







Kansas City 913-371-7425 1132 Adams Street Kansas City, KS 66103

Arlington 817-640-1193330 Westway Place STE 446
Arlington, TX 76018

ESP Supplier Partners

| ESP ENGINEERED SEAL PRODUCTS* 100% Employee-Owned | ESP is supplier agnostic. Meaning we want to provide you with the best-fit option for your application. Whether that be our own developed general purpose material line or from one of our many premier supplier partners. | CAGE CODE 5F263, 5G090, 4K660 |
|---|---|----------------------------------|
| DISTRIBUTOR Seal Technology Center | For over 50 years, ESP has partnered with Parker Seals. We are proud to be one of the FEW Premier Distributors to qualify as a "Parker Seal Technology Center (STC)". | CAGE CODE 83259, 02697 |
| FREUDENBERG-NEXC | ESP is proud to be a "Freudenberg North American Preferred Partner": Involvement of engineering services Highest technical seal competence Efficient & speedy cross-linked processes High & quick availability assuring a reliable delivery performance | CAGE CODE 1CN74, 05262, 02988 |
| PREGĪX | With a legacy dating back to 1910, Precix delivers elastomer solutions for the most demanding Aerospace & Defense applications. | CAGE CODE 70106 |



CERTIFICATE OF REGISTRATION

The management system of certificate number 264292

ESP International, Inc. dba SWAN Engineering & Supply Co., Inc.

1132 Adams Street, Kansas City, KS, 66103, USA

has been audited in accordance with the requirements of AS 9104/1 dated 2012-01

AS 9120 B / ISO 9001: 2015



Initial certification: Friday, March 6, 2020 Current cycle start: Thursday, July 6, 2023 Latest issue: Tuesday, March 25, 2025 Expiry date: Sunday, July 5, 2026 Subject to annual assessments.

Certification structure: Multi Site

amtivo.us



Expiry Date: Sunday, July 5, 2026 Certificate Number 264292

Locations covered under certification:

- ESP International, Inc. dba SWAN Engineering & Supply Co., Inc. (Overall Certification)
 ST. Adams Street, Kansas City, KS, 6603, USA
 Procurement, Logistical Distribution, and Vendor Consolidation Services Involving Elastomer Sealing
 Products, Custom Molded Products, Thermoplastic Products, and Metallic Components

ESP International
 330 Westway Place, Suite 446, Ar lington, TX, 76018, USA
 Location Scope: Procurement and Logistical Distribution of Elastomer Sealing Products









Quality, Safety, & Reliability

| | INTERIOR | ENGINE | AIRFRAME | COCKPIT |
|----------------------------|----------|--------|----------|---------|
| Aileron Seals | | | • | |
| Door Seals | • | | • | • |
| Case Seals | | • | | |
| Ceiling Seals | • | | | |
| Diaphragms | • | | | |
| Gasket Seals | | | | • |
| Electrical Connector Seals | | • | • | • |
| Elevator Seals | | | • | |
| EMI Seals | | | • | |
| Face Seals | | • | | |
| Flap Track Seals | | | • | |
| Floor Seals | • | | | |
| Fire-Resistant Seals | | • | • | |
| Fuel Seals | | | • | |
| Hydraulic Seals | | • | • | |
| Lip Seals / Oil Seals | | • | | |
| Low Friction Oil Seals | | • | | • |
| O-Rings | • | | | • |
| PTFE Seals | | • | • | • |
| Rudder Seals | | | • | |
| Tailcone Seals | | | • | |
| Turbine Seals | | • | | |
| Weatherstripping | • | | | • |
| Wing Root Seals | | | • | |
| Window Seals | • | | | |











O-Rings Custom Molded Rubber Shaft Seals Hydraulic Seals Gaskets

ESP Value Add

- Quality & Compliance
- MIL-SPEC Packaging & Kitting
- Supplier Resilience
- Vendor Consolidation

Quality & Compliance

ESP's quality management systems are based on the Plan, Do, Check, Act that the standards embrace and backed by a culture of employee empowerment and continuous improvement. At the center of our cycle is the needs and expectations of the interested parties to the functioning of our quality management system. ESP has two AS9120B certified locations (Kansas and Texas). All our aerospace products are manufactured at facilities with TS 16949, QS9001, and AS9100 certifications.

- Control of Nonconforming Outputs (Unapproved and counterfeit)
- Corrective Action
- Continuous Improvement

MIL-SPEC Packaging & Kitting

For many manufacturing operations, kitting and bundles can be a time-consuming cost-eating necessity. Aftermarket kits, production kits, maintenance, and assembly bundles are effectively produced and shipped to your requirements as specified by you.

- Reduce costs
- Free up your labor and manufacturing floor space
- Optional assembly with parts
- Custom, bulk or aftermarket packaging
- Kits can be assembled with parts, sub-assemblies, instruction manuals, letterhead, or most any custom requirements
- Kits can be sent directly to your end customer from ESP, transparent to your end-user

AMS-2817 Packaging Standard

The Society of Automotive Engineers (SAE) International outlines requirements for packaging pre-formed parts, primarily elastomeric seals before they are installed. It focuses on two main goals:

- 1. Protection from Contamination: The packaging must keep the parts clean and free from foreign materials that could compromise their performance.
- 2. Positive Identification: Each part needs to be clearly labeled with its part number for easy identification during storage and installation.

Supplier Resilience

Supplier resilience refers to the practices taken to withstand supply chain disruptions. Engineered Seal Products partners with a breadth of premiere approved suppliers that meet our stringent standards and ensure quality and consistency. Knowing where your product is in the supply chain with alternative solutions is never more crucial. Rely on ESP supply chain to mitigate risk and withstand major disruptions - backed by expert knowledge and strategies.

Vendor Consolidation

In today's demanding aerospace environment, managing a multitude of vendors can be a drag on efficiency. At ESP, we offer vendor consolidation solutions specifically tailored to the aerospace manufacturing industry. By partnering with us, you can leverage our established relationships with top-tier suppliers, gaining access to a comprehensive range of parts and materials. This translates to significant cost savings and streamlined purchasing processes - one point of contact for all your needs.

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ESP Aerospace & Military Seal Materials

Aerospace Products Manufactured at Facilities with

- TS 16949
- QS9001
- AS9100

AMS – Aerospace Material Specification

AN – Army / Navy

ASTM – American Society for Testing and Materials

M – Military

MS - Military Standard

NAS - National Aerospace Standard

SAE – Society of Automotive Engineers

Military Specification O-Rings need only NSN (National Stock Number) or the Military specification Prefix, plus the AS568 dash number (size). No other description is needed to assure exact conformance to the specification. Certification and cure dates are automatically sent when required.

Aerospace - Military Material Matrix

| | Brand | Material | Durometer | Industry Material Specification |
|------|-------------|----------|-----------|--|
| NBR | Parker | NM304-75 | 75 | MIL-P-25732 |
| | Parker | NM756-75 | 75 | AMS-P83461 |
| | Parker | N0602-70 | 70 | AMS-P-5315 |
| | Parker | NM072-70 | 70 | AMS-R-7362 |
| | Parker | N0287-70 | 70 | AMS7272 |
| | Parker | N0674-70 | 70 | MIL-G-21569, MIL-P-82745 |
| | Parker | N0507-90 | 90 | AMS-P-5510 |
| 2 | Parker | NM506-65 | 65 | AMS7271 |
| | Parker | N0525-60 | 60 | AMS3220 |
| | Freudenberg | N888 | 75 | MIL-P-25732, MS28775 |
| | Freudenberg | N400A | 70 | AMS-P-5315 |
| | Freudenberg | N456 | 75 | AMS-P-83461 |
| | Precix | M31 | 70 | MIL-P-25732 |
| | Parker | EM163-80 | 80 | NAS 1613 |
| | Parker | E0540-80 | 80 | 8243412 |
| Σ | Freudenberg | E454 | 80 | NAS1613 Rev 6, NF L 17-241 Grade 41B8 |
| EPDM | Freudenberg | E458 | 80 | NAS1613 Rev 2 |
| Ш | Freudenberg | E480 | 80 | AMS-R-83285 Grade 80, MIL-G-22050 Grade 2 |
| | Freudenberg | E481 | 80 | Low temperature EPDM Tg -76° F (-60° C) AMS7XXX (specification under draft) |
| | Parker | C0267-50 | 50 | AMS3208 |
| CR | Parker | C1124-70 | 70 | AMS3209 |
| | Parker | CM260-60 | 60 | AMS3241 |
| 2 | Parker | B0318-70 | 70 | AMS3238 |

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| | Parker | S0595-50 | 50 | AMS3302 |
|------|---------------------|-----------------------|----|---|
| | Parker | S0613-60 | 60 | AMS3303, A-A-59588 |
| VMQ | Parker | S0383-70 | 70 | AMS3337, A-A-59588 |
| | Parker | S0604-70 | 70 | AMS3304, AMS3357, MIL-G-21569, A-A-59588 |
| | Parker | SM265-70 | 70 | A-A-59588 |
| | Freudenberg | S40 | 40 | AMS3301, A-A-59588 (ZZ-R-765) Class 2A 2B Grade 40 |
| | Freudenberg | S50 | 50 | AMS3302, A-A-59588 (ZZ-R-765) Class 2A 2B Grade 50 |
| | Freudenberg | S60 | 60 | AMS3303, A-A-59588 (ZZ-R-765) Class 2A 2B Grade 60 |
| | Freudenberg | \$70 | 70 | AMS3304, A-A-59588 (ZZ-R-765) Class 2A 2B Grade 70, AMS3357, NF EN 2261 Grade 50D7, NF L 17-154 Grade 54D7, L17-250-4 50 D7 |
| | Freudenberg | S80 | 80 | AMS3305, A-A-59588 (ZZ-R-765) Class 2A 2B Grade 80, NF L 17-250 Grade 50D8 |
| | Freudenberg | S315 | 75 | AMS7267 |
| | Precix | L107 | 70 | AMS 3304, AMS 3337, AMS 3357, AMS 7268 A-A-59588 Class 2A, Grade 70 A-A-59588 Class 2B,Grade 70, ZZ-R-765E Class 1A,1B, 2A, 2B Grade 70MS9068, AS3582 |
| | Precix | L108 | 75 | AMS 7267, MS9385 (900), MS9386, AS9385 (900), AS9386 |
| | Parker | L1223-60 | 60 | AMS-R-25988 Type 1 Class 1 Grade 60, AMS3325, AMS-R-25988 Type 2 Class 1 Grade 60 |
| FVMQ | Parker | LM100-70 | 70 | AMS-R-25988 Type 1 Class 1 Grade 70 |
| | Parker | LM256-70 | 70 | AMS-R-25988 Type 2 Class 1 Grade 70 |
| | Parker | L1077-75 | 75 | AMS-R-25988 Type 1 Class 3 Grade 75 |
| | Parker | L1218-80 | 80 | AMS-R-25988 Type 1 Class 1 Grade 80, AMS-R-25988 Type 2 Class 1 Grade 80 |
| | Freudenberg | F60 | 60 | MIL-DTL-25988 Type 1 Class 1 Grade 60, AMS-R-25988/3, NF L 17-261 Grade 61D6, DMD5019 |
| | Freudenberg | F70 | 70 | MIL-DTL-25988 Type 1 Class 1 Grade 70, AMS-R-25988/1, NF L 17-261 Grade 61D7 |
| | Freudenberg | F75 | 75 | MIL-DTL-25988 Type 1 Class 3 Grade 75, AMS-R-25988/2 |
| | Freudenberg | F80 | 80 | MIL-DTL-25988 Type 1 Class 1 Grade 80, AMS-R-25988/4, NF L 17-261 Grade 61D8, DMD5013 |
| | Freudenberg | F215 | 75 | AMS3327 |
| | Freudenberg | F229 | 80 | AMS3383 |
| | Freudenberg | F273 | 75 | AMS7273 |
| | Precix | G04 | 60 | MIL-DTL-25988C, AMS-R-25988 C11Gr60, AMS3325E |
| | Precix | G16 | 70 | MIL-DTL-25988C, AMS-R-25988 CI1 Gr70 |
| | Precix | G20 | 75 | AMS7273 |
| | Precix | G21 | 75 | MIL-DTL-25988C, AMS-R-25988 CI3 G75 |
| | | G88 | 80 | |
| | Precix Parker | VM125-75 | 75 | MIL-DTL-25988C, AMS-R-25988 CI1 G80 AMS7287 |
| | Parker | VM330-75 | 75 | |
| | | V10330-75 V1226-75 | 75 | AMS7276, AMS-R-83248 |
| | Parker *obsolete | V1220-75 | 75 | AMS7276, AMS-R-83248 AMS7379 |
| | Parker *obsolete | V1289-75 V0747-75 | 75 | AWS-R-83248 |
| | Parker | VA335-90 | 90 | |
| | Parker *shoolete | | | AMS7259, AMS-R-83248 Type 1, Class 2 |
| | Parker *obsolete | V0709-90 | 90 | AMS7259, AMS-R-83248 |
| | Parker | VX065-75 | 75 | AMS7410 |
| | Freudenberg | V70 | 70 | NF L 17-260 Grade 60C7 AMS3216, AMS7276, MIL-R-83248 Type 1 Class 1, NF L 17-164 Grade 64C8, |
| FKM | Freudenberg | V75 | 75 | SBAC DTD5613 Grade 80, DMD5014 |
| Œ | Freudenberg | V90 | 90 | AMS7259, MIL-R-83248 Type 1 Class 2, NF L 17-260 Grade 60C9 |
| | Freudenberg | V115 | 75 | AMS-R-83485, AMS7287 |
| | Freudenberg | V127 | 75 | AMS7379 |
| | Precix | F19 | 75 | AMS7287 |
| | Precix | F75 | 75 | AMS7276, AMS3216 |
| | Precix | F90 | 90 | AMS7259 |
| | Precix | F91 | 80 | DTD 5613A, Grade 80 |
| | Precix | F103 | 80 | |
| | Precix | F104 | 90 | |
| | Precix | F139 | 75 | AMS7379 |
| FFKM | Parker | FF200-75 | 75 | AMS7257 |
| | Parker | V8545-75 | 75 | AMS7257 |
| | Freudenberg Simriz® | SZ498 | 75 | DMD5072 |
| | Freudenberg Simriz® | SZ501 | 75 | AMS7257 (Low Compression Set) |
| | Freudenberg Simriz® | Z7257 | 75 | AMS7257 AMS7257 |
| | | | | |
| | Precix | P03 | 75 | AMS7257D |



Kansas City

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