

## Bow Report

By Bill Krenz

# Mathews Reezen 6.5

Very little in archery is as addictive as arrow speed. A zipping arrow and a flat trajectory are impressive things. Shoot a fast bow and it's genuinely hard to go back. All of which are the reasons behind the Reezen.

The brand-new-for-2009 Mathews Reezen is the fastest single-cam bow ever. It's really fast. And, because it's a single-cam bow, it's also wonderfully easy to set up, tune and shoot.

For years, it was held that single-cams couldn't be made super fast. Sure, single-cam bows were straight, accurate shooters, and with their single drive cam and an upper idler wheel, single cams did effectively sidestep the cam-timing issues that plagued many other bows. But super fast—no way. That was the conventional thinking.

Matt McPherson, however, doesn't think conventionally. Matt is the founder of Mathews and to this day remains its principal bow designer.

"It seems like every so often we go through another speed phase in archery," Matt recently told me. "We're in such a phase right now. Bowhunters are asking for more arrow speed. And the best bow companies are delivering. Mathews is delivering."

We've certainly gone through such speed phases before, but what is different about today's best fast bows is that the increased arrow speed is being achieved while things like a relatively smooth draw, minimal hand shock and a quiet shot are also being maintained. That's the real news. It's not simply that today's best fast bows are fast, it's that they're fast and they handle and shoot especially well.

The new Mathews Reezen is such a fast bow. It's much faster than most and yet it draws and lets off with comparative smoothness, has minimal hand shock and delivers a muffled shot. The new Mathews Reezen is a new-age fast bow.

### How It Shoots

Two versions of the Reezen are being offered in 2009—one with a 6.5-inch brace height and another with a 7-inch brace height. I chose the faster Reezen 6.5 for testing. The lower brace height is faster because the arrow remains in contact with the bowstring longer, thereby absorbing more energy. Chronograph tests with 13 different arrows

(see the accompanying chart) amply demonstrate the bow's astounding speed. It's there in spades.

But, as already noted, the Mathews Reezen 6.5 is more than just a fast bow. To begin with, it's also compact and lightweight. At just 32 inches from axle to axle and barely 4 pounds, the new Reezen is a lean, mean bowhunting machine.

Drawing the Reezen 6.5 is also a bit of an eye-opener. A bow this fast probably shouldn't draw this smoothly. That, of course, is a longstanding Mathews' bow trait. Draw weight builds quickly with the Reezen, as it must with a fast bow, but the transition into full letoff is smooth and easy. The back wall in the draw cycle is soft, almost cushioned, and comforting.

At the shot, the Reezen's parallel-limb geometry and a host of Mathews damping systems come into play to tame shot noise and vibration. The Reezen 6.5, as fast as it is, is a reasonably quiet bow. Harmonic dampers in the bow's riser, Roller Cable Guard and String Suppressors jump on excess noise. Those same dampers also act to reduce shot vibration as much as possible.

Shooting a Mathews bow has always been a delight, and the 2009 Reezen 6.5 proved no exception. The test bow set up and tuned very quickly. Lining up the arrow rest and the arrow with the centered laminations in the bow's unique In-Line Grip delivered bullet holes through paper in almost no time. From there, it was a simple matter to start drilling paper and 3D targets from 20 to 60 yards with typical Mathews-like accuracy. The 2009 Mathews Reezen 6.5 is the perfect reason to buy a new bow.

### Key Features and Benefits Fastest Single-Cam Bow Ever!

Arrow speed is addictive, and the new Mathews Reezen 6.5 delivers loads of arrow speed, especially for an easy-tuning single-cam bow. In fact, no single-cam bow has ever been faster. Shooting a middle-of-the-road carbon hunting arrow weighing around 9 grains per inch and equipped with a 100-grain broadhead, I easily got arrow speeds over 310 feet per second! That's at 29 inches and 70 pounds. Lighter arrows would be even faster. This single cam is wonderfully fast.



To build the lightweight Reezen 6.5, Mathews begins with narrow SE4 Composite SlimLimbs and a light and airy SphereLock Limb Pocket System.



To make tuning easier, the distinctive hardwood grip on the Reezen features a vertical laminated line that marks the centerline of the bow. Align the arrow rest with that line.



## Specifications

### Mathews Reezen 6.5

Axle-to-Axle Length	32 inches
Brace Height	6.5 inches
Riser Geometry	4.6 inches reflex
Mass Weight	4.15 pounds
Letoff	80 percent
Draw Lengths	24 to 30 inches
Draw Weights	40#, 50#, 60#, 65#, 70#
Camo	Lost Camo

For more information, log onto Mathews' new, exciting and interactive website at [mathewsinc.com](http://mathewsinc.com) or call (608) 269-2728.

## Arrow Speed

2009 Mathews Reezen set at 29 inches (by factory) and adjusted to 70 pounds

28-INCH TEST ARROWS	SHAFT GR/IN	ARROW WEIGHT	KINETIC ENERGY	ARROW SPEED
EASTON XX78 ALLOY 2512	10.3	448 gr.	85.4	293 FPS
EASTON FULL METAL JACKET 400	10.2	426 gr.	85.2	300 FPS
CARBON EXPRESS ARAMID KV 350	9.8	415 gr.	84.6	304 FPS
CARBON TECH WHITETAIL 65/80	9.5	411 gr.	84.9	305 FPS
CARBON EXPRESS MAXIMA HUNTER 350	8.9	398 gr.	84.9	310 FPS
EASTON ST AXIS N-FUSED 400	9.0	392 gr.	84.7	312 FPS
BEMAN ICS HUNTER ELITE 400	8.4	390 gr.	84.3	312 FPS
GOLD TIP XT HUNTER 55/75	8.2	385 gr.	83.8	313 FPS
PSE RADIAL X WEAVE HUNTER 300	8.1	376 gr.	83.4	316 FPS
EASTON LIGHTSPEED 400	7.4	363 gr.	82.6	320 FPS
GOLD TIP ULTRALIGHT PRO 400	7.4	361 gr.	82.6	321 FPS
CARBON TECH CHEETAH 400	6.4	346 gr.	82.2	327 FPS
HIGH COUNTRY SPEED PRO MAX	5.5	303 gr.	81.0	347 FPS

Bow weighed with an Easton Bow Force Digital Scale. All tests conducted with a Spot-Hogg Hooter Shooter Portable Shooting Machine and a Competition Electronics Pro Chronograph.



Note the innovative features on and around the fast lower cam on the new Mathews Reezen—String Suppressor, Harmonic Damper, String Grub on the bowstring and new Quick-Change Axle.

### SE4 SlimLimbs & SphereLock Pockets

Beyond fast, plenty of today's bowhunters also want a compact and reasonably lightweight bow. Such a bow is easier to carry and, when designed right, is a joy to handle and shoot. The 2009 Mathews Reezen features lightweight SE4 Composite SlimLimbs that measure just a fraction over 1 inch wide (that's slim!) and an innovative SphereLock Limb Pocket System that's as airy and lightweight as can be. The end result is that the Reezen 6.5 tips the scales at just 4.1 pounds.

### Harmonic Damping Systems

"As quiet and as vibration-free as a Mathews." That's the high bar that Mathews sets. Innovative bow design and the company's Harmonic Damping Systems contribute mightily to the

task. The Reezen 6.5 is factory equipped with no less than half a dozen Harmonic Dampers—two in the riser, two in the limb-tip-mounted String Suppressors and two more in the bow's Roller Guard. Center, midway and top, the 2009 Mathews Reezen 6.5 is covered.

### String Suppressors and String Grub

After-the-shot bowstring oscillation plays a huge part in shot noise and vibration. The Mathews Reezen features the ingenious Mathews String Suppressor System. Limb-tip-mounted String Suppressors grab and dampen the bowstring with every shot, effectively squelching shot noise and vibration like never before. The String Grub, located just above the lower cam on the Reezen, also reduces string vibration, while it catapults the string forward for even more arrow speed.

### In-Line Grip

The distinctive hardwood grip on the Reezen 6.5 sports a vertical laminated line that clearly marks the centerline of the bow. When setting up the Reezen, simply line up the arrow rest and the arrow with that grip line. It's the perfect place to start tuning, and often it's right where you'll end up. How convenient is that?

### Quick-Change Axle

Additional convenience is found in the innovative design of the Reezen's new lower-cam axle and retaining slide. The distinctive red axle simply pushes into place and is then secured with an easy-to-use composite slide. No more fumbled, flying e-clips! The Quick-Change Axle makes changing draw length on the Reezen unbelievably fast and trouble free. 

