



MXA PRODUCT TEST: OMEGA NECK BRACE: A Neck Brace For Skeptical True Believers

(1/5/2010)

MXA PRODUCT TEST: OMEGA NECK BRACE



WHAT IS IT? The latest HANS-style neck brace designed to work with your helmet to reduce the risk and severity of trauma to the neck.

WHAT'S IT DO? Want to start an argument? Bring up the subject of neck braces. Even at MXA, the design, concept, theory and effectiveness of neck braces is hotly contested. There are three sides to the argument: (1) There are test riders who do not believe that enough testing has been done to prove that neck braces do what they claim to do. Plus, they don't like the restrictive feel. (2) The moderates believe that neck braces are a step in the right direction, but they think that neck rolls are too little and Leatt braces are too much. They are waiting for something better. (3) Finally, there are the test riders who feel that anything that can be done to lessen the threat of the sport's most debilitating injury is a good thing. They won't ride without a Leatt neck brace.

Currently, Leatt, Alpinestars and EVS Sports are offering their unique takes on neck protection.

Enter Omega. The Omega neck brace was designed by one of the most respected men in the motorcycle industry—Remo Berlese. The name may not sound familiar to you, but Remo is no Johnny-come-lately to the protection game. He has designed and built everything from boots to helmets to chest protectors to gloves to elbow guards to pants. Now, he has designed a neck brace that he feels addresses the arguments in a unique manner.

WHAT STANDS OUT? Here's a list of things that stand out with the Omega neck brace.

(1) The Baby Bear solution. After analyzing all the available neck braces, Remo understood why there was so much controversy about them. He also understood that the industry couldn't stand around with its hands in its pockets while people were being injured. His analysis followed the same path as the pit racing argument. Remo didn't think that neck roll-type devices offered much in the way of total protection, but felt that they could lessen the effects of whiplash and muscle strain-type accidents. But while admiring the commitment of Leatt's "alternate load path" approach to neck protection, he felt that it was overkill. He thought

that a rigid structure that sat on both your spinal column and breast bone was too restrictive for racing. So, Remo's approach was to bridge the gap between the neck roll and the alternate-load-path designs. The Omega has many features of absorption-type protection, while also having the wing structure of an alternate-load-path neck brace.

(2) Safety. While no product can guarantee that you won't be injured, neck braces are working at the extremes of trauma. Unlike the Leatt or Alpinestars, which are rigid designs, the Omega has flexible wings that try to absorb energy before directing the load onto the rider's body. The Omega uses a semi-rigid structure that has a passing resemblance to the Leatt and Alpinestars braces, but doesn't share their gusto for Brooklyn Bridge construction. Where the wings on the Leatt and Alpinestars are fixed in place, the Omega wing is more of a leaf spring design. When a load is placed on it, it gives. Then, when it reaches a predetermined point, it transfers the load to the rider's body.

(3) Open design. Where the Omega takes its biggest departure from Leatt and Alpinestars is in the front of the protector. Most noticeable is that the front of the Omega is open so that the rider's head can rotate forward. The Omega's wings will eventually catch the edges of the rider's helmet to slow down forward motion, but nothing to the extent of the Leatt or Alpinestars models. Additionally, the body portion of the Omega brace is also open in the front and back. The brace itself does not make contact with the breast bone or spinal column—instead it transfers energy to the large pectoral and trapezoid muscles. In this way, Omega thinks that they lessen any brace-related collarbone or spine injuries.

(4) Construction. The Omega uses a medium-density plastic housing with an adjustable neck collar. The whole structure is amazingly light and airy. Height adjustment is achieved with straps that form a suspension bridge over the rider's shoulders. The shorter the straps, the higher the brace sits—and vice versa. It is a simple system and plays into the Omega's desire to absorb more energy.

(5) Mounting. The Omega must be worn with the supplied straps (they are part of the protection system). It can fit underneath a chest protector with a little modification (although it was designed to fit perfectly with the Zero7 chest protector).

WHAT'S THE SQUAWK? Our prototype Omega brace will still undergo a few modifications (including an elastomer-style bumper system under the leaf spring wings to offer the rider more control over flex), but overall it is well thought out. As with all open-front neck devices, we worry that this will allow the head to flex forward virtually unimpeded.



This is a neck brace for people who believe in the value of neck protection but don't want the bulk and restriction of a pure, alternate-load-path neck brace. It should be noted that protection comes at different levels and with different price tags. The Omega is a brace for people who have resisted neck braces because they are bulky, hot and cumbersome. If that is what it takes for you to wear more protective gear, we are all for it.

