



# JONAL LABORATORIES, INC

"Sealing the Deal" since 1965

# OVERVIEW

- 6000+ proprietary compounds
  - Customized compounding to meet any need or specification
- Experienced with fabric, metal, and/or composite reinforcements and surface bonding
- Capable of prototyping, short-run, and full-scale manufacturing and order quantities
- Part capability from millimeter to meter scales
- Ability to aid in full product life cycle implementation
  - Research & Development to Legacy
- 55+ years in industry
- 3<sup>rd</sup> Generation family owned
- Size: Small business (<100 employees)
- Location: Meriden, CT, 06450; USA
  - Located at the heart of the New England and Tri-State areas - 2 hours from NYC or Boston



## WHAT MAKES JONAL...

- Customer Service
- Quality
- On time delivery
- Value added to the shared supply chain

MADE IN AMERICA



Shipped World Wide



# COMPANY HISTORY



John Nemeth

- 1917 - Born in Bridgeport, CT
- 1918 - Father passed - flu epidemic
- 1929 - Mother passed - Orphan at 12 years old
- 1934 - Valedictorian High School Graduate
  - Moved to West Coast to attend UCLA and then transferred to University of California, Berkeley
- 1938 - Graduated from Berkeley with Bachelor of Science Degree in Chemistry
  - Moved back to Bridgeport, CT as a Research Chemist at DuPont for 14 years
- 1943 - Married with two children
- 1954 - Wife passed
- 1954 - Executive VP at AGC for 11 years

1965

**John Nemeth Incorporated**  
Jonal on September 20th  
Located at 165 Pratt Street, Meriden, CT

1970

FIRST PATENT



**MIDCON REALTY INCORPORATED**  
real estate assets holding co.

1972

**VENDING BUSINESS**  
1 Year Explored business model with limited results

1974 - MOVED to 456 Center Street



1975

ESP-EASTERN SILICONE PROCESSING

**ESP-Eastern Silicone Processing**  
Established division to compound silicone from Dow Corning for DuPont  
Prototyped but no production due to disagreement on ultimate performance responsibility

1977

**RETIREMENT - John Nemeth Retires**  
Marc assumes the Presidency in January 1977

1979

**PURCHASED - S. Felicione ~\$250,000** Seafood Distributor in Tampa, Florida  
John thought he wanted to work while retired. Quickly decided differently.  
Held for 1 year SOLD at year end.

Determined need  
pursued and acquired

1991

**PURCHASED - LORD**

LORD had purchased Nichols Engineering  
Jonal was a desirable purchaser because customer  
Division is now completely integrated with

- Department of Economic

Loan - \$160,000

AND

- Connecticut Development

Loan - \$174,000

Loans were to assist with purchase  
equipment and to make capital

63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89

1968

Changed name to  
**Jonal Laboratories Incorporated**



1971

**JONAL MOVED TO**  
35 Meridian Street, Meriden, CT  
1971 - 1974

**ARKUS Beauty-Aids**  
**PURCHASED \$94,420**

- America's largest manufacturer of artificial nails and eyelashes
- 8 good years and slowly cycled down
- CLOSED early 1990's



1973

*2nd GENERATION*

Marc Nemeth starts working at  
Jonal on August 13, 1973



**PURCHASED - DeCortot**

Cosmetic and toiletry business producing perfumes,  
shampoos, conditioner and giftware with talcum powder  
SOLD 1976

1 Early 80's

Stopped investing in maintaining  
Arkus' market share to  
focus on core competencies

2

Late 80's

Resisted efforts to chase business by  
cutting overhead due to the risk of  
losing Jonal's distinctiveness

1982

**PURCHASED - Jerry Shultz \$600,000**

Wall plaques, paintings, and plush toys from Pussy Cat Toys.  
Operated in Bay Shore, NY  
Relocated to 470 Center Street - "old wood building" - CLOSED 1987



# COMPANY HISTORY CONT'D



# VISION STATEMENT

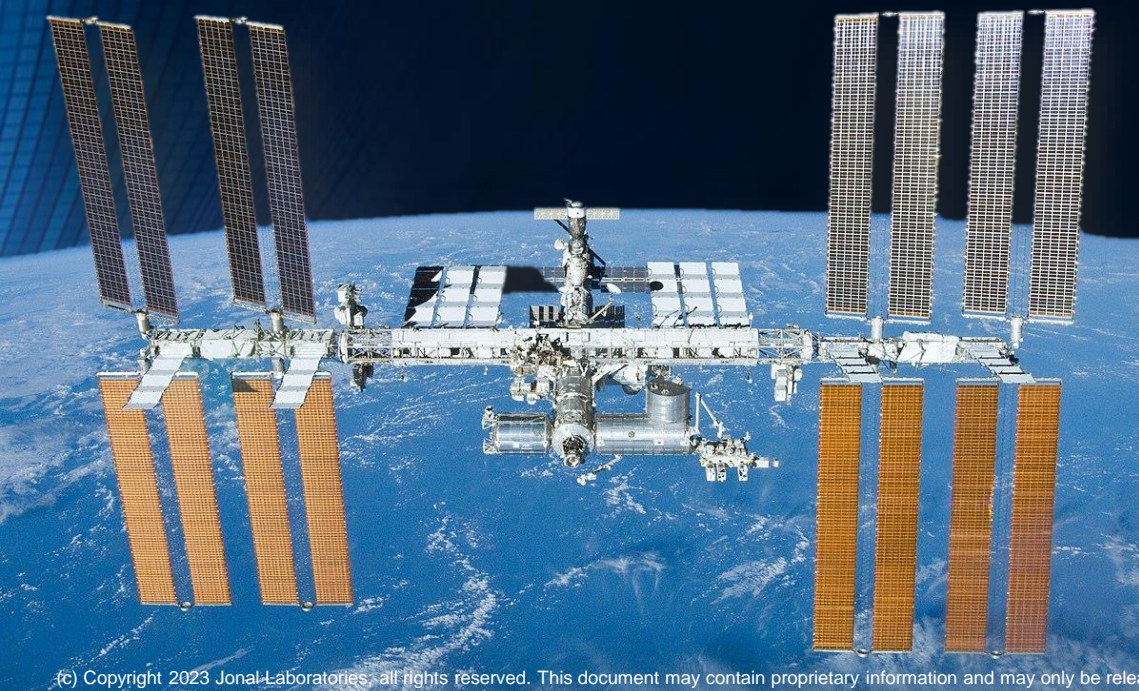
To be internationally recognized as the “go to” company for practical elastomeric technology manufacturing high value products developed with our aerospace partners who benefit from our assistance with their designs and engineering expertise for their most demanding sealing needs.





# GUIDING PRINCIPALS

- Committed to a rapid response to our customer's needs
- Dedicated to exceptional, continuously improving quality and on-time delivery
- Committed to innovation – working to link our processes to the future direction of our customers
- Treat customers and suppliers as partners
- Respect and appreciate every employee; they are our most valuable assets
- Provide resources for training and encouraging everyone's self-development
- Provide leadership to ensure a safe and environmentally sound workplace
- Determined to administer a business strategy that produces profits and ensures the long-term viability of the company



# FACILITIES

## MAIN FACILITY: “CENTER”

- 456 Center St  
Meriden, CT, 06450; USA
- 41,000 square feet
- Capabilities: Material preparation, molding, finishing, quality, shipping & receiving, R&D, lab testing, maintenance/facilities



## SECONDARY FACILITY: “PRATT”

- 290 Pratt St  
Meriden, CT, 06450; USA
- 11,000 square feet
- Capabilities: Material preparation, molding, finishing, quality, maintenance/facilities



## TERTIARY FACILITY: “RESEARCH”

- 200 Research Pkwy  
Meriden, CT, 06450; USA
- 21,000 square feet
- Capabilities: Future development





# CAPACITY



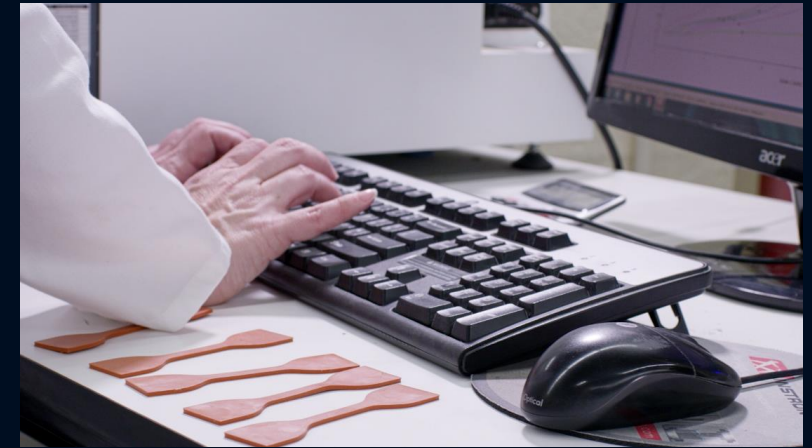
- Jonal currently runs one shift, with the capability of incorporating a second shift to meet customer demand
- First shift Equipment Capacity: Usage of approx 80%
  - Additional equipment (3x new presses, barwell, and re-worked calender) expected in house by Q4 2023
- Plant Space Capacity: Across three facilities, current usage of approx 67%





# MATERIALS

- Proprietary compounding for various types, grades, and classes of elastomers including:
  - Silicone, Fluorosilicone, Nitrile, Fluorocarbon, Urethane, Neoprene, Butyl, Styrene-Butadiene (SBR), Natural Rubber, etc.
- Common compounds operating within: -85°F (-65 °C) to 450 °F (232 °C)
- Specialty compounds reaching -135 °F (-93 °C) to 600 °F (316 °C)
- Compounds tested and certified to AMS, MIL, ASTM, and numerous customer proprietary specifications



# TESTING

- In-house testing:
  - Hardness (Shore A, C)
  - Instron tensometer(tensile, elongation, and compression)
  - MDR (rheological)
  - Low temperature environments (environmental chamber and low temperature brittleness tester)
  - Impact Resiliometer
- Outside testing:
  - RTCA-DO-160 environmental testing
  - Flammability tests per FAA 14 CFR
  - Pressure, burst, and leak testing
  - Ozone, fungus, and TR10
  - Spectroscopy





# PRODUCTION

- Manufacturing Techniques:
  - Thermal compression molding
  - Transfer molding
  - Hot-air-vulcanization extruding
  - Room-temperature vulcanization bonding
- Press Size: 5" x 5" to 72" x 72" and 16" x 156"
- Part size capabilities:
  - .15" (3.81 mm) to 144" (304.8 cm)
- ERP system: E2
- Dedicated team for Single Minute Die Exchange, 5S, Lean and Six Sigma principles, and overall Continuous Improvement



# PRODUCT SPECIALTIES

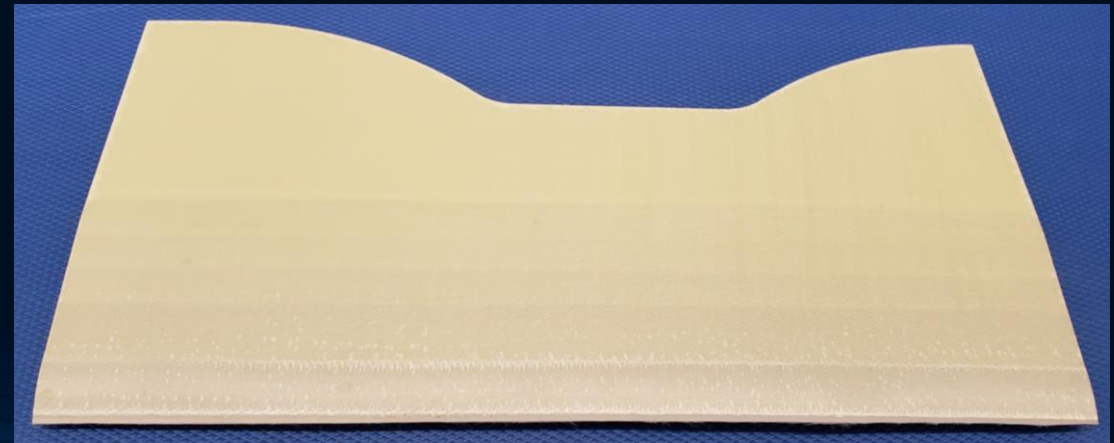
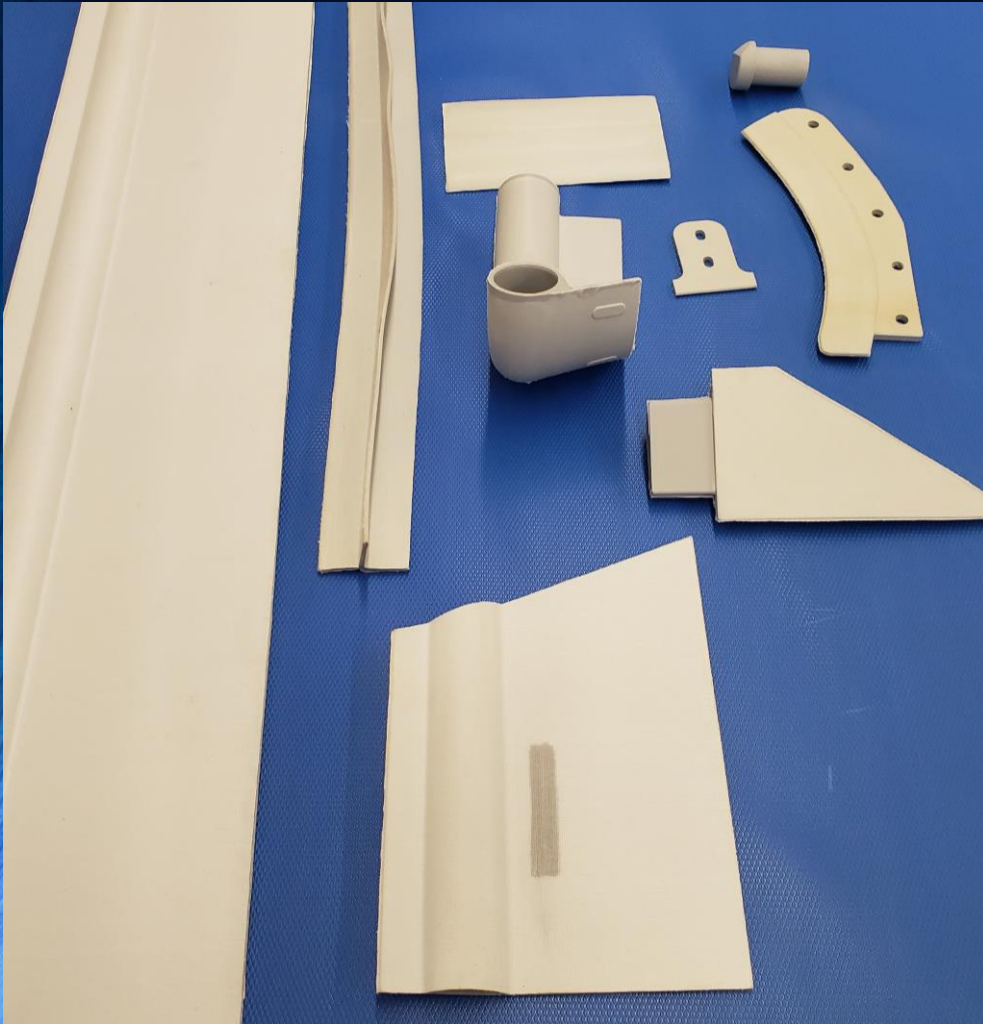
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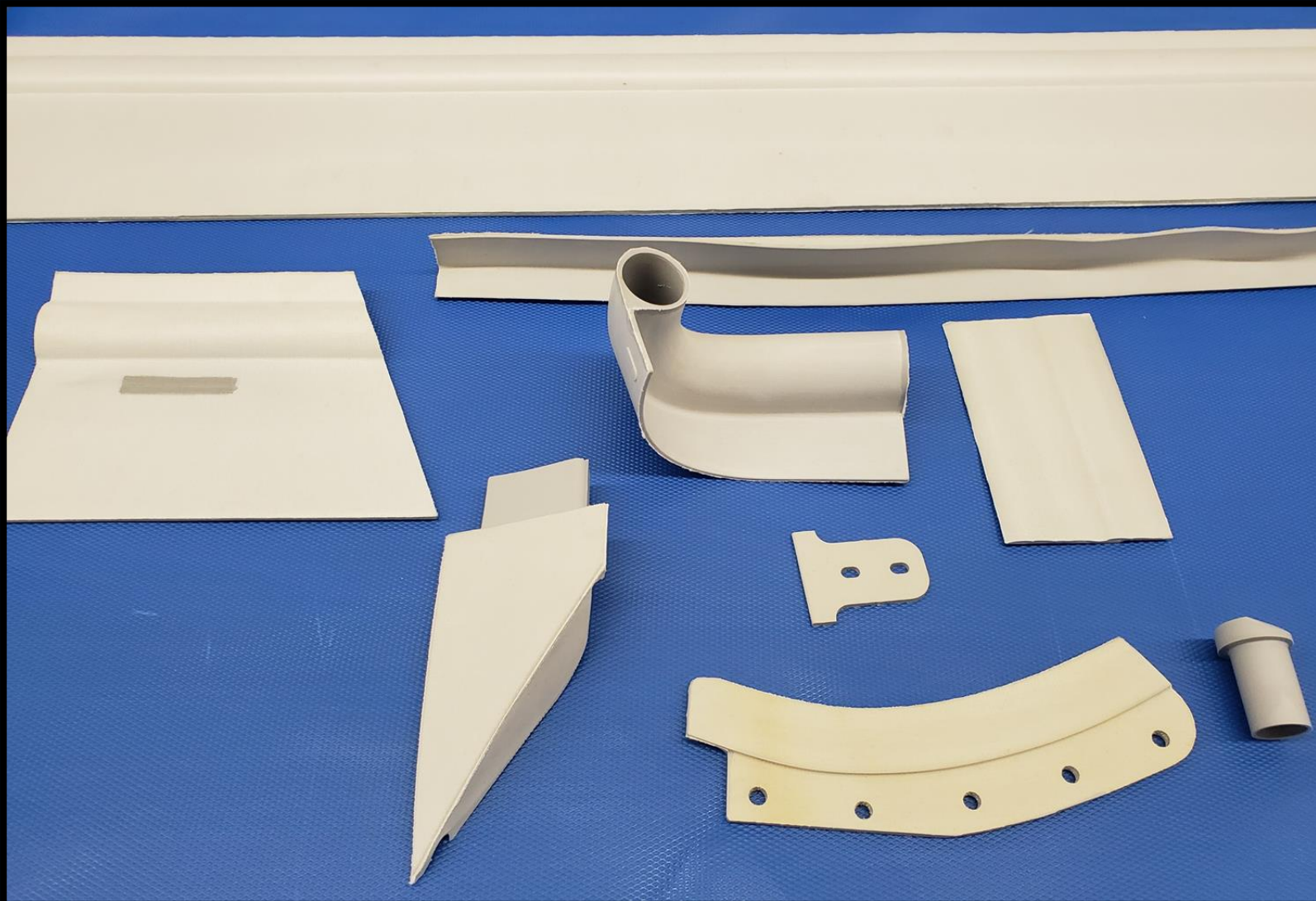
- Door Seals
- Fabric Seals
- Aerodynamic, Flap, and Slat seals
- Fire resistant seals (FAR Section 25)
- Rubber-to-Metal Bonding
- Bladders
- Diaphragms
- Block Clamps
- Grommets
- Gaskets
- Space Applications





# OEM SAMPLE PARTS





- Longest part (currently): 102"
- Shortest part: < 2"
- Majority of parts are fabric reinforced with composite inserts
- Multiple parts include anodized metal details and/or sponge end plugs



# APPROVED SPECIFICATIONS

JONAL IS APPROVED FOR THE FOLLOWING:

## Material Specs:

- BMS1-52
- BMS1-53
- BMS1-57
- BMS1-62
- BMS1-71 CL II
- BMS1-74

## Material Specs (Cont.):

- BMS1-76

## Notable Used Specs:

- BAC5010
- BAC5019
- BAC5071
- BAC5307

## Notable Used Specs (Cont.):

- BMS10-11
- BMS1-23 (Purchased)
- BMS1-60 (Purchased)

## Inspection/Quality Spec:

- Bss7107

# BOEING (BGS) ACTIVITY SUMMARY

## 2023 QUALITY AND DELIVERY RATING

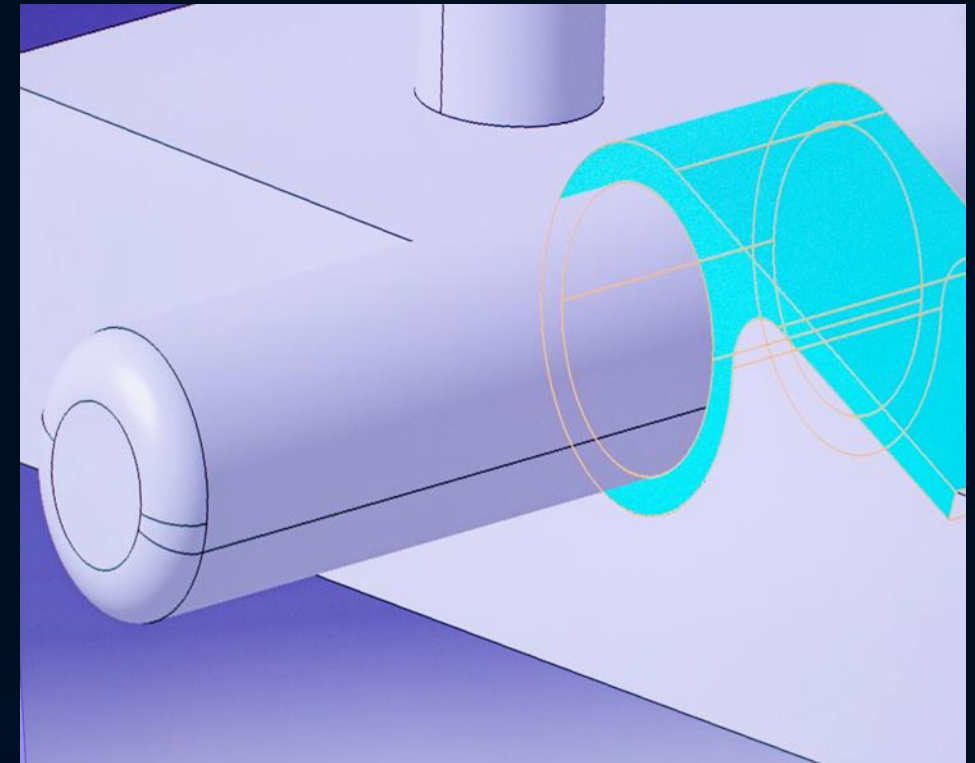


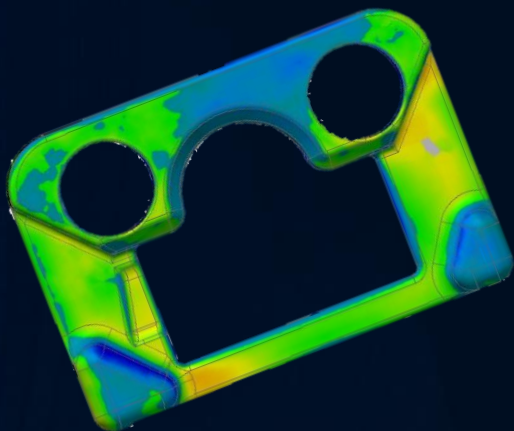
Supplier Name ▲	Supplier Status	Prior Month/Year March 2023	Current Month/Year April 2023
JONAL LABORATORIES INC, MERIDEN, C T US	Active	Green	<u>Green</u>



# ENGINEERING AND DESIGN

- Computer-Aided Design (CAD): Catia and SolidWorks
- Engineered elastomer design support
  - Build-to-Spec, Build-to-Print
  - Design Recommendations
  - Tooling Design
  - Functional configuration control
  - New materials and coatings development (low friction, high temp, abrasion and erosion resistance)





# QUALITY CONTROL

- ISO 9001:2015/AS9100D
  - Registered by ASR: Certificate #6581
- Extensive experience meeting AMS, ASTM, MIL, and numerous customer proprietary specifications
- 3D scanning arm w/ Romer 7-Axis CMM
- Optical CMM - up to 360x magnification
- Design capabilities for part specific gauging
- Digital Product Definition (DPD) capable





# RESEARCH AND DEVELOPMENT

- Ground and tracked vehicles
- Automation and advanced manufacturing for various time and cost savings
- Continuous compound development to meet customer needs and expand Jonal portfolio
- Partnered with consortium of New England states, companies, Universities, and Non-Profits
- Develop novel ways to decrease product life cycle gap between R&D and manufacturing supply chain
- Elastomeric additive manufacturing
- Novel actuator applications of specialty elastomers



# FUTURE GROWTH

## Testing:

- Temperature retraction tester (low temperature capabilities)
- Mooney Viscometer (thermal analysis)
- Humidity Chamber (environmental testing)

## Quality:

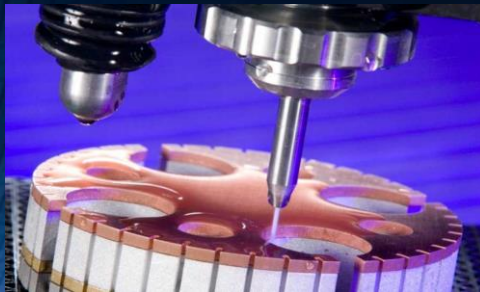
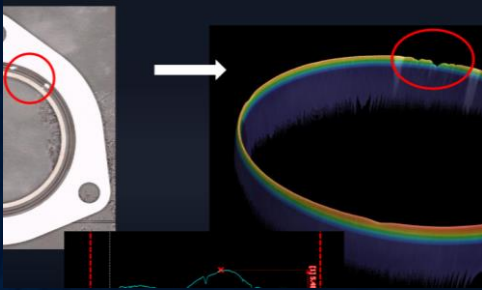
- AS13100 Certification expected end of 2023
- 3D profilometer w/ programmable CMM capabilities
  - Paired with R&D to develop roughness applications for seals

## Production:

- Autoclave
- In-house waterjet
- Increased press capacity
- Cut-to-length machine

## Prototyping and Engineering:

- Peek 3D printer
- Metal 3D printer
- Small-scale CNC
- FEA and CFD in-house capabilities





# ALWAYS LOOKING TO THE FUTURE



## Contact Information

Jonal Laboratories, Inc.

456 Center Street

Meriden, CT, 06450, USA

Phone: 1 (203)-634-4444

Fax: 1 (203)-634-4448

## Manufacturer Information

CAGE Code: 24664

NAICS Code: 326291 (Elastomer Manufacturer)

DUNS#: 004531083; ISO 9001:2015/AS9100D

DDTC#: M23874; SAMS Registered

**ADDITIONAL INFORMATION FOUND ONLINE AT: [WWW.JONAL.COM](http://WWW.JONAL.COM)**