

DESIGNED ACCORDING TO AMCA 210-16 AND ISO 5801-2017

AN ESSENTIAL TOOL FOR DEVELOPING OPTIMIZED FANS AND AIR MOVING PRODUCTS

As part of our commitment to offer more value to our customers and improve the performance and efficiency of our products, HW Ventilation has recently built and installed a new test chamber in Rescaldina.

The chamber will be used for three main purposes:

- **testing** of the performance and efficiency of **our impellers and fans**
- **testing** the performance of our **customers' products**
- **design and development** of new efficient products and **optimization** of existing products



Our new test chamber has been designed in compliance with international standards **AMCA 210-16** and **ISO 5801-2017**. According to AMCA 210-16, our chamber configuration is: **Figure 15 – Inlet Chamber Setup – Multiple Nozzles In Chamber.**

The chamber is mainly made of reinforced **steel** sheets. It has a **2500 x 2500 mm** square section and it is **12 m** long.

Our chamber can be used to measure airflows in the range between **0,1 m³/s and 10 m³/s**, and pressures in the range between **-1000 Pa and +1000 Pa**.

Our test chamber can be utilized for testing the following categories of product:

- **axial fans** with diameters up to 1250 mm and power up to 7,5 kW
- **axial impellers** with diameters up to 1250 mm and power up to 7,5 kW, using the **torque bench**

Adding proper additional tools, we can also test:

- **centrifugal fans** with inlet section area up to 1,2 m² and power up to 7,5 kW
- components and parts of **ventilation/suction plants**
- components and parts of **radiators and engine cooling systems**

The setting of the test chamber is done through a **LabVIEW**-based acquisition and management software, specifically adapted to perform what follows:

- configuration of the nozzles
- setting of the **working point**, through the control of damper and aux fan
- real time **display of physical quantities** and performance curves acquired by the instruments in the chamber
- generation of accurate **test reports**