

How to Choose Simulator

There is nothing to compare with those emotions of skiing - the feeling of lightness from sliding, adrenaline from thirst of speed and unexplored tracks, thrill of feelings and sense of full life. Anyone, who has ever derived pleasure with speed on the track and steep slopes, managed to cope with the body and trusted the arc of the skis, would not be able to refuse of this delight and pleasure.

The Ski Simulator designation:

The simulator is primarily designed for mastering of basic ski skills, improving technique, gain bright and unique emotions.

WHAT AFFECTS IN THE CHOICE OF SIMULATOR:

While choosing the ski simulator, it is important to answer three key questions:

1) Who is my customer

Understanding the specifics of your target audience, its motivation of club attendance as well as its requirements for the training will make 90% of your ski club success. The answer on this question will form the basis of the club concept and will directly affect the choice of *functional characteristics and capacity* of the simulator.

2) Location of the ski club

Commercial success of the club is directly connected to the location, which in its turn depends on the ability to install the simulator in the premise.

Often happens that there is perfect premise for the club, but it is impossible to install the simulator.

Choosing the premise, it is necessary to consider its size, fire safeness, loading on the overlaps of the building and simplicity of logistics / installation.

3) Expenses

This issue directly affects the profitability and payback period of the club.

It is important to consider both capital expenses and operating costs associated with the maintenance of the simulator during exploitation.

1. Who is my customer

The choice of simulator depends on:

- * The professional level of customer ("beginner", "amateur", "experienced", "professional") - it affects the functional characteristics of the simulator;
- * The amounts of simultaneous riders on the simulator (1, 2, 3 persons) - it affects the throughput capacity of the simulator and, accordingly, on its payback.

The professional level of the customer:

According to the professional level, the customers are divided into: "beginners", "amateurs", "experienced", and "professionals". Each category of customers requires certain riding technique and focuses on the demands of training that affect the frequency and duration of club visit.

Riding Techniques:

There are several major skiing techniques: "plow", "addl steps", "mogul", "avalman", "parallel skis with slipping of heels" and "carving". Each technique requires the certain speed and the angle of track inclination, but all techniques without exception require skis and snowboards with the sharp edges (!).

Each technique is most relevant for the certain level of professionalism:

- * For "beginners" – "plow" and "addl steps"
- * For "amateurs" - "avalman", "parallel skis with slipping of heels" and small elements of "carving"
- * For "experienced" and "professionals" – "carving" and "carved turn";
- * **However, every skier strives to master the carving technique!**

Why does carving?

Carving - is the most widespread and modern skiing technique. This is the most beautiful and perfect skiing technique, the dream of all skiers.

How does it work:

- * All modern alpine skis have a side cut (waist of the ski), the main purpose of which is to make "carve turns." It is possible to train some elements of carving technique at a speed up to 25 km / h, but it is impossible to use a full carving - "carve turns." The "carve turn" (or "pendulum principle") - it is a beautiful, spectacular and a great feeling, when not a skier rides the skis but skis are "driven" the skier.

- * It is necessary to overcome the critical speed and create centrifugal force for riding the carving technique where the process of turn is made by the side cut of the ski, but not the skier. The critical speed, starts from 31.5 km / h, and at the 10 ° inclination, also it depends on the characteristics of the skis.
- * When $V < 31,5$ km / h (less than critical) you will have technique of "parallel skis": the process of turn occurs with the slipping of heel + in order to make a turn, you will have to create pressure on skis.
- * When $V \geq 31,5$ km / h (higher than critical) it is possible to ride the carving technique "curve turn": the moment of entering into the turn is automatic and with natural dynamics of movement along the arc - in order to make turn, the skier does not make an effort on skis.
- * Entering the turn, skier can make almost any angle of the skis edges, go deep into the arc, and eliminate errors, since almost any move of the body inside the arc, would be compensated by increasing of the centrifugal force.
- * As a result, it turns out the most exciting and easy sliding - carving "carve turns" («pendulum principle»), the aim of all winter sport fans!

Carving (carve turn) is used by some 50% of amateurs + 100% of experienced skiers + 100% of professionals + most technically advanced slalom riders. The "curve turn" is the main INTEREST, awe and admiration of the target audience. This technique of skiing is the aim of all beginners and amateurs. This is beauty, self-assertion, and - most important - it is a feeling of lightness and simplicity of sliding on the ski resorts and tracks!

There are key factors that affect the equipment and effectiveness of training:

- * Sharp edges - affect the control of skis, riding technique and safety in the real mountains. The riders use only sharp edges on the real tracks.
- * Speed - each technique require different speed. The average speed on the tracks in the mountains - up to 25 km / h: it the speed of beginners and 50% of the amateurs. The speed of advanced techniques (carving) should be more than 30 km / h: it the speed of 50% amateurs, 100% experienced, and professionals.
- * The angle of the platform inclination - helps to prepare for track of any complexity. The more complex the real tracks is - the higher the angle of inclination.
- * The motion of platform - provides trainings in the conditions that are maximally close to the real relief of the real track. Creates the feeling of overloading, bumps, jumps. It stimulates the extreme emotions and adrenaline. The more complex the real track is - the harder its relief.

How does this applies to different categories of customers:

	Beginner (20%)	Amateur (25%)	Experienced (35%)	Professional (20%)
Time of training + skill mastering	1,5-4 hours or 10-20 trainings	5-8 hours or 30-40 trainings	6-... hours or from 40 till endless trainings	The time of skill improving not limited (!)
Purpose of attending	Basic skills/ the correct technique	Improving technique + interest	Improving technique + interest + adrenaline	Improving technique + interest+ adrenaline
Ski technique	Plough, addl steps	Avalman, parallel skis with slipping of heels and small elements of carving	Carving, carve turn	Techniques improvement, endurance
Complexity of the track	Green	Green, blue	Red, black	Red, black
Sharpening of Edges	Blunt	Sharp	Sharp	Sharp
Speed	$V = 5-15$ км/h	$V = 15-25$ км/h, 50% amateurs = $V \geq 31,5$ км/h	$V \geq 25$ км/h & $V \geq 31,5$ км/h	$V \geq 35$ км/h
Angle of platform inclination angle	12°-14°	13°-15°	13°-22°	13°-22°
Platform moving	static	Dynamic: up and down	Dynamic: up and down, left and right	Dynamic: up and down, left and right
Adrenalin	No need in Adrenaline; calmness is necessary	It is important to make the track harder, more interest, slight adrenaline	Realistic conditions are important, high speed, adrenaline and extreme emotions	Complexity and realism of the track are Important, adrenaline and extreme emotions
Most suitable simulator	PRO1 / PRO2 / PRO3	PRO1V / PRO2V / PRO3V	PRO1D / PRO2D / PRO3D	PRO1D / PRO2D / PRO3D

NOTE! The basic skills require 10-20 trainings. The client either moves to the next skill category ("amateur", "experienced", "professional"), or leaves the club. Strategic Priority is focused on "amateurs", "experienced" and "professionals" - they make up to 80% of the club customers. It is important to consider when you choose the simulator, because the customers' satisfaction is the key aim of the stability and commercial success of the club.

What will affect the long-term and frequent trainings of the customer:

- 1) **Permanent INTEREST in trainings due to the intention of riding in the carving technique, "carve turns" at a speed more than 31.5 km / h and widespread use of simulators' capabilities;**
- 2) **Permanent ADRENALINE due to unknown track, degree of slope and high speed;**
- 3) **Maximal similarity to the reality of track.**

The interest and adrenaline are increasing the amount of trainings > than 1000 Trainings / 1 person. (means > 300 times more than the number of required trainings to obtain basic skills). The duration of skills improving, due to the mix of "Interest + Adrenaline" - is unlimited.

What causes interest and adrenaline:

Interest: carving "carve turn" speed more than 31.5 km / h + sharp edges + maximal realness

Adrenaline: speed more than 30 km / h + sharp edges + angle of inclination more than 17° + platform movability "up-down-left-right" + tracks programming.

If you will correctly provide this mix of "Interest + Adrenaline", the club would receive the permanent customer, which will attend the club frequently. It affects the profitability and commercial success of the business!

The flow capacity of the simulator:

The flow capacity of the simulator shows the quantity of simultaneous riders and comfortable riding / training on one simulator. The higher flow capacity of the simulator is, the better club works with the flow of customers (especially in high season) and faster payback period.

In the names of PROLESKI™ ski simulator models (Pro1, Pro1V, Pro1D, Pro2, Pro2V, Pro2D, Pro3, Pro3V, Pro3D) the numeral indicates the number of persons, which can comfortably ride / train on the simulator.

PROLESKI™	Working length of the Ski carpet,m	Number of simultaneous riders		Number of simultaneous riders of «PROLESKI ski school"	
		skis	snowboards	skis	snowboards
Pro1, Pro1V, Pro1D	3	1	1	1	1
Pro2, Pro2V, Pro2D	6	2	1	3	2
Pro3, Pro3V, Pro3D	9	3	2	6	4

NOTE! All PROLESKI™ simulators are developed in close partnership with professional sportsmen and ski coaches. All machines have self-sufficient basic equipment and wide range of options which allows interesting, effective and exciting trainings for each category of customers.

The quantity of simulators:

All customers are grouped in accordance to the skills in order to match the required simulation type and mode (see also Business in Short)

All the clients have different skill levels, goals and require various conditions of training. That is why, we divide customers in the group and spread on different instructors with different modes of tracks and different functionalities. Quantity of simulators also depends on the ability to provide service for the customer. (For details, see the file "Business in brief")

2. The location of the ski club

The success of business depends on the location of the club, and location on the ability accept the simulator.

The ideal locations are the Shopping Centers and Malls, with the high flow of target audience. Such buildings are designed in accordance with international construction standards, have own standardized dimensions and very demanding on the equipment.

Choosing the simulator, you should pay attention to:

- * Dimension of the simulator;
- * The level of fire protection;
- * The loading on the overlaps of the building;
- * Simplicity of simulators logistics / installation.

Dimension of the simulator: directly influences the choice of premise and the cost of rent: the more compact simulator is - the wider opportunities in finding of suitable premises and lower costs per 1 m² you have.

- * The height of the ceiling. All modern commercial buildings have 5-5.5 m. ceiling that is why it is important to take into account the height of the simulator at the top of the maximal angle of platform inclination.

PROLESKI™ Simulators are maximally "pressed" to the floor and perfectly fit into premises with the height of ceiling - 4.1 m.

- * **Width.** According to the international construction standards, the space between the columns of modern buildings is 6,000 mm at their axis, thus the width of the simulator should be no more than 5570 mm.

PROLESKI™ Simulators have an overall width = 5570 mm and perfectly fit into the premise with inter axle step of columns - 6000 mm.

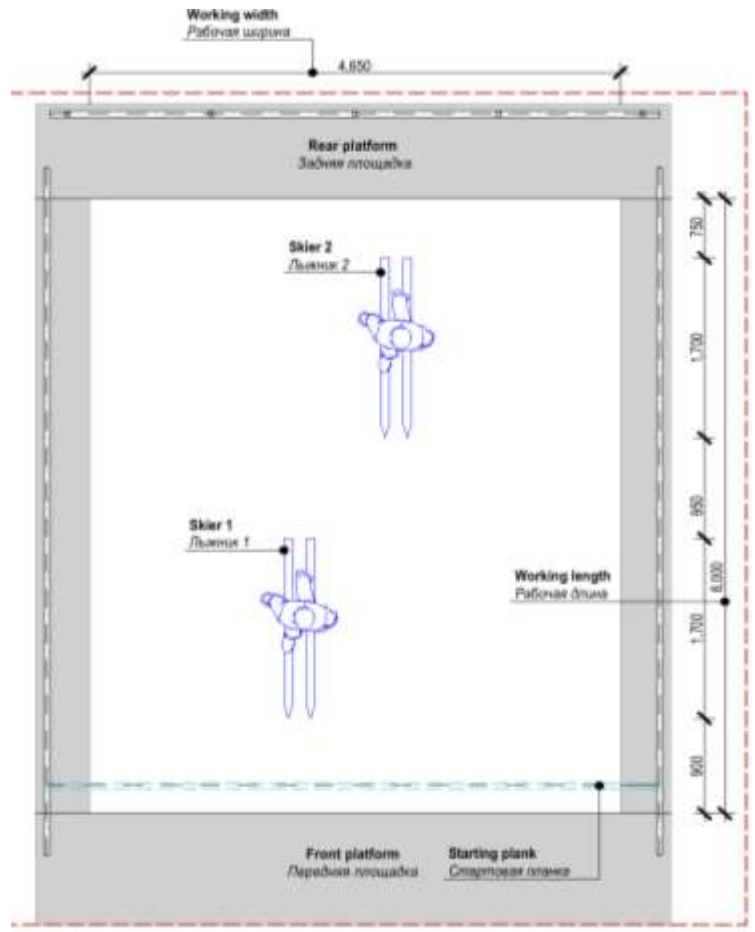
- * **Length.** Multiple testing of simulators with skiers and snowboarders of all qualifications have shown that 3 m. length of the ski carpet is enough for comfortable ride of one adult with the height 150-170 cm. Lower length is not comfortable, greater length - is impractical.

PROLESKI™ Simulators has the ski carpet length, equal to 3 meters.

for one person – 3 meters,
for two person – 6 meters,
for three people – 9 meters.

Fire safety: directly impacts on the ability to install the simulators in the commercial premises. All malls and shopping centers require equipment with high class of fire protection (!)

- * Due to "ball screw pair" (electric cylinders) lifting mechanism all **PROLESKI™ Simulators** have an increased fire protection class.
- * Does not require additional investments in creation of additional space for hydraulic station, as it does not required, unlike the simulators with the "hydraulics".



The overlap loading: too heavy weight of the simulator has an increased loading on the overlap and could threaten the architectural integrity of the building.

- * **PROLESKI™ Simulators** due to the use of light thin-walled sections and truss structures have more light weight, which significantly reduces the loading on the overlap. The platform for distribution of loading allows placing the simulator on any floor of modern building.
- * We have a great experience in distribution of the simulator's loading on the floor, up to 200 kg / m².
- * We design and produce own equipment, therefore we have an opportunity to fit the equipment in almost any (conditional) premise.

Logistics and installation: if the simulator has not disassembling construction, the logistics can require additional costs.

- * Disassembled design of **PROLESKI™ simulators**, allows you to carry the details through the standard door / window / stairs in any building and on any floor, without breaking walls and additional costs.

NOTE! All PROLESKI™ equipment is ideal for any premises and any floor of the building. Compliance with the international building norms and standards of commercial buildings. Additionally, we are able to create a simulator with the random dimension on customer's request: working surface up to 24 m. and working width up to 24 m.

3. [What are the expenses?](#)

Choosing **PROLESKI™** equipment you choose economic investments:

Lower capital spending:

- * High fire protection of the simulator - no additional protection of premise.
- * Period of ski carpet life 2.5 times longer due to the use of concentrate and automatic moisturizing system.
- * Extended warranty - up to 5 years.

Low installation costs:

- * Easy unloading and carrying the simulator inside due to delivery in unassembled form: divided parts and components. It is also possible manually carrying inside without special lifting gear.
- * Convenient carrying of all the components inside through standard doorways and staircases. There is no need to destroy the wall of the premise for the carrying inside the completely assembled simulator. Parts are produced according to the building standards, where the maximum size is 5m x 1m x 0,3 m. and weight - 80 kg.
- * Simple installation of the simulator without necessity to make rails in the ceiling for crane beams and making design work for them.

Current spending are lower due to:

- * Less power consumption:

Model	Working power consumption, kW / h	The actual work of the simulator (quantity of hours / month.)	Power consumption per month (kW / h)	
			from ...	till ...
Pro1	3,5	90 – 150	315	525
Pro2	6	90 – 150	540	900
Pro3	6	90 – 150	540	900
Pro1V, Pro1D	3,5	90 – 150	315	525
Pro2V, Pro2D	6	90 – 150	540	900
Pro3V, Pro3D	10	90 – 150	900	1500

- * Effective water consumption:

Pro1, Pro1V, Pro1D: 4-7 liters / 1 hour during maximal loading of the simulator;
Pro2, Pro2V, Pro2D; Pro3, Pro3V, Pro3D: 5 -15 liters / 1 hour during maximal loading of the simulator.

- * Rare and available Maintenance:

\$100 per year for one simulator

Organizational spending are lower due to:

- * Transferring of our experience through proven technology of business creation "from scratch" - franchising PROLESKI CLUB™.

NOTE! PROPERLY CHOSEN SIMULATOR, WILL HELP YOU TO SAVE FROM \$ 3000 / YEAR FOR 1 simulator.