



## BLACK HAWK UH-60 APU Inlet Barrier System

### Part Number 104003-101, Honeywell GTCP36-150(BH)

APU's operating in sandy and dusty conditions are subject to ingesting large quantities of sand and debris. Damage to internal portions of the APU result in a loss of turbine efficiency when coupled with compromised aerodynamics of the compressor section causes stalling and low performance.

An inlet barrier filter extends the life of the APU while operating in sandy and dusty environments without having a large impact on performance.

The barrier filter system for the Honeywell GTCP36-150(BH) APU utilizes the same filter assemblies as both the Hamilton Sundstrand T62T-40-1 APU for the H-60 and the T62T-2B APU for the CH-47. The filters are capable of separating over 99% of either AC Coarse or AC Fine test dust. This allows the APU to reach its scheduled TBO with minimal damage to the sensitive gas path hardware. The system includes a filter maintenance aid (FMA) that allows filters to be removed for cleaning when a certain pressure drop is reached and not when they appear to be dirty leading to an on-condition approach to maintenance.



### Part Numbers 104002-101, Hamilton Sundstrand T62T-40-1

The inlet barrier filter for the H-60 series aircraft is designed to minimize the impact on the APU and airframe and is optimized for maximum flow characteristics. The system includes an A kit which moves APU components, a B kit which installs adapter plates to mount the filter assemblies and a C kit which are the inlet barrier filters (IBF) themselves. The filter assemblies are common for both the H-60 and the CH-47 aircraft.

The barrier filter system employs high separation filter material with greater than 99% efficiency on both AC Coarse and AC fine test dust. This high efficiency allows the IBF equipped APU to reach established TBOs without internal damage to the bleed driven components or erosion damage to the diffuser and rotating components.

The system has been designed for the maximum maintainability with quick and easy servicing, replaceable and reusable barrier filter assemblies (15 cleaning cycles) and on-condition cleaning based on an integral filter maintenance indicator.

The barrier filter system has undergone Army qualification to include performance/operability testing, system vibration testing, and altitude start evaluation.



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Brochure No. F112264 (11/14)  
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