TECHNICAL DOCUMENT

WATER

Valves-Hydraulic Fountain Fittings

Technical document 197-06

Suction devices

Technical document 197-06 rev. 03
23/08/2021

CENTRE SCIENTIFIQUE ET TECHNIQUE DU BATIMENT
84 avenue Jean Jaurès – Champs-sur-Marne – 77447 Marne-la-Vallée Cedex 2
Tel: +33 (0)1 64 68 82 82 – www.cstb.fr
MARNE-LA-VALLÉE / PARIS / GRENOBLE / NANTES / SOPHIA-ANTIPOLIS

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MODIFICATION HISTORY

Revision no.	Date	Modifications
00	**01/07/2017**	- Creation of the technical document.
01	**01/08/2020**	- Paragraph 4.1.6: Addition of a type profile regarding operating devices.
02	**04/06/2021**	- Editorial update according to the structure in force following the creation of the Technical management appendix of the NF197 reference system rev. 07.
03	**23/08/2021**	- Paragraphs 4.1.8 & 4.2.8: Addition of modification made on appendix E of Standard NF EN 1074-6.

Table of contents

I. RULES FOR THE APPLICATION OF STANDARD NF S 61-240 AND ADDITIONAL SPECIFICATIONS

Purpose

The purpose of this section is to clarify some clauses in standard NF EN 61-240 of 30th April 2016 using the same numbering and to supplement this national reference system on quality criteria judged to be fundamental as part of the NF mark.

The extended, modified and added articles are identified in the title of each section.

1. Field of application

2. Standard references

3. Terms and definitions

4. Design requirements

4.1 Water suction hydrants

4.1.1 Preliminary remark

4.1.2 Dimensions

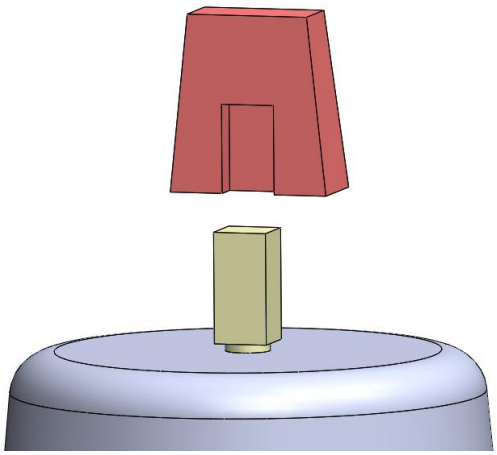
4.1.3 Sleeve

4.1.4 Reversibility device

4.1.5 Elastomers

4.1.6 Operating and plugging devices

Type profile for an operating device:



4.1.7 Connection devices

4.1.8 Drainage and flushing devices

Drainage system performance test:

The test must be performed with the outlet ports fitted with their plugs.

The drain time is measured starting when water appears at the drain until there is approximately a 10-second interval between drips.

The appendix E of standard NF EN 1074-6 is modified as follows:

APPENDIX E

Test method for the performance of draining system

E.1 - General

The test fluid shall be water at a temperature in the range of service temperatures given in 4.4 of EN 1074.1:2000.
The test shall be carried out on a pillar fire hydrant or fire hydrant in its delivery state.
The test shall begin with the obturator in the fully opened position and the outlet opened.

E.2 - Test procedure

Connect the pillar fire hydrant or fire hydrant to a water supply and fill it completely, water pouring out of the outlet.
Close the pillar fire hydrant or fire hydrant obturator with a torque at least equal to MOT maintaining a water pressure.
Close the outlet.
Measure the time elapsed between complete closure of the valve and the last drop pouring from the draining device. This time shall not exceed the value given in 5.6.
Dry completely the inside parts of the pillar fire hydrant or fire hydrant, then close the obturator.
The obturator remaining closed, pour a recorded quantity of water (e.g. 1 l) into the pillar fire hydrant or fire hydrant through the open outlet.
Measure the quantity of water collected through the draining device.
Calculate the difference between the quantity poured in and the quantity collected.
That difference shall not exceed the values given in Table 3.
Record the test conditions and test results, noting the calibration status of all measuring devices used.

4.1.9 Operation of the plugging system

4.1.10 Resistance of suction hydrants to operating forces

4.1.11 Protective case

4.1.12 Resistance to internal and external corrosion (supplemented)

The interior surfaces that are in permanent contact with the water as well as all the exterior surfaces of the hydrant (including the nuts and bolts) that are in contact with the ground or with the surrounding atmosphere, shall resist corrosion and weathering and meet the requirements of Technical document 1 of this certification reference guide.

4.1.13 Colour

The RAL for the blue colour used must be RAL 5005 or RAL 5015 or RAL 5017.

4.1.14 Hydraulic characteristics

4.1.15 Leak-tightness

4.2 Suction outlets

4.2.1 Preliminary remark

4.2.2 Dimensions

4.2.3 Sleeve

4.2.4 Case and signalling

4.2.5 Elastomers

4.2.6 Operating and plugging devices

4.2.7 Connection devices

4.2.8 Drainage and flushing devices

The drain time is measured with the box closed.

The appendix E of standard NF EN 1074-6 is modified as follows:

Annexe E

Test method for the performance of draining system

E.1 - General

The test fluid shall be water at a temperature in the range of service temperatures given in 4.4 of EN 1074.1:2000.
The test shall be carried out on a pillar fire hydrant or fire hydrant in its delivery state.
The test shall begin with the obturator in the fully opened position and the outlet opened.

E.2 - Test procedure

Connect the pillar fire hydrant or fire hydrant to a water supply and fill it completely, water pouring out of the outlet.
Close the pillar fire hydrant or fire hydrant obturator with a torque at least equal to MOT maintaining a water pressure. Close the box.
Measure the time elapsed between complete closure of the valve and the last drop pouring from the draining device. This time shall not exceed the value given in 5.6.
Dry completely the inside parts of the pillar fire hydrant or fire hydrant, then close the obturator.
The obturator remaining closed, pour a recorded quantity of water (e.g. 1 l) into the pillar fire hydrant or fire hydrant through the open outlet.
Measure the quantity of water collected through the draining device.
Calculate the difference between the quantity poured in and the quantity collected.
That difference shall not exceed the values given in Table 3.
Record the test conditions and test results, noting the calibration status of all measuring devices used.

4.2.9 Operation of the plugging system

4.2.10 Resistance of suction outlets to operating forces

4.2.11 Resistance to internal and external corrosion (supplemented)

The interior surfaces that are in permanent contact with the water as well as all the exterior surfaces of the hydrant (including the nuts and bolts) that are in contact with the ground or with the surrounding atmosphere, shall resist corrosion and weathering and meet the requirements of Technical document 1 of this certification reference guide.

4.2.12 Colour

The RAL for the blue colour used must be RAL 5005, RAL 5015 or RAL 5017.

4.2.13 Hydraulic characteristics

4.2.14 Leak-tightness

4.3 Suction intakes

5. Test Methods

To meet the needs of the users of the systems in keeping their installation operational, the holder shall ensure a minimal service level.

8.1 Families of products

As a minimum, the holder shall propose the complete range of suction hydrants and suction outlets in the DNs defined below:

Water suction hydrants

Nominal Diameter (DN)	100 - 150
Types	S and H
with or without reversibility device	

Water suction outlets

Nominal Diameter (DN)	100
Types	S and H

8.2 Product availability

8.2.1 New products

To ensure continuity of the service, for all products intended to be installed on the territory of metropolitan France, the holder shall have a logistics system making it possible to deliver in less than 24 hours on working days.

These deliveries shall be made from one or several depots, located on metropolitan French territory, based on a minimal overall inventory of:

Water suction hydrants and suction outlets:

- DN 100: 20 units of all types;
- or 10% of sales from the previous calendar year

During the 12 months following admission, the holder will build their stock in line with their sales in order to meet the above requirements.

8.2.2 Spare parts

The holder shall keep the following available to the applicant:

- books in which the list of spare parts and the list of any special tools are given
- and notes about maintenance instructions.

These documents may be written in several languages, necessarily including French, and they must be available in paper form at least.

The holder must justify that he has a special organisation for processing orders and for supplying requested spare parts for urgent repairs, for parts that could affect product functions:

- either by having a minimum stock of 20 units of spare parts that cannot be fabricated on the production site (seals, sets of fasteners, etc.)
- or by being capable of fabricating them in 24 hours.

These parts must be made available to the shipper within 24 working hours.

The holder shall be responsible for management of parts that do not affect product functions.

The holder commits itself to provide this service during at least 30 years after the sale of the product.

8.2.3 Technical and sales documentation

The holder shall keep documentation in French available for the water suction hydrants and suction outlets covered by the mark.

Any variant of the water suction hydrants and suction outlets covered by the mark shall also be accompanied by appropriate documentation in French.

This document shall include, as a minimum:

- an overall drawing of the hydrant and/or the suction outlet;
- the dimensional characteristics;
- weight information;
- curve of the evolution of the Kv as a function of the opening;
- allowable operating pressure (PFA) and the dimensions of the ISO PN flanges;
- installation and use precautions;
- reference to the product standard NF S61-240;
- reference to any applicable French and European Standards;
- the information given in § 2.5.2.3 of the NF197 certification reference system - Part 2.

In its catalogue, the holder shall propose S-shaped adjusting implements for connecting the fire hydrants and suction outlets to conduits, the cover heights of which are from +0.5 m to -0.5 m with relation to the height specified for the hydrant alone, while ensuring the correct positioning of the hydrant with relation to ground level.