

FlowMaster Educational

FlowMaster Educational is a pre-designed measurement system for teaching and using the PIV technique under reproduceable conditions. This system offers a perfect way for students to get familiar with the technology and to do measurements on their own or in small groups. The system uses an eye-safe LED illumination and provides reliable and accurate results. It allows measuring and analyzing various flow phenomena with high performance.



Components

FlowMaster Educational PIV system consists of



- Imager MX 2M-160 CMOS camera with 1920 x 1200 pixel, 155 fps, 8,10,12 bit, USB 3.0
- high resolution lens
- LED illumination and light sheet optics



- computer (i5, 16 GB) including timing unit PTU X pre-installed on the computer
- ▶ DaVis 10 with FlowMaster Educational software package

The **FlowMaster Educational** software included in the system is a full-fledged DaVis license with standard 2D-PIV package.

Experimental setup

The experimental water jet setup is the perfect addition to the **FlowMaster Educational** system. It contains



- a stable mechanical frame with a water tank
- pump and nozzle producing steady, pulsed or periodic jet flow

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Dimensions

The water jet setup has a space-saving design. The complete system is movable, ensures high flexibility in the laboratory and the compact system combines all necessary components in a small footprint.

- built-up system 100 x 80 x 150 cm³
- system in stand-by 100 x 40 x 150 cm³
- water tank 100 x 40 x 40 cm³



Measurements

FlowMaster Educational allows the analysis of various flow types. Pulse type and pumping speed of the water jet are variable and create a variation of water streams.

The resolution and image section of the camera system enable detailed, precise and time-resolved analysis of flow structures and speed in a vertical plane.

Analysis

DaVis **FlowMaster Educational** is a compact software package managing the experiments and provides a safe and instructive way to record and analyze datasets.

Ordering information

Part number	Description
1106250	FlowMaster Educational PIV system
1106251	Experimental water jet setup

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