

Summary of Test Results

Reference no. : BC-SUMMARY-2022-039

Customer : Gate Way Valve & Fitting Ltd.

Address : Flat A1, 4/F., Galaxy Factory Building, 25-27 Luk Hop Street, San Po Kong, Kowloon, H. K.

Sample description : 316 Stainless Steel Body Ball Float Valve

Nominal pressure (PN) : 16

Manufacturer : GENWEC WASHROOM S. L.

Brand name : Valvulas CT

Body marking : CT AISI 316L

Model no. : 200B-RPH

Origin : Spain

Sample submitted by : Gate Way Valve & Fitting Ltd.

Test standard : BS 1212 : Part 1 : 1990 / BS EN 10088-1 : 2014

Test period : 23 to 31 March 2022

A) Sample List

DN (mm)	Specimen no.
80	220315-2211-001
100	220315-2211-002

B) Test Item

1) Dimensions Check (BS 1212 : Part 1 : 1990 Section 3)

DN (mm)	Test results	Castco LRN
80	Passed	220315-2211
100	Passed	

2) Hydraulic Pressure and Shut-off Pressure Test (BS 1212 : Part 1 : 1990 Clause 24)

DN (mm)	Test results	Castco LRN
80	Passed	220315-2211
100	Passed	

3) Chemical Composition (Body) (BS EN 10088-1 : 2014 Table 2 Grade 1.4401 (316))

DN (mm)	Test results	Castco LRN
80	Passed	220321-2020
100	Passed	220321-2024

Remark(s) :

1. This page no. 1A of this summary supersedes page no. 1 of the previous summary of Reference no. : BC-SUMMARY-2022-039 issued on 07 April 2022.

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Castco Testing Centre Limited

Summary of Test Results

Reference no. : BC-SUMMARY-2022-039

B) Test Item (con't)

4) Chemical Composition (Piston) (BS EN 10088-1 : 2014 Table 2 Grade 1.4401 (316))

DN (mm)	Test results	Castco LRN
80	Passed	220321-2021
100	Passed	220321-2025

5) Chemical Composition (Lever) (BS EN 10088-1 : 2014 Table 2 Grade 1.4401 (316))

DN (mm)	Test results	Castco LRN
80	Passed	220321-2022
100	Passed	220321-2026

Remark(s) :

1. This page no. 2A of this summary supersedes page no. 2 of the previous summary of Reference no. : BC-SUMMARY-2022-039 issued on 07 April 2022.

Prepare by :


FU HO MAN
Assistant Technical Manager

Date : 21 October 2022

Review by :


WONG KA MAN
Senior Manager

Date : 21 October 2022

21 OCT 2022

Castco Testing Centre Limited

Test Report

Float Operated Valves - Dimensions Check
(BS 1212 : Part 1 : 1990 Section 3)

Date of issue : 21 October 2022

Page 1A of 3 page(s)

Castco LRN : 220315-2211

Details as supplied by customer

Customer : Gate Way Valve & Fitting Ltd.

Customer's ref. no. : - -

Address : Flat A1, 4/F., Galaxy Factory Building, 25-27 Luk Hop Street, San Po Kong, Kowloon, H. K. Contract no. : - -

Job title : WSD GA application of "Valvulas CT" 316 Stainless Steel Body Ball Float Valve

Sample description : 316 Stainless Steel Body Ball Float Valve

Nominal pressure (PN) : 16

Manufacturer : GENWEC WASHROOM S. L.

Brand name : Valvulas CT

Body marking : CT AISI 316L

Model no. : 200B-RPH

Origin : Spain

Sample submitted by : Gate Way Valve & Fitting Ltd.

Laboratory test results

Date of sample received : 15 March 2022

Date of test : 29 March 2022

Specimen no.		220315-2211-001	220315-2211-002
DN (mm)		80	100
Outside diameter of flange (mm)	Measured mean value	200	220
	Requirement	198 to 202	218 to 222
Diameter of bolt circle (mm)	Measured mean value	160	180
	Requirement	159 to 161	179 to 181
Diameter of bolt hole & Bolts number (mm & no.)	Measured mean value	18.46 & 8	18.43 & 8
	Requirement	18 to 19 & 8	18 to 19 & 8
Flange thickness (mm)	Measured mean value	20.15	21.35
	Requirement	18.5 to 21.5	20.5 to 23.5

Remark(s) :

1. Test results relate only to the specimen tested.
2. Test results of sample comply with the requirement of BS 1212 : Part 1 : 1990 Section 3 (effect of measurement uncertainty has not been taken into account).
3. This page no. 1A of this test report supersedes page no. 1 of the previous test report of Castco LRN : 220315-2211 issued on 07 April 2022 with amendment : "Test results of 220315-2211-003" has been removed due to customer request.

Checked by :


FU HO MAN
Assistant Technical Manager

Certified by :


WONG KA MAN
Senior Manager

21 OCT 2022

Test Report

Float Operated Valves - Hydraulic Pressure and Shut-off Pressure Test
(BS 1212 : Part 1 : 1990 Appendix A)

Castco Testing Centre Limited

Date of issue : 21 October 2022

Page 2A of 3 page(s)

Castco LRN : 220315-2211

Details as supplied by customer

Customer : Gate Way Valve & Fitting Ltd.

Customer's ref. no. : - -

Address : Flat A1, 4/F., Galaxy Factory Building, 25-27 Luk Hop Street, San Po Kong, Kowloon, H. K.

Contract no. : - -

Job title : WSD GA application of "Valvulas CT" 316 Stainless Steel Body Ball Float Valve

Sample description : 316 Stainless Steel Body Ball Float Valve

Nominal pressure (PN) : 16

Manufacturer : GENWEC WASHROOM S. L.

Brand name : Valvulas CT

Body marking : CT AISI 316L

Model no. : 200B-RPH

Origin : Spain

Sample submitted by : Gate Way Valve & Fitting Ltd.

Laboratory test results

Date of sample received : 15 March 2022

Date of test : 29 to 30 March 2022

Specimen no.	220315-2211-001	220315-2211-002
DN (mm)	80	100

A. Hydraulic Pressure Test (BS 1212 : Part 1 : 1990 Clause 24.1)

Apply pressure (bar)	20	20
Maintain period (min)	15	15
Observation	No leakage was observed	No leakage was observed
Requirement	Without leaking or sweating	

B. Shut-off Pressure Test (BS 1212 : Part 1 : 1990 Clause 24.2)

Apply pressure (bar)	14	14
Observation	No leakage was observed	No leakage was observed
Requirement	Shall not leak	

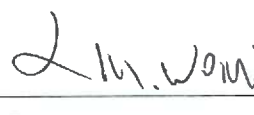
Remark(s) :

1. Test results relate only to the specimen tested.
2. Test results of sample comply with the requirement of BS 1212 : Part 1 : 1990 Clause 24 (effect of measurement uncertainty has not been taken into account).
3. This page no. 2A of this test report supersedes page no. 2 of the previous test report of Castco LRN : 220315-2211 issued on 07 April 2022 with amendment : "Test results of 220315-2211-003" has been removed due to customer request.

Checked by :


FU HO MAN
 Assistant Technical Manager

Certified by :


WONG KA MAN
 Senior Manager

21 OCT 2022

Castco Testing Centre Limited

Test Report

Float Operated Valves - Dimensions Check
(BS 1212 : Part 1 : 1990 Section 3)

Date of issue : 21 October 2022

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Castco LRN : 220315-2211

Appendix A220315-2211-001220315-2211-002

Remark(s) :

1. This page no. 3A of this test report supersedes page no. 3 of the previous test report of Castco LRN : 220315-2211 issued on 07 April 2022 with amendment : "Product photo of 220315-2211-003" has been removed due to customer request.

End of Report



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FU HO MAN
Assistant Technical Manager

Castco Testing Centre Limited

Test Report

Chemical Analysis of Steel

Date of issue: 01-04-2022

Page 1 of 2

Specimen No.: CHEM-220321-2020-001

Castco LRN: 220321-2020

Details as supplied by customer

Name of Customer : Gate Way Valve & Fitting Limited
Address : Flat A1, 4/F, Galaxy Fty Bldg, 25-27 Luk Hop Street, San Po Kong, Kowloon, Hong Kong
Job Title : WSD GA application of "Valvulas CT" 316 Stainless Steel Body Ball Float Valve
Contract No. : --
Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --
Sample Description : DN80 316 Stainless Steel Body Ball Float Valve (Body)
Specification : BS EN 10088-1:2014, Table 2, Grade 1.4401 (316)
Specimen No. : 220315-2211-001
Sample Identification No. : -- / Model No. : 200B-RPH / Origin : Spain
Manufacturer : GENWEC WASHROOM S.L. / Brand name: Valvulas CT

Test Method(s):-

- 1) BS EN ISO 15350 : 2010
- 2) ST-Multi-1(ICP-OES)
- 3) BS EN ISO 15351: 2010

Remark(s):

- I. Test results only relate to the specimen tested.

Checked by :

Lau Hiu Yat
Assistant Technical Manager

Approved Signatory :

Cheng Chi Fai
Senior Manager

Form No.: CHM Steel-1 T dd 16/12/2015



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Test Report
Chemical Analysis of Steel

Castco Testing Centre Limited

Date of issue: 01-04-2022

Specimen No.: CHEM-220321-2020-001

Page 2 of 2

Castco LRN: 220321-2020

Laboratory test details

Date of Request Confirmed: 18-03-2022

Date of Received by Lab.: 18-03-2022

Testing Period: 23-03-2022 to 28-03-2022

Chemical Analysis		Result
1) Total Carbon Content	C %	0.018
1) Total Sulfur Content	S %	0.0012
2) Chromium	Cr %	17.68
2) Manganese	Mn %	1.47
2) Molybdenum	Mo %	2.14
2) Nickel	Ni %	10.49
2) Phosphorus	P %	0.028
2) Silicon	Si %	0.391
3) Nitrogen	N %	0.034

End of Report

Form No.: CHM Steel-I T dd 16/12/2015

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Appendix A

CASTCO TESTING CENTRE LIMITED

Summary of Chemical Analysis of Steel

Date of issue: 01-04-2022

Specimen No.: CHEM-220321-2020-001

Page 1 of 1

Castco LRN: 220321-2020

Name of Customer: Gate Way Valve & Fitting Limited

Job Title: WSD GA application of "Valvulas CT" 316 Stainless Steel Body Ball Float Valve

Contract No.: --

Customer's Ref. No.: --

Date of Received by Lab.: 18-03-2022

Testing Period: 23-03-2022 to 28-03-2022

Castco LRN:	220321-2020				
Sample Description :	DN80 316 Stainless Steel Body Ball Float Valve (Body)				
Specimen No. :	220315-2211-001				
Sample Identification No.:	-- / Model No. : 200B-RPH / Origin : Spain				
Manufacturer :	GENWEC WASHROOM S.L. / Brand name: Valvulas CT				
Specification: BS EN 10088-1:2014, Table 2, Grade 1.4401 (316)			Test Results	Within / Exceed limit	
Carbon C	0.07 max.	%	0.018	Within limit	
Sulfur S	0.015 max.	%	0.0012	Within limit	
Chromium Cr	16.5 to 18.5	%	17.68	Within limit	
Manganese Mn	2.00 max.	%	1.47	Within limit	
Molybdenum Mo	2.00 to 2.50	%	2.14	Within limit	
Nickel Ni	10.0 to 13.0	%	10.49	Within limit	
Phosphorus P	0.045 max.	%	0.028	Within limit	
Silicon Si	1.00 max.	%	0.391	Within limit	
Nitrogen N	0.10 max.	%	0.034	Within limit	

Remark(s):

- Test results only relate to the specimen tested.
- Test results of the specimen are in compliance with the chemical requirements of BS EN 10088-1:2014, Table 2, Grade 1.4401 (316).



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FU HO MAN
Assistant Technical Manager

Castco Testing Centre Limited

Test Report
Chemical Analysis of Steel

Date of issue: 01-04-2022

Page 1 of 2

Specimen No.: CHEM-220321-2021-001

Castco LRN: 220321-2021

Details as supplied by customer

Name of Customer : Gate Way Valve & Fitting Limited
Address : Flat A1, 4/F, Galaxy Fty Bldg, 25-27 Luk Hop Street, San Po Kong, Kowloon, Hong Kong
Job Title : WSD GA application of "Valvulas CT" 316 Stainless Steel Body Ball Float Valve
Contract No. : --
Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --
Sample Description : DN80 316 Stainless Steel Body Ball Float Valve (Piston)
Specification : BS EN 10088-1:2014, Table 2, Grade 1.4401 (316)
Specimen No. : 220315-2211-001
Sample Identification No. : -- / Model No. : 200B-RPH / Origin : Spain
Manufacturer : GENWEC WASHROOM S.L. / Brand name: Valvulas CT

Test Method(s):-

- 1) BS EN ISO 15350 : 2010
- 2) ST-Multi-1(ICP-OES)
- 3) BS EN ISO 15351: 2010

Remark(s):

I. Test results only relate to the specimen tested.

Checked by :

Lau Hiu Yat

Assistant Technical Manager

Approved Signatory :

Cheng Chi Fai

Senior Manager

Form No.: CHM Steel-1 T dd 16/12/2015



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Test Report
Chemical Analysis of Steel

Castco Testing Centre Limited

Date of issue: 01-04-2022

Specimen No.: CHEM-220321-2021-001

Page 2 of 2

Castco LRN: 220321-2021

Laboratory test details

Date of Request Confirmed: 18-03-2022

Date of Received by Lab.: 18-03-2022

Testing Period: 23-03-2022 to 28-03-2022

Chemical Analysis		Result
1) Total Carbon Content	C %	0.019
1) Total Sulfur Content	S %	0.0012
2) Chromium	Cr %	17.68
2) Manganese	Mn %	1.48
2) Molybdenum	Mo %	2.13
2) Nickel	Ni %	10.50
2) Phosphorus	P %	0.028
2) Silicon	Si %	0.393
3) Nitrogen	N %	0.034

End of Report

Form No.: CHM Steel-1 T dd 16/12/2015

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CASTCO TESTING CENTRE LIMITED

Appendix A

Summary of Chemical Analysis of Steel

Date of issue: 01-04-2022

Page 1 of 1

Specimen No.: CHEM-220321-2021-001

Castco LRN: 220321-2021

Name of Customer: Gate Way Valve & Fitting Limited

Job Title: WSD GA application of "Valvulas CT" 316 Stainless Steel Body Ball Float Valve

Contract No.: --

Customer's Ref. No.: --

Date of Received by Lab.: 18-03-2022

Testing Period: 23-03-2022 to 28-03-2022

Castco LRN:	220321-2021	
Sample Description :	DN80 316 Stainless Steel Body Ball Float Valve (Piston)	
Specimen No. :	220315-2211-001	
Sample Identification No.:	-- / Model No. : 200B-RPH / Origin : Spain	
Manufacturer :	GENWEC WASHROOM S.L. / Brand name: Valvulas CT	
Specification: BS EN 10088-1:2014, Table 2, Grade 1.4401 (316)	Test Results	Within / Exceed limit
Carbon C 0.07 max. %	0.019	Within limit
Sulfur S 0.015 max. %	0.0012	Within limit
Chromium Cr 16.5 to 18.5 %	17.68	Within limit
Manganese Mn 2.00 max. %	1.48	Within limit
Molybdenum Mo 2.00 to 2.50 %	2.13	Within limit
Nickel Ni 10.0 to 13.0 %	10.50	Within limit
Phosphorus P 0.045 max. %	0.028	Within limit
Silicon Si 1.00 max. %	0.393	Within limit
Nitrogen N 0.10 max. %	0.034	Within limit

Remark(s):

- Test results only relate to the specimen tested.
- Test results of the specimen are in compliance with the chemical requirements of BS EN 10088-1:2014, Table 2, Grade 1.4401 (316).



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Test Report
Chemical Analysis of Steel

Date of issue: 01-04-2022

Page 1 of 2

Specimen No.: CHEM-220321-2022-001

Castco LRN: 220321-2022

Details as supplied by customer

Name of Customer : Gate Way Valve & Fitting Limited
Address : Flat A1, 4/F, Galaxy Fty Bldg, 25-27 Luk Hop Street, San Po Kong, Kowloon, Hong Kong
Job Title : WSD GA application of "Valvulas CT" 316 Stainless Steel Body Ball Float Valve
Contract No. : --
Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --
Sample Description : DN80 316 Stainless Steel Body Ball Float Valve (Lever)
Specification : BS EN 10088-1:2014, Table 2, Grade 1.4401 (316)
Specimen No. : 220315-2211-001
Sample Identification No. : -- / Model No. : 200B-RPH / Origin : Spain
Manufacturer : GENWEC WASHROOM S.L. / Brand name: Valvulas CT

Test Method(s):-

- 1) BS EN ISO 15350 : 2010
- 2) ST-Multi-1(ICP-OES)
- 3) BS EN ISO 15351: 2010

Remark(s):

- I. Test results only relate to the specimen tested.

Checked by :


Lau Hin Yat
Assistant Technical Manager

Approved Signatory :


Cheng Chi Fai
Senior Manager

Form No.: CHIM Steel-1 T dd 16/12/2015



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Test Report

Chemical Analysis of Steel

Castco Testing Centre Limited

Date of issue: 01-04-2022

Page 2 of 2

Specimen No.: CHEM-220321-2022-001

Castco LRN: 220321-2022

Laboratory test details

Date of Request Confirmed: 18-03-2022

Date of Received by Lab.: 18-03-2022

Testing Period: 23-03-2022 to 28-03-2022

Chemical Analysis		Result
1) Total Carbon Content	C %	0.020
1) Total Sulfur Content	S %	0.0015
2) Chromium	Cr %	17.31
2) Manganese	Mn %	1.44
2) Molybdenum	Mo %	2.08
2) Nickel	Ni %	10.24
2) Phosphorus	P %	0.028
2) Silicon	Si %	0.396
3) Nitrogen	N %	0.033

End of Report

Form No.: CHM Steel-1 T dd 16/12/2015

21 OCT 2022

Appendix A

Castco Testing Centre Limited

Summary of Chemical Analysis of Steel

Date of issue: 01-04-2022

Specimen No.: CHEM-220321-2022-001

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Castco LRN: 220321-2022

Name of Customer: Gate Way Valve & Fitting Limited

Job Title: WSD GA application of "Valvulas CT" 316 Stainless Steel Body Ball Float Valve

Contract No.: --

Customer's Ref. No.: --

Date of Received by Lab.: 18-03-2022

Testing Period: 23-03-2022 to 28-03-2022

Castco LRN:	220321-2022			
Sample Description :	DN80 316 Stainless Steel Body Ball Float Valve (Lever)			
Specimen No. :	220315-2211-001			
Sample Identification No.:	-- / Model No. : 200B-RPH / Origin : Spain			
Manufacturer :	GENWEC WASHROOM S.L. / Brand name: Valvulas CT			
Specification: BS EN 10088-1:2014, Table 2, Grade 1.4401 (316)	Test Results		Within / Exceed limit	
Carbon C 0.07 max. %	0.020		Within limit	
Sulfur S 0.015 max. %	0.0015		Within limit	
Chromium Cr 16.5 to 18.5 %	17.31		Within limit	
Manganese Mn 2.00 max. %	1.44		Within limit	
Molybdenum Mo 2.00 to 2.50 %	2.08		Within limit	
Nickel Ni 10.0 to 13.0 %	10.24		Within limit	
Phosphorus P 0.045 max. %	0.028		Within limit	
Silicon Si 1.00 max. %	0.396		Within limit	
Nitrogen N 0.10 max. %	0.033		Within limit	

Remark(s):

- I. Test results only relate to the specimen tested.
- II. Test results of the specimen are in compliance with the chemical requirements of BS EN 10088-1:2014, Table 2, Grade 1.4401 (316).



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21 OCT 2022

FU HO MAN
Assistant Technical Manager

Castco Testing Centre Limited

Test Report
Chemical Analysis of Steel

Date of issue: 01-04-2022

Page 1 of 2

Specimen No.: CHEM-220321-2024-001

Castco LRN: 220321-2024

Details as supplied by customer

Name of Customer : Gate Way Valve & Fitting Limited
Address : Flat A1, 4/F, Galaxy Fty Bldg, 25-27 Luk Hop Street, San Po Kong, Kowloon, Hong Kong
Job Title : WSD GA application of "Valvulas CT" 316 Stainless Steel Body Ball Float Valve
Contract No. : --
Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --
Sample Description : DN100 316 Stainless Steel Body Ball Float Valve (Body)
Specification : BS EN 10088-1:2014, Table 2, Grade 1.4401 (316)
Specimen No. : 220315-2211-002
Sample Identification No. : -- / Model No. : 200B-RPH / Origin : Spain
Manufacturer : GENWEC WASHROOM S.L. / Brand name: Valvulas CT

Test Method(s):-

- 1) BS EN ISO 15350 : 2010
- 2) ST-Multi-1(ICP-OES)
- 3) BS EN ISO 15351: 2010

Remark(s):

- I. Test results only relate to the specimen tested.

Checked by :

Lau Hiu Yat
Assistant Technical Manager

Approved Signatory :

Cheng Chi Fai
Senior Manager

Form No.: CHM Steel-1 T dd 16/12/2015



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Test Report
Chemical Analysis of Steel

Castco Testing Centre Limited

Date of issue: 01-04-2022
Page 2 of 2

Specimen No.: CHEM-220321-2024-001
Castco LRN: 220321-2024

Laboratory test details

Date of Request Confirmed: 18-03-2022

Date of Received by Lab.: 18-03-2022

Testing Period: 23-03-2022 to 28-03-2022

Chemical Analysis	Result
¹⁾ Total Carbon Content C %	0.017
¹⁾ Total Sulfur Content S %	0.0039
²⁾ Chromium Cr %	17.26
²⁾ Manganese Mn %	1.44
²⁾ Molybdenum Mo %	2.04
²⁾ Nickel Ni %	10.24
²⁾ Phosphorus P %	0.028
²⁾ Silicon Si %	0.404
³⁾ Nitrogen N %	0.034

End of Report

Form No.: CHM Steel-1 T dd 16/12/2015



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CASTCO TESTING CENTRE LIMITED

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21 OCT 2022

Appendix A

Castco Testing Centre Limited

Summary of Chemical Analysis of Steel

Date of issue: 01-04-2022

Specimen No.: CHEM-220321-2024-001

Page 1 of 1

Castco LRN: 220321-2024

Name of Customer: Gate Way Valve & Fitting Limited
Job Title: WSD GA application of "Valvulas CT" 316 Stainless Steel Body Ball Float Valve
Contract No.: --
Customer's Ref. No.: --
Date of Received by Lab.: 18-03-2022

Testing Period: 23-03-2022 to 28-03-2022

Castco LRN:	220321-2024			
Sample Description :	DN100 316 Stainless Steel Body Ball Float Valve (Body)			
Specimen No. :	220315-2211-002			
Sample Identification No.:	-- / Model No. : 200B-RPH / Origin : Spain			
Manufacturer :	GENWEC WASHROOM S.L. / Brand name: Valvulas CT			
Specification: BS EN 10088-1:2014, Table 2, Grade 1.4401 (316)	Test Results		Within / Exceed limit	
Carbon C	0.07 max.	%	0.017	Within limit
Sulfur S	0.015 max.	%	0.0039	Within limit
Chromium Cr	16.5 to 18.5	%	17.26	Within limit
Manganese Mn	2.00 max.	%	1.44	Within limit
Molybdenum Mo	2.00 to 2.50	%	2.04	Within limit
Nickel Ni	10.0 to 13.0	%	10.24	Within limit
Phosphorus P	0.045 max.	%	0.028	Within limit
Silicon Si	1.00 max.	%	0.404	Within limit
Nitrogen N	0.10 max.	%	0.034	Within limit

Remark(s):

- Test results only relate to the specimen tested.
- Test results of the specimen are in compliance with the chemical requirements of BS EN 10088-1:2014, Table 2, Grade 1.4401 (316).



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CASTCO TESTING CENTRE LIMITED

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21 OCT 2022

FU HO MAN
Assistant Technical Manager

Castco Testing Centre Limited

Test Report
Chemical Analysis of Steel

Date of issue: 01-04-2022

Page 1 of 2

Specimen No.: CHEM-220321-2025-001

Castco LRN: 220321-2025

Details as supplied by customer

Name of Customer : Gate Way Valve & Fitting Limited
Address : Flat A1, 4/F, Galaxy Fty Bldg, 25-27 Luk Hop Street, San Po Kong, Kowloon, Hong Kong
Job Title : WSD GA application of "Valvulas CT" 316 Stainless Steel Body Ball Float Valve
Contract No. : --
Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --
Sample Description : DN100 316 Stainless Steel Body Ball Float Valve (Piston)
Specification : BS EN 10088-1:2014, Table 2, Grade 1.4401 (316)
Specimen No. : 220315-2211-002
Sample Identification No. : -- / Model No. : 200B-RPH / Origin : Spain
Manufacturer : GENWEC WASHROOM S.L. / Brand name: Valvulas CT

Test Method(s):-

- 1) BS EN ISO 15350 : 2010
- 2) ST-Multi-1(ICP-OES)
- 3) BS EN ISO 15351: 2010

Remark(s):

I. Test results only relate to the specimen tested.

Checked by :

Lau Hiu Yat

Assistant Technical Manager

Approved Signatory :

Cheng Chi Fai

Senior Manager

Form No.: CHM Steel-1 T dd 16/12/2015



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21 OCT 2022

Test Report
Chemical Analysis of Steel

Castco Testing Centre Limited

Date of issue: 01-04-2022
Page 2 of 2

Specimen No.: CHEM-220321-2025-001
Castco LRN: 220321-2025

Laboratory test details

Date of Request Confirmed: 18-03-2022

Date of Received by Lab.: 18-03-2022

Testing Period: 23-03-2022 to 28-03-2022

Chemical Analysis	Result
1) Total Carbon Content C %	0.047
1) Total Sulfur Content S %	0.0043
2) Chromium Cr %	17.04
2) Manganese Mn %	1.41
2) Molybdenum Mo %	2.06
2) Nickel Ni %	10.07
2) Phosphorus P %	0.028
2) Silicon Si %	0.400
3) Nitrogen N %	0.034

End of Report

Form No.: CHM Steel-1 T dd 16/12/2015

21 OCT 2022

Appendix A

Summary of Chemical Analysis of Steel

Castco Testing Centre Limited

Date of issue: 01-04-2022

Specimen No.: CHEM-220321-2025-001

Page 1 of 1

Castco LRN: 220321-2025

Name of Customer: Gate Way Valve & Fitting Limited

Job Title: WSD GA application of "Valvulas CT" 316 Stainless Steel Body Ball Float Valve

Contract No.: --

Customer's Ref. No.: --

Date of Received by Lab.: 18-03-2022

Testing Period: 23-03-2022 to 28-03-2022

Castco LRN:	220321-2025				
Sample Description :	DN100 316 Stainless Steel Body Ball Float Valve (Piston)				
Specimen No. :	220315-2211-002				
Sample Identification No.:	-- / Model No. : 200B-RPH / Origin : Spain				
Manufacturer :	GENWEC WASHROOM S.L. / Brand name: Valvulas CT				
Specification: BS EN 10088-1:2014, Table 2, Grade 1.4401 (316)			Test Results	Within / Exceed limit	
Carbon	C	0.07 max.	%	0.047	Within limit
Sulfur	S	0.015 max.	%	0.0043	Within limit
Chromium	Cr	16.5 to 18.5	%	17.04	Within limit
Manganese	Mn	2.00 max.	%	1.41	Within limit
Molybdenum	Mo	2.00 to 2.50	%	2.06	Within limit
Nickel	Ni	10.0 to 13.0	%	10.07	Within limit
Phosphorus	P	0.045 max.	%	0.028	Within limit
Silicon	Si	1.00 max.	%	0.400	Within limit
Nitrogen	N	0.10 max.	%	0.034	Within limit

Remark(s):

- I. Test results only relate to the specimen tested.
- II. Test results of the specimen are in compliance with the chemical requirements of BS EN 10088-1:2014, Table 2, Grade 1.4401 (316).



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21 OCT 2022

FU HO MAN
Assistant Technical Manager

Castco Testing Centre Limited

Test Report
Chemical Analysis of Steel

Date of issue: 01-04-2022

Page 1 of 2

Specimen No.: CHEM-220321-2026-001

Castco LRN: 220321-2026

Details as supplied by customer

Name of Customer : Gate Way Valve & Fitting Limited
Address : Flat A1, 4/F, Galaxy Pty Bldg, 25-27 Luk Hop Street, San Po Kong, Kowloon, Hong Kong
Job Title : WSD GA application of "Valvulas CT" 316 Stainless Steel Body Ball Float Valve
Contract No. : --
Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --
Sample Description : DN100 316 Stainless Steel Body Ball Float Valve (Lever)
Specification : BS EN 10088-1:2014, Table 2, Grade 1.4401 (316)
Specimen No. : 220315-2211-002
Sample Identification No. : -- / Model No. : 200B-RPH / Origin : Spain
Manufacturer : GENWEC WASHROOM S.L. / Brand name: Valvulas CT

Test Method(s):-

- 1) BS EN ISO 15350 : 2010
- 2) ST-Multi-1(ICP-OES)
- 3) BS EN ISO 15351: 2010

Remark(s):

- I. Test results only relate to the specimen tested.

Checked by :

Lau Hiu Yat

Assistant Technical Manager

Approved Signatory :

Cheng Chi Fai

Senior Manager

Form No.: CHM Steel-1 T dd 16/12/2015



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21 OCT 2022

Test Report

Chemical Analysis of Steel

Castco Testing Centre Limited

Date of issue: 01-04-2022

Page 2 of 2

Specimen No.: CHEM-220321-2026-001

Castco LRN: 220321-2026

Laboratory test details

Date of Request Confirmed: 18-03-2022

Date of Received by Lab.: 18-03-2022

Testing Period: 23-03-2022 to 28-03-2022

Chemical Analysis		Result
1 ¹⁾ Total Carbon Content	C %	0.018
1 ¹⁾ Total Sulfur Content	S %	0.0025
2 ²⁾ Chromium	Cr %	17.34
2 ²⁾ Manganese	Mn %	1.44
2 ²⁾ Molybdenum	Mo %	2.09
2 ²⁾ Nickel	Ni %	10.25
2 ²⁾ Phosphorus	P %	0.028
2 ²⁾ Silicon	Si %	0.398
3 ³⁾ Nitrogen	N %	0.033

End of Report

Form No.: CHM Steel-1 T dd 16/12/2015



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21 OCT 2022

Castco Testing Centre Limited

Appendix A

Summary of Chemical Analysis of Steel

Date of issue: 01-04-2022

Specimen No.: CHEM-220321-2026-001

Page 1 of 1

Castco LRN: 220321-2026

Name of Customer: Gate Way Valve & Fitting Limited
Job Title: WSD GA application of "Valvulas CT" 316 Stainless Steel Body Ball Float Valve
Contract No.: --
Customer's Ref. No.: --
Date of Received by Lab.: 18-03-2022
Testing Period: 23-03-2022 to 28-03-2022

Castco LRN:	220321-2026			
Sample Description :	DN100 316 Stainless Steel Body Ball Float Valve (Lever)			
Specimen No. :	220315-2211-002			
Sample Identification No.:	-- / Model No. : 200B-RPH / Origin : Spain			
Manufacturer :	GENWEC WASHROOM S.L. / Brand name: Valvulas CT			
Specification: BS EN 10088-1:2014, Table 2, Grade 1.4401 (316)	Test Results		Within / Exceed limit	
Carbon C 0.07 max. %	0.018		Within limit	
Sulfur S 0.015 max. %	0.0025		Within limit	
Chromium Cr 16.5 to 18.5 %	17.34		Within limit	
Manganese Mn 2.00 max. %	1.44		Within limit	
Molybdenum Mo 2.00 to 2.50 %	2.09		Within limit	
Nickel Ni 10.0 to 13.0 %	10.25		Within limit	
Phosphorus P 0.045 max. %	0.028		Within limit	
Silicon Si 1.00 max. %	0.398		Within limit	
Nitrogen N 0.10 max. %	0.033		Within limit	

Remark(s):

- Test results only relate to the specimen tested.
- Test results of the specimen are in compliance with the chemical requirements of BS EN 10088-1:2014, Table 2, Grade 1.4401 (316).