

PROPELLERS

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 droop tipped propeller in the world. This propeller is a wood, fixed pitch propeller that relies on the forward pull of the propeller to automatically provide pitch change proportional to the amount of force being applied to the propeller disk. 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 condition the propeller will have its largest forward pull. Due to the scimitar shape, the tip of the propeller cones forward, as the coning angle changes the propeller will lessen pitch that provides shorter 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 tip vortices which cause drag and turbulence within the propeller arc. A propeller, like a wing, works best when it has unturbulated air over the airfoil 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 tuck down behind the propeller blade giving a cone of air from the propeller smaller than the propeller diameter. For example, a 72" diameter propeller without a P-TIP will give a volume of air from the propeller of approximately 68" of diameter; a P-TIP propeller will provide 72" of air volume. This means that a 68" P-TIP will give the same volume of air as a standard tip 72" propeller. By reducing propeller diameter there is less frontal area or flat plate drag of the aircraft. Higher top speeds are the result without sacrificing takeoff or climb. Your benefit is a lightweight, pitch changing propeller that will give you the best of short takeoff, maximum cruise, and more flying enjoyment in a quieter cockpit.

COMPOSITE P-TIP PROPELLER - Composite P-Tip Props retain the same qualities of the wood P-TIP but are more efficient and durable. Prince uses the reliable time proven wood core of hard maple, then completely encloses the blades in multiple layers of high tensile strength composites. The hardwood core absorbs the dangerous harmonic vibrations and benefits your airframe by smoothing the engine power pulses, and the composite wrapping allows the airfoils 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 cord 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 gray color, this shade will match nearly every paint scheme, the Durability and Ultrahigh Gloss finish is a two-part Urethane, machine buffed to achieve a propeller that reflects the quality of manufacturing like no other propeller available.

Note: Request Prince Propeller order form at time of order we will tax or mail form to you to complete to insure correct propeller is furnished for your application.

APPLICATION CHART

Aircraft	Engine	HP	Dia./Pitch	Hub Thickness	Price Schedule
Acro Sport	0-320	150	71/48	3.7	F
	Rotax 503	52	68/34	2.1	B
Avid Flyer	Rotax 532	64	71/35	2.1	B
	C-80A	80	66/48	3.25	F
Baby Great Lakes	0-320	150	68/72	3.7	F
	0-320	160	68/74	3.7	F
	0-360	180	68/76	3.7	F
Dragonfly	1834VW	60	52/45	2.75	D
	2100VW	82	52/48	2.75	D
Glasair	0-320	150	68/72	3.7	F
	0-320	160	68/74	3.7	F
	0-360	180	68/76	3.7	F
	0-540	270	69/113	3.7	F
Glass Goose	0-320	150	64/62	3.7	E
	0-320	160	64/64	3.7	E
Kitfox	Rotax 503	46	68/30	2.1	B
	Rotax 912	80	68/47	2.25	B
KR-2	1835 VW	55	52/48	2.75	D
	2100 VW	80	52/50	2.75	D
	Subaru	75	53/68	3.7	D
Lancair	0-200	100	58/68	3.7	E
	0-235	118	58/68	3.7	E
	0-290	140	60-72	3.7	E
	0-320	150	62/72	3.7	E
	0-320	160	62/74	3.7	E
	0-360	180	68/76	3.7	F

LOW HORSE POWER PROPS (Ultralight Type) Composite
 Schedule P-Tip P-Tip
 A... Up to 54" \$8.00... \$12.20
 B... 55"-110" \$8.50... \$12.75
Call for Quote on all Prince Aircraft Propellers.

HIGH HORSEPOWER PROPS Composite
 Schedule P-Tip P-Tip
 C... Up to 45" \$12.50.. \$18.65
 D.....46"-55" \$13.00.. \$19.20
 E.....56"-65" \$15.50.. \$23.10
 F....66"-110" \$16.40.. \$24.40

MCCAULEY MET-L-PROPS



Original equipment on most Cessna aircraft and popular with owners of many other designs. McCauley has earned an enviable reputation for producing high-performance propellers. Most popular numbers are available from local stock. The Met-L-Prop number designates the model, diameter and pitch. Example: CM7150 is a model CM propeller with a 71 inch diameter and 50 inch pitch. When ordering a new prop which requires a doweled spacer, both spacer and bolt kit are included. Spacers and bolt kits may also be ordered separately. When ordering, specify whether engine has a tapered or flanged crankshaft. Tapered crankshaft requires Kit No.B-4622-6. Flanged crankshaft requires Kit No.B-4622-9. Elliptical tip models 1A90/CF and square tip models 1B90/CM having the same diameter and pitch are directly interchangeable except for CF7538 on Cessna 150G, H, J and K model seaplanes.

Aircraft Model	Engine	Standard Prop	Cruise Prop	Climb Prop	Our Price**
Beech A23-24	Lyc.10-360-A2B,A2D	BFA7762+			Call
Bellanca 7ECA	Cont. 0-200A	ACM6948+			Call
Bellanca 7ECA	Lyc. 0-235-C2C	CLM7246+	CLM7250		Call
Bellanca 7GCA	Lyc. 0-320-A2B	GM7452	GM7455	GM7450	Call
Cessna120,140	Cont. C-85	CM7148	CM7150	CM7146	Call
Cessna120,140	Cont. C-90	CM7152	CM7154		Call
Cessna 150A-F	Cont. 0-200A	MCM6950			Call
Cessna150G-K	Cont. 0-200A	DCM6948	DCM6950		Call
Cessna 150L	Cont. 0-200A	OCM6948+			Call
Cessna 170A,B	Cont. C-145	MDM7655	MDM 7656	MDM7653	Call
Cessna 172	Cont. 0-300A,B	MDM 7653	MDM7655	MDM7652	Call
Cessna 172A-H	Cont. 0-300C,D	EM 7653	EM7655	EM7652	Call
Cessna172I,K,L	Lyc. 0-320E2D	DTM7553+			Call
Cessna 175	Cont. G0-300A,C	MFC8467			Call
Cessna 175A,B	Cont. G0-300C,D	MFC8467			Call
Cessna 177	Lyc. 0-320-E2D	TM7653+			Call
Cessna 177A	Lyc. 0-360-A2F	EFA7656+			Call
Great Lakes	Lyc. 0-320-E2A	EGM 7654			Call
Luscombe 8A	Cont. A-75	CM7447	CM7449		Call
Piper J3 Cub	Cont. C-85	CM7144	CM7146		Call
Piper PA-18,18A	Lyc 0-290-D2	GM8241'			Call
Piper PA-32	Lyc.0-540-F4B5	PFA8266+			Call

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

- Select style and price, P-TIP or Composite P-TIP propeller.
- 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**
- Add Leading Edge Protectors, if required.

MULTI-BLADE PROPS

Three-Blade..... 2 Blade rate x 3 Four-Blade2 Blade rate x 4

LEADING EDGE PROTECTOR

Up to 48" diameter\$61.00 49" - 110" \$83.00