

FIVE STAR BOW REPORT

Some bow characteristics are easy to gauge. Things like arrow speed, noise and vibration levels can all be measured. Other characteristics, like accuracy and forgiveness, are tougher to pin down. Yet these

ALPINE NITROUS N20



The distinctive extended LXP limb pockets on the Nitrous N20 help deliver a more forgiving and accurate shot by enabling the bow to use a neutral riser.



The Alpine Nitrous N20 is available with either Next G1 Vista Camo or, at a slight upcharge, racy Skulz Camo. The Skulz Camo is a catchy showstopper.

last two are maybe the most important characteristics for any bow. After all, without accuracy little else matters. A fast, quiet, shock-free miss is still a miss.

Alpine Archery has long been a design innovator, and its latest push is toward new bows that are more forgiving and more accurate, like the new-for-2010 Alpine Nitrous N20.

Much of what has been done industry-wide lately with bow designs involves tradeoffs made for increased arrow speed. A faster bow, for example, may be harder to draw. The draw was traded for the speed. In the same vein, a faster bow may be a bit noisier, and it may have more handshock. It may also be a bit less forgiving to shoot. This last tradeoff is particularly evident if the bow features a riser geometry that is radically reflexed (the grip is set a long ways back toward the archer). With a radically reflexed riser, even small variations in bowhand position on the grip will cause the bow to react differently at the shot, and that in turn may make that bow less forgiving for many shooters, even somewhat eroding their accuracy.

A more-forgiving solution, of course, would be a fast bow that sports a non-reflexed riser, which is exactly what Alpine has achieved with the new Nitrous N20.

In a nutshell the Alpine Nitrous N20 is a surprisingly fast bow with a forgiving neutral-position riser, an equally forgiving 7.25-inch brace height, an unexpectedly smooth draw and a unique Dynamic Load Balancing System machined into the cams that prevents cam lean as the bow is drawn and shot. The net result of all of that and more is a new bow that seems unusually stable and easy to aim at full draw, and also seems to shoot with a confidence-building forgiveness and downrange

accuracy that is definitely most welcome.

Sometimes the stars just seem to line up with a particular bow design. In this case, fast stars have lined up with forgiving and accurate stars, and the outcome is the remarkable Alpine Archery Nitrous N20.

HOW IT SHOOTS

Let's start with how this bow draws in relationship to how fast it shoots. See the accompanying Arrow Speed chart. This bow is fast. Not extreme all-out fast, just nice and fast. Yet the new Nitrous N20 draws with a surprising smoothness. That's particularly noticeable as the bow transitions into letoff, which is pleasingly gentle and even. At full draw, an infinitely adjustable draw-stop peg on the top cam pivots around to contact an inside cable, and that creates a firm and reassuring back wall.

The real design goal with the Nitrous N20, however, was to create a more forgiving and more accurate fast bow. That's done with brace height, the Nitrous' third-generation Velocitec Cam System and especially with the design of the bow's riser and unique limb-pocket system. The brace height on the Nitrous N20 is a generous 7.25 inches. A higher brace height is more forgiving because the arrow comes off the string quicker so it's less affected by operator shooting error. The bow's new Velocitec 3G Cams deliver lots of arrow speed but they also feature Alpine's exclusive Dynamic Load Balancing System. That system consists of special dual payout grooves that move the balance point of the limb tip laterally as the cam is drawn to keep the cams upright, straight and consistent throughout the entire draw cycle. That consistent cam repeatability clearly boosts shot-to-shot accuracy.

At first glance, the two things that really jump out with the new Nitrous N20 are the bow's distinctive extended limb pockets and neutral (straight up and down) riser. Working in concert those two design features deliver a more forgiving, more accurate bow. Alpine calls its revolutionary new limb pocket the LXP System, which stands for Laterally eXtreme Pocket. Those unique extended pockets allow the top and bottom of the bow's riser to be positioned back into the bow, enabling Alpine to use a much more forgiving neutral riser rather than the typical highly reflexed riser. Try a little experiment. Straighten out a paper clip and stand it up like a bow riser, holding each end between your extended thumb and index finger. Push forward on the center of that straight up and down wire riser. With pressure it barely moves and hardly twists. Now bend the same wire into a V-shape and hold it the same way, but with the point of the "V" aimed back at you just like a radically reflexed bow riser. Now push on the point where the grip would be. If your push is just a tiny bit off, the reflexed riser wire quickly twists out of alignment.

When you shoot the new Alpine Nitrous N20 you can feel that difference. The straight up and down neutral riser,

SPECIFICATIONS

Alpine Nitrous N20

Axle-to-Axle Length	33.25 inches
Brace Height	7.25 inches
Riser Geometry	.5 deflex
Mass Weight	4.2 pounds
Letoff	80 percent
Draw Lengths	28 to 31 inches
Draw Weights	60#, 70#
Color	Next G1 Vista or Skulz Camo

For more information, see your dealer or log onto alpinearchery.com.

ARROW SPEED

ALPINE NITROUS N20 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.	78.0	280 FPS
EASTON FULL METAL JACKET 400	10.2	426 GR.	77.4	286 FPS
CARBON EXPRESS ARAMID KV 350	9.8	415 GR.	77.5	290 FPS
CARBON TECH WHITETAIL 65/80	9.5	411 GR.	77.3	291 FPS
CARBON EXPRESS MAXIMA HUNTER 350	8.9	398 GR.	76.9	295 FPS
EASTON ST AXIS N-FUSED 400	9.0	392 GR.	76.8	297 FPS
BEMAN ICS HUNTER ELITE 400	8.4	390 GR.	76.9	298 FPS
GOLD TIP XT HUNTER 55/75	8.2	385 GR.	76.4	299 FPS
PSE RADIAL X WEAVE HUNTER 300	8.1	376 GR.	76.2	302 FPS
GOLD TIP ULTRAUGHT PRO 400	7.4	361 GR.	75.6	307 FPS
CARBON TECH CHEETAH 400	6.4	346 GR.	74.8	312 FPS
EASTON FLATLINE 400	7.4	344 GR.	74.8	313 FPS
HIGH COUNTRY SPEED PRO MAX	5.5	303 GR.	72.8	329 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.



The classy rosewood grip on the Nitrous N20 is ideally shaped for consistent bowhand placement and accurate shooting.

complements of the revolutionary LXP Pocket System, feels unusually stable. Bowhand position, while always important, feels somehow less critical, and at full draw the sight seems almost to lock onto the target and stay there. At the shot, the Nitrous N20 barely moves.

It's a nice feeling, all that stability and all that forgiveness. I don't know about you, but I can use all the forgiveness I can get in a bow. The Alpine Nitrous N20 delivers that forgiveness and resulting accuracy with good-to-go arrow speed.

KEY FEATURES AND BENEFITS

Laterally eXtreme Pocket System

As discussed, the extended LXP pockets on the new Nitrous N20 allow Alpine to move the top and bottom of the bow's riser back into the bow so that a much more forgiving neutral riser can be used. They also enable Alpine to use a longer limb than might otherwise be called for so that inevitable limb stress is spread over a more extended and gentle sweep.

3G Velocitec Cam System

This is the third generation of Alpine's impressive Velocitec Cam System. It's fast, surprisingly smooth to draw and features an infinitely adjustable draw stop and interchangeable draw-length modules. It also utilizes Alpine's Dynamic Load Balancing System to keep the cams straight throughout the draw and shot.

Complete Alpine Dampening System

With the new Nitrous N20, soft and flexible limb-mounted dampeners, bowstring silencers, a finned cable-guard dampener and a bumpered carbon-rod string stop all work together to dramatically reduce shot vibration and noise.

Mach 5 Cable Slide

This is one of the slipperiest, quietest, fastest cable slides ever designed. It features a Teflon slide surface press-fit into a vibration-dampening rubber sleeve housed in an indestructible slide body. There's even a rope hole for fall-away arrow rest activation cords.

Skulz Camo

With the Nitrous N20 you can choose between Next G1 Vista Camo or racy Skulz Camo. The Skulz Camo is fascinating. It's great camo at a distance. Up close it will surprise you. If ever there was an extreme camo, this is it! ↴

