

Schvaľovacie skúšky pre CO2 laserové zváracie zariadenia na vysoko kvalitné zváranie a delenie Časť 4: Stroje s 2D pohyblivou optikou (ISO 15616-4: 2008)

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Acceptance tests for CO2-laser beam machines for high quality welding and cutting - Part 4: Machines with 2-D moving optics (ISO 15616-4:2008)

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

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### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

#### EN ISO 15616-4

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#### **English Version**

# Acceptance tests for CO2-laser beam machines for high quality welding and cutting - Part 4: Machines with 2-D moving optics (ISO 15616-4:2008)

Essais de réception des machines de soudage et de coupage de qualité par faisceau laser CO2 - Partie 4: Utilisation d'optiques mobiles 2D (ISO 15616-4:2008)

Abnahmeprüfungen für CO2-Laserstrahlanlagen zum Qualitätsschweißen und -schneiden - Teil 4: 2D-Strahlführungssystem (ISO 15616-4:2008)

This European Standard was approved by CEN on 6 December 2020.

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

#### EN ISO 15616-4:2021 (E)

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#### **European foreword**

The text of ISO 15616-4:2008 has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 15616-4:2021 by Technical Committee CEN/TC 121 "Welding and allied processes" 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of an identical text or by endorsement, at the latest by July 2021, and conflicting national standards shall be withdrawn at the latest by July 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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#### **Endorsement notice**

The text of ISO 15616-4:2008 has been approved by CEN as EN ISO 15616-4:2021 without any modification.

## INTERNATIONAL STANDARD

ISO 15616-4

First edition 2008-12-15

# Acceptance tests for CO<sub>2</sub>-laser beam machines for high quality welding and cutting —

Part 4:

Machines with 2-D moving optics

Essais de réception des machines de soudage et de coupage de qualité par faisceau laser CO<sub>2</sub> —

Partie 4: Utilisation d'optiques mobiles 2D



Reference number ISO 15616-4:2008(E)

#### ISO 15616-4:2008(E)

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Fax + 41 22 749 09 47
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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.

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ISO 15616-4 was prepared by Technical Committee ISO/TC 44, Welding and allied processes, Subcommittee SC 10, Unification of requirements in the field of metal welding.

This first edition of ISO 15616-4 cancels and replaces ISO/TS 17477:2003, which has been technically revised.

ISO 15616 consists of the following parts, under the general title Acceptance tests for  $CO_2$ -laser beam machines for high quality welding and cutting:

- Part 1: General principles, acceptance conditions
- Part 2: Measurement of static and dynamic accuracy
- Part 3: Calibration of instruments for measurement of gas flow and pressure
- Part 4: Machines with 2-D moving optics

Requests for official interpretations of any aspect of this part of ISO 15616 should be directed to the Secretariat of ISO/TC 44/SC 10 via a national standards body, a complete listing which can be found at www.iso.org.

## Acceptance tests for CO<sub>2</sub>-laser beam machines for high quality welding and cutting —

#### Part 4:

#### Machines with 2-D moving optics

#### 1 Scope

This part of ISO 15616 provides minimum requirements for acceptance testing, using practical test methods, for  $CO_2$ -laser beam machines for high quality welding and cutting in two dimensions (2-D), having a fixed workpiece on the platen and moving optics.

This part of ISO 15616 is not applicable to CO<sub>2</sub>-laser beam machines which use an articulated robot, nor does it apply to work stations, such as a welding positioner, fixed board cutter, etc.

This part of ISO 15616 does not cover hazard protection devices, such as those for discharging chips and particles generated during welding and cutting

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