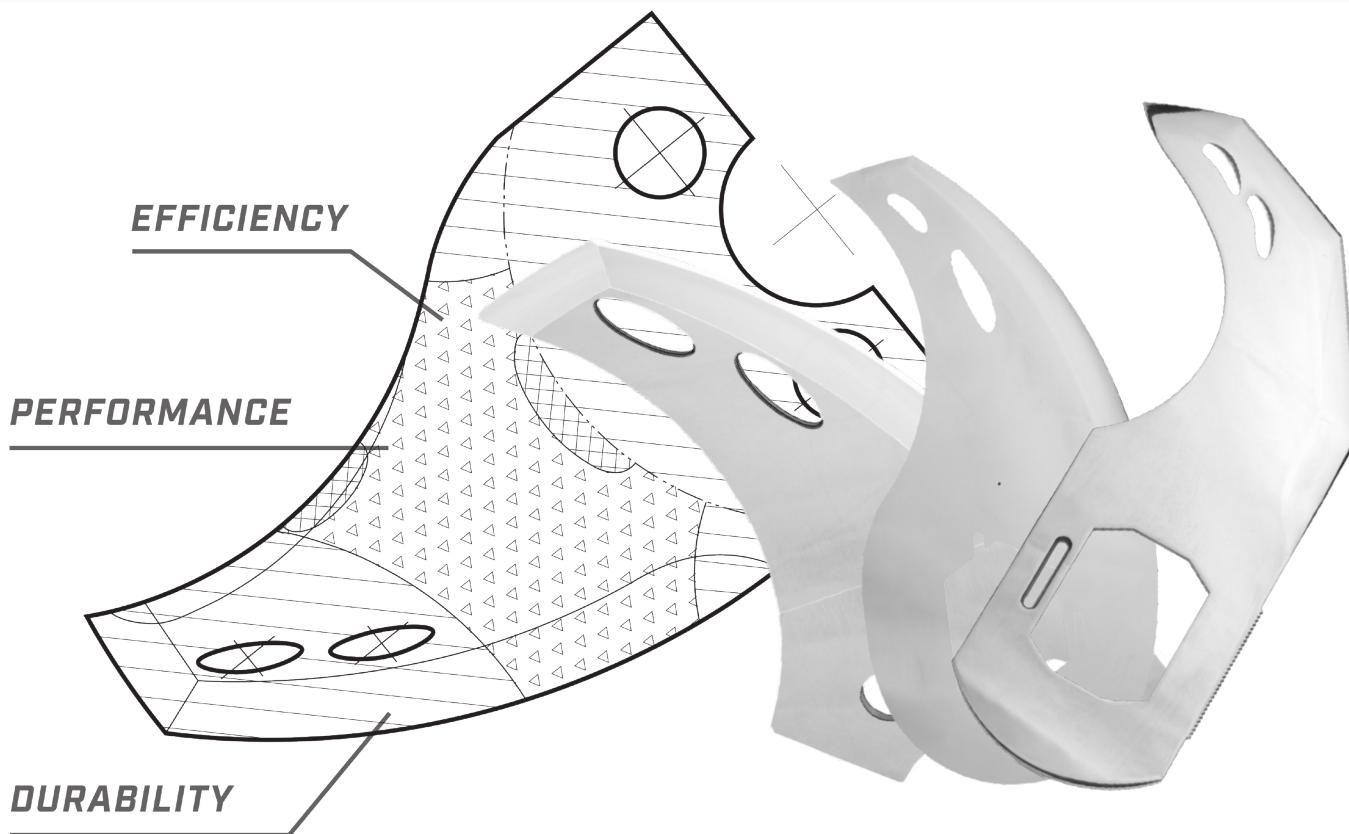


PRIMEdge Bionic Blades®

Engineered Stress Reduction. Proven Blade Reliability.



Less Stress

Optimized geometry reduces internal blade stress where failures occur

More Uptime

Fewer breaks, fewer emergency blade changes

Lower Energy Use

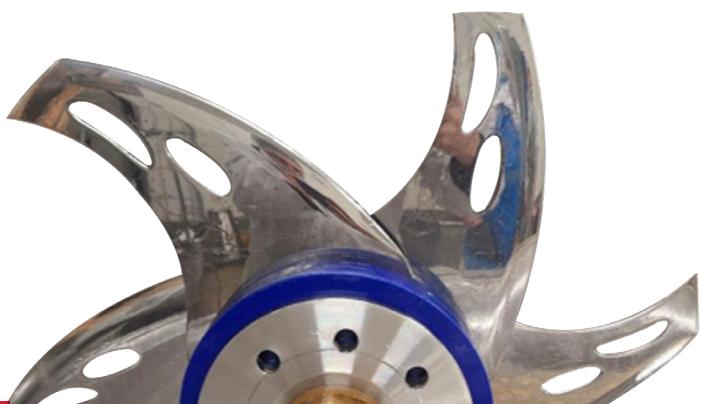
Reduced cutting resistance and centrifugal force

Better Product Quality

Less heat transfer to the product during cutting

Even properly sharpened blades can fail if internal stress is not controlled

PRIMEdge® Bionic Blades are engineered using validated Finite Element Method (FEM) analysis to reduce stress in the exact areas where failures occur. The result is fewer blade breaks, improved cutting efficiency, and measurable gains in uptime, safety, and total cost of ownership



REV 12/14/2025

PRIMEdge Bionic Blades®

Engineered Stress Reduction. Proven Blade Reliability.

Measured Stress Reduction

Knife Back

112 MPa \rightarrow 85.7 MPa (-24%)

Clamping Area

129 MPa \rightarrow 104 MPa (-19%)

Overall Peak Stress

Up to 30-40% lower!

Lower stress = less fatigue cracking

Lower stress = fewer blade failures

WHY STANDARD BLADES FAIL?

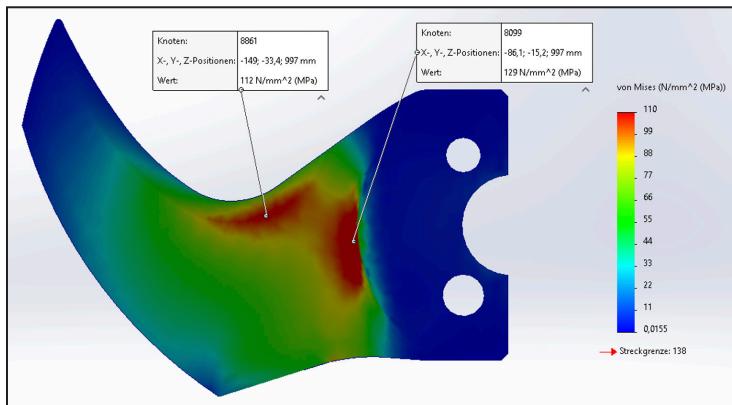
- High-speed rotation overloads the blade
- Side pressure bends the blade during cutting
- Stress builds where blades are clamped and mounted

WHAT MAKES THE BIONIC BLADE DIFFERENT?

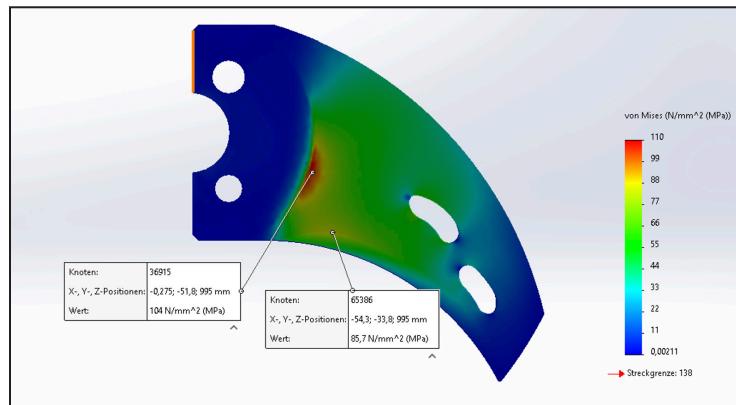
- Lighter where it matters to reduce load at high speed
- Less stress in the back of the blade
- Better resistance to bending from product pressure

WHAT THIS MEANS FOR YOUR OPERATION

- Fewer blade failures and emergency stops
- Longer blade life and reduced spare inventory
- Improved line stability at high speed
- Lower total cost of ownership
- Increased operational safety



Standard Blade



Bionic Blade

Available for all major bowl cutter brands!



Talk to a PRIMEdge blade specialist today

(877) 322-3342

sales@primedge.com

