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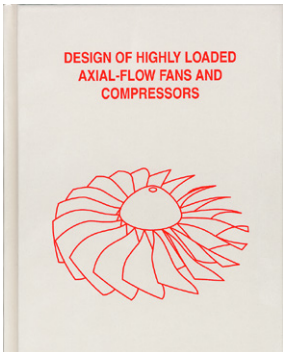
PROFESSIONAL DEVELOPMENT PROGRAM

Design Of Highly Loaded Axial Flow Fans and Compressors

In this monograph the author summarizes the most important points he has learned during a career devoted to advanced fan and compressor research and development. Although all of this work was originally aimed at military aircraft engine applications, much of it is relevant to commercial aircraft engines and also to industrial and even consumer-oriented turbomachinery.

Guidance is given to the aerodynamic designer in most aspects of the detail design of axial compressors, backed up with references which the reader can pursue for a more comprehensive treatment of individual points. Practical and convenient design approaches are recommended wherever possible. The author believes that the simplest approach which can be logically defended is usually the best one unless a designer has a very good reason for escalating the level of complexity in any area.



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Arthur J. Wennerstrom

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Review of the Means of Achieving High Loading

Approaches to the Detail Design of a Highly Loaded Compressor Stage

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- Assumptions Required through Each Blade Row
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Appendix: A Derivation of the Radial Equilibrium Equation of Turbomachinery Convenient for Through-Blade Calculations Using the Streamline Curvature Method

References

About the Author

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