

RITEND BAT WEIGHT



Scope

To “Try-out” and test the [RITEND Bat Weights] to provide feedback, recommendations of use case, and write a general report of the product for Louisville Slugger and Wilson. Louisville Slugger Hitting Science Center holds the right, but is not obligated, to endorse each product that is tested. We hope to provide relevant feedback from an application of the product in high-level baseball setting.

Testing

Most bat weights we test are typically ones that go on the end, or near the existing MOI/sweet spot of the bat. We have tested RITEND against each one and found the RITEND emphasizes bat path (like air resistance trainers) over the feeling of just something heavy to swing. Our goal of the test was to see which bat weight performed better for front toss, overhand BP, and On-Deck.

Each bat weight was swung in a 5 swing on 5 swing off fashion. 3 Pros and 2 Amateur ball players will take BP for a week using the RITEND. Each player will be asked about the overall feel, their bat path, and their sequence of their swing after each use of each weight. We expect most of the findings to qualitative; however, we did swing with the RITEND 16 oz. on the motion capture to see the difference in lead arm angular velocity, and overall sequence timing. We hypothesize that by swinging with the RITEND a player will experience a greater hinge before contact, thus a dip in angular velo—This signifies the player is able to stay inside the ball.

FINDINGS AND FEEDBACK

Qualitative

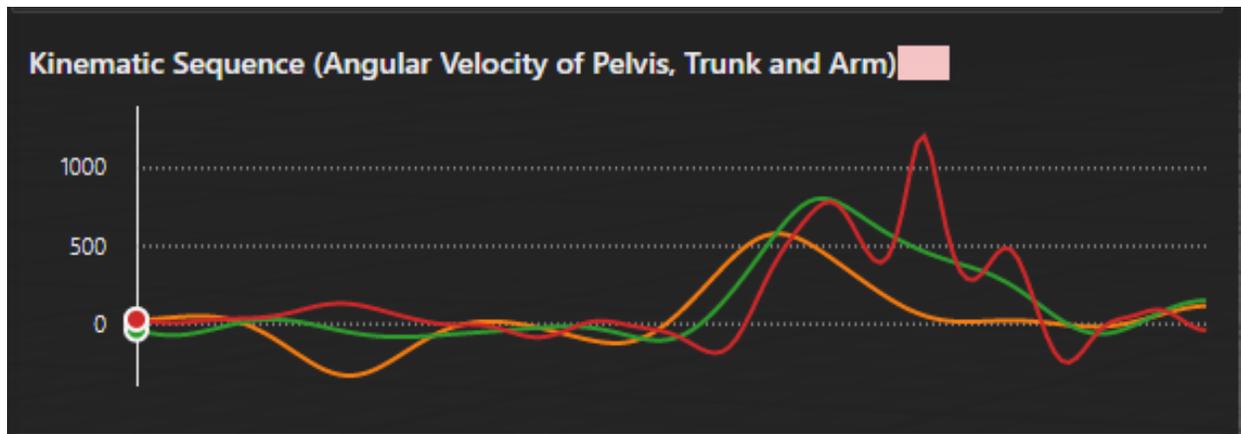
1. The RITEND outperformed most of the other bat weigh products solely due to the fact you can hit a baseball while using the weight.
2. 5 out of 5 players said that their bat felt lighter directly after swinging the 20 and 26 oz. product, while 3 of the 5 said that the 12 and 16 oz product made the bat feel more end loaded once taken off.
 - a. This is expected as the product is designed to put more weight on the handle, thus shifting the balance point of the bat to a more balanced position
3. The general consensus was that the weight puts more emphasis on the smaller muscles in the hand, wrist, and forearms which gave them a different feel than a traditional bat weight
4. The overall complaint was that the weight took up a few inches on their bat which gave them the feeling that they were choking up.
5. “For both soft-toss and overhand BP the most popular and the size that provided the best feel was the 16 oz. The weight at the hands made me feel inside the baseball especially at the beginning of the batting practice session, while I was getting loose” -PRO GUY #2

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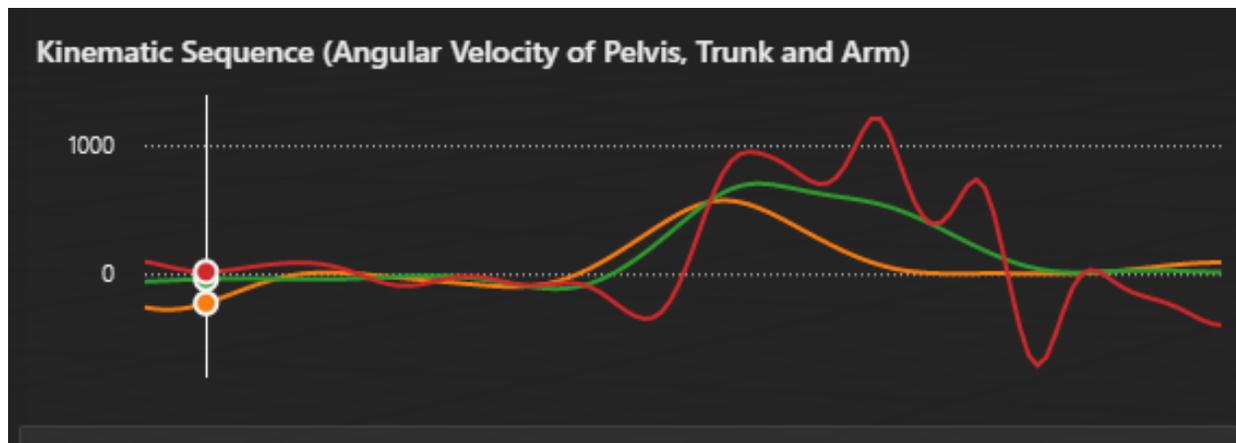


Quantitative

1. 1 Player was evaluated on the Motion Capture to evaluate changes in lead arm angular velocity in addition to sequence timing with the 16 oz. weight.
2. Player without the RITEND experienced a ratio of 1.4 between the torso and lead arm velocities over a .2s period. With the RITEND Player experienced a 1.115 ratio between torso and lead arm (probably due to the weight of the 16 oz.) over a .23s period.
 - a. This signifies that that Player's lead arm most likely stayed inside (hinged for a longer time before launching the barrel towards the baseball.
 - b. This is not a perfect experiment, but we were able to see a correlation between using the weight and not using the weight.
 - c. When looking at motion capture, one must understand the kinematic sequence and how a players optimum force production stems from their ability to work from the ground up.
3. With a very small sample size, the data showed a slightly more top half dominated swing with the RITEND 16 oz. bat weight.



WITHOUT



WITH 16oz.

RITEND BAT WEIGHT



Lastly, we believe that the RITEND does what it claims and puts emphasis on the feeling in the hands throughout the swing. One suggestion we might give a player using the RITEND Bat weight would be to ensure quality over quantity to prevent any top half dominance issues from arising over time. However, this product does focus on staying inside the baseball and could be a great corrective tool for a player with issues getting around the ball and launching the barrel too early in their swing. We recommend using the 12 oz. and the 16 oz. in the cage while leaving the 20 and 26 oz bat weights for the on-deck circle to prime hands and forearms for an At-Bat. The RITEND does offer a product that focuses on certain bat path while giving the player a priming feeling to gain bat speed. Unlike other products it is able to be used in a live BP setting and offers many different weights to train overload and underload.