Materials List for:

Simultaneous Measurement of Turbulence and Particle Kinematics Using Flow Imaging Techniques

Erin E. Hackett[1], Roi Gurka[1]

[1]Department of Coastal and Marine Systems Science, Coastal Carolina University

Correspondence to: Erin E. Hackett at ehackett@coastal.edu

URL: https://www.jove.com/video/58036
DOI: doi:10.3791/58036

Materials

Name	Company	Catalog Number	Comments
Optical lenses	CVI LASER OPTICS	Y2-1025-45, RCC-25.0-15.0-12.7-C, PLCC-25.4-515.1-UV	Other optics companies are acceptable. Spherical and cyclindrical lenses for generating PIV light sheet.
Camera lens for PIV	Nikon	Nikkor 105mm f/2D	Other camera lens companies are acceptable. Camera lens for PIV imaging.
Camera lens for high-speed	Nikon	Nikkor 50mm f/1.8D	Other camera lens companies are acceptable. Camera lens for high-speed imaging.
Dual-head pulsed laser	Quantel	EverGreen: 532nm, 70mJ@15Hz	Other laser companies are acceptable. Dual-head Pulsed-laser for PIV: Nd:YAG
LED line light	Gardasoft Vision, Ltd.	VLX2 LED Line Lighting - Green - GAR-VLX2-250-LWD-G-T04	Other companies are acceptable. Line light for LED.
PIV seeding particles/tracers	Potters Industries	SPHERICAL Hollow Glass Spheres: 11 mm average diameter	Other companies are acceptable. PIV seeding particles
CCD cross-correlation camera	TSI, Inc.	POWERVIEW 11M: CCD, Double-exposure, 4008x2672 pixels @ 4.2 Hz with 12bit dynmic range	Other companies are acceptable. Double-exposurem, CCD camera for PIV imaging.
High-speed camera	Photron	FASTCAM SA3; Model 60K: 1024x1024 pixels @ 1kHz	Other companies are acceptable. CMOS camera for high speed imaging.
Synchronizer	TSI, Inc.	LASERPULSE SYNCHRONIZER 610036	Other companies are acceptable. Synchronize the acquisition of the PIV camera and laser.
Calibration target	TSI, Inc.		Other companies are acceptable. Precision target for image calibration.

