MODULAR MULTIPLAY STATION SYSTEMS

Commercial Playground Structural & Component Specifications

DWG NO: MMS-SPEC-2026
Standards: EN 1176-1/3 & ASTM F1487

1. SYSTEM SCOPE & MODULAR DESIGN

This technical document specifies structural standards, rotomolded plastic components, deck plating, assembly fasteners, and safety clearances for modular multiplay stations installed in public parks, schools, and commercial play areas.

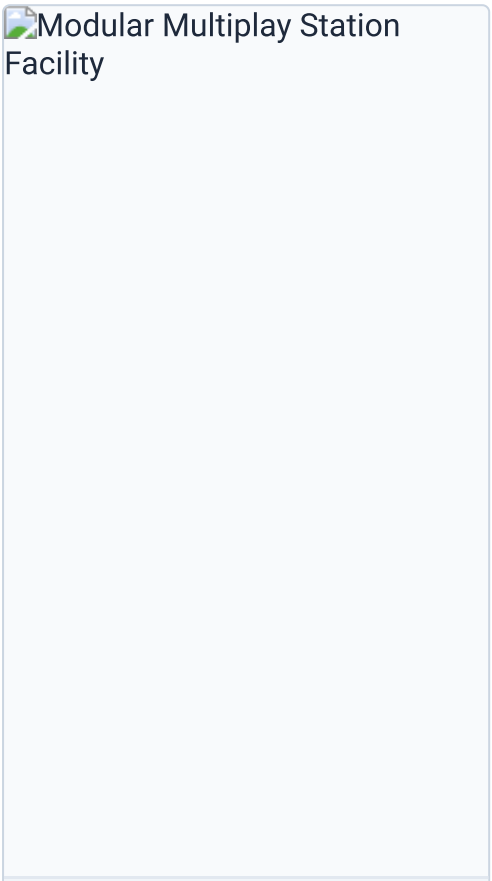


Figure 1: Modular Multiplay Station featuring Slides, Deck Towers & Climbers.

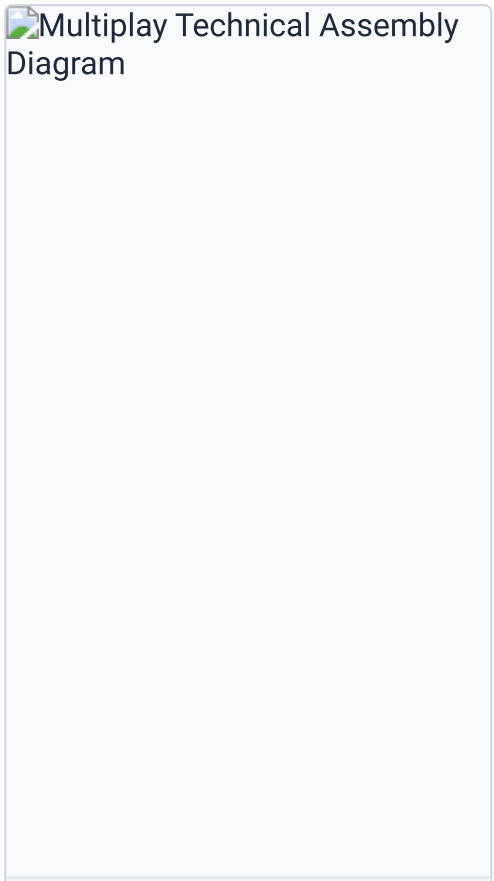


Figure 2: Technical Drawing (DWG MMS-SPEC-2026) – Structural Clamp & Post Assembly.

2. TECHNICAL COMPONENT SPECIFICATIONS

Component / Module	Material & Dimensional Specifications	Structural & Finish Standards
Main Structural Posts	114mm (4.5") outer diameter galvanized steel posts (wall thickness: 2.5mm–3.0mm).	Electrostatic thermosetting polyester powder coating (UV resistant, anti-fading).
Platform Decks	2.2mm perforated cold-rolled steel sheet with 25mm flange reinforcements.	Dipped anti-slip Plastisol (PVC) coating (3mm thickness) with drainage perforations.
Plastic Components	Imported LLDPE (Linear Low-Density Polyethylene), food-grade, UV-8 rating.	Rotational molding process; wall thickness min. 6mm; colorfastness rating ≥ 8 grade.
Clamp Connectors	High-strength cast aluminum alloy clamp collars with concealed stainless steel fasteners.	Powder-coated finish matching posts; tamper-resistant Allen key security bolts.
Access & Climbers	PE-coated steel rungs, vertical rope ladders (16mm steel-core), and molded rock walls.	Designed to eliminate head, neck, and finger entrapment hazards per EN 1176.

3. SAFETY MANAGEMENT & INSTALLATION STANDARDS

SAFETY CLEARANCES & SURFACING

- **Fall Zone Radius:** Minimum 1.8m unobstructed safety perimeter around structure.
- **Critical Fall Height:** Maximum platform height 2.4m; requires certified fall attenuation surfacing.
- **Entrapment Prevention:** All openings tested using probe gauges to EN 1176 Clause 4.2.7.

FOUNDATIONS & MAINTENANCE

- **Ground Anchoring:** In-ground concrete footings (400mm × 400mm × 500mm depth, C25/30 mix).
- **Hardware Inspection:** Monthly checking of bolt torques, post caps, and plastic seam integrity.
- **Environmental Resistance:** Salt-spray tested (500 hrs) for coastal installation durability.