



SLOVENSKI STANDARD

oSIST prEN 15068:2006

01-december-2006

Oprema za plamensko varjenje – Laboratorijska meritev hrupa, ki ga oddajajo gorilniki za varjenje, rezanje, segrevanje, trdo in mehko spajkanje – Merilna metoda

Gas welding equipment - Laboratory measurement of noise emitted by blowpipe for welding, cutting, heating, brazing and soldering - Measurement method

iTeh STANDARD PREVIEW

Gasschweißgeräte - Labormessungen für von Brennern für Schweißen, Schneiden, Wärmen, Hartlöten und Weichlöten erzeugte Geräusche - Messverfahren

oSIST prEN 15068:2006

Matériel de soudage aux gaz - Mesurage en laboratoire du bruit émis par les chalumeaux destinés au soudage, brasage, coupage et chauffage - Méthode de mesurage

Ta slovenski standard je istoveten z: prEN 15068

ICS:

| | | |
|-----------|--------------------------------|---|
| 17.140.20 | Emisija hrupa naprav in opreme | Noise emitted by machines and equipment |
| 25.160.30 | Varilna oprema | Welding equipment |

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en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 15068

September 2006

ICS

English Version

Gas welding equipment - Laboratory measurement of noise emitted by blowpipe for welding, cutting, heating, brazing and soldering - Measurement method

Matériel de soudage aux gaz - Mesurage en laboratoire du bruit émis par les chalumeaux destinés au soudage, brasage, coupage et chauffage - Méthode de mesure

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This draft European Standard is submitted to CEN members for second enquiry. It has been drawn up by the Technical Committee CEN/TC 121.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (prEN 15068:2006) has been prepared by Technical Committee CEN/TC 121 “Welding”, the secretariat of which is held by DIN.

This document is currently submitted to the second CEN Enquiry.

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1 Scope

This document specifies a laboratory measurement method of noise emitted by blowpipes used for welding, cutting and allied processes.

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.

EN 13622:2002, *Gas welding equipment — Terminology — Terms used for gas welding equipment*

EN 61260, *Electroacoustics — Octave-band and fractional-octave-band filters*

EN 61672-1:2003, *Electroacoustics — Sound level meters — Part 1: Specifications (IEC 61672-1:2002)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13622:2002 and EN 61672-1:2003 apply.

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4 Measurement conditions

4.1 General

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Measurement can be performed indoors or outdoors.

To measure the maximum emitted noise, the blowpipe under test is set in such a way that flame axis be horizontal, at least 1,5 m above the ground level and at least 1,5 m from the ceiling. Noise is measured for each type of nozzle which can be fitted on the blowpipe under nominal gas supply conditions indicated by the manufacturer. Microphone of sound level meter is placed at 1 m from the nozzle tip (see 4.4, Figure 1).

The noise of which has to be measured, to be situated at least at 5 m from the walls, ground and ceiling excepted.

4.2 Measurement and correction of background noise

Measurements of background noises shall be performed in order to guarantee that measurements of noise emitted by blowpipes are not influenced by interferences. Background noise level shall be lower than noise level emitted by the blowpipe and background together by more than 6 dB.

If difference of level is within 6 dB and 15 dB, calculate corrections of noise level according to Equation (1):

$$L_{pA} = 10 \lg(10^{L_{pA, sb}/10} - 10^{L_{pA, b}/10}) \text{dB} \quad (1)$$

where

L_{pA} is the corrected noise level emitted by the blowpipe, in decibels;

$L_{pA, sb}$ is the noise level emitted by the blowpipe and background together, in decibels;

$L_{pA,b}$ is the background noise level.

If difference of level is greater than 15 dB, no correction is made.

4.3 Measuring equipment

4.3.1 Sound level meters and filters

Sound level meters in accordance with at least class 1 requirements of EN 61672-1:2003 shall be used, with frequency weighting A and time constant S.

Another measurement equipment can be used, including for example a level recording device, providing that its global electroacoustical characteristics meets at least the requirements of EN 61672-1:2003 class 1.

Octave-band filters, if they are used, shall meet the requirements of EN 61260.

4.3.2 Pressure gauges and flowmeters

Pressure and flow measurements shall be performed at inlet of blowpipe to be tested.

Gauges which are used for the pressure measurements shall have an accuracy of $\pm 3\%$ regarding the indicated value or better. Flowmeters shall have an accuracy of $\pm 3\%$ regarding the indicated value of flow.

4.4 Measurement points for maximum emitted noise

Measurements are performed in the same horizontal plane as the blowpipe flame. Measurement locations are situated at 1 m from the nozzle tip. Six measurements are performed at locations defined by letters a to f in Figure 1.

$L_{\text{measured a}}$ to $L_{\text{measured f}}$ are the values of measured noise, eventually corrected according to Equation (1) in case of background noise.

NOTE Maximum noise emitted by a blowpipe is situated just in front of the nozzle surface plane. Beyond an angle depending on the nozzle, noise decreases again.

Dimensions in millimetres

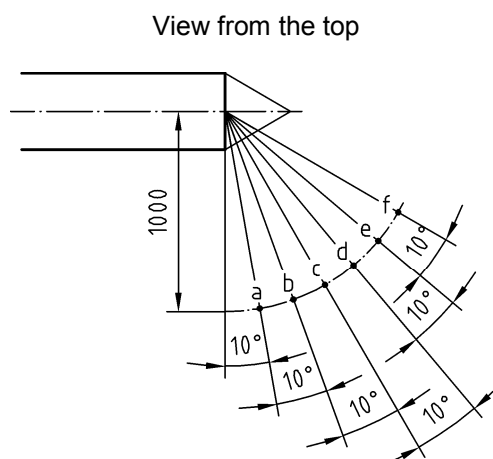


Figure 1 — Positions of the sensor of sound level meter