

# DORADOnova

IAP  
LASER

OIS

Oncology Imaging Systems

# State of the art laser systems for patient marking in CT/PET-CT

For more than 30 years the characteristic features of LAP laser systems have been sophisticated technology, quality and design. This level of excellence has made LAP the global market leader for patient alignment in radiotherapy.

Precise patient marking, accurate planning and exact positioning are key factors for a successful treatment. Our DORADOnova laser systems support this crucial and important marking process. Offering various configurations and mounting options, DORADOnova laser systems can be configured according to your needs: You have the choice of whether only one or all five laser lines can be moved. Select from three laser colours; red, green or blue.

## **DISTORTION-FREE**

*LAP laser systems are fitted with unbreakable, specially flattened glass windows. This minimises scattering and guarantees ultrafine lines at all transition angles.*

## **DOUBLE POSITION CHECK**

*LAP moveable laser modules will not switch on until they are definitely placed at their prescribed positions. The position of the laser modules is double-checked by the use of two technically independent procedures.*

## **COMPREHENSIVE TRAVEL RANGE**

*For consistent laser line precision over the entire 700 mm travel range, mechanical components are manufactured to near-zero tolerance and are perfectly aligned.*

## **EASY TO CALIBRATE**

*Adjust laser focus and alignment (shift, tilt, rotation) by remote control, while the housing is closed - no additional tools required.*

## **CHOICE OF THREE PROJECTION COLOURS**

*DORADOnova comes equipped with long-life red, green or blue laser diodes. Choose your laser colour depending on your personal preferences, ambient room lighting or room design.*

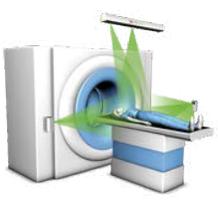


THREE PROJECTION COLOURS:  
RED, GREEN, BLUE

REMOTE CONTROLLED LASER ADJUSTMENT

SMART LASER CONTROL CARINAnav

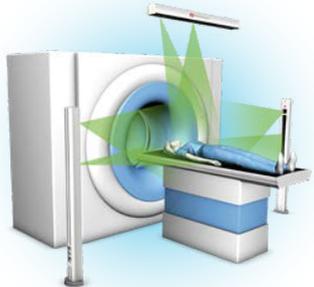
## Our systems at a glance



**DORADOnova 1**

1 movable laser line for sagittal plane

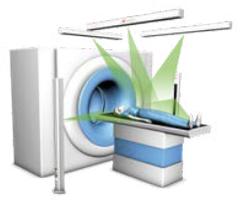
Transverse and coronal plane adaption require CT couch movement.



**DORADOnova 3**

3 movable laser lines for sagittal and coronal plane

Transverse plane adaption requires CT couch movement.



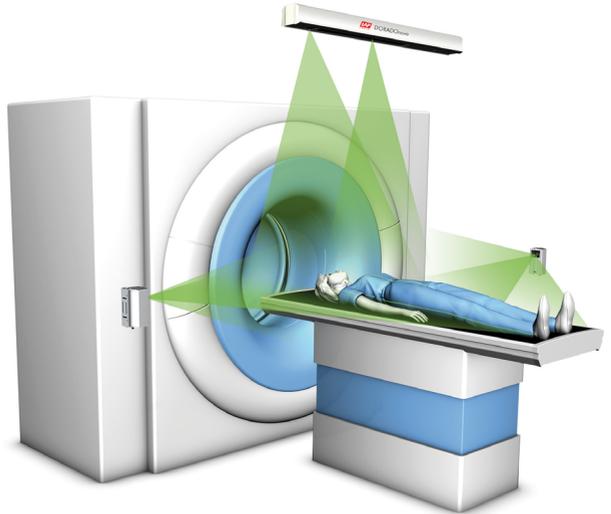
**DORADOnova 5**

5 movable laser lines for sagittal, coronal and transverse plane

No CT couch movement necessary.

# LAP DORADOnova 1 MOVING LASER SYSTEM

DORADOnova 1 laser system consists of one moveable laser module to project the sagittal plane, and three fixed lasers to project the transverse and horizontal planes. Choose from red, green or blue laser lines.



## SCOPE OF DELIVERY

- 1 ceiling rail with one movable laser for display of sagittal line and one fixed laser for display of transverse line
- 2 wall/post APOLLO crosshair lasers to display transverse and coronal lines
- Remote control for laser adjustment
- Cable set consists of power cords and data cables
- Wilke Phantom for quality assurance



### Laser Adjustment

- Shift, tilt rotation
- Focus



900-1400 mm  
Variable  
laser  
height

Optional: post mount



wall-ceiling-wall



post-ceiling-post



wall-ceiling-post



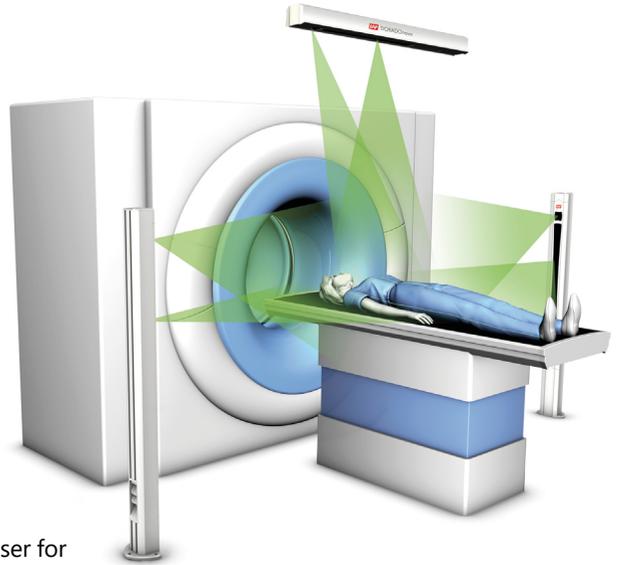
post-ceiling-wall



bridge

# LAP DORADOnova 3 MOVING LASER SYSTEM

DORADOnova 3 laser system consists of three laser rails, each with one fixed and one movable laser module. The sagittal and horizontal lines are moveable whilst the transverse plane is projected by fixed lasers. Choose from red, green or blue laser lines.



## SCOPE OF DELIVERY

- 1 ceiling rail with one movable laser for display of sagittal line and one fixed laser for display of transverse line
- 2 wall/post rails, each with one movable laser to display the coronal lines and one fixed laser for display of transverse lines
- Remote control for laser adjustment
- Cable set consists of power cords and data cables
- Wilke Phantom for quality assurance



### Laser Adjustment

- Shift, tilt rotation
- Focus



wall-ceiling-wall



wall-ceiling-post



post-ceiling-wall



post-ceiling-post



bridge

# LAP DORADOnova 5 MOVING LASER SYSTEM

DORADOnova 5 laser system consists of five rails with movable laser modules in all three body planes, eliminating the need for any couch movement. Choose from red, green or blue laser lines.



## SCOPE OF DELIVERY

- 1 rail with one movable laser for display of sagittal line, mountable at ceiling or wall
- 2 rails, each with one movable laser to display the transverse line, mountable at ceiling or wall
- 2 rails, each with one movable laser to display the coronal lines, mountable at wall or floor
- Remote control for laser adjustment
- Cable set consists of power cords and data cables
- Wilke Phantom for quality assurance



### Laser Adjustment

- Shift, tilt rotation
- Focus



post-ceiling-post



wall-ceiling-wall



post-ceiling-wall



wall-ceiling-post

# LAP CARINAnav LASER CONTROL SYSTEM

The CARINAnav control system is used to position the movable lasers in DORADO and DORADOnova laser systems. CARINAnav transmits the exact spatial coordinates to the movable lasers, which projects the laser lines onto the patient with precision.

To position the lasers, the spatial coordinates from the planning system are transmitted to the CARINAnav control system. If no connection to a planning system is available, the coordinates can be entered manually on the tablet. Lasers and control system are connected reliably via Bluetooth.

CARINAnav has two modes: In Clinical Mode, patients are precisely aligned in the clinical workflow using the laser lines, and the reference point is marked. In Service Mode, the laser system is set up, and the lasers are aligned with the virtual isocenter.

## SCOPE OF DELIVERY

- Two options of tablet PC
  - Pre-installed CARINAnav laser control software
  - Tabletop docking station with power cable (3 m)
  - Bluetooth gateway with connection cable (60 cm)

or

- Desktop PC
  - Pre-installed CARINAnav laser control software on desktop PC
  - LED screen, keyboard, mouse
  - LAP RS485-USB converter



Option 1:  
Cybermed tablet PC



Option 2:  
Baaske Docpad tablet PC



Option 3:  
Desktop PC



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