

# KDE DIRECT UAS MULTI-ROTOR PROPELLER BLADE SERIES TECHNOLOGY REVIEW

## INDUSTRY-LEADING PERFORMANCE

The KDE Direct UAS Propeller Blade Series is constructed of true carbon-fiber matrix materials and designed specifically for commercial, industrial, and military usage and applications. Computerized aerodynamic optimizations and airfoil studies used throughout development to provide the highest-level of performance and manufacturing quality on the market; factory dynamically-balanced for vibration-free and exceptionally smooth flight characteristics.



## DYNAMICALLY-BALANCED AND MATCHED

The UAS Propeller Blades are dynamically-balanced and provided in factory-matched sets – no need for secondary balancing or other headaches for smooth, vibration-free flight performance. Propeller airfoils have been optimized for maximum efficiency, peak top-end thrust, and quiet operation for flawless flight performance in a wide-variety of weather conditions.

## MULTIPLE-BLADE CONFIGURATIONS

Multiple-blade configurations (dual, triple, hex) are offered for a wide-variety of applications and desired in-flight characteristics. Thrust gains >70% can be achieved over standard dual-propeller configurations, without needing to increase the airframe size or propeller diameter for improved stability in wind and/or light-disc rotor loading conditions that will otherwise deteriorate flight-stability.

## FOLDING BLADES FOR EASY TRANSPORT

The UAS Propeller Blades are designed in combination with the KDE Direct UAS Propeller Blade Adapter Series – allowing for proper lead-lag operation during flight for incredible flight smoothness. In addition, the blades are easily folded-back for storage and portability – no more hassling with mounting screws and worn adapter threads, for dependable operation.

The UAS Propeller Blade Adapter Series are CNC-machined from certified, aerospace-grade AL 7075-T6 materials, with Class 12.9 alloy hardware for maximum strength and durability. Hex jam-nuts and Belleville spring lock washers provide a mechanical lock and consistent hold to the included custom CNC-machined, Socket Head Shoulder Cap Screws; reducing the need to readjust blade pressure and requiring minimal maintenance to the assembly between flights.