

# Laser Systems for patient positioning LaserStar range

## Your solution is unique...

Customised configurations

Flexibility

Accuracy

Reliability

Simplicity

Manual or remote controlled

User training

Simplified Maintenance



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# Laser Systems for patient positioning

## LaserStar range



**A2J fixed laser systems LaserStar range ensures patient alignment in radiotherapy, nuclear medicine, neurosurgery, and radiology. These laser systems enable a high accuracy such as the one required for stereotaxic radiosurgery.**



LaserStar  
DUAL CROSS

	LaserStar Red Emission	LaserStar Green Emission	LaserStar MOTOR Red Emission	LaserStar MOTOR Green Emission	LaserStar DUAL CROSS Red / Green Emission
<b>Lateral laser</b>	LS 002 / R	LS 002 / G	LS 002 / MR	LS 002 / MG	LS 003 / DC
<b>Sagittal laser</b>	LS 001 / R	LS 001 / G	LS 001 / MR	LS 001 / MG	
<b>Line width (up to 5 m distance)</b>	< 1 mm	< 1 mm	< 1 mm	< 1 mm	< 1 mm
<b>Line length (at 3 m distance)</b>	3 m	3 m	3 m	3 m	3 m
<b>Laser type</b>	Diode	DPSS*	Diode	DPSS*	Diode / DPSS*
<b>Wavelength</b>	635 nm	532 nm	635 nm	532 nm	635 nm / 532 nm
<b>Beam colour</b>	Red	Green	Rouge	Green	Red / Green
<b>Output power</b>	< 1 mW	< 1 mW	< 1 mW	< 1 mW	< 1 mW
<b>Projection type</b>	Line or cross	Line or cross	Line or cross	Line or cross	Dual cross
<b>Laser class</b>	II	II	II	II	II
<b>Power supply</b>	110V - 230V	110V - 230V	110V - 230V	110V - 230V	110V - 230V
<b>Power supply type</b>	internal	external	internal	external	external
<b>Ambient temperature</b>	0 - 40 °C	15 - 30 °C	0 - 40 °C	15 - 30 °C	15 - 30 °C
<b>Dimensions (H x W x D) including wall slab</b>	193 x 164 x 82 mm	193 x 164 x 82 mm	193 x 164 x 98 mm	193 x 164 x 98 mm	500 x 164 x 98 mm
<b>Weight</b>	2.6 Kg	2.6 Kg	3.25 Kg	3.25 Kg	4.8 Kg
<b>Isocentre adjustment accuracy</b>	± 0.5 mm	± 0.5 mm	± 0.5 mm	± 0.5 mm	± 0.5 mm
<b>Control type</b>	manual	manual	Remote control	Remote control	manual
<b>Specific characteristics</b>			Radiofrequency avoiding interactions with the therapeutic radiations		<ul style="list-style-type: none"> <li>• Dual isocentre with 30 cm interval</li> <li>• Three laser beams</li> <li>• Optimised security: Emission of the red cross for the treatment axis, green horizontal emission for the positioning isocentre</li> </ul>
<b>Adjustments</b>	No possible interference. Each laser is adjusted by three moving dimensions: Linear translation ± 20 mm ; Angle of inclination 45° ; Rotation 360°				

\*Diode-Pumped Solid State

### ACCESSORIES

- ⇒ **Small floor mount column** to fix laser to the floor.
- ⇒ **Ceiling mount** to fix laser to a concrete ceiling slab.

The floor mount columns and the ceiling mount will be required: when a lead-covered door or window-pane is present, if the beam axis incline is higher than 45° and/or if the wall is not sturdy enough.



LaserStar MOTOR  
Remote control



Small floor mount column

### LaserStar

#### Easy installation:

##### Fixation of the wall slab

- ⇒ Easy set up helped by an engraved cross corresponding to the light projection of the LINAC for radiotherapy.
- ⇒ Easy set up helped by a theodolite for the laser positioning on the wall when coupled with CT, PET-CT, PET camera, MRI and gamma camera.
- ⇒ Lateral movement of the slab on the wall ± 25 mm.

##### Fixation of the laser on the wall slab

- ⇒ Easy and precise installation with 2 linears and 2 fixation points.
- ⇒ Vertical movement of the laser on the slab ± 25 mm.

#### Maintenance:

Maintenance of the laser may occur without removing it from the wall and without return to manufacturing plant, only by changing the laser block or power block.

#### Quality:

- ⇒ Laser systems **LaserStar** are guaranteed by **A2J** quality assurance included in the "A2J quality assurance manual".
- ⇒ **A2J** laser systems include 1 year guaranty.
- ⇒ **A2J** is certified ISO 9002
- ⇒ **A2J LaserStar** range is CE marked and complies with the European standard EN 60825.