PitotShield™ V2
With SmartCover™ Technology

NEXT GENERATION PROTECTION

For Your Passengers, Cargo, Fleet, Aircraft, Investment, and Life

PITOTSHIELD V2™ SMARTCOVER™

PAYS FOR ITSELF WHILE PROTECTING YOUR FLEET*

The pitot tube is arguably the most vulnerable component of the Air Data System of turbine aircraft, and protecting it is a challenge. Pitot covers must be custom fit. Pitot covers must be heat resistant **and removed for system testing.** Pitot covers must be highly visible. There must be no disincentive for pilots or ground-personnel to cover pitot tubes for fear of them not being uncovered prior to takeoff. For over a century these needs have continued unresolved until now. DeGroff Aviation Technologies has developed the PitotShield V2™- the first Safety Pitot Cover that addresses these long-standing issues involving the Air Data System protection.

- Provides the features requested from numerous airline representatives
- Systems Safety Engineered design protects the pitot tube from spiders, wasps, other contaminants.
- Designed specifically for Turbine/Transport aircraft with automatic pitot tube heat.
- Save estimated $50,000 to $500,000 per year in maintenance costs.* Will not melt and ruin a hot pitot tube, whether during power-up for maintenance checks or power-up prior to take-off.
- Disengages and falls away harmlessly after power-up. (Aircraft with auto pitot heat)
- Disengages **BEFORE** the aircraft reaches the taxiway or runway and without pitot tube damage.
- **UNIVERSAL FIT. ONE SIZE** needed for nearly all pitot tubes. Special sizes for special pitot tubes.
- Easily installed and removed by hand or using our install device for out-of-reach pitot tubes.
- Unique feature: actually tightens up on the pitot tube if disturbed by wind or prop/jet-blast.
- No fabric to wear out and unravel or fibers to shed and contaminate the pitot tube.
- Impervious to solvents, avgas, and jet fuel.
- For maximum daytime and nighttime visibility, the physiologically-determined, brightest colors for the RBF streamer, and an added Yellow-Green omni-reflective enhancement are used.
- * Fleet Airline data-due to replacement of burned element/contamination in maintenance of each one hundred aircraft.

WHY PITOTSHIELD V2™ SMARTCOVER™?

- **SMART-PREVENTS FOULED PITOT TUBES IN MAINTENANCE**
  Auto-Releases 2 to 5 Minutes after Pitot Heat Activation
- **HEAT-RESISTANT**
  Made specifically for auto-heated pitot tubes
- **UNIVERSAL PROTECTION**
  One size fits nearly every aircraft
- **THE NEW STANDARD IN PITOT TUBE PROTECTION**

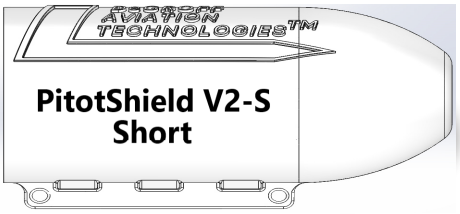
Scan For Active-Release Videos

Scan For PSV2 Web Page

PitotShield V2™ Spec Sheet

SHORT SIZE

DAT p/n 77TBS4701



Body

- Length..... 4.23 in (10.7 cm)
- Diameter..... 2.25 in (5.7 cm)
- Weight..... 4.0 oz (113 g)

Body Materials - Body Contains NO METAL

- Polypropylene PP1200 (BASF)
- Silicone Elastomer- GREEN for Short Size
- PTFE polymer
- Thermo Bulb® Thermally-Reactive Release Element: Silica, Water-soluble substituted hydrocarbon, Reactive Temp: 135˚F/57˚C

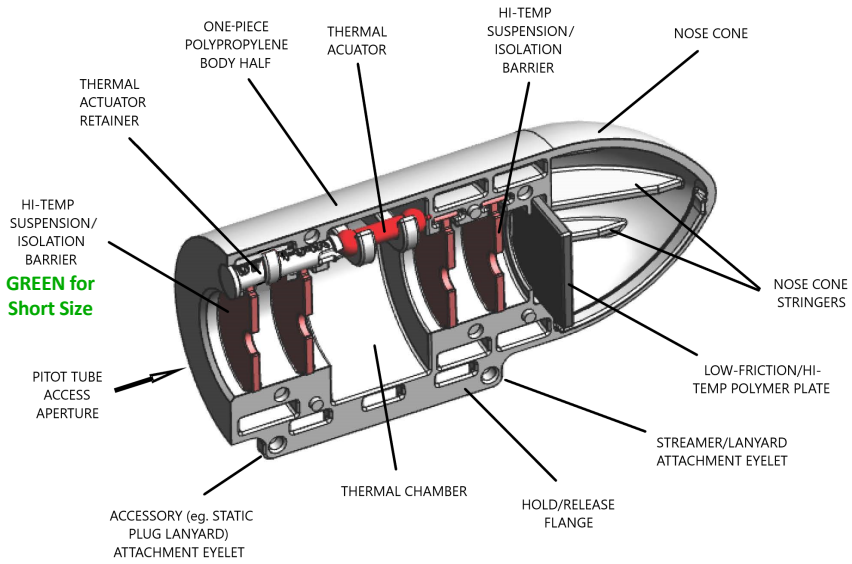
RBF Streamer Assembly

- Length..... 18.5 in (47 cm)
- Width..... 2.25 in (5.7 cm)
- Weight..... 0.4 oz (11.3 g)
- Color..... International Orange - 601nm
  Fluorescent Yellow/Green
  Omni-Reflective Accent - 565nm

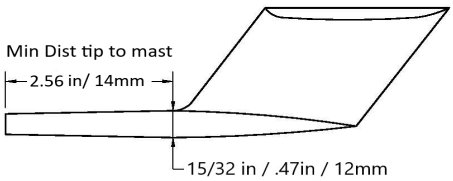
Streamer Materials

- Streamer.....Vinyl-Coated Polyester
- Grommet....Brass (Attached Milspec-style-NAS175
- Attachment...0.043in Nylon cord/Al crimp sleeve

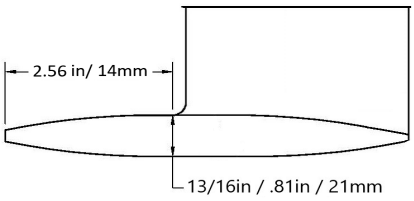
Total Assembled Weight w/DAT 4701 Hi-Vis RBF Streamer: 4.4 oz (125g)



PitotShield V2™ Short Size Fit Parameters



Minimum Pitot Tube Diameter
Measure 2.56in/ 14mm from tip



Maximum Pitot Tube Diameter
Measure 2.56in/14mm from tip

APPLICATION/FITTING DETAILS

This **PitotShield V2™-S (Short) SMARTCOVER™** fits round pitot tubes having a minimum length from the mast of 2.56in/ 14mm and a maximum diameter of 0.81in/21mm.

Structural and Functional Overview (Refer to diagram above)

The **PitotShield™ Smartcover™** consists of two major components. First is a two-part durable, UV-resistant 100% recyclable polymer body. The body parts are manufactured as single complete units using a unique additive polypropylene manufacturing technology. The second component is a replaceable high-visibility reflective RBF Streamer with a grommet and nylon ring attachment. Within the body is a patented heat-resistant suspension/isolation system. The suspension/isolation system has **five distinct functions**:

1. Four isolation barriers suspend the polymer body from the potentially hot pitot tube to prevent melting of the polymer should pitot heat be applied to the pitot tube.

2. The barriers hold the pitot tube tip against a patented flat, protective temperature-resistant fluoropolymer plate to ensure that no contamination will ever get into the pitot tube tip. Because of the flexing of the isolation barriers, once the pitot cover is placed fully onto the pitot tube, it cannot be released without slight increased force sufficient to prolapse the barriers. When the pitot cover is removed from the pitot tube, an initial holding force from the flexed barriers must be overcome until the barriers are prolapsed, at which point the pitot cover body can be slid forward off the pitot tube.

3. The physical flexibility of the suspension system facilitates one size pitot cover fitting onto numerous sizes and shapes of pitot tubes.

4. The isolation barriers form a thermal chamber within the body surrounding the pitot tube. This chamber has a release actuator which, upon reaching a specified temperature, will trigger the release of the two body halves.

5. Simultaneously with release of the two body halves, the isolation barriers aid separation of the two body halves which fall harmlessly from the heated pitot tube. Additional features of the **PitotShield™ Smartcover™** are the eyelets on either end of the lower hold/release flange. One eyelet is the attachment point for the RBF Streamer while the other can be an attachment point for lanyards from static plugs and/or AOA covers to augment your ADS system protection.

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