

## Pull-out (Withdrawal) Resistance

The amount of force (measured in pounds) needed to withdraw a fastener from the material or substrate. For example: The 2¼" BNS averaged 523 lbs to 533 lbs in Southern Yellow Pine Testing in 2006. Intertek Report #3100366-001.

## Shear Strength

The maximum load applied to a fastener's axis before it will fracture or split, essentially causing the fastener to break in half. Shear strength is usually specified in pounds per square inch (PSI). Single shear values for fasteners are typically calculated based upon the nominal body diameter or body shear area, BSA.

## Bend Yield Strength

Bending yield strength is determined by fitting a straight line to the initial linear portion of the load-deformation curve, and then offsetting this line by 5% of the nominal fastener diameter. Bending yield strength, as determined by the point where the offset line intersects the load-deformation curve, is reported.



Tools with adjustable flush drive and consistent air pressure are the secret to consistent depth of drive.

Patent Pending Ballistic NailScrews® (BNS) require smaller diameters than regular bulk screws and collated screws (AKA "Snail Screws") for most applications. Ballistic NailScrews® are Heat Treated and Case Hardened. Designed to be pneumatically driven in with a Pneumatic Nailer, Ballistic NailScrews® only endure a slight turning motion. This reduces the need for larger diameters required for installation torque stress when inserting a regular screw. In 95% of applications, Ballistic NailScrews® will not be removed. When adjustments or removal is needed, use an unstressed bit insert in the heads.

**Tip: To remove BNS, go slow for the first 2 revolutions while the treads are cutting into the wood fibers or metal (12-16 gauge).**

We design all Ballistic NailScrews® to work well for the intended applications. We hope you enjoy our time saving products on your building projects and manufacturing requirements. Share with us your BNS story and we may use your story and digital photos on our website.

Please e-mail your story to [jboyd@911-nails.com](mailto:jboyd@911-nails.com). Thank you.