

Concept sheet

Title	Ergonomic grip extension for optimal racquet handling of squash players
Acronym	HUNGrip
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Topic	squash, grip, ergonomics, shot skill advancement

The concept

The aim of the concept of HUNGrip is to develop an ergonomical grip extension for squash players to help in the advancement of shot skill through the adjusting the position and orientation of the palm and fingers on the racquet grip.

The need

Nowadays squash developed in a way that swing strength became less important while swing technique became more essential. Early in the learning phase of squash game bad racquet handling technique often fixes. Later this bad habit cannot easily be changed. Therefore it is inevitable to acquire the proper racquet handling of the novice players during the very beginning of the coaching.

Semi-advanced and advanced squash players continuously change grip handling to fine-tune the control of the swing. After swings performed with modified grip handling the player has to change back to the original grip handling. Sometimes the player fails to perform this change properly, which leads to miscontrolled grip handling and may lead to lose the rally.

There are a lot of professional players in the world and countless novice players who begin to learn squash with the aim of later becoming a professional. They all face at least one of the above mentioned problems.

State-of-the-Art

There are a few attempts to achieve the above mentioned goals, that are detailed below.

SmartGrip: This is the only ergonomic grip available on the market, however SmartGrip is designed exclusively for tennis, and therefore cannot be used for squash because of the fundamentally different racquet handling.

Patents US4226418, US5163685, US6305051, US4736950, US1917236, US5257782, US7458903, US4213609, US7896762: The following patents all suggest the fixing of the hand, thus preventing it from changing its grip position. This forced static grip handling is an

outstanding disadvantage for pre-advanced and advanced players.

Beyond the State-of-the-Art

The main innovation is that HUNGrip allows the easy change of grip handling while simultaneously helps rapidly finding the proper grip handling for the most common swing types.

Why now?

The development was already possible for several years, but the demand appeared very recently. Squash is a relatively young sport, with the first European open championship being held in 1930. It is still not involved in the Olympic Games, however there are ongoing initiatives to participate in the official program of the Summer Games. On the other hand thanks to the rapid development of the game, swing technique became the most important part of the player's style, hence small nuances can decide between becoming champion or not.

Beneficiaries

Squash racquet manufacturer has the required manufacturing infrastructure to be able to effectively create the test samples.

Squash club has the advanced players that can benefit from and test the innovation.

Impact

Squash racquet manufacturer can increase the market share through the legal protected innovation.

Squash club members can leap higher in the ranking list.

EU priority

Currently 21 European can be found in the top 50 male squash players, none of which is Hungarian.

Most of the greatest squash racquet manufacturers are based in Europe (Dunlop, Head, Karakal, Techifibre).