

Protura™ Robotic Patient Positioning System

for efficiency + performance

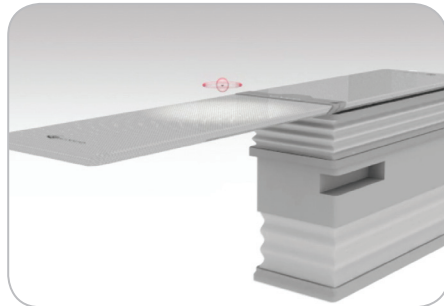
 *Protura*™



CIVCO®
Radiotherapy
a better way

Protura™ Robotic Patient Positioning System

The Protura Robotic Patient Positioning System is the ultimate in robotic patient motion management. Designed to integrate with most IGRT solutions and Linac pedestals, the system positions the patient with 6 degrees of freedom corrections from outside the treatment room. Protura enables more accurate treatment and keeps patient positioning and motion management clearly on target. Combined with CIVCO's patient positioning and immobilization solutions, Protura provides the platform to provide a comprehensive motion management solution.



Integrated

- Adapts to most Linac pedestals
- Information automatically transfers between integrated systems
- Allows many users to automatically populate patient data, pedestal location, and 6 DOF shift data from the imaging system
- Integrated with CIVCO's comprehensive motion management solutions

Accurate

- Assures precise patient alignment with a built-in redundant sensor system
- No external camera system is required
- Dynamic pivot point assures all rotations about isocenter
- Sub-millimeter precision from advanced robotic technology
- Internal auto-calibration
- Supports multiple coordinate systems if needed

Efficient

- Remote positioning, eliminating need to re-enter the treatment room to align patient
- Stores historical data for easy setup
- In-room touch screen
- Fast initialization, optimized to handle rigors of a busy clinic
- Powered via a standard outlet, no battery to charge

System Specifications

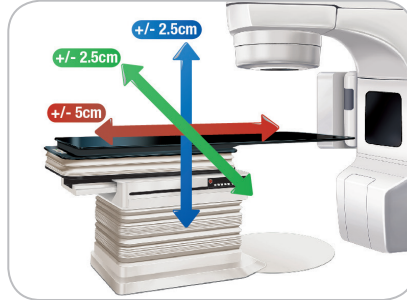
System Height 15–20 cm (5.9 – 7.8 in)

System Weight 90 kg (198 lbs)

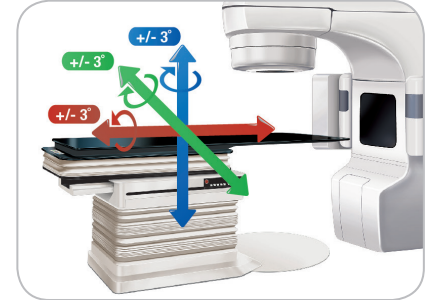
Accuracy Submillimeter

Speed Slow, Medium, Fast (4, 8, 16 mm/second)

Maximum Patient Load 200 kg (440 lbs)*
*163 kg (359 lbs) with UCT LE on Varian Exact Pedestal



Translational Ranges



Rotational Ranges

Key Features

Dynamic Isocenter Performs all rotations about isocenter, unique for each patient

Full 6D True Robotic System Correcting for all translations and rotations in a single motion

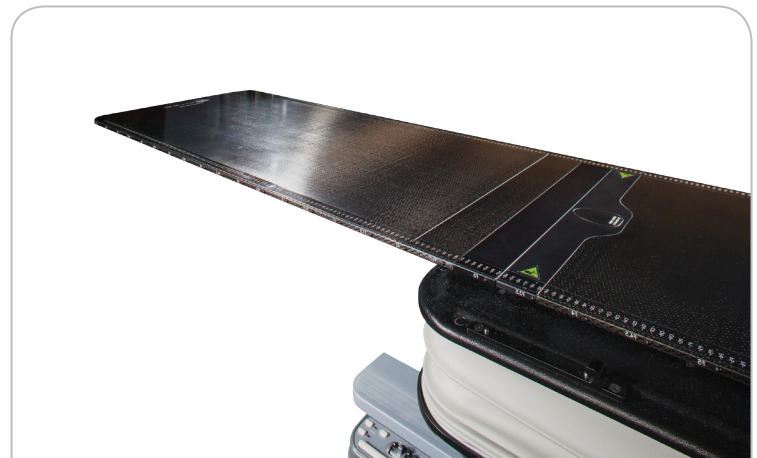
Clearly Invisible Couchtop* Protura™ comes standard with the Universal Couchtop™ Long Extension designed to answer the demands of IGRT delivery, becoming clearly invisible of any rails or junctions to facilitate better delivery of dose and target coverage

Internal Auto-Calibration Built-in redundancy sensors, system automatically calibrates without need of external camera system

Streamline Workflow Remotely move couch from outside room, or utilize the in-room touch screen controls. Daily patient info is remembered for fast setup

Visit CivcoRT.com to view attenuation and deflection details.

**International pricing may vary, please contact your local distributor*



Universal Couchtop Long Extension features a large junction-free, artifact-free treatment area. Dosimetrically matching couchtops for most major CT models are available providing seamless transition from simulation to treatment.

“If you integrate the 6D robotic couch with the rest of your equipment, you have less cone beam scans. One cone beam scan for each fraction is sufficient to do it right.”

- Kasper Pasma, MD, Medical Physicist, Radiotherapy Group, Arnhem, The Netherlands

Linac Interfaces

Protura™ & Varian

- Loads patient shift data to match Varian's OBI System
- Automatic population of pedestal location
- Automated patient information transfer from Varian's 4DTC System
- Treatment beam authorization when Protura is treatment ready
- Compatibility when using ARIA or MOSAIQ Record & Verify Systems

Protura & Elekta

- Patient shift data from Elekta's XVI imaging system
- Automatic population of pedestal location
- Automated patient information transfer from Elekta's MOSAIQ® Radiation Oncology Information System

Additional Radiotherapy System Interfaces

Protura & AlignRT®

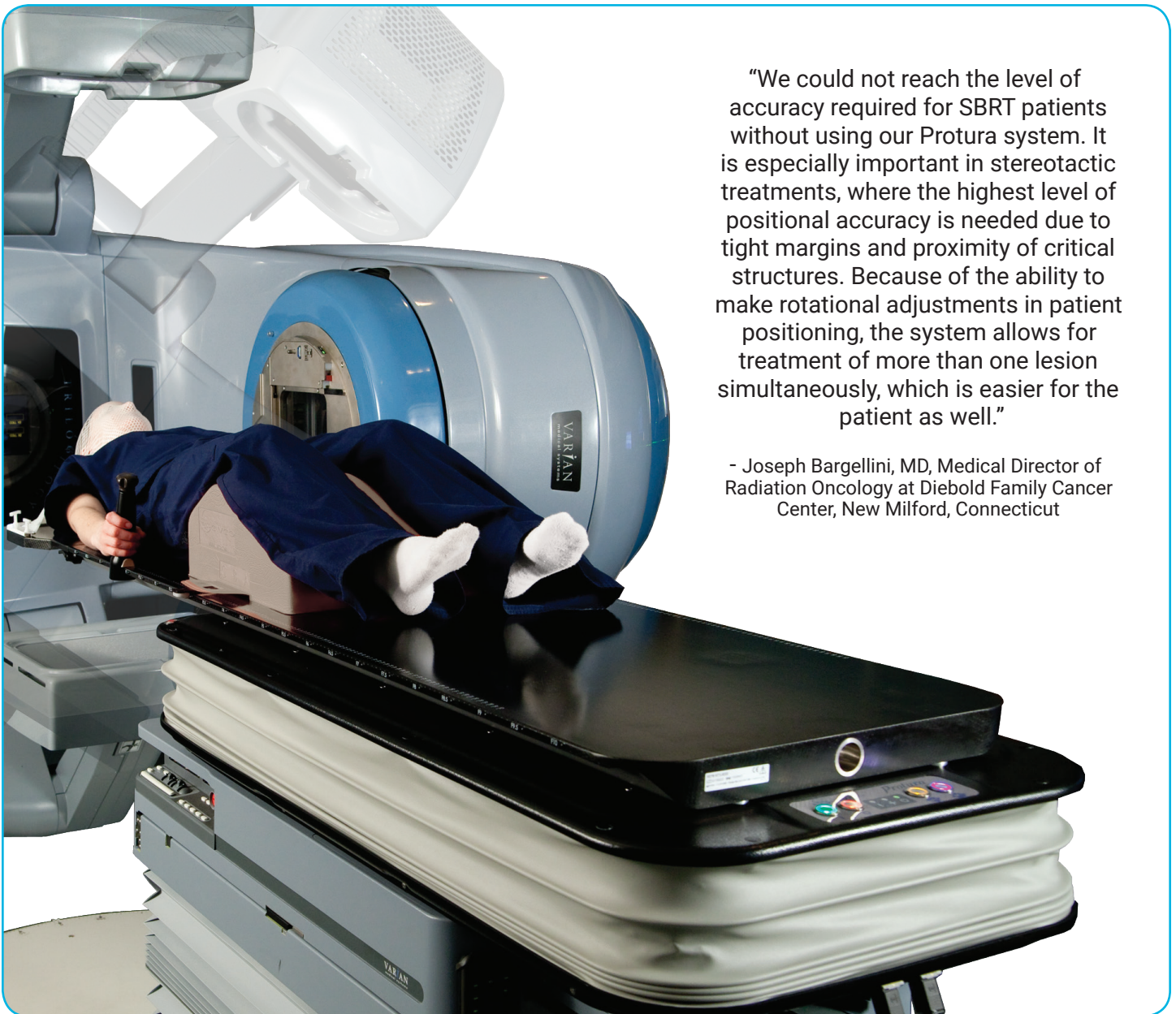
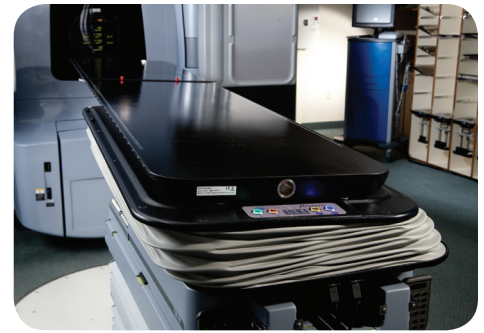
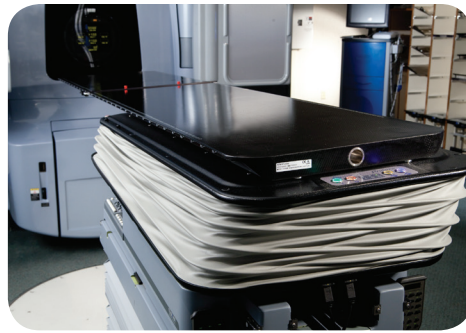
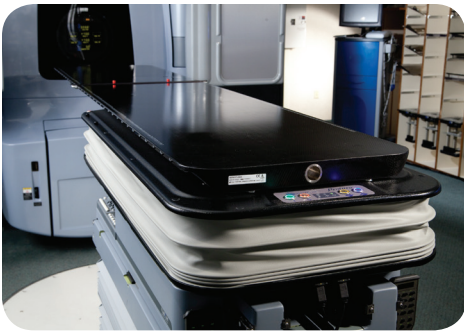
Protura interfaces with VisionRT's AlignRT 3D Imaging System. Together these innovative products will enable accurate treatment and keep patient positioning and motion management clearly on target.

- 3D imaging enabling 6D alignment accuracy
- IGRT without additional ionizing radiation
- Automatic sub-millimeter and sub-degree corrections in 6 DOF
- Simple and intuitive user interface
- Real time intra-fraction tracking of patient position
- Quick, easy patient re-positioning from outside the room if patient moves during treatment

Protura & TheraView

Protura interfaces with TheraView using the TheraView Couch Setup Assistant (TCSA). Once the TheraView calculates or imports the 6D match results, the TCSA directly controls the Protura motion to safely and efficiently correct patient set-up errors in all 6 degrees of freedom.

- Simple, safe and direct access to both Protura and TCSA from within the TheraView application
- Range of motion optimized between Protura & TCSA, resulting in larger set of possible rotations and translations
- 6D match result import from Elekta XVI 5.0 or 4.5
- Automatic 6D match results, based on markers within TheraView



“We could not reach the level of accuracy required for SBRT patients without using our Protura system. It is especially important in stereotactic treatments, where the highest level of positional accuracy is needed due to tight margins and proximity of critical structures. Because of the ability to make rotational adjustments in patient positioning, the system allows for treatment of more than one lesion simultaneously, which is easier for the patient as well.”

- Joseph Bargellini, MD, Medical Director of Radiation Oncology at Diebold Family Cancer Center, New Milford, Connecticut



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