


Veritas SmartDoor® Proton Door Systems



Save time. Save space. Save lives.

veritas
Medical Solutions



Meet your current and future needs
of proton therapy with intelligently
engineered shielding components by
Veritas. Our modular shielding, doors,
rooms, and facilities outperform all
other shielding options in the market.

Veritas SmartDoor® Technology



Today's most advanced therapy room entry systems, Veritas SmartDoors bring shielded door technology to proton facilities — opening new design possibilities and patient throughput advances.

Combining cutting-edge technology with patient-friendly design and appearance, Veritas SmartDoors set the worldwide standard for performance and reliability. They are fast becoming the industry choice for radiation shielded doors for cancer treatment facilities worldwide.

SmartDoor bi-parting design

The culmination of years of design and engineering, Veritas SmartDoor Bi-Parting doors offer performance benefits unavailable with other entry systems. An unparalleled advancement in door technology, the doors open/close in 10-12 seconds, include unique linear drive systems and a patent pending “sine wave” leading edge that eliminates radiation streaming leakage paths. The exceptional attenuation properties of VeriShield allow the construction of a door system that provides 100% guaranteed radiation attenuation.

Operated by an advanced drive and computer interface, the Veritas Proton SmartDoor is low maintenance and provides reliable, problem-free operation. Redundant safety systems ensure personnel safety. Protective sliding safety doors, located both inside and outside the room, feature your choice of finishes and/or graphic image. Safety doors are independent of the shielded doors and prevent access during door movement.

Intelligent, efficient, and safe. All with 100% uptime.

- **Shielded** with Veritas VeriShield ultra-high density modular block system and backed by a 100% lifetime guarantee
- **Pleasing appearance** — contemporary/custom door finishes enhance patient comfort
- **Safe operation** — redundant safety systems, including unique current surge monitoring and presence detectors
- **The right fit** for both new room and renovation installations
- **Veritas SmartCare™** program includes priority 24 hour response time and continuous remote monitoring



Veritas Proton SmartDoor systems are intelligent

Long lasting efficiency and performance

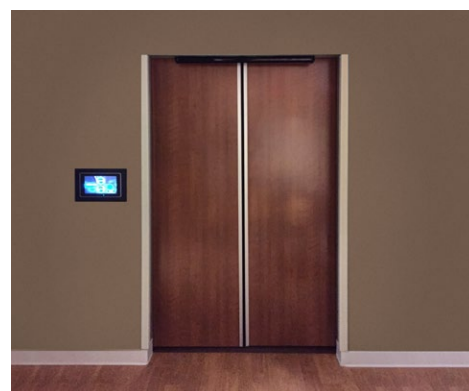
A robust and energy-efficient design delivers the ultimate in dependability. Heavy duty drive-train with high-performance gearing provides smooth, quiet, fail-safe operation. Custom designed roller assemblies ensure against premature wear or corrosion. Innovative sound damping provides reduced operational noise and vibration resonance. An advanced microprocessor controller allows for precision performance and long lasting reliability.

A variety of safety sensors, a manual opener and optional battery backup power supply provide optimum personnel safety. Manual operating assist allows both opening and closing of the doors in the event of a power outage.



SPECIFICATIONS

- Bi-parting configuration with two leaves "elevator-style" design
- Each leaf is 4' (1.21m) thick (exact size based on shielding requirements)
- Each leaf weighs 60,000 lb. (27,000 kg)
- Larger than typically required for patients/stretchers, the 6' x 7'-9" (1.8m x 2.36m) rough opening is big enough for furniture and larger items
- Overlaps between the door and the wall are designed to guarantee 100% radiation shielding



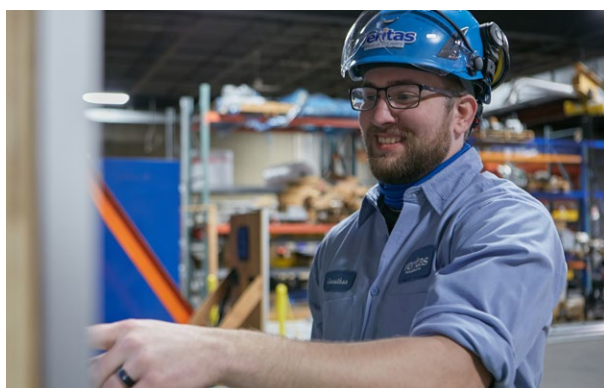
gent and built to last.

SmartDoor control information technology

All Veritas doors are controlled by a Veritas SmartDoor operating system, a programmable control and continuous onboard diagnostic system that provides complete system control and electronic monitoring via a single interface touchscreen. SmartDoor CIT features a unique online troubleshooting/reporting capability, customizable language and interface configurations, and comprehensive status and operation reporting. A cloud-connected system allows immediate remote access for system diagnostics, updates and fault recovery.

100% uptime

The combination of simple design, 24/7 monitoring and a backup drive assist that can be manually or electrically operated in both directions to fully open or fully closed positions, provides the assurance of reliable operation. There should never be a case where the doors can't be opened and closed to assure patient treatment schedules are not interrupted.



SMARTCARE™ PROGRAM

Veritas offers an extended service and preventative maintenance program, which includes priority 24 hour response time, continuous remote monitoring and scheduled service visits.

Veritas direct-entry door systems save valuable

Put thousands of square feet of extra space to work

The Veritas Proton SmartDoor provides the option of direct-entry that replaces the need for thick, space-consuming maze entry layouts. This flexibility allows designers and planners to reduce the size, cost and complexity of a new treatment facility. The elimination of the maze returns valuable floor area to the staff for larger control rooms or support space, and provides direct line of sight into the treatment area. It is estimated that the elimination of a single maze saves ~46m² space.

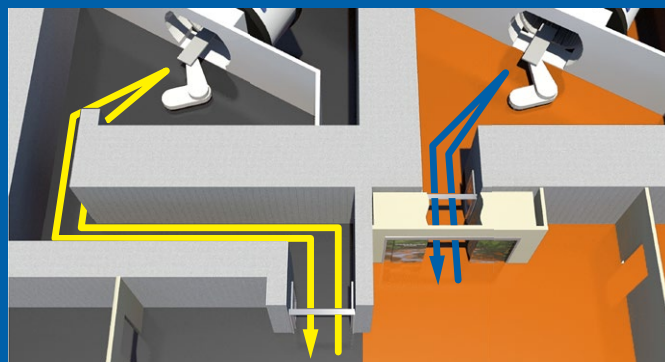
SAVE
APPROXIMATELY
500
SQUARE FEET
PER EACH DIRECT
ENTRY DOOR



Decrease walking time, increase patient throughput

With the elimination of the maze comes a dramatic reduction in the time to access the patient and the distance travelled into and out of the room. On average, a technician enters a treatment room at least 3 times for every patient.

A direct entry approach saves the tech from walking over 6 miles/week (9.6km) or 300 miles/year (483km).

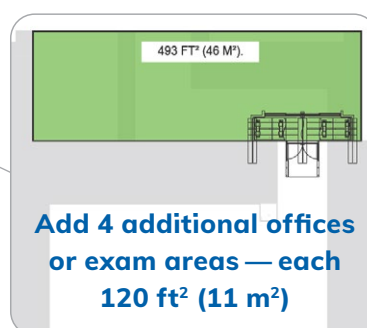
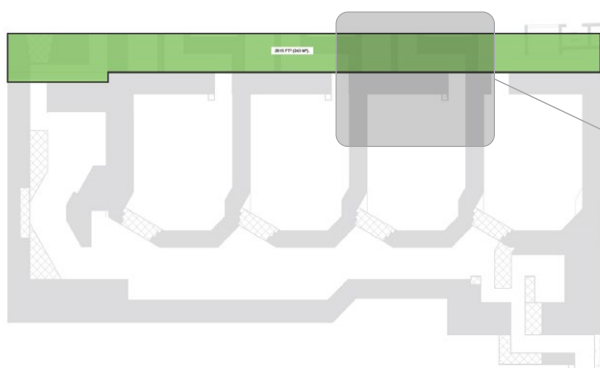


SIDE-BY-SIDE: HOW STEPS ADD UP

MAZE ENTRY	DIRECT ENTRY
Entrance to patient is ~70' (21.3m)	Entrance to patient is ~20' (6.1m)
Taking into account time spent opening the doors, the approximate transit time per treatment (in/out x3 @ 3.5 ft/sec (107cm/sec) is	
~120 seconds	~34 seconds

Direct entry savings: ~86 seconds per treatment

6,000 ft² (66 m²) of additional support space



ble space and time.

The benefits

The end result of rapid door operation, faster patient access and reduced walking distance is the possibility to treat more patients per day. Eliminating the time-consuming steps associated with maze room entry design and dramatically reducing the distance traveled by the staff during the normal course of treatments, opens the door to additional treatments and associated revenue — every year.

How many patients could be treated in ~8,640 min (144 hours) of added time per room?

**Perform an extra
2 treatments per day
or 500 per year — per
room — every year.**



Designed for safety

Veritas SmartDoor proton doors incorporate multiple systems to ensure the complete safety of personnel during operation.



SAFETY DOORS

Shielded doors open and close behind two decorative safety doors. When opening, all doors open at the same time. When closing, the safety doors must close fully before the shielded doors operate. Multiple electronic interlocks ensure door closure.



MANUAL OPERATION

Concealed mechanical operators enable the doors to be opened and closed manually. A hand crank provides quick movement of the doors, and a manual winch provides fail-safe emergency backup.



SAFETY STOPS

Multiple illuminated PBOS stations with an emergency stop button are provided for a further layer of door control.



INFRARED SENSORS

A series of infrared presence sensors are located on both sides of the door as well as between the shielded doors. This provides overlapping detection zones and redundant layers of protection. In the event of an incursion, the system will stop any door motion and return all doors to the full open position.

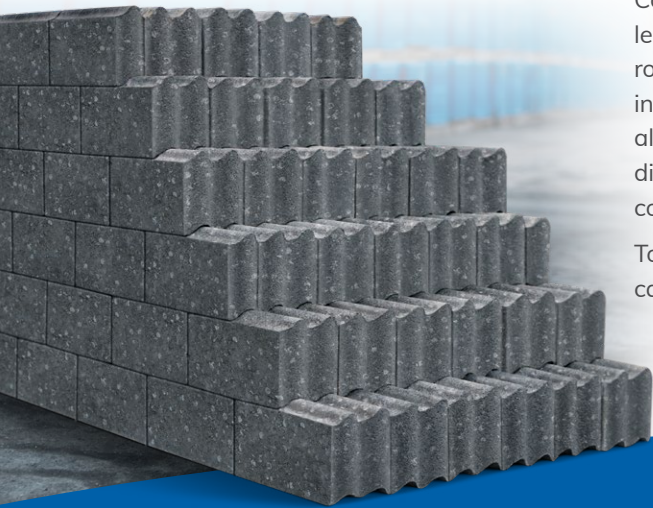


Veritas VeriShield: 100% radiation shielding. Guaranteed.

VeriShield modules are dry stacked block that are easily configured into any size or shape therapy room. Individual shielding requirements are met by tailoring the density and number of layers of VeriShield as needed. Shielding is easily installed, in even the most confined work site, and can be upgraded, reconfigured or removed if needed.

Compared to concrete, rooms constructed with VeriShield require much less space, and there is no penetration required of the space above the room. Modules are easily transported to the worksite and can be stored indoors or out, as they are unaffected by weather. Their compact size allows for convenient delivery with fast and easy installation and no disruption of surrounding services. No other shielding method provides a comparable blend of performance, convenience and affordability.

To learn more about the future of therapy engineering and construction, call **888-242-6760** or visit **veritas-medicalsolutions.com** today.



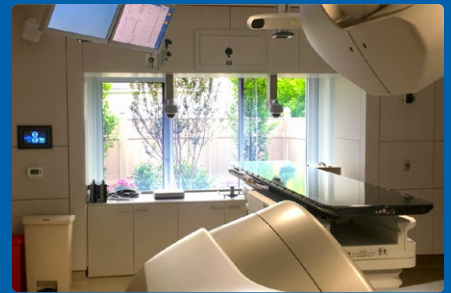
VERISHIELD® RADIATION SHIELDING

VeriShield Ultra-High Density Modular Radiation Shielding offers unmatched attenuation properties and construction benefits.



SMARTDOOR® SHIELDED DOORS

With operating times as fast as 6 to 8 seconds, advanced Veritas radiation-shielded doors eliminate the need for doorless or maze openings.



SMARTVUE® WINDOWS

Get a vision for a therapy environment with window glass that lets patients see outside the room—then “frosts over” as radiation shielding moves behind the glass and lights dim as treatment begins.



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