

Overly Metal Bullet Resistant Door Units Hardware Requirements and Recommendations

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For all Overly metal bullet resistant door units, all of the information for the hardware scheduled to be utilized on the opening must be supplied prior to fabrication to ensure its compatibility with the construction of the UL 752 level of protection selected for the unit. Below are some general guideline requirements and recommendations for hardware components to consider when utilizing a UL 752 Overly bullet resistant door unit.

Hinges

For UL 752 levels 1, 2, 3 and 6 protection, Overly recommends the use of 5" heavy weight ball bearing type or a continuous hinge capable of carrying the weight of the door leaf. If a continuous hinge is to be customer supplied for these level doors, all drilling and tapping will be the responsibility of others, as Overly will only reinforce as required by continuous hinge manufacturer. The weight per square foot of this bullet resistant door level can be found on the individual product cutsheets found on our website.

For UL 752 levels 4, 5, 7 and 8, Overly supplies the continuous hinge with the door and frame already pre-drilled and tapped for field installation. There can be no deviations from the Overly supplied hinge for these UL 752 levels of protection.

General Note for Hardware Mounting

For all Overly metal bullet resistant door units, the use of the thru-bolt method of mounting any type of hardware is not permitted with the exception of lock trims. All other hardware must be secured to the door face only. Overly provides surface reinforcements per hardware type to adequately support this method attachment.

Locksets

All bullet resistant doors must be equipped with a minimum BHMA grade 1, 2 or 3 mortise lock or BHMA grade 2 cylindrical lock. Panic devices of the mortised or rim type are also permitted. Consult the factory for any concealed hardware devices to see if they can be integrated into your specific protection level required.

Electric Strikes

Electric strikes can be incorporated into the bullet-resistant door units. Contact factory to verify if your specific model can be used in the level protection your project requires.

Closers

Overly recommends the use of surface mounted closers for all of its bullet resistant doors and frames. Closers must be capable of handling the weight of the door leaf. The weight per square foot of this bullet resistant door level can be found on the individual product cutsheets found on our website. Consult the factory for any concealed hardware devices to see if they can be integrated into your specific protection level required.

Hold-open Devices

While hold-open devices of any type are discouraged from being utilized on bullet resistant doors as they compromise the protection while being in the open position, if they must be used, Overly recommends the use of surface mounted types for all of its bullet resistant doors and frames. Hold-opens must be capable of handling the weight of the door leaf. The weight per square foot of this bullet resistant door level can be found on the individual product cutsheets found on our website. Consult the factory for any concealed hardware devices to see if they can be integrated into your specific protection level required.

Door Position Switches

Overly bullet resistant doors and frames can be prepared for door position switches of the surface mounted and most mortised types. Consult factory to determine if your specific mortised type switch can be utilized.

Power Transfer and Raceways

Overly bullet resistant FLUSH doors and frames can be prepared for electric hinges, power transfers with raceways as required for all electrically operated hardware. Doors with vision lights can be prepared as long as the size and position of the light do not interfere with the location of the conduit raceway path inside the doors which is based on UL bullet resistance level.

Electrified Level Swing Hinges used to transfer power from frame to door

When electrified hinges are to be utilized on a level swing sound control door system, there are two features that need to be verified prior to using: Load Bearing - the first item to verify is if the electrified hinge selected to be used is considered a load bearing hinge or not by the hinge manufacturer. If the manufacturer has designated the hinge as load bearing, then it can be utilized at any hinge location, typically one if the intermediate hinges of the unit. If it IS NOT a load bearing as designated by the manufacturer, then the electrified hinge must be utilized as an additional hinge to the quantity required of load bearing hinges. The quantity of load bearing hinges follows the one hinge for every 30" of height requirement.

Fire Ratings - when units are scheduled to be fire rated, verification from the manufacturer is required that the electrified hinge is UL Listed for use on fire doors equal to or greater than the scheduled hourly duration of the opening.

Power Transfers used to transfer power from frame to door

For UL levels 1, 2, 3 and 6 protection, in lieu of electrified hinges for use on level swing door models, power transfers, or EPT's, may be utilized. Any power transfer model may be selected and incorporated into the door and frame.

For UL levels 4, 5, 7, and 8 protection, when an EPT is desired, it is required to use an EPT whose width does not exceed 1" due to the required internal bullet-resistant door construction.

Armored Door Cords used to transfer power from frame to door

As an option to an electric hinge or power transfer, an armored door cord or loop could be utilized. When units are scheduled to be fire rated, the armored loop must be UL Listed for use on fire doors equal to or greater than the scheduled hourly duration of the unit. An example of one that meets this criteria is the Schlage 788/789 armored Door Cord.

Weatherstripping, Door Bottoms and Thresholds

Overly bullet resistant doors and frames can be utilized with commercial weatherstripping, and thresholds. When automatic door bottoms are required, for UL levels 1, 2, 3 and 6 either full or semi-mortised door bottoms may be utilized. For UL levels 4, 5, 7 and 8 any auto door bottom to be used must be surface mounted.

Concealed Hardware

The use of any hardware of the concealed type is limited and not recommended for use on Overly bullet resistant doors and frames. Consult factory before specifying the use of any concealed hardware on a bullet-resistant unit.

Vision Lights

Overly bullet resistant doors and frames can be prepared for vision lights. The minimum viewable light size that can be accommodated by the glass clad polycarbonate that Overly supplies is 11" x 11". The maximum light size that can be incorporated into the door leaf is determined by the 8" minimum stile, 6" minimum top rail for narrow lights and 8" for lights where width may interfere with door closer mounting, and 12" minimum bottom rail dimensions that must be maintained.

Bullet resistant glazing may be supplied by others as long as it is UL 752 rated the same as the door and frame. A data sheet of the proposed glazing material must be provided to Overly for review and authorization that it can be utilized for the unit to maintain the UL 752 rating.

Meeting Stiles of Pairs

For any pair of Overly UL 752 bullet resisting doors, the doors must be equipped with an overlapping astragal which has a UL 752 protection level equal to that of the doors. This creates an active leaf and an in-active leaf. The in-active leaf can be held in the closed position by either flush bolts or surface mounted slide bolts. This overlapping astragal precludes the use of two vertical rod devices allowing both leaves to be active. If both leaves must be active, a mullion rated to same protection level as the doors must be used of either the hardware or thru type with a UL 752 bullet resisting rating as the unit. Non-UL 752 rated mullions CANNOT be utilized on UL 752 rated units.