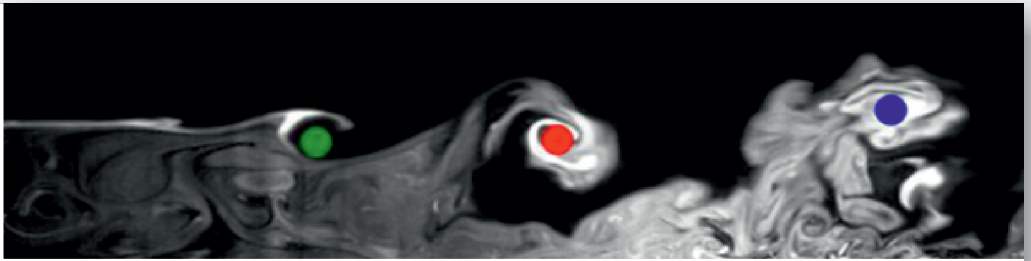




APEX-Research B.V.
offers

Advanced Flow Measurement and Visualization Services

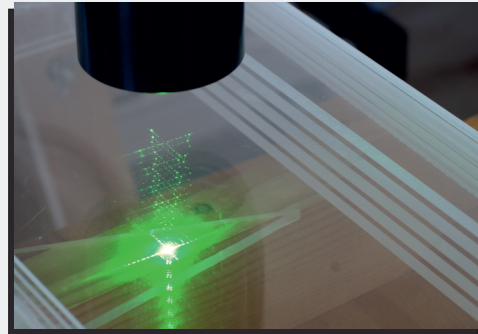


Flow Measurement and Visualization Services

APEX-Research opens its doors to customers

APEX Group's Research and Development department focuses on constantly developing new products and technologies.

APEX-Research's main interest is the study of flow, especially the techniques to improve and control a specific type of flow, from laminar to turbulent. Our research engineers are dedicated and highly qualified in laser optical measurements and experimental fluid mechanics.



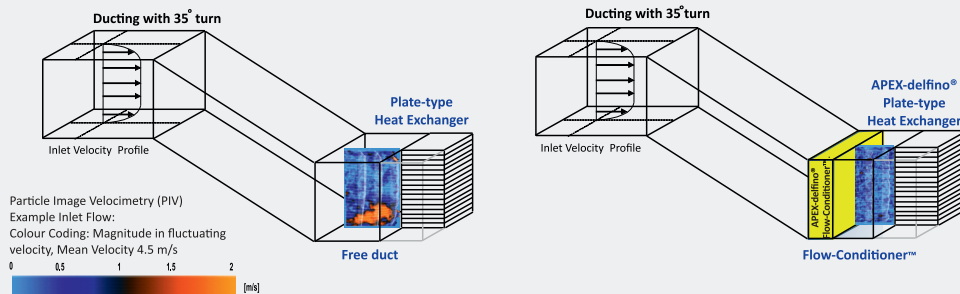
Use our knowledge and resources to optimize your processes

Our knowledge of *internal channel flows* and the *guidance of large amounts of flow* can help you achieve the most ambitious targets of sustainability and even product quality.

The work may be done in APEX Group's laboratories, on models, or by request at your location, on your installations.

Reference

APEX-Research successfully developed the **APEX-delfino® Technology**, a technology to optimize flow distribution and influence turbulence for improved operation of Free-flow™ plate-type heat exchangers. The development is founded through advanced laser optical measurement techniques which gave us insight into the unknowns of turbulent flows.



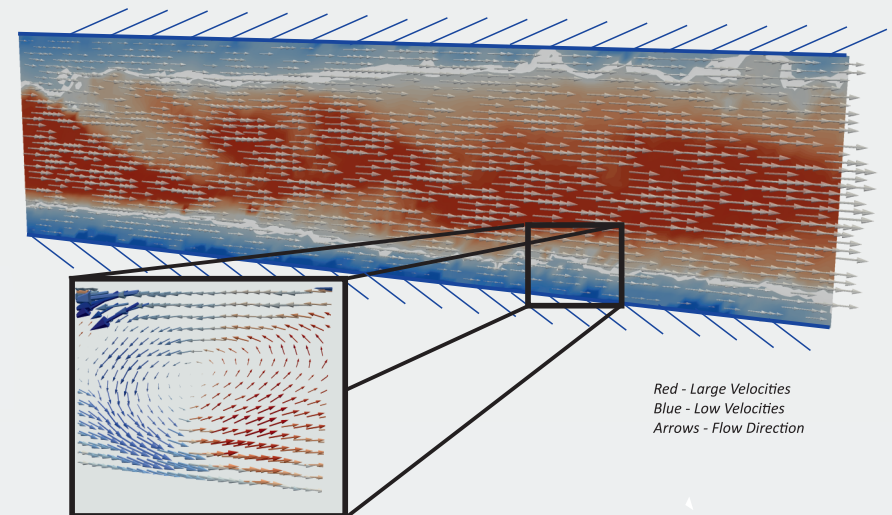
Fluid Mechanical Analysis Methods:

- Laser Doppler Anemometry for most accurate velocity measurements
- Particle Image Velocimetry for flow structure analysis
- Static and dynamic pressure measurements
- Hot Wire Anemometry for turbulence analysis
- Thermocouples for heat transfer analysis
- CFD Analysis
- Models supported by latest 3D Printing technology



Mobile transparent flow facility

Experimental result of an instantaneous velocity field measured in an 8 mm channel



Detected vortical structure close to the wall
Traveling velocity of vortical structure is extracted for visualization

**For us, turbulent flow fields are not chaotic.
Our advanced flow measurement techniques bring order to disorder.**

**“APEX Group is dedicated to offering
engineering solutions, not just a commodity.”**

Mircea Dinulescu, Founder of APEX Group



APEX Group is specialized in designing and manufacturing high quality heat transfer equipment. CORPEX®, A-CORREX® & APEX-delfino® plate-type and tubular exchangers are designed to bear the most extreme requirements. We provide innovative engineering solutions for high performing heavy-duty gas/gas and gas/liquid equipment for heat recovery and environmental projects.

Experience and Vision

We encompass 45+ years of experience and expertise of our founder, Mr. Mircea Dinulescu, and share his vision - **to research, create and provide engineering solutions** for heat transfer industrial applications. To this day, our *Credo* remains unchanged, creating the strong foundation for APEX Group's position in the international market:

Started in 1990 as a small independent business, APEX GROUP will grow into a reputable designer and manufacturer of high quality low-priced industrial heat transfer and combustion equipment for the international market operating according to the quality principles laid out by international standard ISO 9001. - M. Dinulescu, 1991

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