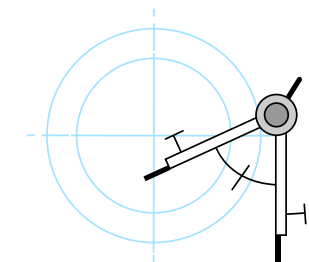


Engineering
Quality
Supply Chain
Assembly
Aftermarket & Production Kitting
Vendor Manager Inventory

ENGINEERING

Seal Manufacturing
Materials
Design
Validation & Testing
Installation Techniques
Failure Analysis
Parameters Affecting Sealing



IN-HOUSE ENGINEERING SEAL EXPERTISE

Our strength lies in our ability to assist with design at the front end. That way your back end... is covered.

When you work with ESP, you are adding seal EXPERTS as an extension to your engineering team.

Resulting in engineered solutions that are comprehensive and creative. Just like our engineers.

Whether a complex sealing application or a simple material selection, take advantage of our seal expertise – making your parts stronger and more efficient to produce.

PARAMETERS AFFECTING SEALING EXPERTISE

The process of defining a specific sealing system is the first step toward understanding the true application needs. The design engineers ability to narrow down all of the system variables and understanding their affects will dictate the success.

PREDICTIVE MODELING (FEA)

Instead of manufacturing a seal, testing it in the field, and then correcting any problems through multiple iterations, the ESP engineering team can use predictive modeling to simulate seal performance without incurring material or fabrication costs. Using sophisticated computer-aided design (CAD) software, modelers can design and test parts to predict operational and assembly strains.

VERIFICATION TECHNOLOGY

The ESP Engineering team specializes in sealing applications (o-rings, hydraulic seals, custom molded rubber) with a focus on radial shaft seal technology and testing. We pride ourselves on our ability to innovate and think outside of the box, developing solutions for difficult problems. We are proud of the innovation we bring to developing unique test protocols in situations where no established procedures exist.

With our radial shaft seal development effort, we combine both product design and lab testing - utilizing finite element and CAD at the beginning of a product development stage and then verifying the result through lab testing.

ESP Engineering's advanced shaft seal test facility utilizes state-of-the-art shaft seal test machines allowing you to evaluate various seal designs for your specific application.

- **Hot Oil**
- **Dust & Slurry**
- **Seal Lip Pump Rate**
- **Seal Power Consumption**

