

# The RP3 Coach Approach: Elevating Rowing Training through Precision and Data

RP3 Rowing - Data sheet  
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The *RP3 Coach Approach* introduces a new dimension to rowing training by providing a third and distinct layer to traditional rowing workouts. This innovative method adds a more technical, data-driven approach to enhance rowing efficiency, offering athletes and coaches valuable insights into the effectiveness of each stroke.

A large part of the international rowing elite, national teams and high-performance rowing programs worldwide now train almost exclusively with RP3 alongside their on-water sessions. And at the club level, there also are clear, practical examples that have led to improved rowing, though the direct link to results is not always immediately recognized.

RP3 Rowing, as a provider, has taken the typically implicit approach of various individual rowers, teams and rowing programs and made it both explicit and universally applicable. This approach is now accessible to all rowers worldwide, at every level.

It builds upon the foundational principles of general fitness and rowing-specific training while introducing advanced techniques to refine stroke mechanics and improve performance.

## First Layer: General Training

At the foundation of any athletic program is general fitness and exercise. This first layer is essential for overall physical development and personal improvement. It encompasses activities that strengthen the body's motor skills through diverse sports and exercises. The goal here is to maintain or enhance fitness and prepare athletes for a specific event, season, or goal, such as improving race readiness or contributing to a team's dynamics.

In a rowing context, this layer might include:

- General aerobic and anaerobic training.
- Strength and conditioning exercises.
- Cross-training for overall body development.
- Mental preparation for competitions and challenges.

The primary focus is on building endurance, strength and general athleticism to form a robust foundation for more specialized rowing skills.

## Second Layer: Rowing-Specific Training

The second layer narrows the focus to training explicitly designed to improve rowing performance. It's tailored to the unique demands of rowing, including building fitness specifically related to rowing movements, enhancing strength and improving technique.

With this layer of training, rowers focus on:

- Increasing rowing fitness and stamina through targeted workouts.
- Developing strength, particularly for rowing-specific movements.
- Implementing structured training plans to ensure optimal performance at key events such as races or the full rowing season.
- Training power and stamina to meet the specific endurance demands of rowing.
- Cultivating discipline and consistency to sustain high-level performance over time.

This layer is where athletes begin to translate general fitness into rowing-specific capabilities, focusing on building the power and endurance necessary to excel in rowing events.

Normally, training consists of these two layers: general training, fitness and generic motor skills, which cover sports and physical activities in general, and then more rowing-specific training, focusing on movement, rowing-specific muscle groups and specialized endurance. After all, the physical training structure required for a side-by-side 2000m race or a head race of 4 to 5 km is entirely different from what's needed to cycle for 2 or 3 hours, or to compete in a soccer or tennis match.

## A Distinctive Third Layer: The RP3 Coach Approach

Where the *RP3 Coach Approach* stands out is in its third and most advanced layer. This layer leverages technology, data and precision measurement to provide in-depth insights into an athlete's rowing technique and stroke efficiency. The goal here is not just to improve fitness or power but to refine the subtle, technical aspects of rowing that can make a significant difference in competitive performance.

Key aspects of the RP3 Coach Approach include:

1. **Qualitative Output and Effectiveness of Rowing Movements:** This approach measures the effectiveness of each stroke, helping athletes fine-tune their technique. It's not just about power; it's about how that power is applied efficiently throughout the stroke cycle. The *RP3 Coach Approach* uses the "R-Square" values from the RP3 Portal to compare performed stroke quality with the theoretical best stroke.
2. **Training the Finesses of Dynamic Rowing Movements:** The *RP3 Coach Approach* trains the subtleties of rowing, such as the timing of the catch, the connection between the footplates and the blade, the transition between strokes, and maintaining fluidity during the drive. Attention is given to optimizing drive length and minimizing slip at the release. The "Stroke Length" value in the RP3 App and Portal,

combined with the “Drive Time” represents the acceleration of the flywheel, which is directly related to connection, and can be compared with connected bladework in the water.<sup>1</sup>

3. **Stroke Quality Analysis Reports:** Throughout the season, detailed stroke quality reports offer ongoing feedback, even outside of on-water practice. These reports allow rowers and coaches to continuously monitor and improve technique by analyzing key metrics like drive timing, force application and stroke efficiency. Automated calculations on ratios between input (power) and output (work and effectiveness) gives insights in technical accents for the next workouts.
4. **Monitoring Stroke Quality Progression:** Over time, athletes and coaches can track improvements in stroke quality using key metrics, including Effective Work per Stroke (EWpS). This metric helps quantify how much effective work an athlete is applying during each stroke, providing a clear benchmark to measure technical improvement and related success.<sup>2</sup>

The EWpS number is an indicative value where the RP3 value in the App & Portal Energy per Stroke (EpS) is multiplied with the R2-Total value (stroke quality). This workout analysis can be used to get insights in athletes behavior in time during workouts, to understand and train how to react and anticipate.

This metric could be combined with Telemetry solutions, measurements in the boat, to optimize the learning and feedback training cycle.<sup>3</sup>
5. **Transparent Crew Selection:** The data collected through the *RP3 Coach Approach* also helps make crew selection more transparent. Instead of relying solely on subjective judgment, coaches can use both quantitative data (such as volume, stroke power, intensity and consistency) and qualitative insights (such as technique and timing) with progression reporting, to choose the best athletes for the team.

## Conclusion: Taking Rowing to the Next Level

The *RP3 Coach Approach* adds a critical third layer to rowing training, allowing athletes to move beyond fitness and strength and into the realm of precision and technique. By utilizing data and technology to measure stroke efficiency, rowers can refine their movements to optimize performance. This approach not only improves individual performance but also enhances team dynamics by providing clear, measurable insights into each athlete’s contribution.

As rowing becomes increasingly competitive, having a detailed, data-driven understanding of technique can give athletes the edge they need to succeed. With the *RP3 Coach Approach*, rowers can continuously monitor, improve, and perfect their performance, making it a powerful tool for both individual and team success.

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<sup>1</sup> [https://biorow.com/index.php?route=information/news/news&news\\_id=94](https://biorow.com/index.php?route=information/news/news&news_id=94)

<sup>2</sup> [https://biorow.com/index.php?route=information/news/news&news\\_id=116](https://biorow.com/index.php?route=information/news/news&news_id=116)

<sup>3</sup> <https://rp3rowing.com/wp-content/uploads/2024/06/White-Paper-Improve-the-ForceCurve-ENG-1.3-4.pdf>