Slacklining in Schools - Indoor

January 2016, V2

Recommendations

Purchasing

- Be considerate of efficient use of space when planning anchor points. Make sure to provide opportunities to rig different lengths and heights, providing a good mix of slacklines.
- Before buying indoor slackline solutions, it is recommended to consult with experts, as each gymnasium is constructed differently (types of walls, type of concrete, steel or concrete pillars, ground anchors, etc.).
- Consider other potential users (local associations, training groups) of slackline setups in the gymnasium.
- To avoid bringing dirt into the gymnasium, provide dedicated indoors and outdoors slackline equipment. Additionally, anchoring materials used indoors and outdoors are usually different.

Suitable Anchors in Gymnasiums

Slackline poles

- The most commonly used anchoring system for gymnasiums. They can be used to set up entire slackline parks for large groups.
- Obtain information about the type and quality of available holes in the ground that are needed to serve as anchors for the poles.
If repurposing poles that are normally used to hold gymnastics bars, only those that reach at least 25 cm into the ground can be used to attach beginner slackline systems.

- Do not attach the slackline higher than 50 cm above the ground.
- Attach the anchoring material as low as possible by redirecting the line using a gymnastics box ("Schwedenkasten", friction protection is then necessary; see below) for example. The angle between the anchor attachment and an imaginary horizontal line should never exceed 30 degrees, as poles can otherwise be pulled from their holes (be mindful of the shape of the pole that goes into the ground; for example, 30 degrees are already too steep for poles with conical inserts).
- It is important to align the slackline to the center of the pole to avoid rotation of the pole.

Information on available anchors and their installation in gymnasiums can often be obtained from gymnasium equipment manufacturers, structural engineers, architects or from whoever installed the available ground anchors.
Wall Attachments for Slacklines

- Suitable wall attachments will withstand at least 40 kN in the direction of the load (according to the recommendation in DIN 79400).
- Installation should be performed by experts and the recommendations of manufacturers should be followed. Video tutorials are often available online. Seek professional advice.
- Impact protection guidelines for walls need to be adhered to. The “principle of flat walls” should be kept in mind and wall attachments therefore installed in niches, a recess or next to already protruding objects (e.g. goal posts).
- Many wall attachments use express anchor screws. Be mindful of the quality of the concrete in the wall (no rough concrete containing visible rocks). When drilling holes, be mindful of water and electricity lines as well as steel reinforcements. Professionals can use detection equipment to avoid these.
- Wall attachments can only be used on flat concrete walls (no panelling) that are at least 25 cm thick.
- Observe the edge distance requirements according to the recommendations of the manufacturer. The lateral strength of a wall is largely dependent on the amount of steel reinforcement in the concrete. In general, it is recommended to be at least 10 cm away from any edges.

![Fig. 2 & 3: Two examples of wall attachments. (Sources: SlacklineTools left, Slackitivity right)](image)

All materials used to attach slacklines and anchoring materials need to have rounded edges. The edges of standard metal parts are often dangerous as they can rapidly cut through synthetic materials. Be aware that metal-to-metal connections are also subject to wear. Make sure to optically and haptically inspect connectors regularly.
Other Attachments

Some gymnasiums offer simple ways to anchor slacklines. For example, load-bearing steel or concrete pillars can be wrapped with industrial slings when using appropriate protective materials. Consult and discuss options with a local expert.

Shortening and Redirection of Indoor Slacklines

In gymnasiums it is often important to redirect or shorten slacklines using multi-part gymastics boxes, small boxes ("Schwedenkasten"), or A-Frames. Using this equipment can make several shorter slacklines from one long line in an easy way. This can allow for a more efficient use of available space and also has methodological advantages. Always protect any padding the boxes may have. Also observe the manufacturer's manuals for poles and other equipment, for example regarding appropriate load angles.

Fig. 4 (left): One option to protect the padding on a gymastics box when used for redirection (source: SlacklineTools).
Fig. 5 (right): A-Frames can also be used to redirect slacklines in indoor setups (source: slack.fr).
Unsuitable Anchor Points in Gymnasiums

There are several installations in gymnasiums that are NOT suitable for setting up slacklines:

- Never use wall bars to attach a slackline, as this will damage single bars or the entire installation.
- Any poles that are normally used to support netting of any kind (volleyball, badminton, tennis, soccer goal posts). These will likely bend under the load of a slackline.
- Ground anchors for tensioning tennis nets.
- All types of wall-mounted gymnastics and sports equipment.

Using Mats for Protection

- In gymnasiums, it is recommended to protect slacklines set up higher above the ground with mats.
- Cover a large area (in particular to the sides of the line) in mats for high slacklines.
- The edges of mats and gaps between mats increase the risk of injury! It is advisable to use mats that can be connected with velcro.

Fig. 6: A redirected and thus shortened slackline (note the padding at the point of redirection). The slackline poles are subject to angled loads. The falling area is widely protected with mats.