

Transportable gas cylinders — Acetylene cylinders — Basic requirements and definitions

The European Standard EN 1800:1998 has the status of a
British Standard

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National foreword

This British Standard is the English language version of EN 1800:1998, including corrigendum June 1999. It supersedes BS 6061:1981, which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee PVE/3, Gas containers, to Subcommittee PVE/3/7, Gas cylinder (receptacle) operations, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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Summary of pages

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d'acétylène — Prescriptions fondamentales et
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Ortsbewegliche Gasflaschen — Acetylen-Flaschen —
Grundanforderungen und Definitionen

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 23, Transportable gas cylinders, the Secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by June 1999, and conflicting national standards shall be withdrawn at the latest by June 1999.

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

This European Standard has been submitted for reference into the RID and/or in the technical annexes of the ADR. Therefore in this context the standards listed in the normative references and covering basic requirements of the RID/ADR not addressed within the present standard are normative only when the standards themselves are referred to in the RID and/or in the technical annexes of the ADR.

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1 Scope

This European Standard specifies the basic requirements for acetylene cylinders with a maximum nominal water capacity of 150 l, including:

- the procedure for type testing;
- the procedure for production/batch testing;
- the methods for determining the maximum permissible settled pressure;
- the method for determining the porosity of the porous mass.

It does not include details of design for the cylinder shell.

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.

EN 849:1996, *Transportable gas cylinders — Cylinder valves — Specification and type testing*.

EN 962:1996, *Transportable gas cylinders — Valve protection caps and valve guards for industrial and medical gas cylinders — Design, construction and tests*.

EN 1089-1:1996, *Transportable gas cylinders — Gas cylinder identification (excluding LPG) — Part 1: Stampmarking*.

EN 1089-2, *Transportable gas cylinders — Cylinder identification (excluding LPG) — Part 2: Precautionary labels*.

EN 1089-3, *Transportable gas cylinders — Cylinder identification — Part 3: Colour coding*.

prEN 1964-1:1995, *Transportable gas cylinders — Specification for the design and construction of refillable transportable seamless steel gas cylinders of capacity from 0,5 litre up to and including 150 litres — Part 1: Seamless steel with a maximum R_m value of 1100 N/mm²*.

prEN 1975:1995, *Transportable gas cylinders — Specification for the design and construction of refillable transportable seamless aluminium alloy gas cylinders of capacity from 0,5 litre up to 150 litre*.

prEN 12755:1997, *Transportable gas cylinders — Filling conditions for acetylene bundles*.

3 Definitions

For the purposes of this European Standard the following definitions apply.

3.1

acetylene cylinder

cylinder containing a porous mass with or without solvent for the storage of acetylene

NOTE For solvent free acetylene cylinders see clause 6.

3.2

tare weight

See EN 1089-1:1996.

3.2.1

for acetylene cylinders with solvent the tare weight is expressed by indicating two weights (in kilograms) TARE A and TARE S:

TARE A is the sum of the empty weight of the cylinder shell, the weight of the porous mass, the specified weight of solvent content, the weight of the valve and the weight of all other parts which are permanently attached (e.g. by clamping or nut bolt fixing) to the cylinder when it is going to be filled;

TARE S is TARE A plus the weight of acetylene required to saturate the solvent at atmospheric pressure at 15 °C.

3.2.2

for solvent free acetylene cylinders the tare weight is expressed by indicating TARE F, where TARE F is TARE A minus the weight of solvent

3.2.3

if the tare weight, as defined in 3.2.1 or 3.2.2, includes permanently attached parts other than the valve (normally the fixed guard), the total weight of these parts is indicated by stampmarking in front of the letters "TARE" (e.g. 2,3 TARE 75,1/75,6 KG)

3.3

total weight

for cylinders with solvent, total weight is TARE A plus the weight of the maximum acetylene content;

for solvent free cylinders, total weight is TARE F plus the weight of maximum acetylene content

3.4

water capacity

the capacity of the empty shell (excluding porous mass) when filled with water

3.5

maximum acetylene content

the specified maximum weight of acetylene in the cylinder (in kilograms); when a solvent is used it includes the weight of saturation gas