

Certificate

**Certificate of Conformity with technical requirements
in relation to Sec. 5.2.6.3, TA-Luft: 2021-08 and
Sec. 6.3.1.4, VDI 2440: 2021-06**

Certificate no.: **01 202 CHN/K-240574**
Name and address of the
applicant / license holder: **FITOK (Wuhan) Incorporated**
No.16 Jinyang Avenue, Yangluo Economic Development Zone,
Xinzhou District, Wuhan City, Hubei Province, 430415, China

We hereby certify that the results of Tube Joint Sealing System tests carried out under our inspection on the below Tube Joint Assembly meet the referenced technical requirements mentioned above. This certificate does not imply assessment of the product production. It reflects only our inspection for tested valve described herein at the time and the place of test, and does not refer to any other matters. Detail technical data and manufacturer's information, refer to appendix and test report.

Name and address of the
manufacturer: **FITOK (Wuhan) Incorporated**
No.16 Jinyang Avenue, Yangluo Economic Development Zone,
Xinzhou District, Wuhan City, Hubei Province, 430415, China

Technical Object: **Fitting Assembly**

Model /Type: **Tube Joint Assembly With Metal Gasket, FITOK Type FR**

Description of tested
specimen: **Tube Joint Assembly, Type FR, consisting of:
fittings & gaskets, made of 316 SS;
with joint size DN8+DN16+DN23**

Assembly drawing number: **SS-FR-TA-LUFT dated 2024.10.23**

Testing procedure: **EN 1779 Vacuum Method B.2.1**

Testing medium /temperature: **Helium /25°C**

Testing pressure: **100 bar /200 bar /254 bar respectively**

Allowable leakage: **Leakage rates $\leq 2.86 \times 10^{-5}$ mbar · L/s ($L_{0.01} \leq 0.01$ mg /s·m)
(In reference to Section 5.2.6.3 of TA-Luft: 2021-08)**

Test result: **Passed**

Test report number: **326053857-5**

Place: Shanghai

Date: 28 February, 2025

Owen Wu
Technical Manager

TÜV Rheinland (Shanghai) Co., Ltd.



TÜV Rheinland (Shanghai) Co., Ltd.
TÜV Rheinland Building, No. 177, Lane 777, West Guangzhong Road,
Jing'an District, Shanghai, P. R. China 200072, Tel.: 021-61081188

TA-Luft_tube joint_Rev. 20240526

Appendix 1

Certificate No.
01 202 CHN/K-240574Test Report No.
326053857-5

Construction & Test Data

Name and address of the
applicant / license holder:**FITOK (Wuhan) Incorporated**No.16 Jinyang Avenue, Yangluo Economic Development Zone,
Xinzhou District, Wuhan City, Hubei Province, 430415, ChinaName and address of the
manufacturer:**FITOK (Wuhan) Incorporated**No.16 Jinyang Avenue, Yangluo Economic Development Zone,
Xinzhou District, Wuhan City, Hubei Province, 430415, China

Test facility:

Manufacturer's testing facility

Technical Object:	Fitting Assembly		
Model/ Type:	Tube Joint Assembly With Metal Gasket, FITOK Type FR		
Description of tested assembly:	Tube Joint Assembly, Type FR, consisting of: fittings & gaskets, made of 316 SS; with joint size DN8+DN16+DN23		
Total joint seal perimeter:	147.58 mm (DN8+DN16+DN23)		
Assembly drawing number:	SS-FR-TA-LUFT dated 2024.10.23		
Testing procedure:	EN 1779 Vacumm Method B.2.1		
Testing medium:	Helium		
Testing temperature	25°C		
Testing pressure:	100 bar /200 bar /254 bar respectively		
Allowable leakage*:	Leakage rates≤2.86×10 ⁻⁵ mbar · L/s (L _{0.01} ≤0.01 mg /s·m)		
Test results /leakage rate*: (mbar. L/s)	100 bar	200 bar	254 bar
	3.3×10 ⁻⁹	9.4×10 ⁻¹⁰	7.3×10 ⁻¹⁰
Conclusion:	The measured leakage rates are acceptable.		
*Remarks: 1.The test specimen is an assembly of three different sizes of tube joints (DN8, DN16, DN23). The allowable leakage is calculated based on the total joint seal perimeter. The measured leakage is the total leakage from all joints of the assembly.			

The Tube Joint Sealing System and testing details are as mentioned above. The test samples are selected and assembled by the manufacturer.

Jack Rui

Project Manager

Date: 28 February, 2025

Place: Shanghai

Owen Wu

Technical Manager

Date: 28 February, 2025

TÜV Rheinland (Shanghai) Co., Ltd.



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Certificate

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in relation to Sec. 5.2.6.3, TA-Luft: 2021-08 and
Sec. 6.3.1.4, VDI 2440: 2021-06**

Certificate no.: **01 202 CHN/K-240572**
Name and address of the
applicant / license holder: **FITOK (Wuhan) Incorporated**
No.16 Jinyang Avenue, Yangluo Economic Development Zone,
Xinzhou District, Wuhan City, Hubei Province, 430415, China

We hereby certify that the results of Tube Joint Sealing System tests carried out under our inspection on the below Tube Joint /Fitting Assembly meet the referenced technical requirements mentioned above. This certificate does not imply assessment of the product production. It reflects only our inspection for tested valve described herein at the time and the place of test, and does not refer to any other matters. Detail technical data and manufacturer's information, refer to appendix and test report.

Name and address of the manufacturer: **FITOK (Wuhan) Incorporated**
No.16 Jinyang Avenue, Yangluo Economic Development Zone,
Xinzhou District, Wuhan City, Hubei Province, 430415, China

Technical Object: Fitting Assembly

Model /Type: Tube Joint Assembly With Metal Gasket, FITOK Type FR

Description of tested specimen: Tube Joint Assembly, Type FR; consisting of:
fittings & gaskets, made of 316L SS;
with joint size DN8+DN16+DN23

Assembly drawing number: 6L-FR-TA-LUFT dated 2024.10.23

Testing procedure: EN 1779 Vacuum Method B.2.1

Testing medium /temperature: Helium /25°C

Testing pressure: 100 bar /200 bar /254 bar respectively

Allowable leakage: Leakage rate $\leq 2.86 \times 10^{-5}$ mbar · L/s ($L_{0.01} \leq 0.01$ mg /s·m)
(In reference to Section 5.2.6.3 of TA-Luft: 2021-08)

Test result: Passed

Test report number: 326053857-3

Place: Shanghai

Date: 28 February, 2025

Owen Wu
Technical Manager

TÜV Rheinland (Shanghai) Co., Ltd.



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Appendix 1

Certificate No.
01 202 CHN/K-240572Test Report No.
326053857-3

Construction & Test Data

Name and address of the applicant / license holder: FITOK (Wuhan) Incorporated
No.16 Jinyang Avenue, Yangluo Economic Development Zone,
Xinzhou District, Wuhan City, Hubei Province, 430415, China

Name and address of the manufacturer: FITOK (Wuhan) Incorporated
No.16 Jinyang Avenue, Yangluo Economic Development Zone,
Xinzhou District, Wuhan City, Hubei Province, 430415, China

Test facility: Manufacturer's testing facility

Technical Object:	Fitting Assembly		
Model/ Type:	Tube Joint Assembly With Metal Gasket, FITOK Type FR		
Description of tested assembly:	Tube Joint Assembly, Type FR; consisting of: fittings & gaskets, made of 316L SS; with joint size DN8+DN16+DN23		
Total joint seal perimeter:	147.58 mm (DN8+DN16+DN23)		
Assembly drawing number:	6L-FR-TA-LUFT dated 2024.10.23		
Testing procedure:	EN 1779 Vacumm Method B.2.1		
Testing medium:	Helium		
Testing temperature	25°C		
Testing pressure:	100 bar /200 bar /254 bar respectively		
Allowable leakage*:	Leakage rates $\leq 2.86 \times 10^{-5}$ mbar · L/s ($L_{0.01} \leq 0.01$ mg /s·m)		
Test results /leakage rate*: (mbar. L/s)	100 bar	200 bar	254 bar
	7.0×10^{-10}	7.0×10^{-10}	5.8×10^{-10}
Conclusion:	The measured leakage rates are acceptable.		
*Remarks: 1.The test specimen is an assembly of three different sizes of tube joints (DN8, DN16, DN23). The allowable leakage is calculated based on the total joint seal perimeter. The measured leakage is the total leakage from all joints of the assembly.			

The Tube Joint Sealing System and testing details are as mentioned above. The test samples are selected and assembled by the manufacturer.

Jack Rui
Project Manager
Date: 28 February, 2025

Place: Shanghai

Owen Wu
Technical Manager
Date: 28 February, 2025

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