

Summary of Test Results

Reference no. : BC-SUMMARY-2021-060

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 : Float Operated Valve

Nominal pressure (PN) : 16

Manufacturer : AVK POLSKA SP Zoo

Brand name : AVK Glenfield

Body marking : AVK GLENFIELD (DN) (Production Code) DI 500/7 PN16 →

Model no. : Series 854

Origin : Poland

Sample submitted by : Gate Way Valve & Fitting Ltd.

Test standard : BS 1212 : Part 1 : 1990 / WIS 4-52-01 Dec. 1992 Issue 1 / BS EN 1563 : 2011 / BS EN 1982 : 2008 / BS EN 10088-3 : 2014

Test period : 05 February to 05 March 2021

A) Sample List

DN (mm)	Specimen no.
50	210121-2544-001
80	210121-2544-002
100	210121-2544-003
150	210121-2544-004
200	210121-2544-005

B) Test Item

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

DN (mm)	Test results	Castco LRN
50	Passed	210121-2544
80	Passed	
100	Passed	
150	Passed	
200	Passed	

2) Coating Thickness Test (WIS 4-52-01 Dec. 1992 Issue 1 Appendix B)

DN (mm)	Test results	Castco LRN
50	Passed	210121-2544
80	Passed	
100	Passed	
150	Passed	
200	Passed	

Remark(s) :

1. This page no. 1C of this summary supersedes page no. 1B of the previous summary of Reference no. : BC-SUMMARY-2021-060 issued on 07 March 2022.

Summary of Test Results

Reference no. : BC-SUMMARY-2021-060

B) Test Item (con't)

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

DN (mm)	Test results	Castco LRN
50	Passed	210121-2544
80	Passed	
100	Passed	
150	Passed	
200	Passed	

4) Tensile Test (BS EN 1563 : 2011 Clause 7.2.1.1 Table 1 (Grade EN-GJS-500-7) and Clause 9.1)

DN (mm)	Test results	Castco LRN
50	Passed	210121-2544
100	Passed	
200	Passed	

5) Chemical Composition (Seat) (BS EN 1982 : 2008 Table 23a Grade CC499K)

DN (mm)	Test results	Castco LRN
50	Passed	210201-2185
100	Passed	210201-2190
200	Passed	210201-2195

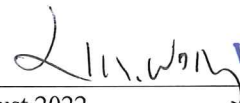
Remark(s) :

- This page no. 2C of this summary supersedes page no. 2B of the previous summary of Reference no. : BC-SUMMARY-2021-060 issued on 07 March 2022.

Prepare by : _____
Date : 22 August 2022


FU HO MAN
Assistant Technical Manager

Review by : _____
Date : 22 August 2022


WONG KA MAN
Senior Manager

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

Date of issue : 15 April 2021

Page 1 of 6 page(s)

Castco LRN : 210121-2544

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 for AVK Glenfield float operated valve

Sample description : Float Operated Valve

Nominal pressure (PN) : 16

Manufacturer : AVK POLSKA SP Zoo

Brand name : AVK Glenfield

Body marking : AVK GLENFIELD (DN) (Production Code) DI 500/7 PN16 →

Model no. : Series 854 & Series 854HK

Origin : Poland

Sample submitted by : Gate Way Valve & Fitting Ltd.

Laboratory test results

Date of sample received : 18 January 2021

Date of test : 05 March 2021

Specimen no.		210121-2544-001	210121-2544-002	210121-2544-003	210121-2544-004	210121-2544-005
DN (mm)		50	80	100	150	200
Outside diameter of flange (mm)	Measured mean value	169	205	224	286	344
	Requirement	165	200	220	285	340
Diameter of bolt circle (mm)	Measured mean value	125	160	180	240	295
	Requirement	125	160	180	240	295
Diameter of bolt hole & Bolts number (mm & no.)	Measured mean value	19.85 & 4	19.78 & 8	19.76 & 8	23.70 & 8	23.51 & 12
	Requirement	19 to 20.5 & 4	19 to 20.5 & 8	19 to 20.5 & 8	23 to 24.5 & 8	23 to 24.5 & 12
Flange thickness (mm)	Measured mean value	19.47	19.50	18.05	18.47	23.70
	Requirement	16 to 23	16 to 23	16 to 23	16 to 23	17 to 24

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).

Checked by :

 **FU HO MAN**
Assistant Technical Manager

Certified by :

 **WONG KA MAN**
Senior Manager

Test Report

Valves - Coating Thickness Measurement

(Water Industry Specification 4-52-01 Dec. 1992 : Issue 1 Appendix B in conjunction with the following specification(s):
Water Industry Specification 4-52-01 Dec. 1992 : Issue 1 Clause 12.7.1)

Date of issue : 15 April 2021

Page 2 of 6 page(s)

Castco LRN : 210121-2544

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 for AVK Glenfield float operated valve

Sample description : Float Operated Valve

Nominal pressure (PN) : 16

Manufacturer : AVK POLSKA SP Zoo

Brand name : AVK Glenfield

Body marking : AVK GLENFIELD (DN) (Production Code) DI 500/7 PN16 →

Model no. : Series 854 & Series 854HK

Origin : Poland

Sample submitted by : Gate Way Valve & Fitting Ltd.

Laboratory test results

Date of sample received : 18 January 2021

Date of test : 05 March 2021

Specimen no.	210121-2544-001	210121-2544-002	210121-2544-003	210121-2544-004	210121-2544-005
DN (mm)	50	80	100	150	200
Ambient temperature (°C)	23.5	23.5	23.5	23.5	23.5
Measured value of coating thickness at external surface (µm)	1	979	985	1397	600
	2	833	964	775	415
	3	436	738	941	442
	4	842	461	845	602
	5	385	618	1145	943
Measured value of coating thickness at internal surface (µm)	6	285	627	582	351
	7	568	393	317	858
	8	292	550	342	554
	9	466	282	520	436
	10	823	361	771	609
	11	506	441	561	800
	12	557	374	531	643
	13	316	548	391	544
	14	535	476	579	556
	15	970	532	469	266
Mean	586.2	556.7	677.7	552.4	629.8
Minimum coating thickness (µm)	285	282	317	266	490
Maximum coating thickness (µm)	979	985	1397	943	816
Standard deviation (µm)	242.3	206.1	304.6	201.8	102.1
Manufacturer requirement (µm)	Minimum coating thickness	min. 250			
	Maximum coating thickness	max. 2000			

Remark(s) :

1. Test results relate only to the specimen tested.

Checked by :  **FU HO MAN**
Assistant Technical Manager

Approved Signatory :  **WONG KA MAN**
Senior Manager

Form no. : BC_VALVES_CT_WIS 4-52-01_T_dd_22/04/2020

Test Report
Float Operated Valves - Hydraulic Pressure and Shut-off Pressure Test
(BS 1212 : Part 1 : 1990 Clause 24 and Appendix A)

Date of issue : 15 April 2021

Page 3 of 6 page(s)

Castco LRN : 210121-2544

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 for AVK Glenfield float operated valve

Sample description : Float Operated Valve

Nominal pressure (PN) : 16

Manufacturer : AVK POLSKA SP Zoo

Brand name : AVK Glenfield

Body marking : AVK GLENFIELD (DN) (Production Code) DI 500/7 PN16 →

Model no. : Series 854 & Series 854HK

Origin : Poland

Sample submitted by : Gate Way Valve & Fitting Ltd.

Laboratory test results

Date of sample received : 18 January 2021

Date of test : 01 to 05 March 2021

Specimen no.	210121-2544-001	210121-2544-002	210121-2544-003	210121-2544-004	210121-2544-005
DN (mm)	50	80	100	150	200

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

Apply pressure (bar)	20	20	20	20	20
Maintain period (min)	15	15	15	15	15
Observation	No leakage was observed	No leakage was observed	No leakage was observed	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	14	14	14
Observation	No leakage was observed	No leakage was observed	No leakage was observed	No leakage was observed	No leakage was observed
Requirement	Shall not leak				

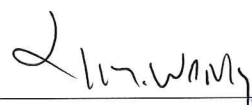
Remark(s) :

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

Checked by : _____

 **FU HO MAN**
Assistant Technical Manager

Certified by : _____

 **WONG KA MAN**
Senior Manager

香港粉嶺安居街33號
香港粉嶺安全街29A號
E-mail: info@castco.com.hk

33, On Kui Street, Fanling, Hong Kong.
29A, On Chuen Street, Fanling, Hong Kong.
Website: www.castco.com.hk

Tel : 2597 8333
Fax : 2597 8399

Test Report
Metallic Materials - Tensile Test of Metallic Materials
(BS EN ISO 6892-1 : 2009)

Date of issue : 15 April 2021

Page 4 of 6 page(s)

Castco LRN : 210121-2544

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 for AVK Glenfield float operated valve

Sample description : Float Operated Valve

Nominal pressure (PN) : 16

Manufacturer : AVK POLSKA SP Zoo

Brand name : AVK Glenfield

Body marking : AVK GLENFIELD (DN) (Production Code) DI 500/7 PN16 →

Model no. : Series 854 & Series 854HK

Origin : Poland

Sample submitted by : Gate Way Valve & Fitting Ltd.

Acceptance standard : BS EN 1563 : 2011 Clause 7.2.1.1 Table 1 (Grade EN-GJS-500-7) and Clause 9.1

Laboratory test results

Date of sample received : 18 January 2021

Date of test : 04 March 2021

Tensile Test

Specimen no.	DN (mm)	Type & Prepar'n	Specimen length (mm)	Area (mm ²)	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Position of fracture	Remark
210121-2544-001	50	A, M	153	20.7	351	510	16.3	--	--
210121-2544-003	100	A, M	153	21.4	324	503	11.0	--	--
210121-2544-005	200	A, M	153	21.4	344	510	13.0	--	--

Remark(s) :

- A - Proportional; B - Non - proportional; M - Machined; N - Unmachined;
+ - This measurement is 'invalid' which relates to the position of fracture only.
- The yield strength is determined at 0.2% proof strength.
- Test results relate only to the specimen tested.
- Test results of sample comply with the requirement of BS EN 1563 : 2011 Table 1 (effect of measurement uncertainty has not been taken into account).
- The requirement of BS EN 1563 : 2011 Table 1 : 0.2% proof strength = min. 320MPa; Tensile strength = min. 500MPa; Elongation = min. 7%.
- The acceptance limit is the same as the tolerance limit (simple acceptance, see Figure A). Only test results out of the tolerance/acceptance limit will be concluded as out-of-tolerance.

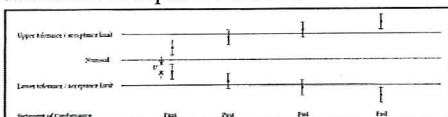


Figure A - Graphical representation of a binary statement - Simple acceptance

 **FU HO MAN**
Assistant Technical Manager

Approved Signatory :  **WONG KA MAN**
Senior Manager

Checked by : _____

Form no. : ST 6892_T1(for BC)_dd_02/01/2020

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

Date of issue : 08 March 2021
 Page 5 of 6 page(s)

Castco LRN : 210121-2544

Appendix A



210121-2544-001(1)



210121-2544-001(2)



210121-2544-002(1)



210121-2544-002(2)



210121-2544-003(1)



210121-2544-003(2)

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

Date of issue : 08 March 2021

Page 6 of 6 page(s)

Castco LRN : 210121-2544

Appendix B



210121-2544-004(1)



210121-2544-004(2)



210121-2544-005(1)



210121-2544-005(2)

End of Report

Test Report**Chemical Analysis of Copper and Copper Alloy**

Date of issue: 26-08-2022

Specimen No.: CHEM-210201-2185-001

Page 1A of 3

Castco LRN: 210201-2185

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 for AVK Glenfield Float Operated Valve

Contract No. : --

Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --

Date of Sample Received : 01-02-2021

Test Period : 05-02-2021

Sample Description : DN50 Float Operated Valve (Seat)

Specification : BS EN 1982:2008, Table 23a, Grade CC499K

Specimen No. : 210121-2544-001

Sample Identification No.: -- / Model no.: Series 854 / Origin: Poland

Manufacturer : AVK POLSKA SP Zoo / Brand Name : AVK Glenfield

Test Method(s):-

- 1) In-house ST-Multi-4 (Spark-OES for Gunmetal)
- 2) In-house Method (Spark-OES)

Remark:

- I. Test results only relate to the specimen tested.
- II. This page no. 1A of this test report supersedes page no. 1 of the previous test report of Castco LRN 210201-2185 issued on 20-04-2021.
- III. Refer to the previous test report of Castco LRN 210201-2185, the sample details were revised in this issue due to the clerical error of the laboratory.

Checked by: _____

Lau Hiu Yat

Assistant Technical Manager

Approved Signatory: _____

LEE Shu Hang Stephen

Ph.D.
Technical Director



佳力高試驗中心有限公司
CASTCO TESTING CENTRE LIMITED



香港粉嶺安居街33號
香港粉嶺安全街29A號
E-mail: info@castco.com.hk

33, On Kui Street, Fanling, Hong Kong.
29A, On Chuen Street, Fanling, Hong Kong.
Website: www.castco.com.hk

Tel : 2597 8333
Fax: 2597 8399

Test Report

Chemical Analysis of Copper and Copper Alloy

Date of issue: 20-04-2021
Page 2 of 3

Specimen No.: CHEM-210201-2185-001
Castco LRN: 210201-2185

Chemical Analysis		Result
1) Aluminium	Al %	<0.003
1) Arsenic	As %	<0.002
1) Bismuth	Bi %	<0.002
1) Iron	Fe %	0.005
1) Nickel	Ni %	<0.029
1) Phosphorus	P %	<0.003
1) Lead	Pb %	2.51
1) Sulphur	S %	<0.003
1) Antimony	Sb %	<0.011
1) Silicon	Si %	0.002
1) Tin	Sn %	5.31
1) Zinc	Zn %	4.23
1) Copper	Cu %	87.9

Form No.: CHM Cu&Cu Alloy-3 T dd 03/02/2016

Test Report**Chemical Analysis of Copper and Copper Alloy**Date of issue: 20-04-2021
Page 3 of 3Specimen No.: CHEM-210201-2185-001
Castco LRN: 210201-2185

Chemical Analysis		Result
2) Cadmium	Cd %	0.001
2) Chromium	Cr %	<0.001

End of Report

Form No.: CHM Cu&Cu Alloy-3 T dd 03/02/2016

Appendix A

Summary of Chemical Analysis of Copper and Copper Alloy

Date of issue: 26-08-2022

Specimen No.: CHEM-210201-2185-001

Page 1A of 1

Related Castco LRN: 210201-2185

Name of Customer: Gate Way Valve & Fitting Limited
 Job Title: WSD GA application for AVK Glenfield Float Operated Valve
 Contract No.: --
 Customer's Ref. No.: --
 Date of Received by Lab.: 01-02-2021 Testing Period: 05-02-2021

Castco LRN:	210201-2185			
Sample Description:	DN50 Float Operated Valve (Seat)			
Specimen No.:	210121-2544-001			
Sample Identification No.:	-- / Model no.: Series 854 / Origin: Poland			
Manufacturer:	AVK POLSKA SP Zoo / Brand Name : AVK Glenfield			
Specification: BS EN 1982:2008, Table 23a, Grade CC499K	Test Results		Within / Exceed limit	
Aluminium Al	0.01 max.	%	<0.003	Within limit
Arsenic As	0.03 max.	%	<0.002	Within limit
Bismuth Bi	0.02 max.	%	<0.002	Within limit
Iron Fe	0.30 max.	%	0.005	Within limit
Nickel Ni	0.60 max.	%	<0.029	Within limit
Phosphorus P	0.04 max.	%	<0.003	Within limit
Lead Pb	3.0 max.	%	2.51	Within limit
Sulfur S	0.04 max.	%	<0.003	Within limit
Antimony Sb	0.10 max.	%	<0.011	Within limit
Silicon Si	0.01 max.	%	0.002	Within limit
Tin Sn	4.0 to 6.0	%	5.31	Within limit
Zinc Zn	4.0 to 6.0	%	4.23	Within limit
Copper Cu	84.0 to 88.0	%	87.9	Within limit
Cadmium Cd	0.02 max.	%	0.001	Within limit
Chromium Cr	0.02 max.	%	<0.001	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 1982:2008, Table 23a, Grade CC499K.
- This page no. 1A of this Appendix A supersedes page no. 1 of the previous Appendix A of Castco LRN 210201-2185 issued on 20-04-2021.
- Refer to the previous Appendix A of Castco LRN 210201-2185, the sample details were revised in this issue due to the clerical error of the laboratory.

Test Report

Chemical Analysis of Steel

Date of issue: 20-04-2021
Page 1 of 2Specimen No.: CHEM-210201-2187-001
Castco LRN: 210201-2187Details 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 for AVK Glenfield Float Operated Valve

Contract No. : --

Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --

Date of Sample Received : 01-02-2021

Test Period : 08-02-2021 to 16-02-2021

Sample Description : DN50 Float Operated Valve (Float)

Specification : BS EN 10088-1:2014, Table 2, Grade 1.4301

Specimen No. : 210121-2544-001

Sample Identification No. : -- / Model No.: Series 854 / Origin : Poland

Manufacturer : AVK POLSKA SP Zoo / Brand Name : AVK Glenfield

Test Method(s):-

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

Remark:

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

Checked by :


Lau Hiu Yat
Assistant Technical Manager

Approved Signatory :


Cheng Chi Fai
Senior Manager



香港粉嶺安居街33號
香港粉嶺安全街29A號
E-mail: info@castco.com.hk

33, On Kui Street, Fanling, Hong Kong.
29A, On Chuen Street, Fanling, Hong Kong.
Website: www.castco.com.hk

Tel : 2597 8333
Fax: 2597 8399

Test Report

Chemical Analysis of Steel

Date of issue: 20-04-2021
Page 2 of 2

Specimen No.: CHEM-210201-2187-001
Castco LRN: 210201-2187

Chemical Analysis		Result
1) Total Carbon Content	C %	0.021
1) Total Sulfur Content	S %	<0.0020
2) Chromium	Cr %	18.01
2) Manganese	Mn %	1.73
2) Nickel	Ni %	8.02
2) Phosphorus	P %	0.030
2) Silicon	Si %	0.372
3) Nitrogen	N %	0.092

End of Report

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

Appendix A**Summary of Chemical Analysis of Steel**

Date of issue: 20-04-2021

Specimen No.: CHEM-210201-2187-001

Page 1 of 1

Castco LRN: 210201-2187

Name of Customer: Gate Way Valve & Fitting Limited

Job Title: WSD GA application for AVK Glenfield Float Operated Valve

Contract No.: --

Customer's Ref. No.: --

Date of Received by Lab.: 01-02-2021

Testing Period: 08-02-2021 to 16-02-2021

Castco LRN:	210201-2187			
Sample Description :	DN50 Float Operated Valve (Float)			
Specimen No. :	210121-2544-001			
Sample Identification No. :	-- / Model No.: Series 854 / Origin : Poland			
Manufacturer:	AVK POLSKA SP Zoo / Brand Name : AVK Glenfield			
Specification: BS EN 10088-1:2014, Table 2, Grade 1.4301	Test Results		Within / Exceed limit	
Carbon C 0.07 max. %	0.021		Within limit	
Sulfur S 0.015 max. %	<0.0020		Within limit	
Chromium Cr 17.5 to 19.5 %	18.01		Within limit	
Manganese Mn 2.00 max. %	1.73		Within limit	
Nickel Ni 8.0 to 10.5 %	8.02		Within limit	
Phosphorus P 0.045 max. %	0.030		Within limit	
Silicon Si 1.00 max. %	0.372		Within limit	
Nitrogen N 0.10 max. %	0.092		Within limit	

Remarks:

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 1.4301.

**Test Report
Chemical Analysis of Steel**Date of issue: 20-04-2021
Page 1 of 3Specimen No.: CHEM-210201-2189-001
Castco LRN: 210201-2189**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 for AVK Glenfield Float Operated Valve
Contract No. : --
Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --
Date of Sample Received : 01-02-2021
Test Period : 05-02-2021 to 10-02-2021
Sample Description : DN50 Float Operated Valve (Lever)
Specification : BS EN 10088-3:2014, Table 2, Grade 1.4401
Specimen No. : 210121-2544-001
Sample Identification No. : --/ Model No. : Series 854 & Series 854HK/ Origin : Poland
Manufacturer : AVK POLSKA SP Zoo / Brand Name : AVK Glenfield

Test Method(s):-

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

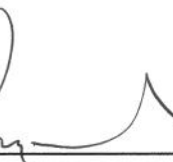
Remark:

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

Checked by : _____


Lau Hiu Yat
Assistant Technical Manager

Approved Signatory : _____


Cheng Chi Fai
Senior Manager

Test Report
Chemical Analysis of SteelDate of issue: 20-04-2021
Page 2 of 3Specimen No.: CHEM-210201-2189-001
Castco LRN: 210201-2189

Chemical Analysis		Result
¹⁾ Total Carbon Content	C %	0.032
¹⁾ Total Sulfur Content	S %	<0.0020
²⁾ Chromium	Cr %	16.71
²⁾ Manganese	Mn %	0.996
²⁾ Molybdenum	Mo %	2.24
²⁾ Nickel	Ni %	11.80
²⁾ Phosphorus	P %	0.025
²⁾ Silicon	Si %	0.552
³⁾ Nitrogen	N %	0.049

End of Report

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

Appendix A**Summary of Chemical Analysis of Steel**

Date of issue: 20-04-2021

Specimen No.: CHEM-210201-2189-001

Page 3 of 3

Castco LRN: 210201-2189

Name of Customer: Gate Way Valve & Fitting Limited

Job Title: WSD GA application for AVK Glenfield Float Operated Valve

Contract No.: --

Customer's Ref. No.: --

Date of Received by Lab.: 01-02-2021

Testing Period: 05-02-2021 to 10-02-2021

Castco LRN:	210201-2189				
Sample Description :	DN50 Float Operated Valve (Lever)				
Sample Identification No.:	--/ Model No. : Series 854 & Series 854HK/ Origin : Poland				
Specimen No. :	210121-2544-001				
Manufacturer :	AVK POLSKA SP Zoo / Brand Name : AVK Glenfield				
Specification: BS EN 10088-3:2014, Table 2, Grade 1.4401			Test Results	Within / Exceed limit	
Carbon	C	0.07 max.	%	0.032	Within limit
Sulfur	S	0.015 max.	%	<0.0020	Within limit
Chromium	Cr	16.5 to 18.5	%	16.71	Within limit
Manganese	Mn	2.00 max.	%	0.996	Within limit
Molybdenum	Mo	2.00 to 2.50	%	2.24	Within limit
Nickel	Ni	10.0 to 13.0	%	11.80	Within limit
Phosphorus	P	0.045 max.	%	0.025	Within limit
Silicon	Si	1.00 max.	%	0.552	Within limit
Nitrogen	N	0.10 max.	%	0.049	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 10088-3:2014, Table 2, Grade 1.4401.

Test Report**Chemical Analysis of Copper and Copper Alloy**Date of issue: 26-08-2022
Page 1A of 3Specimen No.: CHEM-210201-2190-001
Castco LRN: 210201-2190**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 for AVK Glenfield Float Operated Valve

Contract No. : --

Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --

Date of Sample Received : 01-02-2021

Test Period : 05-02-2021

Sample Description : DN100 Float Operated Valve (Seat)

Specification : BS EN 1982:2008, Table 23a, Grade CC499K

Specimen No. : 210121-2544-003

Sample Identification No.: -- / Model no.: Series 854 / Origin: Poland

Manufacturer : AVK POLSKA SP Zoo / Brand Name : AVK Glenfield

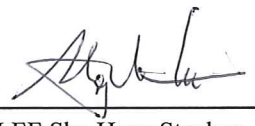
Test Method(s):-

- 1) In-house ST-Multi-4 (Spark-OES for Gunmetal)
- 2) In-house Method (Spark-OES)

Remark:

- I. Test results only relate to the specimen tested.
- II. This page no. 1A of this test report supersedes page no. 1 of the previous test report of Castco LRN 210201-2190 issued on 20-04-2021.
- III. Refer to the previous test report of Castco LRN 210201-2190, the sample details were revised in this issue due to the clerical error of the laboratory.

Checked by: 
Kwan Kam Shing Steve
Senior Chemist

Approved Signatory: 
LEE Shu Hang Stephen
Ph.D.
Technical Director

Test Report

Chemical Analysis of Copper and Copper Alloy

Date of issue: 20-04-2021
 Page 2 of 3

Specimen No.: CHEM-210201-2190-001
 Castco LRN: 210201-2190

Chemical Analysis		Result
1) Aluminium	Al %	<0.003
1) Arsenic	As %	<0.002
1) Bismuth	Bi %	<0.002
1) Iron	Fe %	0.005
1) Nickel	Ni %	<0.029
1) Phosphorus	P %	<0.003
1) Lead	Pb %	2.70
1) Sulphur	S %	<0.003
1) Antimony	Sb %	<0.011
1) Silicon	Si %	0.002
1) Tin	Sn %	5.27
1) Zinc	Zn %	4.25
1) Copper	Cu %	87.8

Form No.: CHM Cu&Cu Alloy-3 T dd 03/02/2016



Test Report

Chemical Analysis of Copper and Copper Alloy

Date of issue: 20-04-2021

Page 3 of 3

Specimen No.: CHEM-210201-2190-001

Castco LRN: 210201-2190

Chemical Analysis		Result
2) Cadmium	Cd %	0.001
2) Chromium	Cr %	<0.001

End of Report

Form No.: CHM Cu&Cu Alloy-3 T dd 03/02/2016

Appendix A

Summary of Chemical Analysis of Copper and Copper Alloy

Date of issue: 26-08-2022

Specimen No.: CHEM-210201-2190-001

Page 1A of 1

Related Castco LRN: 210201-2190

Name of Customer: Gate Way Valve & Fitting Limited
 Job Title: WSD GA application for AVK Glenfield Float Operated Valve
 Contract No.: --
 Customer's Ref. No.: --
 Date of Received by Lab.: 01-02-2021 Testing Period: 05-02-2021

Castco LRN:	210201-2190			
Sample Description:	DN100 Float Operated Valve (Seat)			
Specimen No.:	210121-2544-003			
Sample Identification No.:	-- / Model no.: Series 854 / Origin: Poland			
Manufacturer:	AVK POLSKA SP Zoo / Brand Name : AVK Glenfield			
Specification: BS EN 1982:2008, Table 23a, Grade CC499K	Test Results		Within / Exceed limit	
Aluminium Al 0.01 max. %	<0.003		Within limit	
Arsenic As 0.03 max. %	<0.002		Within limit	
Bismuth Bi 0.02 max. %	<0.002		Within limit	
Iron Fe 0.30 max. %	0.005		Within limit	
Nickel Ni 0.60 max. %	<0.029		Within limit	
Phosphorus P 0.04 max. %	<0.003		Within limit	
Lead Pb 3.0 max. %	2.70		Within limit	
Sulfur S 0.04 max. %	<0.003		Within limit	
Antimony Sb 0.10 max. %	<0.011		Within limit	
Silicon Si 0.01 max. %	0.002		Within limit	
Tin Sn 4.0 to 6.0 %	5.27		Within limit	
Zinc Zn 4.0 to 6.0 %	4.25		Within limit	
Copper Cu 84.0 to 88.0 %	87.8		Within limit	
Cadmium Cd 0.02 max. %	0.001		Within limit	
Chromium Cr 0.02 max. %	<0.001		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 1982:2008, Table 23a, Grade CC499K.
- This page no. 1A of this Appendix A supersedes page no. 1 of the previous Appendix A of Castco LRN 210201-2190 issued on 20-04-2021.
- Refer to the previous Appendix A of Castco LRN 210201-2190, the sample details were revised in this issue due to the clerical error of the laboratory.

Test Report**Chemical Analysis of Steel**

Date of issue: 20-04-2021

Page 1 of 2

Specimen No.: CHEM-210201-2192-001

Castco LRN: 210201-2192

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 for AVK Glenfield Float Operated Valve

Contract No. : --

Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --

Date of Sample Received : 01-02-2021

Test Period : 08-02-2021 to 16-02-2021

Sample Description : DN100 Float Operated Valve (Float)

Specification : BS EN 10088-1:2014, Table 2, Grade 1.4301

Specimen No. : 210121-2544-003

Sample Identification No. : -- / Model No.: Series 854 / Origin : Poland

Manufacturer : AVK POLSKA SP Zoo / Brand Name : AVK Glenfield

Test Method(s):-

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

Remark:

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

Checked by : _____


Lau Hiu Yat
Assistant Technical Manager

Approved Signatory : _____


Cheng Chi Fai
Senior Manager

Test Report**Chemical Analysis of Steel**Date of issue: 20-04-2021
Page 2 of 2Specimen No.: CHEM-210201-2192-001
Castco LRN: 210201-2192

Chemical Analysis		Result
1) Total Carbon Content	C %	0.021
1) Total Sulfur Content	S %	0.0025
2) Chromium	Cr %	18.11
2) Manganese	Mn %	1.74
2) Nickel	Ni %	8.11
2) Phosphorus	P %	0.030
2) Silicon	Si %	0.368
3) Nitrogen	N %	0.093

End of Report

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

Appendix A**Summary of Chemical Analysis of Steel**

Date of issue: 20-04-2021

Specimen No.: CHEM-210201-2192-001

Page 1 of 1

Castco LRN: 210201-2192

Name of Customer: Gate Way Valve & Fitting Limited
 Job Title: WSD GA application for AVK Glenfield Float Operated Valve
 Contract No.: --
 Customer's Ref. No.: --
 Date of Received by Lab.: 01-02-2021 Testing Period: 08-02-2021 to 16-02-2021

Castco LRN:	210201-2192				
Sample Description :	DN100 Float Operated Valve (Float)				
Specimen No. :	210121-2544-003				
Sample Identification No. :	-- / Model No.: Series 854 / Origin : Poland				
Manufacturer:	AVK POLSKA SP Zoo / Brand Name : AVK Glenfield				
Specification: BS EN 10088-1:2014, Table 2, Grade 1.4301			Test Results	Within / Exceed limit	
Carbon	C	0.07 max.	%	0.021	Within limit
Sulfur	S	0.015 max.	%	0.0025	Within limit
Chromium	Cr	17.5 to 19.5	%	18.11	Within limit
Manganese	Mn	2.00 max.	%	1.74	Within limit
Nickel	Ni	8.0 to 10.5	%	8.11	Within limit
Phosphorus	P	0.045 max.	%	0.030	Within limit
Silicon	Si	1.00 max.	%	0.368	Within limit
Nitrogen	N	0.10 max.	%	0.093	Within limit

Remarks:

- 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 1.4301.

Test Report**Chemical Analysis of Steel**

Date of issue: 20-04-2021

Specimen No.: CHEM-210201-2194-001

Page 1 of 3

Castco LRN: 210201-2194

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 for AVK Glenfield Float Operated Valve

Contract No. : --

Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --

Date of Sample Received : 01-02-2021

Test Period : 05-02-2021 to 10-02-2021

Sample Description : DN100 Float Operated Valve (Lever)

Specification : BS EN 10088-3:2014, Table 2, Grade 1.4401

Specimen No. : 210121-2544-003

Sample Identification No. : --/ Model No. : Series 854 & Series 854HK/ Origin : Poland

Manufacturer : AVK POLSKA SP Zoo / Brand Name : AVK Glenfield

Test Method(s):-

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


Remark:

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

Checked by :


Lau Hiu Yat
Assistant Technical Manager

Approved Signatory :


Cheng Chi Fai
Senior Manager

**Test Report
Chemical Analysis of Steel**Date of issue: 20-04-2021
Page 2 of 3Specimen No.: CHEM-210201-2194-001
Castco LRN: 210201-2194

Chemical Analysis		Result
¹⁾ Total Carbon Content	C %	0.034
¹⁾ Total Sulfur Content	S %	<0.0020
²⁾ Chromium	Cr %	16.65
²⁾ Manganese	Mn %	1.02
²⁾ Molybdenum	Mo %	2.22
²⁾ Nickel	Ni %	11.80
²⁾ Phosphorus	P %	0.025
²⁾ Silicon	Si %	0.579
³⁾ Nitrogen	N %	0.073

End of Report

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

Appendix A**Summary of Chemical Analysis of Steel**

Date of issue: 20-04-2021

Specimen No.: CHEM-210201-2194-001

Page 3 of 3

Castco LRN: 210201-2194

Name of Customer: Gate Way Valve & Fitting Limited

Job Title: WSD GA application for AVK Glenfield Float Operated Valve

Contract No.: --

Customer's Ref. No.: --

Date of Received by Lab.: 01-02-2021

Testing Period: 05-02-2021 to 10-02-2021

Castco LRN:	210201-2194				
Sample Description :	DN100 Float Operated Valve (Lever)				
Sample Identification No.:	--/ Model No. : Series 854 & Series 854HK/ Origin : Poland				
Specimen No. :	210121-2544-003				
Manufacturer :	AVK POLSKA SP Zoo / Brand Name : AVK Glenfield				
Specification: BS EN 10088-3:2014, Table 2, Grade 1.4401			Test Results	Within / Exceed limit	
Carbon	C	0.07 max.	%	0.034	Within limit
Sulfur	S	0.015 max.	%	<0.0020	Within limit
Chromium	Cr	16.5 to 18.5	%	16.65	Within limit
Manganese	Mn	2.00 max.	%	1.02	Within limit
Molybdenum	Mo	2.00 to 2.50	%	2.22	Within limit
Nickel	Ni	10.0 to 13.0	%	11.80	Within limit
Phosphorus	P	0.045 max.	%	0.025	Within limit
Silicon	Si	1.00 max.	%	0.579	Within limit
Nitrogen	N	0.10 max.	%	0.073	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 10088-3:2014, Table 2, Grade 1.4401.

Test Report**Chemical Analysis of Copper and Copper Alloy**Date of issue: 26-08-2022
Page 1A of 3Specimen No.: CHEM-210201-2195-001
Castco LRN: 210201-2195**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 for AVK Glenfield Float Operated Valve

Contract No. : --

Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --

Date of Sample Received : 01-02-2021

Test Period : 05-02-2021

Sample Description : DN200 Float Operated Valve (Seat)

Specification : BS EN 1982:2008, Table 23a, Grade CC499K

Specimen No. : 210121-2544-005

Sample Identification No.: -- / Model no.: Series 854 / Origin: Poland

Manufacturer : AVK POLSKA SP Zoo / Brand Name : AVK Glenfield


Test Method(s):-

- 1) In-house ST-Multi-4 (Spark-OES for Gunmetal)
- 2) In-house Method (Spark-OES)

Remark:

- I. Test results only relate to the specimen tested.
- II. This page no. 1A of this test report supersedes page no. 1 of the previous test report of Castco LRN 210201-2195 issued on 20-04-2021.
- III. Refer to the previous test report of Castco LRN 210201-2195, the sample details were revised in this issue due to the clerical error of the laboratory.

Checked by: 
Kwan Kam Shing Steve
Senior Chemist

Approved Signatory: 
LEE Shu Hang Stephen
Ph.D.
Technical Director

Test Report

Chemical Analysis of Copper and Copper Alloy

Date of issue: 20-04-2021
 Page 2 of 3

Specimen No.: CHEM-210201-2195-001
 Castco LRN: 210201-2195

Chemical Analysis		Result
1) Aluminium	Al %	<0.003
1) Arsenic	As %	<0.002
1) Bismuth	Bi %	<0.002
1) Iron	Fe %	0.005
1) Nickel	Ni %	<0.029
1) Phosphorus	P %	<0.003
1) Lead	Pb %	2.69
1) Sulphur	S %	0.003
1) Antimony	Sb %	<0.011
1) Silicon	Si %	<0.002
1) Tin	Sn %	5.70
1) Zinc	Zn %	4.32
1) Copper	Cu %	87.3

Form No.: CHM Cu&Cu Alloy-3 T dd 03/02/2016



Test Report

Chemical Analysis of Copper and Copper Alloy

Date of issue: 20-04-2021

Specimen No.: CHEM-210201-2195-001

Page 3 of 3

Castco LRN: 210201-2195

Chemical Analysis		Result
²⁾ Cadmium	Cd %	0.001
²⁾ Chromium	Cr %	<0.001

End of Report

Form No.: CHM Cu&Cu Alloy-3 T dd 03/02/2016

Appendix A

Summary of Chemical Analysis of Copper and Copper Alloy

Date of issue: 26-08-2022

Specimen No.: CHEM-210201-2195-001

Page 1A of 1

Related Castco LRN: 210201-2195

Name of Customer: Gate Way Valve & Fitting Limited
 Job Title: WSD GA application for AVK Glenfield Float Operated Valve
 Contract No.: --
 Customer's Ref. No.: --
 Date of Received by Lab.: 01-02-2021 Testing Period: 05-02-2021

Castco LRN:	210201-2195			
Sample Description:	DN200 Float Operated Valve (Seat)			
Specimen No.:	210121-2544-005			
Sample Identification No.:	-- / Model no.: Series 854 / Origin: Poland			
Manufacturer:	AVK POLSKA SP Zoo / Brand Name : AVK Glenfield			
Specification: BS EN 1982:2008, Table 23a, Grade CC499K	Test Results		Within / Exceed limit	
Aluminium Al 0.01 max. %	<0.003		Within limit	
Arsenic As 0.03 max. %	<0.002		Within limit	
Bismuth Bi 0.02 max. %	<0.002		Within limit	
Iron Fe 0.30 max. %	0.005		Within limit	
Nickel Ni 0.60 max. %	<0.029		Within limit	
Phosphorus P 0.04 max. %	<0.003		Within limit	
Lead Pb 3.0 max. %	2.69		Within limit	
Sulfur S 0.04 max. %	0.003		Within limit	
Antimony Sb 0.10 max. %	<0.011		Within limit	
Silicon Si 0.01 max. %	<0.002		Within limit	
Tin Sn 4.0 to 6.0 %	5.70		Within limit	
Zinc Zn 4.0 to 6.0 %	4.32		Within limit	
Copper Cu 84.0 to 88.0 %	87.3		Within limit	
Cadmium Cd 0.02 max. %	0.001		Within limit	
Chromium Cr 0.02 max. %	<0.001		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 1982:2008, Table 23a, Grade CC499K.
- This page no. 1A of this Appendix A supersedes page no. 1 of the previous Appendix A of Castco LRN 210201-2195 issued on 20-04-2021.
- Refer to the previous Appendix A of Castco LRN 210201-2195, the sample details were revised in this issue due to the clerical error of the laboratory.

**Test Report
Chemical Analysis of Steel**Date of issue: 20-04-2021
Page 1 of 2Specimen No.: CHEM-210201-2197-001
Castco LRN: 210201-2197**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 for AVK Glenfield Float Operated Valve
Contract No. : --
Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --
Date of Sample Received : 01-02-2021
Test Period : 08-02-2021 to 16-02-2021
Sample Description : DN200 Float Operated Valve (Float)
Specification : BS EN 10088-1:2014, Table 2, Grade 1.4301
Specimen No. : 210121-2544-005
Sample Identification No. : -- / Model No.: Series 854 / Origin : Poland
Manufacturer : AVK POLSKA SP Zoo / Brand Name : AVK Glenfield

Test Method(s):-

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

Remark:

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

Checked by : _____


Lau Hiu Yat
Assistant Technical Manager

Approved Signatory : _____


Cheng Chi Fai
Senior Manager

**Test Report
Chemical Analysis of Steel**Date of issue: 20-04-2021
Page 2 of 2Specimen No.: CHEM-210201-2197-001
Castco LRN: 210201-2197

Chemical Analysis		Result
1) Total Carbon Content	C %	0.020
1) Total Sulfur Content	S %	<0.0020
2) Chromium	Cr %	18.11
2) Manganese	Mn %	1.73
2) Nickel	Ni %	8.06
2) Phosphorus	P %	0.030
2) Silicon	Si %	0.369
3) Nitrogen	N %	0.094

End of Report

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

Test Report**Chemical Analysis of Steel**

Date of issue: 20-04-2021

Page 1 of 3

Specimen No.: CHEM-210201-2199-001

Castco LRN: 210201-2199

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 for AVK Glenfield Float Operated Valve

Contract No. : --

Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --

Date of Sample Received : 01-02-2021

Test Period : 05-02-2021 to 10-02-2021

Sample Description : DN200 Float Operated Valve (Lever)

Specification : BS EN 10088-3:2014, Table 2, Grade 1.4401

Specimen No. : 210121-2544-005

Sample Identification No. : --/ Model No. : Series 854 & Series 854HK/ Origin : Poland

Manufacturer : AVK POLSKA SP Zoo / Brand Name : AVK Glenfield

Test Method(s):-

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

Remark:

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

Checked by : _____


Lau Hiu Yat
Assistant Technical Manager

Approved Signatory : _____


Cheng Chi Fai
Senior Manager



Test Report

Chemical Analysis of Steel

Date of issue: 20-04-2021
Page 2 of 3

Specimen No.: CHEM-210201-2199-001
Castco LRN: 210201-2199

Chemical Analysis		Result
1) Total Carbon Content	C %	0.033
1) Total Sulfur Content	S %	<0.0020
2) Chromium	Cr %	16.55
2) Manganese	Mn %	1.01
2) Molybdenum	Mo %	2.23
2) Nickel	Ni %	11.71
2) Phosphorus	P %	0.025
2) Silicon	Si %	0.578
3) Nitrogen	N %	0.052

End of Report

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

Appendix A

Summary of Chemical Analysis of Steel

Date of issue: 20-04-2021

Specimen No.: CHEM-210201-2199-001

Page 3 of 3

Castco LRN: 210201-2199

Name of Customer: Gate Way Valve & Fitting Limited

Job Title: WSD GA application for AVK Glenfield Float Operated Valve

Contract No.: --

Customer's Ref. No.: --

Date of Received by Lab.: 01-02-2021

Testing Period: 05-02-2021 to 10-02-2021

Castco LRN:	210201-2199				
Sample Description :	DN200 Float Operated Valve (Lever)				
Sample Identification No.:	--/ Model No. : Series 854 & Series 854HK/ Origin : Poland				
Specimen No. :	210121-2544-005				
Manufacturer :	AVK POLSKA SP Zoo / Brand Name : AVK Glenfield				
Specification: BS EN 10088-3:2014, Table 2, Grade 1.4401			Test Results	Within / Exceed limit	
Carbon	C	0.07 max.	%	0.033	Within limit
Sulfur	S	0.015 max.	%	<0.0020	Within limit
Chromium	Cr	16.5 to 18.5	%	16.55	Within limit
Manganese	Mn	2.00 max.	%	1.01	Within limit
Molybdenum	Mo	2.00 to 2.50	%	2.23	Within limit
Nickel	Ni	10.0 to 13.0	%	11.71	Within limit
Phosphorus	P	0.045 max.	%	0.025	Within limit
Silicon	Si	1.00 max.	%	0.578	Within limit
Nitrogen	N	0.10 max.	%	0.052	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 10088-3:2014, Table 2, Grade 1.4401.