



## AIRFLOW SYSTEM



### DL HC-AFS

#### INTRODUCTION

The Airflow System enables safe investigation of fundamental airflow principles and the execution of basic aerodynamic experimental procedures for educational purposes.

The unit incorporates a compact, high-volume, high-pressure centrifugal fan, equipped with adjustable flow control, as well as standardized inlet and outlet couplings, ensuring ease of use, compatibility, and reliable experimental repeatability.

This equipment is specifically designed as a training system for the study of fundamental airflow principles and the performance of basic airflow experiments. Its modular and expandable design provides a high degree of flexibility, allowing the implementation of a wide range of airflow-related experiments and introductory research activities.

Thanks to its adaptable architecture, the system is well suited for use in educational laboratories, technical training centers, and university-level teaching environments, facilitating hands-on understanding of key aerodynamic phenomena through direct experimentation.

#### APPLICATIONS AND EXPERIMENTAL STUDIES

The Airflow System enables the execution of the following experiments and studies, among others:

- Bernoulli's equation.
- Drag forces acting on various geometries.
- Turbulent jet behavior.
- Boundary layer development.
- Pressure distribution in flow around a bend.
- Fan performance characteristics.



# FLUID MECHANICS



- Jet attachment phenomena.
- Pressure distribution around a cylinder.
- Pressure distribution around an airfoil.
- Flow visualization techniques and measurement methods.