

Dornier 228 5-blade propeller upgrade

Standardized propeller upgrade improves engine performance and fuel efficiency



Your Dornier 228 is a reliable and versatile asset, proving best-in-class performance, and matching your specific operational needs. Realizing evolving cost-efficiency and profitability goals in today's operating environment requires even more. RUAG, your Dornier 228 OEM, together with propeller OEM, MT-Propeller, have developed a standardized, 5-blade propeller kit solution that fulfils operational specifications, is compatible with existing Dornier 228 variants, is affordably priced, and ensures your Dornier 228 delivers on enhanced engine performance as well as improved fuel-efficiency.

Performance upgrade with 5-blade propeller package

RUAG and MT-Propeller realize the importance of affordability and performance costs in streamlined operations. Shorter, lighter blades increase engine spin at starting, reducing Exhaust Gas Temperature (EGT) and also contribute towards improved fuel efficiency. At the same time, a reduction in time between overhaul events means your Dornier 228 will be flying more often.

Combining these performance advantages with a reasonable pricing structure ensures Dornier 228 operators benefit several times over:

Saving time, saving fuel costs, saving weight

- Composite blades weigh less than previous propeller solutions
- New propellers are shorter, enabling improved clearance in unprepared terrain
- Extended service life, in accordance with MT-Propeller's Service Bulletin 1, Revision 4
- Standardized pricing for more affordable upgrade kit
- Full cooperation between RUAG and MT-Propeller
- New, standardized upgrade ensures obsolescence is avoided

Improving comfort and conditions for passengers and mission personnel

- Quieter flight
- Low cabin vibration
- Reliable scheduling
- Timely takeoffs and landings, for STOL and unprepared airstrip locations

**Together
ahead. RUAG**

Certified for all Dornier 228 models

RUAG and MT-Propeller are dedicated to ensuring a high quality solution that is standardized in scope and costs, and remains readily available to Dornier 228 operators in the long term.

Fleet options

- Dornier 228 produced after 2010 standardized, 5-blade propeller assembly upgrade kit
- Dornier 228 classic variants (all) Supplemental Type Certificate (STC) for 5-blade propeller

Features of the propeller upgrade kit solution includes:

Less weight	saving approx. 35 kg (77 lbs.) over previous solutions for 2 propeller assemblies
Less vibrations	saving 5 centimeter (2 inches) per propeller assembly increases distance between propeller tip and fuselage and reduces induced vibrations to the cabin compartment
Less diameter	saving 19 centimeter (7.5 inches) in diameter, 9 cm in radius, improves ground clearance by 10 centimeter (4 inches) and reduces risk of foreign object damage (FOD)
Less noise	quieter by 2 to 3 dB (A), inside and outside
Less fuel consumption	proven 2-5 % improved performance
Faster	Quicker engine start 25 sec. (5-blade prop.) compared to 35 sec. (4-blade prop.)
Nickel leading edge	improved Erosion Behavior
Propeller TBO at 4000 FH / 72 MTH	1000 FH more as compared to 3000 FH (4-blade prop.); no life limit parts installed
Take-off distance over 35 ft obstacle	unchanged (SL, ISA, MTOW)
Climb performance	unchanged (ISA, MTOW)
Enhanced cruise performance	up to 3 kts
Repairable blades	
Cooler engine start	

Specifications

5-blade propeller assembly upgrade kit

- Approvals:
- FAA STC #: SA03052NY
 - EASA STC #: A.S.02755
 - A/C FAA TCDS #: A16EU
 - Prop FAA TCDS #: P27BO
- Engines:
- Honeywell TPE331- 5 - 252D
 - Honeywell TPE331-10 -511D
- Kit Contents:
- 2 X 5-Blade reversing and full feathering
 - Constant Speed Propeller
 - MTV-27-1-E-C-F-R(G)/CFRL250-55b
 - 2 X full composite spinner (AFRP) P-898-1
 - 1 X AFM Supplement Doc. No. E-1435 (EASA)
 - 1 X Installation Instruction Doc. No. E-1436 (EASA)
 - 1 X Instruction for Continued Airworthiness Doc. No. E-1437 (EASA)
 - 1 X Operation and Installation Manual ATA 61-06-10 (E-610)

Propeller Specifications

- Full Propeller Designation MTV-27-1-E-C-F-R(G)/CFRL250-55b
- Propeller Hub MTV-27-1-E-C-F-R(G)
- Milled single-piece aluminum hub
- Blade (ccw rotation) CFRL250-55b
- Blade Design Scimitar, light-weight natural composite
- Installed Propellers & Spinner Total Weight 308.7 lbs
- Maximum Diameter 98.4 in.
- Minimum Diameter 98.4 in.
- TBO According to SB 1, latest issue

Options

- HiGlo® Full Composite Spinner (AFRP) with chrome finish

Replaces

- 4-Blade Hartzell HC-B4TN-5ML/LT10574 propellers

Additional characteristics

- Vibration damping
- Erosion protection - nickel leading edge
- Unlimited blade life, no current ADs
- Meets enhanced German noise restrictions