

Odour Control Covers

Aluminium Interlocking Flat Decking System

[Product Overview](#)

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1) Introduction

Power Plastics' bespoke aluminium flat decking system has been developed to offer a flexible, high quality and environmentally friendly odour control option.

The system consists of interlocking aluminium profiles, 205mm in width and up to a length of 10000mm, laid directionally to form an effective odour control cover. The decking boards are installed to be fully removable, with minimal labour requirements.

The decking system comes with full CE Certification to Execution Class 2.

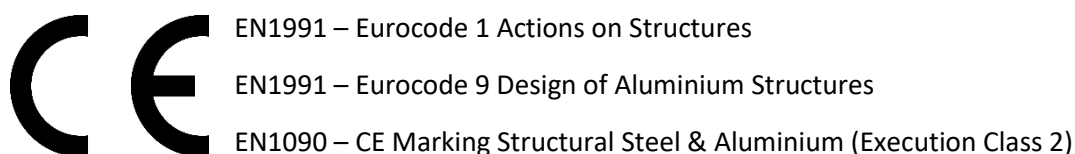
2) Extrusion Specification

The Power Plastics designed profile incorporated in our odour control flat decking system has the following physical properties:

Alloy:	6000 Series – Resistant to aggressive atmospheres
Weight:	4.015KG/m
Dimensions:	205mm width 500mm to 10000mm length 44mm depth
Rating:	5kN/m ² at 2.2m span (1/200 deflection) 3kN/m ² at 2.8m span
Lifespan:	30 years
Recycling:	Fully recyclable
UV Light:	No effect
Non-slip:	Serrated surface

3) Certification & Standards

The aluminium flat decking system will come with CE Certification and will conform with the following key standards:



The harmonised standard EN1090 covers the adherence to 119 different European & ISO Standards, including the following key standards relating to this product:

- EN755 – Extruded rod/bar, tube and profiles
- EN3506 – Mechanical properties of corrosion resistant stainless steel fasteners

4) Corrosion Resistance

The aluminium extrusion is extruded from a 6000 series alloy and has been used on a wide variety of odour control systems by Power Plastics. The decking will be provided with comprehensive material data sheets as part of the O&M Manual.

Aluminium is a passive metal, with the aluminium oxide layer produced on the surface during the early stages of corrosion preventing further corrosion from occurring.

Power Plastics have successfully used the aluminium decking system in highly corrosive atmospheres for major UK contractors such as Galliford Try, Laing O'Rourke and AMK Joint Venture. A 30 year life span can be offered on a contract by contract basis.

A4 Grade Stainless Steel fixings are utilised in the system. Any stainless steel materials will be A4/316 grade, with material certificates available as part of the O&M Manual.

5) Environmental & Asset Value

The aluminium decking system is 100% recyclable, with as much as 20% of the cost of the product recoverable at the end of the life cycle, turning the product into a physical asset for the end client.

The product also helps to significantly reduce the carbon footprint of the project.

6) Removal & Handleability

If the covers need to be retrospectively removed, the aluminium flat decking system is simple to remove and reinstall. (See drawing A_09_800_011 for details).

The system can be removed board by board, exposing as much of the underlying void as required.

The decking boards simply slide back together when reinstalling, with the concrete anchor reinstated to fix in place.

Due to the performance of the decking boards at spans of 2.5m-3.0m, costly and time consuming support structures can be avoided. The strength is in the extrusion.

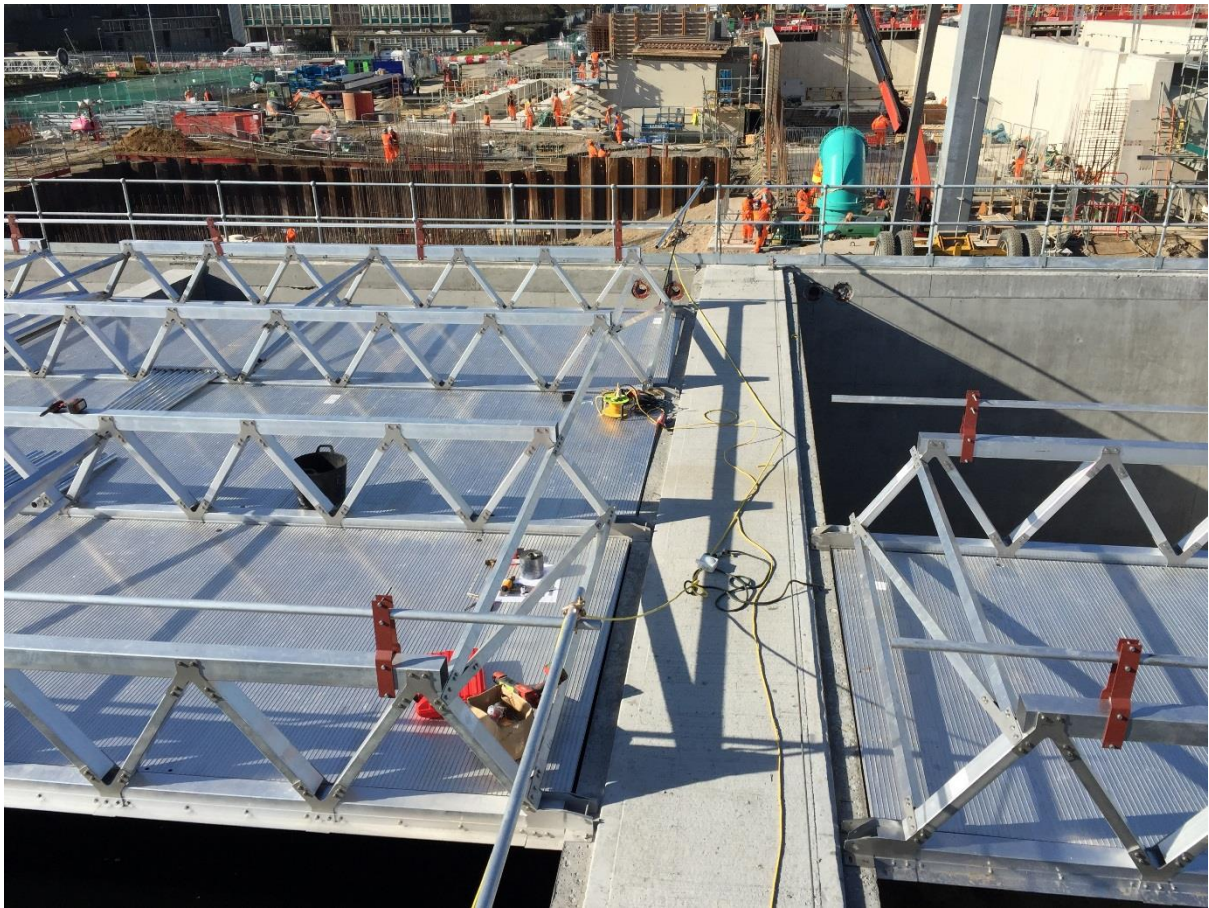
7) Flexibility

The aluminium decking boards can be machined, cut and tapped as well as knitted together using bolt slots on the bottom face. This allows for the accommodation of protruding plant and pipes as well as shaping to follow wall lines. Strengthening angles can be attached to the bottom face to maintain the strength of the boards where there are penetrations of the system.

8) Previous Use & Pictures

Power Plastics have installed our aluminium flat deck system on multiple water treatment works where exposed to aggressively corrosive atmospheres. The following list is some of the largescale projects undertaken throughout the UK in the previous 2 years:

- Deephams STW – AMK Joint Venture / Thames Water
 - 1092m² aluminium flat deck system with odour control specification
 - Flat deck system, access hatches, aluminium truss sections, full install
 - 5kN/m² rating achieved

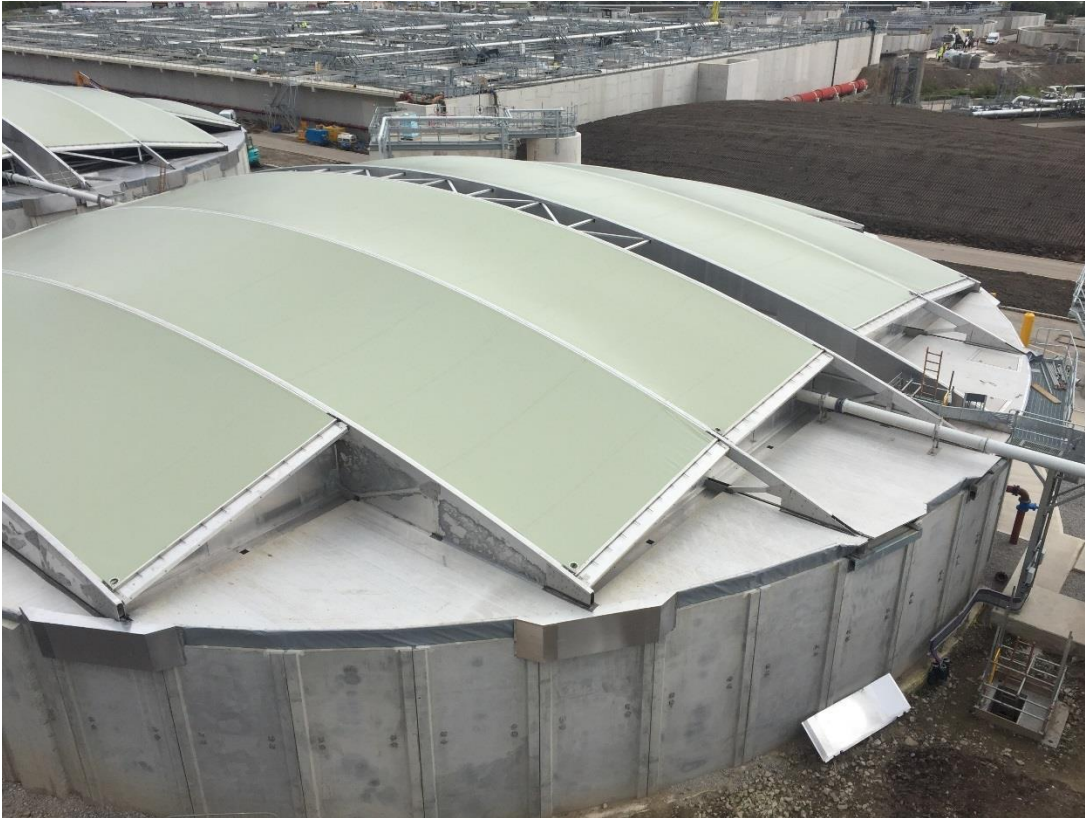


Installation of odour control aluminium flat deck system at Deephams STW



Installation of odour control aluminium flat deck system & access hatch at Deephams STW

- Davyhulme WWTW – Laing O’Rourke / United Utilities
 - 1440m² aluminium flat deck system with odour control specification
 - Flat deck system, access hatches, aluminium truss sections, full install
 - 5kN/m² rating achieved



Odour control cover & aluminium flat deck system installed at Davyhulme WWTW



Odour control cover & aluminium flat deck system installed at Davyhulme WWTW

- Portswood STW – Galliford Try / Southern Water
 - 760m² aluminium flat deck system with odour control specification
 - Flat deck system, access hatches, glass flake painted steel beams, full install
 - 5kN/m² rating achieved



Odour control aluminium flat deck system at Portswood WWTW



Installation of odour control aluminium flat deck system at Portswood WWTW