

mity Model 665 Cast Iron Wafer Type Silent Check Valves



Body Marking:

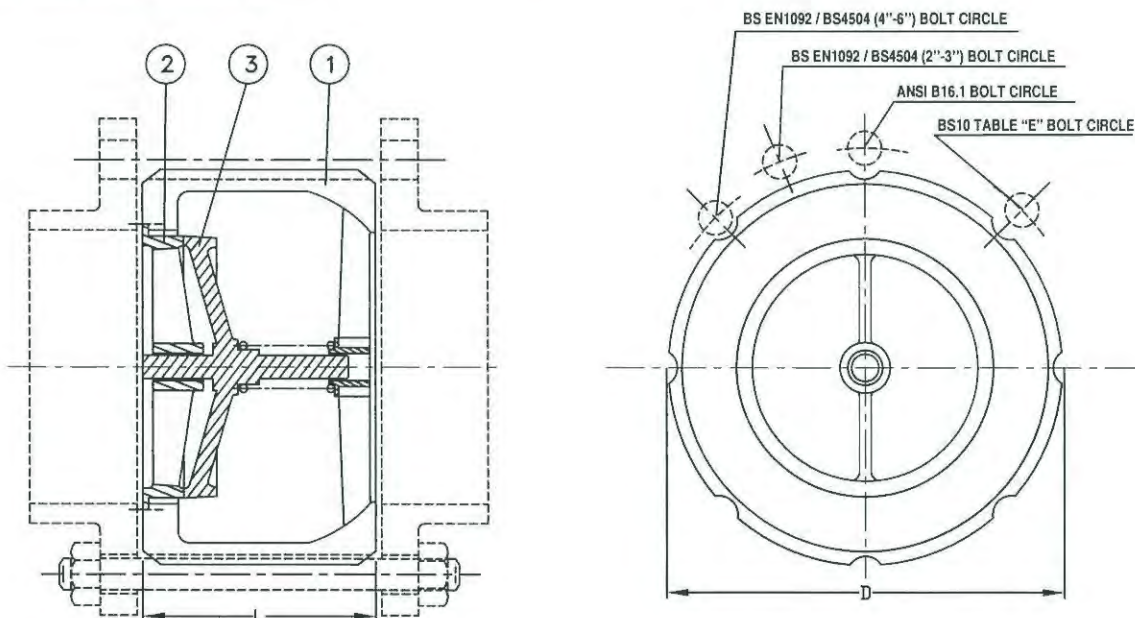
mity
(size in inch) - 150 ↑

FEATURES:

1. No water hammer phenomenon takes place.
2. Useful for the protection of pump and pipes as well as for the prevention of noise and vibrations.
3. Work in any position, vertical or horizontal. (Between pump and stop valve or discharge header)
4. With screwed-in type seat/disc guide provides much stronger construction and more durable than conventional design.
5. Coated with epoxy paint comply with BS6920.

TYPICAL APPLICATIONS:

1. Lines for water supply and drainage, or an air-conditioning system in a multi-storied building.
2. Lines for gasoline, petroleum, etc.
3. Lines for loading or unloading of oils and other liquids.
4. Lines for water treatment, cooling water, condensation etc. in chemical plants.
5. Lines for irrigation water.



For Potable Water

Materials of Construction:

1. Body - Cast Iron to BSEN1561 EN-GJL-250min.
2. Seat & Disc Guide - Bronze to BSEN1982 CC491K or Stainless Steel BSEN10088-1 1.4408
3. Disc - Bronze to BSEN1982 CC491K or Stainless Steel BSEN10088-1 1.4408

Working Pressure: 16 Bar (232psi)
Test Pressure: 24 Bar (232psi) on body
17.6 Bar (255psi) on seat

Dimenisions(mm):

SIZE	L	D
DN50 (2")	65	105
DN65 (2½")	74	120
DN80 (3")	80	135
DN100 (4")	105	170
DN150 (6")	142	220
DN200 (8")	170	280
DN250 (10")	210	335

For Flushing Water



總部 Headquarters

香港灣仔告士打道七號入境事務大樓 48 樓

48/F, Immigration Tower, 7 Gloucester Road, Wan Chai, Hong Kong

本署檔號 : (4) in WSD 3321/2020 T/J(315/2020)
Our ref.
來函檔號 :
Your ref.

電話 :
Tel.
傳真 : 2824 0578
Fax.

29 May 2020

Yue Hing Machine Factory Ltd.
2A, 2B-4 Lo Lung Hang Street, G/F.,
Hung Hom, Kowloon,
Hong Kong

(Attn.: Mr Ivan LAW)

Dear Sir,

**Approval of “MITY” Check Valves
(General Acceptance No. C20200376)**

Your letters ref. WSD/AP-25032020-1 and WSD/AP-25032020-1(1) dated 25 March 2020 and 12 May 2020 respectively refer.

Brand	Model No. (Size)	Fugro Test Report Ref.	Issuance Date
Mity	665 (50mm)	196705PC190367A	11 May 2020
Mity	665 (65mm)	196705PC190367(1)A	11 May 2020
Mity	665 (80mm)	196705PC190367(2)A	11 May 2020
Mity	665 (100mm)	196705PC190367(3)A	11 May 2020
Mity	665 (150mm)	196705PC190367(4)A	11 May 2020
Mity	665 (200mm)	196705PC190367(5)A	11 May 2020
Mity	665 (250mm)	196705PC190367(6)A	11 May 2020

Having considered the above test reports issued by the Fugro Technical Services Limited and WRAS certificate, this Authority accepts that the fittings described below comply with, and their use when correctly installed does not contravene, the Waterworks Ordinance and Regulations.

Name of Manufacturer: Yue Hing Machine Factory Ltd

Country of Origin: the Mainland of China

Brand: Mity

Details of Fitting: Cast iron wafer type silent check valve with epoxy coating under WRAS approval no. 1807559

Model: 665

Size: 50mm, 65mm, 80mm, 100mm, 150mm, 200mm, 250mm

Body Markings: **mitv** size in inch 150 →

Expiry Date: 31 July 2023

This Authority hereby permits the use of the above fittings in fresh water plumbing systems, flushing water plumbing systems and fresh water fire services systems subject to full adherence to Waterworks installation requirements.

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

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

Should you have any enquiries, please contact our Engineer Mr. Terry KUNG at tel. no. 3583 4086.

Yours faithfully,



(CHAN Chung-kun)

for Director of Water Supplies

Encl.

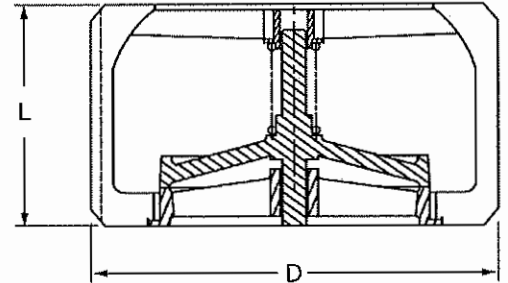
c.c. WSD 3321/1/82] - without catalogue
ME/MC] - with soft copy only


 Client Ref. : --
 Report No. : 196705PC190367A

Page 1 of 6

REPORT ON TESTING OF CAST IRON WAFER TYPE SILENT CHECK VALVE

Information Supplied by Client

 Client : Yue Hing Machine Factory Ltd.
 Client Address : No. 2-4, G/F, Lo Lung Hang Street, Hunghom, Kowloon
 Project : Testing of Cast Iron Wafer Type Silent Check Valves
 Sample Description : Cast Iron Wafer Type Silent Check Valves
 Product Type : Check Valve
 Size : DN50
 Brand : Mity
 Body Markings : **mity** 2 150 ↑
 Country of Origin : China
 Model No. : 665
 Manufacturer : Yue Hing Machine Factory Ltd.


Laboratory Information

 Lab. Sample I.D. : PC190367/1
 Date Received : 04 December 2019
 Date Test Started : 04 December 2019
 Date Test Completed : 14 January 2020
 Test Method : BS EN 16767 : 2016, BS EN 1982 : 2008 and
 BS EN 10283 : 2010

Test Results

1. Dimensions

BS EN 16767 : 2016 clause 4.2.3. (Base on the manufacturer requirement)

Lab Sample I.D.	Nominal Size (DN)	D (mm)	L (mm)	BS EN Requirement (mm)	Results
PC190367/1	(2") 50 mm	105	65	(2") 50 mm	Pass
Manufacturer Requirement	(2") 50 mm	105	65		

Client Ref. : --
 Report No. : 196705PC190367A

2. Prssure Test

BS EN 16767 : 2016 clause 5

Lab Sample I.D.	Shell Test				
	Nominal Pressure PN (bar)	Test Pressure (bar)	Duration (min.)	Observation	Results
PC190367/1	16	24	10	No leakage	Pass
BS EN 12266-1 : 2012 Clause A.3 Requirement	16	$16 \times 1.5 = 24$	10	No leakage during the test period	

Lab Sample I.D.	Seat Test				
	Nominal Pressure PN (bar)	Test Pressure (bar)	Duration (min.)	Observation	Results
PC190367/1	16	17.6	10	No leakage	Pass
BS EN 12266-1 : 2012 Clause A.4.3 Requirement	16	$16 \times 1.1 = 17.6$	10	No leakage occurs through the valve seat	

3. Coating Thickness

WIS No. 4-52-01 Appendix B

Lab Sample I.D.	Average Coating Thickness (μm)	WIS No. 4-52-01 Requirement (μm)	Results
PC190367/1	345	min. 250	Pass

Client Ref. : --
 Report No. : 196705PC190367A

4. Chemical Composition of (Seat Ring)

BS EN 16767 : 2016 clause 4.2.1

Testing items	Results	Specification according to BS EN 1982 : 2008 Grade CC491K castings
1. Copper (Cu) content, %	84.8	83.0 – 87.0 ¹⁾
2. Nickel (Ni) content, %	<0.10	2.0 max.
3. Phosphorus (P) content, %	<0.03	0.10 max.
4. Lead (Pb) content, %	5.0	4.0 – 6.0
5. Tin (Sn) content, %	5.1	4.0 – 6.0
6. Zinc (Zn) content, %	4.8	4.0 – 6.0
7. Aluminium (Al) content, %	<0.01	0.01 max.
8. Iron (Fe) content, %	0.21	0.3 max.
9. Sulfur (S) content, %	<0.04	0.10 max.
10. Antimony (Sb) content, %	<0.02	0.25 max.
11. Silicon (Si) content, %	<0.01	0.01 max.

Remark: ¹⁾ Including nickel

Note

Based on the test results of the submitted sample, it is found that the sample comply with the the chemical composition specification of BS EN 1982 : 2008 Grade CC491K castings.

The chemical composition results are obtained from our test report no. 196705EN192452(1)

5. Chemical Composition of (Disc / Stem)

BS EN 16767 : 2016 clause 4.2.1

Testing items	Results	Specification according to BS EN 1982 : 2008 Grade CC491K castings
1. Copper (Cu) content, %	84.8	83.0 – 87.0 ¹⁾
2. Nickel (Ni) content, %	<0.10	2.0 max.
3. Phosphorus (P) content, %	<0.03	0.10 max.
4. Lead (Pb) content, %	5.0	4.0 – 6.0
5. Tin (Sn) content, %	5.1	4.0 – 6.0
6. Zinc (Zn) content, %	4.8	4.0 – 6.0
7. Aluminium (Al) content, %	<0.01	0.01 max.
8. Iron (Fe) content, %	0.21	0.3 max.
9. Sulfur (S) content, %	<0.04	0.10 max.
10. Antimony (Sb) content, %	<0.02	0.25 max.
11. Silicon (Si) content, %	<0.01	0.01 max.

Remark: ¹⁾ Including nickel

Note

Based on the test results of the submitted sample, it is found that the sample comply with the the chemical composition specification of BS EN 1982 : 2008 Grade CC491K castings.

The chemical composition results are obtained from our test report no. 196705EN192452(1)

Client Ref. : --
 Report No. : 196705PC190367A

6. Chemical Composition of (Seat Ring)

BS EN 16767 : 2016 clause 4.2.1

Testing items	Results	Specification according to BS EN 10283:2010 Grade X5CrNiMo19-11-2 (1.4408)
1. Carbon (C) content, %	0.06	0.07 max.
2. Silicon (Si) content, %	1.17	1.50 max.
3. Manganese (Mn) content, %	0.90	1.50 max.
4. Phosphorus (P) content, %	0.030	0.040 max.
5. Sulfur (S) content, %	0.008	0.030 max.
6. Chromium (Cr) content, %	19.12	18.00 – 20.00
7. Molybdenum (Mo) content, %	2.13	2.00 – 2.50
8. Nickel (Ni) content, %	9.61	9.00 – 12.00

Note

Based on the test results of the submitted sample, it is found that the sample comply with the the chemical composition specification of BS EN 10283:2010 Grade X5CrNiMo19-11-2. (1.4408)
 The chemical composition results are obtained from our test report no. 197068EN200472

7. Chemical Composition of (Disc / Stem)

BS EN 16767 : 2016 clause 4.2.1

Testing items	Results	Specification according to BS EN 10283:2010 Grade X5CrNiMo19-11-2 (1.4408)
1. Carbon (C) content, %	0.06	0.07 max.
2. Silicon (Si) content, %	1.17	1.50 max.
3. Manganese (Mn) content, %	0.90	1.50 max.
4. Phosphorus (P) content, %	0.030	0.040 max.
5. Sulfur (S) content, %	0.008	0.030 max.
6. Chromium (Cr) content, %	19.12	18.00 – 20.00
7. Molybdenum (Mo) content, %	2.13	2.00 – 2.50
8. Nickel (Ni) content, %	9.61	9.00 – 12.00

Note

Based on the test results of the submitted sample, it is found that the sample comply with the the chemical composition specification of BS EN 10283:2010 Grade X5CrNiMo19-11-2. (1.4408)
 The chemical composition results are obtained from our test report no. 197068EN200472

Client Ref. : --
 Report No. : 196705PC190367A

8. Tensile Test

BS EN 1563 : 2011



Lab Sample I.D.	Avg. Diameter of Specimen (mm)	Effective Cross Sectional Area (mm ²)	Tensile Load (kN)	Tensile Stress (N/mm ²)	Failure Mode	BS EN Requirement
ME191935/1	13.93	152.402	86.4	567	Break at Shank	Tensile stress min. 250
ME191935/2	13.94	152.621	96.8	634	Break at Shank	
ME191935/3	13.88	151.310	80.2	530	Break at Shank	
ME191935/4	13.91	151.965	82.8	545	Break at Shank	
ME191935/5	13.94	152.621	85.7	562	Break at Shank	
Average			86.38	567.6		

Remark : Sample test satisfy the tensile strength and elongation requirement of BS EN 1561 : 2011 material designation EN-GJL-250

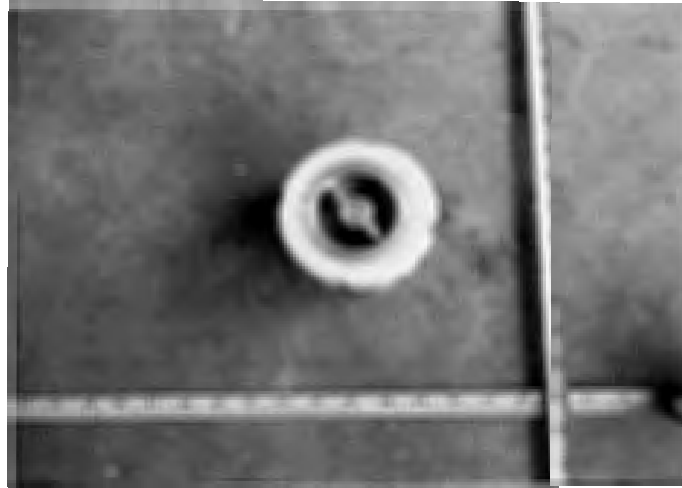
9. Summary of Results (apply only to sample tested)

Dimensions -- Pass
 Pressure Test -- Pass
 Coating thickness -- Pass
 Chemical Composition of (Seat Ring) -- Pass (Grade CC491K castings of BS EN 1982 : 2008)
 Chemical Composition of (Disc/Stem) -- Pass (Grade CC491K castings of BS EN 1982 : 2008)
 Chemical Composition of (Seat Ring) -- Pass (Grade X5CrNiMo19-11-2 (1.4408) of BS EN 10283 : 2010)
 Chemical Composition of (Disc/Stem) -- Pass (Grade X5CrNiMo19-11-2 (1.4408) of BS EN 10283 : 2010)
 Tensile Test -- Pass (EN-GJL-250 of BS EN 1561 : 2011)

Remarks 1.) The test results relate only to the samples tested.
 2.) The test sample is shown in the photograph on page 6 of this report.
 3.) An epoxy coating was visible on the visual internal water contact surface of the sample.
 4.) This report is to supersede our previous test report No. 196705PC190367.

Checked by :  Date : 11 MAY 2020 Certified by :  Date : 11 MAY 2020
 Ng Shu Shing Chris
 Assistant Manager (Plumping Components)

Client Ref. : --
Report No. : 196705PC190367A

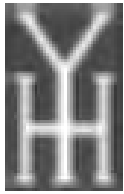


Test Sample



Body Marking

**** End of Report ****



余慶機器廠有限公司
YUE HING MACHINE FACTORY LTD.

2A, 2B - 4 Lo Lung Hang Street, G/F., Hung Hom, Kowloon, Hong Kong.
TEL: (852) 2362 5112 (8 Lines)
FAX: (852) 2764 0108

E-mail: yhm@yuehing.com.hk

Date: 20 August 2020

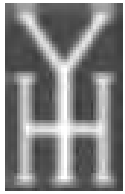
To Whom It May Concern

Re: Job/Project Reference for "MITY" Wafer Type Cast Iron Silent Check Valves,
bronze trimmed/ stainless steel trimmed

We confirm that the "MITY" Wafer Type Cast Iron Silent Check Valves have been approved or being used in the following projects.

- 1) 海洋公園 - 萬豪酒店
- 2) 黃竹坑 467 Site A
- 3) 西九文化區 - 香港故宫博物館
- 4) 香港國際機場 - Sky City
- 5) 香港大學醫學院
- 6) 屯門 TMTL500
- 7) 大埔荔枝山 - 天鑽
- 8) 寶馬山道 3 號
- 9) 浸會大學 - Shaw Campus
- 10) 愉景灣 - 遊艇會
- 11) 元洲街 342-356 號
- 12) 將軍澳 - 至善街 9 號
- 13) 山頂 - 白加道 47 號
- 14) 白石角 - 雲匯
- 15) 駿業街 - 熟食市場
- 16) 何文田 - 喇沙利道 10-12A
- 17) 薄扶林道 45 號
- 18) 西貢 DD215
- 19) 北角木星街 13-23 號
- 20) 何文田 KIL11257 常盛街
- 21) 深水埗 - 橋蔭街 6558
- 22) 窩打老道 74 號
- 23) 馬頭圍道 / 春田街 - 煥然懿居
- 24) 葵喜街 1-11 號
- 25) 東涌 TCTL38





余慶機器廠有限公司
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2A, 2B - 4 Lo Lung Hang Street, G/F., Hung Hom, Kowloon, Hong Kong.
TEL: (852) 2362 5112 (8 Lines)
FAX: (852) 2764 0108 E-mail: yhm@yuehing.com.hk

Date: 20 August 2020

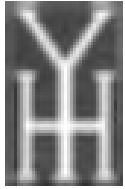
To Whom It May Concern

Re: Job/Project Reference for "MITY" Wafer Type Cast Iron Silent Check Valves,
bronze trimmed/ stainless steel trimmed

We confirm that the "MITY" Wafer Type Cast Iron Silent Check Valves have been approved or being used in the following projects.

- 26) 屯門掃管笏 541 地段
- 27) 元朗 YLTL524
- 28) 將軍澳 73A
- 29) 西九龍文化區
- 30) 田灣 - 污水處理廠
- 31) 火炭 - 香港浸會大學高級職員宿舍
- 32) 粉嶺 - 香港高爾夫球會球場
- 33) 啓德 6527 Area II Site3
- 34) 西九龍政府合署
- 35) 域多利道 192 號
- 36) 北角 油街 - 維港頌
- 37) 啓德 Area HI NKIL6541
- 38) 荃灣如心廣場
- 39) 元朗大會堂
- 40) 長沙灣賽馬會藝術中心
- 41) 宋皇臺 MTRC SCL1176
- 42) 淺水灣道 108 號
- 43) 火炭 - STTL603
- 44) 香港 Sports Centre
- 45) 黃竹坑道 54 號
- 46) 南灣道 61 號
- 47) 筲箕灣道 163 號





余慶機器廠有限公司
YUE HING MACHINE FACTORY LTD.

2A, 2B - 4 Lo Lung Hang Street, G/F., Hung Hom, Kowloon, Hong Kong.
TEL: (852) 2362 5112 (8 Lines)
FAX: (852) 2764 0108 E-mail: yhm@yuehing.com.hk

Date: 20 August 2020

To Whom It May Concern

Re: Job/Project Reference for "MITY" Wafer Type Cast Iron Silent Check Valves,
bronze trimmed/ stainless steel trimmed

We confirm that the "MITY" Wafer Type Cast Iron Silent Check Valves have been approved or being used in the following projects.

- 48) 土瓜灣建築處地盤 SSL513
- 49) 大埔 - 香港墨爾文國際學校
- 50) 荃灣西鐵站 TW6
- 51) 啓德沐寧街 6516 & 6517
- 52) 屯門掃管笏 TMTL423
- 53) 紅磡 Shangri-La Hotel
- 54) 蘇杭街 53-59 號
- 55) 何大田 - 常富街 1 號
- 56) 淺水灣道 90 號
- 57) 洗衣街 78-88 號
- 58) 馬頭圍道 77 號
- 59) 重士街 2-22 號
- 60) 元朗 - 朗屏 Lot 518
- 61) 黃竹街 38 號

Yours Faithfully,

Yue Hing Machine Factory Ltd

/lyp

