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# ABOUT QUALISEAL TECHNOLOGY

Meet the industry leader in high-speed, differentiated pressure, extreme temperature, and restrictive environments. Qualiseal Technology's custom-engineered mechanical seals are a testament to our design expertise, state-of-the-art processes and equipment, and collaborative approach.



## HISTORY / MARKET SPECIALTIES

Founded in 1951 in the Chicago area, Qualiseal Technology is a global leader in the design and manufacturing of custom-engineered mechanical seals for demanding aerospace applications. A division of Technetics Group, we assure the highest quality product at the greatest total value.

Every time our parts fly on a commercial flight or military mission, it's a testament to our customer focus, design expertise, ISO 9001:2015/AS9100 Rev D registered processes and flexible, collaborative approach.

Look up, and you'll see thousands of our parts flying in commercial airliners, military fighters, transports, helicopters and regional and business jets. Applications include starters, auxiliary power units, gearboxes, fuel systems, hydraulic systems and scavenge pumps.

In addition to aerospace, we also provide seals for the centrifugal air compressor (CENTACq), food, military and other industrial markets, satisfying their need for mechanical seals in critical applications.

Tomorrow, just like today, we will continue our passion for pushing the limits of technology, and finding ways to help our customers accomplish their unique sealing requirements.

## GLOBAL REACH

Wherever you do business, Qualiseal Technology helps you achieve your custom, critical mechanical sealing requirements.

Companies across the world choose us for our unwavering commitment to quality, the way we listen and creatively solve problems that others can't and our dependable, reliable service.

Whether your application operates in a full vacuum or requires virtually zero leakage, we will solve your most challenging mechanical sealing priorities.

## CREATIVE PROBLEM SOLVING

Extreme operating conditions are our comfort zone—thousands of our products are in use right now in hydraulic pumps, fuel pumps, auxiliary power units, jet engines, transmissions, gearboxes, starters and compressors worldwide.

The following case studies highlight examples of the custom, innovative solutions we've created for demanding applications. Bring us your critical sealing challenges and we'll explore the possibilities, even when others say that a solution isn't possible.

- [Circumferential Seal Case Study: Military Aircraft](#)
- [Metal Bellows Seal Case Study: Fuel Pump](#)
- [Contacting Face Seal Case Study: Aircraft Engine](#)
- [Non-Contacting Face Seal Case Study: Gearbox](#)
- [Mating Ring Case Study: Hydraulic Pump](#)

## RESPONSIVE CUSTOMER SERVICE

Qualiseal's responsive customer service, along with our engineering expertise, unmatched reliability, consistent on-time delivery and greater overall value, have raised the bar for the industry.

We carefully listen to your needs to create the solution that gives you the highest quality product at the lowest total cost. For example, a customer approached us with a request for reduced leakage in a current application. One company said it couldn't be done. Another wouldn't return the call. Instead of the standard 3-5 drops an hour, we improved results to meet the required leakage amount.

Our quoting process is so in-depth, there won't be surprises on price, quality or delivery. We simulate manufacturing, up to procurement of all materials and processing of components—including in-house and outside processing—all before we release a quote.

Our lead time is 10-12 weeks, instead of the typical 20-30 week industry standard. We strive to maintain 100% on-time delivery.

Since we are leaner than our competitors, you get responsive, timely assistance without going through layers of people, meetings, emails and voicemail messages.

We also offer outstanding technical support. We've heard that some companies just don't take the time to give in-depth explanations like we do.

In short, when working with Qualiseal Technology, you'll get the support that you expect and deserve.



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## LEVERAGING TECHNOLOGY

Qualiseal Technology combines deep mechanical seal expertise with creative thinking, advanced manufacturing processes and leading-edge technology. Inside our facilities, you'll find an ISO 9001:2015, AS9100 Rev D registered manufacturing process that includes:

- A broad scope of CNC machining centers
- The latest inspection/validation equipment by Hexagon Metrology, Mahr, Tropol, Zeiss and Zygo
- A lean, cellular manufacturing process with continuous improvement initiatives, which results in increased quality, cost control and best total value to our customers
- We adapt quickly and reliably to meet your requirements using advanced technology and processes

Of course, from your perspective, all that really matters is our “can do” attitude and the way that we deliver custom mechanical seals that meet your demanding requirements in shorter lead times and with greater value.

## RELENTLESS TESTING

Testing is an integral part of the way we do business. It's rooted in our quality policy, which is “to consistently meet or exceed customer expectations by continually improving all aspects of the company.”

Even before our designs leave an engineer's computer screen, they undergo an extraordinarily thorough review. This includes Finite Element Analysis (FEA), to ensure that materials and design meet original specifications. A review of this design data is performed against our many years of testing data and field experience. Additionally, this assessment provides stress, deflection, leakage and temperature data to guide design decisions. Design for Manufacturing (DFM) reviews are also performed to ensure manufacturability and create optimal production processes.

To further ensure product integrity and conformity with design criteria, all mechanical seals are subject to 100% static testing prior to shipment. This includes:

- Flatness Testing. Qualiseal uses the most accurate method of inspection for seal face flatness available today, laser profilometry.
- Spring Load Force Testing. All Qualiseal mechanical face seals are tested 100% for spring load force at the designed minimum and maximum working heights. This helps ensure proper seal loading to design requirements.
- Leakage Testing. All Qualiseal mechanical face seals are subject to 100% static vacuum test at design working height. This checks for leakage at both the primary (seal face) and secondary (O-ring) sealing surfaces.

Before shipping, every product again undergoes a final inspection to ensure conformity to design specifications. All inspection documentation, including product traveler, material/process certifications and inspection reports, is electronically filed, ensuring that records and traceability are protected and easily accessed. Our quality system is registered under the AS9100 standard and is approved by the Federal Aviation Administration.

Comprehensive dynamic testing—including lifecycle testing and side-by-side performance testing—is available in our Performance Verification Lab.