ALBAN LASER SYSTEMS

LASER ARTICULATED ARM CONFIGURATOR

Please complete the following pages and supply , notes, drawings, sketches , specification's etc

Mechanical	
Application, please supply any information on the application that will help us select the optimum design.	
Total Number of Joints/turning mirrors ? *Refer to figure 1*	
Mechanical length A (flange to mirror centreline) ? *Refer to figure 1*	
Mechanical length B (long arm length between mirror centrelines) ? *Refer to figure 1*	
Mechanical length C (short arm length between mirror centrelines) ? *Refer to figure 1*	
Clear aperture. Maximum beam size allowing for divergence/scanning, Standard is 16mm. 21mm and 30mm are available. *Refer to figure 2*	

Mounting flange type, diameter, mounting holes, please provide sketch/drawing ? A number of standard configurations are available, contact Alban for details.	
Joint orientation in normal use for first and midjoint ?*See figure 3*	First Joint Left or right handed ? Midjoint Left or right handed ?
Is a counterweight required, if so any space constraints ?	
Actuation method, human-hand , robot. Speed of operation ?	
Zone of use ?	
Colour/Finish. Black anodised Aluminium parts with black painted tubes are standard. Silver painted tubes with clear anodised and all painted white available. Other on request.	
Handpiece/end optics assembly, sizes, weight ?	
Output beam accuracy required. standard is <+/-0.5mm/<+/-1mrad higher specifications available.	

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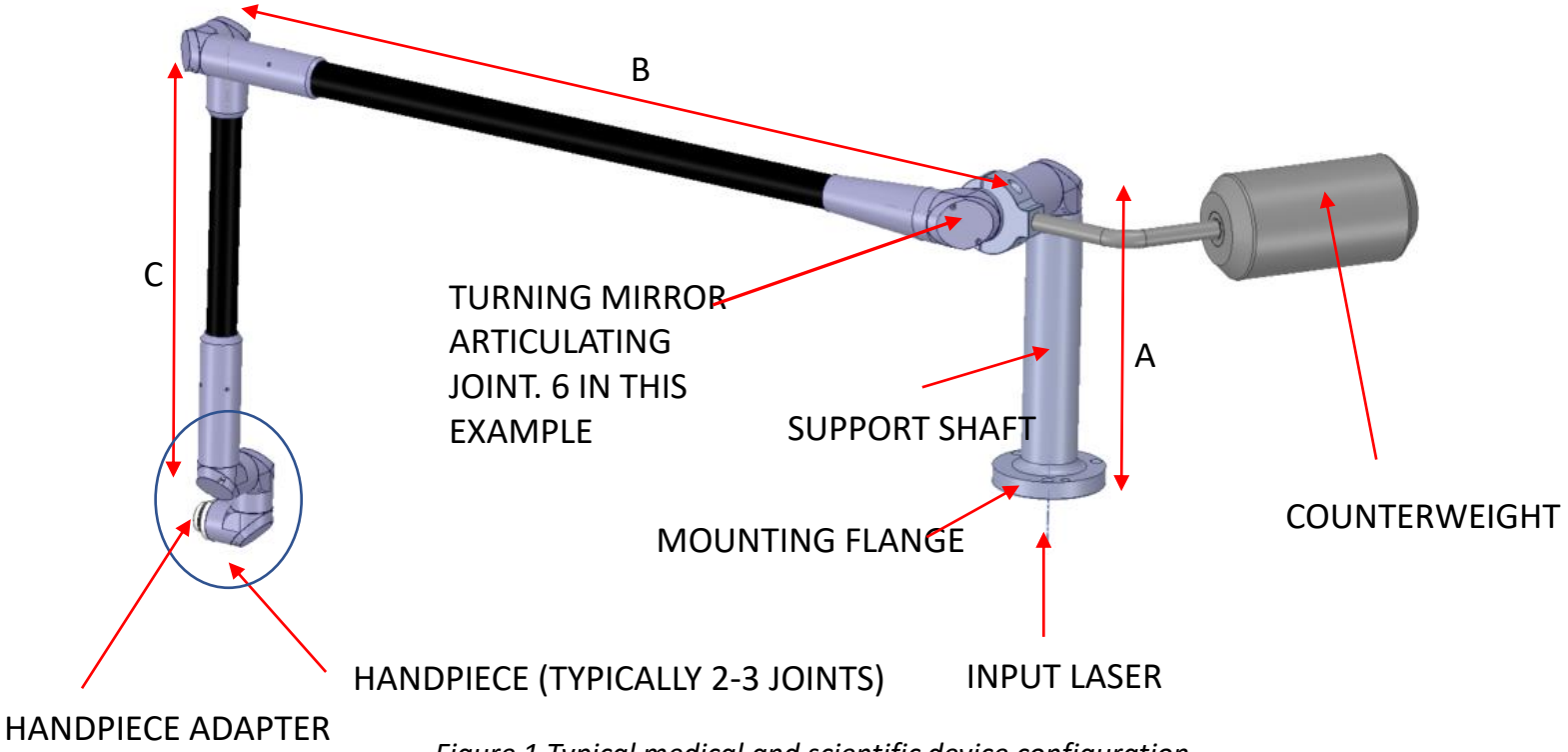

Figure 1 Typical medical and scientific device configuration

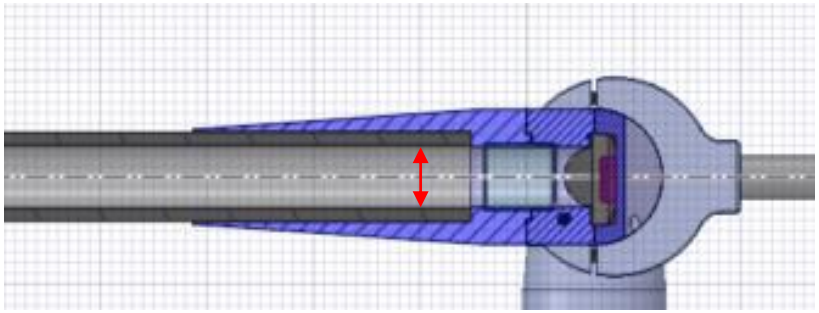

Figure 2 Clear aperture, minimum internal diameter

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Configuration - the arm will be assembled and aligned in a pre-agreed configuration. It must be mounted and operated in the same configuration.

Counterweight – the counterweight must be mounted correctly depending on the orientation of the first joint

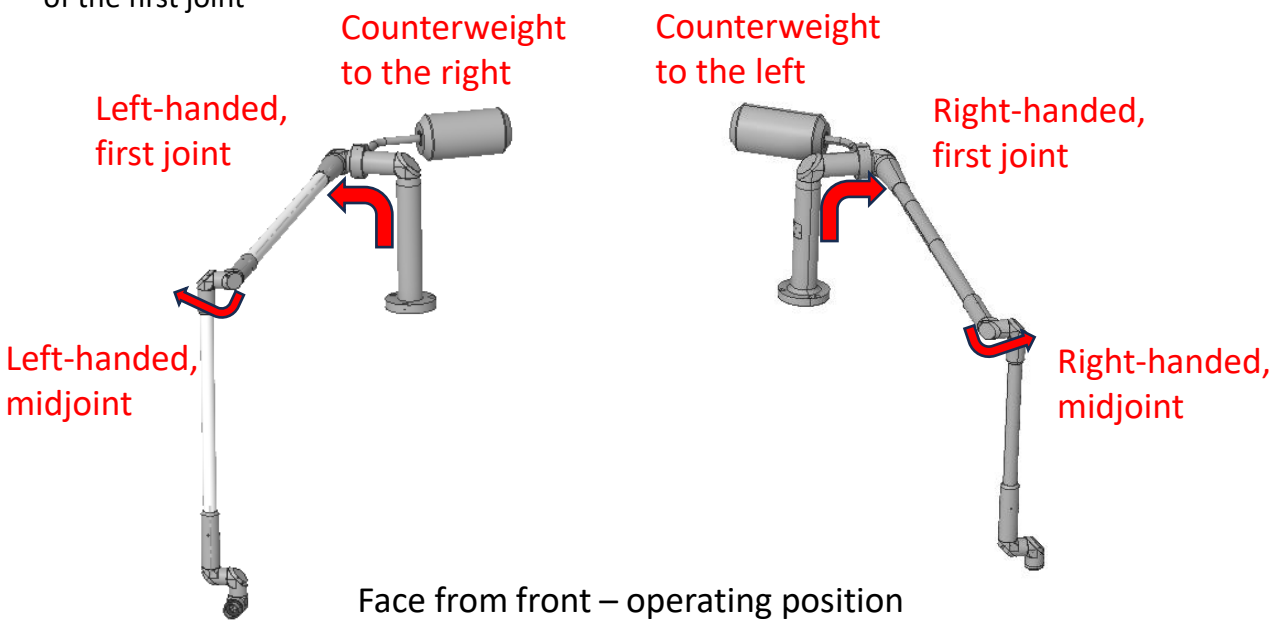

Figure 3 Orientation in normal operation

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Optical/Laser	
Are turning mirrors to be provided by Alban or issued/directly specified , if specified please provide information ?	
Optical path length, often for a design this is not required the mechanical lengths A,B C are more important, note the optical length will be longer than this.	
Laser make, model and data sheet if available. (skip the following if a data sheet can be provided) ?	
Wavelength ?	
Beam diameter and divergence ?	
CW or Repetition rate and pulse duration ?	
Pulse Energy or Average Power ?	
Beam profiles: Gaussian, top-hat, rectangular, elliptical; any hot-spots, circular ?	
Beam polarisation ?	

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