

CONTROL VALVES AND SAFETY VALVES

Technical document 079-03

Draw-off taps

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MODIFICATION HISTORY

Revision no.	Date of application	Modifications
00	15/03/2019	<p>Update to the document introduction and reference.</p> <p>Content modifications:</p> <p>Part 1: Application rules</p> <p>The cancellation of Standard NF P 43-001 in December 2000 leads us to refer to Standard NF EN 1213.</p> <ul style="list-style-type: none"> – Article 1.6 Designation: the essential information only is to be kept; – Article 7.2 Resistance of the actuator to torque: modification of the operating procedure and required characteristics; – Addition of the following articles: <ul style="list-style-type: none"> ○ 11 Technical documentation ; ○ 12 Test sequence. <p>Part 2 and Part 3 are moved into a Technical Management Appendix (Control methods) and</p> <p>Update to Tables “Inspection during production” and “Inspection of finished products”</p>
01	27/04/2020	<p>Article 7.1 Endurance: the test procedure is supplemented as follows:</p> <p>It is now possible to tighten the stem no more than 3 times during the endurance test.</p>

Table of contents

PART 1. RULES OF APPLICATION OF STANDARD NF P 43-015 AND COMPLEMENTARY SPECIFICATIONS	6
Purpose	6
1 GENERAL	6
1.1 Scope	6
1.2 Field of application (modified)	6
1.3 References	6
1.4 Definition.....	6
1.5 Classification.....	6
1.6 Designation (modified)	7
2 DIMENSIONAL PROPERTIES.....	7
2.1 Scope	7
2.2 General.....	7
2.3 Dimensions.....	7
2.4 Verification of the threads (supplemented)	7
3 TIGHTNESS.....	7
3.1 Scope	7
3.2 Test method.....	7
3.2.1 Principle	7
3.2.2 Apparatus.....	7
3.2.2.1 Water test.....	7
3.2.2.2 Under water air test	7
3.2.3 Verification of the seal between the valve plug and its seat and the tap parts upstream of the seat	8
3.2.3.1 Water test.....	8
3.2.3.2 Under water air test	8
3.2.4 Tightness check on the whole tap assembly downstream of the seat	8
3.2.4.1 Water test.....	8
3.2.4.2 Under water air test	8
4 PRESSURE RESISTANCE PROPERTIES (MODIFIED)	8
5 HYDRAULIC PROPERTIES	8
5.1 Scope	8
5.2 Requirements	8
5.3 Test method.....	8
5.4 Apparatus	8
5.4.1 Supply circuit.....	8
5.4.2 Test circuit.....	8
5.4.3 Test conditions.....	8
5.4.4 Procedure	8
5.4.5 Calibration.....	8
6 ACOUSTIC PROPERTIES.....	8

6.1	Scope	8
6.2	Principle	8
6.3	Test method	8
6.4	Classification	8
6.5	Test report.....	9
7	MECHANICAL PROPERTIES	9
7.1	Mechanical strength	9
7.1.1	Scope.....	9
7.1.2	Required properties	9
7.1.3	Test method.....	9
7.1.3.1	Principle	9
7.1.3.2	Apparatus (modified)	9
7.1.3.3	Procedure (supplemented)	9
7.2	Resistance of the actuator to torque (supplemented).....	9
7.2.1	Scope.....	9
7.2.2	Requirements (supplemented)	9
7.2.3	Test method (supplemented)	9
8	PHYSICO-CHEMICAL PROPERTIES	10
9	GENERAL MANUFACTURING REQUIREMENTS	10
9.1	Operating system	10
9.2	Spouts of draw-off taps	10
9.3	Assembly.....	10
9.4	Body	10
10	MARKING AND PRESENTATION	10
10.1	Marking (supplemented)	10
10.2	Presentation.....	10
11	TECHNICAL DOCUMENTATION (SUPPLEMENTED)	11
12	TEST SEQUENCE (SUPPLEMENTED).....	11

PART 1. RULES OF APPLICATION OF STANDARD NF P 43-015 AND COMPLEMENTARY SPECIFICATIONS

Purpose

The purpose of this document is to add details to and/or supplement certain articles in Standard NF P 43-015, using the same numbering system as that used in the standard.

The supplemented, modified and added articles are identified in the title.

1 General

1.1 Scope

1.2 Field of application (modified)

The article is modified as follows:

Draw-off taps designed for adaptation to a hose, incorporating a closing device at its end or otherwise, shall **allow for the installation** of an end disconnecter of the HA type (**NF EN 14454**).

1.3 References

The following reference documents are essential for the application of this document.

NF P 43-015: 1985	Water fittings for buildings – Draw-off taps – General technical specifications
NF EN ISO 1456: 2009	Metallic and other inorganic coatings – Electrodeposited coatings of nickel, nickel plus chromium, copper plus nickel and of copper plus nickel plus chromium
NF EN ISO 228-1: 2003	Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation
NF EN 1213: 2000	Building valves – Copper alloy stop valves for potable water supply in buildings – Tests and requirements
NF EN ISO 3822-1:1999	Acoustics – Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 1: Method of measurements.
NF EN ISO 3822-2: 1995	Acoustics – Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 2: Mounting and operating conditions for draw-off taps and mixing valves
NF EN ISO 3822-1/A1:2009	Acoustics – Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 1: Method of measurement - AMENDMENT 1: Measurement uncertainty

1.4 Definition

1.5 Classification

1.6 Designation (modified)

The article is modified as follows:

For practical and clarification purposes, it has been agreed to keep the essential information defined in the standard:

- classification (smooth spout or threaded spout);
- size (threaded end connector, dimension D2);
- reference to the European standard.

The logo of this certification has been added to this designation.

Minimum designation.

EXAMPLE

Smooth spout draw-off tap, 3/4, NF P 43-015, **NF**.

2 Dimensional properties

NOTE:

The dimensioning defined in this standard complies with the requirements in Standard NF P 43-000 dated February 2003 and allows for the interchangeability of the heads with the stop valves covered by the NF mark.

2.1 Scope

2.2 General

2.3 Dimensions

2.4 Verification of the threads (supplemented)

NOTE:

The dimensional deviations on the connections observed during CSTB inspection will be monitored during the inspection audits of the production sites. This monitoring will be reported in the audit reports and will be communicated to the relevant Committee.

3 Tightness

3.1 Scope

3.2 Test method

3.2.1 Principle

3.2.2 Apparatus

3.2.2.1 *Water test*

3.2.2.2 *Under water air test*

3.2.3 Verification of the seal between the valve plug and its seat and the tap parts upstream of the seat

3.2.3.1 *Water test*

3.2.3.2 *Under water air test*

3.2.4 Tightness check on the whole tap assembly downstream of the seat

3.2.4.1 *Water test*

3.2.4.2 *Under water air test*

4 Pressure resistance properties (modified)

NOTE:

The cancellation of Standard NF P 43-001 in December 2000 leads us to refer to Standard NF EN 1213.

The tests are identical to the ones defined in Article 7.3.2 Pressure resistance of Standard NF EN 1213 and in Technical Document 079-02.

- for smooth spout draw-off taps, the test is performed upstream of the obturator;
- for threaded spout draw-off taps, the test is performed on the whole body.

5 Hydraulic properties

5.1 Scope

5.2 Requirements

5.3 Test method

5.4 Apparatus

5.4.1 Supply circuit

5.4.2 Test circuit

5.4.3 Test conditions

5.4.4 Procedure

5.4.5 Calibration

6 Acoustic properties

6.1 Scope

6.2 Principle

6.3 Test method

6.4 Classification

6.5 Test report

7 Mechanical properties

7.1 Mechanical strength

7.1.1 Scope

7.1.2 Required properties

7.1.3 Test method

7.1.3.1 Principle

7.1.3.2 Apparatus (modified)

The article is modified as follows:

The temperature of the cold water supply circuit shall range between 15 °C and **30°C**.

7.1.3.3 Procedure (supplemented)

The article is modified as follows:

The flow rate is given in Table 1.

Table 1: Flow rate and closing torque

DN	Flow rate Q (l/s)	Maximum closing torque (Nm)
DN ≤ 25	$0.07 \leq Q \leq 0.1$ $4 \text{ l/min} \leq Q \leq 6 \text{ l/min}$	3

During the test, the stem can be tightened no more than 3 times until a maximum operating torque of 3 Nm is obtained.

7.2 Resistance of the actuator to torque (supplemented)

7.2.1 Scope

7.2.2 Requirements (supplemented)

The article is modified as follows:

During and after the test there shall be no permanent and **visible** distortion of any part of the tap.

7.2.3 Test method (supplemented)

The article is supplemented as follows:

In order to clarify the test, the procedure below is to be applied.

The test is broken down into two stages:

- Stage 1: Resistance of the body to tightening torque
For this test, the head of the tap may be replaced with a specific device.
The torque is held for (30 ± 3) s.
- Stage 2: Resistance of the operating device (supplemented)
The tap is to be tested in its initial state.
The torque is applied on the operating device for (30 ± 3) s in the closing **and opening** direction according to the torque values specified in Table 2.

Table 2 : Torque to be applied (Nm)

Nominal Diameter (DN)	Mt torque (closing direction) (Body)	Mt torque (closing and opening direction) (Operating device)
3/8 (DN10)	10 ± 10%	10 ± 10%
1/2 (DN15)	10 ± 10%	10 ± 10%
3/4 (DN20)	15 ± 10%	10 ± 10%
1 (DN25)	20 ± 10%	10 ± 10%

8 Physico-chemical properties

NOTE:

The cancellation of Standard NF P 43-001 in December 2000 leads us to refer to Standard NF EN 1213.

The requirements in Article 6 Materials of Standard NF EN 1213 and Technical document 079-02 apply.

9 General manufacturing requirements

9.1 Operating system

9.2 Spouts of draw-off taps

9.3 Assembly

9.4 Body

10 Marking and presentation

10.1 Marking (supplemented)

Table 3 supplements and sums up the markings that shall appear on the body and/or the head of the product:

Table 3 : Marking and location

Marking \ Location	Manufacturer's name or logo	DN	Certification logo	Identification of the date of manufacture (*)
Body	X	X	X	X
Head	X	X	X	X

(*): body or head

As regards the marking of the logo of this certification, refer to Article 2.5 of the certification rules concerned.

10.2 Presentation

11 Technical documentation (supplemented)

The technical documentation shall comprise the following information:

- installation rules applicable to threaded spout draw-off taps;
- protection of the water network.

The technical documentation for the product shall be drawn up using the customary language of the country where the product is being marketed.

It can be dematerialized. If so, the link (QR code, e-mail address, etc.) shall go with the product, thus giving direct access to the product's technical documents.

12 Test sequence (supplemented)

Where necessary, the tests mentioned in Table 4 shall be carried out according to the specified sequence.

The test sequence shall be performed on the same test piece, except for any complementary test.

The marking and appearance of the visible surfaces (article 2.1 NF P 43-000) are to be checked on all the products tested.

Table 4: Test distribution

Sequence	Name of the sequence and test order
1.	Dimensions 2 Dimensional properties (2.3 / 2.4) 9 General manufacturing requirements (9.1 / 9.2 / 9.3 / 9.4)
2.	Hydraulics 4 Pressure resistance properties (modified) (cf. 7.3.2 in Standard NF EN 1213 and Technical document 079-02) 5 Hydraulic properties
3.	Endurance 3.2.3 Verification of the seal between the valve plug and its seat and the tap parts upstream of the seat 3.2.4 Tightness check on the whole tap assembly downstream of the seat 8 Physico-chemical properties (Disinfection) 7.1 Mechanical endurance Erreur ! Source du renvoi introuvable. 3 Verification of the seal between the valve plug and its seat and the tap parts upstream of the seat 3.2.4 Tightness check on the whole tap assembly downstream of the seat
4.	Mechanical strength 3.2.3 Verification of the seal between the valve plug and its seat and the tap parts upstream of the seat 3.2.4 Tightness check on the whole tap assembly downstream of the seat 7.1 Mechanical endurance During the test, the stem can be tightened no more than 3 times until a maximum operating torque of 3 Nm is obtained. 7.2 Resistance of the actuator to torque (supplemented) 3.2.3 Verification of the seal between the valve plug and its seat and the tap parts upstream of the seat 3.2.4 Tightness check on the whole tap assembly downstream of the seat
5.	Acoustics 6 Acoustic properties

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