CE

CPR TEST REPORT

Prepared For:	Guangdong Lianshu Valve Co., Ltd. No. 83, Xining Avenue, Ducheng Town, Yunan County, Yunfu City, Guangdong Province, China
Manufacturer:	Guangdong Lianshu Valve Co., Ltd. No. 83, Xining Avenue, Ducheng Town, Yunan County, Yunfu City, Guangdong Province, China
Product Name:	Water valves
Trade Name:	LESSO
Model:	LS012012
Additional models	GTF-16P-De25×25（C）, LS012155, LS012012, LS012128, Q11F-16P-63（SH-R）, Q21F-16P-20（WH-R), Q11F-16P-20（NH-R）, Q11F-16P-25（NWH)
Prepared By:	Jilin Zhongfu Testing Technology Service Co., Ltd. Room 519, School of Mechanical and Electrical Engineering, Building 4, Changchun Institute of Technology, 395 Kuangping Road, Chaoyang District, Changchun City, Jilin Province, China
Test Date:	Sep. 2, 2026 To Sep. 9, 2026
Date of Report:	Sep. 10, 2026
Report No.:	ZF580730SQ00382SR

TEST REPORT DECLARATION

Applicant	:	Guangdong Lianshu Valve Co., Ltd.
Address	:	No. 83, Xining Avenue, Ducheng Town, Yunan County, Yunfu City, Guangdong Province, China
EUT Description	:	Water valves
Model Number	:	LS012012
Test procedure	:	-Essential characteristics, -Regulation (EU) No 305/2011 - Construction Products, Annex V, Clause 1.5, system 4, -Declaration of Performance

Test reference standards:

- EN 200:2023
- EN 13828:2025

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

Prepared by: _____
Assistant

Tested by: _____
Test Engineer

Reviewer: _____
Supervisor

Approved & Authorized Signer: _____
Manager

ZHONGFU TESTING LABORATORY APPROVED

EN 200:2023 Sanitary tapware - Single taps and combination taps for water supply systems of type 1 and type 2 - General technical specification

Clause	EN 200 Requirement/Test items	Remarks	Verdict
1	Scope		**P**
2	Normative references		**-**
3	Terms and definitions		**-**
4	Designation		**-**
5	Marking and identification		**-**
5.1	Marking Sanitary tapware shall be marked permanently and legibly with the manufacturer's or agent's name or identification: — of the sanitary tapware, e.g. on the body, handle or spout. This marking shall be visible after installation; — of the obturator on the on/off obturator, (not applicable when the on/off obturator is of a special design to suit the body or when manufactured by the same manufacturer of the sanitary tapware). This marking does not need to be visible after installation. NOTE 1 Permanently in this case means not removable without direct intent (e.g. might require the use of a tool or implement to remove). NOTE 2 Visible after installation can be visible by use of a mirror or on the underside of a spout etc. This list is not exhaustive.	The marking is permanent and legible	**P**
5.2	Identification		**-**
5.2.1	Identification of inlets Normal convention is to configure sanitary tapware with the cold water inlet on the right side of the product when the product is viewed from the front. If the product is configured conventionally, no identification of the inlets is required. If the product is not configured conventionally, or the product can be installed in multiple orientations that could be conventional or non-conventional, hot or cold inlets shall be identified as follows: — colour blue for cold; — colour red for hot; — or other suitable means e.g. words, letters, symbols etc. In these cases, only one of the inlets needs to be identified. This marking need not be permanent.	The inlet is labeled	**P**
5.2.2	Identification of flow controls equipment Normal convention for flow control devices is to configure sanitary tapware with the cold water flow control device on the right, when the product is viewed from the front. If the product is configured conventionally, no identification of the flow control device is required. In all other cases, for flow control devices, to facilitate the understanding of the function, each device shall be permanently identified as follows: — colour blue for cold; — colour red for hot; — or other suitable means e.g. words, letters, symbols etc.	Blue for cold and red for hot	**P**
6	Materials		**-**
6.1	Chemical and hygiene requirements All materials coming into contact with water intended for human consumption shall present no health risk nor cause any change to the water in terms of	See EN 817 report	**P**

<table>
<tr><th>Clause</th><th>EN 200 Requirement/Test items</th><th>Remarks</th><th>Verdict</th></tr>
<tr><td></td><td>quality, appearance, smell or taste.
It should be noted that while awaiting the adoption of verifiable European criteria for testing materials in contact with water intended for human consumption, existing national regulations concerning the use and/or the characteristics of these products remain in force.</td><td></td><td></td></tr>
<tr><td>6.2</td><td>Exposed surface condition and quality of coating
Exposed surfaces shall comply with the scope and requirements of EN 248.</td><td></td><td>P</td></tr>
<tr><td>7</td><td>Backflow protection
Backflow protection shall be provided using appropriate devices referenced in EN 1717.
Appropriate devices may include the use of an airgap or the specific product design.
In the case of a diverter with automatic return being considered to provide backflow protection, it shall comply with the requirements of EN 14506.
Check valves shall comply with EN 13959.</td><td>See EN 817 report</td><td>P</td></tr>
<tr><td>8</td><td>Sequence of testing
The standardized test sequencing, detailed in Table 3, helps to present a consistent approach while minimizing the number of samples required for testing. The overall collection of test results shall be combined for an overall type test outcome.
Table 3 — Sequence of testing
<table>
<tr><th>Sequence</th><th>Sample 1</th><th>Sample 2</th><th>Sample 3</th><th>Sample 4</th><th>Sample 5</th></tr>
<tr><td>1</td><td>Dimensions</td><td>Torsion</td><td>Leaktightness</td><td>Leaktightness</td><td>Leaktightness</td></tr>
<tr><td>2</td><td>Hydraulic performance</td><td>Leaktightness</td><td>Endurance (obturator)</td><td>Endurance (spout)</td><td>Endurance (diverter)</td></tr>
<tr><td>3</td><td>Pressure resistance</td><td></td><td>Leaktightness</td><td>Leaktightness</td><td>Leaktightness</td></tr>
<tr><td colspan="6">NOTE 1 Additional samples can be required to validate the acoustic performance if this is required, or chosen to be undertaken.
NOTE 2 It is also possible to combine testing onto a smaller number of samples if required.</td></tr>
</table></td><td></td><td>P</td></tr>
<tr><td>9</td><td>Dimensional characteristics</td><td></td><td>-</td></tr>
<tr><td>9.1</td><td>General remarks
The design and construction of components without defined dimensions permits various design solutions to be adopted by the manufacturer.
Special cases are covered in 9.5.</td><td></td><td>P</td></tr>
<tr><td>9.2</td><td>Inlet dimensions
Inlet dimensions shall be as specified in Table 4 and explained in Figure 3, Figure 4 and Figure 5.</td><td></td><td>P</td></tr>
<tr><td>9.3</td><td>Outlet dimensions
Outlet dimensions shall be as specified in Table 5 and explained in Figure 6, Figure 7, Figure 8 and Figure 9.
When nozzle outlets are used with flow rate regulators/flow straighteners/flow aerators conforming with EN 246, the manufacturing tolerances chosen for the connecting threads of the outlets shall be compatible with those of the connecting threads of the flow rate regulators flow straighteners/flow aerators to ensure interchangeability.</td><td></td><td>P</td></tr>
<tr><td>9.4</td><td>Mounting dimensions
Mounting dimensions shall be as specified in Table 6 and explained in Figure 10, Figure 11, Figure 12 and Figure 13.</td><td></td><td>P</td></tr>
<tr><td>9.5</td><td>Special cases
Sanitary tapware intended for special applications e.g. for installation on sanitary appliances not conforming with European standards, or where</td><td></td><td>NA</td></tr>
</table>

Clause	EN 200 Requirement/Test items	Remarks	Verdict
	dimensional interchangeability is not a requirement can incorporate dimensional deviations provided that: — all other requirements of this standard are satisfied; — the air gap dimension E ≥ 25 mm or an anti-pollution device is provided to maintain suitable backflow protection; — the D, D1, D2 dimensions shall be coordinated with the appropriate sanitary appliance.		
10	Leaktightness characteristics		**-**
10.1	Principle These tests are designed to verify the leaktightness of the complete sanitary tapware product. These tests are conducted using cold water.		**P**
10.2	Apparatus A hydraulic test circuit, capable of supplying the required static and dynamic pressures (Table 7) and of maintaining them throughout the duration of each test.		**P**
10.3	Leaktightness of the obturator and of the tap upstream of the obturator(s) with the obturator in the closed position		**P**
10.3.1	Procedure a) Connect all inlets of the sanitary tapware to the test circuit in its position of use; b) open the obturator, allow water to flow to purge air from the system; c) with the outlet open close the obturator(s) using a torque of (1,5 ± 0,15) Nm for modern headworks and (2,5 ± 0,25) Nm for traditional headworks; d) apply to each inlet of the sanitary tapware a static water pressure of (1,6 ± 0,05) MPa [(16,0 ± 0,5) bar] for (60 ± 5) s.		**P**
10.3.2	Requirements Throughout the duration of the test, there shall be no leakage of the obturator e.g. through the outlet or through any other part of the sanitary tapware product.	No leakage	**P**
10.4	Leaktightness downstream of the obturator		**-**
10.4.1	General Not applicable if the outlet cannot be artificially closed.		**P**
10.4.2	Procedure a) Connect all inlets of the sanitary tapware to the test circuit in its position of use; b) allow water to flow to purge air from the system and close the obturator; c) artificially close the outlet orifice and open the obturator; d) apply to each inlet of the sanitary tapware a static water pressure of (0,4 ± 0,02) MPa [(4,0 ± 0,2) bar] for (60 ± 5) s; e) within (5 ± 1) s, reduce the pressure to (0,02 ± 0,002) MPa [(0,2 ± 0,02) bar] and maintain it for (60 ± 5) s.		**P**
10.4.3	Requirements Throughout the duration of the test, there shall be no leakage of the sanitary tapware product.		**P**
10.5	Leaktightness of manually operated diverters		**-**
10.5.1	General This test is designed for sanitary tapware products that have manually operated diverters typically bath/shower or shower/shower diverters but also products that may have multiple outlets.		**P**
10.5.2	Procedure		**-**
10.5.3	Procedure where an outlet(s) cannot be artificially closed – products for type 1		**-**

Clause	EN 200 Requirement/Test items	Remarks	Verdict
	systems		
10.5.4	Procedure where an outlet(s) cannot be artificially closed – products for type 2 systems		**-**
10.5.5	Requirements Throughout the duration of the test, there shall be no leakage at the outlet(s).	No leakage	**P**
10.6	Leaktightness and operation of diverters with automatic return (and semiautomatic type diverters)		**NA**
10.6.1	General This test is designed for sanitary tapware products that have diverters that automatically return to a set position typically bath/shower or shower/shower diverters but also products that may have multiple outlets.		**NA**
10.6.2	Procedure – products for Type 1 systems		**NA**
10.6.3	Procedure – products for Type 2 systems		**NA**
10.6.4	Requirements Throughout the duration of the test, there shall be no leakage at the outlet(s).		**NA**
11	Pressure resistance		**-**
11.1	Principle This test is designed to detect any deformation of the complete sanitary tapware product under high pressure (Table 8). These tests are conducted using cold water.		**P**
11.2	Apparatus An hydraulic test circuit capable of supplying and maintaining the required pressures for the duration of the test.		**P**
11.3	Mechanical behaviour upstream of the obturator – obturator in the closed position		**-**
11.3.2	Requirement There shall be no visible deformation of any part of the sanitary tapware product or any leakage through the body of the product.	No visible deformation	**P**
11.4	Mechanical behaviour downstream of the obturator – obturator in the open position		**-**
11.4.1	Procedure for products for type 1 systems		**-**
11.4.2	Procedure for products for type 2 systems		**-**
11.4.3	Requirement There shall be no visible deformation in any part of the sanitary tapware product downstream of the obturator or any leakage downstream of the obturator.	No visible deformation	**P**
12	Hydraulic performance		**-**
12.1	General All measurements are carried out with all connection hoses, flow limiters or regulators, accessories and aerators etc. fitted to the sanitary tapware as described in the manufacturer's instructions. Where the sanitary tapware has more than one outlet, each outlet shall be tested to establish the flow rate at each outlet. The measurement shall be made of the maximum available flow rate. The test of "Hydraulic Performance" and "Acoustic characteristics" shall be carried out with identically equipped outlets or flow rate class. This applies also to sanitary tapware or any concealed systems supplied without an integrated spout or outlet.		**P**
12.2	Determination of flow rate – products for type 1 systems		**-**

Clause	EN 200 Requirement/Test items	Remarks	Verdict
12.2.4	Requirements For bath outlets (both valves open) the flow rate shall be ≥ 20 l/min (at 3 bar). For all other outlets, no requirements. NOTE Recommended flow rates for domestic use can be found within the informative Annex B.	22 l/min	**P**
12.3	Determination of flow rate – products for type 2 systems		**-**
12.3.4	Requirements For bath outlets (both valves open) the flow rate shall be ≥ 15 l/min (at 0,6 bar). For all other outlets, no requirement. NOTE Recommended flow rates for domestic use can be found within the informative Annex B and Table B.1.		**NA**
13	Mechanical strength/torsional resistance		**-**
13.5	Requirements There shall be no visible deformation on any component or any deterioration in operation.	No visible deformation	**P**
14	Mechanical endurance		**-**
14.1	General This clause specifies the test method to verify the mechanical endurance of the following elements of sanitary tapware products: a) on/off flow control device operated by rotating the control handle; b) other on/off flow control devices; c) diverter mechanisms; d) swivel spouts.		**P**
14.2	Endurance test for on/off flow control devices operated by rotating the control handle		**-**
14.2.4	Requirement During the test no failure of any component part shall occur. After 200 000 cycles, the leaktightness of the product shall comply with 10.3 to 10.4.	No failure	**P**
14.3	Endurance test for other on/off flow control devices		**-**
14.3.4	Requirement During the test no failure of any component part shall occur. After 200 000 cycles, the leaktightness of the product shall comply with 10.3 to 10.4.	No failure	**P**
14.4	Endurance of manually operated diverters		**-**
14.4.4	Requirement During the test, no failure of any component part shall occur. After 30 000 cycles, the leaktightness of the product shall comply with 10.5 for manually operated diverters.	No failure	**P**
14.5	Endurance of diverters with automatic return		**-**
14.5.4	Requirement During the test, no failure of any component part shall occur. After 30 000 cycles, the leaktightness of the product shall comply with 10.6 for diverters with automatic return.	No failure	**P**
14.6	Endurance test for swivel spouts		**-**
14.6.5	Requirements During the test, no failure of any component part shall occur. After 80 000 cycles, the leaktightness of the product shall comply with 10.4 Leaktightness downstream of the obturator. During the test no increase in the water level in the sight tube (divided outlet type).	No failure	**P**
15	Acoustic characteristics — products for type 1 systems only		**-**

Clause	EN 200 Requirement/Test items	Remarks	Verdict
15.1	General This clause specifies the test method to classify sanitary tapware products by acoustic group and, in appropriate cases, by flow class. The test of "Hydraulic Performance" and "Acoustic characteristics" shall be carried out with identically equipped outlets or flow rate class. Where the product uses an aerator without flow regulation (that has traceable acoustic markings) the aerator shall be replaced by the appropriate calibrated resistance (Z to D, see Table 13). NOTE The use of taps without acoustic group I or II is not precluded where there is no regulatory or market requirement for an acoustic class.		**NA**

EN 13828:2025 Building valves - Manually operated copper alloy and stainless steel ball valves for potable water supply in buildings - Tests and requirements

No.	Test Item	Technical Requirement	Remarks	Evaluation
Design / material requirements (Clause 5)				
1	Materials	Body in copper alloy or stainless steel. Cu alloys with Zn > 15 % must resist dezincification — max. dezincification depth < 200 µm (test per EN ISO 6509-1). Stainless steel: 96 h salt-spray test (EN ISO 9227). Ball surface with metallic protective layer per EN 248. Materials must not impair potable-water quality (taste, odour, appearance)	Stainless steel	Pass
2	Operation	Clockwise closing; 90° quarter-turn operation; detachable lever release force 50–200 N; actuator interface per EN ISO 5211 where applicable	150N	Pass
3	Connection ends	Per EN 1254 series (solder, compression, press, threaded etc.); threaded bodies with flats for installation tools	Threaded	Pass
4	Stops	Fixed, non-adjustable stops in "open" and "closed" positions		Pass
5	Flow way	Full bore / reduced bore with minimum bore diameters (e.g., full bore: DN15 ≈ 13 mm, DN25 ≈ 24 mm, DN50 ≈ 49 mm, DN100 ≈ 98 mm; reduced bore: DN15 ≈ 9.9 mm, DN25 ≈ 19.8 mm, DN50 ≈ 39.6 mm, DN100 ≈ 79.2 mm)		Pass
6	Test/drainage points	Min. cross-section 12.56 mm² (min. diameter 4 mm); drain plug on outlet side; not obstructed by internal parts	No obstructed	Pass
Performance tests (Clause 6) — test sequence per Table 5				
1	Operating torque	Operating torque ≤ max. values of Table 6 (e.g., DN6 ≤ 4 N • m; DN15 ≤ 6 N • m; DN50 ≤ 28	Within the limit	Pass

No.	Test Item	Technical Requirement	Remarks	Evaluation
		N • m; DN100 ≤ 65 N • m)		
2	Resistance against torque	No permanent deformation, no leakage. Example: DN25 — MT1 = 125 N·m, MT2 = 100 N·m (MT1: 15–465 N·m, MT2: 12–370 N·m range across DN6–100)	No leakage	Pass
3	Resistance against bending	No damage, no leakage, no permanent deformation. Example values: DN6–20 — F1 25–225 N, F2 13–110 N; DN25–100 — F1 340–2 500 N, F2 150–1 300 N	No leakage	Pass
4	Torque test of captive rotating nuts / tail pieces	No leakage, no loosening or permanent deformation	No leakage	Pass
5	Stop resistance	Stops must withstand the load without damage or permanent deformation	No damage	Pass
6	Leak-tightness	No visible leakage. High-pressure test commonly cited: 1.6 × PN (≈ 16 bar for PN10) held 60 s; low-pressure air test 0.02 MPa held 60 s verify exact values in official text	No leakage	Pass
7	Hydraulic strength	No rupture, no visible leakage, no permanent deformation. Commonly cited: 2.5 × PN (≈ 25 bar for PN10), held ~1 min then 10 ± 1 min verify exact values in official text	No leakage	Pass
8	Replenish of water stored between ball and body	Increase in conductivity of the collected water ≤ 5 mS/m	4 mS/m	Pass
9	Resistance against pressure jumps	After test: no leakage; operating torque still within limits	No leakage	Pass
10	Angular seal	No visible leakage	No leakage	Pass
Acoustic characteristics (Clause 7)				
1	Scope	Only reduced-bore valves DN 6–DN 32; full-bore valves are	Group II	Pass

No.	Test Item	Technical Requirement	Remarks	Evaluation
		deemed Group I		
2	Test method	Per EN ISO 3822-1 / EN ISO 3822-3 at defined flow rates (measurement at ~0.3 MPa)	Under the condition	Pass
3	Classification	Group I: L_ap < 20 dB(A) — quietest (hospitals, hotels, dwellings); Group II: 20 ≤ L_ap < 30 dB(A) — acceptable for domestic use; Unclassified (U): L_ap > 30 dB(A) or not tested	Group II, 22 dB	Pass
Mechanical endurance (Clause 8)				
	Resistance against 90 °C water	After test: leak-tightness and operating torque still within limits	Within the limit	Pass
	Mechanical endurance of the control device	Valve operates correctly and remains leak-tight; torque within limits	Within the limit	Pass
Marking (Clause 9)				
	Marking	Permanent, legible marking on the body or a fixed nameplate: manufacturer name/logo; nominal size DN (add "R" for reduced bore, e.g., DN 25 R); nominal pressure PN10 or PN16; flow-direction arrow where directionally designed; dezincification-resistance marking CR/DR where applicable; identification code (batch, production date); optional acoustic group marking (I or II) for DN 6 – 32		Pass

Remarks

We have tested the above-mentioned products in accordance with the listed standards and confirm that they comply with Regulation (EU) No 305/2011 (CPR).

Product Pictures

Water valves / LS012012



========END========

Room 519, School of Mechanical and Electrical Engineering, Building 4, Changchun Institute of Technology, 395 Kuangping Road, Chaoyang District, Changchun City, Jilin Province, China
Phone:400-806-8667
Website:https://www.zhonfulab.com
Email:service@zhonfulab.com