



Summary of Instruction document: Training with RP3 for Dummies

1. Introduction

The RP3 ergometer is gaining popularity among rowing clubs, offering a dynamic alternative to the Concept2 ergometer. The Dutch Indoor Rowing Championships recently incorporated RP3s, prompting increased interest and questions regarding its use.

2. Similarities and Differences

Ergometer training is essential for endurance and strength. RP3 differs from Concept2 due to its dynamic nature, closely mimicking on-water rowing by allowing both the frame and seat to move. This enhances rowing performance but does not replace the on water blade work training.

3. Physics and Biomechanics

Static ergometers require rowers to move their body weight back and forth, expending energy on braking and reversing motion. RP3 maintains the rower's center of gravity in place, making movement more efficient and natural, like rowing on water.

4. Optical Illusion in Rowing

In a boat, the rower appears to move up and down, but the boat actually moves beneath them. RP3 replicates this balance, minimizing energy loss at turnaround points and maintaining footplate connection throughout the stroke.

5. Hydrodynamic Effects

Peak force application should ideally occur at 43-45% of the stroke to maximize hydrodynamic efficiency. The force curve should be smooth and full, minimizing energy loss and slip of the blade in the water.

6. Quantitative & Qualitative Data

Next to metrics such as split time and stroke rate, quality indicators like stroke length, energy per stroke and 'R-square' (force curve quality indicator) provide insights into rowing efficiency. RP3 measures these factors to analyze stroke consistency and technique.

7. RP3 Settings and K-Factor

RP3's K-Factor is adjustable to simulate different boat types. Unlike Concept2, RP3 users can modify the settings for more realistic splits without altering power output.

8. Training & Coaching with RP3

Real-time feedback on force curves and performance data helps rowers refine technique. The RP3 Coach Approach allows for data-driven training, coach accents, improving stroke efficiency and consistency. A well-balanced force curve ensures optimal energy transfer. Training should focus on improving efficiency through stroke quality analysis and structured workouts.

9. RP3 Coach Approach

Structured training includes low-intensity endurance sessions and high-intensity intervals. RP3's analysis tools help track progress, consistency, and technical improvements.

By integrating RP3 into training, rowers can improve efficiency, consistency, and overall performance, making it a valuable tool for rowing development.