### TÜV, TUEV and TUV are registered trademarks. Utilisation and application requires prior approval @

### Certificate

Certificate of Conformity with Fugitive Emission Testing Acc. to EN ISO 15848-1:2015

Certificate no.:

01 202 CHN/K-150312

Name and address of the applicant / license holder:

Kingdom Flow Control Co., Ltd.

23-1 , Nan-he West Rd., Nan-tou, Zhongshan City, Guangdong, P.R. China

We hereby certify that the results of Valve Stem Assembly Sealing System tests carried out under our witness on the industrial valve(s) below meeting the requirements in the standard mentioned

This certificate does not imply assessment of the product production. It reflects only our witness findings to tested valve described herein at the time and the place of test, and does not refer to any other matters. This certificate only includes the external leakage test to the stem assembly, excluding any valve body part or sealing leak rate measurement.

Detail valve technical data and manufacturer information refer to Appendix and Test Report

Model/ Type identification

Description of tested valve:

Test Report No.:

FM2015100016

KV-L42

Performance Class:

Nominal

Pressure/Pressure

Qualified:

ISO FE BH-CO2-t(-29°C to +100°C)-PN40-ISO15848-1

Class 300 (PN 40)/The valve Class or PN designation is

equal or lower

Stem Size/Size Qualified:

Name, Address of Manufacturer:

Ø24/50% lower and 200% higher of those tested valve

Kingdom Flow Control Co., Ltd.

23-1, Nan-he West Rd., Nan-tou, Zhongshan City,

Guangdong, P.R. China

Certificate valid until:

March, 2026.

TÜV Rheinland (Guangdong) Ltd.

Industrial Services

Augustine Yor

Chengdu/ China

2016/03/07



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### Appendix to Certificate 01 202 CHN/K-150312

### **Construction & Test Data**

Name and address of the

Kingdom Flow Control Co., Ltd.

applicant / license holder:

23-1 , Nan-he West Rd., Nan-tou, Zhongshan City,

Guangdong, P.R. China

Name, Address of Manufacturer:

Kingdom Flow Control Co., Ltd.

23-1 , Nan-he West Rd., Nan-tou, Zhongshan City,

Guangdong, P.R. China

Test Report No.:

FM2015100016

Model :	KV-L42 NPS 3/Class 300 (PN 40),		
Nominal Diameter :			
Nominal Pressure/Pressure Qualified :	Class 300 (PN 40)/The valve Class or PN designation is equation or lower		
Type of Ball Valve:	Ball Valve		
Stem Size/Size Qualified:	Ø24/50% lower and 200% higher of those tested valve		
Stem Sealing:	PTFE+FKM+PTFE		
Body Sealing:	PTFE		
Packing Drawing/ Assembly Drawing:	916241030004420, Rev. 0		
Test Gas:	Helium		
Tightness Class:	< <b:leakage mg•s-1.m-1="" rate="" ≤10-4="">&gt;</b:leakage>		
Endurance Class:	< <co2; 1500mechanical="" cycles="">&gt;</co2;>		
Temperature Class:	< <t-29°c, 100°c="">&gt;</t-29°c,>		

The Valve Sealing System is in compliance with the above mentioned requirements. The test and the classification is based on a type approval and does not include the factory inspection.

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Chengdu/ China 2016/03/07



# TÜV, TUEV and TUV are registered trademarks. Utilisation and application requires prior approval

### Certificate

Certificate of Conformity with Fugitive Emission Testing Acc. to EN ISO 15848-1:2015

Certificate no .:

01 202 CHN/K-150313

Name and address of the applicant / license holder:

Kingdom Flow Control Co., Ltd.

23-1 , Nan-he West Rd., Nan-tou, Zhongshan City, Guangdong, P.R. China

We hereby certify that the results of Valve Stem Assembly Sealing System tests carried out under our witness on the industrial valve(s) below meeting the requirements in the standard mentioned

This certificate does not imply assessment of the product production. It reflects only our witness findings to tested valve described herein at the time and the place of test, and does not refer to any other matters. This certificate only includes the external leakage test to the stem assembly, excluding any valve body part or sealing leak rate measurement.

Detail valve technical data and manufacturer Information refer to Appendix and Test Report

Model/ Type identification

Description of tested

valve:

KV-L62

Test Report No.:

FM2015100017

Performance Class:

Nominal

Pressure/Pressure

Qualified:

ISO FE BH-CO3-t(-29°C to +200°C)-PN40-ISO15848-1

Class 300 (PN 40)/The valve Class or PN designation is

equal or lower

Stem Size/Size

Qualified:

Ø24/50% lower and 200% higher of those tested valve

Name, Address of

Kingdom Flow Control Co., Ltd.

Manufacturer:

23-1, Nan-he West Rd., Nan-tou, Zhongshan City,

Guangdong, P.R. China

Certificate valid until:

March, 2026.

TÜV Rheinland (Guangdong) Ltd.

**Industrial Services** 

Chengdu/ China 2016/03/07

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### Appendix to Certificate 01 202 CHN/K-150313

### **Construction & Test Data**

Name and address of the

Kingdom Flow Control Co., Ltd.

applicant / license holder:

23-1 , Nan-he West Rd., Nan-tou, Zhongshan City,

Guangdong, P.R. China

Name, Address of Manufacturer:

Kingdom Flow Control Co., Ltd.

23-1 , Nan-he West Rd., Nan-tou, Zhongshan City,

Guangdong, P.R. China

Test Report No.:

FM2015100017

Model:	KV-L62	
Nominal Diameter :	NPS 3/Class 300 (PN 40),	
Nominal Pressure/Pressure Qualified :	Class 300 (PN 40)/The valve Class or PN designation is equor lower	
Type of Ball Valve:	Ball Valve	
Stem Size/Size Qualified:	Ø24/50% lower and 200% higher of those tested valve	
Stem Sealing:	PTFE+FKM+Graphoil	
Body Sealing:	316+Spiral Wound Graphite	
Packing Drawing/ Assembly Drawing:	9162410300004420, Rev.0	
Test Gas:	Helium	
Tightness Class:	< <b:leakage mg•s-1.m-1="" rate="" ≤10-4="">&gt;</b:leakage>	
Endurance Class:	< <co3; 2500mechanical="" cycles="">&gt;</co3;>	
Temperature Class:	< <t-29°c, 200°c="">&gt;</t-29°c,>	

The Valve Sealing System is in compliance with the above mentioned requirements. The test and the classification is based on a type approval and does not include the factory inspection.

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TUV Rheinland (Guangdong) Ltd.

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### Appendix to Certificate 01 202 CHN/K-150314

### **Construction & Test Data**

Name and address of the

Kingdom Flow Control Co., Ltd.

applicant / license holder:

23-1 , Nan-he West Rd., Nan-tou, Zhongshan City,

Guangdong, P.R. China

Name, Address of Manufacturer:

Kingdom Flow Control Co., Ltd.

23-1 , Nan-he West Rd., Nan-tou, Zhongshan City,

Guangdong, P.R. China

Test Report No.:

FM2015100019

Model:	KV-L20H	
Nominal Diameter:	NPS 1/Class 800 (2000 WOG),	
Nominal Pressure/Pressure Qualified :	Class 800 (2000 WOG)/The valve Class or PN designation is equal or lower	
Type of Ball Valve:	Ball Valve	
Stem Size/Size Qualified:	Ø15/50% lower and 200% higher of those tested valve	
Stem Sealing:	PTFE+FKM+PTFE	
Body Sealing:	PTFE	
Packing Drawing/ Assembly Drawing:	9162410300004670, Rev.0	
Test Gas:	Helium	
Tightness Class:	< <b:leakage mg•s-1.m-1="" rate="" ≤10-4="">&gt;</b:leakage>	
Endurance Class:	< <co2; 1500mechanical="" cycles="">&gt;</co2;>	
Temperature Class:	< <t-29°c, 100°c="">&gt;</t-29°c,>	

The Valve Sealing System is in compliance with the above mentioned requirements. The test and the classification is based on a type approval and does not include the factory inspection.

Chengdu/ China 2016/03/07

**Industrial Services** 

TUV Rheinland (Guangdeng) Ltd.

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### Certificate

Certificate of Conformity with Fugitive Emission Testing Acc. to EN ISO 15848-1:2015

Certificate no .:

01 202 CHN/K-150314

Name and address of

Kingdom Flow Control Co., Ltd.

23-1 , Nan-he West Rd., Nan-tou, Zhongshan City, Guangdong, P.R. China

the applicant / license holder:

We hereby certify that the results of Valve Stem Assembly Sealing System tests carried out under our witness on the industrial valve(s) below meeting the requirements in the standard mentioned

This certificate does not imply assessment of the product production. It reflects only our witness findings to tested valve described herein at the time and the place of test, and does not refer to any other matters. This certificate only includes the external leakage test to the stem assembly, excluding any valve body part or sealing leak rate measurement.

Detail valve technical data and manufacturer Information refer to Appendix and Test Report

Model/ Type identification Description of tested

KV-L20H

valve:

Test Report No.: FM2015100019

Performance Class:

Nominal

Pressure/Pressure

Qualified:

ISO FE BH-CO2-t(-29°C to +100°C)-Class 800-ISO15848-1

Class 800 (2000 WOG)/The valve Class or PN designation

is equal or lower

Stem Size/Size Qualified:

Ø15/50% lower and 200% higher of those tested valve

Name, Address of

Kingdom Flow Control Co., Ltd.

Manufacturer:

23-1 , Nan-he West Rd., Nan-tou, Zhongshan City,

Guangdong, P.R. China

Certificate valid until:

March, 2026.

TÜV Rheinland (Guangdong) Ltd.

**Industrial Services** 

Chengdu/ China 2016/03/07 udustine Yo Poection

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### ZERTIFIKAT CERTIFICATE

### Certificate of conformity

With Fugitive Emission Testing acc. to EN ISO 15848-1: 2015



Certificate No.: 230490

Name and postal address of

manufacturer:

**Kingdom Flow Control Co., Ltd.** 

No.23-1, Nan-he West Rd., Nan-tou Town, Zhong-

shan City,528427, Guangdong Province,

P.R.China.

We hereby certify that the results of Valve Stem Assembly Sealing System of tests carried out under our witness about the industrial valve(s) below meets the requirements EN ISO 15848-1: 2015.

This certificate does not mean assessment of the product production. It reflect only our witness findings to tested valve described herein at the time and the place of test, and does not refer to any other matters. This certificate only includes the external leakage test to the stem assembly, excluding any valve body part or sealing leak rate measurement. Detail valve technical data and manufacturer information refer to annex and test report.

Model/ Type identification Description of tested valve Ball Valve: KV-M63-HF RF(CL600-NPS3)

**Test report No.:** 

C160015 dated 2016-06-28

**Performance Class:** 

**Nominal** 

Pressure/pressure Qualified:

Class 600/ The valve class or PN designation is equal

ISO FE BH-CO3-t(RT to +200°C)-Class 600-ISO15848-1

or lower

Stem Size/Size qualified:

Ø36/ Half to twice (included) the tested valve diameter.

Manufacturing plant:

Kingdom Flow Control Co., Ltd.

No.23-1, Nan-he West Rd., Nan-tou Town, Zhongshan

City, 528427, Guangdong Province, P.R.China.

Beijing, Jun. 30<sup>th</sup>, 2016

(Place, date)

Industrie Service Gmbs TÜV SÜD Industrie Service GmbH

M Building, No. 7 Wangjing Zhonghuan Nanlu, Chaoyang District, Beijing 100102, P. R. China

Tel.: + 86 10 6590 -6186 Fax: +86 10 6590-6182 www.tuev-sued.de

### TÜV SÜD Industrie Service GmbH Beijing Branch

M Building, No. 7 Wangjing Zhonghuan Nanlu, Chaoyang District Beijing 100102 P.R. China

Tel.: + 86 10-65906186 Fax: +86 10-65906182



ANNEX: data for certificate No. 230490

Name of manufactuer:

Kingdom Flow Control Co., Ltd.

Address of manufacturer:

No.23-1, Nan-he West Rd., Nan-tou Town, Zhongshan City, 528427, Guangdong

Province, P.R.China.

**Test Report:** 

C160016 dated 2016-06-28

We hereby certify that the valve below has passed the fugitive emission test successfully according to Class BH of ISO 15848-1:2015 for a total of 2500 cycles.

Ball Valve: KV-M63-HF RF(CL600-NPS3)
Class 600-NPS3
Ball Valve
Graphite+inconel 600
304+spiral Wound Graphite
F316
900362610313750 dated 31-07-2015.
Helium
B: Leakage Rate≤10-4 mg.s-1.m-1
CO3; 2500 mechanical cycles
200

The test was verified by TÜV SÜD engineer according to requirements of ISO15848-1:2015 and found compliance with the above mentioned requirements. The test and the classification is base on a type approval and does not include the factory inspection.

The tested valve covers performance class (para.6.6):

ISO FE BH-CO3-t(RT to +200°C)-Class 600-ISO15848-1.

Extension of qualification (in particular) to untested valves in accordance with paragraph 8 of ISO 15848-1.

Stem sizes qualified: Ø36/ Half to twice (included) the tested valve diameter.

Pressure ranges qualified: Class 600/ the valve class or PN designation is equal or lower

Beijing/P. R. China Jun 30<sup>th</sup>, 2016

TÜV SÜD Industrie Service GmbH Beijing Branch

(Liu Bingjiang

### Certificate of conformity





Certificate No.: 230491

Name and postal address of

manufacturer:

Kingdom Flow Control Co., Ltd.

No.23-1, Nan-he West Rd., Nan-tou Town, Zhongshan City, 528427, Guangdong Province, P. R.

China.

We hereby certify that the results of Valve Stem Assembly Sealing System of tests carried out under our witness about the industrial valve(s) below meets the requirements EN ISO 15848-1: 2015.

This certificate does not mean assessment of the product production. It reflect only our witness findings to tested valve described herein at the time and the place of test, and does not refer to any other matters. This certificate only includes the external leakage test to the stem assembly, excluding any valve body part or sealing leak rate measurement. Detail valve technical data and manufacturer information refer to annex and test report.

Model/ Type identification Description of tested valve

Ball Valve: KV-F63 RF(CL600-NPS8)

**Test report No.:** 

C160016 dated 2016-06-28

**Performance Class:** 

Nominal

ISO FE BH-CO3-t(RT to +200°C)-Class 600-ISO15848-1

Pressure/pressure Qualified: Class 600/ The valve class or PN designation is equal or lower

Stem Size/Size qualified:

Ø55/ Half to twice (included) the tested valve diameter.

Manufacturing plant:

Kingdom Flow Control Co., Ltd.

No.23-1, Nan-he West Rd., Nan-tou Town, Zhongshan City, 528427, Guangdong Province, P. R.

China.

Beijing, Jun. 30th, 2016

(Place, date)

**TÜV SÜD Industrie Service GmbH** Beijing Branch Service Gmb

M Building, No. 7 Wangjing Zhonghuan Nanlu, Chaoyang District, Beijing 100102, P. R. China Fax: + 86 10 6590-6182

Tel.: + 86 10 6590 -6186 www.tuev-sued.de

### TÜV SÜD Industrie Service GmbH Beijing Branch

M Building, No. 7 Wangjing Zhonghuan Nanlu, Chaoyang District Beijing 100102 P.R. China

Tel.: + 86 10-65906186 Fax: +86 10-65906182



ANNEX: data for certificate No. 230491

Name of manufactuer:

Kingdom Flow Control Co., Ltd.

Address of manufacturer:

No.23-1, Nan-he West Rd., Nan-tou Town, Zhongshan City, 528427, Guangdong

Province, P. R. China.

**Test Report:** 

C160016 dated 2016-06-28

We hereby certify that the valve below has passed the fugitive emission test successfully according to Class BH of ISO 15848-1:2015 for a total of 2500 cycles.

Model	Ball Valve: KV-F63 RF(CL600-NPS8)	- 1
Nominal Diameter	Class 600-NPS8	
Type of Valve	Ball Valve	
Stem Sealing	Graphite+inconel 600	
Body Sealing	304+spiral Wound Graphite	
Body/bonnet material	WCB	
Valve assembly drawing no.	900366410804480 dated 20-03-2015.	
Test Gas	Helium	
Tightness Class	B: Leakage Rate≤10-4 mg.s-1.m-1	- ,
Endurance Class	CO3; 2500 mechanical cycles	
Temperature	200	I II

The test was verified by TÜV SÜD engineer according to requirements of ISO15848-1:2015 and found compliance with the above mentioned requirements. The test and the classification is base on a type approval and does not include the factory inspection.

The tested valve covers performance class (para.6.6):

ISO FE BH-CO3-t(RT to +200°C)-Class 600-ISO15848-1.

Extension of qualification (in particular) to untested valves in accordance with paragraph 8 of ISO 15848-1.

Stem sizes qualified: Ø55/ Half to twice (included) the tested valve diameter.

Pressure ranges qualified: Class 600/ the valve class or PN designation is equal or lower

Beijing/P. R. China Jun 30<sup>th</sup>, 2016

TÜV SÜD Industrie Service GmbH.
Beijing Branch

(Liu Bingjiang)

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