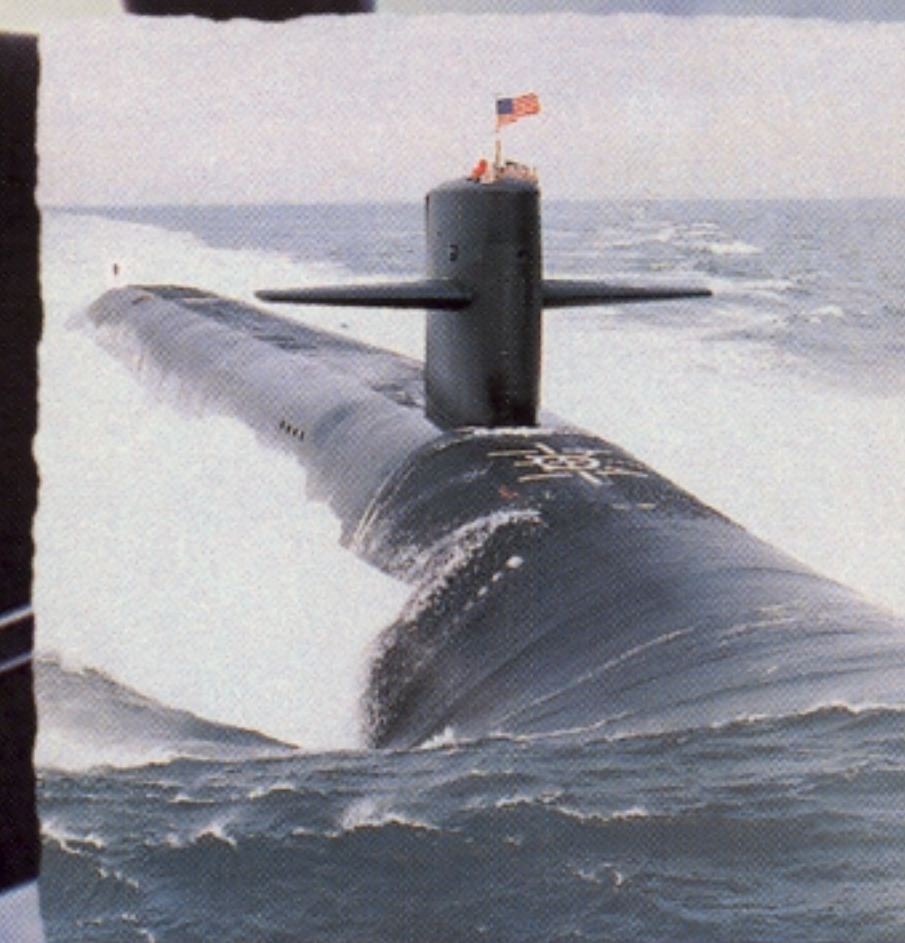




Aerospace



**Filtration.
Separation.
Solution.™**

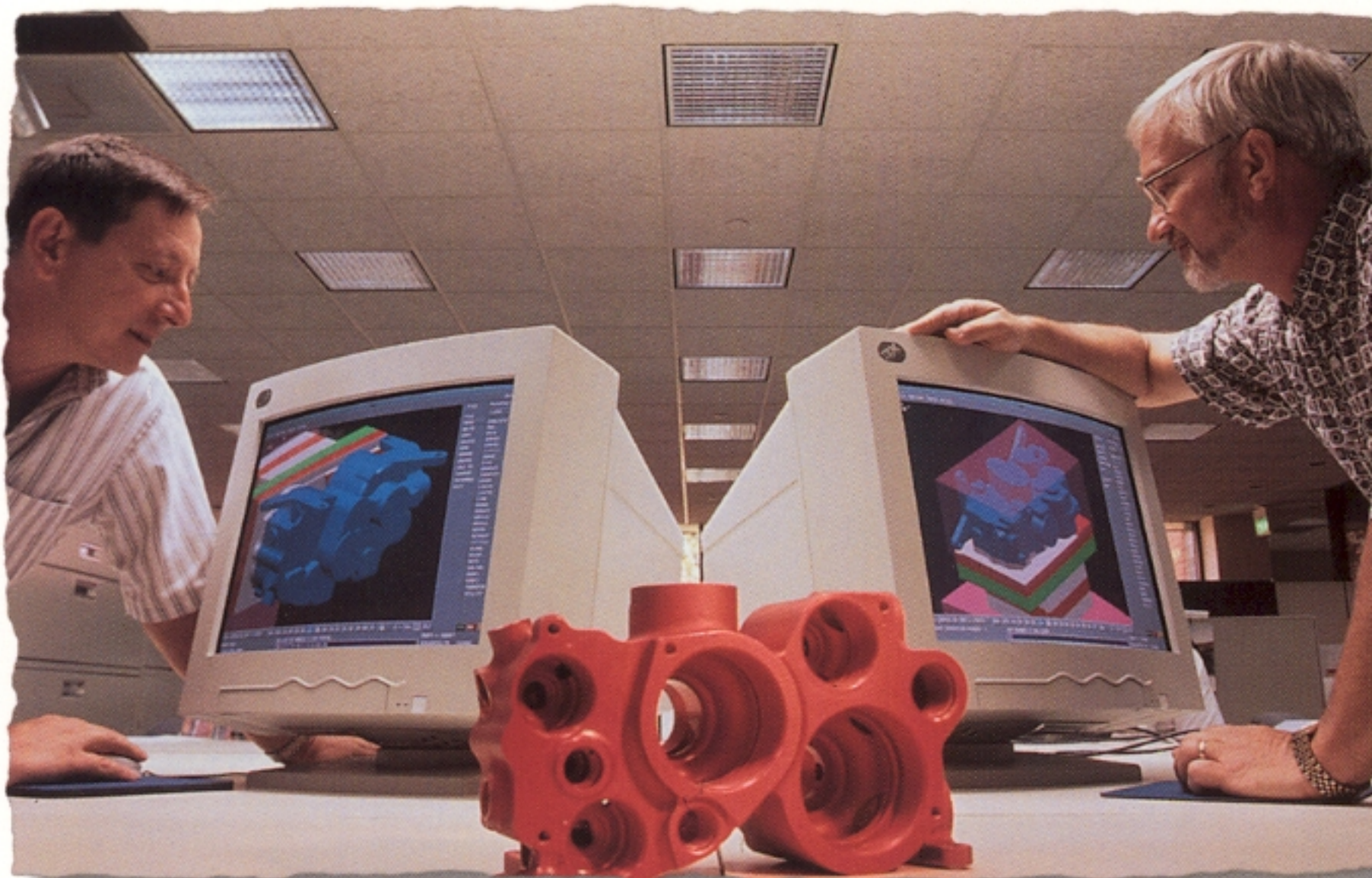


Attention to the smallest detail is mandatory when manufacturing high performance filter elements capable of removing 1 micron sized particles. Pall controls every aspect of the manufacturing process to ensure our filters will protect your systems.

Change Creates Challenges...

The aerospace and military industries have experienced dramatic changes due to the rapid evolution of technology. These changes in your business have caused us to rethink ours. At Pall, we've refocused our efforts and re-engineered our operation to meet your changing needs. We've made significant investments in new technology ourselves; technology that allows us to design, manufacture and customize precision products more quickly and efficiently than

ever before. We've consolidated all of our efforts in this industry into one operation – Pall Aeropower Corporation, a wholly owned subsidiary of Pall Corporation. We are well equipped to help you succeed in today's competitive global marketplace.



Investment in State-of-the-Art 3D Modeling Workstations has reduced the time required to design and manufacture complex manifolds.

Who can meet these challenges?

Pall Aeropower can.

Pall Corporation

is a specialty materials and engineering company with the broadest-based filtration and separations capabilities in the world. We serve a diverse, global customer base in three major markets: Health Care, Aeropower and Fluid Processing.

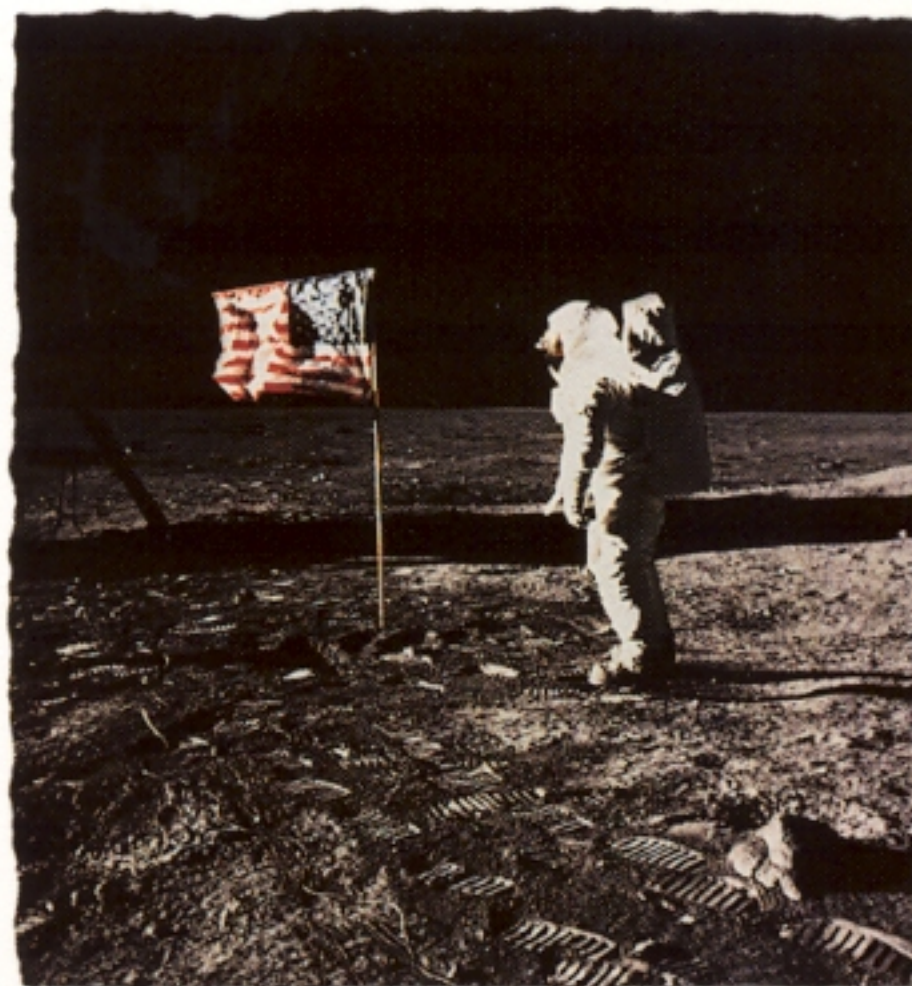
With more than one billion dollars in sales and more than 50 years of experience, we have dedicated ourselves to applying innovative technologies and scientific research to solve complex customer problems.



Boeing 707



M1 Main Battle Tank



First Lunar Space Walk

Our technology met early success in the aerospace market. The development of Rigimesh[®] media was instrumental in the success of the Boeing 707 airliner. We are proud to have been a part of such milestones as the first successful U.S. satellite launch, man's first visit to the moon, and a number of unique technological breakthroughs that were of particular aid to the military during Desert Storm.

Pall Aeropower Corporation

is the world's leading designer and manufacturer of sophisticated fluid clarification products for the commercial and military aircraft, military marine and military mobile markets. Working with equipment and component manufacturers in these markets, Pall custom designs products that remove harmful system contaminants. These optimized products extend component service life and improve the operating reliability of all fluid systems.

Our capabilities and experience have grown with the industry. Pall has taken a leadership role in the development of many standard products and specifications in conjunction with the U.S. Government and other customers. We've been participants in virtually every aerospace program that has required liquid or gas filtration. One example is the leadership position taken by

Pall on the congressionally mandated ASHRAE committee tasked with improving cabin air filtration on commercial airliners.

Our expertise is in defining contamination control requirements for your systems as well as customizing our products to suit your applications.



Our focus on total contamination control improves system performance and operational safety.

*Significant investments
accelerate the design
and manufacture of
precision products.*

Pall's major capital investments in technology, manufacturing equipment and our facilities have significantly enhanced our ability to rapidly design and manufacture optimized contamination control products. Multiple CATIA workstations have been installed allowing designers to perform comprehensive evaluation on these products before they are



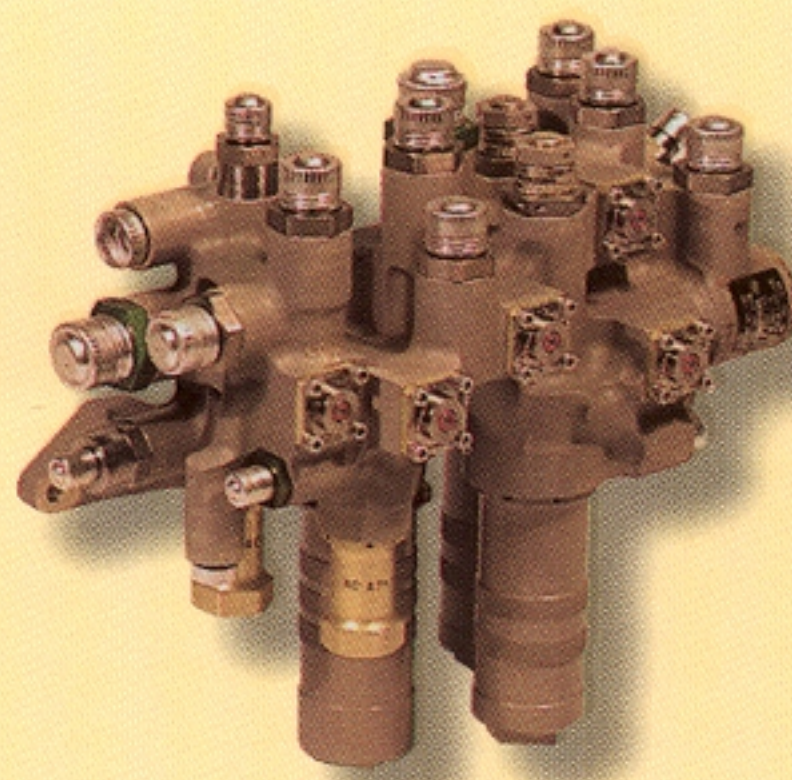
CATIA, a rapid building Computer Aided Design tool, allows designers to run comprehensive tests on products before they are built.*

built. Manufacturing programs are developed from the CATIA designs and downloaded directly to our new CNC multi-axis machining centers. Statistical Process Control (SPC) has been automated at these centers dramatically improving in-process inspection. Our qualification and acceptance test facilities have also been upgraded, streamlining the entire production process.

These investments enable the design, manufacture and testing of our products to be completed in-house, including the creation of our own proprietary filter media. We control the entire process from beginning to end and maintain a strict adherence to total product quality.

*CATIA is a registered trademark of Dassault Systemes.

Our extensive product line includes a full array of manifolds, filter elements and indicators. Among them are well known products in the industry such as:



***HYDRAULIC MANIFOLD:** This high performance Hydraulic Manifold provides multiple system filters, integral bypass and relief valves with the benefits of reduced size and weight, simplified maintenance and high reliability in a single package.*

Define the problem...

design, create, assemble and test the solution.



▲ Customer and Pall Aeropower engineering team meet for a filter manifold design review.



▲ 3D modeling of the new filter manifold design.



PRESSURE SWING ADSORBERS:
Pressure Swing Adsorbers remove all known and suspected chemical warfare vapors to below detectable levels, including the new generation of chemical warfare agents known as "Carbon Breakers" or "Filter Penetrants".



PURIFIERS: Pall Fluid Purifiers remove water, air, solvents and solid contaminants from hydraulic and other fluids without altering the physical or chemical properties of the treated fluid.

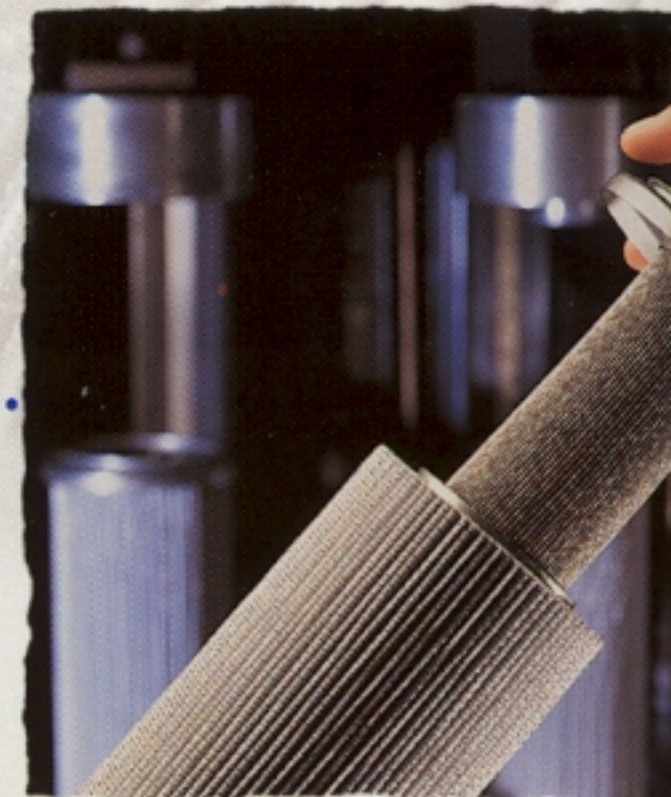
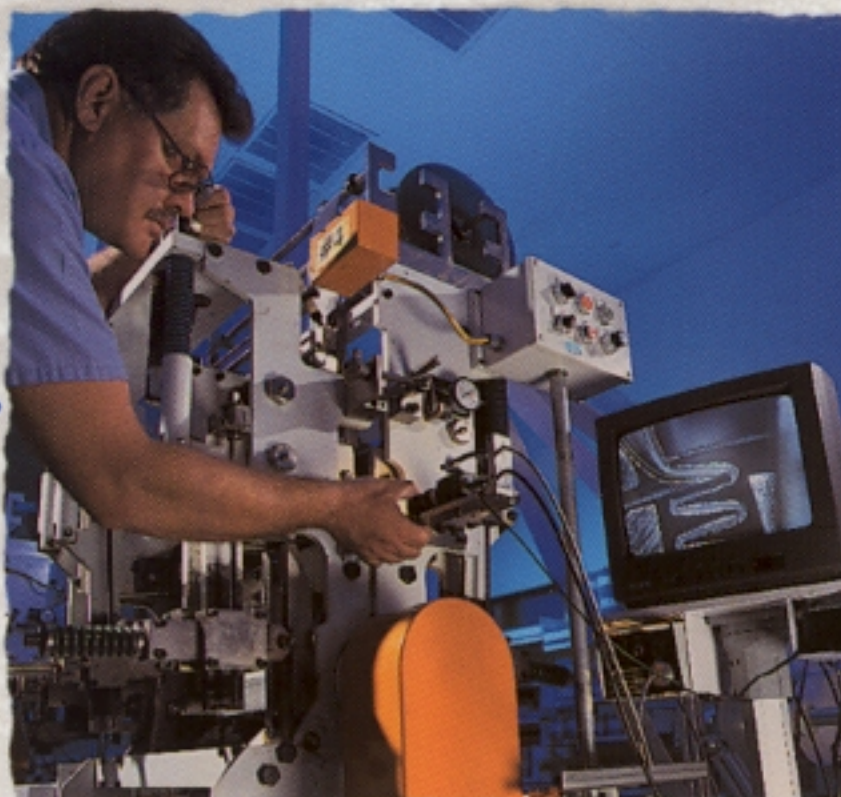
▼ Precision machining using state-of-the-art equipment at Pall's New Port Richey, FL manufacturing facility.

Filter Housings



▲ The computer-aided design (CAD) is translated into a computer-aided manufacturing (CAM) program.

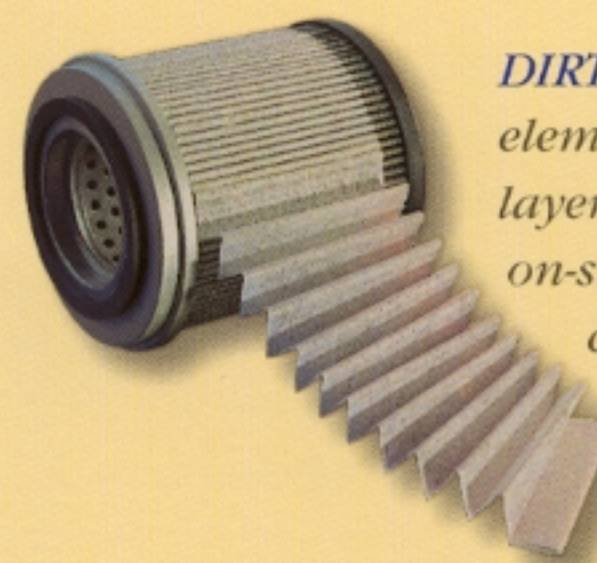
Filter Elements



▲ Pall's corrugator ensures consistent pleating of filter element media pack.



HYDRAULIC MANIFOLD: This Hydraulic Manifold incorporates sophisticated valving to control fluid transfer between systems and a modular base design permitting fast removal of the manifold without loss of fluid or the need to remove plumbing.



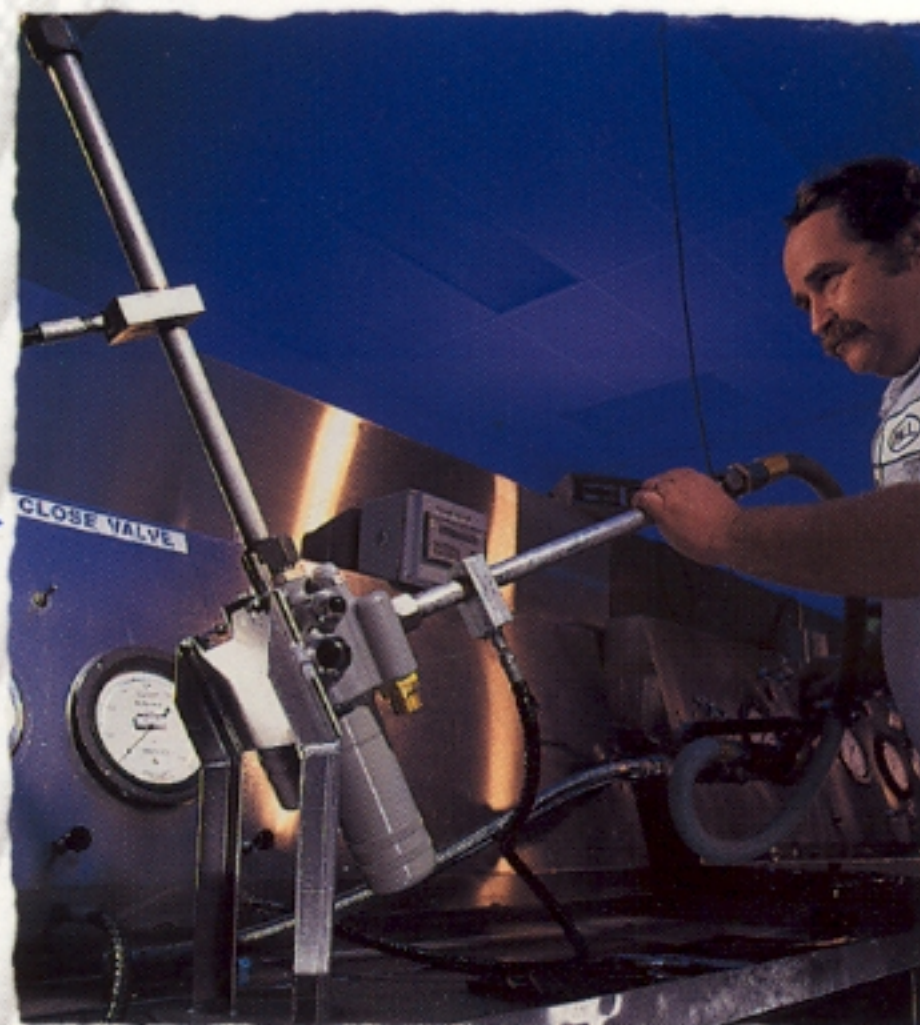
DIRT ALERT®: The Dirt Alert filter element incorporates a diagnostic layer which can be removed on-site for easy inspection of captured debris, revealing valuable information about the system's operating condition.

- ▼ Operator programs a computer numerically controlled (CNC), multi-axis, multi-palate, horizontal machining center.



- ▼ Key manufacturing dimensions are measured electronically and the output is forwarded to a computer for Statistical Process Control (SPC).

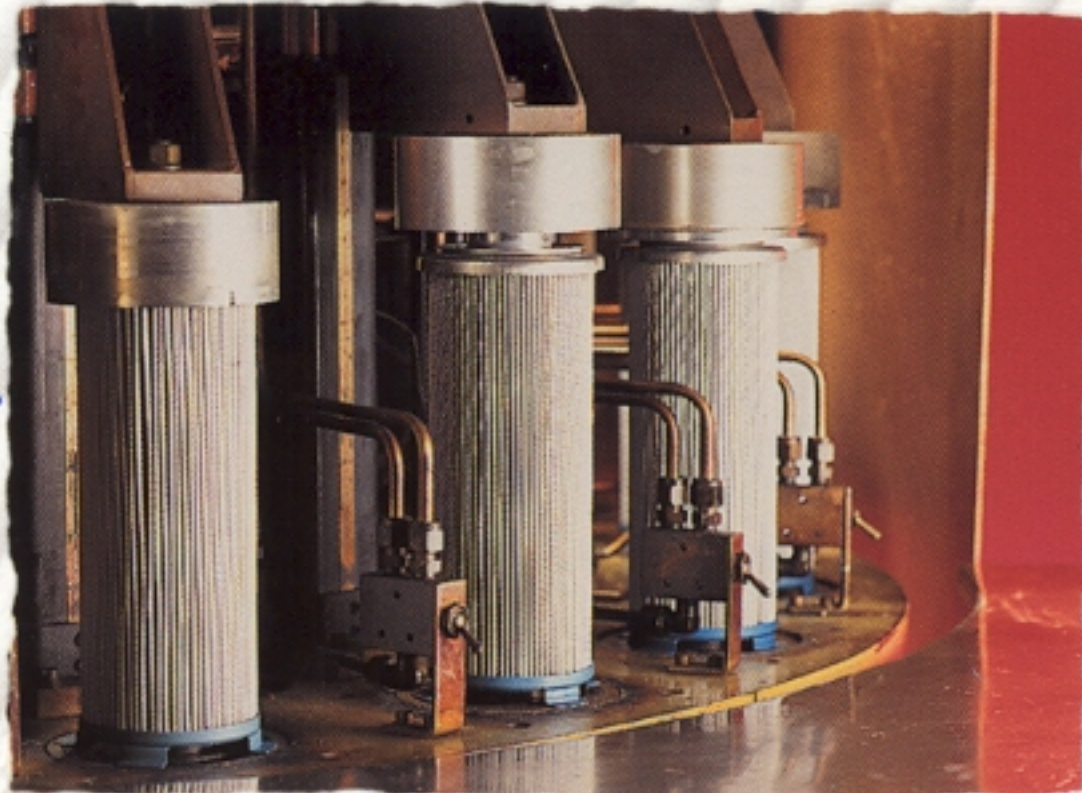
Assembly & Testing



- ▲ Assembly and acceptance test of a hydraulic manifold in Pall Aeropower's Skydrol Lab.



- ▲ Assembly of a dual stage filter element designed to increase service life and enhance operational safety.



- ▲ Filter elements are endcapped in automated rotary carousel.



HYDRAULIC MANIFOLD: Our Hydraulic Manifolds incorporate shut-off diaphragms in the head to bowl cavities to prevent the loss of system fluid during filter element replacement and prevents bowl installation without an included filter element.



AQUASEP®: The Aquasep Liquid/Liquid Coalescer is designed to remove water from the new generation of advanced jet fuels such as JP8+100.

*A worldwide
commitment to
contamination
control solutions.*

Pall has long been known for its commitment to providing an unparalleled level of customer support and service. Product quality and prompt delivery are undergoing continual improvement. In addition, we're available to aid in problem solving, system recommendations and the sharing of scientific information. We work with you every step of the way to ensure you're provided with a custom-designed solution to your contamination control concerns.

We field a large team globally to maximize our availability to you - our customer.



- Sales Offices - Pall Corporation
- Field Representatives - Russell Associates
- Manufacturing Plants
- SLS and R&D Facilities
- Distributors - PAS & Satair

Pall Aeropower supports you with services ranging from Overhaul and Repair of our components to fulfilling spare parts requirements. Our Customer Support organization operates according to Air Transport Association guidelines for all fielded components.



VENT FILTER DRYER: The Pall Reservoir Vent Filter/Dryer provides optimum protection against moisture and solid particulates entering open fluid systems.



LAST CHANCE FILTER: A Last Chance Filter (LCF) is a point of use filter that protects fluid system components from catastrophic failure caused by system generated particles.

*Work with the people
who are not only
experts in their
industry...but also
understand yours.*

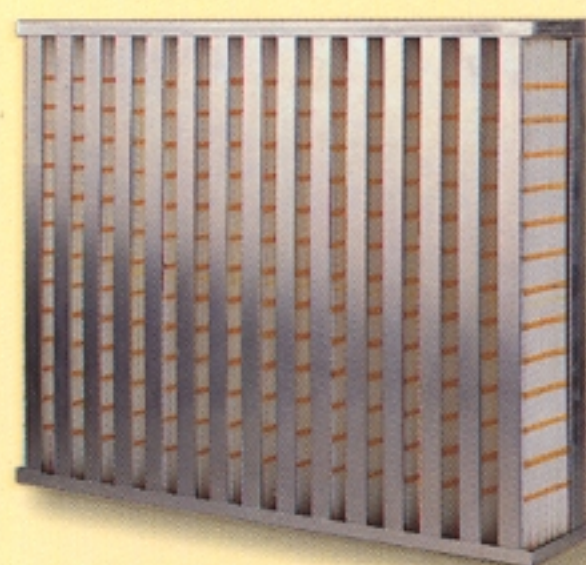
Pall engineers and scientists are experts in the many applications throughout the Aerospace and Military industries where Pall technology contributes to minimizing fluid system component wear, thus extending component life and reducing equipment downtime.

Our application engineers and design engineers have extensive first-hand knowledge of the fluid clarification challenges of your industry. Their experience ensures that the solutions they devise for your applications can be integrated into your systems easily and efficiently.

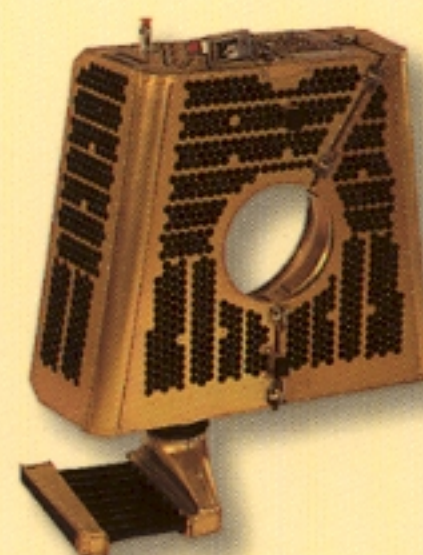


*For the more challenging problems, Pall
has highly trained personnel available
to assist you with your needs.*

The Scientific and Laboratory Services group (SLS) works with customers, providing the assistance needed to solve more complex system contamination control problems. SLS is unique in the industry and has a global reach with over 400 scientists and engineers deployed at more than twenty well-equipped laboratories throughout the world.



CABIN AIR: Cabin Air Filtration elements remove pathogenic bacteria and virus from recirculated cabin air, significantly lowering the risk of contracting infections in flight.



CENTRISEP®: The Centrisep Air Cleaner is a highly efficient, compact, self-scavenging device that removes damaging particulate contamination from engine inlets, bleed air, cooling air and environmental conditioning systems.

Now and into the future

Some of the developments pioneered by Pall illustrate our ongoing commitment to furthering contamination control technology for the commercial aerospace and military defense industries.



Graywater Treatment System

Developed to meet current and future national and international effluent discharge standards, the Pall Graywater Treatment System offers pollution prevention capabilities that allow Naval Vessels extended operational time in environmentally

sensitive waters and the ability to utilize ports which don't have pier-side waste collection facilities. The system separates the graywater into two streams – a retentate (concentrated contaminant) stream and a purified permeate stream. The purified permeate stream meets the necessary environmental requirements to be discharged directly into inland and coastal waters.



Aquasep® Coalescer

Current coalescer technology is not effective in removing “free water” contamination from today’s advanced jet fuels such as JP8+100. Pall Aeropower is working with the Air Force, the Navy and a leading engine manufacturer in testing new coalescer technology that will effectively remove “free water” contamination from JP8+100 jet fuel. SLS is working on the standards committee involved with this project and will be directly responsible for setting up a large scale facility to test the effectiveness of Pall’s unique coalescer at high operational flow rates.



Dual Stage Filtration System

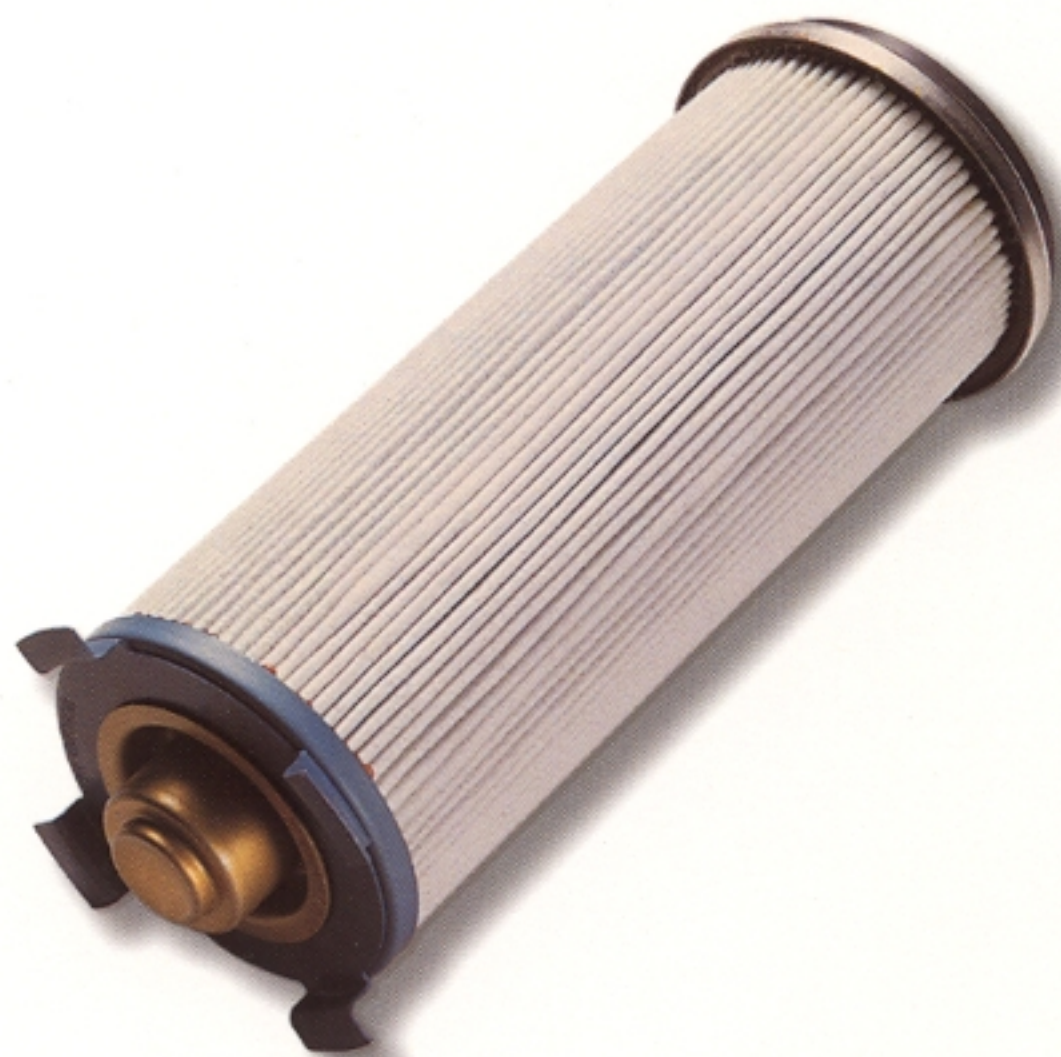
The formation of lubricant thermal breakdown products within jet engines can result in the plugging of the lubrication system filters, often requiring shut down of the engine in flight. This could interrupt or abort a flight and require

engine maintenance and, in some cases, even engine replacement. The Pall team developed a solution – a dual-stage filtration system where the second stage is used as a back-up if the primary filter clogs, thus preventing the need to shut down the engine in flight.

Put Pall on your team.

Pall customers are assured of unparalleled quality and extensive customer support. Please contact a Pall representative, so we can show you how Pall can help you:

- Enhance system performance
- Reduce system component wear
- Reduce equipment downtime
- Extend system service interval
- Monitor and reduce environmental impact



Our commitment to you is a simple one - Pall Aeropower stands ready to be part of your team, applying our technology and resources to your fluid clarification challenges.

Challenge us to create a solution for you.

*Pall supports
our customers with
in-field services.*

RUSSELL ASSOCIATES

Russell Associates, Pall's wholly owned subsidiary, is your technical representative in the field. They are the liaison between your system developers and Pall Aeropower's Application and Design Engineers. Russell is one of the nation's leading manufacturers' representatives with regional offices located in all of the most highly concentrated aerospace and defense centers in the U.S. and Canada.

PAS

PAS, a division of Russell Associates, is the stocking distributor of aircraft filters for Pall Aeropower. As the largest supplier of aircraft filters in the North American commercial airline aftermarket, they maintain a multi-million dollar inventory of aircraft and helicopter filters. PAS is also a major supplier of filter kits, custom-designed for easy installation and labeled to conform with your maintenance practices. The PAS team offers superior customer support through highly-trained experts in the field, same day shipment of most parts, and maintains an AOG service for after hours emergencies.

SATAIR

Satair provides filter product stocking distributor support beyond North and South America. They specialize in the efficient and reliable distribution of aircraft parts on a global basis, representing a small but carefully selected group of companies. In addition, Satair can supply a highly knowledgeable level of technical support and prides itself on on-time delivery of product. Satair is known for its immediate and reliable response, with electronic links between all Satair offices worldwide.

SEMINARS

As an additional service, Pall provides scientific and technical seminars encompassing the subjects of fluid clarification, filtration, and solids separation. These programs are presented by senior application engineers and scientists and are tailored to your specific needs.

WEB SITE

Pall Aeropower can be contacted via the World Wide Web. This site features information that allows our customers to keep current with the latest developments in Pall technology. Contact us at <http://www.pall.com>



Aerospace

Pall Aeropower Corporation
5775 Rio Vista Drive
Clearwater, FL 33760

727.539.8448 phone
727.533.0401 fax
pac@pall.com e-mail

Visit us on the web at www.pall.com/aerospace

Pall Corporation has offices and plants throughout the world in locations such as: Australia, Austria, Belgium, Brazil, Canada, China, France, Germany, Hong Kong, India, Indonesia, Ireland, Italy, Japan, Korea, Malaysia, Mexico, the Netherlands, New Zealand, Norway, Poland, Puerto Rico, Russia, Singapore, Spain, Sweden, Switzerland, Taiwan, Thailand, the United Kingdom, and the United States. Distributors in all major industrial areas of the world.