PRINCE AIRCRAFT COMPANY P-TIP PROPS

WOOD P-TIP PROPELLER - Before the “Carbon Fiber P-TIP Propeller”, this had been considered one of the most efficient and lowest noise propellers available; the only wood/carbon fiber anti-vortex drop tip lipped propeller in the world. This propeller is made for the light sport aircraft and for the typical aircraft that requires a propeller that relaxes on the forward pull of the propeller to automatically provide pitch change proportional to the amount of forward pull. The P-TIP propeller is made for a propeller similar to the CPP, but this propeller relaxes on the forward pull of the propeller to automatically provide pitch change proportional to the amount of forward pull. When a propeller operates at a slower airspeed than its maximum capabilities, it has a proportional pull in relation to the velocity of forward motion, so at takeoff and climbing conditions the propeller will have its largest forward pull. Due to the scimitar shape, the tip of the propeller comes forward, as the coning angle changes the propeller will lessen pitch that provides smoother takeoffs and higher rates of climb. As the propeller increases in forward speed the disk pressure is reduced, this forces the propeller to increase pitch and top speed. This change in pitch is approximately four inches from takeoff to cruise. The droop P-TIP is to control the air spillage over the propeller tip that delays the tips vortices which cause drag and turbulence within the propeller arc. A propeller, like a wing, works best when it has undisturbed air over the airflow sections. The P-TIP delays the vortices, the propeller then has smooth air to provide best thrust and a pronounced reduction in propeller noise.

Additional benefit of the P-TIP design is the volume of air the propeller produces. When air flows through a standard tip propeller design, the airflow at the tip will flow over the propeller tip. As soon as it passes the tip it will turbulence, the propeller then has smooth air to provide best thrust and a pronounced reduction in propeller noise.

COMPOSITE P-TIP PROPELLER - Composite P-Tips Props retain the same qualities of the wood P-TIP but are more efficient and durable. Prince uses the reliable tip proven wood core of hard maple, then completely encloses the blades in multiple layers of high tensile strength composites. The hard-core core absorbs the dangerous harmonic vibrations and benefits your airframe by smoothing the engine power pulses, and the composite wrapping allows the airflow sections to be thinner, reducing drag while increasing durability and locks each blade into operating at precise angles. The best working propeller is one that is rigid enough to allow all blades to move alike, thin at the root section to eliminate as much drag as possible, and strong enough to satisfy the large amounts of stress required during flight. Urea Formaldehyde adhesive meets Military Specifications to insure reliable operation and trouble free flying for the life of the propeller. Propellers are finished in a metal prop wrap for superior quality control. The hard-milled composite wrapping is one that is rigid enough to allow all blades to move alike, thin at the root section to eliminate as much drag as possible, and strong enough to satisfy the large amounts of stress required during flight. Urea Formaldehyde adhesive meets Military Specifications to insure reliable operation and trouble free flying for the life of the propeller. Propellers are finished in a metal prop wrap for superior quality control. The hard-milled composite wrapping is one that is rigid enough to allow all blades to move alike, thin at the root section to eliminate as much drag as possible, and strong enough to satisfy the large amounts of stress required during flight. Urea Formaldehyde adhesive meets Military Specifications to insure reliable operation and trouble free flying for the life of the propeller. Propellers are finished in a metal prop wrap for superior quality control.

Composite P-TIP Props retain the same qualities of the wood P-TIP but are more efficient and durable. Prince uses the reliable tip proven wood core of hard maple, then completely encloses the blades in multiple layers of high tensile strength composites. The hard-core core absorbs the dangerous harmonic vibrations and benefits your airframe by smoothing the engine power pulses, and the composite wrapping allows the airflow sections to be thinner, reducing drag while increasing durability and locks each blade into operating at precise angles. The best working propeller is one that is rigid enough to allow all blades to move alike, thin at the root section to eliminate as much drag as possible, and strong enough to satisfy the large amounts of stress required during flight. Urea Formaldehyde adhesive meets Military Specifications to insure reliable operation and trouble free flying for the life of the propeller. Propellers are finished in a metal prop wrap for superior quality control.

THE CARBON FIBER P-TIP PROPELLER - The “Carbon Fiber P-TIP Propeller” has been considered one of the most efficient and lowest noise propellers available; the only wood/Carbon fiber anti-vortex drop tip lipped propeller in the world. This propeller is made for the light sport aircraft and for the typical aircraft that requires a propeller that relaxes on the forward pull of the propeller to automatically provide pitch change proportional to the amount of forward pull. The P-TIP propeller is made for a propeller similar to the CPP, but this propeller relaxes on the forward pull of the propeller to automatically provide pitch change proportional to the amount of forward pull. When a propeller operates at a slower airspeed than its maximum capabilities, it has a proportional pull in relation to the velocity of forward motion, so at takeoff and climbing conditions the propeller will have its largest forward pull. Due to the scimitar shape, the tip of the propeller comes forward, as the coning angle changes the propeller will lessen pitch that provides smoother takeoffs and higher rates of climb. As the propeller increases in forward speed the disk pressure is reduced, this forces the propeller to increase pitch and top speed. This change in pitch is approximately four inches from takeoff to cruise. The droop P-TIP is to control the air spillage over the propeller tip that delays the tips vortices which cause drag and turbulence within the propeller arc. A propeller, like a wing, works best when it has undisturbed air over the airflow sections. The P-TIP delays the vortices, the propeller then has smooth air to provide best thrust and a pronounced reduction in propeller noise.

Applications and Prices for some Popular McCauley Props. All Models Available. Prices are the same for all props with the same letter prefix.

PRINCE AIRCRAFT PROPELLER ORDERING INFORMATION

HOW TO DETERMINE COST
1. Select style and price, P-TIP or Composite P-TIP propeller.
2. Multiply propeller diameter times price per inch, e.g. High Horsepower 68” dia. P-TIP propeller, 68 x 13.51 = $918.68, Composite P-TIP 68 x 18.48 = $1256.64
3. Add Leading Edge Protectors, if required.

MULTI-BLADE PROPS
Three-Blade—.... 2 Blade rate x 3 Four-Blade ..........2 Blade rate x 4

LEADING EDGE PROTECTOR
Up to 48” diameter .......... $61.00 49” - 110” ....................... $83.00

LOW HORSE POWER PROPS
(Ultralight Type/Composite)

A. Up to 54” $8.00...$12.20
B. 55” - 110” $8.50...$12.75

HIGH HORSEPOWER PROPS

Composite P-TIP Propellers.

A. Up to 45” $12.50...$18.65
B. 46” - 55” $13.00...$19.20
C. 56” - 60” $15.00...$23.10
D. 61” - 110” $16.40...$24.40

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Prices Subject to Change Without Notice