

Rheinisch-Westfälische  
Technische Hochschule Aachen University  
Head of Institute: Univ.-Prof. Dr.-Ing. P. Jeschke  
Templergraben 55, 52062 Aachen

---

## License Agreement

for the

### CFD Test Case

*Centrifugal Compressor "RadiVer" with MTU Impeller*

*of RWTH Aachen University*

The test data of this test case was generated by Dr.-Ing. Kai U. Ziegler within his doctorate project under the scientific supervision of Prof. Dr.-Ing. Dr. h.c. H. E. Gallus (until 08/1998) and Prof. Dr.-Ing. R. Niehuis (09/1998 – 02/2006) at the Institute of Jet Propulsion and Turbomachinery (IST) of RWTH Aachen University, Germany.

The research project was funded by Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) to some extent, which is gratefully acknowledged. The impeller of the centrifugal compressor was provided by MTU Aero Engines GmbH, Munich as a donation to be used for research purposes, which is also gratefully acknowledged.

The test case "RadiVer" is open to everyone, who wants to use the data base for CFD validation. The provision of this test case is intended to be a contribution to the field of research on "impeller-diffuser interaction" and "unsteady CFD in centrifugal compressors" in order to advance progress in these fields. The provider of the test case highly appreciates to share results, experience and other useful information among the group of users and encourages all users to participate in that sense. Joint publications are welcome.

By signing this license agreement the licensee accepts:

- to solely use the information of the test case for his own R&D work
- if necessary only to disclose the information of the test case to its and its subsidiary's employees who have a need to know and are bound to protect the information of the test case from unauthorized use.
- to not distribute the contents of the test case to third parties.
- that he does not gain any rights in the obtained data or any other information contained in the test case.
- to cite in every publication (or in any other form of communication) the source and origin of his information, i. e. naming the authors and the institute. If the test case is used in any form of publication, the relevant publications below must be cited. Furthermore, the origin of the data base must be mentioned as follows: "The measurements on the test case "RadiVer" were carried out at the Institute of Jet Propulsion and Turbomachinery at RWTH Aachen University, Germany. Part of the investigations was funded by the Deutsche Forschungsgemeinschaft (DFG)."

- to give feedback to the Institute of Jet Propulsion and Turbomachinery at RWTH Aachen University how the provided information was used in his R&D work. Participation to the potential workshops and inclusion of these results in the data base are solicited and welcome.

**Relevant publications of the test case:**

- [1] Ziegler, K. U., Gallus, H. E., Niehuis, R.  
A Study on Impeller-Diffuser Interaction: Part I - Influence on the Performance  
ASME Paper GT-2002-30381, 2002
- [2] Ziegler, K. U., Gallus, H. E., Niehuis, R.  
A Study on Impeller-Diffuser Interaction: Part II - Detailed Flow Analysis  
ASME Paper GT-2002-30382, 2002
- [3] Ziegler, K. U.  
Experimentelle Untersuchung der Laufrad-Diffusor-Interaktion in einem Radialverdichter variabler Geometrie  
Doctoral Thesis RWTH Aachen (in German), 2003

**Contact:**

Sandra Labat, M.Sc.  
Research Assistant

Institut für Strahlantriebe und Turbomaschinen, RWTH Aachen  
(Institute of Jet Propulsion and Turbomachinery, RWTH Aachen University, Germany)  
Templergraben 55, D-52062 Aachen  
Phone: +49 (0)241 80-99693  
Fax: +49 (0)241 80-92229  
Email: Testcases@ist.rwth-aachen.de  
[www.ist.rwth-aachen.de](http://www.ist.rwth-aachen.de)

CFD Test Case Centrifugal Compressor "RadiVer" with MTU Impeller of RWTH Aachen University

## License Agreement

---

### User Details:

Name:

---

Company:

---

Department:

---

Address:

---

Job Function:

---

Phone:

---

Fax:

---

Email:

---

With my signature I fully accept the license agreement on the CFD test case *Centrifugal Compressor "RadiVer" with MTU Impeller* of Aachen University.

---

Licensee Signature

Date