

# SUR-SEAL

A E R O S P A C E   S O L U T I O N S

# INNOVATIVE CUSTOM CUT SOLUTIONS IT'S WHAT WE DO FOR YOU.

We realize every customer faces unique challenges, so we approach them with technology that's ahead of the curve. Sure, we make a multitude of gaskets, seals and other die cut products from our headquarters in Charlotte, North Carolina, but here's the real Sur-Seal difference –*no matter what type of material; no matter the shape; no matter how quickly you need it, our goal is to make it happen for you.*

What drives us? Over 80 years of Industrial, Aerospace and Electronics customers telling us we've made it easier for them to meet their goals. We have expanded our commitment of exceptional quality, ingenious engineering and pinpoint customer focus globally, with our facility in China.

We pride ourselves on speed, creativity and flexibility and we do it with a personal touch; that is our promise...that is our way!

# SUR-SEAL



## WE KNOW CUSTOM.

Sur-Seals philosophy is simple, we build stronger customer relationships through creative solutions and outstanding service.

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## DYNAMIC.

Today's Aerospace market moves at the speed of light. As recognized solutions provider within this market since 1940, Sur-Seal knows the importance of being proactive with solutions and having a relationship built on trust. Our AS9100 certification, advanced inspection equipment, and thoroughly documented processes and procedures, uniquely positions Sur-Seal to be your partner of choice.

Our commitment to excellence has built solid relationships with industry leaders, ranging from material suppliers to the manufacturers of our cutting edge production equipment. Our wide variety of capabilities enables you to consolidate many diverse product lines with us. We are proud that several world leaders in rotary and fixed wing aircraft trust Sur-Seal to fulfill their role of designated quality inspector.

Our Value Added Center provides assembly, kitting, vulcanization, custom part marking and packaging solutions. We maintain inventory on a multitude of MIL Spec and ASTM certified raw materials. Sur-Seal professionals are skilled at managing your inventory, supply chain, and scheduling/fulfillment concerns to keep your production lines running interruption free. Additionally, as your aftermarket needs arise, we have the inventory and ability to ship direct worldwide to your designated location.



### OUR UNIQUE AEROSPACE BENEFITS

- Focus on quality, ISO9002 and AS9100 certified.
- Small Business Classified, serving the Aerospace market since the 1940's.
- Achieved highest supplier performance ratings from Aerospace market leaders.
- Structured to serve production demands and aftermarket requirements.
- Accomplished manufacturing professionals adept in all major digital/3D formats.
- Basic parts to highly complex products, all built to your specifications.
- Experts at integrating with your unique MRP systems.
- A distinctly structured team of talented and experienced problem solvers assures efficient, cost effective results.



## HIGHLIGHTED AEROSPACE PRODUCTS

### Specialty Tapes & Masking Solutions

- Mechanical Bonding
- Thermal Management
- Paint Masking and Abrasion Resistant

### EMI/RFI Shielding

- Electronics/Radar Protection
- Antenna Gasketing

### Environmental & Mechanical Seals & Gaskets

- Door / Window / Hatch
- Fluid
- Thermal Insulation

### Specialty Foam

- Aircraft Interiors
- Sound / Vibration Control
- Seating / Insulation

## SOLID, LONG-TERM RELATIONSHIPS

"Sur-Seal is an excellent supplier. They work around the clock to overcome all obstacles we put in their way - and we give them obstacles daily. Sur-Seal has a superior support staff - ready and willing to handle short term and less than lead time issues in a timely and efficient manner. Aerospace is challenging at best - and suppliers like Sur-Seal are true "partners" in this industry."

**SENIOR BUYER AT A LEADING ROTOCRAFT OEM**

"Sur-Seal continuously provides reliable, on-time deliveries. On the rare occasion that quality issues arise, our questions are answered rapidly and the issue is resolved in an urgent manner. Their commitment to service is a tremendous asset in a complex manufacturing environment."

**PLANNER FROM A TIER ONE COMPOSITE AEROSTRUCTURES MANUFACTURER**

"For many years, Sur-Seal has provided us with world class customer service. They are always quick to respond to inquiries, provide excellent parts availability, and exceptional technical support."

**PROCUREMENT SPECIALIST FOR A LEADING AEROSPACE AFTERMARKET AND LOGISTICS PROVIDER**





# SUR-SEAL

## CAPABILITIES

Within our walls, Sur-Seal has the equipment, talent and manpower to take your project from concept through production.

### PRECISION SLITTING

#### LATHE SLITTING

- Narrow Roll Widths
- PLC Driven
- Multiple Rolls on Common Core
- High Speed

#### REWIND SLITTING

- Razor / Shear / Score
- Auto-Edge Guide
- Long Length Rolls
- Tapes / Films / Papers

### LAMINATING

- Wide and Narrow Webs
- In-Line Sheeting and Slitting
- Tension Relief System
- Multi-Layer Capable
- Heated Platen for Instant Adhesion
- Auto Edge Guide

### DIE CUTTING

#### FLAT BED

- Up to 78" Wide
- In-line Waste Removal
- In-line Adhesive Laminating
- Individual Pieces, Pads and Rolls

#### ROTARY

- High Speed
- In-Line Adhesive Laminating
- Multiple Webs
- Zoned Adhesive
- Tight Tolerance
- In-line Waste Removal

### LASER INSPECTION

- Accurate Within 0.002"
- FAI, PPAP and SPC Reporting
- Results within 20 Seconds



### CNC CUTTING

#### WATER JET

- Materials Up To 6" Thick
- Bed Size up to 72" x 120"
- Angle Cutting
- Multi-Head and Layer

#### ROUTER

- 3D Contour Cutting
- Bed size 60" X 98"
- Multi-Level Cutting
- Rigid Thick Materials

#### DIGITAL KNIFE

- Rapid Prototyping
- In-line Adhesive Laminating
- Crease / Score
- In-line Part Mark Capable
- Up to 2000" Per Minute

### VALUE ADDED CENTER

- Bag and Tag
- Part Marking
- Hot Wire Cutting
- Hand Assembly
- Ultrasonic Welding
- Vulcanizing
- Kitting
- Custom Packaging

### ENGINEERING SERVICES

- Jigs, Fixtures and Assembly Aids
- Die Design, Fabrication and Repair
- Cost Down Alternatives
- Reverse Engineering
- Samples and Prototypes
- Part Nesting Software
- Process and Cost Development
- Converts Most CAD Formats





# SUR-SEAL

## WE KNOW MATERIALS.

Our extensive supply-chain and partnerships with premier raw material manufacturers provide a wide breadth of material options.

UL Rated, Mil-Spec, ASTM, AMS, FAR, FDA, SAE, Reach and RoHS Compliant

### FOAMS

- Crushed Foam
- ECH (Epichlorohydrin)
- EPDM
- EVA (Ethylene Vinyl Acetate)
- LDPE (Low Density Polyethylene)
- Neoprene
- Polyethylene
- Polyurethane (Open Cell)
- Poron® (Cellular Urethane)
- PVC /NBR
- Reticulated / Filter
- Silicone
- Sponge (Hydrophilic and Hydrophobic)
- Volara® (Cross Linked Polyethylene)

### NON-SKID

- 3M™ Safety-Walk™
- Cast Urethane
- Santoprene™
- Textured/Embossed EVA/SBR

### PAPERS, FILMS & FOILS

- Aluminum and Copper Foil
- Cork
- Fiberglass Cloth/Foil
- Fiber Reinforced Gasket Materials
- Fish Paper
- Flexible Graphite
- Formex®
- Gore-Tex®
- HDPE (High Density Polyethylene)
- Kapton® (Polyimide)
- LDPE (Low Density Polyethylene)
- Lexan® (Polycarbonate)
- Mylar® (Polyester)
- Nomex®
- Nylon
- PETG
- Polymask®
- Polypropylene
- Polystyrene
- Specialty Papers
- Teflon®
- UHMW (Ultra High Molecular Weight)
- Ultem®
- Urethane
- Vinyl (PVC)

### NONWOVENS

- 3M™ Thinsulate™
- Felt (Needle Punched, Wet Laid)
- Flocked Fiber
- High Loft
- Point Bond
- Shoddy
- Spun Bond
- Suede
- Vertically Lapped Fiber

### PLASTICS

- ABS
- Acrylic
- HDPE (High Density Polyethylene)
- LDPE (Low Density Polyethylene)
- Lexan® (Polycarbonate)
- Phenolic

### RECLOSABLE FASTENERS

- 3M™ Dual Lock™
- 3M™ Scotchmate™ Hook-and-Loop
- Velcro™



### EMI / RFI SHIELDING

- Conductive Tapes and Adhesives
- Fabric Reinforced
- Microwave Absorbing
- Partial Filled Elastomers
- Wire Oriented

### SILICONES

- BISCO®
- Conductive Elastomers
- Fabric Reinforced
- Fluorosilicone
- Molded and Extruded

### THERMAL MANAGEMENT

- Gap Pads/Fillers
- Heat Sinks
- Insulator Pads
- Phase Change Materials
- Tapes and Adhesives

### RUBBER

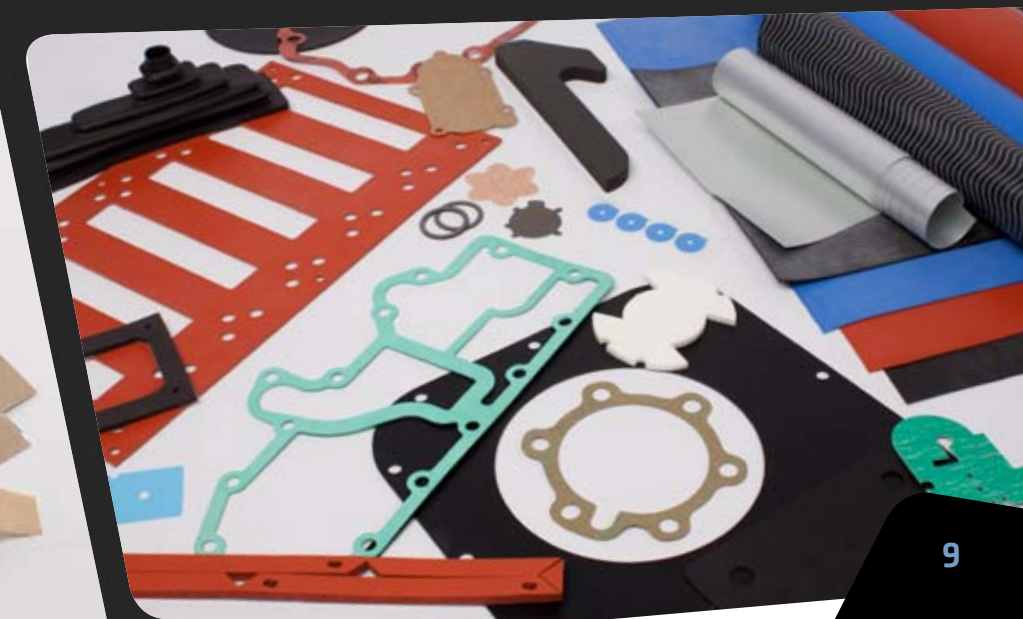
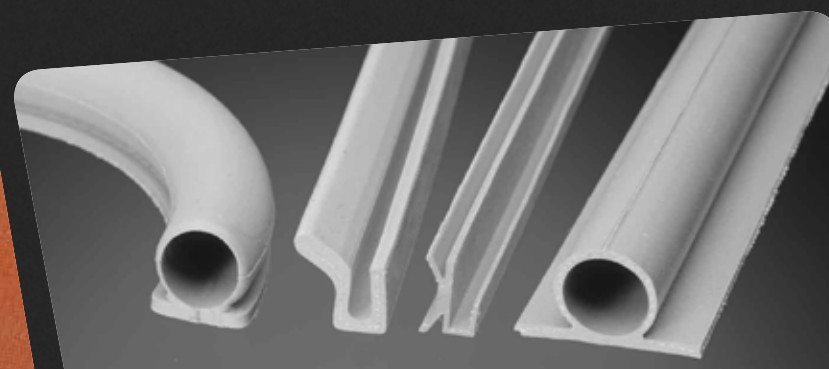
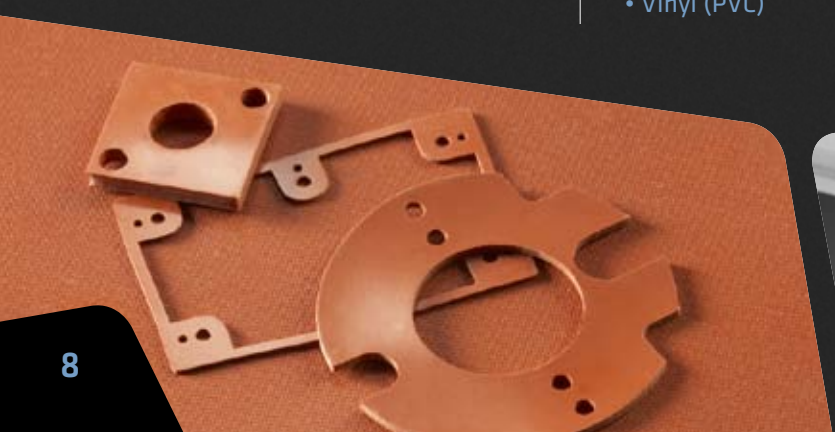
- Buna-N
- Butyl
- Coated Fabrics
- Cork / Rubber Composites
- EPDM
- EPT (Ethylene Propylene Terpolymer)
- EVA (Ethylene Vinyl Acetate)
- Gum
- Kalrez™
- Molded and Extruded
- Natural
- Neoprene
- Nitrile
- PVC
- Red Rubber
- Santoprene™
- SBR (Styrene Butadiene)
- Silicone
- Viton®

### TAPES AND ADHESIVES

- 3M™ VHB™
- Adhesive Transfer
- Cross Linked polyethylene Foam
- Double Coated Tape
- Masking
- Removable Tapes
- Single Coated Tape
- Specialty



REDUCE • REUSE • RECYCLE





# SUR-SEAL

## WE KNOW APPLICATIONS.

You name it and we've seen it when it comes to applications.

- Acoustical Insulation
- Anti-Fogging
- Anti-Squeak and Rattle
- Anti-Static
- Attachment Systems
- Barrier Shield
- Bonding Solutions
- Cushioning
- Diaphragms
- Door Seals
- Dust Barriers
- Enclosure Seals
- Electrical Insulation
- EMI-RFI Shielding
- Environmental Seals
- Filtration Products
- Flame Retardant
- Fluid Control
- Gaskets
- LED Diffusers
- LED Reflectors
- Lens and LCD Gaskets
- Medical Sterilization Products
- MIL Spec / ASTM Rated
- Noise Control
- Non-Skid
- Paint Masking
- Pressure Sensitive Tapes
- Protective Masking
- Re-Closable Fasteners
- Sealing
- Seating
- Shims and Spacers
- Shock Absorbing
- Sound Management
- Surface Protection
- Thermal Management
- Traction Enhancement
- Vibration Dampening
- Water Vapor Control
- Weather Stripping
- Window Sealing
- Zoned and Back Slit Adhesive

# SUR-SEAL

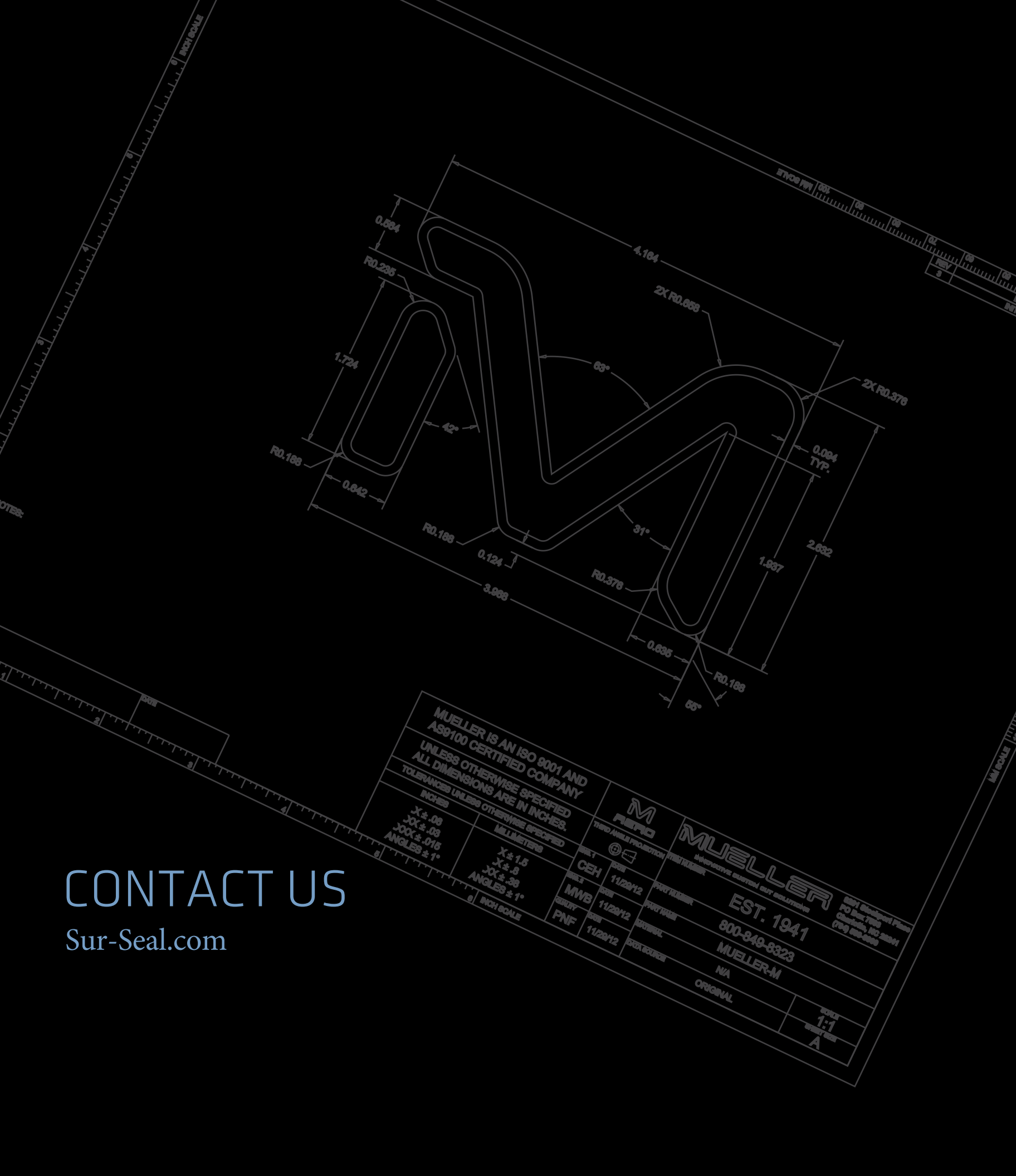
## INDUSTRIES SERVED

Proudly serving:

- Aerospace
- Aero Structures
- Appliance
- Automotive
- Avionics
- Building and Construction
- Buses
- Commercial Vehicles
- Compressors
- Consumer Electronics
- Consumer Products
- Contract Manufacturing
- Controls and Switches
- Copiers and Printers
- Electrical Enclosures
- Electronics
- Elevators
- Engines
- Escalators
- Generators
- Government
- Hand Held Devices
- Health and Fitness
- Healthcare
- Heavy Truck
- HVAC
- Injection Molding
- Lawn and Garden
- Lighting / LED
- Marine
- Medical Devices
- Meters
- Military
- Off-Road Equipment
- Power Tools
- Pumps
- Rail
- Recreational Equipment
- Refrigeration
- Renewable Energy
- Safety and Security
- Servers
- Sheet Metal Fabrication
- Telcom
- Transformers
- Transportation
- Turbines
- Valves
- Window and Door

PLEASE CONTACT US FOR YOUR  
SPECIAL APPLICATION NEEDS.





NOTES:

<p><b>MUeller IS AN ISO 9001 AND AS9100 CERTIFIED COMPANY</b> UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES.</p>		<p><b>MUELLER</b> EST. 1941</p>	
<p>TOLERANCES UNLESS OTHERWISE SPECIFIED</p>		<p>6091 Glenmont Place PO Box 7888 Charlotte, NC 28211 (704) 488-8888</p>	
<p>INCHES</p> <p>X ± .00 XX ± .03 XXX ± .015 ANGLES ± 1°</p>	<p>MILLIMETERS</p> <p>X ± 1.5 X ± .8 XX ± .38 ANGLES ± 1°</p>	<p>DATE 11/22/12</p> <p>CEH</p>	<p>DATE 11/22/12</p> <p>MWB</p>
<p>INCH SCALE</p>		<p>DATE 11/22/12</p> <p>PNF</p>	<p>DATE 11/22/12</p> <p>PNF</p>
<p>ORIGINAL</p>		<p>ORIGINAL</p>	
<p>SCALE 1:1</p>		<p>SCALE A</p>	

CONTACT US  
Sur-Seal.com