10294-1:2005 sisaldab Euroopa standardi EN 10294-1:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 25.11.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 10294-1:2005 consists of the English text of the European standard EN 10294-1:2005.</p> <p>This document is endorsed on 25.11.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This part of EN 10294 specifies the technical delivery conditions for seamless steel hollow bars intended for the manufacture of engineering components by machining.</p>	<p>Scope: This part of EN 10294 specifies the technical delivery conditions for seamless steel hollow bars intended for the manufacture of engineering components by machining.</p>
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English Version

Hollow bars for machining - Technical delivery conditions - Part 1: Non alloy and alloy steels

Barres creuses pour usinage - Conditions techniques de
livraison - Partie 1 : Aciers non alliés et alliés

Stahlrohre für die spanende Bearbeitung (Drehteilrohre) -
Technische Lieferbedingungen - Teil 1: Unlegierte und
legierte Stähle

This European Standard was approved by CEN on 29 August 2005.

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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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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This European Standard (EN 10294-1:2005) has been prepared by Technical Committee ECISS/TC 29 “steel tubes and fittings for steel tubes”, the secretariat of which is held by UNI.

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 April 2006, and conflicting national standards shall be withdrawn at the latest by April 2006.

This European Standard differs from ISO 2938, *Hollow bars for machining*.

Another part of EN 10294 in course of preparation is:

— Part 2: *Stainless steels*.

Other European Standard series covering tubes for mechanical and general engineering purposes are:

— EN 10296, *Welded steel tubes for mechanical and general engineering purposes*,

— EN 10297, *Seamless steel tubes for mechanical and general engineering purposes*.

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.

1 Scope

This part of EN 10294 specifies the technical delivery conditions for seamless steel hollow bars intended for the manufacture of engineering components by machining.

Machinability requirements are defined and a list of hollow bar size codes is given with the related dimensions achievable after machining when centring on the outside diameter.

NOTE Dimensional requirements for other products, for example, applying when centring on the inside diameter may be agreed between purchaser and manufacturer at the time of enquiry and order (see Options 3 and 4).

2 Normative references

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

EN 10002-1, *Metallic materials – Tensile testing – Part 1: Method of test at ambient temperature.*

EN 10020:2000, *Definition and classification of grades of steel.*

EN 10021:1993, *General technical delivery requirements for steel and iron products.*

EN 10045-1, *Metallic materials – Charpy impact test – Part 1: Test method.*

EN 10052:1993, *Vocabulary of heat treatment terms for ferrous products.*

EN 10168, *Steel products – Inspection documents – List of information and description.*

EN 10204, *Metallic products – Types of inspection documents.*

EN 10266:2003, *Steel tubes, fittings and structural hollow sections – Symbols and definitions of terms for use in product standards.*

EN ISO 377, *Steel and steel products – Location and preparation of samples and test pieces for mechanical testing (ISO 377:1997).*

EN ISO 2566-1, *Steel – Conversion of elongation values – Part 1: Carbon and low alloy steels (ISO 2566-1:1984).*

ISO 3685, *Tool-life testing with single-point turning tools.*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 10020:2000, EN 10021:1993, EN 10052:1993 and EN 10266:2003 and the following apply.

3.1

hollow bar

circular long product made by a seamless tube manufacturing process or by drilling a bore into a rolled or forged bar

These products are characterized by special dimensions and material properties which confer machinability, suitability for heat treatment and surface condition suitable for final machining of the component