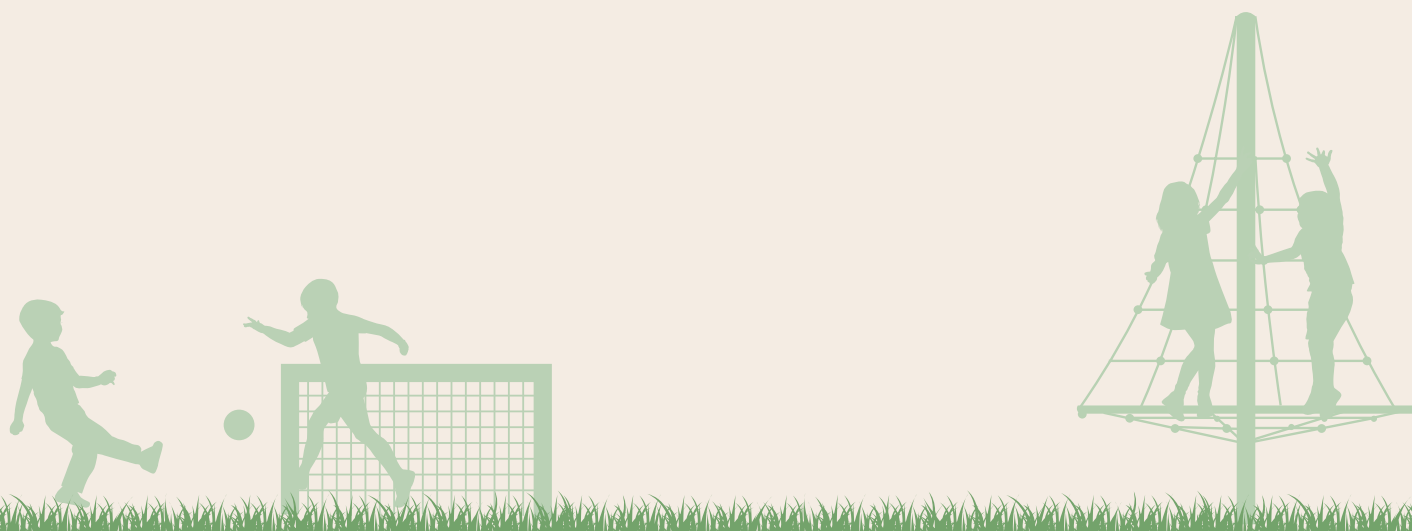


OPERATING AND MAINTENANCE GUIDE

– Guide to playground equipment, exercise equipment, sun sails, table bench sets, panna courts or multi-purpose sports court.



This document concerns playground equipment and extras such as gates, fences, benches, trash bins and sun sails. Below you will find guidelines to maintenance and inspection of your playground equipment.

Plan for maintenance

Routine maintenance (all types of equipment).

To reduce the likelihood of accidents and to keep the necessary safety level for the equipment and surfaces, the responsible operator must ensure a routine maintenance plan, which must be implemented and sustained. When creating the maintenance plan, it is necessary to take into consideration local conditions, that might be of importance for how often the routine maintenance should be done.

A routine maintenance inspection must include the following:

- Re-tighten fixings
- Surface maintenance
- Lubricate the bearings and other moving parts
- Clean playground equipment (a) and furniture
- Clear away broken glass and other trash
- Make sure that free zones and use zones are clear from obstacles
- Replacement of worn out and malfunctioning parts e.g. ropes, chains, shackles, thimbles and other moving parts (expenditures for this are not part of a service agreement and will be charged separately)

Only qualified staff should carry out the maintenance service.

Annual main inspection (concerns all types)

Improving maintenance is a thorough effort, which should be carried with the annual general inspection. Improving maintenance includes repair of defects or reestablishing the necessary safety level for the playground equipment.

It covers the following:

- Cleaning of playground equipment (a) and furniture
- Re-tightening of any parts, that have come loose, especially bolts, brackets and fixings
- Replacing malfunctioning building or construction parts (expenditures for this work are not part of a service agreement and will be charged separately)
- Surface treatment of any woodwork (b)

Routine maintenance of panna courts and multi-purpose sports courts

See (a)

(a) Maintenance includes a thorough cleaning of the equipment at least once a year, especially play towers and climbing structures. Sand, dirt, moss, alga and fallen materials from plants and trees detain moisture and might increase the risk of fungus and rot.

Cleaning it off is easy by using a soft brush and water or a soft pressure washer. Moss and alga can also easily be removed with store-bought cleaning remedies against mossy covering.

(b) When the surface of the wood is becoming rough or worn-out, it should be re-coated with a wood preservative. It is important to re-treat the woodwork before the wood is weathered.

NOTICE

When changing defect and worn-out parts, you must replace with original spare parts from the manufacturer, if you wish to retain the warranty. Elverdal recommends following annual maintenance of playground equipment and exercise equipment.

Specific maintenance of playground equipment and materials

Swings and hammocks

- Check, and if necessary, re-tighten the bolts, brackets, chains and fixings
- Lubricate the bearings
- Check for any damages and the stability (including the 'O'-point mark)
- If necessary, clean or wash the equipment

Slides

- Check, and re-tighten the bolts, brackets and fixings
- Check for any damages and the stability (including the 'O' mark)
- If necessary, clean or wash the equipment

Net

- Check chains, shackles, brackets and fixings
- Check for any rope damages
- Check if rope attachments/cross points are in place
- If necessary, clean or wash the equipment

Poles, structures and furniture (table-benches)

- Check for any damages and the stability of poles and structures (including the 'O'-point mark)
- Check for splinters, cracks or rot in the wood
- If necessary, clean or wash the equipment

Springs/seasaws

- Check and if necessary re-tighten the bolts and brackets
- Check for any damages and the stability (including the 'O' mark)
- If necessary, clean or wash the equipment

Cableways

- Check, and if necessary, re-tighten bolts, brackets, chains, shackles and wire
- Check for any damages and the stability (including the 'O' mark)
- If necessary, clean or wash the equipment



Roundabouts

- Check, and if necessary, re-tighten bolts, brackets and fixings
- Lubricate the bearings
- Check for any damages and the stability (including the 'O' mark)
- If necessary, clean or wash the equipment

Boards

- Check, and if necessary, re-tighten bolts and brackets
- Check for alga, fungus and beginning of rot
- Check for any damages and the stability (including the 'O' mark)
- If necessary, clean or wash the equipment

Robinia poles (natural playgrounds)

- Check, and if necessary, re-tighten bolts and brackets
- Check for any damages and the stability (including the 'O' mark)
- Check for formations of cracks

If a wood crack is larger than 8mm, it should be filled

- Check for alga, fungus and beginning of rot
- If necessary, clean or wash the equipment

Steel poles

- Check, and if necessary, re-tighten bolts and brackets
- Check for any damages and the stability (including the 'O' mark)
- If necessary, clean or wash the equipment

Sun Sails

- Check, and if necessary, re-tighten bolts and brackets
- Check for any damages and the stability (including the 'O' mark)
- If necessary, clean or wash the equipment

INSPECTION - playground

Inspections must form the basis for preventive and corrective maintenance.

There are four types of inspections after the facility is built:

1. Post-installation inspection

The inspection is carried out, before opening the playground to the public. The purpose is to evaluate if the equipment supplied and installed confirms to the safety standards. This is done by an independent person.

2. Routine inspection (visual)

The purpose of the inspection is to identify obvious hazards in connection with use of the equipment. At places with a high usage or vandalism, it can be necessary with a daily inspection.

3. Operational inspection

The inspection is more detailed, than the routine visual inspection. You must control the operation of the equipment and the stability of it. This inspection must be carried out within a period of three months or as indicated by the manufacturer.

4. Annual inspection

The purpose of the inspection is to demonstrate the overall safety level for equipment, foundations and play area. The equipment must be inspected by a highly qualified and independent person.

To avoid incidents the owner **must** secure, that an appropriate plan for inspections is made for every playground equipment and every playground. The plan **must** take into consideration local circumstances and the instruction provided by the manufacturer, which can affect the necessary frequency of inspections.

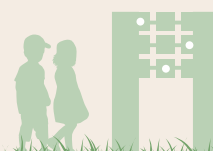
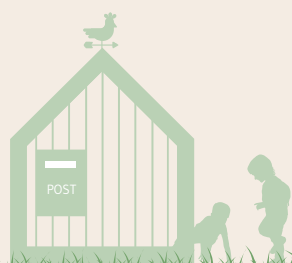
The plan must in addition include a list of the components, which must be controlled at the different inspections, as well as a guidance to the methods used for the inspections, in accordance with EN1176 -1, pt. 6.1.

Below you will find forms and suggestions to three types of inspection. In case the inspection demonstrates serious hazards as regards to safety, the equipment must be secured against use, revoked or removed.

Please remember, that if a part of the equipment **must** be removed from the space, e.g. when preparing for a maintenance, any anchoring or foundation must be removed as well or shielded, in order to preserve the safety.

In cases, where the playground equipment is dependent of a single pole, at the inspection you must be extra aware of monitoring deterioration and whether it is necessary to take the equipment out before the ending of its service life.

At the next pages you will find suggestions to a maintenance plan. All documents including tenders, illustrations, invoice, and any building application, plan for mounting as well as the maintenance documents **must** be kept in a log.



Routine visual inspection log

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Operational inspection checklist

An operational inspection is a more detailed inspection to check the operation and stability of the equipment, with special attention to wear. This inspection must be carried out with an interval of 1-3 months, or in accordance with the manufacturer’s guidelines.

Date			
Produktbeskrivelse	Brand	Model	Year

Remarks

Stability and anchorage of the equipment (re-tightening of fixings, bolts and brackets)	Corrosion, rot and fungus
Surfaces and surface treatment	Surfacing
Sharp or pointed objects	Wear on any moving parts
Others	



Annual inspection

An annual inspection should be carried out at least every 12 months to keep the general safety level for both equipment, foundations and surfacing. Check for weathering, sign of rot or corrosion, possible changes in the safety level of the equipment because of repeating repairs, supplementary or replaced components.

This inspection of the equipment must be carried out by qualified staff in accordance with the manufacturer's instructions.

Conditions:

Inspection is carried out according to the following standards:

Standard no.	Standard subject	Standardens ikrafttræden
EN 1176 part 1	General safety standards	Oct. 2017
EN 1176 part 2	Swings	Oct. 2017
EN 1176 part 3	Slides	Oct. 2017
EN 1176 part 4	Cableways	Oct. 2017
EN 1176 part 5	Roundabout	Oct. 2019
EN 1176 part 6	Seasaws	Oct. 2017
EN 1176 part 7	Maintenance, inspection, installation	April. 2020
EN 1177	Surfacing	Jan. 2018

The inspection is made by using test tools as indicated by EN 1176-1. 2017

Inspection conducted by: _____

Documentation

The following documentation must be available when necessary for maintenance, inspection or repair, as well as in case of an accident.

- a) Inspection and test report
- b) Inspection and maintenance specifications
- c) Maintenance guidelines, if relevant
- d) Registrations made by the responsible operator of every inspection and maintenance work
- e) Specific construction and tender documents
- e) Specifikke konstruktions- og udbudsdokumenter