

## **Abstract**

**Title:** Relationship between selected specific and general indicators of strength in water slalom competitors in category C1

**Objectives:** The aim of the study was to find out the relationship between the maximum strength tests at the gym and the explosive force test when paddling on flat water. Another aim of the thesis was to compare the measurement with results in selection races to Czech national team 2018.

**Methods:** The test battery for general force tests included the bench press test, the attachment on the bench, the one arm attachment on the bench and the one arm pull up on the bar.

To test the explosive force on a flat water we used a three-axis piezoelectric load cell 9137. Dewesoft Sirirus and Dewesoft, Dewetron, were used to diagnose the course of force. Correlation analysis was used to determine the relationship between the measurements. The degree of dependence was determined by the correlation coefficient value.

**Results:** A strong dependence rate ( $r = \geq 0.7$ ) was demonstrated in the water test and the one arm attachment on the bench. There was no evidence of a strong degree of dependence on bench - press exercises ( $r = 0,63$ ), the attachment on the bench ( $r = 0,58$ ) and the one arm pull up on the bar ( $r = 0,04$ ). The paddlers who achieved the best results in specific and general strength tests, ranked 3rd and 4th place in overall ranking.

**Keywords:** water slalom, maximum force, specific force, canoeing, Dewesoft