

# Bell 205/212S/UH-1H

## Inlet Barrier Filtration System



**MORE OF WHAT YOU WANT,**  
(protection, margin, power)

**LESS OF WHAT YOU DON'T.**  
(maintenance, erosion, cost)

# Bell 205/212S/UH-1H

## Inlet Barrier Filtration System

### A proven system

Aerospace Filtration Systems (AFS) introduces a new, exclusive Bell 205 (205A1/A1++, UH-1H) Inlet Barrier Filter (IBF) system that provides a high performance filtration option versus the significantly less capable Engine Air Particle Separator (EAPS) or Improved Particle Separator (IPS). Utilizing technology proven on commercial and military helicopters worldwide, the system features a multiple entry inlet engineered to fit existing airframe provisions, with four interchangeable filters. The AFS IBF system provides dust, sand, and dirt separation efficiencies exceeding 99% to ensure your engine has the maximum protection possible. At the same time, the IBF improves air flow versus the EAPS/IPS, meaning more power and reduced operating temps. Performance improvements yield up to 20 degrees more MGT margin compared to the IPS and a greater margin of safety when and where you need it. 205A1 performance can be achieved utilizing the basic inlet charts, with no restrictions; see approved FAA Flight Manual Supplement.

### Long-life filter

The four lightweight flat filters are designed to perform with ultimate efficiency in all flight regimes. With a 4,500-hour life, the significant amount of filter area allows cleaning service cycles as long as 300 hours (service life is a function of the operating environment). A filter maintenance aid allows on-condition monitoring of filter contamination level.

### QUICK SPECS

**IBF Kit Weight ..... 52 pounds**

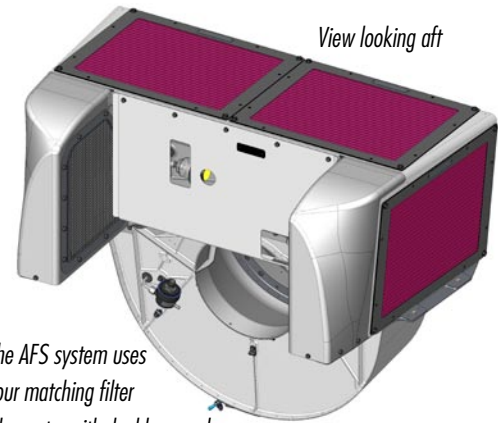
**Installation Time ..... 50 man hours**

### Key Benefits:

- ⊙ Proven technology with over 1,000,000 flight hours
- ⊙ Reduced life cycle costs over alternate systems
- ⊙ Maximum protection, reduced maintenance costs
- ⊙ Improved performance, certified with basic inlet charts
- ⊙ Improved engine inlet and drive shaft access
- ⊙ Filter maintenance aid (FMA) for on-condition assessment
- ⊙ Non-intrusive cockpit installation with minimal modifications
- ⊙ Common components with other AFS certified systems
- ⊙ Long lasting, flat filter assemblies for easy cleaning
- ⊙ Integrated engine water wash capability
- ⊙ Over 10 pounds lighter than IPS
- ⊙ Environmental cover included in kit

### Engineering-driven design

The assembly is self-contained, mounted aft of the main rotor mast and structurally integrated into the existing manufacturer's inlet plenum provisions. Simple mounting system using original provisions supports the IBF, including its self-contained bypass. This unique dual access bypass system with vertical doors ensures no restrictions in falling and blowing snow, providing a new safety capability for the inlet not previously available with the EAPS or IPS. Installation includes a self-contained cockpit bypass annunciation and activation switch. The IBF installation requires minimal modifications to the aircraft and provides



View looking aft

*The AFS system uses four matching filter elements, with dual bypass doors, for maximum effectiveness, efficiency and safety.*

a new forward firewall interface along with significantly improved drive shaft and couplings access. External horizontal and vertical mounting of four interchangeable filter assemblies allow easy access for servicing; the multiple flow path ensures optimum performance in both hover and forward flight conditions. Engine water wash provisions are provided with the new IBF, functioning the same as the original system; the filters do not require removal to perform an engine water wash. Access to IBF critical components is provided under an easily removable cover without removal of the IBF from the aircraft.

### Return on investment

Operators can attain the ROI for a barrier filter system within one engine overhaul cycle, even in a relatively clean environment.

### Install before flight

Direct from OEMs, from AFS, or through our dedicated distributors, we make it easier than ever to order and install an AFS filtration system. Install before flight.

*For more information, contact:  
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