Test Report

No. TCHB1311063087 **Date:** 2013/11/12

The following sample(s) was/were submitted and identified by the client as:

Applicant	: HEBEI RUNWANGDA MAKING CLEAN MATERIALS CO., LTD
Adress of applicant	: 15Tiyu Street, Wuqiang County, Hebei Province, China
Country of Origin	: China
Sample Description	: GAS VALVE
Style/Item No.	: WJH0802AB
Lot No.	: 131072613002
Brand Name	: RWD
Sample Receiving Date	: November 06, 2013
Testing Period	: November 06, 2013 to November 12, 2013
Testing Performed	: Selected test(s) as requested by applicant
Test Requested	: Sanitary tapware—Single taps and combination taps for water supply systems of type 1 and type 2—General technical specification(BS EN 200:2008)
Test Result(s)	: For futher details, please refer to the following page(s)
Conclusion	: The submitted sample met the test requirement

For and on behalf of

Shanghai Global Testing Services Co., Ltd.

Authorized Signature

Shi Lei/Kevin

General Manger -GTS/SHO

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Test Conducted:

Sanitary tapware—Single taps and combination taps for water supply systems of type 1 and type 2—General technical specification(BS EN 200:2008)

Test result:

Test Property	Test Method	Test Principle / Requirements	The Result
4. Marking and Identification			
4.1 Marking			
Requirements for taps for a supply system of Type 1	BS EN 200: 2008 Clause 4.1.1	Taps for a supply system of Type 1 shall be marked permanently and legibly with: – the manufacturer's or agent's name or identification - on the body or handle; – the manufacturer's name or identification - on the headwork (not applicable when the headwork is of a special design to suit the body); – the acoustic group (see Table 14) and the flow rate class(es) (see Table 13), if applicable - on the body. For water saving taps, appropriate information to installers and users shall be provided.	N/A
Requirements for taps for a supply system of Type 2	BS EN 200: 2008 Clause 4.1.2	Taps for a supply system of Type 2 shall be marked permanently and legibly with: – the manufacturer's or agent's name or identification - on the body or handle; – the manufacturer's name or identification - on the headwork (not applicable when the headwork is of a special design to suit the body).	N/A
4.2 Identification			
Colour code	BS EN 200: 2008 Clause 4.2.1	The control devices for taps shall be identified: – for cold water by the colour blue or word/letters for cold; – for hot water by the colour red or word/letters for hot; – any other suitable means.	Pass

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4.2.2 Disposition of control device			
Horizontal arrangements	BS EN 200: 2008 Clause 4.2.2.1	The cold water control device shall be on the right and the hot water control device on the left, when viewed from the front.	Pass
Vertical arrangements	BS EN 200: 2008 Clause 4.2.2.2	Vertical arrangements of control devices require the hot water control device to be uppermost.	N/A
Divided outlet combination taps	BS EN 200: 2008 Clause 4.2.3	In the case of divided outlet combination taps for supply systems of Type 2 (with mains fed on cold inlet) which give cold water flow rates at 0,01 MPa (0,1 bar) of less than 7,5 l/min the cold-water inlet shall be colour coded blue, e.g. using coloured tape, disks, paint or any other suitable means.	N/A
5 Materials			
Chemical and hygiene requirements	BS EN 200: 2008 Clause 5.1	All materials coming into contact with water intended for human consumption shall present no risk to health. They shall not cause any change of the drinking water in terms of quality, appearance, smell or taste.	Pass
Exposed surface conditions	BS EN 200: 2008 Clause 5.2	Visible chromium plated surfaces and Ni-Cr coatings shall comply with the requirements of EN 248.	Pass
6 Dimensional characteristics			
General remarks	BS EN 200: 2008 Clause 6.1	Record the actual dimensions.	See specification
8 Leaktightness characteristics			
Leaktightness of the obturator and of the tap upstream of the obturator(s) with	BS EN 200: 2008 Clause 8.3.1	a) Connect the tap to the test circuit; b) with the outlet orifice open, and generally turned downwards, close the obturator(s) using a torque of(1,5 ± 0,15) Nm for nominal size ½ and (2,5 ± 0,25) Nm for nominal size	Pass

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the obturator in the closed position		¾; if a stuffing box is used to ensure leaktightness of the headwork, the packing gland shall be loosened before application of the closing torque; c) apply to the inlet of the tap a water pressure of (1,6 ± 0,05) MPa [(16,0 ± 0,5) bar] and maintain it for (60 ± 5) s.	
General	BS EN 200: 2008 Clause 8.4.1	Not applicable when the outlet cannot be closed.	Pass
Requirement	BS EN 200: 2008 Clause 8.4.3	Throughout the duration of the test there shall be no leakage, or seepage through the walls.	Pass
8.5 Leaktightness of manually operated diverter			
Requirement: flow to bath	BS EN 200: 2008 Clause 8.5.2	There shall be no leakage at the outlet to shower.	Pass
Requirement: flow to shower	BS EN 200: 2008 Clause 8.5.4	There shall be no leakage at the outlet to shower.	N/A
8.6 Leaktightness and operation of diverter with automatic return: Taps for supply system of Type 1			
Requirement: flow to bath	BS EN 200: 2008 Clause 8.6.2	There shall be no leakage at the outlet to shower.	Pass
Requirements: flow to shower	BS EN 200: 2008 Clause 8.6.4	– There shall be no leakage at the outlet to bath whilst the diverter remains in the flow to shower position; – the diverter shall not return to the flow to bath position at any pressure > (0,05 ± 0,002) Mpa [(0,5 ± 0,02) bar]; – the diverter shall return to the flow to bath position when the obturators are closed.	Pass
9 Pressure resistance characteristics-mechanical performance under pressure			

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9.4 Mechanical behaviour upstream of the obturator-Obturator in the colsed postion			
Requirement	BS EN 200: 2008 Clause 9.4.2	With the obturator(s) closed apply at the tap inlet(s) a static water pressure of (2.5±0.05) Mpa (25.0±0.5) bar for (60±5)s For the duration of the test, there shall be no permanent deformation in any part of the tap	Pass
9.5 Mechanical behaviour downstream of the obturator-Obturator in the open positon			
Requirement	BS EN 200: 2008 Clause 9.5.2	For taps with a flow rate regulator fitted apply at the tap inlet a dynamic water pressure of (0.4± 0.02)Mpa (4.0±0.2) and maintain it for (60±5)s There shall be no permanent deformation in any part of the tap	Pass
10 Hydraulic characteristics			
Apparatus	BS EN 200: 2008 Clause 10.2.1	A cold water supply system with temperature < 30 °C, capable of supplying the tap under test with: – a dynamic pressure of (0,3 + 0,02) Mpa [(3,0 + 0,2) bar] for taps for supply systems of Type 1; – a dynamic pressure of (0,01 ± 0,002) Mpa [(0,1 ± 0,02) bar] for taps for supply systems of Type 2.	Pass Type 1 Test pressure: (0,3 +0,02) Mpa [(3,0 +0,2) bar] Flow rate: 12,0 l/min (0,20 l/s)
Requirement	BS EN 200: 2008 Clause 10.3	With the test conditions specified in 10.2 the measured flow rate shall be not less than that given in Table 10.	Pass
11 Mechanical strength characteristics - torsion test for operating mechanism			
Requirement	BS EN 200: 2008 Clause 11.2.5	Following the test: – there shall be no deformation or other deterioration which impairs the function of the tap; – the tap shall satisfy the requirement for leaktightness (8.3).	Pass
12 Mechanical endurance characteristics			
12.1 Mechanical endurance characteristics of the operating mechanism			

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Requirement	BS EN 200: 2008 Clause 12.1.4	After testing, the tap shall again satisfy the leaktightness criteria given in Clauses 8.3 and 8.4, and there shall be no failure of any component part.	Pass
12.2 Mechanical endurance of diverters			
Requirement	BS EN 200: 2008 Clause 12.2.4	Throughout the test, there shall be no incidents of leaks, failure of diverter to reset, blockage, etc. On completion of 30 000 cycles the assembly shall be leaktight when tested according to 8.5 for manual diverters or 8.6 or 8.7 for diverters with automatic return. Pressure of: Cold and hot water , (0,4 + 0,05) MPa, (4,0 + 0,5) bar Cold water temperature: ≤30 °C Hot water temperature: (65 ± 2) °C Timing of supply: Cold or hot water : (15 ± 1) min Time of flow: to bath or to shower outlet: (5 ± 0,5) s Flow rate to bath and to shower outlet: (6 ± 1) l/min Operation rate for manual diverters (cycles): (15 ± 1) min-1 Backflow prevention: See 13 Number of cycles: 30 000	Pass
12.3 Mechanical endurance of swivel spouts (single and divided outlet type)			
Requirements	BS EN 200: 2008 Clause 12.3.5	During the test there shall be: – no deformation or fracture of the swivel spout; – no deformation or fracture of the device connecting the spout to the body; – no leakage of the assembly; – no increase in the water level in the sight tube (divided outlet type). At the end of the test the spout shall be leaktight under the conditions given in 8.4.	Pass
13 Backflow protection			
Backflow	BS EN	Backflow protection shall be provided using	Pass

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<table>
<tr><td>protection performance</td><td>200: 2008 Clause 13</td><td>appropriate devices referenced in EN 1717.</td><td></td></tr>
<tr><td colspan="4">14 Acoustic characteristics</td></tr>
<tr><td>Acoustic characteristics</td><td>BS EN 200: 2008 Clause 14</td><td>Record the actual Lap.
And a mixer is classified in the following acoustic groups:
<table><tr><th>Group</th><th>L_{ap} in dB(A)</th></tr><tr><td>I</td><td>≤ 20</td></tr><tr><td>II</td><td>20 < L_{ap} ≤ 30</td></tr><tr><td>U (unclassified)</td><td>> 30</td></tr></table></td><td>Lap:16.4</td></tr>
</table>

Remark:

1. The mechanical endurance of the control device test mechanical endurance of swivel nozzles test and acoustic test were carried out by external laboratory assessed as competent.
2. N/A denotes Not applicable

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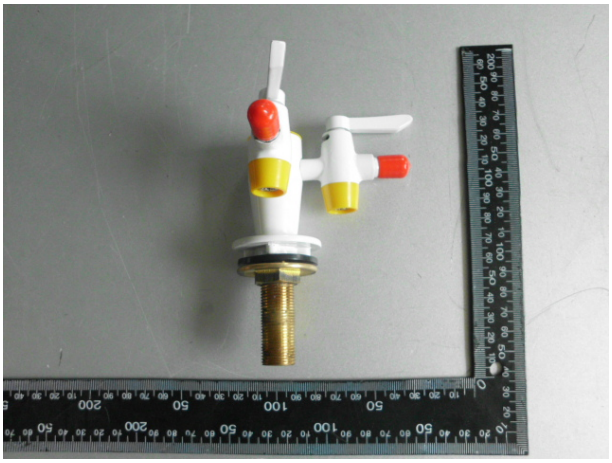
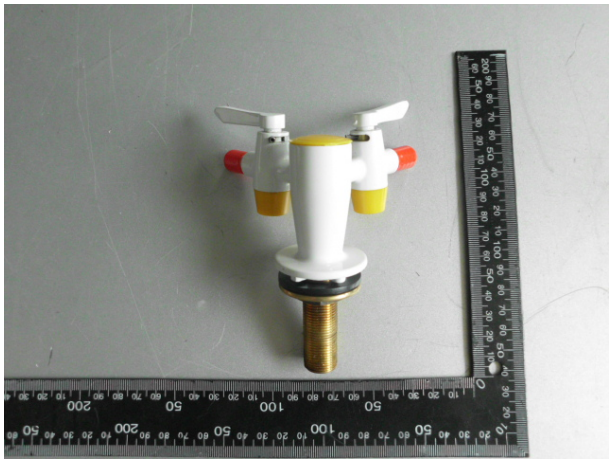
Sample Photo:





*****End of Report*****

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