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CERTIFICATE

No. 30179801/FH/25.05.09

In accordance with the VDI Guideline 2440 (edition November 2000) the compliance with the tightness criteria of $1.0 \cdot 10^{-4}$ mbar · l/(m · s) of the gasket type

KLINGER® Quantum
DN40/PN40

of the gasket manufacturer

Klinger Dichtungstechnik GmbH & Co. KG
Am Kanal 8-10, A - 2352 Gumpoldskirchen

was verified in a first-time test under the following test conditions:

initial gasket stress:	29.8	MPa
related to DN40/PN40:	30.0	MPa
temperature of exposure:	300	°C
period of exposure:	48	h
remaining gasket stress:	11.6	MPa
test pressure (absolute):	1	bar
period of leakage measurement:	24	h

The leak rate measured with the Helium leak detector at the end of the period of the leakage measurement was

$4.4 \cdot 10^{-8}$ mbar · l/(m · s),

therefore the gasket is in compliance with the tightness criteria of VDI 2440. If the design of the sealing system can be expected to permit normal function in the long term in the given operating conditions and the characteristic sealing value as per DIN 28090-1 or EN 13555, respectively, are observed when choosing and dimensioning the flange connection, the gasket can be regarded as a high-grade sealing system for the purposes of TA-Luft.

This certificate is only valid in combination with the test report 3017981/-.

Lauffen, May 25, 2009

amtec Messtechnischer Service GmbH

Dipl.-Ing. F. Herkert