



Ligature Resistant Sliding Door System

Product Innovation Highlights

The patent-pending Ligature Resistant Sliding Door System is a seamless, safe, silent, secure and space-saving door opening solution designed for behavioral healthcare environments.



About Accurate Lock & Hardware

Accurate Lock and Hardware fuses old-world craftsmanship with modern technology to create architectural hardware products of uncompromising quality for the entire door. If you can dream it, we can make it. From concept to manufacturing, all Accurate products are proudly made entirely in the USA.

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Solving a Healthcare Challenge

Currently, many facilities are using swinging doors, or in some cases, a curtain secured with Velcro and no door at all. Swinging doors add ligature opportunities and could possibly be used as a weapon, while Velcro curtains offer no privacy for patient or visitors, and present safety concerns.

Accurate Lock and Hardware wanted to create a solution that would eliminate self-harm risks inherent in swinging doors, and address privacy and health-related concerns associated with curtains.



Close up of ligature resistant track system

Solution

This Ligature Resistant Sliding Door System (LR-SDS) is the first of its kind and fills a void in the healthcare marketplace as a safer solution for behavioral healthcare environments. It improves environmental safety, significantly reducing the possibility of patient harm by avoiding elements that might support self-injury, as well as preventing the possibility of patients hiding from caregivers, enhancing staff safety.

The patent-pending LR-SDS features minimally exposed hardware, aligning with modern interior design initiatives, while providing both aesthetic and functional ligature resistant features. A concealed track and vertical rod bolt allow some of the most important functionality of the door to remain unseen. The LR-SDS is a surface applied door sliding door system able to convert conventional swing doors into ligature resistant patient safety openings, allowing facilities to easily update existing doors.

Features

- Concealed Track System hangs a 1 3/4" door with minimal surface applied gap
- Concealed Floor Guide keeps door flush against wall
- Concealed Vertical Rod Bolt locks into track providing safety and privacy
- Ligature Resistant thumb turn and flush pull
- Privacy function and keyed deadbolt available; -mortise and tubular lock options available
- Clutch override feature
- Locks in the "closed" position; other positions can be added
- Dampened closure allows quiet operation and prevents slamming doors

Product Release Date: November 2017



Floor Guide

Cut away of ligature resistant track



LR-SDS shown in an in-suite patient bathroom

Evaluation and Success

- Internal testing of a static 500 lb load was applied to the bottom third of a flush wood door at the mid-point of the opening. No damage was observed after load forced was removed and door subsequently performed as intended.
- The LR-SDS shoe provides structural integrity against lateral forces and captures the lower leading edge of the door when in the closed position.
- Two ball bearing blocks provide a dynamic load capacity of 1,240 lbs.
- Withstood simulated abuse testing by architectural consultant with door 6" open.

As design focus shifts towards creating inviting environments that promote wellness and recovery, we are continually challenged to maintain safety and security standards while aligning with aesthetics

The LR-SDS provides the seamless design and minimalistic aesthetic of the sliding door system to help promote a positive healing environment and supports the concept of patient empowerment and respect, ultimately providing a safe opening solution that enhances the wellness journey.

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