

SOKOL™

A Holistic Training System

SOKOL™ is a game-changer for parachutist training. Featuring state-of-the-art equipment suitable for all skill levels. The system is tailored to both trainees and instructors, and can be used as a refresh exercise for pre-jump training or as an airborne instructor course.

So what services can users expect after purchasing the SOKOL™ parachute simulator?

Installation

Our team typically installs one SOKOL™ unit in approximately two hours. The desired training curriculum is then implemented followed by operator and maintenance training. At this stage, users can also request certain adjustments to chute dynamics. We also provide a Training Concept to ensure SOKOL™ meets the needs of individual training programmes.

Training

SOKOL™ can be used to train for dozens of jump scenarios. Whether simulating different weather conditions, landscapes and terrains or practising for night or group jumps, our system enhances muscle memory through fast repetition. In the time it would take a parachutist to perform one jump on an actual aircraft, SOKOL™ users can successfully complete ten attempts. SOKOL™ ensures parachutists are prepared to handle high-risk situations and execute landings safely and effectively in real-time.

Evaluation

Trainees typically report a significant increase in self-confidence after using SOKOL™. Not only that, landing accuracy also improves considerably. Our sophisticated evaluation and debriefing tool charts the progress of each trainee. Additional individual training for instructors is available upon request.

Technical Support

We provide preventive maintenance and a long-term warranty to ensure a durable and reliable product. And with our remote support ticketing system, users can avail of instant troubleshooting worldwide.

SIGMA

e.sigma, s.r.o.
Na poříčí 1047/26
110 00 Praha 1
Česká republika

www.esigma.cz



ISO 9001:2015



SIGMA



SOKOL™ Parachute Training System



Time and cost-efficient



Prevents injuries



Enhances skills



Mission-oriented

Realistic simulation



SOKOL™ boasts an immersive VR graphic engine with unrivalled features including state-of-the-art representations of weather conditions (clouds, fog, etc.), night vision goggles, and oxygen masks. All SOKOL™ parachutes are fully customisable to simulate the equipment used in real environments.

🚩 Mission planning tool

Using a variety of tools, instructors can create unique training scenarios that accurately match training content to real-life missions. SOKOL™ also provides a database of landscapes along with a wide range of models and objects. Toward delivering a truly realistic experience, SOKOL™ offers instructors different simulated weather conditions, options to practise group and night jumps, and a range of equipment including altimeter, AAD, GPS device and compass.

👤 Geo-specific terrains

Our database features a wide variety of terrains from natural landscapes to urban environments. Users can order individual 3D landscapes to designate specific airfields, cities or training areas.

🪂 Custom canopies

All chutes are modelled on the original dynamics specified by the manufacturer. Additionally, users can alter parachute parameters to simulate the exact dynamics of each chute. All chute markings, dynamics and shapes can be fully adjusted by the on-site operator.

- round canopy • 7-cell ram chute • 9-cell ram chute

🛑 Malfunction training

Fatalities due to malfunctions are typically caused by delayed reactions or emergency procedure errors. Trainees receive personalised training in handling a variety of emergency situations. With a focus on situational awareness and readiness, SOKOL™ provides trainees with a safe environment to repeatedly practise multiple malfunction scenarios.

📺 Debriefing tools for instructors

For evaluation purposes, instructors are provided with multi-angle views and detailed entries on position, speed, orientation, altitude, and state of control elements. All data on previous jumps are stored in a log file that can be retrieved and analysed at any time.

🕒 Simulating a real-time experience

SOKOL™'s unique hardware features ensure a realistic kinesthetic experience. We provide suspended harness, wind modules, force feedback simulation, free-fall sensor, networking options as well as a robust steel superstructure and modular construction as standard.

✓ Safe to use during the COVID-19 pandemic

👤 Calibration-free advanced tracking

The system can be used by any trainee without any calibration issues. Body tracking simulates realistic steering during free falls, which boosts confidence in preparation for real jumps. Tracking devices are positioned beneath the jumper and come fully calibrated with no adjustments needed.

🎯 Realistic force feedback

Parachutists need to train their bodies to respond to the constant dramatic changes in movement that can occur during free falls. Jumpers practise manoeuvres related to chute steering, turbulence adaptation and malfunction training.

👁️ High-resolution VR goggles

Each SOKOL™ unit is equipped with a suspension harness and a head-mounted display as standard. The system is compatible with all types of VR goggles including 4K. Our state-of-the-art communication system facilitates seamless interaction between instructor and trainee during jumps.

🎯 Landing training

Most parachute jumping accidents occur due to improper landing. Parachutists trained using SOKOL™ are able to quickly recognise objects and landing targets, helping them to adopt correct landing procedures. Trainees also practise hard landings to simulate the intensity experienced during real jumps.

🌀 Wind simulation

Wind plays a crucial role throughout all stages of a jump, but especially on landing. SOKOL™ uses wind blowers to provide tactile feedback on wind speed, allowing jumpers to accurately estimate landing trajectories.

👤 Group jumps

Trainees also practise group jumps with a focus on adopting proper and safe patterns of behaviour. Using SOKOL™'s advanced communications system, the on-site instructor relates the procedures required for group jumps. Parachutists learn how to interact as part of a group, manoeuvre together during free-fall and avoid collisions to ensure a safe environment.

📺 Remote training

SOKOL™ provides remote training, enabling trainees to take part in simulations from different geographic locations. In this way, participants can join remotely from separate rooms in the one facility or even via cross-border international training projects.

