Title (en)
DEVICE AND METHOD FOR THREE-DIMENSIONAL FLOW MEASUREMENT

Title (de)
VORRICHTUNG UND VERFAHREN ZUR DREIDIMENSIONALEN STRÖMUNGSMESSUNG

Title (fr)
DISPOSITIF ET PROCÉDÉ DE MESURE DE FLUX TRIDIMENSIONNELLE

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Application
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Abstract (en)
[origin: WO2008031412A2] The invention relates to a device for three-dimensional flow measurement, especially for carrying out particle image velocimetry (PIV) measurements, said device comprising at least one illumination device (12) for illuminating tracer particles (18) moving in a measuring volume (20) of the flow to be examined, and at least one camera (24) for repeatedly reproducing the moving tracer particles (18), the camera (24) comprising at least one objective (14) provided with a ring diaphragm arranged in front of, or on, the objective. The invention also relates to a method for three-dimensional flow measurement, especially for carrying out particle image velocimetry (PIV) measurements. Said method includes especially the recording and reproduction of at least two temporally successive images of the tracer particles (18), the images being recorded by at least one camera (24) and the camera (24) comprising at least one objective (14) such that the tracer particles (18) are reproduced as rings or ring segments.

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