DORADOnova MR3T

MOVING LASER SYSTEM FOR PATIENT ALIGNMENT IN RT

MR Conditional

LAP LASER

CERTIFIED

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

Precise patient marking, accurate planning and exact positioning are key factors for successful treatment. To support enhanced and valuable registration of the MR images to CT the patient should be positioned at MRI equal to the CT.

Our DORADOnova MR3T laser system supports this crucial positioning process and ensures the identical patient alignment at CT and MRI for easy and precise image fusion for the treatment planning.

Certified by an independent testing facility DORADOnova MR3T is the only laser system for patient alignment which fullfills MRI conditional requirements up to 3 Tesla.

MR Conditional

MR:comp

LAP – WE KNOW PATIENT ALIGNMENT

- Since 1984
- Global market leader
- In-house hardware and software development
- Scientific collaborations
- Worldwide service network
- Certified in accordance to ISO 9001 and ISO 13485
- Made in Germany

REMOTE CONTROL
Laser alignment while the housing is closed, no additional tool required
- Alignment (shift, tilt, rotation)
- Focusing
- Wrist strap

MR Conditional

DORADOnova MR3T LASER SYSTEM UNIQUE TECHNOLOGY

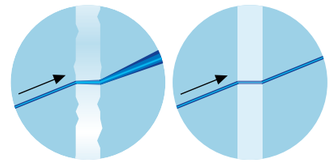
2
PROJECTION COLORS AVAILABLE:
RED, GREEN

PRECISE

LAP ULTRALINE is the result of advanced mechanical components and unique optoelectronics used to generate and align laser lines for medical applications. The ultra-fine and very long lines meet the high quality requirements for linearity and brightness distribution.

DISTORTION-FREE

LAP laser systems are fitted with unbreakable, specially flattened glass windows. This minimizes scattering and guarantees ultra-fine lines at all transition angles.



FAILSAFE

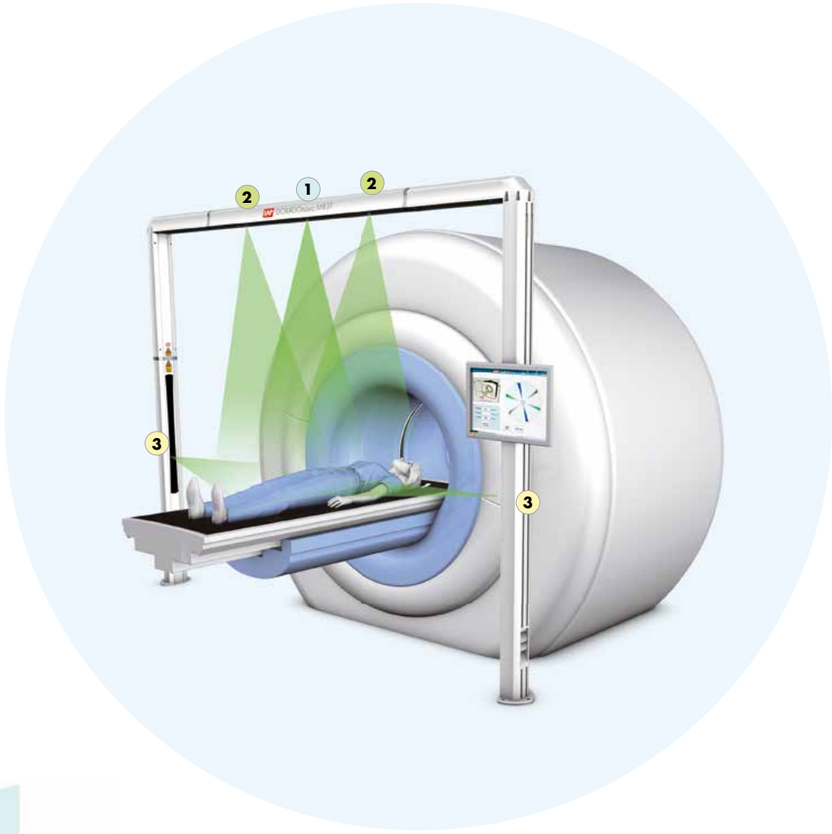
LAP moveable laser modules will not switch on until they are definitely placed at their prescribed positions. A linear encoder continuously verifies the position of the stepper motor to compare the laser modules actual position to its nominal position.

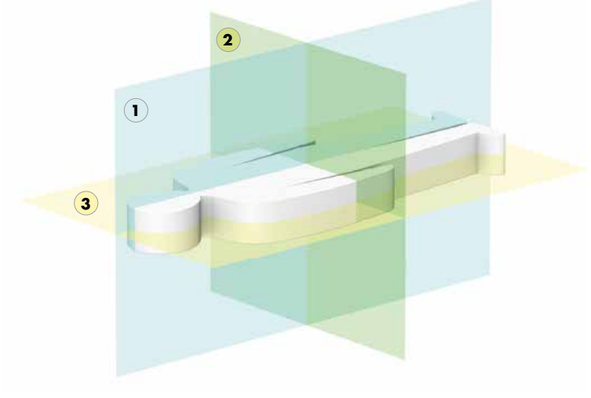
CERTIFIED FOR MRI

The LAP DORADOnova MR3T System is certified to meet MRI conditional requirements up to 3.0 Tesla. The fixed mounted laser system compensates for all magnetically induced displacement forces. The electronic components have no impact to the MR image quality.

CUSTOMIZED LASER BRIDGE

The DORADOnova MR3T laser bridge contains three movable and two fixed laser modules for the projection of red or green lines. We offer a free standing customized bridge with a fixed connected touch screen as the optimal solution for your MRI suite.





PROJECTED BODY PLANES

The DORADOnova MR3T laser system projects the desired coordinates to mark the patient in all three planes.

1. SAGITTAL PLANE
   One movable laser line from the top
2. TRANSVERSE PLANE
   Two fixed laser lines from the top
3. HORIZONTAL PLANE
   One movable laser line from each side

LAP LASER CONTROL

CARINAiso control system is used to operate DORADOnova MR3T systems for patient marking and positioning in radiotherapy.

The software is operated by touch screen mounted to the laser bridge for easy in room laser control. The fibre optic connection to the PC in the control room fulfills the electromagnetic interference requirements for MR.

FEATURES
- Touchscreen operation
- Individual workflow support
- Easy navigation, intuitive laser control
- Status and position feedback
- Data import via LAP file format or DICOM
- Data security, protection and privacy

DORADOnova MR3T LASER SYSTEMS SUPPORT YOUR MR-ENHANCED RT WORKFLOW

MRI offers excellent soft-tissue contrast with no dose, making it ideal for RT purposes. When MRI is combined with CT the resulting fused information can add even greater value to your treatment simulation. Precise and reproducible patient position on both imaging modalities is needed to acquire a geometrically precise and accurate dataset. LAP's DORADOnova MR3T laser system supports improved matching and fusion of the MR images to CT images since it allows you to align patients at the MRI scanner in the same position as at the CT.

TECHNICAL DATA	
Laser color	red (635 nm), green (532 nm)
Laser class	2
Line width up to 4 m distance	< 1 mm
Line length at 3 m distance	3 m
Positioning accuracy	± 0.1 mm
Projection accuracy	± 0.5 mm at a projection distance of 4 m
Travel range	650 mm
Travel speed	up to 200 mm/s
Power supply	100 ... 240 VAC
DIMENSIONS	
Width (customized)	2594 – 5000 mm (102.0" – 196.9")
Height (customized)	2300 – 2800 mm (90.6" – 110.0")
Weight	approx. 100 kg

ISO 9001
ISO 13485

made in Germany

CE

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