DIACOR®

Zephyr[®] Patient Positioning and Transfer Systems

Implementing Image-Guided Radiotherapy with Zephyr





Zephyr Patient Positioning and Transfer Systems

The Zephyr systems utilize patented hover technology to allow patient transfer from imaging to treatment while maintaining patient positioning. The Zephyr family consists of the following:

- Zephyr High Dose Rate for Image Guided Brachytherapy
 - Zephyr HDR
- Zephyr External Beam series for Image Guided Radiotherapy
 - Zephyr XL
 - Zephyr HP
 - Zephyr HP PRO



The Zephyr systems allow transfers of immobilized patients from imaging to treatment couch with ease.

- Departments can utilize EXISTING CT/MR scanners and treatment machines to bring image-guided radiation therapy to the market TODAY.
- Patients can be setup and immobilized prior to treatment in a separate staging area, which will maximize machine imaging/treatment time to increase patient throughput.



System Components

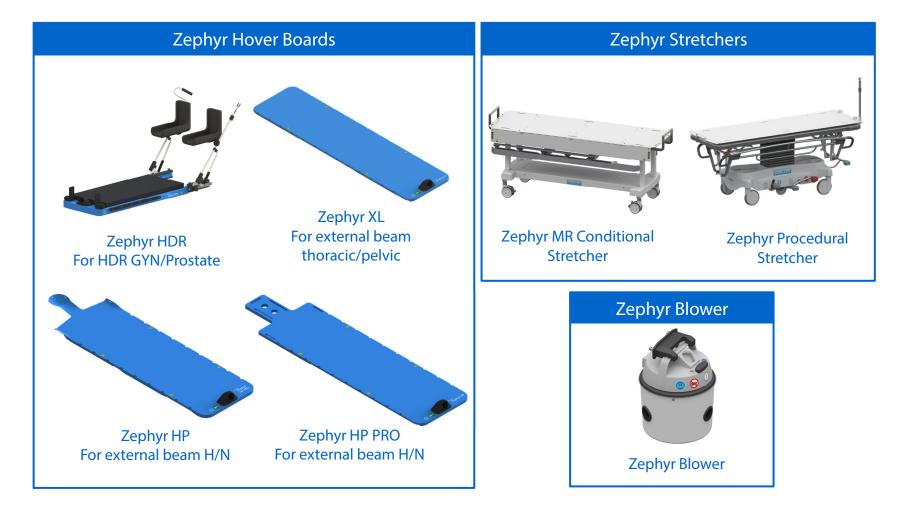


Image-Guided Brachytherapy

The Zephyr HDR system utilizes patented hover technology to allow patient transfer from procedure to imaging to treatment while maintaining patient positioning and minimizing the risk of needle/applicator displacement. Integrating the Zephyr HDR allows the incorporation of highly accurate planning for imageguided brachytherapy (IGBT).

Zephyr HDR Highlights

- Allows GYN and prostate HDR procedures
- Side rails for mounting of stirrups and steppers
- Footrest permits supine positioning
- Fits small bore CT and MR systems
- Capable of multi-directional transfers: lateral (side to side) and/or longitudinal (head to foot) transfers

Benefits of the Zephyr HDR Solution

- Incorporate IGBT Treatment planning
- Improve accuracy of HDR treatment
- Reduce staff requirements and injuries
- Utilize in CT or MR for IGBT





Image-Guided Brachytherapy



Incorporate IGBT Treatment Planning

- Deliver a higher dose to the target volume
- Deliver a reduced dose to the surrounding tissue and organs-at-risk
- Reduce the occurrence of side-effects

Improve Accuracy of HDR Treatment

- Minimizes risk of applicator/needle movement during transfer utilizing hover technology
- Stirrups mounted directly to Zephyr side rails enable the patient to remain in the same position throughout imaging and treatment reducing procedure start to finish time
- Easily adjust and remove applicators/needles without repositioning patient while providing enhanced access to implant area





Reduce Staff Requirements & Injuries

- Meets No-Lift Policy standards
- Virtually effortless lateral and longitudinal movement alleviating undue burden and physical strain on staff
- Two people can safely and easily transfer a patient between implant procedure, imaging, and treatment
- Increase patient comfort and safety by hovering rather than lifting

HDR Accessories

A wide range of accessory items allow customization of the Zephyr HDR system to meet the unique needs of your department.

Available Accessories Include:

- Premium adult and pediatric stirrups
- Arm board with full articulation
- Universal clamp bracket for mounting articulating arm on the Zephyr HDR hover board
- Side rails for mounting of additional accessory items
- Extended rails for mounting dual mount steppers
- Docking kits available for a variety of image tables



Universal Clamp Bracket

Image-Guided Radiotherapy

Zephyr External Beam Series allows physicians to implement Image-guided radiotherapy and adaptive therapy strategies using their existing external beam treatment equipment and imaging equipment to bring IGRT to the market today. With the Zephyr series, maximum use of image-based planning data is possible. The patient is scanned and treated in the same position, which will minimize the risk of translational and/or rotational positional changes during transfer between imaging and treatment devices.

Zephyr External Beam Highlights

- Designed specifically for proton/photon therapy's unique requirements
- Utilization of industry standard patient immobilization and positioning devices via Varian's Exact[™] Technology
- Internal design minimizes imaging artifacts, as well as treatment attenuation
- Hover technology allows for multi-directional transfers: lateral (side to side) and/or longitudinal (head to foot) transfers

Benefits of the Zephyr External Beam Solution

- Enabling Adaptive Radiotherapy techniques
- Increase patient throughput without sacrificing treatment accuracy
- A variety of Zephyr systems are available which are uniquely tailored to meet the requirements in the radiation therapy environment



Zephyr XL for thoracic/pelvic



Zephyr HP for head and neck



Zephyr HP PRO for proton head and neck

Image-Guided Radiotherapy



Enable adaptive radiotherapy techniques

- Incorporating MR imaging enhances visibility of soft tissue differentiation and improves identification of structures
- Lowers rate of acute and late toxicities and organs at risk
- Improves tumor coverage with a more efficient dose delivery

Increase patient throughput without sacrificing treatment accuracy

- Maximizes machine utilization by removing patient setup time from the treatment room
- Maintains patient immobilization and clinical accuracy throughout the patient workflow
- Increases patient comfort and staff safety utilizing patented hover technology





A variety of Zephyr systems are available which are uniquely tailored to meet the requirements in the radiation therapy environment

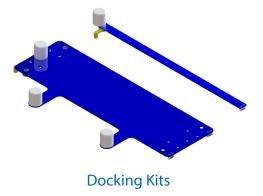
- Zephyr XL for general patient transfer/treatment
- Zephyr HP for head and neck treatments using industry standard thermoplastics
- Zephyr HP PRO for use with Orfit's HP PRO[®] thermoplastic photon and proton solution

External Beam Accessories

A wide range of accessory items allow customization of external beam Zephyr systems to meet the unique needs of your department.

Available Accessories Include:

- Docking kits compatible with industry standard indexing solutions
- MRI coil torso supports
- MRI coil support for head and neck imaging
- MRI flat table tops for major OEM MRI systems





MR Head Coil Supports



MR Torso Coil Supports

Stretchers

Benefits of the Zephyr Procedural Stretcher

- Continuous flat surface with translating top enables smooth patient transfer from imaging/treatment to stretcher
- Safety stops at head/foot stretcher surface
- Customizable end stops are available
- Brake and steer activated foot pedals with true direction steering

Benefits of the Zephyr MR Conditional Stretcher

- MR conditional up to 3T
- Continuous flat surface with folding bridge enables smooth patient transfer from imaging/treatment to stretcher
- Four-wheel braking system



Procedural Stretcher



MR Conditional Stretcher

The Zephyr Blowers and Hoses are designed specifically for the Zephyr Patient Positioning and Transfer Systems, allowing ease of movement by providing air flow to the hover board.

Zephyr Blower

- Provides low pressure, high volume air flow to the hover boards
- Blower harnesses designed for various configurations such as wall mount or stretcher mount

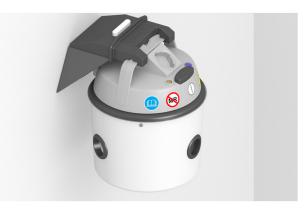
Zephyr Blower Hose

- Integrated on/off button provides easy access for controlling airflow
- Quick release design
- Varying lengths available



Blower Hose

Blowers and Hoses

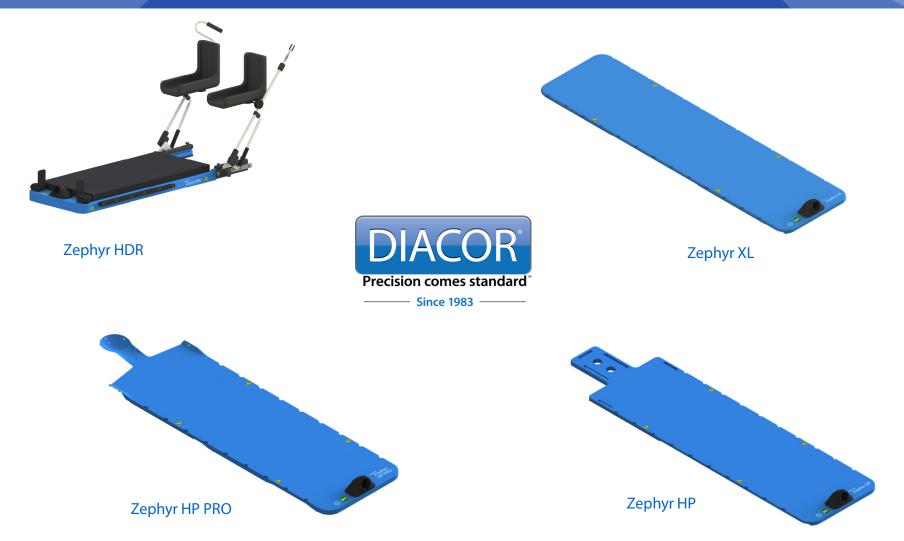


Wall Mount



Stretcher Mount

Zephyr Systems



Please contact your representative to discuss your unique specifications and requirements to ensure your Zephyr system is properly configured:

- Zephyr HDR
- Zephyr External Beam Series: XL / HP / HP PRO
- Zephyr Stretchers
- Zephyr Blowers

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DIACOR®

A History of Innovation

Diacor develops and manufactures proven solutions in the field of radiation therapy. For more than thirty years we've offered innovative products that are used throughout the world. In addition to our Zephyr[®] Patient Positioning and Transfer Systems we offer CT Overlays. All products are manufactured under a registered 13485:2016 quality management system.



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