The tight headspace between the opening and the ceiling required that the track be low profile to allow the top of the door leaf to sit within 2 ½ inches of the ceiling lining.

Sliding Doors Maximize Efficiencies at Penn Hospital

How sliding doors can save space.

Like all businesses, medical facilities are faced with increasing demands from ownership and governing bodies to maximize output while maintaining a cost-effective operation.

For hospitals, this means keeping costs down while increasing patient volumes and access to quality care – achieving efficiency is key across the board.

We have seen a shift in the design of medical facilities in recent times to allow for a more efficient flow of patients, staff and equipment. One of the changes we’ve witnessed is the transition away from swinging doors to sliding doors.

SLIDING EFFICIENCY

Sliding openings have become popular in medical facility settings because sliding the door to the side without...
changing your forward-facing position is seamless. The same applies to moving patients in beds as well as equipment.

Sliding doors also use space efficiently, which can allow for smaller rooms and corridors so hospitals can serve more patients per square foot.

A TIGHT PROBLEM
The efficiencies of sliding doors came into play recently with the Pennsylvania Hospital Pavilion project in Philadelphia. This facility is an addition to the Pennsylvania Hospital, which was founded in 1751 and was the first hospital in the nation.

Designed by Foster and Partners and constructed by L.F. Driscoll and Balfour Beatty, the Pennsylvania Hospital Pavilion is 1.5 million square feet and is 17 stories tall.

Cavity Sliders worked together with Construction Hardware Inc., the contract hardware distributor on the project, to develop a custom track system for the 500 private patient rooms.

The most important factor in the design of this product was the tight headspace between the opening and the ceiling, as well as the fact there was no structural stud for a top fixture above the opening.

The track needed to be low profile and allow the top of the door leaf to sit within 2 ½ inches of the ceiling lining to adequately cover the opening.

In addition, it would need to carry a 210-pound 4-foot-wide door that would both soft close and open.

A CUSTOMIZED SOLUTION
Together with Brad Mason of Construction Hardware Inc., we decided the only way to meet the vertical constraint was to design the track to be side fixed through its internal profile.

Surface sliding systems are designed to be either top fixed or wall mounted. Without a structural stud above, in this case we were left with one option.

Furthermore, most wall-mounted systems have a triangular section above the running profile to add strength to the shape under heavy loads. Again, without the vertical space, we didn’t have this luxury.

To give the track the structural integrity required with this fixture method, we beefed up the wall of the extrusion and allowed for a recess to prevent the screw head from interfering with the carriages.

When you come up against constraints such as the ones presented on the Philadelphia Hospital Pavilion project, it is gratifying to be able to deliver a product that will perform reliably.

The end result allows the room to retain its intended aesthetic without any costly structural changes to the build. The Cavitrack Side-mount has now become a standard offering for Cavity Sliders.

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The arc of a swinging door renders the area unusable. Sliding doors save 7 square feet.

A sliding door can provide easier access for a person in a wheelchair.