



PROJECT		REF		REV	ITEM CODE	
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SANITARY WARE SPECIFICATION SHEET

<p>Item Descriptions</p> <p>American Standard (Thailand) "Acacia SupaSleek" Double Vortex One Piece watercloset with CrystaSleek soft closing seat & cover; Aqua Ceramic & ComfortClean Technology against stain, bacteria and germs; 3.1/4.8 litres/cycle in WELS Grade 1; Registration No. WC 20-0120</p> <p>Dimensions</p> <p>L747 x W385 x H634 mm</p> <p>Model</p> <p>TF2007TSC (Watercloset) 640000CS (Seat & Cover)</p> <p>Material/Colour</p> <p>Vitreous China</p> <p>Manufacturer</p> <p>American Standard (Thailand)</p> <p>Source</p> <p>Acme Sanitary Ware Co. Ltd Mr. Eric Wong/ Mr. Don Yuen</p> <p>Contact Tel/Fax</p> <p>(852) 2388-7171 / (852) 2710-8012</p> <p>E-mail</p> <p>acme@acmesanitary.com.hk</p> <p>Website</p> <p>www.acmesanitary.com.hk</p>	<p>Illustration/ Drawing</p>
<p>Water consumption: 2.6/4 LPF, Flushing system: Double Vortex, Slow Closing seat & cover: A whisper quiet close for an enhanced bathroom experience for you and your family Top Fixed & Quick Release: Easily installed from the top of the toilet bowl, Offers an innovative and fast way to replace the seat cover, Anti-Breakage & Anti-Scratch: Manufactured from high impact resistant urea-formaldehyde, a high quality seat cover with polished surface designed for luxury and durability.</p> <p>Water stains on ceramic wares are often caused by silica, which occurs naturally in water. Silica bonds chemically with ceramic surfaces, causing water stains. Proguard, a revolutionary technology which is applied to the ceramics, prevents silica in the water from adhering to the surface. This results in easier maintenance and a cleaner bowl.</p> <p>Experience Proguard Here</p> <p>Experience Double Vortex Here</p>	

Note: New Code : CL20075-6DACTCBT

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



DOUBLE VORTEX MAXIMUM FLUSHING PERFORMANCE, MINIMUM WATER USAGE

The design of the bowl propels the water forward and creates a strong flushing momentum.



100% of the water is ejected through two Momentum and power are created by the The resulting 'vortex' of water cleans the water openings. design of the bowl and force of the water. entire surface of the bowl.



RIMLESS HYGIENIC AND EASY TO CLEAN

Double Vortex is a rimless flushing system that effectively cleans the entire bowl interior, preventing dirt and deposits from building up. This rimless design makes it easy to clean as no dirt can accumulate over time.



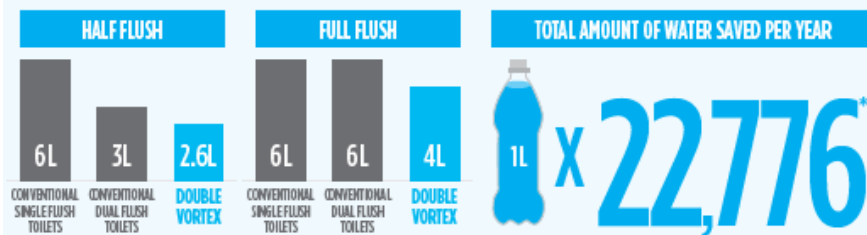
All water flows out from the top of the bowl, cleaning the inner surface of the bowl.



WATER-SAVING USES ONLY 2.6L FOR HALF FLUSH AND 4L FOR FULL FLUSH

Apart from boasting an efficient flushing system, Double Vortex uses 2.6 litres of water for half flush and 4 litres for full flush. This equates to approximately 22,776 litres of water saved in a year for a family of 4.

COMPARISON IN WATER SAVINGS BETWEEN CONVENTIONAL AND DOUBLE VORTEX FLUSHING SYSTEMS



Calculation criterion is as follows. Average family number: four people. Average usage number of times: five times/per person per day (full-flush: one time, half-flush: four times)

* Water savings is based on conventional Single Flush Toilets versus Double Vortex

ANTI-STAIN TECHNOLOGY



Less Dirt Stains. Less Water Stains.

This award-winning super-hydrophilic technology prevents dirt and dark ring stains from sticking to ceramic surfaces. In fact, dirt glides off the surface effortlessly as Aqua Ceramic enables water to penetrate between the contaminants and the toilet surface, effectively lifting off that waste with every flush.

AQUA CERAMIC is the first material in the world that is able to address the four main issues that affect the cleanliness of toilets: scuffing and scratching, marks from waste, stains caused by prolonged exposure to hard water, and the build-up of bacteria.

The technology incorporates super-hydrophilic performance in the surface of the ceramic, which permits the rinse water to permeate beneath any waste that may have become attached to the ceramic. And as the stain relinquishes its hold, the water simply lifts it and flushes it away.





Aqua Ceramic

Super hydrophilic technology prevents dirt and stains from sticking to ceramic surfaces.



AQUA CERAMIC

Super hydrophilic technology prevents dirt and dark ring stains from sticking to ceramic surface.



GOOD DESIGN AWARD 2016

Aqua Ceramic Anti-Stain Technology

Less Dirt Stains. Less Water Stains. Easy to Clean.

Winner of Good Design Gold Award in 2016, Aqua Ceramic is a revolutionary technology that allows water to penetrate beneath any waste that may have attached to the ceramic, and easily lift it with just the power of water alone.

100年 クリーン
AQUA CERAMIC

A revolutionary invention that ensures pristine and shiny condition - just like brand new - for the next 100 years.



ComfortClean

Effectively kills E.Coli bacteria according to tests done with the Industrial Microbiological Service Ltd (IMSL).



COMFORTCLEAN

Effectively kills E. Coli bacteria according to tests done with IMSL.

ComfortClean Antibacterial Glaze

China Glaze

Ceramic Ware

ComfortClean Antibacterial Technology

Long-lasting Protection Against Bacteria and Germs.

American Standard ComfortClean technology: A revolutionary ceramic glaze with zinc oxide that effectively kills E. coli bacteria inside the toilet bowl for the long term and beyond, as proven in tests conducted by Industrial Microbiological Services Limited (IMSL).



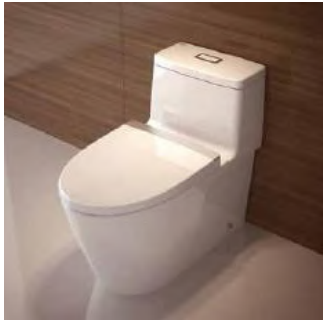
ComfortClean Antibacterial Glaze is fired into the ceramic at more than 1000°C, ensuring long-lasting effectiveness.



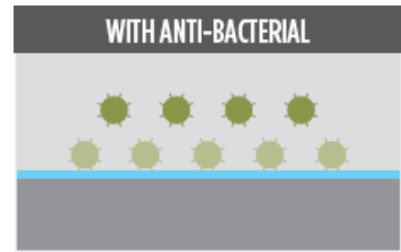
ANTI-BACTERIAL FINISH

TOTAL HYGIENE PROTECTION

American Standard's anti-bacterial finish covers all essential touch points, including the push button, seat and cover to provide an ultimate hygienic environment.



Over time, bacteria breeds on a conventional toilet's surface.



With Anti-bacterial finish, it effectively inhibits the growth of bacteria.



American Standard is the first in the industry to meet the *Japan Industrial Standard (JIS Z 2801:2010) for this anti-bacterial technology on the push button. This technology is also applied on the seat and cover to provide a more hygienic environment.

*Japan Industrial Standard (JIS Z 2801:2010) is the standard established by Japan Industrial Standard to test for anti-bacterial activity and efficacy.

Antimicrobial test result example (24 hours later)



The anti-bacterial innovation is applied as a glaze on ceramic wares, and is certified by the Industrial Microbiological Service Ltd (IMSL) in UK. The anti-bacterial feature cannot be removed even by household detergents, providing a lifetime of hygiene protection.



Good Design Award 2014

American Standard wins 2014 Good Design Award for its Acacia Evolution.



GOOD DESIGN AWARD 2014

LIXIL

Link to Good Living

About LIXIL

LIXIL is the most comprehensive and connected global company in the housing and building industry, delivering human-centric innovation that enhances people's living spaces – we call this Living Technology.

Delivering core strengths in water, housing, building and kitchen technologies, our brand portfolio businesses including LIXIL, INAX, GROHE, American Standard Brands and Permasteelisa are leaders in the industries and regions in which they operate, bringing better living solutions to the world today and for future generations.





自願參與用水效益標籤計劃 - 水廁
Voluntary Water Efficiency Labelling Scheme - Water Closets



茲證明
This is to certify that

TF2007TSC = 2007TSC-WT-0

將下列水廁在本計劃內註冊：
has registered the following water closet under this scheme :

牌 子 / Brand	: American Standard
型 號 / Model	: 2007TSC-WT-0 + PC-A242507
種 類 / Category	: One-Piece Water Closet Pan
原 產 地 / Country or Region Origin	: Thailand (WC Suite) China (Flushing Valve)

在用水效益標籤上展示的標誌 <i>Symbolic Presentation on the Water Efficiency Label</i>	: 滴水點 <i>Water droplet(s)</i>
用水效益級別 <i>Water Efficiency Grade</i>	: 1
全沖水量 <i>Water Flush Volume (Full)</i>	: 4.8 公升/沖廁 <i>litres/flush</i>
低沖水量 <i>Water Flush Volume (Reduced)</i>	: 3.1 公升/沖廁 <i>litres/flush</i>

簽發日期:
Date of Issue: 17 September 2020



水務署署長(葉哲奇代行)
for Director of Water Supplies

+ 上述水廁具額外節水功能，即：重用洗盥水作沖廁用途。
The above water closet is equipped with additional water saving feature, that is: re-use the water collected from wash basin for flushing purpose.



PROJECT		REF		REV	ITEM CODE	
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SANITARY WARE SPECIFICATION SHEET

<p>Item Descriptions</p> <p>Model</p> <p>Material</p> <p>Manufacturer</p> <p>Supplier</p> <p>Contact Tel/Fax</p> <p>E-mail</p> <p>Website</p>	<p>American Standard (PRC) 5/8" Plastic float operated inlet valve</p> <p>PC-A1260</p> <p>Plastic</p> <p>American Standard (PRC)</p> <p>Acme Sanitary Ware Co. Ltd Mr. Eric Wong/ Mr. Don Yuen</p> <p>(852) 2388-7171 / (852) 2710-8012 acme@acmesanitary.com.hk www.acmesanitary.com.hk</p>	<p align="center">Illustration/ Drawing</p>
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Note: The color of the above fittings may be varied without further notice.

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



水務署
Water Supplies Department

總部 Headquarters

香港灣仔道七號入境事務大樓 48 樓

Tower, 7 Gloucester Road, Wan Chai, Hong Kong



本署檔號
Our ref.
來函檔號
Your ref.

WSD/2022 T/J(1111/2022)

電話
Tel.
傳真
Fax.

: 2824 0578

23 December 2022



**Approval of “AMERICAN STANDARD” Float Operated Valve
(General Acceptance No. C20221163F)**

Your letters ref. WRC/2780 and C-WSD/0977 dated 23 September 2022 and 29 November 2022 respectively refer.

Having considered the test report ref. J27711 issued on 13 May 2022 by Nutek Systems (HK) Limited, 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: Xiamen R&T Plumbing Technology Co Ltd
Country of Origin: the Mainland of China
Brand: American Standard
Details of Fitting: 5/8" Plastic float operated valve
Model: PC-A1260
Body Markings: Nil
Expiry Date: 26 April 2027



Proviso: As the fitting has not been tested for use in contact with water intended for human consumption, the fitting can only be used in flushing water plumbing systems.

This Authority hereby permits the use of the above fitting in flushing 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-

"The flushing volume of the flushing valve should be adjusted to suit the design of the toilet bowl so that wastes can be cleared effectively by a single flush."

"The fitting should be used within the range of working pressures specified by the manufacturer." AND

"The installed fitting should not result in backflow of water that will contaminate the flushing water supply."

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 flushing water plumbing systems.

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


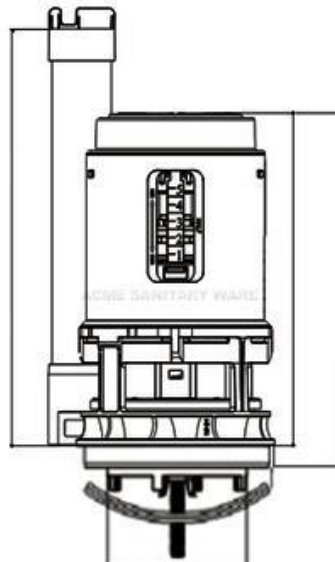
Encl.

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



PROJECT		REF		REV	ITEM CODE	
LOCATION		DATE			PAGE	

SANITARY WARE SPECIFICATION SHEET

Item Descriptions	American Standard (PRC) 3" Dual flush inlet valve	Illustration/ Drawing
Model	PC-A242507	 
Material	Plastic	
Manufacturer	American Standard (PRC)	
Supplier	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	

Note: The color of the above fittings may be varied without further notice.

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



水務署
Water Supplies Department



總辦事處
道七號入境事務大樓 48 樓
Tower, 7 Gloucester Road, Wan Chai, Hong Kong

本署檔號
Our ref.
來函檔號
Your ref.

21/2023 T/J(1083/2023)

電話
Tel.
傳真
Fax : 2824 0578

21 December 2023



**Approval of “AMERICAN STANDARD” Flush Valve
(General Acceptance No. C20230948F)**

Your E-Application [file-id: ETJ-GA-20231027-160] dated 27 October 2023 and subsequent submissions received by this department up to 1 December 2023 refer.

Having considered the test report ref. J28978 issued on 28 August 2023 by Nutek Systems (HK) Limited, 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: Xiamen R&T Plumbing Technology Co Ltd
Country of Origin: the Mainland of China
Brand: American Standard
Details of Fitting: 3" Plastic dual flush valve
Model: PC-A242507
Body Markings: **R&T**
Expiry Date: 16 July 2028



Proviso: As the fitting has not been tested for use in contact with water intended for human consumption, the fitting can only be used in flushing water plumbing system.

This Authority hereby permits the use of the above fitting in flushing 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-

"The flushing volume of the flushing valve should be adjusted to suit the design of the toilet bowl so that wastes can be cleared effectively by a single flush."

"The fitting should be used within the range of working pressures specified by the manufacturer." AND

"The installed fitting should not result in backflow of water that will contaminate the flushing water supply."

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 flushing water plumbing systems.

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 Mr Albert CHOW at tel. no. 3583 4086.

Yours faithfully,



(Terry KUNG)

for Director of Water Supplies

Encl.

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

Test Report



TF2007TSC=2007TSC-WT-0

Test

Title: Testing of WC Pan
 Method: BS 3402: 1969
 Report No.: J 26115
 Completion: 24 Feb., 2021 to 18 Mar., 2021

Applicant (Information provided by client)

Name: _____
 Address: _____



Sample (Information provided by client)

Description: One piece toilet
 Brand: American Standard
 Model: 2007-WT-0; 2007TSC-WT-0
 Body Marking: *American Standard*
 Manufacturer: LIXIL (Thailand) Public Company Limited
 Origin: Thailand

Approved Signatory

Signature: *AC*
 Name (title): Chung Siu Yu (Engineer)
 Date: 01 Jun., 2021

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

REPORT NO.: J 26115

Summary

Test	Remark
1 Visual Examination	C
2 Water Absorption	C
3 Crazeing	C
4 Chemical Resistance Test	C
5 Resistance to Staining and Burning	C

Results (apply only to samples tested)

1 Visual Examination

BS 3402: 1969 Cl. 5.1, 5.4 & Table 2

Location	Blemish or defect	Maximum permitted	
General	Wavy finish	None on all visible surfaces	C
	Warpage	Not more than 6mm	C
	Discoloration	None on all visible surfaces	C
Flushing surface and horizontal face of rims of WC pans bidets and urinals	Spots, blister and pinholes	A total of not over three; no grouping; for coloured appliances, blister and pinhole limited to one.	C
	Bubbles and specks	Not over two in one pottery square; a total of not over four	C
	Polishing marks	One only; none permitted for coloured figures	C
Visible surfaces other than above	Spots, blisters and pinholes	A total of not over five; no grouping; for coloured appliances, no blisters are permitted and pinholes are limited to a total of two	C
	Bubbles and specks	Not over three in one pottery square; a total of not over ten	C
Overall result			C

2 Water Absorption

BS 3402: 1969 Cl. 6

ID	Weight (kg)		Absorption (%)	Required	Remark
	Before Test	After Test			
Sample 1	133.6	133.8	0.13	0.75% max.	C
Sample 2	132.8	133.0	0.17		C
Sample 3	140.9	141.0	0.09		C
Average			0.13	0.50% max.	C
Overall result					C

3 Cracking
BS 3402: 1969 Cl. 7

ID	Variable	Unit	Measured	Required	Remark
1	Saturated steam	MN/m ²	0.34	0.33 - 0.35	C
	Duration	h	10	10	C
	Sample 1	---	No	No	C
	Sample 2	---	No		C
Sample 3	---	No	C		
Overall result					C

4 Chemical Resistance Test
BS 3402: 1969 Cl. 8

Table 4 - Chemical solutions

Name of Chemical	Strength of solution %	Time hours	Temperature °C
Acetic acid	10	16	100
Citric acid	10	16	100
Detergent (Note 1)	(Note 1)	48	60
Hydrochloric acid (Note 2)	(Note 2)	48	15 to 21
Sodium hydroxide	5	0.5	60
Sodium stearate	0.15	48	60
Sulphuric acid	3	16	100

NOTE 1 This consists of an aqueous solution containing 0.04 % (w/vol) of a condensation product of methylated with 10 molecules of ethylene oxide. A suitable solution which contains 0.15% (w/vol) of the product is obtainable commercially under the trade name "Lanquat N".

NOTE 2 This solution consists of equal volumes of water and of hydrochloric acid of specific gravity 1.18.



ID	Solution	Time (h)	Temperature (°C)	Measured	Required	Remark
1	Acetic acid	16	100	No Loss	No loss of reflectivity on glaze	C
	Citric acid	16	100	No Loss		C
	Detergent	48	60	No Loss		C
	Hydrochloric acid	48	20	No Loss		C
	Sodium hydroxide	0.5	60	No Loss		C
	Sodium stearate	48	60	No Loss		C
	Sulphuric acid	16	100	No Loss		C
Overall result						C

5 Resistance to Staining and Burning
BS 3402: 1969 Cl. 9

ID	Variable	Unit	Measured	Required	Remark
1	Methylene blue	---	No Stain	No stain remains	C
	Sodium hypochlorite	---	No Stain		C
	Hydrogen peroxide	---	No Stain		C
	Amyl acetate	---	No Stain		C
	Iodine in ethanol	---	No Stain		C
2	Lighted cigarette	---	No Stain	C	
Overall result					C

Figure 1 - Sample



Figure 2 - Body marking



General Note(s)

Definitions:

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

Organizations:

- HKAS - Hong Kong Accreditation Service
- HOKLAS - Hong Kong Laboratory Accreditation Scheme
- WSD - Water Supplies Department (of Hong Kong)
- WHO - World Health Organization

- End of report -

