

WHAT'S BEHIND RAISBECK'S SWEEP BLADE PROPELLERS?

MATERIALS

For over 35 years, Raisbeck Engineering has worked with Hartzell Propeller to design, test and manufacture propellers that deliver exceptional performance while reducing noise. Hartzell propellers are constructed from various materials, but the primary structural components in the hub system are high strength aluminum alloy or steel forgings.

Raisbeck/Hartzell Swept Blade Propellers are constructed of aluminum or structural carbon fiber composite, aluminum being used for all of our four-blade propellers and composite being used for the five-blade propeller.



COMPOSITE

Raisbeck/Hartzell structural composite blades are composed of a metal blade shank retention section onto which is molded a low-density foam core that supports built-up layers of composite laminate. Nickel cobalt leading edges protect against foreign object damage.

Beyond the inherent weight savings over other materials, composite blades provide unlimited blade life and the ability to maintain a more optimum airfoil shape over time. Most damage to composite blades can be repaired and returned to service without affecting the airfoil shape.

ALUMINUM

Raisbeck/Hartzell aluminum blades are high strength aluminum forgings, field-proven over millions of flight hours, and are offered at a lower initial cost.

DESIGN

Multiple design candidates for each King Air Series were exhaustively tested, with the best performing design subjected to further testing and refinement before being put into production.

The tailored airfoils extend fully into the spinner, which increases both prop efficiency and airflow into the engine.

CERTIFICATION

Raisbeck/Hartzell Swept Blade Propellers for the Beechcraft King Air Family are FAA-approved, with worldwide certifications established or pending. Our aluminum four-blade propellers are certified for both the King Air 250/ B200GT/B200/200 and C90/E90 series; four and five blade propellers are certified for the King Air 350 (B300).



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RAISBECK SWEEP BLADE PROPELLERS

For King Air



WHAT MAKES SWEPT PROPELLERS UNIQUE?

Unlike other aviation propellers that appear to be swept, Raisbeck’s blade design sweeps not only the leading edge but also the trailing edge.

Swept Technology allows the propeller diameter to be increased, generating more thrust without increasing noise. Larger diameters increase blade tip Mach numbers, which in turn add undesirable drag and noise. Introducing blade sweep overcomes these drawbacks.

Raisbeck Engineering collaborated with the world’s leading propeller manufacturer to offer Swept Blade Propellers for the King Air 90 and 200 series and King Air 350s.



Raisbeck Engineering and Hartzell Propeller have a long-standing relationship in developing Swept Blade Technology for the entire King Air Family.

“The difference between the Raisbeck Swept Props and the OEM props [on our C90GTx] is remarkable. The Raisbeck props are definitely quieter. The takeoff roll is shorter and there’s a definite difference in acceleration. At altitude, we pulled the props back to 1750 RPM. It was noticeable quieter and smoother. When you pull up and shut down, everyone wants to know about the props. It looks like it’s moving faster just sitting. Raisbeck props rock!”

Brett Miller, Owner/Pilot, CEO, eat.drink.sleep.



90

SERIES

| | |
|----------------|--|
| KING AIR MODEL | C90 (ALL) & E90 |
| CONSTRUCTION | ALUMINUM |
| DIAMETER | 96 IN |
| WEIGHT vs OEM | +8.4 LBS |
| ADVANTAGES | <ul style="list-style-type: none">• MORE THRUST• LESS NOISE• 6-YRS/4,000 HRS TBO |



350

ALUMINUM

| | |
|----------------|--|
| KING AIR MODEL | 350/B300 |
| CONSTRUCTION | ALUMINUM |
| DIAMETER | 105 IN |
| WEIGHT vs OEM | -41.2 LBS |
| ADVANTAGES | <ul style="list-style-type: none">• MORE THRUST• LESS NOISE• 6-YRS/4,000 HRS TBO |



200

SERIES

| | |
|----------------|--|
| KING AIR MODEL | 250/B200GT/B200/200 |
| CONSTRUCTION | ALUMINUM |
| DIAMETER | 96 IN |
| WEIGHT vs OEM | +0.8 LBS |
| ADVANTAGES | <ul style="list-style-type: none">• MORE THRUST• LESS NOISE• 6-YRS/4,000 HRS TBO |



350

COMPOSITE

| | |
|----------------|---|
| KING AIR MODEL | 350/B300 |
| CONSTRUCTION | CARBON COMPOSITE |
| DIAMETER | 106 IN |
| WEIGHT vs OEM | -54.0 LBS |
| ADVANTAGES | <ul style="list-style-type: none">• MORE THRUST• LESS NOISE• UNLIMITED BLADE LIFE• 6-YRS/4,000 HRS TBO |