

# **DT-AOSG Pedestrian Rated Channel Frame Aluminum Hatch with Safety Grate System**

Style DT-AOSG access safety hatch, as manufactured by Syracuse Castings, Cicero, NY 315-699-2601.

Each hatch shall be designed to combine covering of the opening, fall through protection per OSHA standard 1910.23 and controlled confine space entry per OSHA standard 1910.146.

Material shall be 6061-T6 aluminum for bars, angles and extrusions. 1/4" diamond plate shall be 5086 aluminum.

Unit designed for Pedestrian Traffic only at 300 PSF. Deflection shall not exceed 1/150<sup>th</sup> of the span.

Covers shall be equipped with a stainless steel hold open arm. To highlight the hold open arm feature, the entire hold open arm must be supplied with a "red" powder coat finish. **Any hold open arm not supplied with red powder coat finish shall not be accepted.** Doors shall automatically lock open in the 90-degree position. Hold open arm shall be fastened to the frame with a 1/2" grade 316 stainless steel bolt.

Channel frame shall be of extruded aluminum, with a continuous 1-1/4" anchor flange. Channel frame shall be a minimum of 1/4" thick, with a minimum cross section of 7.5".

**Exterior of frame in contact with concrete shall be supplied with a 3-mil thickness of "Tufcoat 3.5 PR" Industrial Coating by Dupont.** Application procedure shall be in accordance with manufacturer. **Isolation coating shall not be substituted.**

Each "DT-AOSG" style hatch is supplied with a 1-1/2" threaded drain coupler out the bottom of channel frame for pipe connection.

Hinges shall be of heavy-duty design. Material shall be stainless steel with a 3/8" grade 316 stainless steel pin. Hinges shall be bolted to the angle frame and diamond plate, with grade 316 stainless steel bolts and ny-lock nuts. **Aluminum hinges, or stainless steel hinges not utilizing a 3/8" diameter stainless steel pin shall not be considered as equal.**

Covers to be supplied with a grade 316 stainless steel recessed Slamlock, with keyway protected by a threaded stainless steel plug. Plug shall be flush with the top of the 1/4" diamond plate. Slamlock shall be fastened with four grade 316 stainless steel bolts and washers. **Slamlocks that fasten with only two grade 316 stainless steel bolts and washers shall not be accepted as equal.**

The safety grate shall be made of 6061-T6 aluminum and designed per the "Specifications for Aluminum Structures", by the Aluminum Association, Inc., 5<sup>th</sup> Edition, Dec. 1986 for "Bridge Type Structures. **Safety Nets, or Safety Grates that are fabricated from FRP, or other poly / fiberglass blend or base shall not be accepted as equal to a fabricated aluminum grate.**

The grating shall be designed to withstand a Pedestrian Load of 300 PSF.

Grate openings shall allow for visual inspection, limited maintenance and float adjustments while the safety grate fall through protection is left in place.

**Design must assure that the fall through protection is in place before the door can be closed, thereby protecting the next operator.**

Each grate shall be provided with a permanent hinging system, which will lock the grate in the 90-degree position once opened.

Each grate supplied with a locking device (for owner's padlock) that will prevent unauthorized entry to the confined space. The grating system will allow anyone to make visual inspection and float adjustments without entering the confined space. **Any safety grates that do not have this internal locking option shall not be accepted.**

Grate shall be coated with OSHA type safety orange color two part epoxy.

Welding shall be in accordance with ANSI/AWS D1.2-90 Structural Welding Code for Aluminum.