

# **“EC-HD-AOSG” H-20 Heavy Duty Angle Frame Aluminum Hatch with Safety Grate System**

Style “EC-HD-AOSG” heavy duty access hatch, as manufactured by Syracuse Castings, Cicero, NY 315-699-2601.

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

Design of each access hatch shall conform to O.S.H.A. standard 1910.23

Unit designed heavy duty, for H-20 wheel loads, where not subject to high-density traffic. Angle frame and bearing plate must be cast into and supported by concrete designed for H-20 wheel loads.

For ease of operation, each grate shall be supplied with a heavy duty, stainless steel pneu-spring. Spring must consist of a minimum 1/2” stainless steel shaft which slides into a minimum 1” stainless steel tube. **Spring must be charged with an inert gas (nitrogen). Mechanical, torsion, or coil type springs shall not be accepted as equal.** Spring design must ensure ease of maintenance.

Each door shall be equipped with a stainless steel automatic hold open arm. **To highlight this safety device, the hold open arm must be supplied with a red powder coat finish.** Doors shall lock open in the 90-degree position. Hold open arms shall be fastened to the frame with a 1/2” grade 316 stainless steel bolts. **Hold open arms not supplied with complete red powder coat finish shall not be considered equal.**

Angle frame shall be of extruded aluminum, with a continuous 1-1/2” anchor flange.

Exterior of hatch frame shall utilize (as an isolation coating, to deter reaction of dissimilar materials) **“Tufcoat 3.5PR” Industrial Coatings by Dupont** at a thickness of 3 mils. Application procedure shall be as recommended by Dupont. **Isolation coatings shall not be substituted.**

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 channel frame and diamond plate, with grade 316 stainless steel bolts and ny-lock nuts. **Aluminum hinges, or stainless steel hinges utilizing less than a 3/8” diameter stainless steel pin shall NOT be considered as equal.**

Each hatch shall be supplied with a grade 316 stainless steel slam lock, with keyway protected by a threaded aluminum plug. Plug shall be flush with the top of the 1/4” diamond plate. **Slam lock shall be fastened with four grade 316 stainless steel bolts and washers. Slamlocks fastened with only two bolts shall not be accepted as equal.**

Each hatch shall be equipped with a cast stainless steel lift handle. The lift handle shall be flush with the top of the 1/4” diamond plate. **Lift handles that are not cast stainless steel shall not be considered equal.**

Each “Safety Grate System” shall be designed to combine covering of the opening per OSHA standard 1910.23 while providing fall through protection.

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

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

Each grate shall be provided with a permanent hinging system, grate shall lock open 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.**

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