**SECTION 11 22 16.33**

**TSS BR DEAL TRAY - RECESSED OIL**

(**Specifier Note**: The purpose of this guide specification is to assist the Specifier in correctly specifying bullet resistant aluminum framing assemblies with their installation as security windows.

The Specifier must edit this guide specification to fit the needs of each specific project. References have been made within the text of the specification to MasterFormat section numbers and titles. The Specifier must coordinate these numbers and titles with sections included for the specific project.

Throughout the guide specification, there are Specifier Notes to assist in the editing of the file. Brackets have been used to indicate when a selection is required. Contact a TSS representative for further assistance with appropriate product selections.)

**PART 1 – GENERAL**

* 1. RELATED DOCUMENTS
1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
	1. SUMMARY
2. Section Includes
3. Recessed currency tray, non-rated or bullet resistant UL levels 1-8.
	1. ACTION SUBMITTALS
		* + 1. Product Data: For each type of product.
				2. Shop Drawings: For recessed currency tray.

Include plans, sections, details, and attachments to other work. Detail fabrication and installation, including field joints.

Show locations and sizes of cutouts and holes for items installed in countertops.

* 1. DELIVERY, STORAGE, AND HANDLING
		+ - 1. Deliver product only after casework and supports on which it will be installed have been completed in installation areas.
				2. Store product in areas where environmental conditions comply with requirements specified in "Field Conditions" Article.
				3. Keep tray covered with protective covering during handling and installation.
	2. FIELD CONDITIONS
		+ - 1. Environmental Limitations: Do not deliver or install countertop-mounted trays until building is enclosed, wet-work is complete, and HVAC system is operating and maintaining temperature and relative humidity at levels planned for building occupants during the remainder of the construction period.
				2. Field Measurements: Where countertop-mounted items are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
				3. Established Dimensions: Where countertop-mounted trays are indicated to fit to other construction, establish dimensions for areas where countertops are to fit. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

**PART 2 – PRODUCTS**

2.1 FABRICATORS

* + - * 1. Fabricators: Subject to compliance with requirements, provide products by the following:

Total Security Solutions, Inc., 935 Garden Lane, Fowlerville, MI 48836, 866 734-6277. Attn: Sales Department, sales@tssbulletproof.com. Web: [www.tssbulletproof.com](http://www.tssbulletproof.com).

2.2 RECESSED CURRENCY TRAY

* + - * 1. Recessed Currency Tray shall be designed to permit passing of materials under transaction area windows without sacrificing security of the system.
				2. Each transaction position shall have a stainless-steel dip tray as shown on shop drawings. The dip in the tray shall be a 45-degree meeting to a point at the center of the tray, and shall not be rounded.
				3. Material: Tray shall be fabricated from minimum 18-gauge stainless steel and with No. 4 finish.
				4. Tray size: Standard cash tray size shall be 14” by 13” by 2-9/16” tall.
				5. Bullet Resistance
				6. Tray shall include a bullet trap enclosure to meet UL ballistics requirements as indicated.
				7. Level [**1**] [**2**] [**3**] [**4**] [**5**] [**7**] [**8**] in accordance with UL 752 – Testing for Ballistic Resistance for the complete assembly.
				8. Components shall be manufactured in strict accordance with the specifications, design and details, to be in conformance with required UL ballistics level indicated.
				9. No field alterations to the construction of the units fabricated under the acceptable standards shall be allowed unless approved by the manufacturer and the architect.
				10. Standard manufacturing tolerances shall be +/- 1/16".
	1. FABRICATION
		+ - 1. Fabricate tray to dimensions, profiles, and details indicated. If applicable, insert subparagraph here to describe conditions where eased edges are not required.
				2. Complete fabrication to maximum extent possible before shipment to Project site.

**PART 3 – EXECUTION**

* 1. PREPARATION
		+ - 1. Before installation, condition tray and countertop to receive tray to average prevailing humidity conditions in installation areas.
				2. Prior to installing the bullet resistive material, the contractor shall verify that all supports have been installed as required by the contract documents and architectural drawings, and approved shop/CAD drawings, if required. Installer shall notify architect of any unsatisfactory preparation that is responsibility of another installer.
				3. Clean and prepare all surfaces per manufacturers recommendations for achieving the best results for the substrate under the project conditions
	2. INSTALLATION
	3. ADJUSTING AND CLEANING
		+ - 1. Repair damaged and defective material, where possible, to eliminate functional and visual defects. Where not possible to repair, replace material. Adjust joinery for uniform appearance.
				2. Clean exposed and semi exposed surfaces.
				3. Protection: Provide Kraft paper or other suitable covering over countertop mounted tray surfaces, taped to underside of countertop at a minimum of 48 inches (1220 mm) o.c. Remove protection at Substantial Completion.

**END OF SECTION**