



THE WINDINGS SPECIALIST

ABOUT US

ELM AEROSPACE was formerly founded in 1988 by Luis Mendivil, with private capital, capable to produce top quality products for the aeronautical, aerospace, military, and medical sectors. It is a family-owned business and because of this, we are convinced that our most valuable resource is our employees and their families.



LOCATIONS

- Empresas LM, LLC, in Calexico California, USA
- Manufacturing site:
- Empresas LM, S de RL DE CV, Mexicali Baja California, México

Actually, we have 65 employees, average age of 35 years old and **NO UNION MEMBERS**, we are a young company with experience.

MISSION

"ELM AEROSPACE is committed to meeting the requirements of our customers using the necessary technology to provide quality products and services, constantly working on the continuous improvement of our processes, teaming up with our customers, suppliers, and associates."

VISION

Become the best and most reliable supplier for all our customers to achieve together our goals.

GOVERNMENT

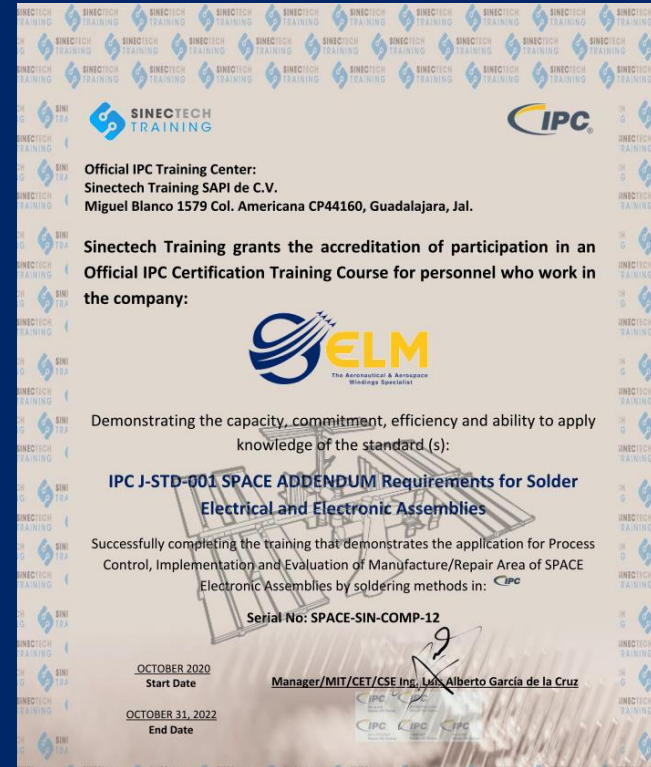
ELM AEROSPACE is enrolled in the
“System for Award Management” (SAM)



- **DUNS USA:** 0188898228
- **DUNS MEX:** 824117311
- **CAGE CODE:** 8SFC8
- **NAICS:** 336413, 335999
- **PSC:** 1680



CERTIFICATIONS



NADCAP certified
by August 2022



CAPABILITIES

Over 30 year ago ELM AEROSPACE began building stators for Aeronautical & Aerospace industry.

Today we manufacture Electro-Mechanical critical components, these components have been used in commercial, cargo, military aircraft, hybrid vehicles and medical.

Manufacturing capacity 10,000 sq. ft. in operations and 5,000 sq ft ready for new projects

As a custom contract manufacturer building by print, We have the capability manufacturing from simple coil to rotor assemblies or complete motors.

ELECTRO-MECHANICAL

OUR CAPABILITY IS DEMONSTRATED BY THE QUALITY OF OUR PRODUCTS.

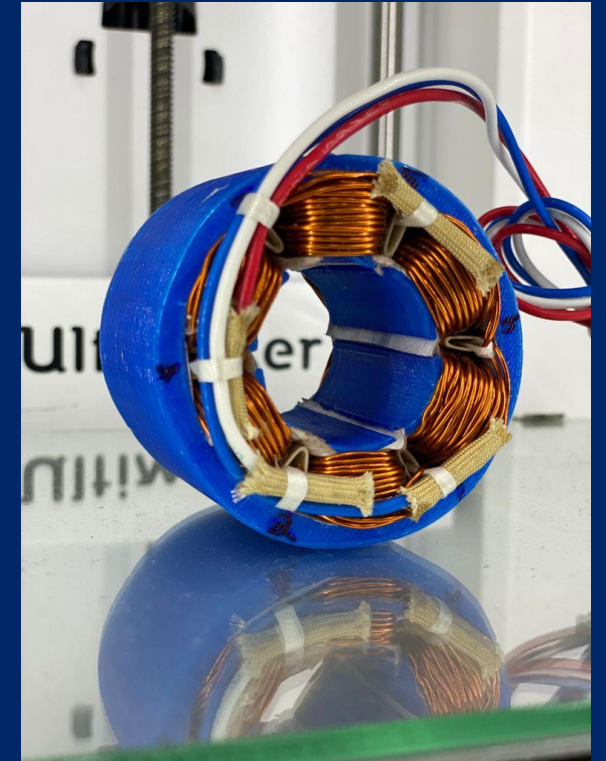
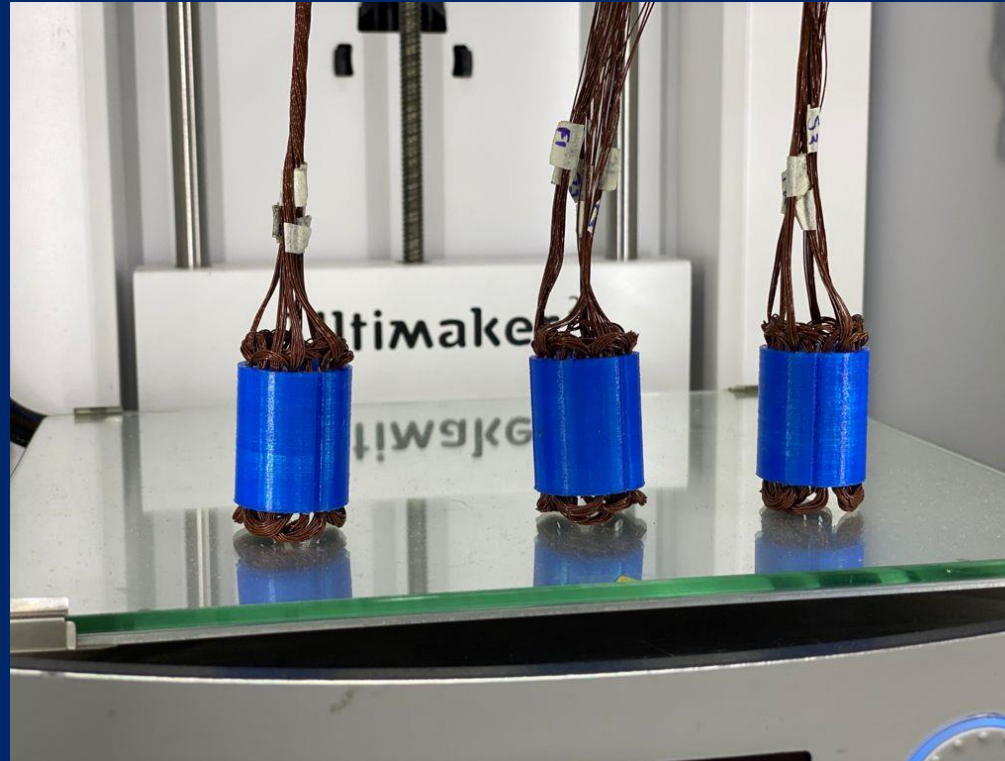
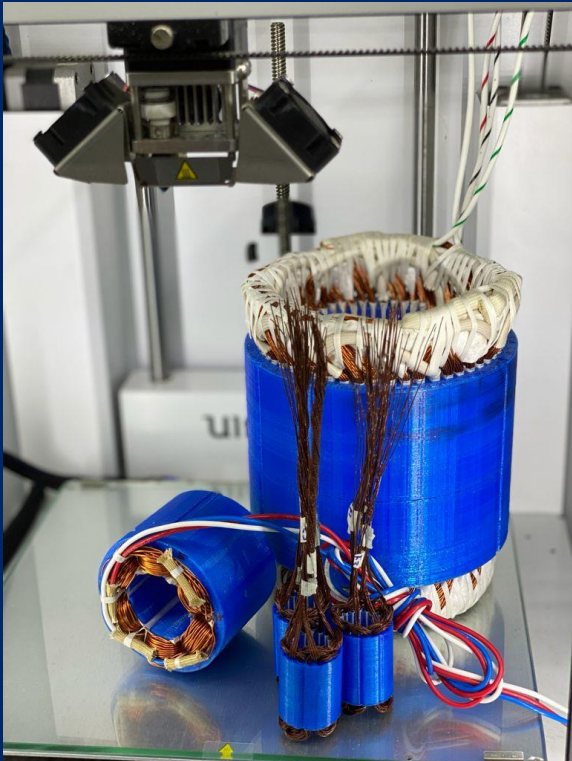


- Stator
- Armatures
- Rotors
- Field coil
- Generators
- AC/DC motors
- Linear actuators
- Hydraulics pumps
- Starter generators
- Brake coil
- Rheostat
- Varistor
- Inductors
- Servo motors
- Brushed/brushless motor
- Rotary actuators
- Fly control actuators

Performing special processes to our products like coatings, bonding, impregnation (vacuum & trickle), epoxy encapsulation, dynamic balancing, torch brazing, soldering and fluidize bed coating.

Reverse Engineering Capability + R&D support for current and new products or prototypes.

When no drawings exist, ELM AEROSPACE can deconstruct an existing part sample to re-engineer a design solution and create the necessary manufacturing prints and documents to support future part production. We are always working on the edge of what's technologically possible. This includes using 3Dprinting. We can help you visualize your products with concept model, create rapid prototypes to shorten product development cycles.





STATORS

Lamination bonding for stators, armatures and rotors cores using:

- Electric epoxy resins
- Epoxy resins with hardeners
- Rivet fastening systems
- Tig welding
- Torch welding

Build custom stator assemblies from 0.5" to 36"

Working core diameter from 0.713" to 15.000" and height from 0.480" to 9.500"

Insulation systems consist of the use of fiber glass, melamine, Nomex, Kapton, Mylar insulation materials. Application of electrical resins using fluidized bed system

Winding and magnet wire insertion

- From AWG 42.5 to AWG 8 magnet wire
- Coil winding configurations of 2 phase, 3 phase, 2 phase + 1 phase inverted rotation
- Hairpin wire winding
- Single wire turn by turn handmade for specific stators and armatures
- Coil group winding machine
- Brake coil winding machine
- Rheostat/Potentiometer used for aerospace dashboards

Lead wires connection and lacing of end turn coils.



Connection soldering per IPC-J-STD-001/Space addendum, torch brazing for BCuP applications, spot welding for armatures from commutator diameters 1.000" to 5.000". Impregnation of stators coils using the dip & bake system, trickle impregnation. Epoxy encapsulation using custom made retaining molds for stators.

ROTORS

- Lamination stacking with copper bars and copper or brass end rings.
- Aluminum and copper castings rotors.
- Installation of shafts into rotors and machining of the assembly.
- Dynamic balancing of armatures and rotor/shaft assemblies.

TECHNICAL DATA

Stators currently build are being used on aircraft landing, hydraulic, cooling and fuel systems and some technical data is:

3 phase winding

Input: 115/200 VAC 400 Hz

Output: 69 lb/in @ 7600 RPM

86 lb/in @ 5600 RPM

7.5 hp @ 7600 RPM

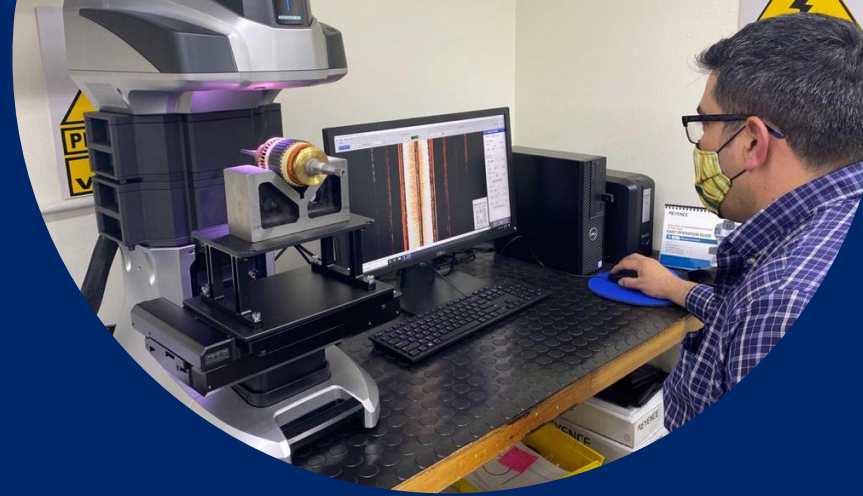
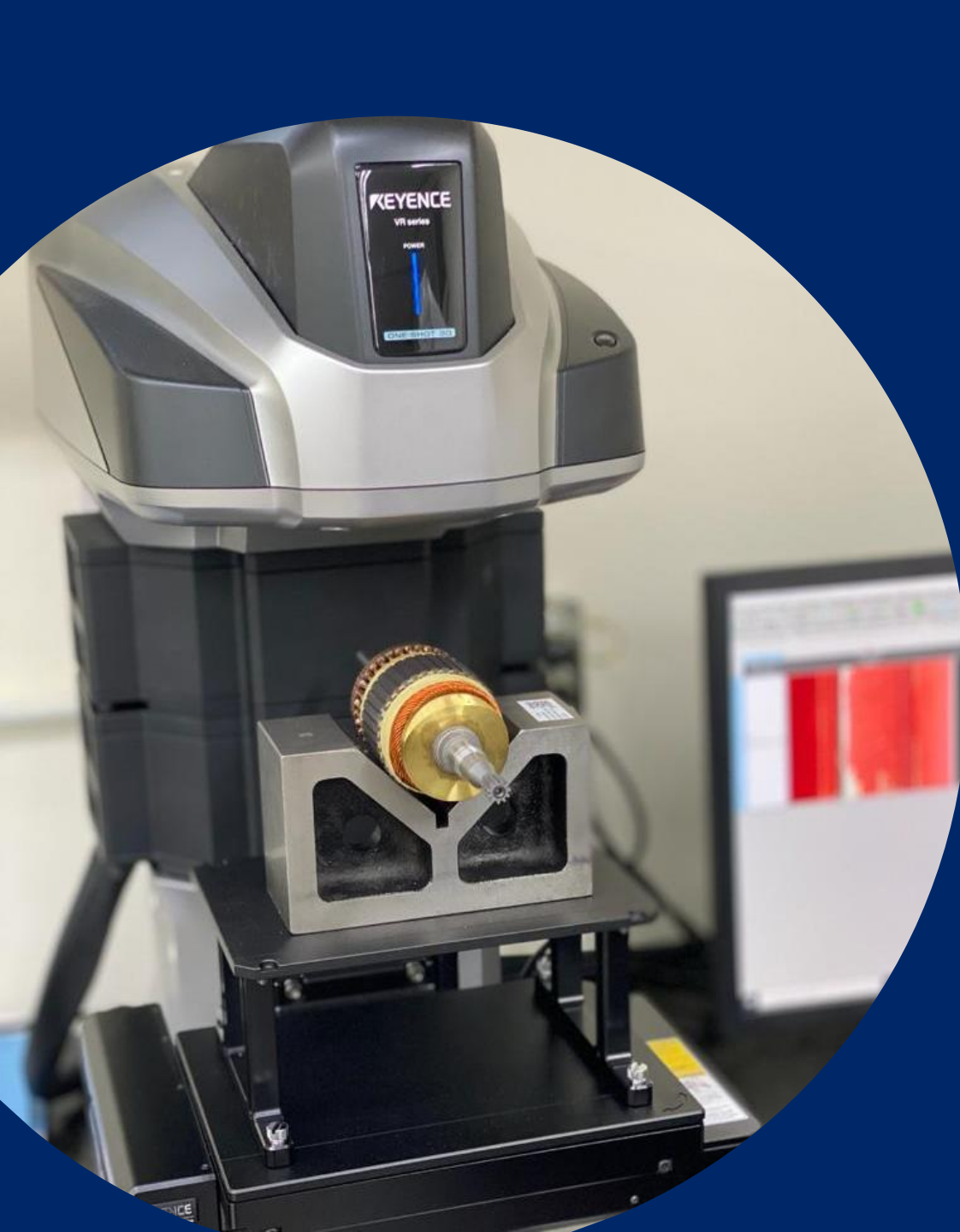
24-28 AMPS



MACHINING SERVICES

ELM AEROSPACE provides CNC Machining and Metal Forming Services, working under AS9100; we offer the higher quality services meeting customer requirements.





ELM AEROSPACE ADQUIRES

**NEW TECHNOLOGY TO PROVIDE BETTER
PRODUCTS TO OUR CUSTOMERS**

**800,000 data points acquired in as little as 1 second
(Visualize shape, flatness, and roughness).**

3D imaging & measurement with a single device.

Non-contact, wide-area measurement.

High-speed data acquisition and analysis.

**Automatic operation with place-and-measure
capability.**

WHY ELM AEROSPACE?

- Presence in USA as Empresas LM, LLC. and in Mexico as Empresas LM, S de RL de CV.
- ISO 9001:2015, AS9100:2016, IPC-J-STD-001/Space addendum certified. NADCAP Welding in August 2022.
- 30+ years of experience serving the commercial, military, defense and medical sectors in USA.
- Critical knowledge and expertise.
- Guarantee to meet your QUALITY, OTD and TARGET PRICES.
- Protect your intellectual property, per CMMC requirements.
- All materials are purchased in the United States and only certified suppliers.
- Reverse Engineering Capability + R&D support for current and new products or prototypes.
- 4 WEEKS lead times
- Available space for new projects.
- Build from 1 piece, to high volume.



MARKETS

We work with diverse industries



AERONAUTICAL & AEROSPACE

- King air 350: stator
- Boeing Dreamliner 737,777,787: stator
- Bombardier Challenger 605: stator
- Sikorsky S-92: stator

DEFENSE

- ITAR products: Armature, Rotor, Stator.

AFTER MARKET

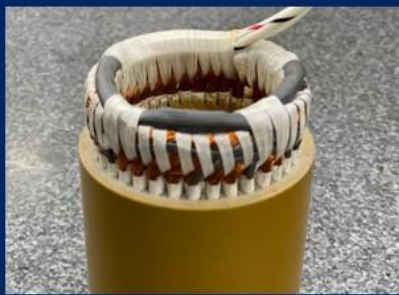
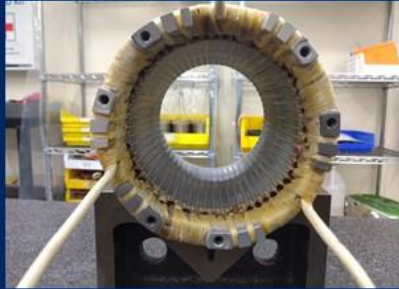
- Manufacture starting from 1 piece

MEDICAL

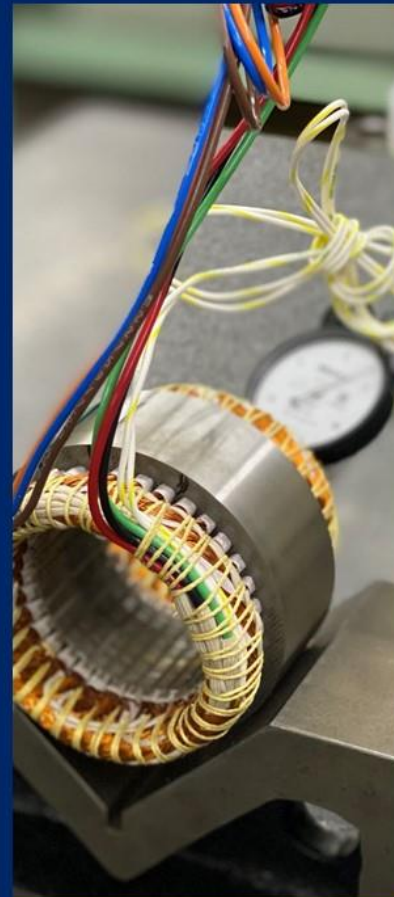
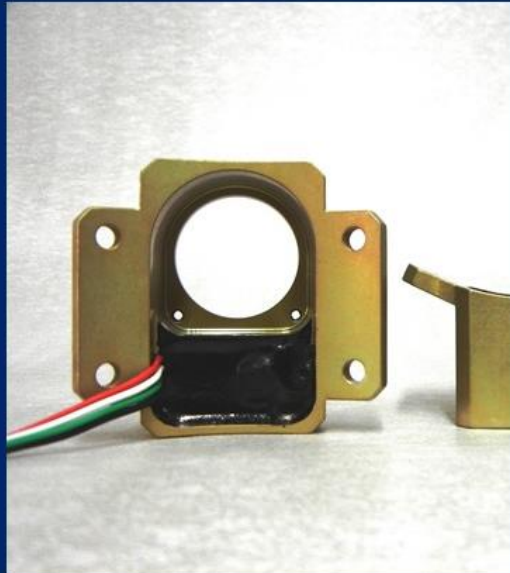
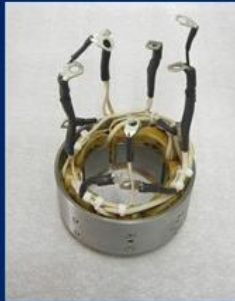
- Stator for surgical instruments

AUTOMOTIVE GREEN ENERGY INDUSTRIAL TRAIN

GALLERY QUALITY COMPONENTS



GALLERY QUALITY COMPONENTS





SUPPLYING QUALITY PARTS TO

Honeywell



MEGGITT



CONTACT US



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