Articulated Mirror Arm

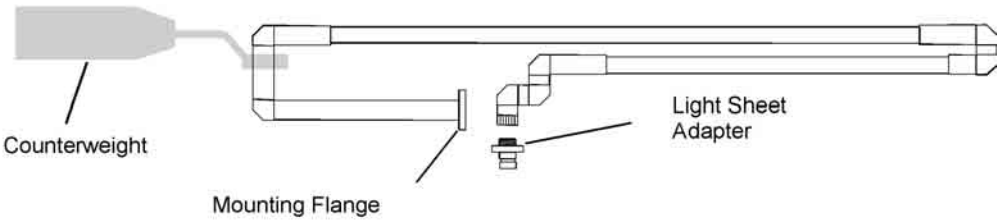
Bench-mounted light sheet illumination system including mini laser, mirror arm and light sheet optics.

The articulated mirror arm is an integrated light guide for delivering controlled laser illumination to the measurement plane in PIV experiments. This beam delivery solution is particularly effective in cases when the laser needs to be kept away from the experiment due to space constraints or hostile conditions. In addition, the optical alignment of the laser-arm assembly is highly stable and independent from the application it is used on. The arm interfaces to Nd:YAG PIV lasers, both mini- and large models, assembled on static or mobile bench units that can be moved easily around the laboratory. The addition of a compact light sheet optics results in a versatile and self-contained illumination system that can safely deliver high power laser pulses to the experiment.

Main Features:

- Simple setup and alignment
- High mechanical stability
- Safe beam containment between the laser and the experiment
- 360 degree orientation and positioning of the light sheet
- Reach up to 1.6m extended
- Automatic traversing option

Specifications



Arm

Dimensions	Fully deployed length 1600mm
Weight	3 kg
Counterweight(*)	8 kg
Degrees of Freedom	7
Mirrors	7 45 degree mirrors, rated to 4,5 J/cm^2
Clear aperture	16 mm

(*) Spring balancing option available on request

Base Block

Dimensions	112 mm x 92 mm x 101 mm
Weight	ca. 5 kg
Beam adjustment	45 degree steering mirror, 2 axis adjustment
Antireflexion coating	Rated to 4,5 J/cm^2

Accessories

Adapter for light sheet optics
Beam alignment tool

Options

Automatic light sheet traversing system

Light Sheet Optics

The articulated mirror arm interfaces with the complete range of ILA light sheet optics

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