

GTO-AEROSPACE

-AEROSPACE CATALOG-

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THIS CATALOG
IS PART OF
gtosupply

COFOCE





JAVIER MENDOZA MÁRQUEZ

Celaya's Mayor

We are tracing the path in the aerospace sector!

A new stage for this industry has started, with determined growth.

Harris Manufacturing Solutions, a company which works with special chemical surface treatment and approved paint finishing processes, has opened in 2022 its second Machining, CNC Milling and Turning facility in Celaya; Spectrum Aerospace produces Machining, Sheet Metal and Major Complex Assemblies for the main aircraft building companies around the world; and Halcon II now plows through Celaya's sky! It is the very first Mexican aircraft built in the last 70 years, assembled by Horizontec S.A. de C.V. As part of our economic development policy, we established a strategic alliance with the Clúster Aeroespacial del Bajío A.C., taking part with them in international events to promote our competitive, geographical and logistics advantages, obtaining remarkable results.

Just as well as in the other sectors, we will continue providing facilities with the aim of impulsing and consolidating this important sector.



Desarrollo Económico Celaya

Municipio de Celaya

www.celaya.gob.mx

BJX AEROSPACE SUMMIT 4.0 2023

REGISTRATION REQUIRED

GET READY FOR...



OCTOBER



POLIFORUM LEÓN LEÓN, GUANAJUATO



OSCAR RODRIGUEZ YAÑEZ

President of BJX Aerospace Cluster



Aerospace Industry in Guanajuato started back in 2006 with an Interiors MRO and a Aeronautics software company. Now-a-days, this industry represents more than \$15 Million USD in exports in 2019. Our committment is to continue the sustainable development of the Aerospace and Aeronautic Industry and be the best hub for this sector in 2040.

To achieve our objective, our Cluster is currently working in 4 strategic areas:

1. Supply Chain Integration, our strategy is to diversify the wide and strong automotive supply chain that is already established and take advantage of the current technology, experience gained in manufacturing processes and the business culture focused on quality.
2. Talent Development, we work with the academy institutions and our members to know which are the main qualifications to develop the talent that this industry required.
3. Promotion, we have the committment to bring more Guanajuato to the world and to do that we're going to participate in International Trade Shows such as: Paris Air Show, Aeromart Montreal, EAA Airventure Oshkosh, FAMEX, among others.

4. Innovation, Our competitive advantage is to offer products with the most technological improvements we could. Currently our state is known as the "Mindfacturing village" because the government, industry and society agree that the best way to be in front the competition is to have the best technology.

Our Cluster capabilities are plastic injection, sheet metal, additive manufacturing, casting, automation, design, software development and aircraft manufacturing. In terms of Talent Development there are Aeronautical engineers, technicians (grade 1 an 2), pilots, flight attendants, among others.

In infrastructure, in our state you can find 2 Airports and more than 30 Industrial parks ready to fit the particular requirements of foreign companies that want to establish operations in Guanajuato.

It'll be an honor to support your company in the different projects we develop for this industry.



RAMON ALFARO GOMEZ

Sustainable Economic Development Secretary

Guanajuato does not stand still.

In the last few years, this state in central Mexico has stood out for its competitiveness in the international spotlight, to improve it, the Local State Administration has a thorough strategy to develop the talent of the labor force, attract new investment projects and strengthen micro, small, and medium-size enterprises (MSME).

For the local companies to compete on a global scale and participate in the supply chains, it is imperative to bolster them by encouraging a new model of entrepreneurship and training programs to open new business opportunities.

Public policies continuity is instrumental in the success to add new projects of different sectors to diversify Guanajuato's economy in order to contribute in the social and economic framework.

Private enterprises and policymakers leverage on the competitive edges of the territory to pursuit the innovation of traditional industries towards the fourth industrial revolution.

In Guanajuato exist different economic sectors: automotive, agro-industrial, chemicals, leather goods, crafts, textile and clothing, tourism... and is stepping forward with new industries such as farmaceutical, cosmetics, medtech and aerospace.

The addition of the aeronautical industry will boost Guanajuato's economy.

Some plastic injections manufacturers are now producing components for Boeing and Airbus planes, also there are companies that design and develop component prototypes and offer fleet management solutions for commercial aviation.

With an autonomy flight to up to six hours, the first Light Sport Aircraft manufactured entirely in Mexico was 'Made in Guanajuato'; its design and construction involved technicians and engineers from the top postsecondary non-tertiary education and short-cycle tertiary education schools and one of the most recognized universities in the country.

There are academic institutions specialized in aeronautical engineering and pilot training programs.

The bringing of national and foreign production and service centers of the aerospace industry in Guanajuato, has created 480 jobs and the capital invested has been set for more than 24 million dollars.

Currently, the State of Guanajuato in Central Mexico, holds first position in exports for a non-border location with more than \$26.9 billion dollars as to 2021. It is ranked 4th in manufacturing production value and 2nd in the automotive industry in the country.

More than 2'000 companies are part of the value chain in the automotive industry in Guanajuato, it amounts to up to 190'000 jobs and represents 14.5% of the state's Gross Domestic Product (GDP).

In Guanajuato, innovation and brainfacturing are the hallmarks for talent development.

The aerospace and aeronautical industry in Mexico will consolidate and strengthen in and from Guanajuato.



LUIS ERNESTO ROJAS AVILA

General Manager of COFOCE



Mexico is a top destination for foreign investment in the aerospace industry, with over 330 companies operating in this sector. Of these, 88% are involved in manufacturing, while 20% are focused on design and engineering. In 2021, Mexico ranked among the top nine countries in aerospace industry exports, with these exports accounting for approximately 90% of total industry exports.

Guanajuato, one of the key states in the aerospace industry in Mexico, exported over 7 billion dollars in 2021, which represented 0.1% of the total aerospace industry exports in Mexico. The industry is concentrated in four municipalities in the state: Celaya, Leon, Silao, and Irapuato. The primary destinations for these exports were the United States of America, Guatemala, Canada, Japan, and South Korea.

We consider the aerospace industry to be one of the most dynamic sectors in Mexico. Its strong performance in exports, production growth, contribution to GDP, high levels of FDI, and job creation are above the average for the country's manufacturing industry. This makes it a strategic industry for Mexico.

The Guanajuato Trade Commission (COFOCE) is committed to supporting the aerospace exporting companies in the state in taking advantage of all export opportunities and continuing to create jobs to contribute to the industry's growth.

This publication serves as a reference guide to help businesses find the right partner and draw attention to Guanajuato and Mexico as a region for innovative aerospace companies.

» ALPHABETICAL INDEX

● ATG ADDITIVE	38
● BOREAL	40
● CECyT 17	74
● CEI AEROSPACE	42
● CIATEC	76
● COLEGIO AERONAUTICO DEL BAJIO	72
● CONALEP	78
● FUNPREBA	44
● GRUPO SSC	60
● HARRIS	46
● HORIZONTEC	48
● ITESI	80
● NORAMEX	50
● NOVATEC	52
● OPTIMEN	62
● PTS	82
● SIA AUTOMATION	64
● SIASA AIR	68
● SPEQTRUM	54
● TEMAPLAX	56
● UPIIG IPN	84



OEM



INDIRECT
PRODUCT
& SERVICES



MRO
SUPPLIERS



INSTITUTIONS

» INDEX BY SEGMENT

OEM

ATG ADDITIVE	38
BOREAL	40
CEI AEROSPACE	42
FUNPREBA	44
HARRIS	46
HORIZONTEC	48
NORAMEX	50
NOVATEC	52
SPEQTRUM	54
TEMAPLAX	56

INDIRECT PRODUCT AND SERVICES

GRUPO SSC	60
OPTIMEN	62
SIA AUTOMATION	64

MRO SUPPLIERS

SIASA AIR	68
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INSTITUTIONS

COLEGIO AERONAUTICO	72
DEL BAJIO	
CECyT 17	74
CIATEC	76
CONALEP	78
ITESI	80
PTS	82
UPIIG IPN	84



» COMPANIES INDEX BY PROCESS

METAL FORMING

ADDITIVE MANUFACTURING

Pag. 38 ATG ADDITIVE

CASTING

Pag. 44 FUNPREBA

FORGING

Pag. 50 NORAMEX

MACHINING

Pag. 40 BOREAL
Pag. 46 HARRIS
Pag. 50 NORAMEX
Pag. 64 SIA AUTOMATION

SHEET METAL

Pag. 40 BOREAL
Pag. 42 CEI AEROSPACE
Pag. 46 HARRIS
Pag. 54 SPEQTRUM

PLASTIC MOLDING

ADDITIVE MANUFACTURING

Pag. 38 ATG ADDITIVE
Pag. 68 SIASA AIR

TPR INJECTION MOLDING

Pag. 50 NORAMEX

INJECTION MOLDING

Pag. 52 NOVATEC
Pag. 56 TEMAPLAX

SPECIAL PROCESS

ANODIZING

Pag. 46 HARRIS

ASSEMBLIES

Pag. 38 ATG ADDITIVE
Pag. 40 BOREAL
Pag. 46 HARRIS
Pag. 50 NORAMEX

CHEMICAL TREATMENT

Pag. 46 HARRIS

COATING

Pag. 42 CEI AEROSPACE
Pag. 64 SIA AUTOMATION

PAINTING

Pag. 68 SIASA AIR
Pag. 54 SPEQTRUM

PLATING

Pag. 46 HARRIS

RUBBER

VULCANIZATION

Pag. 50 NORAMEX

COMPOSITES

CARBON FIBER

Pag. 48 HORIZONTEC
Pag. 68 SIASA AIR

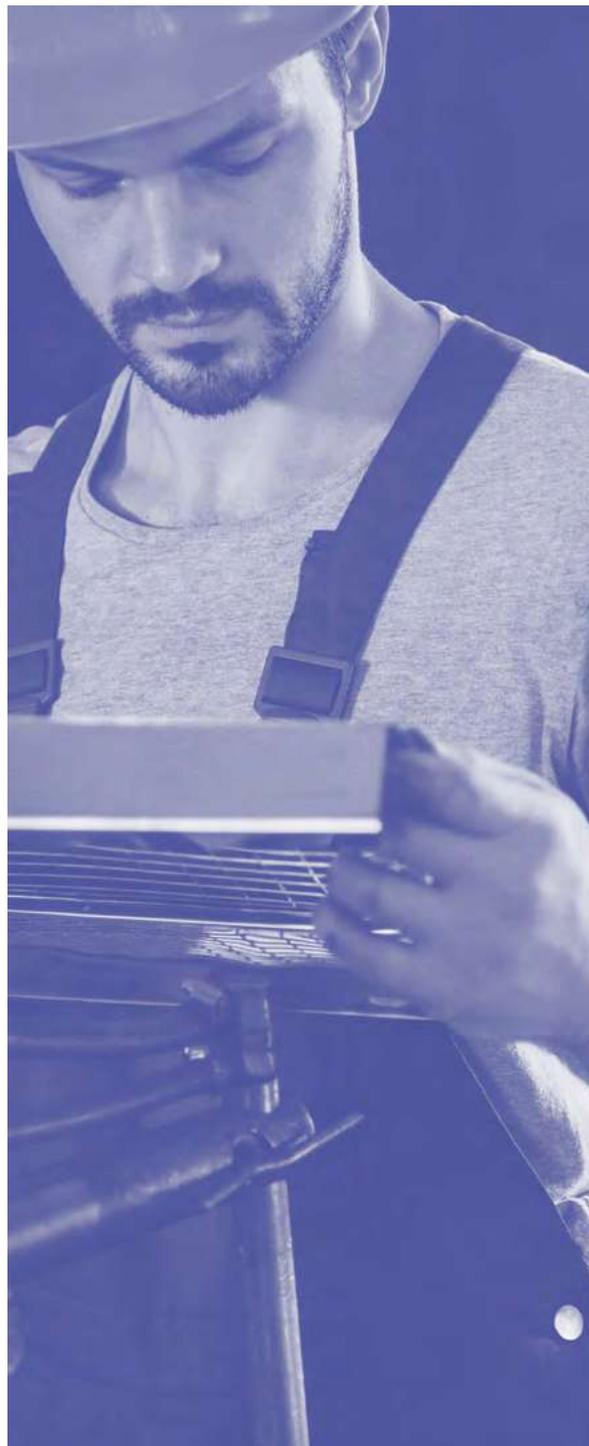
TEXTILE & LEATHER

HOOK AND LOOP

Pag. 48 HORIZONTEC

LEATHER

Pag. 68 SIASA AIR



OTHERS

FPI

Pag. 46 HARRIS

INFUSION

Pag. 48 HORIZONTEC

SERVICES

ENGINEERING SIMULATION

Pag. 60 GRUPO SSC

SOFTWARE DEVELOPMENT

Pag. 60 GRUPO SSC
Pag. 62 OPTIMEN





AEROSPACE INDUSTRY IN MEXICO

2019



12TH PLACE IN THE GLOBAL AEROSPACE INDUSTRY

Mexico ranked 12th among the 208 exporting countries of the aeronautical industry with a 2% share of the global trade of this industry.



6TH 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.



1ST 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.

AEROSPACE INDUSTRY IN MEXICO



Source: FEMIA & INEGI

*B: billion dollars
*CAGR: Compound Annual Growth Rate (Exports 2009-2019)

INTERNATIONAL TRADE OF THE AEROSPACE INDUSTRY OF MEXICO

↑
EXPORTS AEROSPACE
Est. 2022

8 Billion USD

Estimated Annual Variation
-18.5%
2021-2022



↑ EXPORTS **↓ IMPORTS**

Source: FEMIA & INEGI



206 EXPORTED PRODUCTS
8-digit products (2020)

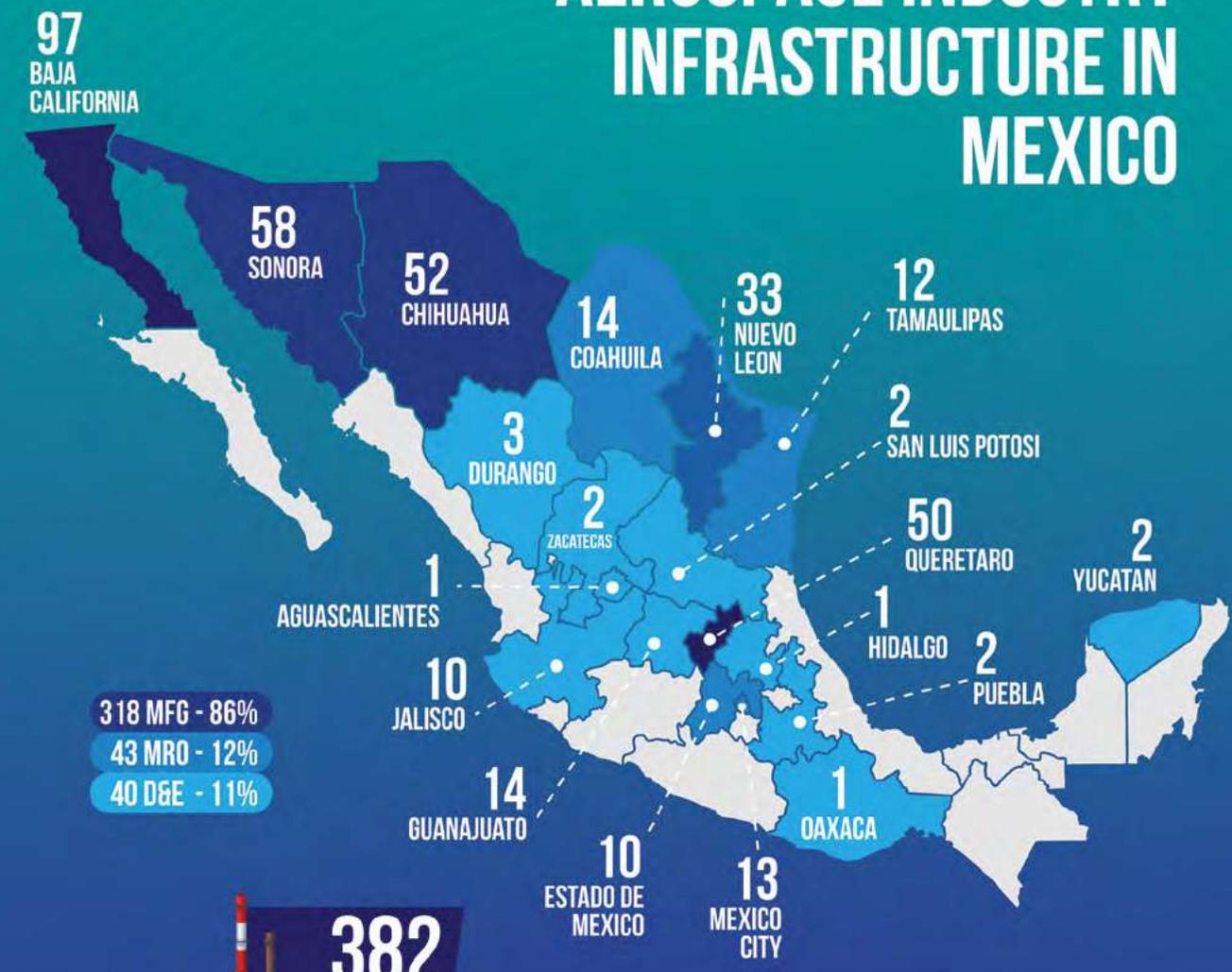


AEROSPACE EQUIPMENT MANUFACTURING GDP (2020)
21.9
BILLIONS OF PESOS



MANUFACTURING GDP SHARE 2020
1.4%

AEROSPACE INDUSTRY INFRASTRUCTURE IN MEXICO



382 INDUSTRIAL FACILITIES



19 STATES

Source: FEMIA & INEGI

COUNTRIES GENERATING LARGEST SURPLUSES FROM AEROSPACE TRADE (2021)

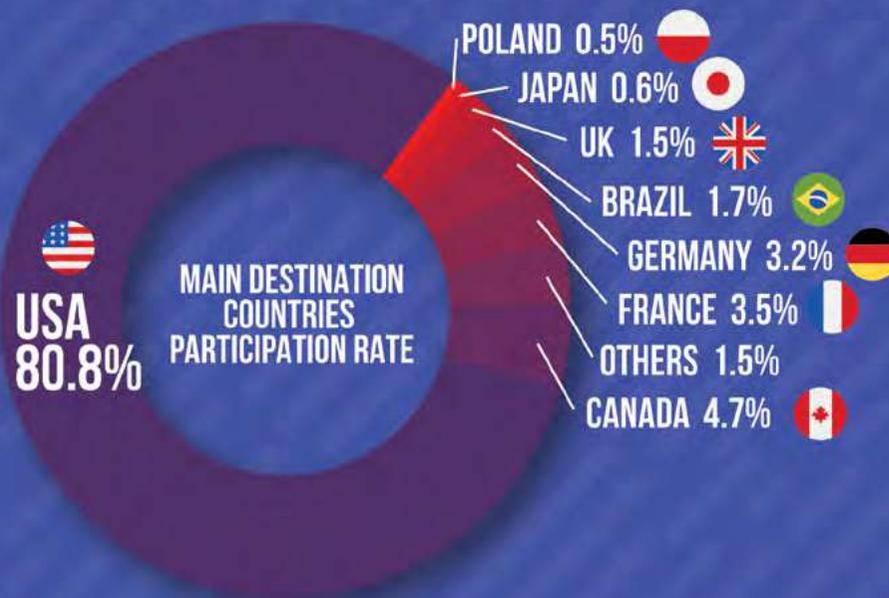
	Billion USD			
1	63.5	19.7%		USA
2	19.6	22.4%		FRANCE
3	15.3	4.5%		GERMANY
4	7.6	51.8%		UK
5	4	16.1%		CANADA
6	2.4	77.4%		ITALY
7	2.2	38.6%		ISRAEL
8	2	-6.7%		SPAIN
9	518.5 MUSD	20.3%		BRAZIL
10	426.4 MUSD	3.6%		MEXICO
11	399.2 MUSD	208.6%		AUSTRIA



MEXICO RANKS 10TH IN THE GLOBAL AEROSPACE INDUSTRY

Source: International Trade Centre, TRADE MAP

MAJOR TRADING PARTNERS COUNTRIES FOR MEXICO'S AEROSPACE INDUSTRY (2016)



MILLION USD	
EXPORTS	
USA	5,781
CANADA	337
FRANCE	251
GERMANY	229
BRAZIL	122
UK	107
JAPAN	43
REST OF THE WORLD	294
IMPORTS	
USA	4,341
FRANCE	513
CANADA	177
UK	159
BELGIUM	124
JAPAN	65
GERMANY	59
REST OF THE WORLD	460

Source: FEMIA & INEGI

MAIN COMMERCIALIZED PRODUCTS OF THE AEROSPACE INDUSTRY IN MEXICO 2020

9 PRODUCTS
REPRESENT AROUND THE
90% OF AEROSPACE
INDUSTRY EXPORTS

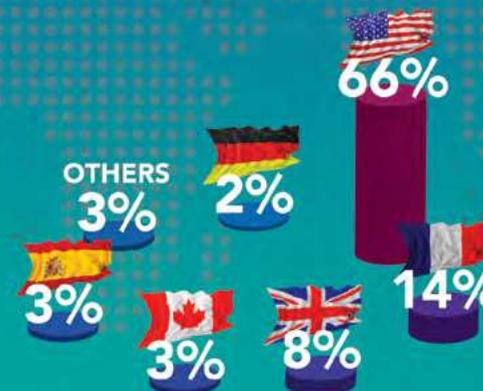
HS Code	Product Description	Exports USD Million	Imports USD Million
98060006	Goods for the assembly or manufacture of aircraft or aeroparts.	2,419	1,925
84119101	Parts of turbojet and turbopropeller aircraft engines.	1,116	793
84119999	Other parts of gas turbine aircraft engines.	851	962
84111201	Turbojet turbines (engines), except aircraft, of a thrust exceeding 25 kn	597	331
98060005	Goods intended for the repair or maintenance of aircraft or aeroparts.	520	793
88033099	Other parts of airplanes or helicopters	311	65
88032001	Under-carriages and parts thereof, for aircraft	226	46
85443001	Ignition wiring sets and other wiring sets for aircraft.	93	5
84118201	Turbojets, turbopropellers and the other gas turbines.	51	97

Source: SIAVI

FOREIGN DIRECT INVESTMENT IN MEXICO



ORIGIN OF COMPANIES ESTABLISHED IN MEXICO



Source(s): Ministry of Economy of Mexico for auto parts is considered branch 3364: manufacture of aerospace equipment

AEROSPACE INDUSTRY IN GUANAJUATO

GTO AEROSPACE 2023

WHERE IS GUANAJUATO?



THE MOST DYNAMIC REGION IN MEXICO

Within a 400 km radius:

80% of the Mexican market

70% of the Mexican industry and foreign trade

60% of the total country population

30% Aerospace Industry in Mexico

BJX AEROSPACE MEMBERS & ALLIES

Government

Federal			
State			
Municipalities			

Certifying Entities

Industry

OEM			
MRO			
Development Program			
Indirect			
Services			

Academy

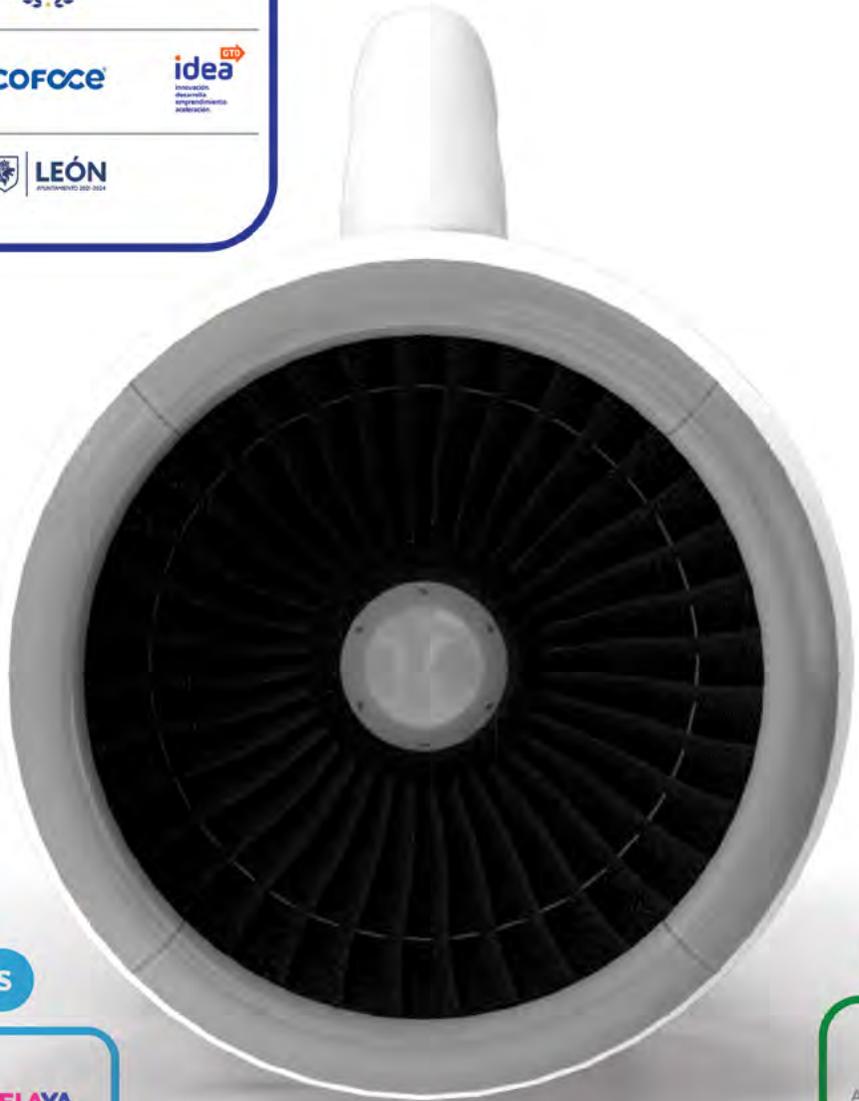
R&D

Airports



Entrepreneurs

Aerospace Clusters & Allies



MANUFACTURING & PRODUCTS CAPABILITIES



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

AEROSPACE SUPPLIER DEVELOPMENT PROGRAM 2023

Current Capabilities in Guanajuato

	#Companies	IATF 16949	ISO 9001:2015	AS9100	NADCAP	FAA	AFAC
Additive Manufacturing	1	-	-	In progress	-	-	-
Castings (Investment & Sand)	1	-	In progress	-	-	-	-
Coatings (Anodized)	1	-	-	-	1	-	-
Composites	1	-	-	In progress	-	-	-
Design	1	-	-	-	-	-	-
Interior MRO	1	-	1	1	-	1	1
Machining	4	1	-	2	-	-	-
Plastic Injection Molding	2	1	1	-	-	-	-
Sheet Metal	2	-	1	1	-	-	-

TALENT DEVELOPMENT STATISTICS

Degree & Number of Academy Institutions in our State



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

Be the best aerospace cluster in Mexico in 2040

MISSION

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

VALUES

Build trust between our members & allies.
Collaboration for the development of strategic projects and actions.
Accountability.
Integrity.

BJX AEROSPACE COMMITTEES

Talent Development

Supply Chain Integration

Promotion

Innovation



TALENT DEVELOPMENT

Deploy and HR Survey

Specialized training

(e.g Lead Auditor AS9100D, Foreign Trade Certificates, Governance, Activity Based Costing etc.)

Development of aerospace job fairs

Guanajuato's council for Aerospace Education

BJX Aerospace Hackthon

NASA Space App Challenges Hackathon

Plant tours for students



SUPPLY CHAIN INTEGRATION

QMS Mapping
(% compliance to AS9100D)

Certify companies in AS9100D

Aerospace Suppliers Seminar by FEMIA
(October 5th, 2023)



Foreign trade diagnosis
(IVA - IEPS, IMMEX, OEA)

Guanajuato's supplier capabilities mapping

Foreign trade certification
(C-TPAT, OEA, IMMEX, IVA - IEPS)



PROMOTION



GTO-AEROSPACE
-CATALOG 2023-



(April 4th - 6th)



(April 18th - 20th)



(June 19th - 25th)



(April 26th - 29th)



(July 24th - 30th)



(October 4th - 6th)

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 campus
& **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** billion USD
GDP per Capita: **\$7,977** USD

MAIN INDUSTRIAL PARKS



HOW WE ASSIST?



FIND THE RIGHT PARTNER TO YOUR BUSINESS

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**.

www.gtosupply.com/aerospace



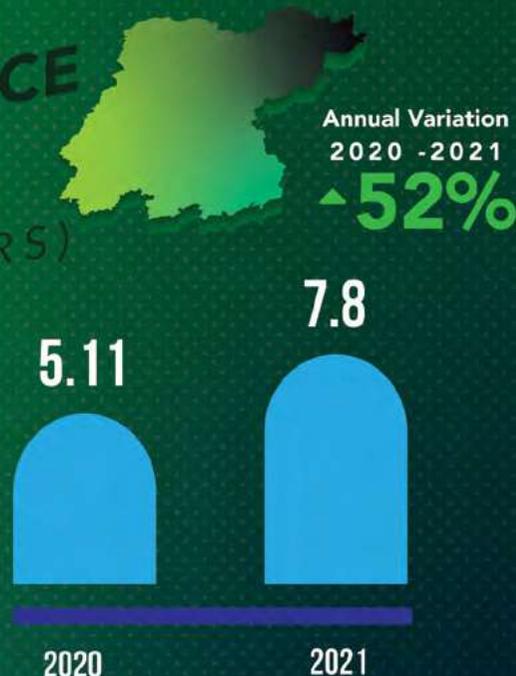
AEROSPACE EXPORTS

**EXPORTS
AEROSPACE
2021**

**7.8 Million
USD**

Represents 0.029% of the exports in Guanajuato

**AEROSPACE
EXPORTS
(MILLIONS
OF DOLLARS)**



**11 PRODUCTS
EXPORTED
IN 2021**

**14* EXPORTING
COMPANIES
2021**

*Companies that exported a component or product classified within the aeronautical sector.
Source: COFOCE with information from Datasur

**480
jobs are been
committed to
generate**

Source: COFOCE with information from Datasur

AEROSPACE EXPORTS

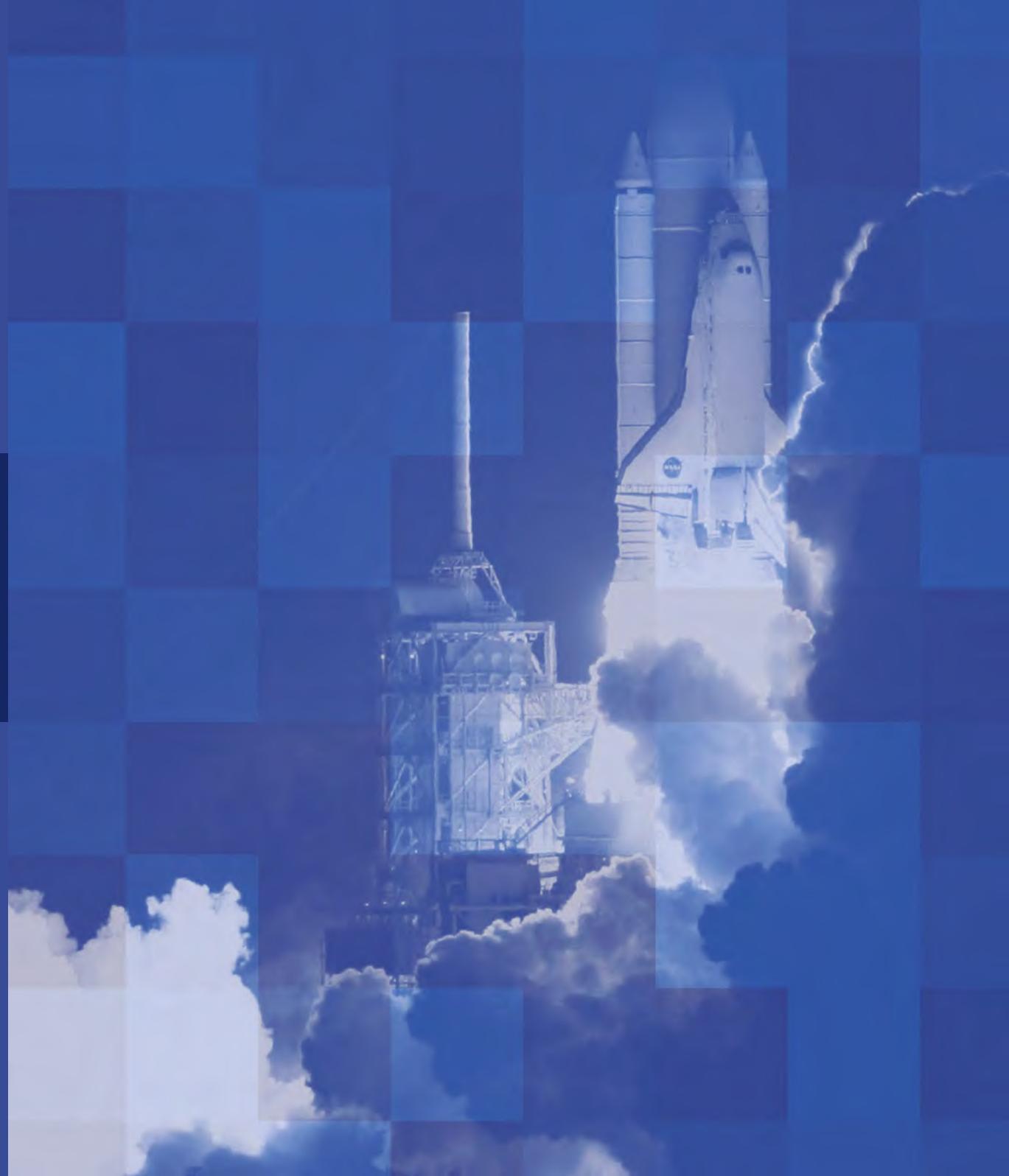
EXPORTED PRODUCTS (8 DIGITS)

PRODUCT	2021 TUSD	% SHARE 2021
Parts of aeroplanes or helicopters, n.e.s. (excluding those for gliders)	\$6,489.93	83.24%
Turbopropellers of a power > 1.100 kW	\$500.00	6.41%
Aeroplanes and other powered aircraft of an unladen weight <= 2.000 kg (excl. helicopters, dirigibles and unmanned of heading 8806)	355.28	4.56%
Parts of gas turbines, n.e.s.	138.83	1.78%
Parachutes, incl. dirigible parachutes and paragliders, and rotochutes; parts thereof and accessories thereto, n.e.s.	109.70	1.41%
Parts of aircraft and spacecraft, n.e.s.	95.93	1.23%
"Appliances for pipes, boiler shells, tanks, vats or the like (excluding pressure-reducing valves, valves for the control of pneumatic power transmission, check "non-return" valves and safety or relief valves)"	68.44	0.88%
Regulating or controlling instruments and apparatus (excluding hydraulic or pneumatic, manostats, thermostats, and taps, cocks and valves of heading 8481)	25.42	0.33%
TOTAL	7,796.88	100%



Source: COFOCE with information from Datasur
TUSD = Thousand USD

»OEM
suppliers





ABOUT COMPANY

ATG Additive Manufacturing (AM), is a group made up of the Guanajuato companies Alguim, Temaplast, 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

MATERIALS

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

SOFTWARE LICENSES

- Ansys
- Solid Works

PROCESSES

Metal Forming

- Additive Manufacturing

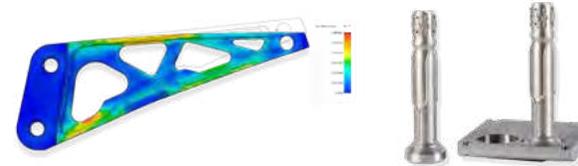
Plastic Molding

- Additive Manufacturing (Prototyped)

Special Processes

- Assemblies

Design & Simulation

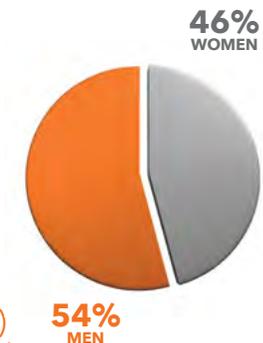


WORKMANSHIP

» WORKMANSHIP
24 people

11 Women
13 Men

» AEROSPACE EXPERIENCE
32 years (GPA)
17 years (Optimen)
11 years (Temaplast)



MAIN CUSTOMERS

- Horizontec

MACHINERY & EQUIPMENT

- EOS M290

METROLOGY EQUIPMENT

- FARO SYSTEMS

CERTIFICATIONS

- In the process of implementing AS9100D and ISO 9001:2015

MAIN DESTINATIONS

- USA

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



ABOUT COMPANY

Boreal Metalworks is a leading sheet metal fabrication company based in Apaseo el Grande Guanajuato. With over 10 years of experience attending 80+ clients from more than 10 different industries processing 500+ tons of steel each year among its other materials.

Founded in 2009 as a powder coating company, we now specialize in sheet metal, with a wide array of processes, including:

- Sheet / Plate laser cutting
- Profile / Tube laser cutting
- CNC bending,
- Welding (TIG & MIG),
- Hardware insertion
- Painting both powder coating & liquid

Processing parts for a variety of industries both national and international, turning us into one of the leading companies of our market in the region.

SEGMENT

- Cabin and Interiors

Laser Cutting

Sheet/Plate laser cutting
Tube cutting Max diameter 5"

Bending

2,500 mm (max distance)
12 gauge / 2.66 mm(max gauge)

Welding

TIG and MIG

Hardware Insertion

PEMS
PEM nuts
Rivets

Powder Coating

8000 X 2000 X 2000 mm /
26' X 6' X 6'

MATERIALS

- Aluminium 14 mm (0.55").
- Stainless steel 20 mm (0.78").
- Carbon Steel 25 mm (1.00').
- Copper & Brass 08mm (0.31").
- Wood, MDF and various engineering plastic.



MAIN CUSTOMERS

- RECARO
- ACPS automotive
- Onvio
- Marmon Keystone
- Plastic Air
- 3D HUBS

MACHINERY & EQUIPMENT

- Trumpf
- Bystronic and BLM Lasers up to 6kw
- LVD press brakes up to 4000 mm
- BLM E-turn 52 Tube Bender
- ABB Robotic Cell Welding

CERTIFICATIONS

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

MAIN DESTINATIONS

- Chicago, Illinois, USA
- Batavia, Ohio, USA
- Paris, Ontario, Canada

PROCESSES

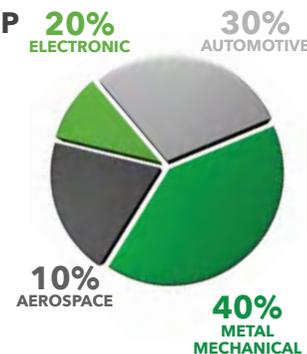
SALES BY SECTOR

» WORKMANSHIP
70 people

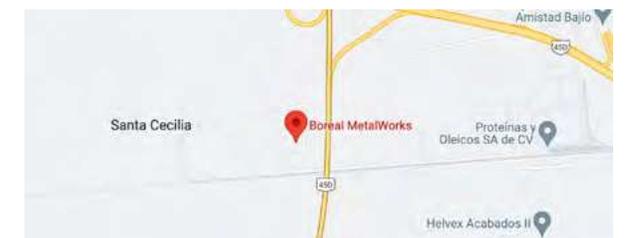
17 Women
53 Men

» EXPERIENCE
+10 years

» AEROSPACE EXPERIENCE
2 years



LOCATION



BOREAL METALWORKS SC

Avenida Asociacion de Industriales #103 Mz. 1 Lt. 7 Zona Industrial, Apaseo del Grande, Guanajuato. ZIP 38160

www.borealmw.com / ventas@borealmw.com

Phone: +52 (413) 690 4000



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.

SEGMENT

- Aerostructures
- Cabin and Interiors

PROCESSES

- Metal Forming**
- Sheet Metal
- Special Processes**
- Powder Coating

MATERIALS

- Al6061T6
- Al2024T3
- Al7075
- A463 ALUMINIZED STEEL
- AISI1008
- STAINLESS STEEL 304
- SAE 1018

SOFTWARE LICENSES

- Ansys
- Solid Works

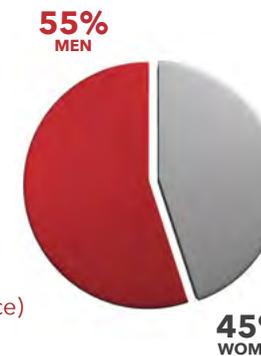


WORKMANSHIP

» WORKMANSHIP
20 people

9 Women
11 Men

» EXPERIENCE
30 years (GPA)
+3 years (in Aerospace)
17 years (Optimen)



MAIN CUSTOMERS

- RECARO
- SPEQTRUM

MACHINERY & EQUIPMENT

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

METROLOGY EQUIPMENT

- FARO SYSTEMS

CERTIFICATIONS

- AS9100 D (in process)

MAIN DESTINATIONS

- Dallas Forth Worth, USA

LOCATION



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

GTO-AEROSPACE

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.



**\$1
MUSD
ANNUAL SALES**

- » **WORKMANSHIP**
25 people
5 Women
20 Men
- » **AEROSPACE EXPERIENCE**
2 years

WORKMANSHIP



CERTIFICATIONS

- ISO-9001
- CLAUGTO

LOCATION



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

GTO-AEROSPACE

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 spectrum of manufacturing abilities.

SEGMENT

- Aerostructures
- Cabin & Interiors
- Electric & Electronics System

MATERIALS

- Aluminum
- Stainless Steel
- Nylon

PROCESSES

Metal Forming

- Machining

Special Processes

- Chemical Treatment

Others

- Sheet Metal
- FPI
- Assembly
- Plating

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.



SALES BY SECTORS

» WORKMANSHIP
15 people

» AEROSPACE EXPERIENCE
2 years (in Mexico)
+80 years (in Texas)



100%
AEROSPACE

MAIN CUSTOMERS

- Lockheed Martin
- Spirit
- Speqtrum
- 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

GTO-AEROSPACE

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 Halcon 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.

SEGMENT

- LSA (Light Sport Aircraft)

MATERIALS

- Carbon fiber

PRODUCT

Halcon 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.

PROCESSES

- Composites**
- Carbon fiber

- Textile & Leather**
- Hook and loop

- Others**
- Infusion

SOFTWARE LICENSES

- Ansys

MACHINERY & EQUIPMENT

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



MAIN CUSTOMERS

- Flight Schools
- Private Pilots
- Air Surveillance

CERTIFICATIONS

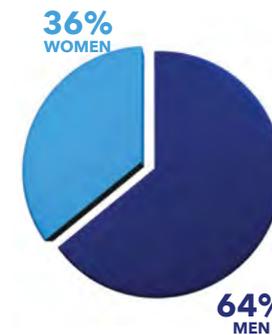
- The aircraft is currently undergoing certification by the Dirección General de Aeronautica Civil



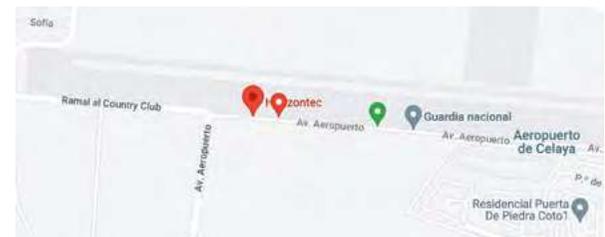
WORKMANSHIP

» WORKMANSHIP
14 people

5 Women
9 Men



LOCATION



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

GTO-AEROSPACE

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.

SEGMENT

- Aerostructures
- Cabin & Interiors

MATERIALS

- Aluminum
- Metal
- Polymers

PROCESSES

- Metal Forming**
 - Forging
- TPR Injection Molding**
 - Injection Molding
- Rubber**
 - Vulcanization
- Special Processes**
 - Assemblies
 - Precision Machining

MACHINERY & EQUIPMENT

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



METROLOGY EQUIPMENT

CMM Measuring equipment



MAIN CUSTOMERS

- Michelin
- Continental
- Pirelli
- Norden

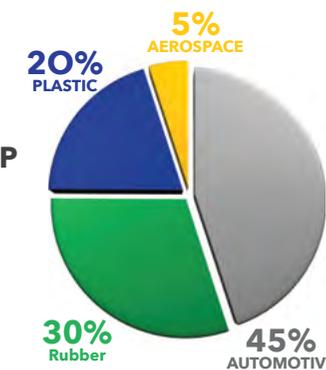
CERTIFICATIONS

- ISO 9001 (in process)
- AS9100 D (in process)
- IMMEX

MAIN DESTINATIONS

- USA

SALES BY SECTORS



» WORKMANSHIP
19 people
3 Women
12 Men
4 Interns

LOCATION



NORAMEX PRECISION SA DE CV

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



ABOUT COMPANY

Novatec Group is a Spanish/Mexican company dedicated to the automotive industry with 4 production plants on 3 continents: Naquera- Spain, Tangier-Morocco, León-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.

SEGMENTS

- Cabin and Exterior & Interior Lighting

PROCESSES

- Plastic Molding
- Injection Molding

PRODUCTS

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

MATERIALS

- PC
- PMMA
- ABS
- TPU / TPV
- PA
- PBT

SOFTWARE LICENSES

- CATIA V5 R30
- S Spinfire Reader 11.9.2
- CAD Assitant
- Solidworks 2021
- Glovius

MACHINERY & EQUIPMENT

- G200 1K
- G200 2K
- G400 1K
- G400 2k
- G600 1K
- G600 2K
- G800 2K
- G1500 2K

METROLOGY EQUIPMENT

- Photometric analysis
- Raw Materials tests
- Environmental tests
- Vibration and stress tests
- 3D Metrology
- Scanning tests

CERTIFICATIONS

- ISO 14001
- IATF 16949
- IMMEX

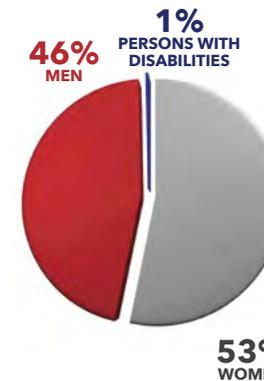
CAPABILITIES

- 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 Assembly



WORKMANSHIP

» WORKMANSHIP
293 people
156 Women
136 Men
1 Persons with Disabilities



LOCATION



NOVATEC LEON

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

GTO-AEROSPACE

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, Malaysia 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

MATERIALS

- Aluminium-Stainless
- Steel-Carbon
- Steel

PROCESSES

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

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 Length

METROLOGY EQUIPMENT

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



MAIN CUSTOMERS

- Spirit Aerosystems
- Boeing
- Airbus
- Gulfstream

CERTIFICATIONS

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

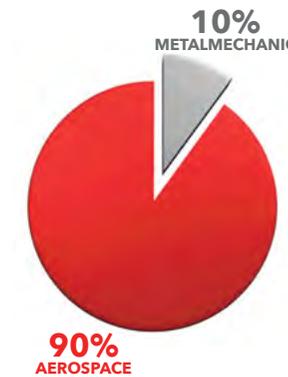
APPROVALS

- Boeing
- Spirit
- Gulfstream DPD / MBD
- Airbus

MAIN DESTINATIONS

- Wichita, KS, USA
- St Louis, MO, USA

SALES BY SECTORS



» WORKMANSHIP
130 people

40 Women
90 Men

» AEROSPACE
EXPERIENCE
15 years

LOCATION



SPEQTRUM AEROSPACE S DE RL DE CV

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



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, 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).



CERTIFICATIONS

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

MAIN DESTINATIONS

- USA
- Europe
- Japan

LOCATION



TEMAPLAST S.A. DE C.V.

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

**»INDIRECT
PRODUCTS
& SERVICES**

suppliers



GTO-AEROSPACE

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

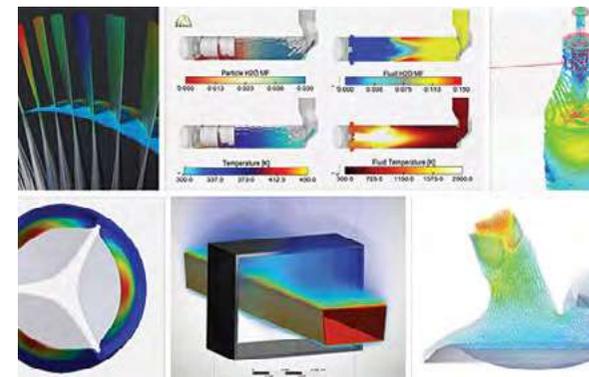
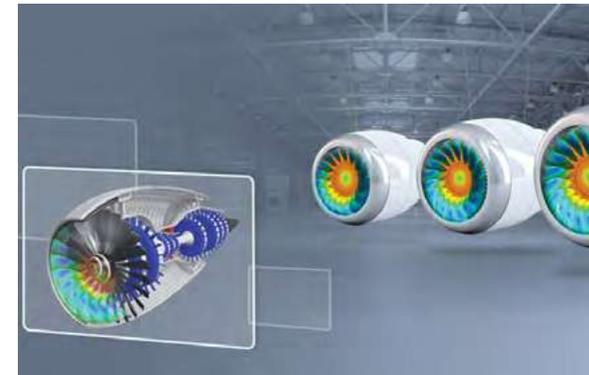
OUR SERVICES:

- 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

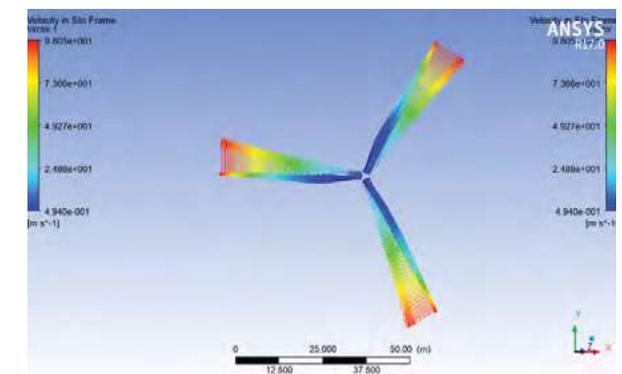


MAIN CUSTOMERS

- Bombardier Aerospace
- Safran
- Honeywell
- Collins Aerospace
- ITP Aero
- GE IQ
- Horizontec
- Agencia Espacial Mexicana
- SEDENA

CERTIFICATIONS

- Channel Partner ANSYS



LOCATION



» WORKMANSHIP
47 people

» AEROSPACE EXPERIENCE
32 years

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

GTO-AEROSPACE

INDIRECT PRODUCTS
& SERVICES

Specialized Services



ABOUT COMPANY

Optimen is a Mexican software development company that mainly provides services to the aeronautical industry. Our main strength is to provide solutions and services focused on maintaining reliable and sustainable operations for our clients based on optimization algorithms, technology, and innovation.

SEGMENT

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

MAIN CUSTOMERS

- Boeing
- Jeppesen
- Volaris
- Avianca
- Aeromexico
- LATAM Airlines
- TAP Air Portugal

SOFTWARE LICENSES

- AWS
- RAVE



CERTIFICATIONS

- ISO 27001
- ESR
- Marca GTO
- Certification as International Service Boeing Contractor

APPROVALS

- Boeing International Service Contractor
- Volaris Silver Provider

MAIN DESTINATIONS

- USA
- Canada
- Sweden
- Brazil
- Chile
- Portugal
- Colombia

SALES BY SECTORS

\$4
MUSD
ANNUAL SALES

» **WORKMANSHIP**
58 people
13 Women
45 Men

» **AEROSPACE EXPERIENCE**
16 years

100%
AEROSPACE

LOCATION



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

GTO-AEROSPACE

INDIRECT PRODUCTS
& SERVICES

**Indirect Products
Specialized Services**



ABOUT COMPANY

SIA Automation began its operations in 1993, entering into the manufacture and maintenance of its 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, whippers, pedals, and other parts.

PRODUCTS

- Electric & Electronics System

MATERIALS

- Machining Steels

PROCESSES

Metal Forming

- Machining

Special Process

- Coating

SOFTWARE LICENSES

- Ansys
- Solid Works

MACHINERY & EQUIPMENT

2 - 3 axis CNC mill, 1 - 3+1 axis CNC mil, 1 - 3+2 axis CNC mill, 1 - 3 axis Gantry-style CNC 400 x 1500 x 3000 mm, 1 - CNC turning center , 1 - CNC shearing machin, 1 - CNC bending machine

METROLOGY EQUIPMENT

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



\$4.6
MUSD
ANNUAL SALES

» WORKMANSHIP
49 people
9 Women
40 Men

» AEROSPACE EXPERIENCE
5 years

WORKMANSHIP



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



GTO-AEROSPACE

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.

SEGMENT

- Cabin & Interiors

MATERIALS

- Carbon Fiber
- Fiberglass
- Leather

PROCESSES

Plastic Molding

- Additive Manufacturing (Prototyped)

Composites

- Carbon Fiber

Special Processes

- Painting

Textile & Leather

- Leather

SOFTWARE LICENSES

- Autodesk Inventor

MACHINERY & EQUIPMENT

Sewing machines, Paint spray guns, Basic tools, Compressors, Sanding machines, Power washers

METROLOGY EQUIPMENT

Vernier Caliper, Micrometers, Steel Rules, Tape Measures, Engineers Squares



SALES BY SECTORS

» WORKMANSHIP
15 people

6 Women
9 Men

» AEROSPACE EXPERIENCE
15 years



100%
AERONAUTIC

MAIN CUSTOMERS

- Volaris
- Viva Aerobus
- Aeromexico

CERTIFICATIONS

- AS 9100
- ISO 9001
- FAA
- AFAC

APPROVALS

- Boeing
- Spirit
- Gulfstream DPD / 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



GTO-AEROSPACE

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
- Flight Attendant
- Maintenance Technician
- High School Training Courses

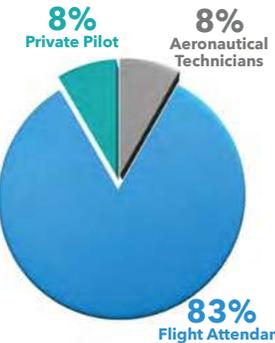


11
YEARS
in operations

» TOTAL NUMBER OF GRADUATES
180 people

150 Women
30 Men

AERONAUTICAL PROGRAM GRADUATES



COLEGIO AERONAUTICO DEL BAJIO

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

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
- SEG
- AFAC

LOCATION



GTO-AEROSPACE

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

Manufacture

- Asemblies

Maintenance

- Aerostructures

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

LOCATION

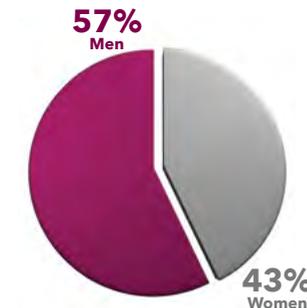


10
YEARS
in operations

AERONAUTICAL PROGRAM GRADUATES

» TOTAL NUMBER OF GRADUATES
35 people

15 Women
20 Men



CENTRO DE ESTUDIOS CIENTÍFICOS Y TECNOLÓGICOS 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

GTO-AEROSPACE

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 | Rubber
• Extrusion | Special Processes
• Chemical Treatment |
| Plastic Molding
• Foaming | Composites
• Fiberglass | 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.



LABORATORIES INFRASTRUCTURE

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

METROLOGY CALIBRATIONS CAPABILITIES

- | | |
|--|---|
| <ul style="list-style-type: none"> • Mass M-62 • Volume V-06 • Temperature T-36 • Dimensional D-84 | <ul style="list-style-type: none"> • Density DEN-04 • Pressure P-71 • Time TF-19 • VIS-06 Viscosity |
|--|---|

SOFTWARE LICENSES

- | | |
|--|---|
| <ul style="list-style-type: none"> • CATIA • Ansys | <ul style="list-style-type: none"> • Solid Works |
|--|---|

CERTIFICATIONS & ACCREDITATIONS

- | | |
|--|--|
| Branches accredited before ema under NMX-EC-17025-IMNC-2018 Standard: | Certifications |
| <ul style="list-style-type: none"> • Water • Chemistry • Waste • Metal – Mechanics | <ul style="list-style-type: none"> • NMX-CC-9001-IMNC-2015/ISO 9001:2015 • DAIMLER Global-WEB Approval • VOLKSWAGEN |

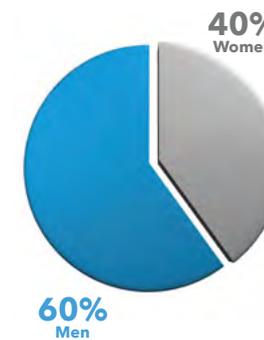
LOCATION



**\$5
MUSD
ANNUAL SALES**

» **WORKMANSHIP**
200 people
 80 Women
 120 Men
 » **AEROSPACE EXPERIENCE**
46 years

WORKMANSHIP



CIATEC

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

GTO-AEROSPACE

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 its students. 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, evaluation and certification of labor competencies and technological services.

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

AERONAUTICAL VOCATIONS

- Remotely Piloted Aircraft System / UAV unmanned aerial vehicle.

EDUCATIONAL PROGRAMS

- Drone Pilot Technical Training

SOFTWARE LICENSES

- Solid Works



**3
YEARS**
in operations

LEVEL OF STUDIES

- Technicians

INSTITUTIONS APPROVALS

- SEP - REVOE
- SEG

LOCATION



COLEGIO DE EDUCACION PROFESIONAL TECNICA DEL ESTADO DE GUANAJUATO

Av. Mineral de Valenciana #201, Puerto Interior, Silao, Guanajuato, Mexico. ZIP 36275

www.conalep-guanajuato.edu.mx | gloria.valenzuela@conalepgto.edu.mx / esmeralda.contrerasa@conalepgto.edu.mx

Phone: +52 (472) 748 6410

GTO-AEROSPACE

INSTITUTIONS

**Aeronautical
Engineering Services**



INSTITUTO TECNOLÓGICO
SUPERIOR DE IRAPUATO

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

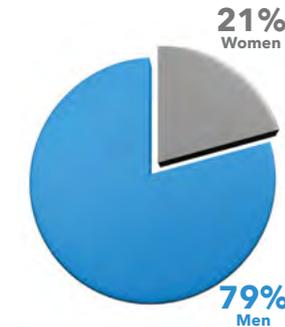


26
YEARS
in operations

» TOTAL NUMBER
OF GRADUATES
19 people

4 Women
15 Men

AERONAUTICAL PROGRAM GRADUATES



IRAPUATO INSTITUTE OF TECHNOLOGY

Carretera Irapuato-Silao km 12.5, Irapuato, Guanajuato, Mexico. ZIP 36821
www.irapuato.tecnm.mx | luis.ms@irapuato.tecnm.mx
Phone: +52 (462) 120 1073

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
- SEG
- FAA

LOCATION



GTO-AEROSPACE

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 i4.0, 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



LEVEL OF STUDIES

- Engineering Degree

INFRASTRUCTURE

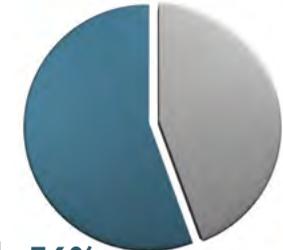
PLASTIC INJECTION

- 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

**10
YEARS**
in operations

AERONAUTICAL PROGRAM GRADUATES

44%
Mechanical
Engineering



56%
Systems
Engineering

» **TOTAL NUMBER
OF GRADUATES
45 people**

- 25 Mechanical Engineering with design orientation
- 20 Systems Engineering and software development

LOCATION



PARQUE TECNOLÓGICO SANMIGUELENSE

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

GTO-AEROSPACE

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

EDUCATIONAL PROGRAMS

- Aeronautical Engineer

SOFTWARE LICENSES

- Dassault Systems
- ANSYS
- Solid Works

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)

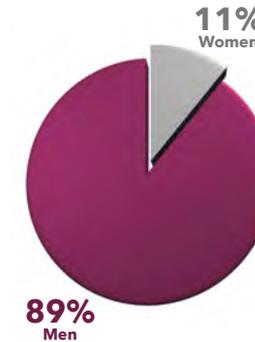


15
YEARS
in operations

AERONAUTICAL PROGRAM GRADUATES

» TOTAL NUMBER
OF GRADUATES
64 people

7 Women
57 Men



LEVEL OF STUDIES

- Bachelor Degree

INFRASTRUCTURE

- Functional aircrafts for students to do practices

INSTITUTIONS APPROVALS

- SEP - REVOE

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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--	--	---

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70% Recurrent customers

+550 Employees

Coverage in all Mexico

+500 Satisfied customers

CONTACT

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

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

VIRTUAL DESIGN AND CONSTRUCTION

B AUTODESK BIM 360



- ▶ Collaborative Participation in real time with everyone involved locally or remotely.
- ▶ Increased productivity in development, construction, operation and maintenance of the project.
- ▶ 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.

LEED Compliance Services

USGBC Member with our own LEED Certified GA personnel.

Guidance, consultant and LEED certification upon our client request

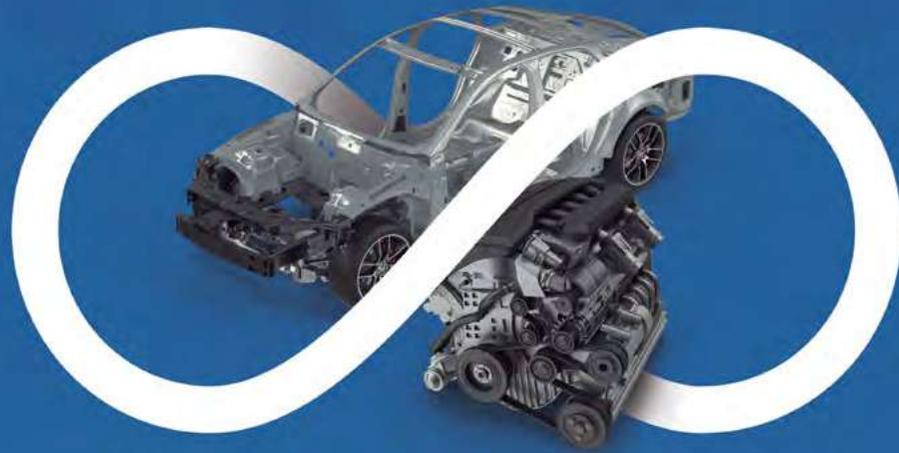
Osha based safety standards

Incident Ratio IR : .6641	Experience modification insurance rate EMR : .0302	Lost time incident rate LTIR : 4.74
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COFOCE

STRATEGIC AND GEOGRAPHIC LOCATION IN THE CENTER OF THE COUNTRY.

3rd City in labor force in the State of Guanajuato with more than 1 million inhabitants in Celaya and suburban area.

- Most diversified City in the manufacturing sector.
- Important national railway crossing (Ferromex and Kansas City).
- Job stability and skilled workforce.
- First class industrial Parks.
- Wide automotive supply chain.
- Investment Subsidies.
- Excellent Educational System.
- Quality of life.

THINKING OF MEXICO?
THINK OF **CELAYA**

CELAYA
ES GRANDE POR TI



Desarrollo Económico Celaya

Municipio de Celaya

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-AEROSPACE CATALOG-

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contactocofoce@guanajuato.gob.mx
www.cofoce.guanajuato.gob.mx

www.bjxaerospace.org
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