



**Acme Sanitary Ware Co. Ltd.**

1/F, Acme Building, 22-28 Nanking Street, Kowloon, Hong Kong

Tel: 2388 7171 Fax: 2710 8012

Email: acme@acmesanitary.com.hk

Website: www.acmesanitary.com.hk

# EMCA

PROJECT		REF		REV	ITEM CODE	
LOCATION		DATE			LEGEND	

## SANITARY WARE SPECIFICATION SHEET

Item Descriptions	EMCA (PRC) Chrome plated brass casted spout sensor faucet, 6V DC supply; complied with BSEN15091:2013, BSEN12164:2016, BSEN10088-1:2014, BS6920-3:2000 & BS6920-2.6:2000+A2:2014, BSEN816:2017; test report J28240 & J28240B; nominated flow rate <b>1.8 L/min</b> in WELS <b>Grade 1</b> ; Registration No. TN 20-0080					Illustration/ Drawing												
Dimensions	L121 x W24 x H170 mm																	
Model	EMS104																	
Finish	Chrome Plated Brass																	
Manufacturer	EMCA (PRC)																	
Source	Acme Sanitary Ware Co. Ltd Mr. Eric Wong/ Mr. Don Yuen																	
Contact Tel/Fax	(852) 2388-7171 / (852) 2710-8012																	
E-mail	acme@acmesanitary.com.hk																	
Website	www.acmesanitary.com.hk																	
<table><tr><td>Dynamic flow pressure (kPa)</td><td>50</td><td>150</td><td>250</td><td>350</td><td>500</td></tr><tr><td>Flow rate (l/min)</td><td>1.00</td><td>1.40</td><td>1.73</td><td>1.88</td><td>1.90</td></tr></table>							Dynamic flow pressure (kPa)	50	150	250	350	500	Flow rate (l/min)	1.00	1.40	1.73	1.88	1.90
Dynamic flow pressure (kPa)	50	150	250	350	500													
Flow rate (l/min)	1.00	1.40	1.73	1.88	1.90													
<b>Parameters</b> Static power consumption : 6V Inductive range: 5cm-25cm automatic distance measurement Suitable water pressure: 0.05 - 0.7Mpa Ambient temperature of operation:1-55 Water inlet/outlet pipe caliber: G(1/2) (DN15)																		
<b>Functions and Features</b> Infrared induction, water outlet automatic turn-on/turen-off, water saving,conveniet, samitary,and effectively avoiding cross infection of bacteria. he product is vontrolled by a micro-computer to adjust th ebest distance of induction according to the color and shape of the washing basin. The specially incorporsted fitter net can effectively clean the granular impurities in the water, such as sand and gravel. When used continuously for more than one minute, the induction will automatically stop the water supply to avoid the waste of water resource due the long-time stay of foreign body within the induction area. The DC model uses four alkaline batteries.																		

	
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**Note:** Highly recommended to couple with **angle valve with filter** to avoid the sand and gravel for better performance



(Not included in the sensor faucet, should be purchased separately)

\* All information of the above is for the reference only. No prior notice is made if any changes.

註冊號碼 (Registration No.):

TN 20-0080



自願參與用水效益標籤計劃 - 水龍頭  
Voluntary Water Efficiency Labelling Scheme - Water Taps



茲證明

This is to certify that  
ACME Sanitary Ware Company Limited

將下列水龍頭在本計劃內註冊：  
has registered the following water tap under this scheme :

牌 子 / Brand	:	EMCA + Neoperl
型 號 / Model	:	EMS104 + 44.7159.0.0001
種 類 / Type	:	Non-mixing
原產地 / Country or Region Origin	:	China (Tap) Germany (Flow Controller)

在用水效益標籤上展示的標誌

*Symbolic Presentation on the Water Efficiency Label* :



滴水點

*Water droplet(s)*

用水效益級別

*Water Efficiency Grade* :

1

with additional merit\*

耗水量

*Water Consumption* :

1.8

公升/分鐘

*litres/minute*

\*with additional merit of "Automatic closing mechanism"

簽發日期：  
Date of Issue:

27 November 2020



水務署  
Water Supplies Department



水務署署長(張業駒代行)  
for Director of Water Supplies



水務署  
Water Supplies Department

總部 Headquarters

香港灣仔告士打道七號入境事務大樓 48 樓

Immigration Tower, 7 Gloucester Road, Wan Chai, Hong Kong

本署檔  
Our ref.  
來函檔  
Your ref.



21/2023 T/J(620/2023)

電話 :  
Tel.  
傳真 : 2824 0578  
Fax.

3 August 2023

Acme Sanitary Ware Co. Ltd.  
1/F, Acme Building,  
22-28 Nanking Street,  
Kowloon, Hong Kong

(Attn.: Mr Perry CHOW)

Dear Sir,

**Approval of “EMCA” Sensor Tap  
(General Acceptance No. C20230573)**

Your letters ref. L009/2023 and L014/2023 dated 9 June 2023 and 7 July 2023 respectively refer.

Having considered the test report ref. J28240 issued on 22 November 2022 by Nutek Systems (HK) Ltd. and WRAS certificate, this Authority accepts that the fitting described below complies with, and its use when correctly installed does not contravene, the Waterworks Ordinance and Regulations.

**Name of Manufacturer:** Kaiping City Doyei Sanitary Ware Corporation Ltd  
**Country of Origin:** the Mainland of China  
**Brand:** EMCA  
**Details of Fitting:** 1/2" Deck mounted sensor tap with 1 no. of flexible hose approved by UK's WRAS under ref. 1909363  
**Model:** EMS104  
**Body Markings:** EMCA  
**Expiry Date:** 30 September 2024





This Authority hereby permits the use of the above fitting in fresh water plumbing systems subject to full adherence to Waterworks installation requirements. In particular, you are required to draw your customers' attention to the following requirement-

"A stop cock or gate valve must be installed at the upstream of the fitting for manual isolation of water supply." AND

"The main voltage operated sensor valve should comply with the electricity safety regulation for applications in bathroom, toilet etc."

A condition of this acceptance is that the fitting to be installed shall be replicas of the sample as certified by the testing agent mentioned above and without modifications. This acceptance may be withdrawn at any time if the standard of the fitting installed fails to meet that of the approved sample or if the fitting is found to be unsuitable for use in fresh water plumbing systems.

This acceptance is only applicable to the main body of the fitting, unless otherwise specified.

For the use of the fitting in any project, the General Acceptance Number of this letter must be quoted as a means of identification of acceptance of the fitting by this Authority.

Should you have any enquiries, please contact our Engineer Ms Winnie LO at tel. no. 3583 4086.

Yours faithfully,



(YAU Hau Yin)  
for Director of Water Supplies

Encl.

c.c.      WSD 3321/1/82    ] - without catalogue  
            ME/MC            ] - with soft copy only

## Test Report

**Test**  
**Title:** Testing of Sensor Tap  
**Method:** BS EN 15091: 2013; BS EN 12164: 2016;  
 BS EN 10088-1: 2014; BS 6920-3: 2000 & BS 6920-2.6: 2000 + A2: 2014  
**Report No.:** J 28240  
**Completion:** 14 Sep., 2022 to 10 Oct., 2022

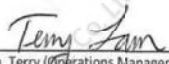
**Applicant** (Information below provided by client)  
**Name:** Acme Sanitary Ware Co., Ltd.  
**Address:** 1/F, Acme Building, 22-28 Nanking Street, Yau Ma Tei,  
 Kowloon, Hong Kong

**Sample** (Information below provided by client)  
**Brand:** EMCA  
**Model:** EMS104  
**Body marking:** **EMCA**

**Manufacturer:** Kaiping City Doyei Sanitary Ware Corporation Limited  
**Origin:** PRC  
**Description:** 1/2" Chrome plated brass casted spout sensor faucet supplied with 1 no. of  
 flexible hose claimed to be WRAS Approved Product by UK's under ref.  
 no.1909363 (refer to Appendix A)



Approved Signatory

**Signature:**   
**Name (title):** Lam Kwai Wah, Terry (Operations Manager)  
**Date:** 22 Nov., 2022

Nutek Systems is a testing agency,  
 accepted by the Water Supplies  
 Department for testing water supply  
 fittings.

REPORT NO.: J 28240



## Summary

Test	Remark
1 Dimensions	C
2.1 Leaktightness of the obturator and of the tap upstream of the obturator(s)	C
2.2 Leaktightness of the tapware downstream of the obturator	C
3 Pressure resistance characteristics	C
4 Hydraulic characteristics	N
5 Endurance	C
5.1 Leaktightness of the obturator and of the tap upstream of the obturator(s) after completion of endurance cycles	C
5.2 Leaktightness of the tapware downstream of the obturator after completion of endurance cycles	C
6.1 Chemical composition of metal component - Valve Body	C
6.2 Chemical composition of metal component - Outlet	C
6.3 Chemical composition of metal component - Cap	C
6.4 Chemical composition of metal component - Filter	C
7.1 Metal extraction from Valve Seat	C
7.2 Metal extraction from Diaphragm	C
7.3 Metal extraction from Rubber Ring	C
<b>Note:</b> The Spout internal water passage does not contact with water. The plastic hose connects the valve body and water outlet directly	

## Results (apply only to samples tested)

### 1 Dimensions

BS EN 15091:2013 Cl. 5.2

ID	Variable	Unit	Measured	Required	Remark
1	Nominal size	in	½	½	C
	Vertical distance from the outlet orifice to the mounting surface	mm	97	≥ 25	C
Overall result					C

### 2.1 Leaktightness of the obturator and of the tap upstream of the obturator(s)

BS EN 15091:2013 Cl. 4.6.4

ID	Variable	Unit	Measured	Required	Remark
1	Static pressure	bar	16	16 ± 0.5	C
	Duration	s	60	60 ± 5	C
	Leakage	---	No	No	C
Overall result					C

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## 2.2 Leaktightness of the tapware downstream of the obturator

BS EN 15091:2013 Cl. 4.6.5

ID	Variable	Unit	Measured	Required	Remark
1	Static pressure	bar	4	4 ± 0.2	C
	Duration	s	60	60 ± 5	C
	Leakage	---	No	No	C
2	Static pressure	bar	0.2	0.2 ± 0.05	C
	Duration	s	60	60 ± 5	C
	Leakage	---	No	No	C
Overall result					C

## 3 Pressure resistance characteristics

BS EN 15091:2013 Cl. 4.7

ID	Variable	Unit	Measured	Required	Remark
High pressure	Static pressure	bar	25	25 ± 0.5	C
	Duration	s	60	60 ± 5	C
	Permanent Deformation	---	No	No	C
Overall result					C

## 4 Hydraulic characteristics

BS EN 15091:2013 Cl. 5.3

ID	Variable	Unit	Measured	Required	Remark
1	Dynamic pressure	bar	3	3 ± 0.2	C
	Flow rate (main outlet mode)	l/min	8.35	N	N
Overall result					N

Note:

- WSD has waived the minimum flow rate requirement per WSD Circular Letter No. 1/2010.

## 5 Endurance

BS EN 15091:2013 Cl. 5.5

ID	Test Variable	Unit	Measured	Required	Remark
1	Cold water temperature	°C	24	< 25	C
	Dynamic pressure	bar	4	4.0 ± 0.5	C
	Test cycles completed	cycles	200000	≥ 200,000	C
Overall result					C

## 5.1 Leaktightness of the obturator and of the tap upstream of the obturator(s) after completion of endurance cycles

BS EN 15091:2013 Cl. 5.5

ID	Variable	Unit	Measured	Required	Remark
1	Static pressure	bar	16	16 ± 0.5	C
	Duration	s	60	60 ± 5	C
	Leakage	---	No	No	C
Overall result					C



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## 5.2 Leaktightness of the tapware downstream of the obturator after completion of endurance cycles

BS EN 15091:2013 Cl. 5.5

ID	Variable	Unit	Measured	Required	Remark
1	Static pressure	bar	4	4 ± 0.2	C
	Duration	s	60	60 ± 5	C
	Leakage	---	No	No	C
2	Static pressure	bar	0.2	0.2 ± 0.05	C
	Duration	s	60	60 ± 5	C
	Leakage	---	No	No	C
Overall result					C

## 6.1 Chemical composition of metal component - Valve Body

Designation: BS EN 12164:2016: CW617N

Designation: BS EN 12169-2016: CW617N					
ID	Variable	Unit	Measured	Required	Remark
Valve Body	Copper	%	58.9	57.0 - 59.0	C
	Zinc	%	39.0	R	C
	Lead	%	1.7	1.6 - 2.5	C
	Tin	%	<0.025	max. 0.3	C
	Nickel	%	0.2	max. 0.3	C
	Iron	%	0.2	max. 0.3	C
	Aluminium	%	<0.005	max. 0.05	C
	Others Total	%	0.05	max. 0.2	C
Overall result					C

## 6.2 Chemical composition of metal component - Outlet

Designation: BS EN 12164:2016: CW617N

Designation: SS EN 12126-2010: CW017W					
ID	Variable	Unit	Measured	Required	Remark
Outlet	Copper	%	58.8	57.0 - 59.0	C
	Zinc	%	38.7	R	C
	Lead	%	1.9	1.6 - 2.5	C
	Tin	%	0.1	max. 0.3	C
	Nickel	%	0.2	max. 0.3	C
	Iron	%	0.3	max. 0.3	C
	Aluminium	%	<0.005	max. 0.05	C
	Others Total	%	0.05	max. 0.2	C
Overall result					C



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### 6.3 Chemical composition of metal component - Cap

Designation: BS EN 12164:2016: CW617N

ID	Variable	Unit	Measured	Required	Remark
Cap	Copper	%	58.8	57.0 - 59.0	C
	Zinc	%	39.2	R	C
	Lead	%	1.7	1.6 - 2.5	C
	Tin	%	<0.025	max. 0.3	C
	Nickel	%	0.1	max. 0.3	C
	Iron	%	0.3	max. 0.3	C
	Aluminium	%	<0.005	max. 0.05	C
	Others Total	%	0.05	max. 0.2	C
Overall result					C

### 6.4 Chemical composition of metal component - Filter

Designation: BS EN 10088-1:2014: X5CrNi18-10, 1.4301

ID	Variable	Unit	Measured	Required	Remark
Filter	Carbon	%	0.043	max. 0.070	C
	Silicon	%	0.38	max. 1.00	C
	Manganese	%	1.04	max. 2.00	C
	Chromium	%	17.6	17.5 - 19.5	C
	Sulphur	%	<0.005	max. 0.015	C
	Phosphorus	%	<0.0075	max. 0.045	C
	Nickel	%	8.2	8.0 - 10.5	C
	Nitrogen	%	0.08	max. 0.10	C
Overall result					C

### 7.0 Metal extraction test for non-metallic materials

The non-metallic material was immersed in boiling de-ionized water for 5 ± 1 minutes in accordance with Clause 7.3 in BS 6920-3:2000.

The concentration of arsenic, lead, cadmium, chromium, selenium, nickel and antimony of extract were determined by the method specified in BS 6920-2.6:2000+A2:2014 against the maximum allowable values in WHO's Guidelines for Drinking Water Quality – Fourth Edition 2011.

### 7.1 Metal extraction from Valve Seat

BS 6920-2.6: 2000 + A2: 2014

ID	Variable	Unit	Measured	Required	Remark
Valve Seat	Arsenic	µg/l	< 1.5	≤ 10	C
	Lead	µg/l	< 2	≤ 10	C
	Cadmium	µg/l	< 1	≤ 3	C
	Chromium	µg/l	< 2	≤ 50	C
	Selenium	µg/l	< 2	≤ 40	C
	Nickel	µg/l	< 2	≤ 70	C
	Antimony	µg/l	< 2	≤ 20	C
Overall result					C



### 7.2 Metal extraction from Diaphragm

BS 6920-2.6: 2000 + A2: 2014

ID	Variable	Unit	Measured	Required	Remark
Diaphragm	Arsenic	µg/l	< 1.5	≤ 10	C
	Lead	µg/l	< 2	≤ 10	C
	Cadmium	µg/l	< 1	≤ 3	C
	Chromium	µg/l	< 2	≤ 50	C
	Selenium	µg/l	< 2	≤ 40	C
	Nickel	µg/l	< 2	≤ 70	C
	Antimony	µg/l	< 2	≤ 20	C
Overall result					C

### 7.3 Metal extraction from Rubber Ring

BS 6920-2.6: 2000 + A2: 2014

ID	Variable	Unit	Measured	Required	Remark
Rubber Ring	Arsenic	µg/l	< 1.5	≤ 10	C
	Lead	µg/l	< 2	≤ 10	C
	Cadmium	µg/l	< 1	≤ 3	C
	Chromium	µg/l	< 2	≤ 50	C
	Selenium	µg/l	< 2	≤ 40	C
	Nickel	µg/l	< 2	≤ 70	C
	Antimony	µg/l	< 2	≤ 20	C
Overall result					C

### Remark :

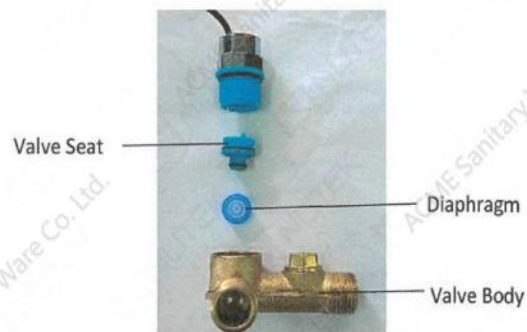
- No electroplating materials were observed on the internal water passage surfaces of the sample under a non-destructive and unaided visual inspection.

REPORT NO.: J 28240

Figure 1 - Sample



Figure 2 - Solenoid valve



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Figure 3 - Sample disassembled

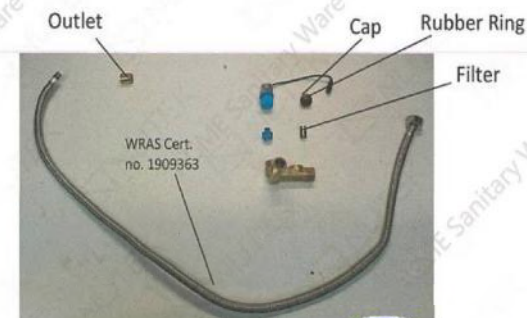


Figure 4 - Surface of internal water passage





Figure 5 - Body marking

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**General Note(s)**

**Definitions:**

C - conformance  
N - no requirement  
NC - non-conformance  
R - remainder

**Organizations:**

WSD - Water Supplies Department (of Hong Kong)  
WHO - World Health Organization

- End of report -

**Appendix A**

REPORT NO.: J 28240



This certifies that

**KAIPING CITY HUAILING HOSES CO.,LTD**

has had the undermentioned product examined, tested and found,  
when correctly installed, to comply with the requirements of the  
United Kingdom Water Supply (Water Fittings) Regulations and  
Scottish Water Byelaws.

**HL-SS-XX-XX-XXX-XXX & HL-N-XX-XX-XXX-XXX FLEXIBLE HOSE ASSEMBLIES**

The certificate by itself is not evidence of a valid WRAS Approval. Confirmation of the current status of an approval must be obtained from the WRAS Directory ([www.wras.co.uk/directory](http://www.wras.co.uk/directory))

The product so mentioned will be valid until the end of:

**September 2024**

**1909363**

Certificate No.

*J. Funnell*

Secretary

*[Signature]*

Chairman, Product Assessment Group



## Test Report

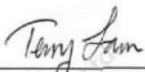
**Test**  
 Title: Testing of Single Tap  
 Method: BS EN 816: 2017  
 Report No.: J 282408  
 Completion: 29 Nov., 2022

**Applicant** (Information below provided by client)  
 Name: Acme Sanitary Ware Co., Ltd.  
 Address: 1/F, Acme Building, 22-28 Nanking Street, Yau Ma Tei,  
 Kowloon, Hong Kong



**Sample** (Information below provided by client)  
 Brand: EMCA  
 Model: EMS104  
 Body marking: **EMCA**  
 Manufacturer: Kaiping City Doyei Sanitary Ware Corporation Limited  
 Origin: PRC  
 Description: 1/2" Chrome plated brass casted spout sensor faucet

Approved Signatory

Signature:   
 Name (title): Lam Kwai Wah, Terry (Operations Manager)  
 Date: 15 Dec., 2022

Nutek Systems is a testing agency,  
 accepted by the Water Supplies  
 Department, for testing water supply  
 fittings.

REPORT NO.: J 282408

## Summary

Test	Remark
1 Dimensions	C
2.1 Leaktightness of the obturator and of the tap upstream of the obturator(s)	C
2.2 Leaktightness of the tap downstream of the obturator(s)	C
3.1 Mechanical behaviour upstream of the obturator - Obturator in the closed position	C
3.2 Mechanical behaviour downstream of the obturator - Obturator in the open position	C
4.1 Flow rate QM	C
4.2 Flow duration	C
4.3 Testing at minimum pressure	C

### Notes:

- The test was conducted with room temperature water which was no more than 80 degree Celcius.
- At test item 4.1, the sample produced 1.8L/min at 3 bar which was within the operating pressure between 0.3 bar to 10 bar.
- At test item 4.2, the sample's flow duration was 1s, the turn-off control pre-set was within 0s to 3s.
- At test item 4.3, the sample produced 0.75L/min at 0.5 bar which was within the operating pressure between 0.3bar to 10 bar.
- The test was conducted with an aerator installed at the sample as shown in Figure 1.
- The sample comply with Architectural Services Department, General Specification for Building 2017 Edition Section 19.07(a)



## Results (apply only to samples tested)

### 1 Dimensions

BS EN 816:2017 Cl. 8

ID	Variable	Unit	Measured	Required	Remark
1	Nominal size	in	1/2	0.5	C
	Vertical distance from the lowest point of the outlet orifice to the mounting surface of the tap	mm	97	≥ 25	C
Overall result					C

### 2.1 Leaktightness of the obturator and of the tap upstream of the obturator(s)

BS EN 816:2017 Cl. 9.2.3

ID	Variable	Unit	Measured	Required	Remark
1	Static pressure	bar	16	16 ± 0.5	C
	Duration	s	60	60 ± 5	C
	Leakage	---	No	No	C
2	Static pressure	bar	1	1 ± 0.1	C
	Duration	s	60	60 ± 5	C
	Leakage	---	No	No	C
Overall result					C

## 2.2 Leaktightness of the tap downstream of the obturator(s)

BS EN 816:2017 Cl. 9.2.4

ID	Variable	Unit	Measured	Required	Remark
High pressure	Static pressure	bar	4	4 ± 0.2	C
	Duration	s	60	60 ± 5	C
	Leakage	---	No	No	C
Low pressure	Static pressure	bar	0.2	0.2 ± 0.05	C
	Duration	s	60	60 ± 5	C
	Leakage	---	No	No	C
Overall result					C

## 3.1 Mechanical behaviour upstream of the obturator - Obturator in the closed position

BS EN 816:2017 Cl. 10.2.3

ID	Variable	Unit	Measured	Required	Remark
1	Static pressure	bar	25	25 ± 0.5	C
	Duration	s	60	60 ± 5	C
	Permanent Deformation	---	No	No	C
Overall result					C

## 3.2 Mechanical behaviour downstream of the obturator - Obturator in the open position

BS EN 816:2017 Cl. 10.2.4

ID	Variable	Unit	Measured	Required	Remark
1	Dynamic pressure	bar	4	4 ± 0.2	C
	Duration	s	60	60 ± 5	C
	Permanent Deformation	---	No	No	C
Overall result					C



## 4.1 Flow rate QM

BS EN 816:2017 Cl. 11.4.1

ID	Variable	Unit	Measured	Required	Remark
Tap	Dynamic pressure	bar	3	3 ± 0.2	C
	Flow rate	l/min	1.8	≤ 6	C
Overall result					C

Note(\*):

The requirement is as per "Architectural Services Department - General Specification for Building 2017 Edition"

## 4.2 Flow duration

BS EN 816:2017 Cl. 11.4.3

ID	Variable	Unit	Measured	Required	Remark
Tap	Dynamic pressure	bar	3	3 ± 0.2	C
	Flow duration	s	1	0 - 3	C
Overall result					C

Note(\*):

The requirement is as per "Architectural Services Department - General Specification for Building 2017 Edition"

## 4.3 Testing at minimum pressure

BS EN 816:2017 Cl. 11.4.5

ID	Variable	Unit	Measured	Required	Remark
1	Dynamic pressure	bar	0.3	0.3	C
	Flow rate	l/min	0.75	≤ 6	C
Overall result					C

Note(\*):

The requirement is as per "Architectural Services Department - General Specification for Building 2017 Edition"





Figure 1 - Sample

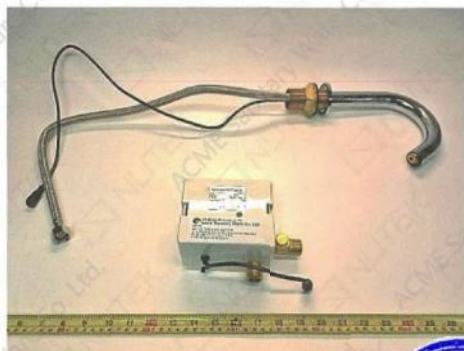


Figure 2 - Body marking



## General Note(s)

### Definitions:

C - conformance  
N - no requirement  
NC - non-conformance  
R - remainder

### Organizations:

WSD - Water Supplies Department (of Hong Kong)  
WHO - World Health Organization

- End of report -

