

## SPECIFICATION DATA SHEET

**FIRE EXTINGUISHER, 136 cu. in.  
P/N TFD14-0005-( )-( )-( )**

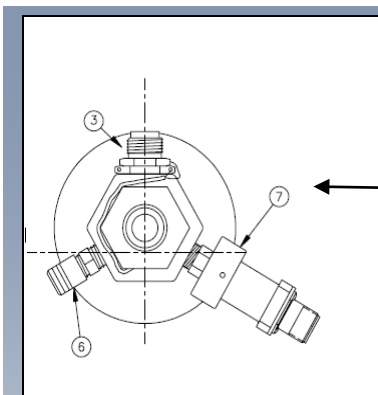
### DESCRIPTION

The AAE FPS extinguisher is a squib operated DOT Spec 39 aluminum container that is suitable for use in various locations inside the aircraft, including the engine compartment (if cooling provisions are present). The extinguisher bottle is non-refillable; therefore, it does not require periodic hydrostatic testing and has a lower overall life-cycle cost.

It is pressurized with Nitrogen to 360 psig at 70°F to achieve the needed rate of flow from the bottles over the temperature range expected during operation of the aircraft. It can be filled with Halon 1301, HFC-125, or Novec 1230 extinguishing agent. At 70°F, the working pressure is 500 psi.

The Extinguisher bottle has a pressure switch to monitor the nitrogen and agent pressure inside. When pressure is normal, the switch is electrically open; and when the pressure is low or empty, it closes to signal the bottle is empty. Total agent discharge time is less than 2 seconds.

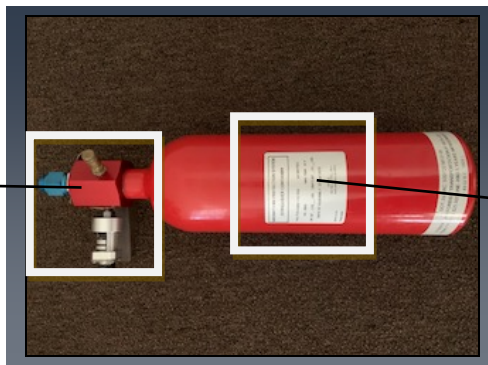
It is a seamless deep-draw aluminum cylinder, equipped with a large non-fragmenting rupture disk relief device, which doubles as the normal outlet valve, designed to open should the internal pressure of the cylinder exceed 1152 psi. The minimum burst pressure of the container's cylinder is 1497 psi. If penetrated by a projectile fired from the ground or air, the extinguisher container will not explode, burst or shatter.



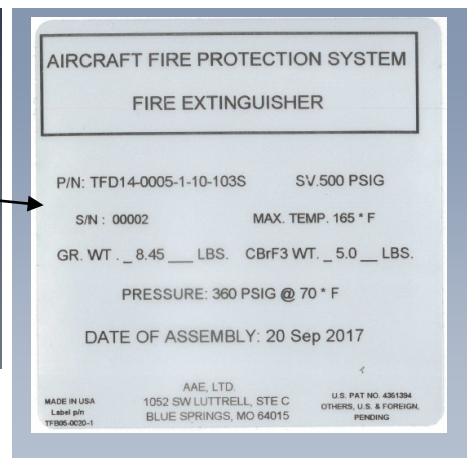
Top View of (-1) Head Assembly  
**(-1) Head assembly** with a  
straight outlet and the following  
items positioned at 90°:

- Item ③ - Actuator
- Item ⑥ - Fill Valve
- Item ⑦ - Pressure Switch

See page 3 of this Specification  
Data Sheet for the optional head  
assemblies.



(Part No. TFD14-0005-1-10-103S shown)



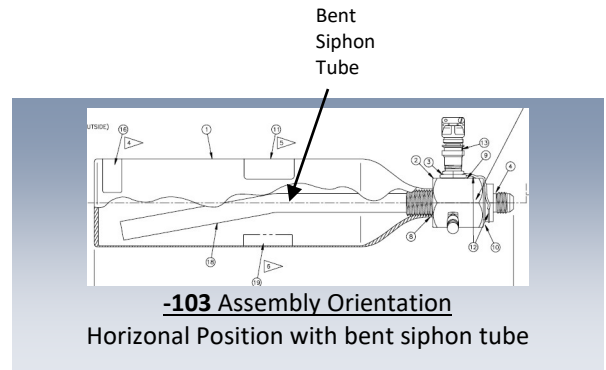
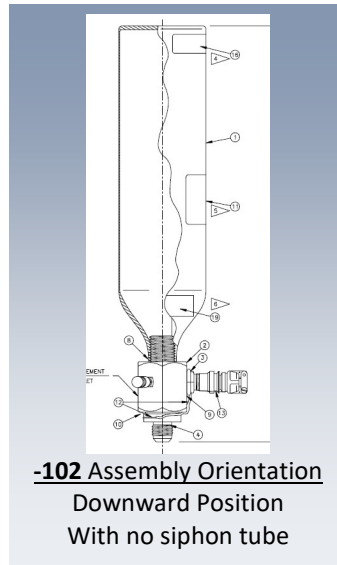
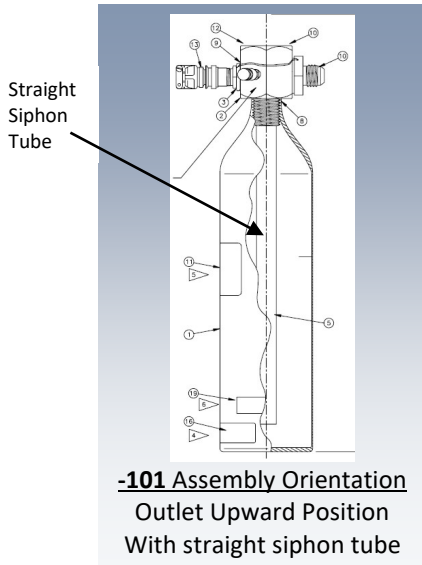
### BOTTLE ASSEMBLY PART NUMBER EXPLANATION

Example: TFD14-0005-1-10-103S

TFD14-0005-1-10-101 S	Basic Bottle Part Number
TFD14-0005-1-10-101 S	Head Arrangement (see SDS Page 3)
TFD14-0005-1-10-101 S	Outlet Fitting Size (either -10 or -12)
TFD14-0005-1-10-101 S	Bottle Orientation (see SDS Page 2)
TFD14-0005-1-10-101 S	S = Superpressurized N = Non-Superpressurized

## **BOTTLE ORIENTATION OPTIONS (-101, -102, or -103):**

(Shown with “-1” Head Assembly)



## **SPECIFICATIONS**

Container & Head Assembly Material:

Head .....2024-T351 Aluminum  
Cylinder, Actuator Body.....6061-T6 Aluminum  
Outlet .....304 SST

Cylinder Volume .....136 Cu. In.

Pressures: (Service Pressure – 500 PSI, Test Press. – 720 PSI)

- A) Superpressurized .....360 psi @ 70°F) (Nitrogen used, Approx. .07 lbs.)
- B) Nonsuperpressurized .....199 psi @ 70°F)

Design Pressure Limits:

- A) Relief Pressure 1152 Max (Ref. CGA S-1-1, Sect. 4.2.1.2)
- B) Max. Press. Expected @ rated Max. Temp. – 980-1000 psig.

DOT Spec 39

Dimensions:

Container (with -1, -5, & -7 Head Assembly and with -12 outlet) ..... Height = 16.91 inches  
Container (with -1, -5, & -7 Head Assembly and with -10 outlet) ..... Height = 16.76 inches  
Container (with -3 Head Assembly with Connector and Backshell) ..... Height = 16.85 inches  
Container (with -4 & -6 Head Assembly) ..... Height = 15.70 inches  
Container (with -2 Head Assembly, Pressure Switch, Connector, and Backshell) ..... Height = 19.88 inches  
Container Outside Diameter ..... Outside Diameter = 4.00 inches

Agent discharge time .....0-2 seconds (Max.)

Weight: Empty Assembly = 3.13 lbs. (+/- .10 lbs.)

Agent (Halon 1301) = 5.2 lbs. Max (for 160°F Temp Rating – Superpressurized)  
or = 5.8 lbs. Max (for 160°F Temp Rating – NonSuperpressurized)

Siphon Tube = .0879 lbs. (-101 and -103 Assy only)

Nitrogen = .07 lbs. Max. (Superpressurized)

Total Charge Weight (-101 and -103 Assy) = 9.12 lbs. Max (for 160°F Temp Rating – Superpressurized)

Total Charge Weight (-101 and -103 Assy) = 8.59 lbs. Max (for 160°F Temp Rating – Nonsuperpressurized)

Total Charge Weight (-102 Assy) = 8.50 lbs. Max (for 160°F Temp Rating – Superpressurized)

Total Charge Weight (-102 Assy) = 9.03 lbs. Max (for 160°F Temp Rating – Nonsuperpressurized)

Transportation Classification

- DOT-39 NRC 500/720 M10106

## OPTIONAL HEAD ASSEMBLIES:

