# Ø 200" CONICAL TRUNK MANHOLE

# FOR SECONDARY NETWORK VALVES

ET 307





.portgás
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Ø 200" CONICAL TRUNK MANHOLE FOR SECONDARY NETWORK VALVES ET 307

**Revision 5** 2023-04-13

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### **Register of revisions**

Revision number	Date	Motif
0	2007-06-29	Initial wording
1	2008-03-10	Replacement of the reference "Portgás" by "EDP Gás Distribuição".
2	2011-09-07	General review.
3	2012-06-22	General review.
4	2018-08-02	General revision and replacement of the reference "EDP Gás Distribuição" by "Portgás".
5	2023-04-13	General revision carried out by IDOM Consulting, Engineering, Architecture, SAU

### Information classification

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#### **Distribution of the document**

External	Contractors $oxtimes$ Qualified for Allotments $oxtimes$ Internet $oxtimes$ Other $\Box$	
Internal	AT-ED AT-EX AT-GE AT-MS	
Nominal	Nominal < name, function, position >	

Caption:			
CA: Board of Directors	ACR: Clients and Networks Area		
AT: Technical Area	ACR-DC: Clients and Networks Area - Commercial		
AT-ED: Technical Area - Engineering and Development	Development		
AT-EX: Technical Area - Exploration	ACR-GC: Clients and Networks Area - Large Consumption		
AT-GE: Technical Area - Energy Management ACR-RD: Clients and Networks Area - Networks			
AT-MS: Technical Area - Maintenance and Systems			

Elaborated:	Check:	Approved:	
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The approval of this document formalised in this page, prevails over the totality of its contents.			

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#### Preamble

As part of the "H2 REN Programme" aimed at adapting technical specifications to prepare assets to receive hydrogen up to 100%, Portgás identified this regulation to be subject to assessment and consequent revision.

The revision now presented results from the work conducted by IDOM Consulting, Engineering, Architecture, SAU, who introduced the necessary changes to the specification in order to ensure that the "Conical trunk manhole Ø 200 for secondary network valves" supplied in accordance with this specification ensures that the infrastructure is ready to receive hydrogen.

This revision of ET 307 cancels and replaces the previous revision dated 2 August 2018, and it is advisable to read this technical specification in full for a correct application of its provisions.

This technical specification should be given the status of a Portgás standard which establishes the rules to be followed to achieve the discriminated objective.

#### 1. **Objective**

This material technical specification establishes and defines the requirements, standards, materials and technical conditions applicable to the production (manufacture) of the conical trunk manhole "Ø 200", for secondary network valves.

#### 2. Scope

This technical specification applies to Ø 200" tapered trunk manholes providing access to secondary network valves, drain valves and other buried elements in Portgás gas distribution networks.

#### 3. References external

#### EN 124

"Floor drain inlet devices and manhole chamber closure devices, for pedestrian and vehicular circulation areas. Construction principles, testing, marking, quality control."

#### NP EN 10204

"Metal products. Types of inspection documents."

#### EN 1563

"Foundry. Spheroidal graphite cast iron."

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#### **DIN 763**

Tested, non-calibrated, long-link round steel chains.

Note: All undated documents should be considered in their last version.

#### 4. **Requirements technical**

#### 4.1. Classification

The "Ø 200" cone-shaped manhole conforms to class D 400 in accordance with the EN 124 standard.

#### 4.2. Place of installation

The conical trunking manhole Ø 200 must fulfil the requirements for a "Group 4" installation location as specified in EN 124 §5.

#### 4.3. Dimensions

- a) The dimensions of the "Ø 200" truncated cone manhole are as shown in the attached execution drawings.
- b) Dimensional tolerances shall comply with EN 124.

#### 4.4. Manufacturing process

- The manufacturing process for the "Ø 200" tapered truncated cone manhole shall be in accordance a) with the provisions of standard EN 124.
- b) The "Ø 200" tapered truncated cone manhole must be manufactured to a burr-free finish and its components must be dimensionally adjusted to form a rigid, interchangeable unit.

#### 4.5. Materials

#### 4.5.1. Box (Body and lid)

The material to be used in the manufacture of the body and cover, of the conical trunk manhole "Ø 200", must be:

Spheroidal graphite cast iron, EN-GJS-500 - EN 1563 •

#### 4.5.2. Screw

Hexagon socket screw (DIN 931) M12x100 (zinc-plated). •

#### 4.5.3. Current

Welded chain, long link (DIN 763), St 37 steel, Ø 4x150 mm (zinc plated). •

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#### 4.5.4. Ring

• Steel ring St 37, Ø 4x Øi 30 (zinc plated).

#### 4.6. Anti-corrosion protection

The corrosion protection of the body and cover of the "Ø 200" conical trunk manhole will be obtained in the factory and must be checked with water-soluble, non-toxic, non-flammable and non-contaminating black paint.

#### 4.7. Marking

- a) The body and lid must be individually marked legibly, indelibly and visibly, in accordance with the EN
  - 124 standard, with the following indications:
  - The reference standard: "EN 124";
  - The class of the device: "D 400";
  - The name and/or initials of the manufacturer;
  - The mark of a certification body;
  - Marking of the word: "GAS
- b) The cover should identify "Portgás", as shown in figure 1 and the attached drawing (§9).
  - b1) The "Portgás" identification must be in relief, 2 mm high.
  - b2) The relationship between length and height must be proportional to the example given, and no horizontal or vertical deformation is allowed.

b3)Portgás will provide all elements necessary for the correct identification of the brand.



Figure 1 - Logo to be displayed on the lid

#### 5. Specific mounting requirements

- a) When assembling the body with the lid of the conical trunk box, they are used:
  - 1 (one) hexagonal head screw, partially threaded (DIN 931), M12 x 100 (zinc-plated);
  - 1 (one) welded chain, long link, (DIN 763), in St 37 steel, Ø 4x150 mm (zinc-plated);
  - 2 (two) rings in steel St 37, Ø 4x Ø<sub>i</sub> 30 (zinc plated).

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b) The assembly should allow the cover to be raised about 60 mm above its seating on the frame when lifted.

### 6. Tests

The "Ø 200" cone-shaped manhole should be inspected and tested as a complete unit and under operating conditions in accordance with EN 124 §8.

### 7. Certificate of manufacture

- a) The manufacturer shall issue the inspection certificate, type "3.1", in accordance with the provisions of NP EN 10204.
- b) Each certificate shall contain the results of the tests carried out.
- c) The certificate must be accompanied by a technical drawing of the assembly.

#### 8. Materials Qualification System

- a) The materials supplied under this technical specification must be subject to an assessment of conformity and quality against the requirements listed.
- b) The assessment guarantees support for Portgás' standardisation system as a quality mechanism for the supply of materials/products for the gas infrastructure.
- c) Portgás is responsible for the approval process.
- d) The suppliers shall share the documentation foreseen in clause 7 of the present document, as well as other elements that they consider relevant for the evaluation of the application process, culminating in the production of an Approval Report to be shared with the supplier.

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#### General arrangement drawing: "Conical truncated cone manhole Ø 200". 9.



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