



High-altitude training

Climbing the "Matterhorn" in Berlin

The oxygen content of the air at sea level is 20.9 percent, and the common flatland dweller is accustomed to breathing air at this concentration. When someone living at 35 metres above sea level rushes off on holiday to the Alps they become a little short of breath at first. With increasing height, the air gets thinner because of the falling air pressure, there is less oxygen and adaptation and acclimatisation is needed. After a few days, even flatland dwellers can go mountain walking and enjoy the scenery because their bodies slowly adjust to the changed

conditions. The number of red corpuscles increases to compensate, boosting the supply of oxygen in the blood.

Body tuning

When preparing for important events, serious athletes take advantage of this effect with selective stamina training at extremely high altitudes. When they descend to moderate altitudes to take part in the competition, the haemoglobin-enriched blood functions like a turbocharger, significantly increasing the body's performance.

High-altitude training can be simulated at normal altitudes by depleting the oxygen in the air. Berlin's "Sport Oasis" is the first public fitness centre to offer high-altitude training. In a 43 square metre room with equipment for training the heart and lungs, altitudes of 1000 to 4600 metres can be simulated by selective depletion of the oxygen in the 120 cubic metres of air in the room. 14.9 percent oxygen content corresponds to a height of 2500 metres above sea level, and at 12.8 percent, the athletes are already hitting the 3000-metre level.



Haemoglobin-enrichment for everyone

The beneficiaries are not just serious athletes but anyone who wants to increase their personal perform-

ance and well-being without too much effort – a cardio-vascular system that is optimally stressed by selective high-altitude training can release reserves of energy that were previously unknown, particularly as the beneficial effects slowly unfold over several weeks.



Photos: himaxx

This KAESER system provides the "basic-material" for the "himaxx centre of high-altitude training"

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humidity between 40 and 70 percent as required. All this means that training not only takes place in the city dweller's normal surroundings but always under comfortable board in the Alps can guarantee that.

Clean compressed air and constant "weather"

The air in the fitness room is atmospheric air that has been compressed, depleted of oxygen to the concentration equivalent to the altitude at which they want to train and then decompressed again. At the "himaxx centre of high-altitude training" in Berlin a KAESER system has been given the job of compressing, drying and filtering the air. The result is so pure that even aller-

High-altitude training in Berlin with the help of KAESER compressors

Author: Klaus Dieter Bätz
Contact: klaus-dieter.baetz@kaeser.com

