



[www.psm.com](http://www.psm.com)



## PSM 7FA+e Compatible Combustion Hardware

### The PSM Difference

PSM's complete line of General Electric 7FA+e compatible parts have been redesigned where necessary to address the life-limiting elements of existing designs. These parts are designed to deliver 24,000 Factored Fired Hours (FFH) and 900 Factored Starts (FS) run intervals or better before the need to inspect/repair.

Extended durability in conjunction with lower prices of the combustion components and other high-cost capital spares can significantly improve your bottom-line profitability.

In addition, increased parts longevity reduces refurbishment cost and allows extended operating intervals between scheduled maintenance. The resulting benefit is better availability and profitability in the marketplace.

### Scope of Supply for GE7FA+e (7241) Combustion Section

	7FA+e Combustion Hardware (7241)	24K DESIGN (Compatible with existing 12K)
<b>PSM</b>	Combustion Cover Assembly	X
	Fuel Nozzles	X
	Liner Cap	X
	Liner	X
	Transition Piece (TP)	X

PSM 7FA Hardware has been redesigned with durability improvements and can be used as "drop-in"/replacement hardware.

## BENEFITS

### 7FA Combustion Hardware Redesigned for Improved Durability Reduces Lifecycle Cost

- + PSM offers a complete system designed for 24,000 FFH or 900 FS
- + Interchangeability with OEM hardware (see PSM for specifics)
- + Increased durability of the components in service with 24,000 FFH between inspections
- + Lowered lifecycle costs from the initial investment through the complete lifecycle



## Design Intent is to Increase Part Life

PSM's combustion systems and components utilize advanced materials, coatings, cooling schemes, and design features to maximize durability and reliability of our components in your engines.

- + Identifying the issues/failures in current OEM replacement products
- + Use state-of-the-art analysis tools to model the issues/failures
- + Use same analysis tools to design and fabricate new hardware with longer life

### PSM Compatible 7FA+e (7241) Combustor End Cover

- + Designed for Dual-Fuel or Gas-Only applications
- + PSM addresses cracking of brazed inserts by increasing the insert thickness in the area of failure and by changing the braze material and process
- + Compatible with OEM or PSM fuel nozzles (see PSM for specifics)

### PSM Compatible 7FA+e (7241) Fuel Nozzle

- + PSM has redesigned the bellows for improved durability

### PSM Compatible 7FA+e (7241) Liner Cap

Cracking of effusion plate is reduced or eliminated with the following improvements:

- + Addition of back-side impingement cooling which results in lower thermal mechanical stress
- + Material upgrade
- + High-cycle fatigue stresses reduced due to increased cap stiffness

### PSM Compatible 7FA+e (7241) Liner

- + Enhanced cooling design at liner aft-end
- + Advanced coating for improved durability

### PSM Compatible 7FA+e (7241) Transition Piece

- + Utilized PSM experience from 501F, 501D5 & 7EA TP Designs. PSM design addresses wear and cracking of impingement duct with the incorporation of the following:
  1. Tighter fit between impingement sleeve and transition sleeve and the application of hard coatings at the interface
  2. Relocated aft attachment to exit frame thermally free design
- + Optimized cooling, 100°F reduction in metal temperature

**Power Systems Mfg., LLC** 1440 W. Indiantown Rd. P 561-354-1100  
Jupiter, FL 33458 F 561-354-1199  
[www.psm.com](http://www.psm.com)

