

CERTIFICATE

No. 30511101E/FH/31.07.24

In accordance with the requirements of TA Luft (dated 2021) the following connection was tested:

Designation: clamp ring connection CP-P
Gaskets: ring gasket with collar, material: PTFE white
Flanges: glass flanges borosilicate glass 3.3
Nominal size: DN25 and DN50
Insert: clamp ring insert HUP 24/40 RN 9500
Clamping element: bolts M8, A4-70 and compression spring CPS8.5
Lubricant: MD ceramic paste MKE.K200

of the manufacturer

Pfautler Normag Systems GmbH
Auf dem Steine 4, DE – 98693 Ilmenau

with regard to the proof of tightness class $1.0 \cdot 10^{-2}$ mg/(s · m) according to TA Luft In the laboratory of amtec with the following conditions

Nominal size	DN25	DN50	
Assembly:	2.4	4	Nm
Exposure temperature:	RT	RT	
Exposure time:	-	-	
Re-tightening:	No	No	
Test pressure (absolute):	6	4	bar
Test medium:	Helium	Helium	
Leak rate L1 (after assembly)	-	-	
Leak rate L2 (RT)	$1.7 \cdot 10^{-4}$	$3.6 \cdot 10^{-4}$	mg/(s · m)

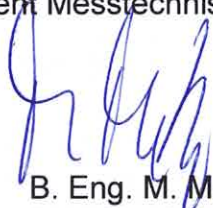
The leakage criterion of the TA Luft of $1.0 \cdot 10^{-2}$ mg/(s·m) was not exceeded in the relevant measurement L₂. The sealing system examined is therefore considered to be leak-tight in the sense of TA Luft:2021. The results can be transferred to nominal sizes of DN15 – DN150. It ensures that the tested gaskets of nominal sizes DN25 and DN50 have been installed with the smallest surface gasket stress of all nominal sizes. This certificate is valid only in connection with the test report 3051112/a.

Lauffen, July 31st, 2024

amtec Advanced Measurement Messtechnischer Service GmbH



Dipl.-Ing. F. Herkert
 Head of Laboratory



B. Eng. M. Metzger
 Test Engineer

CERTIFICATE

No. 30511102E/FH/31.07.24

In accordance with the requirements of TA Luft (dated 2021) the following connection was tested:

Designation: clamp ring connection CP-K
Gaskets: ring gasket with collar, material: PTFE white
Flanges: glass flanges borosilicate glass 3.3
Nominal size: DN25 and DN50
Insert: clamp ring insert HUP 24/40 RN 9500
Clamping element: bolts M8, A4-70 and compression spring CPS8.5
Lubricant: MD ceramic paste MKE.K200

of the manufacturer

Pfaudler Normag Systems GmbH
Auf dem Steine 4, DE – 98693 Ilmenau

with regard to the proof of tightness class $1.0 \cdot 10^{-2}$ mg/(s · m) according to TA Luft in the laboratory of amtec with the following conditions

Nominal size	DN25	DN50	DN50	
Assembly:	2.4	4	1.5	Nm
Exposure temperature:	RT	RT	RT	
Exposure time:	-	-	-	
Re-tightening:	No	No	No	
Test pressure (absolute):	6	4	1	bar
Test medium:	Helium	Helium	Helium	
Leak rate L1 (after assembly)	-	-	-	
Leak rate L2 (RT)	$1.8 \cdot 10^{-3}$	$4.9 \cdot 10^{-4}$	$2.3 \cdot 10^{-3}$	mg/(s · m)

The leakage criterion of the TA Luft of $1.0 \cdot 10^{-2}$ mg/(s·m) was not exceeded in the relevant measurement L₂. The sealing system examined is therefore considered to be leak-tight in the sense of TA Luft:2021. The results can be transferred to nominal sizes of DN15 – DN600. It ensures that the tested gaskets of nominal sizes DN25 and DN50 have been installed with the smallest surface gasket stress of all nominal sizes. This certificate is valid only in connection with the test report 3051112/a.

Lauffen, July 31st, 2024

amtec Advanced Measurement Messtechnischer Service GmbH



Dipl.-Ing. F. Herkert
 Head of Laboratory



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