WARP DRIVE ADVANCED COMPOSITE PROPELLERS

Warp Drive's Advanced Composite Carbon Fiber propeller has a structural strength near that of metal propellers. Because of the stiffness achieved by using carbon fibers, the prop will do very little coning (bending forward) under power. Proper fiber placement allows the prop to flex torsionally for maximum cruise efficiency. The strongly fixed position of the blades along with optimum torsional performance translates into more thrust than conventional propellers.

The interior structure of this new propeller is all carbon fiber - no fiberglass, no foam, no filler - an all carbon fiber matrix combined with top quality hybrid epoxies. Carbon fiber is one of the strongest building materials available. When properly engineered, carbon fiber can achieve the strength and stiffness of a metal part, as demonstrated by its wide range of industrial and aerospace uses.

WARP DRIVE PROPELLER BLADE TYPES

All propellers and blade types are available with Stainless Steel Leading Edge protection as an option at additional cost.

1. STANDARD ADVANCED COMPOSITE CARBON FIBER BLADES
   The Standard Carbon Fiber Blades can be used on Rotax, Arrow, VW and similar engines.
2. HIGH HORSE POWER ADVANCED COMPOSITE CARBON FIBER BLADES
   The Carbon Fiber HP Blades will be required for use on Lycoming, Continental and some auto conversion engines.

WARP DRIVE HUBS

Warp Drive offers two types of hubs of our propellers. First is our Standard Hub. This is an assembly of anodized aluminum plates and composite clamping blocks. It accommodates standard and custom hub bolt patterns of up to 3 1/8".

The second type of hub is the HP Hub. This hub consists of two halves machined from solid aluminum. It is the same weight as the standard hub assembly and can accommodate Rotax, Arrow, VW, SAE I Continental, SAE II Lycoming and custom bolt patterns.

STANDARD CARBON FIBER PROPELLER

4-Blade Std Carbon Fiber Propeller.....P/N 05-31930 .....
Replacement Std Carbon Fiber Blade .....P/N 05-31935 .....

WITH HP HUB

2-Blade Std.....P/N 05-31940 .....

HIGH HORSE POWER CARBON FIBER PROP WITH HP HUB

2-Blade Carbon Fiber H/P w/HP Hub .....P/N 05-31950 .....
3-Blade Carbon Fiber HP w/HP Hub .....P/N 05-31955 .....
Replacement Carbon Fiber HP.....P/N 05-31960 .....
Mounting Hardware (Rotax).....P/N 05-31965 .....
Protractor.....P/N 05-31970 .....
Non-Standard Hub Pattern.....P/N 05-31975 .....
"HP" Hub (purchased separately) .....P/N 05-31985 .....

ORDERING A PROPELLER

We request all applicable information below when you are ordering:

1. Name, Address, Phone Number(s)
2. Vehicle - type, make, model, cruise speed, tractor/pusher,
3. Engine - make, horse power,
4. Reduction Drive - type, ratio. If there is no reduction drive, (State Prop RPM)
5. Hub Requirements - A) Bolt circle dia, B) Number of bolts, C) Bolt dims, D) Center hole dims, E) Drive lug dimensions (if applicable),
6. Propeller Description-rotation, diameter, structural limitation of diameter manufacturer's suggested prop description, no. of blades, tractor or pusher.

QUICK ADJUST SYSTEM IVOPROPS

The Quick Adjust System Ivoprops allow you to adjust the pitch on the ground in a matter of seconds by turning the screw adjustor in the center of the prop. Specify aircraft and engine make and model, and propeller diameter. • Magnum Ivoprop (5.5" cord, 58" to 76" diameter) is a high-horsepower version for engines up to 700 HP.
• Magnum Paddle Ivoprop (5.5" constant cord, 58" to 84" diameter" is for high-horsepower air boats and bush planes.

Note: Not Recommended for Lycoming Powered Aircraft.

Description	Part No.	Price
1 Blade Ultralight Standard Lefthand	15-05478	.
1 Blade Ultralight Standard Righthand	15-05856	.
1 Blade Ultralight Hi-Pitch Lefthand	15-05477	.
1 Blade Ultralight Hi-Pitch Righthand	15-06638	.
2 Blade Ultralight Standard Lefthand	15-04749	.
2 Blade Ultralight Standard Righthand	15-06312	.
2 Blade Medium Standard Lefthand	15-08279	.
2 Blade Medium Standard Righthand	15-07899	.
2 Blade Ultralight Hi-Pitch Lefthand	15-06932	.
2 Blade Ultralight Hi-Pitch Righthand	15-06933	.
3 Blade Ultralight Standard Lefthand	15-04785	.
3 Blade Ultralight Standard Righthand	15-06326	.
3 Blade Medium Standard Lefthand	15-06325	.
3 Blade Medium Standard Righthand	15-04784	.
3 Blade Ultralight Hi-Pitch Lefthand	15-06972	.
3 Blade Ultralight Hi-Pitch Righthand	15-07224	.
6 Blade Ultralight Standard Lefthand	15-08274	.
6 Blade Ultralight Standard Righthand	15-08275	.

IN-FLIGHT ADJUSTABLE PITCH IVOPROPS

The In-Flight Adjustable Pitch Ivoprop allows the pilot to change the propeller pitch in flight through a toggle switch mounted in the cockpit. Mounts directly to any Rotax gear box (B or C0 and can be adapted to VW, Subaru, Hirth, Arrow and smaller Lycoming and Continental engines. Older model Ivoprop ground adjustable props can be converted to the In Flight System with the Retrofit Kit. In Flight adjustable hub comes assembled with complete instructions. Weight of 3 blade 72" Prop including all required parts (furnished) is 9 lbs. Specify aircraft and engine make and model, and propeller diameter (48" to 76"). Magnum Ivoprops are for engines up to 700 HP (56"-76" prop. dia.).

Magnum 2-Blade Ivoprop Kit.....P/N 05-33270 .....
Magnum 3-Blade Ivoprop Kit.....P/N 05-33280 .....
Magnum 6-Blade Ivoprop Kit.....P/N 05-33290 .....
Magnum Retrofit Kit for Ground Adjustable Ivoprops
P/N 05-33295 .....

IVOPROP REPLACEMENT BLADES

Note: Proproot Number required prior to order. (This number can be found at the base of the original prop blade).

High Pitch Right Hand.....P/N 15-06638 .....
High Pitch Left Hand .....P/N 15-05477 .....
Standard Pitch Right Hand.....P/N 15-05856 .....
Standard Pitch Left Hand .....P/N 15-05478 .....