

INSPECTION AND MAINTENANCE

The inspection frequency is governed by standards EN 1176 Part 1 and EN 1176 Part 7.

These general regulations regarding frequency of inspection should be utilized as a basis, and can be modified according to the frequency and utilization of the equipment:

Routine Inspection

Obvious hazards shall be identified: hazards caused by acts of vandalism, breakages, missing protective caps (plugs), miscellaneous debris found in the play area (glass, rocks, miscellaneous objects, etc.), or weather conditions.

The inspections (in regard to upkeep and required maintenance) shall be carried out at an interval not exceeding 14 days.

Procedure

1. Inspection of Fastening Hardware

- Visually inspect all fastening hardware, and tighten where necessary utilizing 13 x 17 or 17 x 19 Double-ended fixed socket wrenches. (All screws are M12, M10, and M8)

2. Inspection of anchors and ground fastening elements

- As in the previous step, visually inspect the anchoring components to ensure that the components are secured to the ground. Additionally, inspect wear and tear in the area of the surrounding surface (as in the case of sand, bark, or other type of surface fill). Level the surface material so that the concrete footing is not exposed. (Leaving the concrete footing exposed can compromise the structural integrity of the unit.)

3. General Structural Condition (Breaks, cracks, wear and tear...)

- Visually inspect the general condition of the structure (possible cracks and edges produced by wear and tear from heavy use or vandalism).
- Maintain the platforms and bases so that they are free of residue and litter, thereby allowing proper drainage between platform surfaces.

4. Inspection and Check of Rotating Mounts

- Tighten all fixings around the areas where chains are fastened. These areas are susceptible to wear and tear.

In those playgrounds which are subject to heavy use, vandalism, or extreme conditions (maritime locations, atmospheric pollution, product aging), daily inspections may be necessary.

5. Inspection of the Condition of Rock Climbing Wall Grips

- Visually inspect rock climbing wall grips for wear and tear. This should include inspection of screws and fasteners, and examining for edges, breaks, or cracks. To prevent hazards, when damage is detected, the grip(s) should be replaced.

6. Inspection of the Condition of the Rope Fastenings

- Examine the securing and anchoring of nets or vertical ropes. Check for possible breaks in the nylon, missing lag bolts, and general wear of the rope.
- Replace damaged parts. If compromised parts are not replaced, appropriate notification should be utilized to warn of the dangers of using the equipment.

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7. Inspection of the Condition of the Slides

- Check the cleanliness of the surface of the slide
- Inspect the integrity of the surface of the slide
- Check the condition of the falling space and the impact area (Pos. 10)
- Check the outcropping (instability) of the concrete footings
- Examine the anchors (pos. 9)

8. Inspection of the Condition of the Bridge Fastenings

- Visually examine the system supports (mounts) and check the tightness of the fixing screws.

9. Inspection and Check of Structural Anchors

- Check the condition of the equipment anchors (footings). To accomplish this, it may be necessary to excavate around the base, and to move some of the impact-absorbing material. If it is discovered that the anchor has been compromised by rust or loss of adhesive - or that there is movement due to the poor condition of the concrete base - consider replacing the base or footing, or readjusting the anchor screws. Also, examine for possible outcropping (instability or movement) of the footing. Fill and cover the footing according to the installation manual provided so it does not remain exposed.

10. Inspection of the Play Surface

- The surface on which the equipment is installed should be clean of all types of elements that hinder the correct use of the playground equipment. In the same manner these surfaces should be inspected when first installed, before the surfaces are altered due sustained use (level of fill materials, adhesion of the rubber tile sealant, etc.).

11. Inspect the Condition of Drains in the Play Area

- In parks with water drains, verify that all drains are free of debris (leaves, stones, sand, branches, papers, etc.), ensuring that they will be in proper working order. This avoids the accumulation of puddles, and ponding, which can cause flooding in the play zone.

Operational Inspection

This inspection is more detailed than a routine visual inspection, as it checks the operation and the stability of the equipment, and places more emphasis on the "sealed-for-life" components.

The inspections (in regard to upkeep and required maintenance) shall be carried out every 1 to 3 months.

Procedure

All issues cited in the Routine Visual Inspection should be reviewed in detail, placing special emphasis on the "sealed-for-life" components.

Annual Main Inspection

The Annual Main Inspection shall be conducted at least once per year, and shall establish the overall level of safety of the equipment, foundations (bases and footings), and surfaces. However, the inspection must take into account the possible variations in the level of safety of the equipment due to equipment and component repairs and replacements.



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Procedure

All issues cited in the Routine Visual Inspection should be reviewed in detail, placing special emphasis on the "sealed-for-life" components. However, a meticulous inspection of the condition of the foundation (base, footings) of the slide, and of the entire slide structure, should be conducted. Therefore, some excavation and dismantling of the fastening systems, such as screws and bolts, may be necessary.

*The standard **UNE 147102IN Playground Equipment, Guide on the application of the Standard UNE-EN 1176-7 to inspection and maintenance**, provides the guidelines to properly conduct these inspections, and also provides the necessary information for the personnel conducting the inspections.*