



**National Standards Authority of Ireland**

**IRISH STANDARD**

**I.S. EN 562:2003**

ICS 17.100  
25.160.30

**GAS WELDING EQUIPMENT - PRESSURE  
GAUGES USED IN WELDING,  
CUTTING AND ALLIED PROCESSES**

National Standards  
Authority of Ireland  
Glasnevin, Dublin 9  
Ireland

Tel: +353 1 807 3800  
Fax: +353 1 807 3838  
<http://www.nsai.ie>

**Sales**  
<http://www.standards.ie>

*This Irish Standard was  
published under the authority  
of the National Standards  
Authority of Ireland and  
comes into effect on:  
12 September 2003*

**NO COPYING WITHOUT NSAI  
PERMISSION EXCEPT AS  
PERMITTED BY COPYRIGHT  
LAW**

© NSAI 2003

**Price Code F**

Údarás um Chaighdeán Náisiúnta na hÉireann

*This page is intentionally left BLANK.*

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 562**

May 2003

ICS 17.100; 25.160.30

Supersedes EN 562:1994

English version

**Gas welding equipment - Pressure gauges used in welding,  
cutting and allied processes**

Matériel de soudage aux gaz - Manomètres utilisés pour le  
soudage, le coupage et les techniques connexes

Gasschweißgeräte - Manometer für Schweißen, Schneiden  
und verwandte Prozesse

This European Standard was approved by CEN on 17 March 2003.

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 Management Centre 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**Management Centre: rue de Stassart, 36 B-1050 Brussels**

# Contents

	page
Foreword .....	3
1 Scope .....	3
2 Normative references .....	3
3 Terms and definitions.....	4
4 Pressure.....	4
4.1 Unit of pressure.....	4
4.2 Maximum scale reading .....	4
4.3 Maximum pressure mark.....	5
5 Manufacturing requirements .....	5
5.1 Materials.....	5
5.2 Design and dimensions.....	5
6 Safety .....	9
7 Marking .....	10
8 Tests.....	10
8.1 General.....	10
8.2 Design and manufacturing standard .....	10
8.3 Accuracy .....	10
8.4 Torsion test.....	11
8.5 Bend test.....	12
8.6 Case vent test.....	13
8.7 Strength .....	13
8.8 Flammability test.....	13
Bibliography .....	14

## Foreword

This document (EN 562:2003) has been prepared by Technical Committee CEN/TC 121 "Welding", the secretariat of which is held by DS.

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 November 2003, and conflicting national standards shall be withdrawn at the latest by November 2003.

This document supersedes EN 562: 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This European Standard specifies requirements for Bourdon-tube pressure gauges normally used with compressed gases at pressures up to 300 bar in welding, cutting and allied processes. It also covers use for dissolved acetylene and for liquefied gases under pressure.

It does not cover gauges for acetylene in acetylene manufacturing plants.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 472:1994, *Pressure gauges — Vocabulary*.

EN 29539, *Materials for equipment used in gas welding, cutting and allied processes (ISO 9539:1988)*.

EN ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation (ISO 228-1:2000)*.

EN ISO 4589-2:1999, *Plastics - Determination of burning behaviour by oxygen index - Part 2: Ambient-temperature test (ISO 4589-2:1996)*.

ISO 7-1, *Pipe threads where pressure-tight joints are made on the threads - Part 1: Dimensions, tolerances and designation*.

ISO 497, *Guide to the choice of series of preferred numbers and of series containing more rounded values of preferred numbers*.

ISO 7000:1989, *Graphical symbols for use on equipment—Index and synopsis*.

ISO 10102, *Assembly tools for screws and nuts—Double headed open-ended engineers' wrenches—Length of wrenches and thickness of the heads*.

ANSI/ASME B1.20.1, *Pipe threads, general purpose (inch)*<sup>1)</sup>.

---

<sup>1)</sup> Standard published and available at: ANSI – American National Standards Institute, 11 West 42<sup>nd</sup> Street, New York, NY 10036.

**EN 562:2003 (E)****3 Terms and definitions**

For the purposes of this European Standard, the terms and definitions given in EN 472:1994 and the following apply.

**3.1****bourdon-tube pressure gauges**

device incorporating flexible tubes with direct indication by pointer and graduated scale of the pressure being measured

**3.2****dial**

plate or area on which the scale is marked

**3.3****pointer stop**

projection that stops the travel of the pointer

**4 Pressure****4.1 Unit of pressure**

All pressures given are gauge (effective) pressures in bar.

**4.2 Maximum scale reading**

Where practical the maximum scale reading for a particular gas and pressure level shall be selected from the values given in Table 1. Where it is not practicable the maximum scale reading shall be selected from the R10 series of preferred numbers or more rounded values given in ISO 497.

**Table 1 — Maximum scale reading**

Values in bar

Pressure level	Acetylene	Oxygen and other gases
low-pressure (LP)	1 1,6 2,5	2,5
		4
		6
		10
		16
		25
high-pressure (HP) (see NOTES 1, 2 and 3)	40	40
		250
		315
		400

NOTE 1 250 bar pressure gauge for use with CO<sub>2</sub> and compressed gas cylinders filled to a maximum settled filling pressure of 185 bar at 15 °C.

NOTE 2 315 bar pressure gauge for use with compressed gas cylinders filled to a maximum settled filling pressure of 230 bar at 15 °C.

NOTE 3 400 bar pressure gauge for use with compressed gas cylinders filled to a maximum settled filling pressure of 300 bar at 15 °C.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- Looking for additional Standards? Visit Intertek Inform Infostore
  - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-