In-ground trampolines for public spaces

Lapta, Lda.

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# Product data sheet

In-ground Lapta trampolines for public playgrounds, combining vandal resistance with the safety and reliability essential in public spaces.

Perfect for:

- public playgrounds
- ParkFit and urban public areas
- commercial properties
- private use

| Shape | Model | Jumping mat size, mm | Visible size after installation, mm | Overall frame sizes, mm | Netto weight, kg | Junpers max. weight, kg |
|---|---|---|---|---|---|---|
|  | **E100** | 1000x1000 | 1140x1140 | 1560x1560x400 | 148 | 130 |
|  | **E125** | 1250x1250 | 1390x1390 | 1820x1820x400 | 168 | 130 |
|  | **E150** | 1480x1480 | 1620x1620 | 2020x2020x400 | 205 | 130 |
|  | **C100** | Ø 1000 | Ø 1140 | Ø 1560x400 | 145 | 130 |
|  | **C125** | Ø 1250 | Ø 1390 | Ø 1820x400 | 165 | 130 |
|  | **C150** | Ø 1480 | Ø 1620 | Ø 2020x400 | 200 | 130 |
|  | **S100** | 1000x1000 | 1140x1140 | 1560x1560x400 | 150 | 130 |
|  | **S125** | 1250x1250 | 1390x1390 | 1820x1820x400 | 170 | 130 |
|  | **S150** | 1480x1480 | 1620x1620 | 2020x2020x400 | 210 | 130 |
|  | **T300** | 3000x1000 | 3140x1140 | 3560x1560x400 | 295 | 120+120+120 |

# Technical description

General:

- Design complies with EN 1176 requirements.
- Intended for year-round outdoor use; no need for protection against precipitation, mud, etc..
- The frame construction prevents access to the springs without special tools.
- Age category: 3 years and older
- Operating temperature: -40…+50 °C

Construction:

**Frame:** welded from 3 and 4 mm sheet steel, hot-dip galvanized.

**Rubber jumping mat:** one-piece mat made of frost-resistant and UV-resistant rubber, minimum thickness 7 mm, reinforced with polyester fibers. Equipped with anti-slip tread and anti-damping perforations. Available in colored version. Tread pattern can be costumized.

**Strap jumping mat (optional):** woven and stitched from 2 mm polyester straps, optionally can be coated with colored polyurethane with anti-slip effect.

**Springs:** cylindrical, galvanized, diameter 29 mm, length 145 mm.

**Frame wearing protection:** springs hook to the frame through bronze bushings mounted on a replaceable plate which eliminates wear on the frame.

**Safety edging:** rubber edging fully covering the frame edge, injury-protecting and providing a smooth transition to the seamless playground surface. Edging height at the transition point: 30 mm. Custom border colors available on request.

**Impact protection:** the top of the trampoline frame can optionally be covered with shock-absorbing rubber surfacing.

# Options

**Jumping mat options**

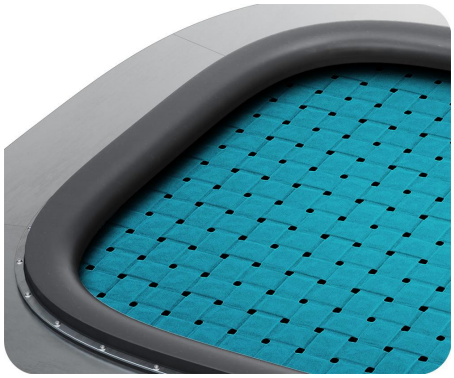
**Rubber-based mat:** highly vandal-resistant and long-lasting. Ideal for heavily used public spaces without supervision. Customized pattern.

**Straps-based mat:** the most lightweight and comfortable mat, offering more dynamic bounce; best suited for young children in educational settings and commercial spaces with weak supervision.

| | Wear resistance | Vandal-proof | Costum pattern | Bounce dynamics |
|---|---|---|---|---|
| **Rubber-based mat** | ●●●● | ●●●● | ● | ●●●○ |
| **Straps-based mat** | ●●○○ | ●●○○ | ○ | ●●●● |

## Mat coating

The jumping mat can feature a colored polyurethane coating 2 mm thikness, offering excellent anti-slip properties and UV resistance.
Our proprietary application technology ensures adhesion stronger than the mat itself. Colors are available from the standard palette or can be customized.



| | |
|---|---|
| Thickness | 2 mm |
| Elasticity temperature range | -35...+50 °C |
| Anti-slip temperature range | -18...+50 °C |
| Custom color range | RAL catalog, to be confirmed |
| Standard colors | |

## LED lighting

Optional LED lighting built into the rubber safety edging.

**Voltage:** 24 V (~220 V adapter is included - for outside installation)

**Power:** 40–100 W, depending on trampoline size

**Luminous flux:** 2200–5000 lm, size-dependent

**Color temperature:** warm 2700 K

**LED type:** LED strip with parallel–series connection in a sealed light-diffusing housing

**Protection:** IP67 (dust- and waterproof)

**Operating temperature:** –30…+45 °C

**Service life:** up to 36,000 hours

## Impact protection

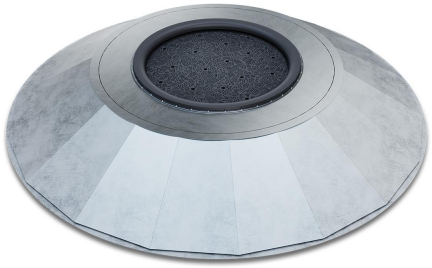
Impact-absorbing rubber covering fully enclosing the top of the frame.

Can be applied when the trampoline is installed on playgrounds with loose-fill surfaces, grass, rubber tiles, or other surfaces where covering the frame is not possible.

**Thickness:** 30 mm

**Available options:** standard SBR granules, or on request EPDM/TPV granules, cork granules, mulch, etc.

**Artificial hill**



Artificial Hill (geoplastics) – a modular metal structure designed to allow trampoline installation above the surface in locations where in-ground installation is impossible or impractical.

Designed for:

- rooftops or above shallow underground parking with limited slab depth
- playgrounds with loose-fill surfaces
- areas with a high groundwater level
- temporary playground installations, or in other cases where ground embedding is not feasible

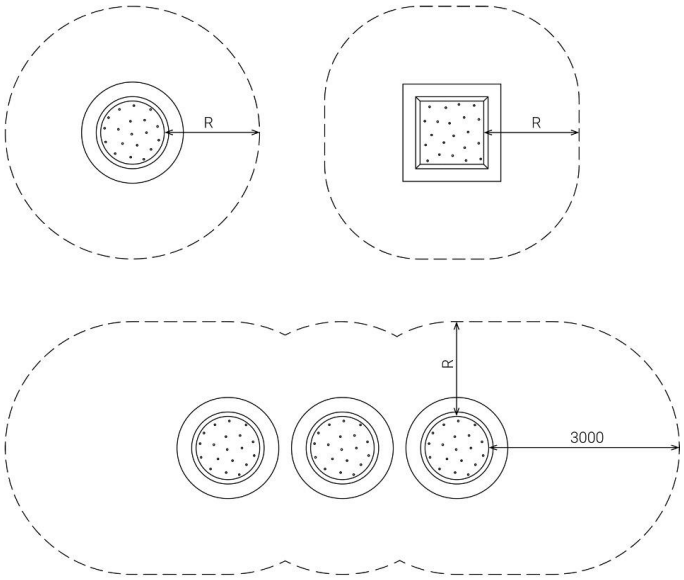
The hill consists of 6 galvanized steel sectors that can be connected together. The modular design allows for easy transport and storage.

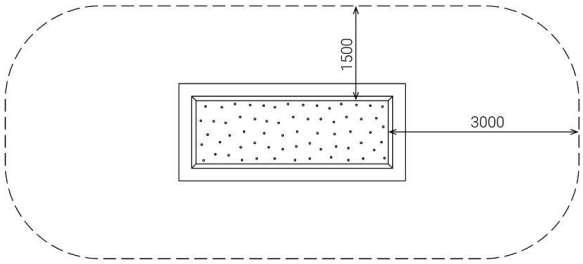
**Optional:** the hill can be covered with an impact-absorbing rubber coating 30 mm thickness.

**Surface options:** standard SBR granules, or on request EPDM/TPV granules or cork granules.

Applicable only for round trampolines: C100, C125, C150.

**Free space**
(according to EN 1176-1)




Depending on the size of the trampoline, a free zone with radius R must be provided around the trampoline, measured from the edge of the jumping mat. This zone must remain free of other play equipment, trees, foreign objects, as well as walkways, paths, and pedestrian routes.

The radius R of the safety zone depends on the jumping mat area and is defined as follows:

| Model | Free space size R | | |
|---|---|---|---|
| | 1,5 m | 2,0 m | 3,0 m |
| E100 | V | | |
| E125 | V | | |
| E150 | | V | |
| C100 | V | | |
| C125 | V | | |
| C150 | | V | |
| S100 | V | | |
| S125 | | V | |
| S150 | | V | |
| T300 | V | | V |

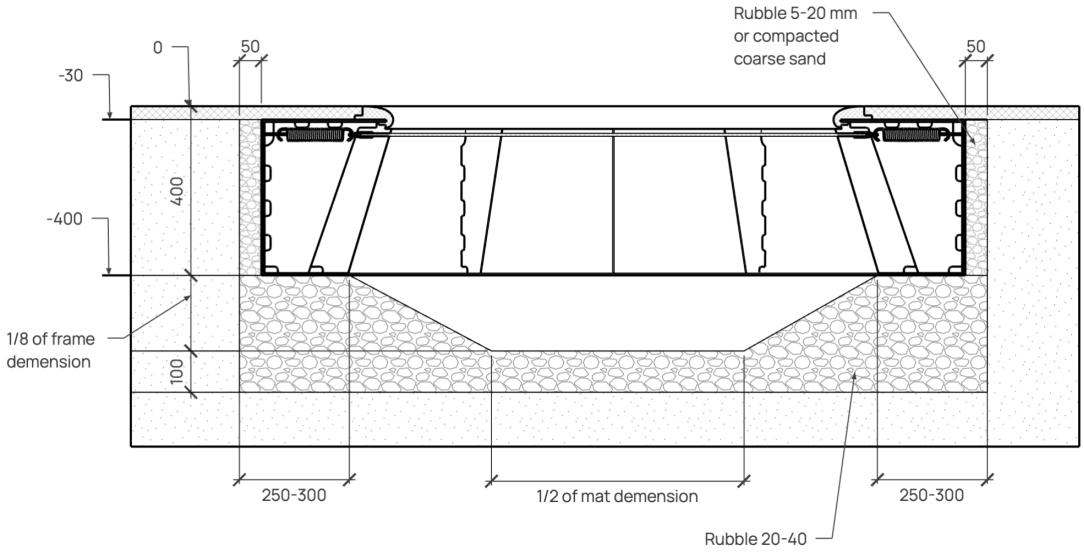
It is recommended to use seamless rubber surfacing, natural grass, or other impact-absorbing surfacing providing fall protection up to 1 m as the free zone covering. Using loose-fill impact-absorbing materials is not recommended, in order to avoid contamination of the trampoline pit with loose fractions and exposure of the trampoline frame as the material compacts. In such cases, the trampoline should be installed with an artificial mound.

When installing a group of trampolines not separated by other play or landscape elements, walkways, or pedestrian routes, the free zones may overlap. For a group of trampolines installed in a line, as well as for the T300 trampoline, the safety zone in the longitudinal direction of the group or trampoline must be at least 3 m from the edge of the jumping mat.

The space up to 3.5 m above the trampoline must also remain free of trees, power lines, and other obstacles.

**Installation**

1. For summer use
and installation in low snow areas




2. For use in areas with significantly
snowy winters