-AEROSPACE CATALOG-

2 0 2 4

THIS CATALOG
IS PART OF
gto: upply

gto-aerospace.com



**COFCCE** 





Mexico has proven to be an attractive destination for investment in the aerospace industry, thanks to its strategic location, highly skilled workforce, and efficient logistical network. This sector not only serves as an economic development engine but also stands as a symbol of innovation and progress.

Currently, Mexico ranks as the 3° most attractive country for Foreign Direct Investment (FDI) in the aerospace industry, with exports totaling \$8.7 million in 2022, creating over 60,000 jobs for 388 plants in 19 states.

Since its inception in 2006, Guanajuato has experienced remarkable growth. The key to this success lies in Guanajuato's dedicated commitment to the sustainable development of the Aerospace and Aeronautical Industry. Our goal is to be the best hub for this sector in 2040, therefore, we are working in 4 strategic areas:

**Supply Chain Strengthening:** We know that introducing projects to the supply chain not only enhances the aerospace industry's robustness and flexibility but also fosters innovation and sustainable growth by opening new opportunities and improving collaboration among the various actors involved in the chain. As markets evolve, diversification allows companies to leverage their expertise in engineering, manufacturing, and supply chain management to venture into complementary sectors. This is a primary focus of the cluster this year, aiming to create business plans for companies seeking to diversify into the aerospace sector and bring significant business opportunities. This strategic move not only provides access to additional markets but also reduces dependence on a single sector, mitigating economic risks and increasing financial stability.

**Talent Development:** We understand that investing in educational programs ensures a continuous flow of highly skilled professionals, that is why we work with the academy institutions and our members to know which the main qualifications are, to develop the talent that this industry requires.



# **OSCAR RODRIGUEZ YAÑEZ**

President of BJX Aerospace Cluster

**Promotion:** Actively participating in international events, trade shows, and *establishing a strong digital presence* not only attracts potential clients, investors, and strategic partners but also *positions the company as a leader in innovation and quality.* A notable project in this pillar is the creation of the Aerospace Catalog, allowing us to communicate our capabilities to national and international stakeholders.

**Fleet Strengthening:** We are convinced that a well-trained, motivated, and cohesive team not only enhances operational efficiency but also contributes to the quality and reliability of products. Therefore, we will focus in create a stronger Cluster. One of our goals for this year is to *double the "Gap Analysis"* of AS9100D in the state, providing a clear roadmap for improvement and professionalization of the industry.

Today, we share not only information about the aerospace industry in Guanajuato but also a glimpse into our commitment to excellence, innovation, and the creation of a prosperous future for generations to come.





# **RAMÓN ALFARO GÓMEZ**

Secretary of Economic Development

Aero BJX: An horizon of opportunities

Guanajuato's economic clusters are catalysts for evolution, dynamism and vision for the future.

The economic diversification of this State in Central Mexico is key in the following of worldwide trends, that's why the local Government has policies that require consolidating dynamic sectors with greater value-added and higher technological content. This is where aerospace industry comes along.

This strategy has proved being instrumental in accelerating innovation and specialization for the local economy.

The collaboration among companies helps solving common challenges such as supplier development, competitive human resources, value chains, new business opportunities but overall common requirements.

The cooperation among competitors contributes to economic welfare since they share knowledge and resources in order to attract new investments for a successful Aerospace Cluster.

The inclusion of high value industry in the local economy enables and encourages the creation of new highly skilled jobs.

The diversification towards the inclusion of the aerospace sector ensures a more sustainable development and a stronger local economy; Guanajuato's labor force and talent has shown its resilience and adaptability to the ever changing global market demands.

By taking advantage of the synergy between innovation and collaboration, we can chart a path of new opportunities that drives economic diversification and position our regions at the forefront of the technological revolution.

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**OEM** 

INDIRECT PRODUCT & SERVICES

MRO SUPPLIERS

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EXSXX.

2024 // CLÚSTER AEROESPACIAL DEL BAJÍO

@BJXAEROSPACE

# 





# **AEROSPACE INDUSTRY IN MEXICO**

2022





Mexico ranked 7th among the 208 exporting countries of the aeronautical industry with a 1.82% share of the global trade of this industry.



# **6**<sup>TH</sup> PLACE AS A U.S. SUPPLIER

In less than 10 years, Mexico went from being the 10th supplier of products to the U.S. aviation industry to now occupying the 6th place.



# 1 ST PLACE IN ATTRACTING FDI FROM THE GLOBAL AEROSPACE INDUSTRY

In the last 15 years, Mexico has been the main destination for Foreign Direct Investment in the aerospace industry, above China and India.



+18%
Trade
Surplus
+41k
Jobs

+382 Facilities



9.2 B Exports

\*B: billion dollars \*CAGR: Compound Annual Growth Rate (Exports 2020-2022)

Source: FEMIA & INEGI, COFOCE

# INTERNATIONAL TRADE OF THE **AEROSPACE INDUSTRY OF MEXICO**



9.2 Billion

**Estimated Annual Variation** 2022-2023









**EXPORTED PRODUCTS** 

(2023)

8-digit products

AEROSPACE EQUIPMENT MANUFACTURING GDP (2023)

**BILLIONS OF USD** 

**MANUFACTURING GDP SHARE 2023** 

0.46%

Source: COFOCE, OCT 2023

# AEROSPACE INDUSTRY INFRASTRUCTURE IN MEXICO 58





INDUSTRIAL FACILITIES



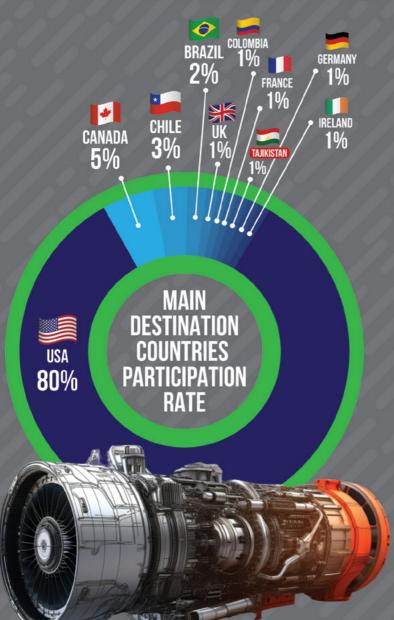
Source: FEMIA & INEGI

# TOP 10 LARGEST EXPORTERS



# MEXICO RANKS 7TH IN THE GLOBAL AEROSPACE INDUSTRY

# MAJOR TRADING PARTNERS COUNTRIES FOR MEXICO'S AEROSPACE INDUSTRY (2023)



# **EXPORTS**

	MUSD	%PART
USA	7	80%
CANADA	0.490	5%
CHILE	0.271	3%
BRAZIL	0.141	2%
UK	0.135	1%
COLOMBIA	0.123	1%
FRANCE	0.108	1%
TAJIKISTAN	0.092	1%
GERMANY	0.091	1%
IRELAND	0.071	1%
TOTAL	9	100%

# MAIN COMMERCIALIZED PRODUCTS OF THE AEROSPACE INDUSTRY IN MEXICO 2023



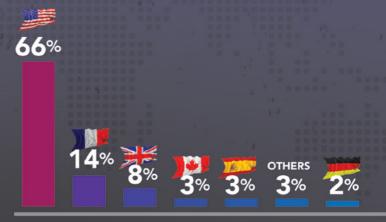
HS Code	Product Description	USD BUSD	Main Destination Country
88024001	Airplanes and other aircraft, of an unladen weight exceeding 15,000 kg.	4	
98060006	Upon the request of the Department of State, diplomatic couriers of foreign governments	3	
84111201	Of a thrust exceeding 25 kN	0.550	
88073091	Other parts of airplanes, helicopters or unmanned aircraft	0.338	
88072001	Undercarriages and parts thereof	0.145	
88023099	Airplanes and other aircraft, of an unladen weight exceeding 2,000 kg but not exceeding 15,000 kg	0.145	
85443001	Ignition wiring sets and other wiring sets of a kind used in vehicles, aircraft or ships	0.073	
85444205	Fitted with connectors	0.042	
88079099	Other	0.035	
90142001	Instruments and appliances for aeronautical or space navigation (other than compasses)	0.034	

Source: SIAVI





ORIGIN OF COMPANIES ESTABLISHED IN MEXICO



# WORLDWIDE INTERIORS MARKET



The seating segment has **experienced high demand during the 2022 period**, driven by the incressed demand for commercial aircraft.

The connectivity and in-flight entertainment segment are expected to grow due to technological advances and the aviability of content for in-flight entertainment.

Likewise, there is an **increase in demand for the renewal and retrofiting** of older aircraft and jets to extend their service life.



Note: CAGR, Compound Annual Growth Rate. Source: Fortune business insights.

# AIRCRAFT SEATING MARKET

\$6.40 Billion USD

CAGR VALUE (2022-2032)

▲ 8.6%
Seat Activation



# Seating

·It's expected that the majority of the revenue will be generated by the economy class.

Airlines are paying more attention to passengers in this segment, wich has an impact on the design, innovation and optimization of ergonomics.

Market Value 2022

▲ 3.6% Upholstery

▲15.9%
Connectivity & Entertainment

# Connectivity & Entertainment

 Low-cost airlaines are replacing seat structures.

 The aviation safety agencies of the USA and the EU haved allowed various regultatory guidelines regarding the expansion of PED usage for passengers.

\$1.90 Billion USD



**▲ 6.8%** Seating

# **Upholstery**

· Airlines are focusing on projecting image, and the modernization of the cabin emerges as a viable solution due to the balance between cost and aesthetics.

Market Value 2022

Note: CAGR, Compound Annual Growth Rate. Source: Fortune business insights.



# **Seat Activation**

 Investments in technologies to manufacture thin panels and other seat components to reduce costs are expected.

 Due to the expense involved, most manufacturers only deploy these seats in luxury sections.

# MRO MARKET 2023

CAGR (Compound)

\$122.4

**Billion USD** 

\$82.64

**Billion USD** 





Market value 2022 Billion USD

Modern aircraft are equipped wiht advanced technologies, making maintenance more complex and specialized.

MRO providers need to continuously invest in training and equipment these advancements, which can be challenging and costly.

**MARKET SEGMENTATION** 46% 20% **Airframe Engine** Component Line





# THE MOST DYNAMIC REGION IN MEXICO

# Within a 400 km radius:

80% Mexican market

70% Industry and

of the Mexican foreign trade

60% of the to

of the total population

30% Industry in

# **BJX AEROSPACE MEMBERS** & ALLIES

Government







State









Municipalities







# **Academy**











































**AENOR** 



# Industry







MRO

OEM



ATG ADDITIVE





Development **Program** 







novatec









DSV









# **Entrepreneurs**







# Aerospace Clusters & Allies











# MANUFACTURING & PRODUCTS CAPABILITIES



OTHERS: ADDITIVE MANUFACTURING, CASTING, DESIGN, SOFTWARE, AMONG OTHERS

# AEROSPACE SUPPLIER DEVELOPMENT PROGRAM 2024

Current Capabilities in Guanajuato	#Companies	IATF 16949	150 9001:2015	AS9100	NADCAP	FAA	AFAC
Additive Manufacturing	1	8	-	1	-	-	-
Castings (Investment & Sand)	1	-	1	-	-	-	-
Coatings (Anodized)	1	-	-	-:	1	-	-
Composites	1	-	-	In progress	-	- 1	-
Design	1	7.	-	-	- 5	<del>-</del>	-
Interior MRO	1	15	1	1	H	1	1
Machining	3	2	-	2	-	27	-
Plastic Injection Molding	2	1	1	-	-	-	-
Sheet Metal	2	-	1	1	-	-	-

# TALENT DEVELOPMENT STATISTICS

Degree & Number of Academy Institutions in our State



**Pilots** 

2



Flight Attendants

2



**Engineers** 

2



**Technicians** 

3

# WHO ARE WE?

Non profit association that facilitates the link between aerospace companies, government and academy institutions for the development of industrial policies that promote the growth of the aerospace industry in Guanajuato.

# VISION

To become a key actor for the Aerospace and aeronautics industry in Mexico and worldwide, by promoting and boosting the oportunities for the development of the sector.

## MISSION

Promote the sustainable development of the aerospace industry in Guanajuato through the collaboration between our stakeholders.

# **VALUES**

Trust Collaboration Transparency Integrity

# **BJX AEROSPACE COMMITEES**



Talent Development



Supply Chain Integration



Promotion



**Innovation** 



# **SUPPLY CHAIN INTEGRATION**

QMS Mapping (% compliance to AS9100D) Certify companies in AS9100D

Aerospace Suppliers Seminar (May 2nd - 3rd)



Supplier Day for GTO Companies

Guanajuato's supplier capabilities mapping

Theory of Constraints Workshop



2

6

6

# **PROMOTION**

**GTO-AEROSPACE** -CATALOG 2024-





Feb 21th - 22th





April 9th - 14th



April 9th - 11th



July 22th - 26th









# GUANAJUATO'S COMPETITIVENESS ADVANTAGES

Guanajuato State offers to Foreign and National Companies the best conditions to set up manufacturing, logistics, and R&D operations More than 500 projects have chosen Guanajuato State as the best partner to expand their business thanks to qualified labor, availability, quality of life, security, a strategic location in Central Mexico and modern infrastructures.

We invite all project leaders to discover business opportunities in our State and request an incentive proposal.



Guanajuato offers a

2.6 million workforce

for a total population of

6.1 million inhabitants.



Education based on industry needs with more than

45 university

31 State Training Center (IECA)



Guanajuato State has
a modern
infrastructure with
state and
federal roads,
airport, freight train,
industrial park, and
sustainable
electricity
generation projects.



Contribution to the National GDP:

4.4% Exports Variation in the last 10 years:

+226%

GDP: \$50.8

GDP per Capita:

\$7,977





GTO-AEROSPACE is a COFOCE program that assists aerospace buyers to connect with suppliers in Guanajuato, Mexico.

# Services for the buyer:

- Providing information about the current supplier base in Guanajuato.
- Filtering supplier lists according to the company's specific requirements.
- Arranging business meetings between potential suppliers and buyers.

As Government of Guanajuato, we are pleased to offer suppliers the opportunity to apply for a **State Grant** to obtain the **AS 9100 & NADCAP certification.** 



**COFCCE** 

# **AEROSPACE EXPORTS**



13.6 Million

Represents 0.07% of the exports in Guanajuato OCT 2023



5.75

E A

Annual Variation Oct Oct 2022 - 2023

<del>^</del> 20.84%



7.29



15.17



2023

**ESTIMATED** 

2020 2021 2022







PRODUCTS EXPORTED IN 2023

8 \*EXPORTING COMPANIES 2023

\*Companies that exported a component or product classified within the aeronautical sector. Source: COFOCE with information from Datasur +1,000 Direct Jobs

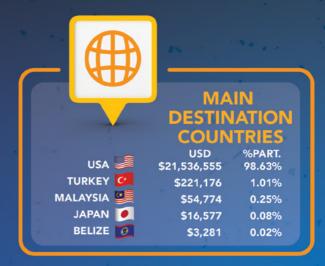
+5,000 Indirect Jobs Source: COFOCE with information from Datasur

# **AEROSPACE EXPORTS**

# **EXPORTED PRODUCTS (8 DIGITS)**

CODE	PRODUCT	MUSD	MAIN DESTINATION COUNTRY
880730	Other parts of airplanes, helicopters or unmanned aircraft	\$13,509,841	
848180	Other appliances	\$110,978	
848140	Safety or relief valves	\$56,190	
854430	Ignition wiring sets and other wiring sets of a kind used in vehicles, aircraft or ships	\$1,074	
853650	Other switches	\$582	





Source: COFOCE with information from Datasur





Manufacturing & Processing

**OEM** 



# **ABOUT COMPANY**

ATG Additive Manufacturing (AM), is a group made up of the Guanajuato companies Alguim, Temaplax, Grupo GPA and Optimen, which join efforts and skills to create a strategic partnership that opens the doors to a new form of manufacturing in Mexico. Our company was created with the firm intention of being part of the growth and development of our country in strategic sectors such as Aerospace, Medical, Molds, and Special Tools. Our main activities include the design, simulation, and manufacturing of special parts using Additive Manufacturing of Metals (3D printing in Metals).

## **SEGMENT**

- Aerostructure
- Cabin and Interiors

# **Metal Forming**

Additive
 Manufacturing

#### **Plastic Molding**

 Additive Manufacturing (Prototyped)

### Special Processes

Assemblies

**Design & Simulation** 

## **MATERIALS**

- SS316L
- Maraging Steel MS1
- Al6061
- Al7075
- A36
- D2

# SOFTWARE LICENSES

- Ansys
- Solid Works

# **PROCESSES**



# **MAIN CUSTOMERS**

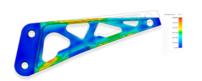
Horizontec

# **MACHINERY & EQUIPMENT**

EOS M290

# **METROLOGY EQUIPMENT**

• FARO SYSTEMS





# **CERTIFICATIONS**

- AS9100D
- ISO 9001:2015

# **MAIN DESTINATIONS**

USA

# **WORKMANSHIP**

» WORKMANSHIP24 people

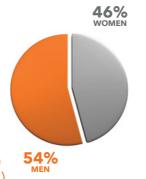
- 11 Women
- 13 Men

# » AEROSPACE EXPERIENCE

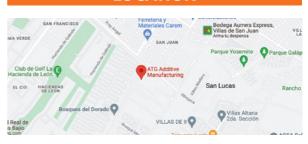
32 years (GPA)

17 years (Optimen)

11 years (Temaplax)



# **LOCATION**



#### ATG ADDITIVE MANUFACTURING SAPI DE C.V.

Avenida Olimpica #3006, Leon, Guanajuato, Mexico. ZIP 37295 www.atgadditive.com.mx / carlos.alastair@atgadditive.com Phone: +52 (55) 6083 7193

Manufacturing & Processing

Tier 2 **Specialized Sevices** 



# **ABOUT COMPANY**

CEI AEROSPACE GROUP is a company founded by an alliance of Mexican companies with over 30 years of experience in various sectors. CEI AEROSPACE is the business unit of Grupo GPA and Optimen specialized in the manufacture of parts and assemblies for the aerospace sector. Our main offer is the manufacturing of various parts using the Sheet Metal process, as part of our comprehensive value proposition. Through our allied partners, we also offer services such as Additive Manufacturing, Software Development, Design and Simulation, Process Optimization, Automation and Robotics, Cutting Systems, Machining, and Reverse Engineering.

Aerostructures **SEGMENT**  Cabin and Interiors **Metal Forming**  Sheet Metal **PROCESSES Special Processes** Powder Coating

**MATERIALS** 

- Al2024T3 • Al7075

Al6061T6

- A463 ALUMINIZED STEEL
- AISI1008
- STAINLESS STEEL 304
- SAE 1018

**SOFTWARE LICENSES** 

- Ansys
- Solid Works



# **MAIN CUSTOMERS**

- RECARO
- SPEQTRUM

# **MACHINERY & EQUIPMENT**

- Trumpf Machine Trumatic 3000
- Press Bending
- Special Painting Booth





# **METROLOGY EQUIPMENT**

FARO SYSTEMS

• Dallas Forth Worth, USA





# **CERTIFICATIONS**

AS9100 D

# **WORKMANSHIP**

# » WORKMANSHIP 20 people

9 Women 11 Men

# 55% MEN

# **LOCATION**

**MAIN DESTINATIONS** 



## » EXPERIENCE

30 years (GPA)

+3 years (in Aerospace)

17 years (Optimen)

45% WOMEN

CEI AEROSPACE GROUP, S.A.P.I. DE C.V. Parque Logistics Aeropuerto #157 Col. Industrial, Silao, Guanajuato, Mexico. ZIP 36274 carlos.alastair@ceiaerospace.com.mx

Manufacturing & Processing

Tier 2



# **ABOUT COMPANY**

We carry out projects from design, models, manufacturing, machining and surface finishes, such as refractory steel tooling for heat treatment, steel, gray iron, nodular iron, bronze and aluminum in investment casting and sand casting processes in short runs. Located in Loza de los Padres, Leon Guanajuato, Mexico.

**SEGMENT** 

• Engine

**PROCESSES** 

Machining Investment Casting Sand Casting

Centrifugation Molding

**CAPABILITIES** 

#### **Induction Melting:**

Induction melting equipped with three units to make mainly ferrous alloys.

#### **Tilt Pour Casting:**

Melting in tilting furnaces equipped with three units to make non-ferrous alloys.

MACHINERY & EQUIPMENT

#### Machining:

Conventional Machining
Flip up to 18" and a length between centers of 63".
CNC Turning Center
6" flip and a length between centers of 24

#### Laboratory

Chemical and hardness laboratory to carry out metallurgical control and certification of molten alloys equipped with two spectrometers, one laboratory and one portable with the capacity to read copper-based, iron-based and aluminum-based alloys in three different matrices. Dimensional and prototypes laboratory to perform dimensional analysis, a 3D printing equipment for prototype manufacturing.



# **CERTIFICATIONS**

- ISO-9001
- CLAUGTO



# LOCATION



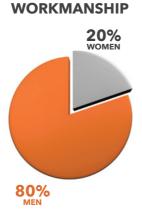
# MUSD ANNUAL SALES » WORKMANSHIP

25 people 5 Women

5 Women 20 Men

» AEROSPACE EXPERIENCE

2 years



#### **FUNPREBA DIVISION CASTING**

Camino a la Loza de los Padres km 2, Leon, Guanajuato, Mexico. ZIP 37680 www.funpreba.com / equipomultidiciplinario@funpreba.com Phone: +52 (479) 232 5181

Manufacturing & Processing

**OEM**Tier X (Special Process)



# **ABOUT COMPANY**

Harris Manufacturing Solutions combines 80 years of aerospace fabrication, assembly and processing from E.W. Johnson Co. and J.D. Morris Machine into one facility, providing our customers a single solution to their manufacturing needs, with a new location in Celaya, Mexico. Our certifications in both industry and customer specifications, span commercial and military applications (in our Texas facility) and allow for a broad speqtrum of manufacturing abilities.

## **SEGMENT**

- Aerostructures
- Cabin & Interiors
- Electric & Electronics System

# **MATERIALS**

- Aluminum
- Stainless Stee
- Nylon

# **PROCESSES**

### **Metal Forming**

Machining

# **Special Processes**

• Chemical Treatment

#### Others

- Sheet Metal
- FPI
- Assembly
- Platting

# SOFTWARE LICENSES

• CATIA

# MACHINERY & EQUIPMENT

3 axis machines, 4 axis machines, 5 axis machines, 8 axis machine, turning machines.

# METROLOGY EQUIPMENT

Angle block, pin gauges, micrometers, vernier gages, radius gauge.



# BOEING 737 MAX

# **SALES BY SECTORS**

# » WORKMANSHIP21 people

» AEROSPACEEXPERIENCE2 years (in Mexico)+80 years (in Texas)



100% AEROSPACE

# **MAIN CUSTOMERS**

- Lockhead Martin
- Spirit
- Speatrum

- Triumph
- BAE

# **CERTIFICATIONS**

- AS9100 D
- NADCAP
- ISO 9001

- IVA IEPS
- OEA
- IMMEX

# **MAIN DESTINATIONS**

• Lewisville, Texas

# **LOCATION**



#### HARRIS MANUFACTURING SOLUTIONS DE MEXICO

Av. Mexico Japon #412, Int. 50-52, Ciudad Industrial Novopark, Celaya, Guanajuato, Mexico. ZIP 38010 www.hmsaero.com | iboswell@hmsaero.com Phone: +52 (461) 249 4678

Manufacturing & Processing

**OEM Indirect Products Specialized Services** 



# **ABOUT COMPANY**

We are an aeronautical Mexican OEM, company founded in 2014, dedicate to design, development, and manufacture of LSA (Light sport aircraft) category and aerospace components. Our commercial product is the Halcón 2 aircraft, built with composite materials, mainly carbon fiber and epoxy resin. Our factory is located at the Celaya airport in the state of Guanajuato.

Currently, the Halcón 2 is flying all over Mexico and in seek of expanding its exposure by attending to international events. You can now purchase one of this aircrafts

# **SEGMENT**

# • LSA (Light Sport Aircraft)

# • Carbon fiber

# **PRODUCT**

Halcón 2 is an LSA aircraft made of composite materials, two-seater, side-by-side, and equipped with a 141 Hp Rotax 915 is engine.

A versatile, easy-to-fly, and safe aircraft designed for schools, for training Mexico's future pilots, as well as for aerial surveillance, recreation, and sports.

# **Composites**

Carbon fiber

#### **Textile & Leather**

Hook and loop

#### Others

Infusion

# **MACHINERY & EQUIPMENT**

**PROCESSES** 

Oven for post cure treatment; cnc 3 axis for master molds.

# **SOFTWARE** LICENSES

- Ansys





# **MAIN CUSTOMERS**

- Flight Schools
- Air Surveillance
- Private Pilots

# **CERTIFICATIONS**

- Currently the aircraft obtained the TIPO certification by the AFAC.
- Airworthiness certificate.
- AS9100 (In process).
- Airworthiness certificate.





## **WORKMANSHIP**

» WORKMANSHIP
14 people
4 Women
11 Men

# Sofia Ramal al Country Club Programec Av. Aeropuerto

#### **HORIZONTEC S.A. DE C.V.**

Aeropuerto de Celaya, Hangar 1W, Av. Aeropuerto, Celaya, Guanajuato, Mexico. ZIP 38119 www.horizontec.com.mx / a.salem@horizontec.com.mx Phone: +52 (461) 103 2457

73% MEN

Manufacturing & Processing

**OEM Specialized Services** 



## **ABOUT COMPANY**

Founded in 2023 by two young visionaries, our company is dedicated to the manufacturing of tooling, machining, and commercialization, with a special focus on providing innovative solutions to the aerospace industry. Since our inception, we have been committed to making a significant impact in the Mexican aviation manufacturing sector. Our passion for excellence and innovation drives us to offer products and services of the highest quality, contributing to the development and competitiveness of the aerospace industry in our country.

**SEGMENT** 

Tooling

**MATERIALS** 

- Carbon Steel
- Stainless Steel
- Special Alloys

**PROCESSES** 

# **Metal Forming**

Machining

#### **Others**

- Tooling
- Welding

MACHINERY & EQUIPMENT

3 welding machines, a manual plasma cutter, and conventional machining equipment.

**PRODUCT** 

Tooling Manufacturing / Commercialization





# **MAIN CUSTOMERS**

- Horizontec
- Bombardier

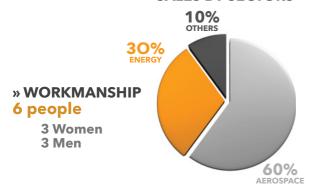
# **CERTIFICATIONS**

- AWS
- AS 9100 (In process)





# **SALES BY SECTORS**



# **LOCATION**



#### **NEXTIA INGENIERIA**

Surcursal Celaya: Eje Nor Poniente #222-C, Villa de la Hacienda, Celaya, Gto. www.nextiaingenieria.com / contacto@nextiaingenieria.com Phone: +52 (446) 170 0156 / +52 (446) 170 0155

Manufacturing & Processing

**OEM Indirect Products Specialized Services** 



## **ABOUT COMPANY**

Industrias Noramex is a family-owned machining company that has specialized in the rubber and plastic industry for fifty years. Today, with its high demands and with the growth of the industry, it has continued its expansion by branching out and by opening Noramex Precision, a high precision machining and mold manufacturing company that offers an in-house full service to its clients in the automotive, aeronautical, rubber and plastic industry, offering solutions and all other requirements needed for the client's needs. With the expansion that comes from the company's own investment capital, the growth of the company has helped the growth of its clients as well, making Industrias Noramex and Noramex Precision leaders in the machining field.

# **SEGMEN**

- Aerostructures
- **Cabin & Interiors**

## **MATERIALS**

- Aluminum
- Metal
- Polymers

**PROCESSES** 

#### **Metal Forming**

Forging

# **TPR Injection Molding**

• Injection Molding

#### Rubber

Vulcanization

- Precision Machining

### **Special Processes** Assemblies

# **METROLOGY EQUIPMENT**

**CMM Measuring** equipment

# **MACHINERY & EQUIPMENT**

CNC VMC up to 5 axis, EDM up to 3 axis, Wire cutting EDM 5 axis, CMM Measuring equipment. CNC and coventional lathe up to 5m diameter.







19 people

12 Men

3 Women

4 Interns

# **MAIN CUSTOMERS**

Michellin

• Continental

• Pirelli

Norden

# **CERTIFICATIONS**

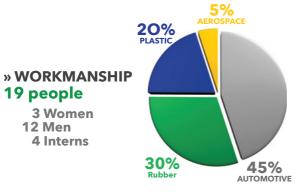
- ISO 9001 (in process)
- IMMEX

• AS9100 D (in process)

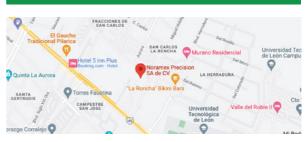
# **MAIN DESTINATIONS**

• USA

# **SALES BY SECTORS**



# **LOCATION**



#### **NORAMEX PRECISION SA DE CV**

Blvd. Aeropuerto km 10.5 local 15, Leon, Guanajuato, Mexico. ZIP 37299 www.noramexpresicion.com / ddn@noramexpresicion.com Phone: +52 (477) 772 6401

Manufacturing & Processing

Tier 1 **OEM** 





# **ABOUT COMPANY**

Novatec Group is a Spanish/Mexican company dedicated to the automotive industry with 4 production plants on 3 continents: Naguera- Spain, Tangier-Morocco, Leon-Mexico and Chomutov-Czech Republic. Focused on plastic injection, specialized in the design, development and manufacture of parts for external and interior lighting, based on highly specialized production processes with high dimensional and appearance requirements, as well as subassemblies and added-value processes.

- Tool Shop
- Process Control W/Artificial Vision

#### About Ingedetec:

Ingedetec is a company that works along Novatec Group. Company involve on design, consulting, testing and quality management.

#### PC. **SEGMENTS** Cabin and Exterior & PMMA Interior Lighting ABS **MATERIALS** TPU / TPV **Plastic Molding PROCESSES** Injection Molding CATIA V5 R30 • G200 1K • G600 1K S Spinfire Reader **MACHINERY** • G200 2K • G600 2K **SOFTWARE** 11.9.2 **& EQUIPMENT** • G400 1K • G800 2K CAD Assitant **LICENSES** • G400 2k • G1500 2K Solidworks 2021 Glovius Interior Lighting

# **PRODUCTS**

- Head Lamp Components Lighting **Products**
- Rear Lamp Components Lighting **Products**
- Small Lighting with Complex **Assemblies**
- Interior Cosmetics
- Structural parts with High Tolerance Requests
- Fuel Flap
- Fuel Filing Modules

# **METROLOGY EQUIPMENT**

- Photometric analysis
- Raw Materials tests
- Environmental tests

- Vibration and stress tests
- 3D Metrology
- Scanning tests









» WORKMANSHIP293 people



# WORKMANSHIP

46% PERSONS WITH DISABILITIES

# 156 Women 136 Men 1 Persons with Disabilities

**53** 

#### **NOVATEC LEON**

Parque Industrial #301, Leon, Guanajuato, Mexico. ZIP 37668 www.novatecgroup.com/en | Iramirez@novatecleon.com Phone: +52 (477) 167 6967

# **CERTIFICATIONS**

#### **Novatec:**

- ISO 14001
- IATF 16949
- IMMEX

# Ingedetec:

- Tisax Level 3
- ISO 9001:2015

## **CAPABILITIES**

- Mold engineering for the products we make (molds and control gauges)
- Automation engineering
- Metrology (production and PPAP)
- Laboratory Test
- Full PPAP report
- R&D (research and development)

- 1K / 2K injection machines (G200 1K G1500 2K)
- Laser Cutting
- Optical/ Lighting Parts
- Assy process
- 6 AXIS Robot
- Lighthing
- Electronics Asseembly

**LOCATION** 



#### **INGEDETEC**

Circuito Paseo de las Colinas #301 Parque Industrial Colinas de Leon, Leon Gto. ZIP 37668 ingedetec-leon@ingedetec-group.com ogtorres@novatecleon.com Phone: +52 (477) 167 6967

Manufacturing & Processing

Tier 1
Tier 2



# **ABOUT COMPANY**

SpeQtrum Aerospace Mexico is the manufacturer of critical to safety assemblies. We are ISO-9001:2015 and AS9100D certified, we have wide implemented the FOD program on all our areas and the Lean Manufacturing culture fully integrated on all our activities, we are exporters to customers in United States, Korea, Malysia and Japan. With the IMMEX program implemented on our logistic operation, we are proud of the Kanban system implemented in all of our supply chain structure, from our customer to our suppliers.

# **SEGMENT**

### • Large aerostructures

# • Sheet metal fabrication: shear, blanking, CNC routing, water jet, CNC brake press, hydro forming, stamping presses, paint both and turret punching CNC machine.

# MATERIALS

- Aluminium-Stailess
- Steel-Carbon
- Stap

# **PROCESSES**

# SOFTWARE LICENSES

- Catia V5
- Vericut
- Master CAM
- Radan
- Inventor
- PC-DMIS

# MACHINERY & EQUIPMENT

Large 5 axis (Head) Machining X 130 in, Y 50 in, Z 27 in, A 110, B 110. 2.- Tolerances True position less than 0.005 in. 3.- Water Jet 120 in x 48 in. Machining 5 axis (trunion) X 56 in-Y 41 in - Z 25 in - A 90 to -120 grades - B 360 grades. CNC Brake Press 70 in Lenght

# METROLOGY EQUIPMENT

CMM X 19 in - Y 118 in - Z 39 in. Rommer Arm. PC-DMIS software. Optical comparator.







- Spirit Aerosytems
- Boeing

- Airbus
- Gulfstream

# **CERTIFICATIONS**

- AS9100D
- ISO-9001:2015
- FAA
- IMMEX
- FOD Program Implemented
- Lean Manufacturing
- AIAG CQI
- VDA
- MSQ 2.0
- ESR

# **APPROVALS**

- Boeing
- Spirit

- Gulfstream DPD /
- **MBD**
- Airbus

# **MAIN DESTINATIONS**

• Whichita, KS, USA

• St Louis, MO, USA

# **SALES BY SECTORS**

» WORKMANSHIP 130 people 40 Women

» AEROSPACE **EXPERIENCE** 

90 Men

15 years



# **LOCATION**



#### SPEQTRUM AEROSPACE S DE RL DE CV

Av. Parque Industrial Cuadritos #114, Lote 11, Celaya, Guanajuato, Mexico. ZIP 38104 www.spegtrum-aero.com / agamboa@spegtrum-aero.com Phone: +52 (442) 270 1548

Manufacturing & Processing

Tier 2



# **ABOUT COMPANY**

We are a Mexican plastic injection molding company located in Leon, Guanajuato, Mexico. We started operations in 2003. We work for Medical and Automotive industries.

Medical: we are an OEM producing and distributing our own brand and design of a medical disposable device.

Automotive: we are a Tier 2 automotive supplier producing interior plastic parts for Nissan, Honda, Mazda, Infiniti, Toyota, Audi and FCA.

In 2019 we made a partnership with three other companies and created together ATG additive manufacturing, a company that produces metal 3D printing parts with PBF-L process.

# **PRODUCTS**

- Plastic injection molding parts
- Assembly lines
- Medical device
- Metal 3D printing parts

# **CAPABILITIES**

- Injection molding machines, range from 55 ton to 480 ton (However we will continue acquiring more machines to meet market needs).
- Assembly lines.
- Overmolding.
- Clean Room.
- 3D metal printing (with strategic partnership).
- Pad printing





# **CERTIFICATIONS**

- ISO 9001:2015
- IATF 16949 (in process)

# **MAIN DESTINATIONS**

- USA
- Europe

• Japan

# **LOCATION**



#### TEMAPLAX S.A. DE C.V.

Blvd. Timoteo Lozano #411, Col. San Miguel, Leon, Guanajuato, Mexico. ZIP 37460 www.temaplax.com / gerencia@temaplax.com / n.garcia@temaplax.com Phone: +52 (477) 770 8229 Ext. 101

# »INDIRECT PRODUCTS & SERVICES

suppliers



INDIRECT PRODUCTS & SERVICES

Tier 1
Tier 2



# **ABOUT COMPANY**

We are a 100% Mexican company of Engineers, Consultants, pioneers in delivering comprehensive solutions of Engineering Driven by Simulation and Computer Design in Mexico through the best simulation software in the world, ANSYS.

Founded in 1990, Grupo SSC is the first, largest and most experienced company to provide Design and Engineering solutions powered by Numerical Simulation in Mexico. It employs more than 100 people, with degrees of Dr. Masters of Science, Physicists, Chemists, Mechanical Engineers, Mechatronics and Electronics.

Our exceptional staff is passionate about pushing the boundaries of world-class design and simulation technology so our clients can turn their design concepts into successful, innovative products faster and at lower cost.

As a measure of our success in achieving these objectives, Grupo SSC has been recognized as one of the most innovative companies in Mexico, having participated in the most important projects in the private and public sectors of this country.

We represent the ANSYS Inc. family of products. We cover structural mechanical analysis, CFD fluid dynamics, high and low frequency electromagnetism, HPC High Performance Computing, Cloud Solutions, custom software customization and simulation consulting services.

#### **PRODUCTS**

# SOFTWARE CHANNEL PARTNER (ANSYS INC)

- Certified Training Center
- Technical Support
- Consultancy Services

# • High Performance Hardware

• Universities Partners

#### **OUR SERVICES:**

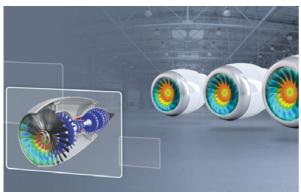
- Engineering Simulation
- Product Design
- Software Development
- Training & Certification

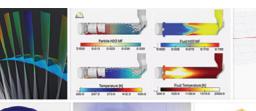
# **PROCESSES**

Collaboration project services include the involvement and direct accompaniment of Group SSC team within Engineering Projects:

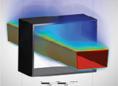
- Engineering Changes
- Design and Development of New Products
- Design Validations
- Innovation
- Improvements in Manufacturing Processes
- Cost reduction per material
- Variable Cost Reduction

- Product Reliability (Guarantees)
- Product Optimization
- Quality assurance
- Compliance with Norms and Standards
- Productivity through Design













- Bombardier Aerospace
- Safran
- Honeywell
- Collins Aerospace
- ITP Aero

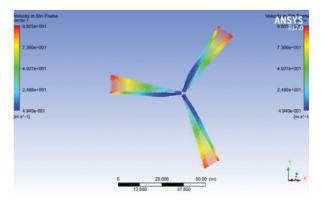
- GF IO
- Horizontec
- Agencia Espacial

Mexicana

• SEDENA

# **CERTIFICATIONS**

• Channel Partner ANSYS



# » WORKMANSHIP47 people

» AEROSPACE EXPERIENCE 32 years

# **LOCATION**



#### **GRUPO SSC**

Escuadron #201 no. 8 Col. Palmita de Landeta, San Miguel de Allende, Guanajuato, Mexico. ZIP 37748 www.grupossc.com | juan.balderas@grupossc.com | Phone: +52 (415) 152 0547

INDIRECT PRODUCTS & SERVICES

**Specialized Services** 



# **ABOUT COMPANY**

Optimen is a Mexican software development company that mainly provides services to the aeronautical industry. Our mission is to provide solutions, software and services to our customers to maintain reliable and sustained operations thru technology, innovation and living our values.

# **SEGMENT**

- Comunications System
- Navigation System
- Software Development
- & Data Analytics

## **MAIN CUSTOMERS**

- Boeing
- Jeppesen
- Volaris
- Avianca

- Aeromexico
- LATAM Airlines
- TAP Air Portugal

# **CERTIFICATIONS AND APPROVALS**

- ISO 27001
- FSR
- Marca GTO
- Certification as International Service Boeing Contractor
- Volaris Silver Provider
- AWS Partner Select Tier Services









# **SALES BY SECTORS**



# » WORKMANSHIP 79 people

**ANNUAL SALES** 

20 Women 59 Men

» AEROSPACEEXPERIENCE17 years

# **MAIN DESTINATIONS**

Colombia

- USA
- Brazil
- Chile
- CanadaSweden
- Portugal

# **LOCATIONS**

#### **Headquarters**

Av. Leon #119, 4th floor. Col. Jardines del Moral Leon, Gto. Mexico, 37160



#### **Mexico City Office**

Real de Mayorazgo #107, 11th Floor, Suite 113 Col. Xoco, Mexico City, Mexico, 03330



#### **USA Office**

15900 La Cantera Parkway, Suite 20255. San Antonio, TX. USA. 78256



#### **OPTIMEN**

Av. Leon #119 Int 4, Jardines del Moral, Leon, Guanajuato, Mexico. ZIP 37160 www.optimen.com.mx / contacto@optimen.com.mx Phone: +52 (477) 717 3339

INDIRECT PRODUCTS & SERVICES

**Indirect Products Specialized Services** 



# **ABOUT COMPANY**

SIA Automation began its operations in 1993, entering into the manufacture and maintenance of it first thermal process project, subsequently, operations are expanded to the manufacture, assembly and automation of many processes or industrial machinery, automatic or semi-automatic, to manufacture complete assembly lines of automotive engine, whipers, pedals, and other parts.

**MATERIALS**  Machining Steels **PRODUCTS** Electric & **Electronics System** Ansys **SOFTWARE Metal Forming**  Solid Works Machining **LICENSES PROCESSES Special Process**  Coatting 2 - 3 axis CNC mill, 1 - 3+1 axis CNC mil, 1 - 3+2 axis CNC mill, 1 - 3 axis Gantry-style **MACHINERY &** CNC 400 x 1500 x 3000 mm, 1 - CNC turning center, 1 - CNC shearing machin, **EQUIPMENT** 1 - CNC bending machine

METROLOGY EQUIPMENT

CMM, Portable CMM, Probes, Caliper, Micrometer, Hardness tester



# WORKMANSHIP

18% WOMEN 82% MAN

# » WORKMANSHIP 49 people

\$4.6

**MUSD** 

**ANNUAL SALES** 

9 Women 40 Men

» AEROSPACE EXPERIENCE 5 years

# **MAIN CUSTOMERS**

- Martinrea Honsel
- Donaldson
- Pedal Systems
- Nissan
- Honda

- KTMex
- Arbomex
- Minth
- Toyota Tsusho

# **CERTIFICATIONS**

• IMMEX

# **MAIN DESTINATIONS**

• USA

Mexico

# **LOCATION**



#### SIA AUTOMATION S DE RL DE CV

Av. Paseo de los Insurgentes #104 Int 20, Col. Jardines del Moral, Leon, Guanajuato, Mexico. ZIP 37160 www.sia-automation.com.mx | i.benitez@sia-automation.com.mx Phone: +52 (449) 971 1951

>> MRO Suppliers



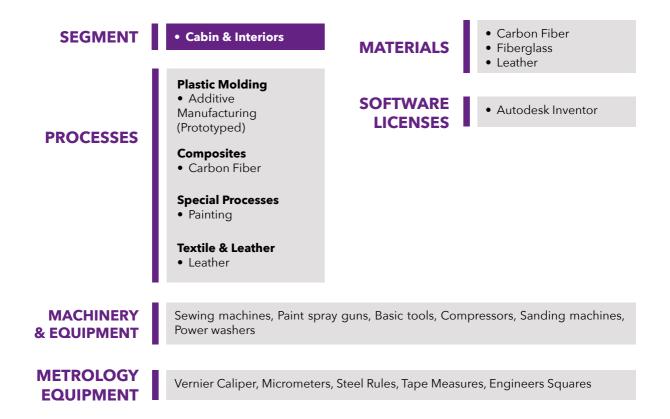
**MRO** Supplier

MRO Specialized Services



# **ABOUT COMPANY**

SIASA AIR is a proudly Mexican company, established in 2006, located in Leon, Guanajuato, Mexico. We specialize in hightechnology artisan manufacture for first-class and executive seat covers. We are aircraft interior designers, always keeping the quality and comfort that our customers require.







» WORKMANSHIP

6 Women 9 Men » AEROSPACE EXPERIENCE 15 years

15 people

## **SALES BY SECTORS**

100% AERONAUTIC

# **MAIN CUSTOMERS**

- Volaris
- Viva Aerobus
- Aeromexico

# **CERTIFICATIONS**

- AS 9100ISO 9001
- FAA
- AFAC

# **APPROVALS**

BoeingSpirit

- Gulfstream DPD /
- t MBD

# **MAIN DESTINATIONS**

LATAM

# **LOCATION**



#### SIASA AIR INTERIOR SERVICES

Jose Maria Ruiz #223, Col. Las Trojes, Leon, Guanajuato, Mexico. ZIP 37227 www.siasaair.com.mx | f.briones@siasaair.com.mx Phone: +52 (477) 394 5748

# **»INSTITUTIONS**



**INSTITUTIONS** 

Aeronautical MRO



#### **ABOUT US**

The CAB operates as a Training, Training and Training Center with the F-126 operating permit certified by the Federal Civil Aviation Agency and authorization as a bivalent aeronautical Baccalaureate for aircraft and engine and aviation electronics technicians by the SEP.

In addition, to have the careers of private aviator pilot and flight attendant.

#### **AERONAUTICAL VOCATIONS**

#### **Aircraft Crew**

• Pilots & Flights Attendants

#### Maintenance

Aerostructures

#### **EDUCATIONAL PROGRAMS**

- Private Aviator Pilot
- Fligth Attendant
- Maintenance Technician
- High School Training Courses





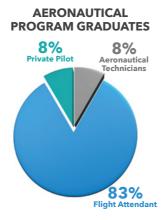


# CAB AFRONAUTICA DEL BAJO

#### 11 YEARS in operations

#### » TOTAL NUMBER OF GRADUATES 180 people

150 Women 30 Men



#### **LEVEL OF STUDIES**

Technicians

#### **INFRASTRUCTURE**

- 9 classrooms with a capacity of 450 students
- Laboratories for specialized practices
- Flight trainer for Single and Dual Twin-engine aircraft
- Flight Attendant Simulator

#### **INSTITUTIONS APPROVALS**

- SEP REVOE
- AFAC

• SEG

#### **LOCATION**



#### **COLEGIO AERONAUTICO DEL BAJIO**

Blvd. La Luz #6951 La Laborcita, Leon, Guanajuato, Mexico. ZIP 37670 www.cabbajio.com

**INSTITUTIONS** 

#### **Aeronautical**



#### **ABOUT US**

Last November 4th CECYT 17 accomplished 10 years of creation in Leon, Guanajuato; let's remember that on August 24th a Coordination Agreement between IPN and the State of Guanajuato was signed for the creation, construction, equipment and operation of the academic unit of the Instituto Politecnico Nacional for the High School level in the State of Guanajuato.

It was on November 2012 when the project of CECYT 17 started and in 2015 the opening of the facilities was finished in Las Joyas, where there was only one building of classrooms.

Nowadays it has 3 buildings of classrooms, light laboratories and heavy laboratories which are equipped to give attention to the students of the 6 specialties offered in our institution. The specialties are:

- Aerospace
- Tourism Business Administration
- Food

- International Commerce
- Automotive Systems
- Metrology and Quality Control

#### **AERONAUTICAL VOCATIONS**

#### **Design & Engineering**

Aerostructures

#### Maintenanance

Aerostructures

#### Manufacture

Asemblies



#### **EDUCATIONAL PROGRAMS**

#### **Technical Studies in Aeronautics**

**Professional Competencies** 

- 1. Management and application of manuals in the aeronautical sector.
- 2. Apply maintenance programs to: structural repairs and systems of the aircraft, as well as the application of quality techniques at each stage of the tasks entrusted.
- 3. Technical English
- 4. Interpret drawings and diagrams related to this area.



#### **LEVEL OF STUDIES**

- Technicians
- Bachelor Degree

#### **INFRASTRUCTURE**

- 3 buildings of classrooms,
- Light laboratories and heavy laboratories

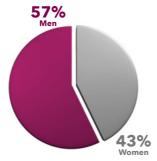


#### **INSTITUTIONS APPROVALS**

• SEP - REVOE

#### 10 YEARS in operations

#### AERONAUTICAL PROGRAM GRADUATES



#### » TOTAL NUMBER OF GRADUATES 35 people

15 Women 20 Men

#### **LOCATION**



#### CENTRO DE ESTUDIOS CIENTIFICIOS Y TECNOLOGICOS NO. 17 "LEON GUANAJUATO"

Blvd. Caliope #1055 Col. Las Joyas, Leon, Guanajuato, Mexico. ZIP 37358 www.cecyt17.ipn.mx | savalosm@ipn.mx Phone: +52 (477) 764 8865

**INSTITUTIONS** 

**Indirect Products Specialized Services** 



#### **ABOUT US**

The CIATEC (Center for Applied Innovation in Competitive Technologies), belongs to the CONACYT (National Council of Science and Technology) Network of Public Centers.

CIATEC is located in the city of León in Guanajuato State from where it is strategically able to give support to its customers. Besides Guanajuato State counts on an important infrastructure with competitive advantages for industry development:

- Connectivity with federal highways
- International Airport
- Internal Customs

- Important industrial parks
- Academic Offerings

#### LABORATORY SERVICES

- Chemical Characterization
- Testings focused on Car Interiors
- Calibrations
- Support in failure analysis
- Research & development

#### **MATERIALS**

 Development and evaluation of polymeric materials

#### PROCESSES

#### **Metal Forming**

Forging

#### **Plastic Molding**

Foaming

#### Rubber

Extrusion

#### Composites

• Fiberglass

#### **Special Processes**

Chemical Treatment

#### **Textile & Leather**

• Woven Labels

### MACHINERY & EQUIPMENT

- Our laboratories have the infrastructure and quality international standards to perform Environmental Studies & Risks Atlas.
- National Laboratory of Cold Technologies, Materials Laboratory and studies of membrane processes.
- Laboratory of biomechanics one of a kind in Latin America. National Innovation Laboratory for the Automotive Industry and the third party Airbag Laboratory with mayor recognition in the country.





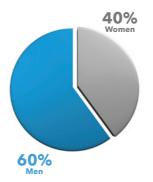
#### \$5 MUSD ANNUAL SALES

» WORKMANSHIP200 people

80 Women 120 Men

» AEROSPACE EXPERIENCE 46 years

#### **WORKMANSHIP**



#### LABORATORIES INFRASTRUCTURE

- Metrology Laboratories
- Chemical Analysis Laboratory
- Physical-Mechanical Testing Laboratory

#### **METROLOGY CALIBRATIONS CAPABILITIES**

- Mass M-62
- Volume V-06
- Temperature T-36
- Dimensional D-84
- Density DEN-04
- Pressure P-71
- Time TF-19
- VIS-06 Viscosity

#### **SOFTWARE LICENSES**

- CATIA
- Ansys

• Solid Works

#### **CERTIFICATIONS & ACCREDITATIONS**

Branches accredited before ema under NMX-EC-17025-IMNC-2018 Standard:

- Water
- Chemistry
- Waste
- Metal Mechanics

Certifications

- NMX-CC-9001-IMNC-2015/ISO 9001:2015
- DAIMLER Global-WEB Approbal
- VOLKSWAGEN

#### LOCATION



#### CIATEC

Omega #20, Col. Industrial, Leon, Guanajuato, Mexico. ZIP 37545 www.ciatec.mx | rtinajer@ciatec.mx Phone: +52 (477) 710 0011 Ext. 1400

**INSTITUTIONS** 

Aeronautical
Engineering Services
Manufacture



#### **ABOUT US**

The National College of Professional Technical Education (Spanish: Colegio de Educación Profesional Técnica, Conalep) is a public high school in Mexico focused on the technical training of it studens. It was founded in 1978 by Jose Antonio Padilla Segura.

Its mission is to train technical professionals through a competency-based model, in addition to offering various specialized study courses. It is recognized as a center for training, evalution and certification of labor competencies and technological services.

CONALEP Guanajuato offers 29 bachelor technical profesional careers, which is the Drone Pilot Training.

#### **AERONAUTICAL VOCATIONS**

• Remotely Piloted Aircraft System / UAV ummanned aerial vehicle.

#### **EDUCATIONAL PROGRAMS**

Drone Pilot Technical Training



#### **SOFTWARE LICENSES**

Solid Works



#### **LEVEL OF STUDIES**

Technicians

#### **INSTITUTIONS APPROVALS**

- SEP REVOE
- SEG



#### **LOCATION**



3 YEARS in operations

#### COLEGIO DE EDUCACION PROFESIONAL TECNICA DEL ESTADO DE GUANAJUATO

Av. Mineral de Valenciana #201, Puerto Interior, Silao, Guanajuato, Mexico. ZIP 36275 www.conalep-guanjuato.edu.mx | gloria.valenzuela@conalepgto.edu.mx / esmeralda.contrerasa@conalepgto.edu.mx Phone: +52 (472) 748 6410

**INSTITUTIONS** 

Aeronautical Engineering Services



#### **ABOUT US**

Higher Education Institution of public character and decentralized organism of the State of Guanajuato. Located on the Irapuato - Silao Highway Km. 12.5, in Irapuato, Gto. It was created on October 20th, 1995 and began operations on August 18th, 1996.

In addition to Irapuato, it has 5 campuses in the state: Cuerámaro, San Felipe, San José Iturbide, San Luis de la Paz and Tarimoro.

#### **AERONAUTICAL VOCATIONS**

• Airports Logistics

#### **SOFTWARE LICENSES**

- Ansys
- Solid Works

#### **EDUCATIONAL PROGRAMS**

- · Aeronautical Engineering
- Electromechanical Engineering
- · Mechatronics Engineering
- Automotive Systems Engineering
- Electronics Engineering
- Business Management Engineering
- Computer Systems Engineering
- Materials Engineering
- Logistics Engineering
- Chemical Engineering
- Industrial Engineering
- Biochemical Engineering
- Computer Engineering
- Biology
- · Forestry Engineering
- · Agricultural Innovation Engineering
- Master's Degree Program in Electronic Engineering
- Master's Degree Program in Electronic Engineering
- Master's Degree Program in Information Technology
- Master's Degree Program in Industrial Engineering



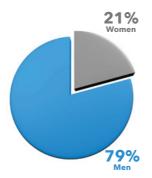
# Ingeniería Aeronáutica

#### 26 YEARS in operations

## » TOTAL NUMBEROF GRADUATES19 people

4 Women 15 Men

#### AERONAUTICAL PROGRAM GRADUATES



#### **LEVEL OF STUDIES**

• Bachelor's Degree

• Master's Degree

#### **INFRASTRUCTURE**

Laboratories: Design, Manufacturing, Material Analysis, Chemistry, Thermofluids, Mechatronics, Automation and Control, Microbiology and Biochemistry, Electrical Machines and Controls, and Time and Motion.

#### **INSTITUTIONS APPROVALS**

- SEP REVOE
- FAA

• SEG

#### **LOCATION**



#### **IRAPUATO INSTITUTE OF TECHNOLOGY**

Carretera Irapuato-Silao km 12.5, Irapuato, Guanajuato, Mexico. ZIP 36821 www.irapuato.tecnm.mx | oscuin@tecnm.mx Phone: 4626067900 ext. 173

**INSTITUTIONS** 

Aeronautical Engineering Services



#### **ABOUT US**

We are an organization capable of accompanying the digitization processes of your company and/or venture, facilitating the adoption of technology and reducing the learning curve, mainly in software development, computer design and simulation.

#### Our services for entrepreneurship:

Project development
Training
Technology Transfer
Business plans
Technical and commercial feasibility studies
New business development
Internet of things
Linking projects for access to funds
Technology and innovation events

#### Our Digitization services are:

Cloud software development
Virtual and augmented reality
Mobile application development
Additive manufacturing
Digitization
E-commerce
Simulation
Plastic injection

We have engineers, teachers and with more than 20 years of experience within the branches of the i4.o, opening a great offer to our clients. Reasons why companies around the world choose us.

#### **AERONAUTICAL VOCATIONS**

- Technological Services
- Software Development
- Automation and process control

#### **SOFTWARE LICENSES**

Ansys





## AERONAUTICAL PROGRAM GRADUATES YEARS AERONAUTICAL PROGRAM GRADUATES 44% Mechanical

## » TOTAL NUMBEROF GRADUATES45 people

in operations

25 Mechanical Engineering with design orientation

20 Systems Engineering and software development

#### **LEVEL OF STUDIES**

• Engineering Degree

#### **INFRASTRUCTURE**

#### PLASTIC INJECTION

Screw Diameter mm - 40
Screw L /D Ratio L/D - 22.5
Shot Size (Theoretical) cm3 - 253
Injection Weight (PS) g - 230
Injection Rate g/s - 110
Injection Pressure Mpa - 214
Plasticizing Capacity(ps) g/s - 13.9
Screw Speed rpm 0 - 190
CLAMPING UNIT
Clamp Tonnage KN - 1600
Toggle Stroke mm - 430
Space Between Tie Bars mm - 455x455
Max.Mold Height mm - 500
Min. Mold Height mm - 180

Ejector Stroke mm - 140 Ejector Tonnage KN - 33

# 44% Mechanical Engineering 56% Systems

Engineering

#### **LOCATION**



#### **PARQUE TECNOLOGICO SANMIGUELENSE**

Escuadron #201 Int 8, San Miguel de Allende, Guanajuato, Mexico. ZIP 37748 www.ptsanmiguelense.com | innovacion@ptsanmiguelense.com Phone: +52 (415) 154 7130

**INSTITUTIONS** 

Aeronautical Engineering Services



#### **ABOUT US**

Our task is to promote, from the personality of each university student, an appropriate response to their vocation in an environment of quality and human warmth. The Universidad Latina de México has received multiple recognitions, demonstrating with actions our commitment to Mexico in the formation of capable professionals. We have excellent teachers, with the necessary studies, work experience, and academic background to provide you with the knowledge you require and promote your development. The Universidad Latina de México, through the Language Center (CEDI), offers you the opportunity to learn to express yourself in other languages and introduces you to the knowledge of other countries.

The computer labs, laboratories, and clinics are equipped with up-to-date equipment and materials that allow you to stay current in terms of technology for encounters, creativity, expression of ideas, communication, and the opening of new horizons. Through the scholarship system, we assist our students with academic potential and whose families lack resources to finance their studies.

#### **AERONAUTICAL VOCATIONS**

• Industrial Engineering

#### **EDUCATIONAL PROGRAMS**

#### **Bachelor's Degrees:**

- Architecture
- Dental Surgeon
- International Business
- Interior Design
- Graphic Design
- Nutrition Official
- Psychology Official
- Industrial Engineering

#### Postgraduate Degrees Master's in Education Sciences:

- · Master's in Dentistry Official
- Master's in Family Therapy Official
- Gerontology
- Medical Surgeon Official
- Specialty in Orthodontics and Maxillofacial Orthopedics

#### **Executive Bachelor's Degrees Business Management:**

- Marketing and Sales
- Investment Management and Banking
- Business Technologies Applied
- Accounting







#### **LEVEL OF STUDIES**

- Bachelor's Degree
- Postgraduate Degree Master's in Education Sciences
- Executive Bachelor's Degrees Business Management

#### **INFRASTRUCTURE**

- Physics Laboratory (MULTIFUNCTIONAL)
- Electricity and Electronics Laboratory
- Automation and Pneumatics Laboratory
- Dimensional Metrology Laboratory
- Manufacturing Workshop
- Computer Rooms
- Additive Manufacturing Classroom (3D)

#### **ASSOCIATION MEMBER**

- FIMPES
- AMIESIC
- COEPES
- ANFECA
- CNEIP
- FMFEO
- I WII LC
- ASINEA

- ENCUADRE
- CNEP
- FEPC
- CONADEIP
- MB
- Among others.

#### **LOCATION**



#### UNIVERSIDAD LATINA DE MEXICO

Av. San Jose #100, Col. San Jose de Torres, Celaya, Guanajuato, Mexico. ZIP 38085 www.ulm.edu.mx | philippot\_jose@ulm.edu.mx Phone: +52 461 312 6540

**INSTITUTIONS** 

Aeronautical MRO Engineering Services Manufacture





#### **ABOUT US**

UPIIG forms competitive engineers with an integral profile, by offering proper academic programs, focused on the 4.0 Education, to generate, apply and transfer scientific and technologic knowledge, and have a good impact in the world's development.

#### **AERONAUTICAL VOCATIONS**

#### **Design & Engineering**

Aerostructures

#### Maintenance

Aerostructures

#### Manufacture

Composites

#### **MAIN TOPICS OF RESEARCH**

- Engineering design of components.
- Dynamics and mechanics of structures.

#### **NUMBER OF RESEARCHERS**

 8 (According to Mexico's National Network of Researchers)

#### **EDUCATIONAL PROGRAMS**

• Aeronautical Engineer

#### **SOFTWARE LICENSES**

- Dassault Systems
- ANSYS
- Solid Works



#### **LEVEL OF STUDIES**

• Bachelor Degree

#### **INFRASTRUCTURE**

• Functional aircrafts for students to do practices



#### **INSTITUTIONS APPROVALS**

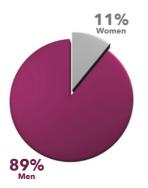
• SEP - REVOE

#### 15 YEARS in operations

## » TOTAL NUMBEROF GRADUATES64 people

7 Women 57 Men





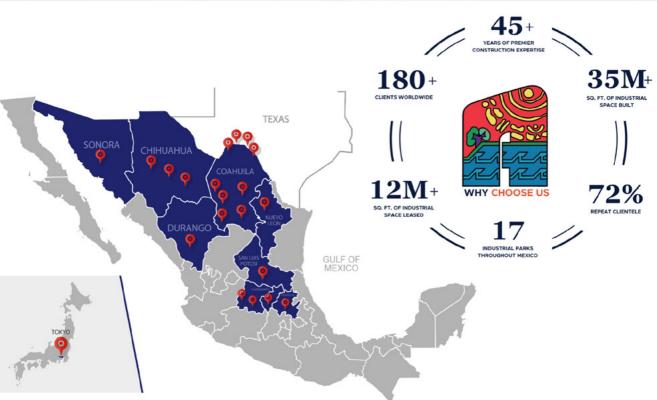
#### **LOCATION**



#### UNIDAD PROFESIONAL INTERDISCIPLINARIA DE INGENIERIA, CAMPUS GUANAJUATO

Av. Mineral de Valenciana #200 Fracc. Industrial Puerto Interior, Silao, Guanajuato, Mexico. ZIP 36275 www.upiig.ipn.mx | jfonsecah@ipn.mx







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Economic Incentives Advisory

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Built to Suit Financing

Credit Tenant Leases

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of experience in the market

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Finantial strength + 200 M usd bonding capacity

Built over +650 projects 9,000,000 m2 / 96,876,000 sqft

70% Recurrent customers

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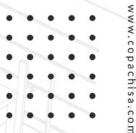
+500 Satisfied customers

#### **CONTACT**

Ricardo Tejada +52 1 477 193 0340 rtejada@copachisa.com

Alejandro Grajeda +52 1 614 196 2478 agrajeda@copachisa.com





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- Optimized solutions in all different trades and systems of the project.
- Lower coordination time.
- Better comprehension, knowledge and interpretation of the project by 4D Modeling.
- 3D As-Built Model for client to consult.

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Guidance, consultant and LEED certification upon our client request

#### Osha based safety standards

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Experience modification insurance rate

Lost time incident rate

EMR:.0302









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( Arrendamiento Financiero



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-AEROSPACE CATALOG-









Plaza la Paz No. 102 Puerto Interior P.O. Box 36275 Silao, Guanajuato Tel. +52 (472) 215 2000



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