

# **Multi-Component**

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#### **A WORLD LEADER IN FILTRATION & FLUID CONTROl** SOLUTIONS FOR THE AEROSPACE INDUSTRY

Commercial & Regional Transport Military • Business Aviation • Helicopter

#### **OVER 60 YEARS OF STRATEGIC INNOVATION**

Your Value-Added Solutions Partner For Mission-Critical Operations

# Listen, Understand, Deliver

#### Through Foresight, We've Already Been There

Established in 1923 as Motor Improvements, Inc., PTI Technologies pioneered the practical application of filtration technology for a wide range of applications which included the introduction of the first disposable automotive oil filter. By the late-1950's, we deeply positioned ourselves as the leading hydraulic filtration supplier in the aerospace industry having supported aircraft such as the Lockheed Constellation, the North American P-51 Mustang, the Boeing B-17 Flying Fortress and the Boeing 707. These early efforts allowed PTI to further develop innovative, dedicated systems and components to enhance our product offering. Today, PTI continues to be a part of the solution for some of the most challenging and advanced programs across the broad range of aerospace markets.

PTI Technologies is a world leader in filtration and fluid control subsystems and equipment. Our product portfolio, used in hydraulics, fuel, thermal management, lubrication, bleed air, environment air/cabin air and water systems, is a direct result of our extensive engineering experience and customer obsession. PTI provides innovative, value-added solutions for a full range of mission-critical operations.



## Innovation

The PTI engineering team designs filtration and fluid control subsystems to exact customer specifications utilizing state-of-the-art CAD and analytical tools.

Our module designs integrate various subcomponents to protect and maintain the cleanliness and flow control of complex fluid systems.

Designed to accommodate operating pressures up to 8000 psi (552 bar) and temperatures ranging from -65° F to +1000° F (-53.9° to +537.8° C), PTI provides high-efficiency filtration and fluid control solutions to meet the most stringent requirements.

PTI's Expert R&D, Engineering, Design, Manufacturing and Testing Capabilities Ensure an Infinite Range of Advanced Filtration and Fluid Control Subsystems



## Values

Through our distinctive approach of obsessing over our customers, PTI Technologies is well-positioned to deliver the necessary proactive, innovative responses to new and challenging industry requests.

Listening, collaborating and remaining curious are at our core, enabling PTI to form lasting partnerships by really understanding our customers and their values.

We take pride in our quality assurance system which provides expert controls from program onset to ensure an efficient product lifecycle.

Our success is a direct result of our commitment to integrity, our personnel and 100% customer satisfaction.

# Solutions

- Partnership
- Customized Integration
  of Fluid Circuits
- Greater Reliability
- Reduced Cost
- Improved System Maintenance
- Product Support Services (MRO)
- 24-Hour AOG Assistance

# **Applications**

#### Commercial · Regional · Business · Military · Helicopter

# Hydraulic Filtration

- Airbus A350 XWB
  - 5000 PSI Modules Low Pressure Module EDP Case Drain Modules
- Boeing F-15 Power Control Module Utility Hydraulic Module
- Boeing 737 Hydraulic Filter Assemblies
- Boeing 747 EDP/ADP Pump Module
- Boeing 757 ACMP Center System Module EDP/ADP Pump Module
- Boeing 767 EDP/ADP Pump Module
- Boeing 777 Return System Module Hydraulic Filter Assemblies

- Bell 214ST Main Hydraulic Pressure Module & Integrated Reservoir
- Dassault Falcon 6X/7X/8X/10X System Hydraulic Modules
- Embraer E-Jet E2 Hydraulic Filter Manifolds
- Bombardier Global 7500 Hydraulic Filter Modules
- ATR72 Main Hydraulics
- Agusta A109 Hydraulic Filter Assemblies
- deHavilland DASH
  8-100/200/300
  Hydraulic Filter Assemblies
- KHI C-2/P-1 Left, Right & Center Modules EDP Module

# **Engine Filtration**

- Embraer E-Jet E2 FTIS Filter
- RR 250 CEFA Combined Fuel/Lube Filter Manifold
- PW1000G Family Last Chance Screen Filters
- PW4000 Engine Hot Air Filter
- PW F135 Lube Filters Main Fuel Filters
- EJ200 Lube Filter Module
- IAE V2500 Main Fuel Filter
- GE CF34 Main Fuel Filter



PTI's Robust Innovation and Technology Development Combine Engineering Expertise With Superior Product Design Capabilities and Quality-Driven Manufacturing.

Rest Assured That Our Multi-Component Modules Will Be Certified to the Latest ISO, AS and MIL Quality Standards.

## **Liquid Cooling Filtration**

- Boeing 787
  PECS, ICS & FCAC Modules
- Boeing F-15 LCS Module
- Global Hawk LCS Module

### Gear Box Transmission Filtration

- Leonardo Lynx 300 Main Gear Box Lube Filter Module
- Leonardo AW139 Transmission Filter
- Leonardo AW169 Transmission Filter
- PW F135 Lift Fan Lube Filter Module

## Fluid Control

- Boeing F-15 Aerial Refueling Receptacle
- KAI KF-21 Aerial Refueling Receptacle
- Sikorsky MH-60R Auxiliary Tank Fuel Transfer Valve
- Sikorsky HH-60W Auxiliary Tank Fuel Transfer Valve
- Sikorsky UH-60 Anti-Ice Starting Bleed Valve
- Boeing AH-64 Anti-Ice Starting Bleed Valve
- Sikorsky CH-148 Over Pressure Relief Valve Jettison Shut-Off Valve





# **Optional Components**

In Addition to Incorporating Pressure, Return and Case Drain Filtration, PTI's Custom-Designed Filter Modules and Fluid Control Subsystems Are Available With a Variety of Optional Components



Check valves

Differential pressure transducers Disposable or cleanable filter elements Drain or bleed ports Fluid sampling valves Filter bowl removal anti-drain valves Filter by-pass valves Mechanical or electrical differential indicators Pressure switches Pressure transducers Solenoid or pilot pressure operated valves System relief valves Temperature transmitters Reservoirs Quick disconnects





# Next-Generation Technology

#### KAI KF-21 Aerial Refueling Receptacle

Aerial refueling has many benefits including supporting longer airborne time or allowing for greater takeoff weight. Leveraging our innate tradition of innovation and current legacy design for the Boeing F-15 Aerial Refueling Receptacle (ARR), PTI has successfully developed and manufactured the aerospace industry's next-generation of ARRs. During flying boom aerial refueling, an ARR mounted on the receiver aircraft engages a flying boom from the tanker aircraft, offering a quicker transfer of fuel when compared to other refueling systems. Remaining committed to our values of curiosity and customer obsession, our efforts have proved to be essential in accommodating all new installation interfaces and operational loads required for Korea Aerospace Industries' KF-21 fighter aircraft. This new and improved, compact and symmetrical ARR design is adapted for center-line mounting aft of the pilot and is an important enhancement to our product portfolio and technical competence to support future aircraft programs.

• 400 gpm Flow Rate • Induction Coil Sensing • 90 psig Fuel Operating Pressure

Position Indication • Hydraulic Actuator with Relief • Integral Relief Valve







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