Any color, any time.

A solution for more color excitation.

The MoFlo Laser Engine

Fiber Optics

- Use of fiber optics provides unsurpassed laser-beam pointing stability which is not impacted by temperature fluctuations.
- Multiple lasers can share the same light fiber and beam shaping optics.

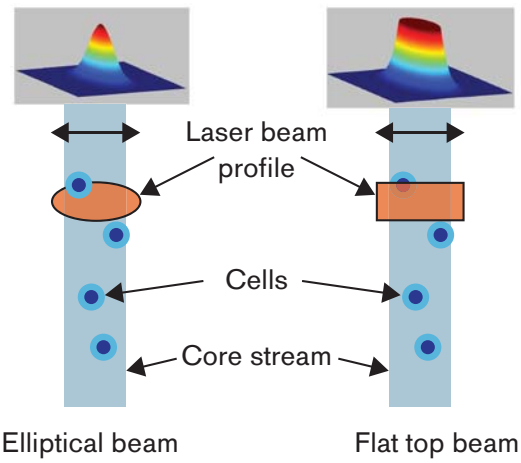
Beam-shaping Optics

The achromatic, beam-shaping optics generate a flat top beam capable of transmitting laser light, between wavelengths of 405 and 650nm.

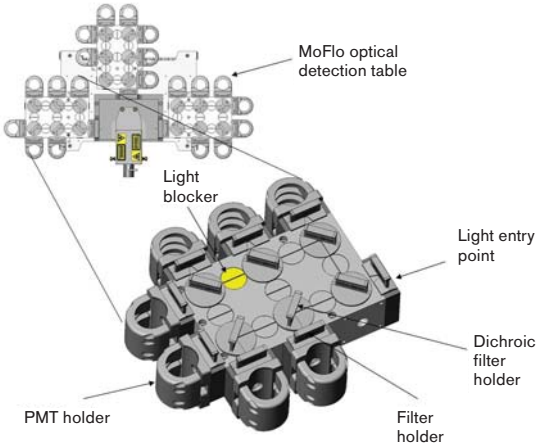
Flat Top Beam

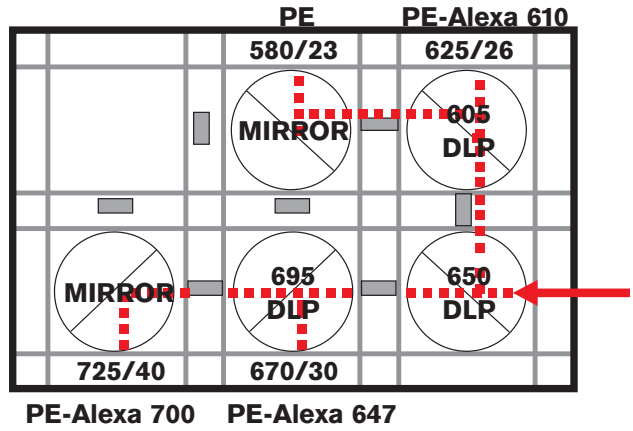
Compared with a traditional elliptical beam shape, the flat top beam ensures that the light energy is evenly distributed across the core stream. Even if the core stream moves, cells are exposed to the same light energy.

Looking for a turn-key solution that provides more color excitation? The MoFlo Laser Engine is an optical enhancement to the Beckman Coulter MoFlo and MoFlo XDP cell sorter systems. It allows up to three lasers to be used within a single fiber optic path, thus providing the ability to switch between laser wavelengths, as desired, without modifying the physical configuration of the instrument.



The MoFlo Laser Engine





Precision Optical Detector (POD)

PODs are mounted on the MoFlo optical bench where they conveniently house Photomultiplier Tubes (PMTs) and filters in one configurable unit that is supplied with the laser engine.

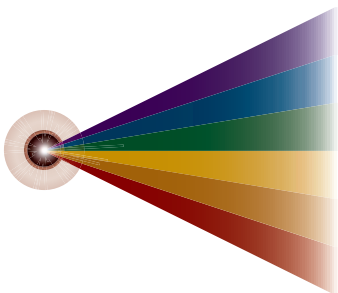
Each POD has the capacity for up to 7 PMTs.

- MoFlo electronics support 12 parameters simultaneously
- MoFlo XDP electronics support 20 parameters simultaneously

Example Configuration of a POD for a laser engine containing 532 or 561nm lasers

Filter sets provided with each POD are optimally designed for the laser engine configuration. Fluorescence light collection is maximized using optimal filter configuration and detecting lower energy wavelengths first.

Customized filter sets can also be provided.



Wavelength nm	Laser Power mW	Comment
405	50	
488	200	
532	150	Newly available
561	200	Newly available
592	200	Newly available
640	60	New power output

With one exception, the laser engine can be configured with any combination of one, two or three lasers. The exception is the 488 nm laser which can only be supplied in a two laser configuration.

MoFlo Laser Engine Specifications

Instrument Dimensions
Width 18.7 cm (7.3 inches)
Depth 61 cm (23.8 inches)
Height 32.6 cm (12.7 inches)

Storage Conditions
Storage temperature –17-48.9°C (0-120°F)
0-80% non-condensing relative humidity

Operational Conditions
Room temperature 15-30°C (59-86°F)
+/- 2°C (+/- 3.6°F) from the time of alignment until shutdown (not to fall out of room temperature range)
Maximum temperature rate of change of 1°C/hr
20-80% non-condensing relative humidity
altitude 0-2000 meters (0-6561 feet)

Power Requirements
Input voltage 100-127V or 200-240V and 50-60Hz

For Research Use Only. Not for use in Diagnostic procedures.
MoFlo and MoFlo XDP Class I laser products.

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