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Detailed Technical Specifications for Dual Head PIV Laser & Light Sheet Optics with articulated arm for PIV application:

1. Dual Head PIV Laser:

1. Repetition Rate: 0-15Hz
2. Pulse Energy Per Head : 200mJ
3. Pulse Stability: $\pm 2\%$
4. Beam Diameter: 6.5mm
5. Beam Divergence: 3 mrad or lesser
6. Pulse Length @ 1064nm: 6-9ns
7. Pointing Stability: $< 100\mu\text{rad}$
8. Lamp Life: $> 5 \times 10^7$ pulses
9. Timing Jitter: $< 0.5\text{ns}$
10. Voltage: 90-250 VAC
11. Frequency: 47-63 Hz
12. Power: Single Phase
13. Ambient: 5-35 °C
14. Consumption : $< 800\text{W}$
15. Cooling: Air
16. Remote controller must be provided along with system.

2. Articulated Arm with Light sheet optics:

1. Articulated Laser Arm with base block

1. Clear aperture 17 mm,
2. Total optical path length 2100 mm
3. Reach (fully extended): 1600mm,
4. Should have Antireflection coated mirror for 532nm nm incl. mounting. Mirrors rated to $4.5\text{J}/\text{cm}^2$ or greater.
5. Should have High mechanical stability
6. Should include Safe beam containment between laser and experiment
7. Should have 360° orientation and positioning of the light sheet
8. Special tool for arm alignment must be included.

2. Light Sheet Optics:

1. Focal length: 300-2000mm
2. Should be adjustable using high-quality, smooth-action lockable zoom mechanism with Vernier,
3. Fixed divergence angles 15, 30 and 50 degrees by changing exit lens.
4. Light sheet can be rotated 360 degrees, includes adapter to mount the unit directly to laser head. .
5. Interface chassis for the above Laser must be included.
6. Reinforced Transport & Storage Flight case must be included.

3. Other mandatory terms and conditions

- 1. Laser should carry 2 years warranty and Articulated Arm with Lightsheet optics should be with 1 year warranty.**
- 2. The vendor must have installed atleast 2 similar systems (Laser+ Articulated arm with Light sheet optics). The user list with contact details must be provided with the technical bid.**
- 3. The vendor should have local trained engineers, training certificate from manufacturer must be provided along with technical bid.**