



HEAVY-DUTY PLANK ALUMINUM FLAT PANEL COVERS

Pleasant Mount Welding, Inc.'s Heavy-Duty Plank Aluminum Flat Panel Covers are an attractive, economical and structurally sound alternative to traditional aluminum diamond plate cover systems. Utilizing custom extrusions, we can create fixed and hinged cover panel configurations for many different applications. The unique hinge design of the HD Plank cover system allows any individual panel on a cover to become a fully opening access hatch. This allows for total access to the tank below. Hinged access panels utilize slam latches to lock down hatches. Our HD Plank deck extrusion is a nominal 1-1/2" deep 8" wide plank with integral slip resistance striations incorporated and is designed for a 100 PSF uniform load. Whatever your cover needs, PMWI has you covered.



■ PMWI ■ 45 Dundaff Street, Carbondale, PA 18407 ■ (570) 282-6164 ■ www.pmwi.net ■

Reservoir Tank
Covers

Clarifier Covers

Sludge Holding
Tank Covers

Bio-tower Covers

Storage Vessel
Covers

Odor Control

Protection

PLEASANT MOUNT
WELDING, INC.

45 Dundaff Street,
Carbondale PA 18407
(570) 252-6164
www.pmwi.net



At Pleasant Mount Welding, Inc., we create innovative aluminum cover systems that offer cost-effective, long term solutions for architectural, municipal, and industrial storage applications. Our flat panel cover systems are widely used in the water and wastewater industries due to their chemical resistance, minimal lifetime maintenance requirements, and low construction cost. Every PMWI aluminum cover is custom designed to meet the specific requirements of each project and engineered for any snow, wind, and suspended load requirements. The modular structural design of the Heavy-Duty Plank Cover system allows covers to be constructed to any size required on projects. Pleasant Mount Welding, Inc.'s competitive advantage is our quality reputation, unmatched experience, and the fact that we provide the complete package - we design, engineer, detail, and fabricate all of our covers in-house.



WATER & WASTEWATER FACILITY APPLICATIONS

- Great for odor control applications
- Easily customized to conform around penetrations or equipment
- Substantially air tight enclosure
- Reduced air volume for reduced air filtration costs – save energy
- Hinged panels are great for access to large areas below the covers
- Flat panel covers are perfect for heavy foot traffic or frequent access to equipment

HD PLANK COVER FEATURES

- Welded Construction
- Removable Cover Panels
- Neoprene Sealing Gaskets
- Reduced Air Volume
- Slip Resistance Striations
- Lifting Handles
- Slam Locks with Keys
- Top or Flush Mount
- Modular Design

WATER & WASTEWATER RESERVOIR COVERS

The public's growing concern for clean water is pushing governments to implement legislation regarding water quality and municipal practices for protecting our environment. Storage facilities are being required to cover finished water reservoirs to help keep out contaminants. Our team of specialized engineers are experienced in creating custom solutions for covering clarifiers, reservoirs, sludge holding tanks, and many other storage vessels with our innovative aluminum covers. The PMWI Heavy-Duty Plank Cover custom hinges allow for easy access to weirs, basins, blowers and any other equipment that is below the covers. This provides odor control and a safe working environment for plant operators. PMWI aluminum covers require little to no lifetime maintenance, reducing plant preservation costs and saves energy. Our covers are durable and strong enough to handle large loading requirements, allowing for safe navigation throughout the plant.



SPECIFICATION FOR HEAVY-DUTY PLANK ALUMINUM FLAT PANEL COVER

GENERAL

Purpose: This specification establishes the minimum criteria for the design, fabrication, and erection of Heavy-Duty Plank Aluminum Flat Panel Covers comprised of hinged and fixed panels and the associated support beams and shelf angles as manufactured by Pleasant Mount Welding, Inc. (Carbondale, Pennsylvania).

Scope of Work: Provide all labor, materials, and equipment required to supply a complete system of removable Heavy-Duty Plank aluminum flat panel covers. The Heavy-Duty Plank Aluminum Flat Panel Cover includes cover panels, structural supports (Structural Beams and Shelf Angles), and attaching hardware.

ENGINEERING & ACTION SUBMITTALS

Shop Drawings: The contractor shall submit the shop drawings to the Engineer of Record (EOR) for approval for the fabrication of the Heavy-Duty Plank Aluminum Flat Panel Cover system based on construction drawings of current issue. The drawings shall be approved and released to the shop before fabrication of the panels. Include plans, sections, shop details, and connections as required by the contract documents.

QUALIFICATIONS

Manufacturer:

Pleasant Mount Welding, Inc.

45 Dundaff Street, Carbondale, Pennsylvania 18407

Phone: (570) 282-6164 Fax: (570) 282-7917

Email: sales@pmwi.net Website: <https://www.pmwi.net>

The Heavy-Duty Plank Aluminum Flat Panel Covers, as specified, shall be the product of a single manufacturer regularly engaged in the design, manufacture, and installation of engineered aluminum covers.

Welders: Welders performing work on the Heavy-Duty Plank Aluminum Flat Panel Covers shall be qualified within the past two years in accordance with AWS.

PERFORMANCE & DESIGN

Span: The clear span length of the cover shall be as noted in the contract documents.

Width: The width of the cover shall be as noted in the contract documents.

Distributed Design Live Load & Deflection: All structural components shall be designed to support the dead weight of the structure, plus a live load of 100 PSF of surface. The maximum deflection of any component shall not exceed L/240 of the span of that component.

Concentrated Load: All structural components shall be designed to support a 300 LB concentrated load anywhere on the surface of cover without permanently deforming the test area.

Design Stresses: All aluminum structural members and connections shall be designed in accordance with the Aluminum Association's "Specification for Aluminum Structures" for building-type structures.

Slip Resistance: The Heavy-Duty Plank Aluminum Flat Panel Cover shall have a non-skid surface and no exposed area of the cover system wider than one inch shall be without striations/non-skid surface. The Pleasant Mount Welding, Inc. aluminum cover's Heavy-Duty Plank Cover decking is ribbed with concave and convex striations to prevent slipping and to assist in the removal of water off the covers' surface. This surface shall not be achieved by the use of paint, adhesive tapes, sand blasting, or any other means other than the extruded process.

Chemical Resistance: The Heavy-Duty Plank Aluminum Flat Panels shall be composed entirely of 6061-T6 corrosion resistant aluminum extrusions. A replaceable Neoprene seal shall isolate the cover perimeter from the concrete and/or between every panel to ensure a significantly air-tight enclosure.

Configuration: The Heavy-Duty Plank aluminum flat panel cover system shall be composed of beams and panels. Uplift of each panel shall be resisted with the use of quarter turn slam latch(s). Latch keys shall be provided by the panel Manufacturer. The weight of an individual panel shall not exceed 150 pounds. Each hinged panel can be easily removed or replaced via removing the bolt anchors of the “T-extrusion” to the beam underneath without disruption of adjacent panels.

MATERIALS

Aluminum: All extrusions comprising the Pleasant Mount Welding, Inc.’s Heavy-Duty Plank Aluminum Flat Panel Cover shall be alloy 6061-T6, of sufficient section modulus and moment of inertia to withstand the design loads. Material shall be of top quality.

Welding Electrodes: Welding shall be done with electrodes of an alloy which shall produce welds with strength and corrosion resistance characteristics compatible to the base material.

Fasteners: All fasteners between aluminum components shall be stainless steel. Beams and shelf angles shall be fastened to concrete using stainless steel drill in place anchor bolts.

Steel Accessories: No carbon steel components shall be used.

Gaskets: Replaceable Neoprene gaskets shall be used to isolate the aluminum cover perimeter from the concrete and at all panel-to-panel interfaces.

WORKMANSHIP

The quality of the workmanship, fabrication, and shop connections shall be in accordance with the latest edition of ANSI/AWS D1.2 Structural Welding Code – Aluminum.

ENVIRONMENTAL CONSIDERATIONS

All aluminum used in the Heavy-Duty Flat Panel Cover system is presumed to be recyclable upon demolition.

OPERATION & MAINTENANCE MANUAL

The cover manufacturer shall provide an O&M Manual that includes maintenance instructions, removal and replacement instructions, and drawings for the install cover.