

GENERAL PLAYGROUND INSTALLATION MANUAL

Please read the entire manual to become familiar with the provincial requirements
 This manual is based on PN- EN 1176.

1. Playground Manual

1.1. gaps - it is essential that equipment should be constructed so that hazardous situations including : gaps, open-ended gaps (e.g. U-shaped) openings and gaps with a diameter of 8 to 25 [mm] and 89 to 230 [mm] to prevent the risk of fingers, foot, whole body , head, neck or clothing entrapment;

1.2. side panels – must be installed correctly and of adequate height, from 600 to 850 [mm] measured from the foot position;

1.3. Playground surfaces- all playground equipment with a fall height more than 600mm above playing surface level and / or requiring that the user's move as swings, slides, rocking equipment, lifts, carousels, must have a certified impact absorbing surface beneath and around it to help minimise serious head or other injuries.

Material ^a	Grain size	Minimum depth ^b	Critical fall high
	[mm]	[mm]	[mm]
Turf/topsoil			$\leq 1000^d$
Bark	20 to 80	200	≤ 2000
		300	≤ 3000
Wood chips	5 to 30	200	≤ 2000
		300	≤ 3000
Sand	0,2 to 2	200	≤ 2000
		300	≤ 3000
Gravel	2 to 8	200	≤ 2000
		300	≤ 3000
Other materials and depths	As tested to HIC (see EN 1177)		Critical fall height as tested

^a Materials properly prepared for children playground use .

^b For loose particulate material add 100 mm to the minimum depth to compensate for displacement

^c No sility or clay particles. Grain size can be identified by use of a sieve test, such as EN 933-1

^d Turf provides some cushioning properties and can therefore be used as a cushioning surface to a height of 1 meter fall

Safety surface and free height of fall - playground safety surfaces are designed exclusively to reduce the risk of serious injury associated with falls from playground equipment. Free height of fall refers to the distance between any platforms or hanging points on a playground item and the ground below. European Standards recommend a maximum free height of fall of 3 m. For any equipment that has a free height of fall more than 0.6m, European Standards recommend that the fall zone under-surfacing must meet certain minimum impact attenuating requirements. The size of the safety zones shall be determined by using the following guidelines:

- If the fall height does not exceed 0.6 [m] safety zone is not needed.
- if the height of fall is from 0.6 to 1.5 [m] the safety zone must have 1.5 [m] width.
 - if the height of fall is over 1.5 [m] the safety zone width must be calculated by formula: $LS.b. = hu \times 0.667 + 0.5$ [m] where:

$L_{S.b}$ –zone length ;

h_u –fall height ;

1.4. safety zones for swings:

– if the seat width is not bigger than 500 [mm] – safety zone should be at least 1.5 [m] wide, and if the seat size is bigger than 500 [mm] – safety zone is increased by the difference between the 500 [mm] and the actual seat width.

– To calculate the length of the safety zone – you have to tilt the seat at an angle of 60 degrees from the vertical position and measure 2.25 [m] in a horizontal line from the seat center. The value of 2.25 [m] may be reduced to 1.75 [m] when synthetic safety surface is using.

1.5. roundabouts - the width of the safety zone should be at least 2 [m]

1.6. slides safety zone length should be measured from the end of the slide and it should be at least 2 [m]. Width of the safety zone has to be measured from the side of the slide and it should be at least 1 [m] to the slide height up to max. 0.6 [m]. With the slide height from 0.6 to 1.5 [m] should be 1.5 [m]. With the slide height over 1.5 [m] safety zone can be calculated from the formula:

$$LS.b. = hu \times 0.667 + 0.5$$
 [m].

2. The installation

Prepare the ground, before mounting the play units. Spread units on the mounting places with reasonable distances before installation.

Dig the holes for the foundation depending on the type of foundation with the

maximum depth up to 1 [m]. Prepared holes should be narrow, to ensure maximum stability of the device (see the anchors installation in included manual supplied with each device.) After setting the poles , ground around should be compacted to obtain the greatest possible stability. The next step is to install the other components in the order given in the supplied installation instructions.

If you have any problems during installation please do not hesitate to contact us at phone number + 45 32 82 10 33

3.Maintenance and Inspection:

The responsibility for the safety of the playground include:

- Daily surface control especially around the equipment and removal of contaminants that may cause injury to users. Loose stones, planks of wood, sticks and other loose objects must be moved permanently away from the vicinity of the playground.
- Visual inspection of equipment especially on playgrounds where the devices are heavily used and exposed to vandalism;
- Functional control devices every 1 to 3 months with special attention on the factory sealed part and devices whose stability is dependent on a single column;
- main annual inspection with particular attention to the factory sealed parts and devices that stability is dependent on a single column;
- In order to preserve the life of wood used to manufacture the product at least once a year all the wooden parts should be impregnated. If the wood has the splinters, there must be removed immediately;
- Check all screws in timber and metal equipment . Any slacks should be removed to ensure maximum user safety and durability of the device. Any damaged blind bolts elements should be supplemented or replaced by new ones;
- Rotating parts should be oiled at least once a year.

PLEASE NOTICE if the playground equipment shows cracks, protruding nails or damaged components and these cannot be repaired, the equipment must be declared out of use.

Please advise our representative about the incident, in order to take any complaint procedure.

Items requiring more detailed repair should be rendered inoperable if a danger exists to users of that equipment.