



TRANSFORMING TOGETHER







# Delivers reliability, quality, and trust across a range of industries.

Vitro was founded in 1909, operates four business units that produce high-quality, innovative products and solutions that exceed our customers' expectations: Glass Containers (Cosmetic and Pharmaceutical), Architectural Glass, Automotive Glass, and Diverse Industries (Machinery & Equipment, Automation, Foundry and Chemicals).

Our business units serve various markets and industries, from food and beverages to automobiles to commercial construction. Further, our commitment to sustainability in our operations, manufacturing processes, and product applications enable our customers and us to meet increasingly demanding environmental responsibility and performance goals.



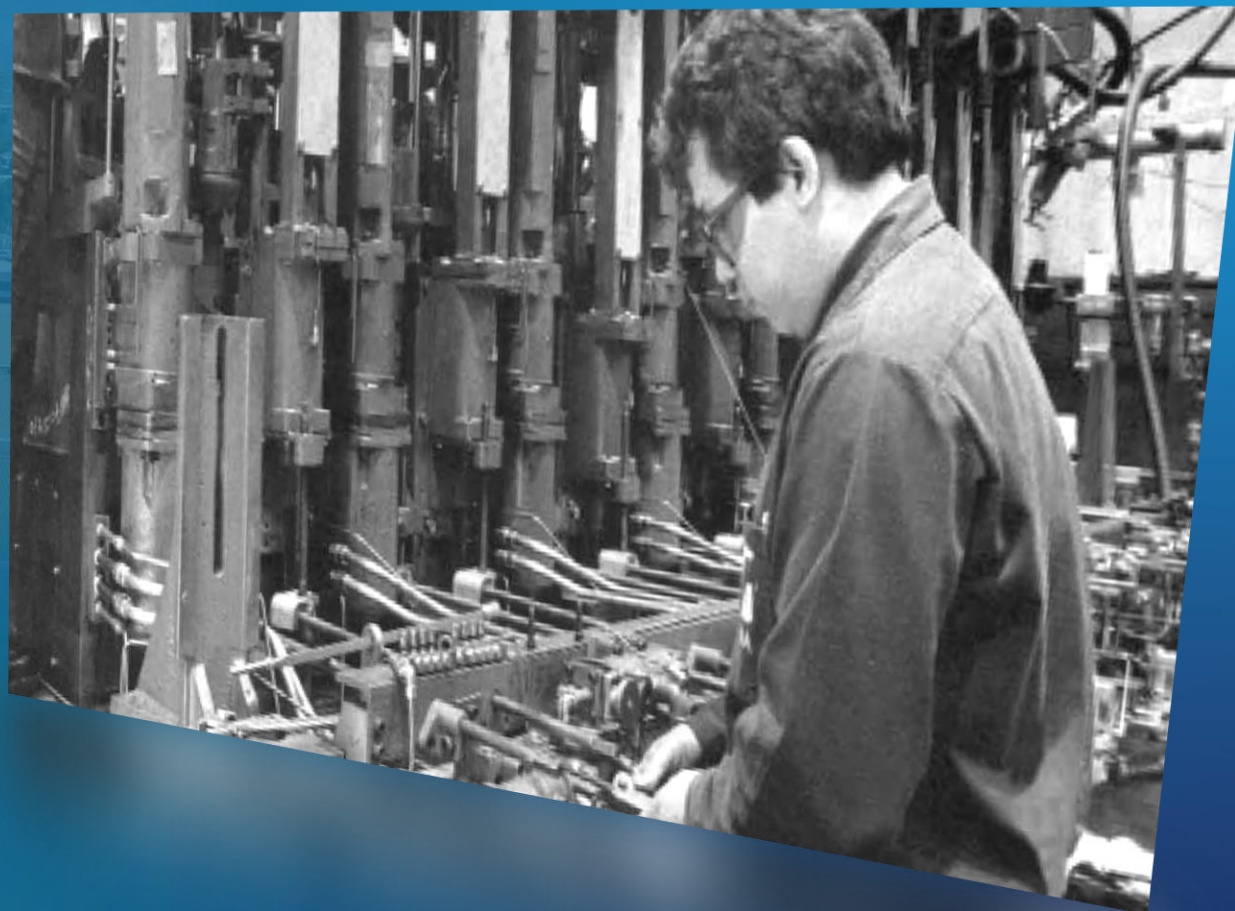


# FAMA<sup>®</sup>: a Vitro<sup>®</sup> subsidiary

FAMA<sup>®</sup>, born in 1943 as Vitro's subsidiary for In-house machinery manufacturing has a proven Track record of creating forward and innovate Industrial technology.

Nowadays, we have increased our products and services Offer to the market, in order to provide solutions for several Industries.

Supporting by 80 years of experience Manufacturing high technology specialized machines and with eyes set on the future, we have extended to other industries besides Vitro to integrate projects that require a high technological capacity and infrastructure.





# Transforming together



1909

Vitro starts operations.



1943

FAMA® is born as the 'technological arm' of Vitro to provide machinery and equipment for the affiliate companies.



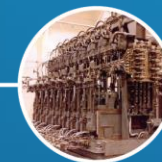
1944

The first foundry was built using a cupola furnace.



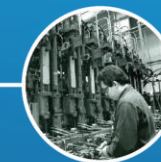
1946

The first two-section IS machine is produced to create new and more efficient machinery for the glass industry.



1950

Mold and machinery exports begin.



1970

Fabricación de Máquinas S.A. starts international operations.



1980

FAMA® joins the globalization process by becoming an exporting company.



2015

FAMA® expands its products and services globally, offering integral solutions for the glass industry.



2017

We expand our product and service portfolio into the market to offer integrated automation solutions in diverse industries.



2018

With 75 years of experience and the sight set on the future, FAMA® reaches out to other industries in the manufacturing sector.



2021

FAMA® expands its automation capabilities with the acquisition of Grupo Gersa Monterrey.



2023

FAMA® keeps growing and being a strategic partner offering machinery and services for the glass industry, metalworking and automation solutions.



We at FAMA® transform the productivity of our customers to outstanding levels by gathering state-of-the-art technology and a highly committed workforce that allows us to form strategic alliances to provide integral solutions for diverse industries.





# Competitive Advantages



## Infrastructure

Our facilities allow us to be vertically integrated with areas that range from design & iron casting to machining.

## Transformation Culture

Highly qualified staff at every level of the organization constantly oriented to maintain a culture of transformation.

## Quality + Innovation

Wide range portfolio of products and services that revolve around innovation; with competitive prices, high quality standards and optimal lead times.



**MISSION**



**VISION**



**VALUES**

# MISSION



To transform our customers' productivity into utmost levels by integrating state-of-the-art technology and a highly committed workforce which result in strategic partnerships and integral business solutions for Machinery & Equipment, Automation and Metal Mechanic for the glass and diverse industries worldwide.



**VISION**



**VALUES**





# VISION



To be the world-class business solution provider that shapes the transformation of our strategic partners.

MISSION

VALUES



MISSION



VISION

# VALUES



## **Customer Orientation**

Our customers are at the center of everything we do.

## **Innovation**

Enhance processes and operations with new ideas to consistently improve our results.

## **Integrity**

Always act with honesty and in adherence to our principles.

## **Operational Excellence**

Always exceed what is expected with greater efficiency, reliability and quality.

## **Sustainability**

Create conditions to operate and grow in harmony with the environment and the communities we serve.

## **Our People**

Unite our talent to work and grow together as one.





## Our experience...

- More than 100 years of forming glass.
- At certain time, we operated more than 30 glass plants, 70 furnaces, and 200 IS Machines. (Mexico, USA, Bolivia, Guatemala, Panama, Costa Rica).
- The past-built turnkey projects and glass plants provided us a vast know-how

## ... translated to our products.

- FAMA® IS Machines and Neckrings are designed to fulfill glass producers' needs.
- FAMA® turnkey projects and glass plants are created thoughtfully thinking in every aspect that revolves around glass.
- We understand thoroughly glass producers' needs and requirements.



# Glass running through our veins

# Glass running through our veins

## Our experience...

- 80 years of experience in the industry
- Over 250 machines and furnaces produced, plus the design and production of our own engineering parts
- In FAMA® we offer design and manufacturing solutions for toolings, structures, and parts for various industries

## ... translated to our products.

- We generate added value to each customer requirement, ensuring the quality of our products with the highest standards
- FAMA® machines and equipment are designed to fulfill customers' needs
- We use computer systems to generate automation solutions that can be applied to various industries



# We produce in Mexico, we operate around the world.



From our plant located in Monterrey, Mexico, we supply the essential tools for various industries in the global market.

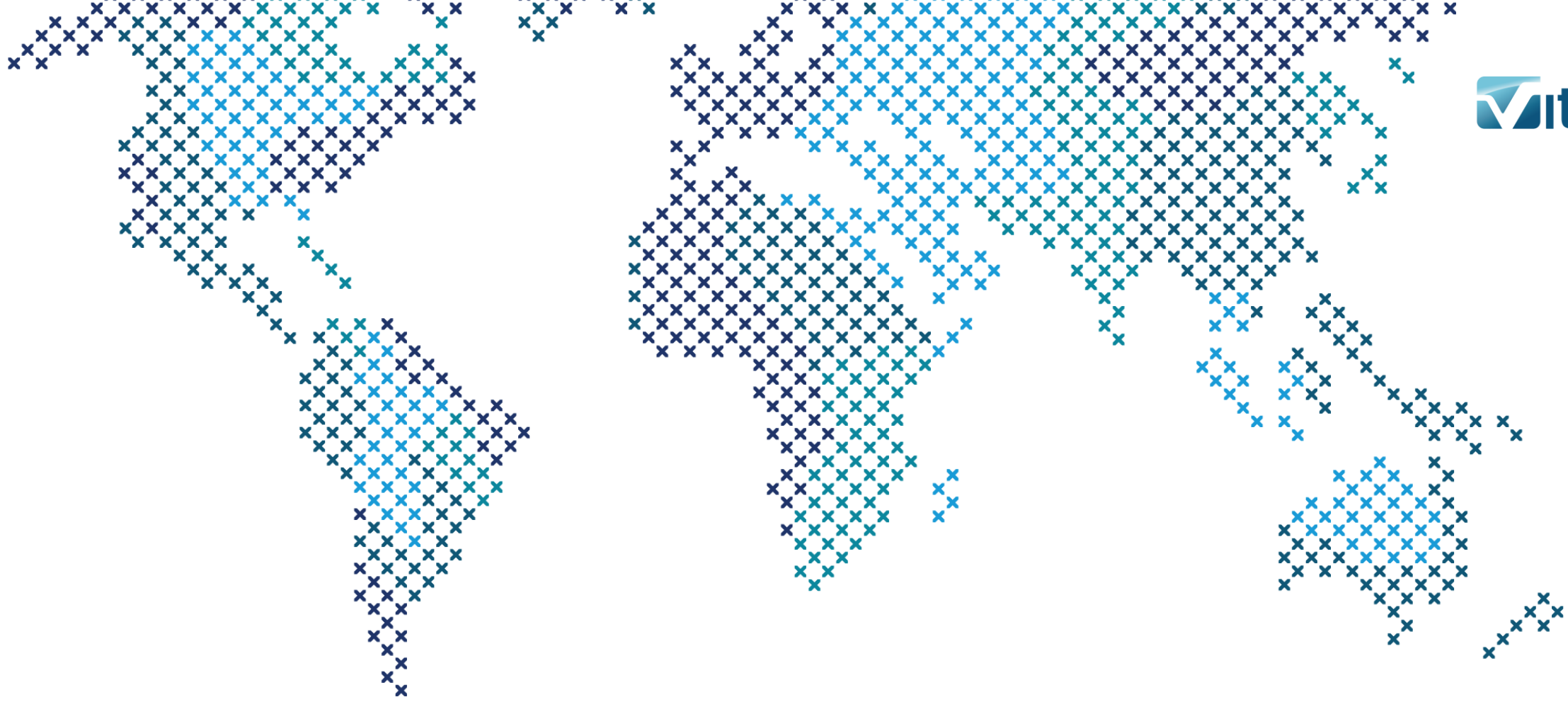
## Our capabilities

Area

**85,000<sub>m<sup>2</sup></sub>**

Workforce

**400+**



Country	Facilities
Mexico	Plants (7) Value-Added Facilities (1)
Ecuador	Distribution containers
USA	Plants (11) Value-Added Facilities (6)
Canada	Plants (4)
Brazil	Distribution centers (1)
Colombia	Plants (1)
Germany	Technical Centers (1)
Poland	Plants (1)
China	Technical Centers (1) Joint Ventures (1)

# Our parent company.



# FAMA's Leadership Team



**Roberto Delgado**  
Comptroller

**Lorena Casiano**  
Marketing Coordinator

**Victor Garcia**  
HHRR Manager

**Armando Solis**  
Supplies Manager

**Francisco Sada**  
Strategic Planning

**Carlos Sandoval**  
Automation Operations Manager

**Juan Farías**  
Managing Director

**Alfonso Garcia**  
Machinery Operations Manager

# Quality Policy

We are committed to our interest groups to comply with and to communicate consistently all agreements, standards, applicable regulations, and quality objectives.

In compliance with our continuous improvement and quality management system, the satisfaction will be reflected according to the value given by them.

We have a culture of operational excellence, as we acknowledge that the participation and competence of all of us who work at FAMA® are fundamental to the processes.

# Certifications





# Business units

We are your strategic partner; our main goal is to offer you **the added value** that will differentiate you.





## **MACHINERY & SERVICES**

- **Machinery & Equipment**
- **Spare Parts**
- **Furnace Design**

Our wide experience in the glass container industry allows us to provide solutions through products and services for Machinery & Equipment, FAMA® Services and Spare Parts for the glass industry.

## **METAL MECHANICS**

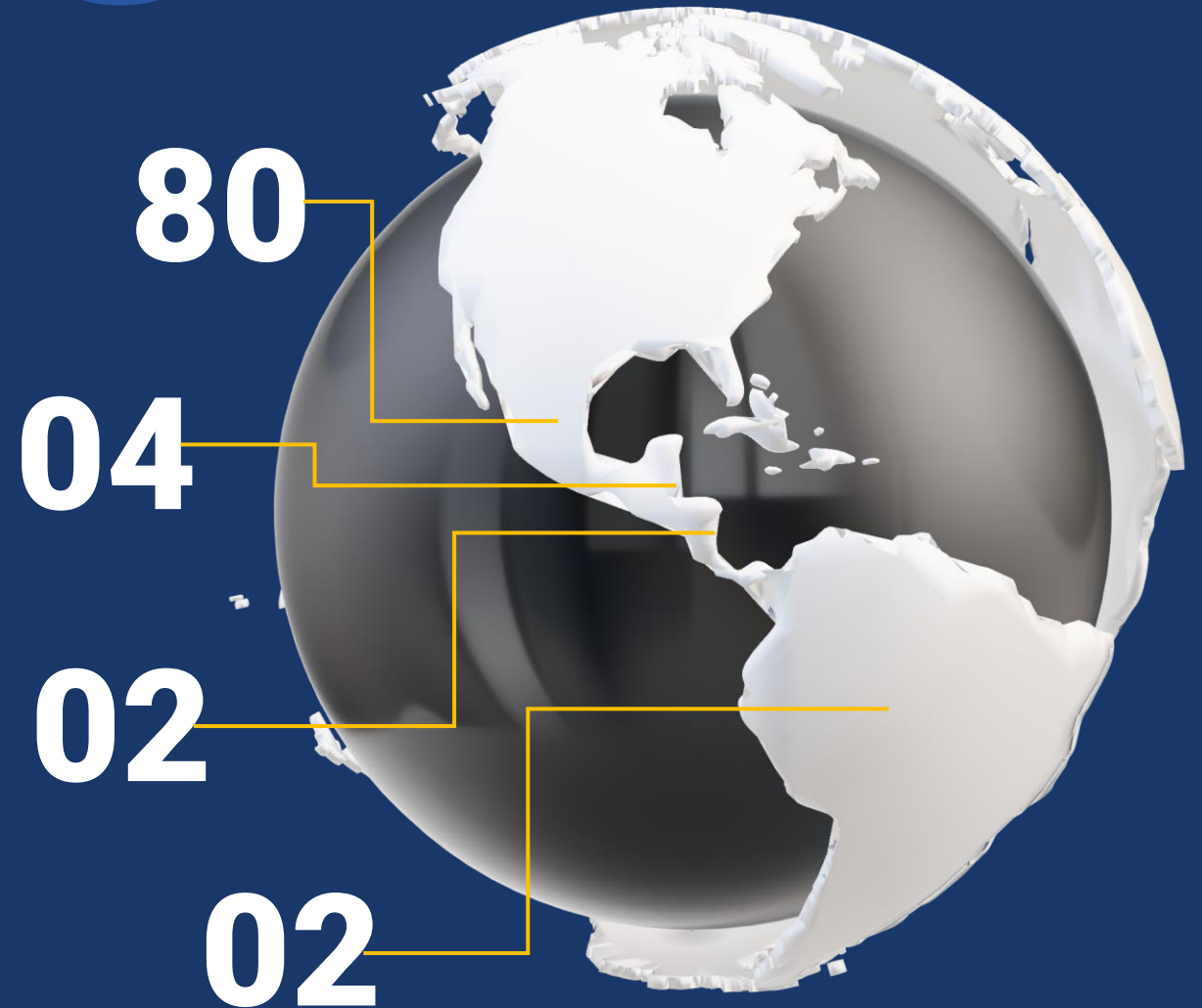
- **Iron Casting**
- **Machining**

We develop gray and ductile iron casting for a wide variety of industries, we design and manufacture toolings, and machine parts that enhance the processes for various industries by taking advantage of our foundry capabilities, well-equipped infrastructure, and quality processes.

# MACHINERY & SERVICES

- Machinery & Equipment
- Spare Parts
- Furnace Design
  
- **FAMA Services**
  - IS Machine condition evaluation
  - Maintenance (Kits and services)
  - Mechanisms repair and replacement
  - Modular section  
(FAMA | other technologies)
  - Refurbished machines  
(FAMA | other technologies)
  - IS machine installation  
(FAMA | other technologies)
  - Conversion kits
  - Technology integration
  - Analysis and simulations
  - Specialized engineering services

# 88 IS Machines by FAMA® throughout the Americas

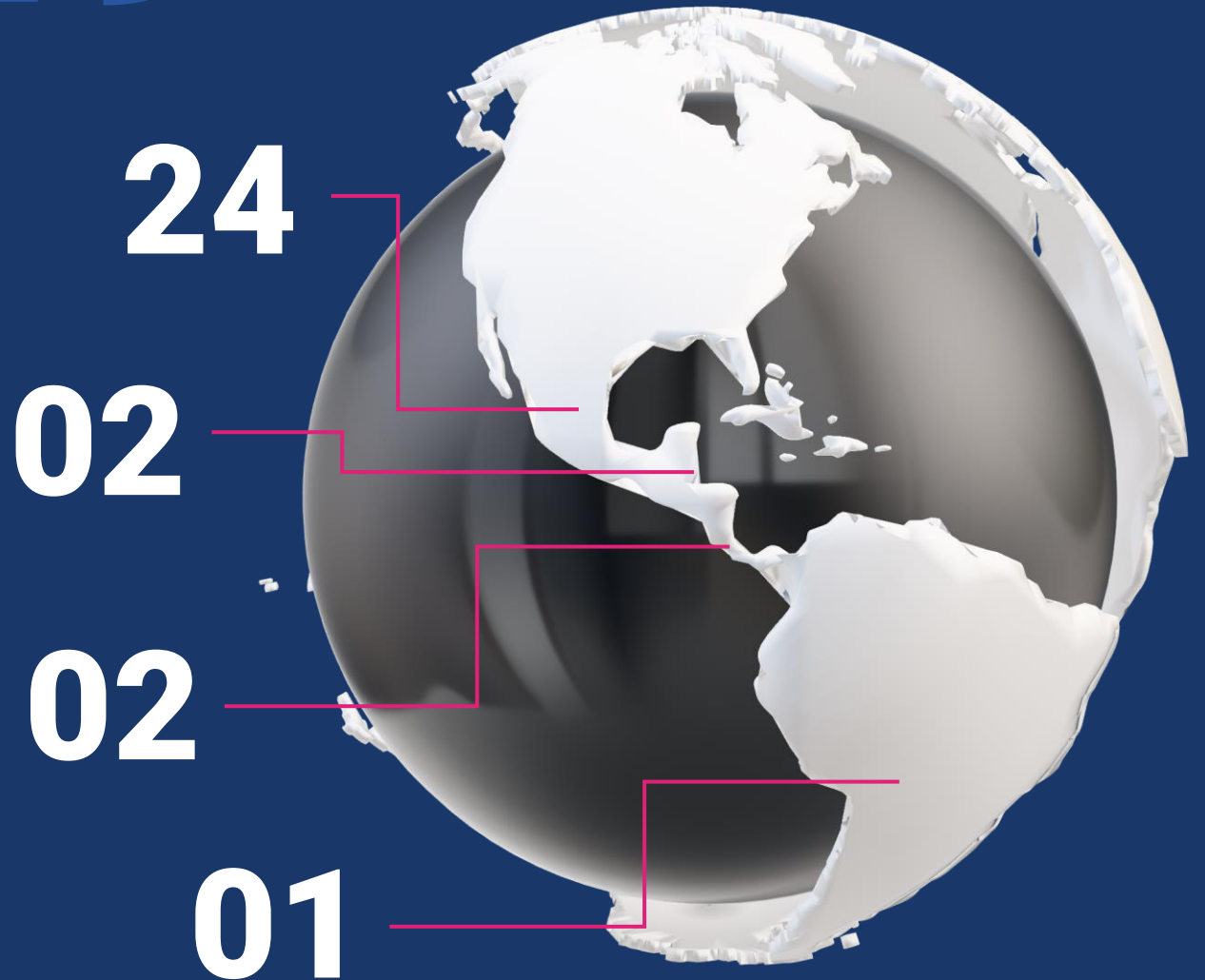


# MACHINERY & SERVICES

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# 29

## Furnaces designed by Vitro throughout the America





# MACHINERY & SERVICES

# 88

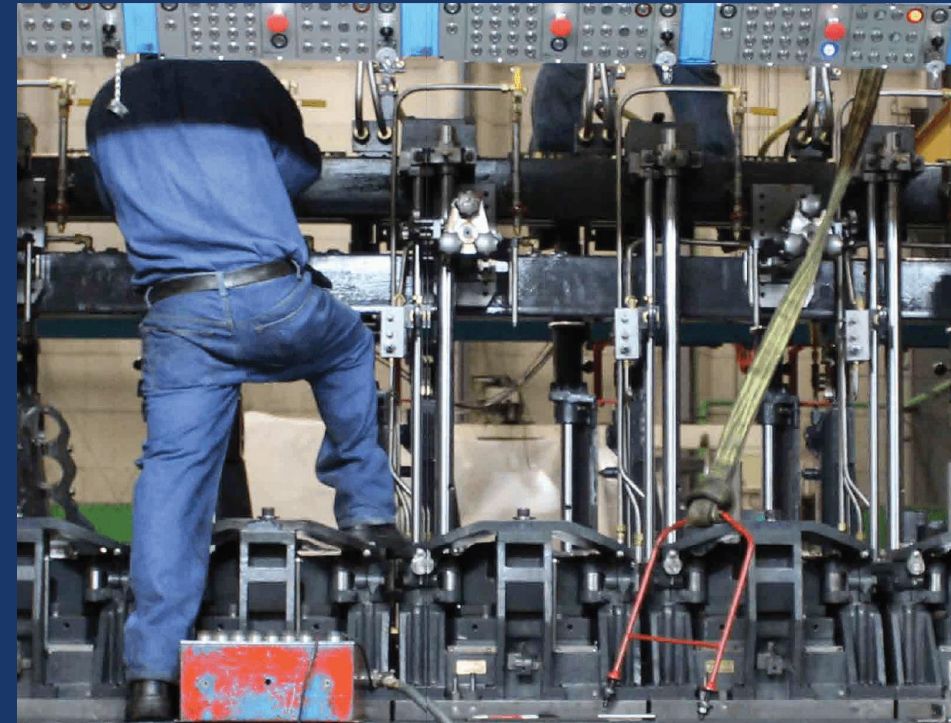
## IS Machines by FAMA® throughout the Americas

- **Machinery & Equipment**
- **Spare Parts**
- **FAMA Services**
  - IS Machine condition evaluation
  - Maintenance (Kits and services)
  - Mechanisms repair and replacement
  - Modular section (FAMA | other technologies)
  - Refurbished machines (FAMA | other technologies)
  - IS machine installation (FAMA | other technologies)
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- **Maintenance and Technical Services**

Refurbished modular sections of S machines, major and minor maintenance

- IS Machine Evaluation
- Mechanisms repair and replacement
- Reverse engineering to manufacture
- spare parts

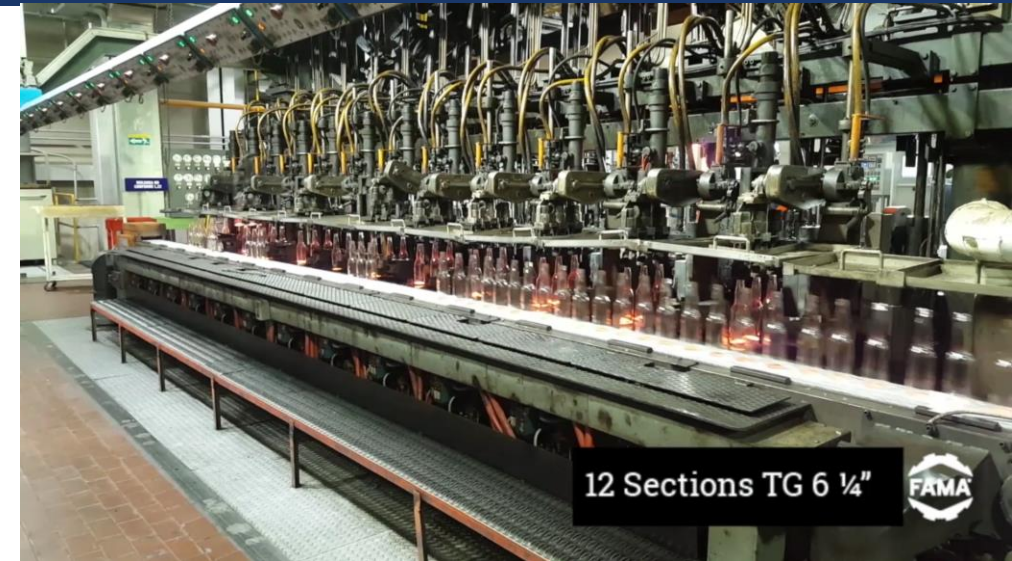


## We extend the life and reduce downtime of your IS machines

# Success stories

MEXICO

- 5 IS Machines 10 Sections Furnace 4 Cosmos (**Toluca, 2023**)
- 2 IS Machines 10 Sections Cosmos (**Toluca, 2022**)
- IS Machine 12 Sections Vigua (**Guatemala, 2021**)
- IS Machine 12 Sections Vicesa (**Costa Rica, 2020**)
- IS Machine 10 Sections TG. (**Los Reyes, 2018**)
- IS Machine 12 Sections TG. (**Querétaro, 2018**)
- IS Machine 10 Sections TG. (**Queretaro, 2018**)
- 2 IS Machines 10 Sections TG. (**Guadalajara, 2016**)
- 2 IS Machines 12 Sections QG and TG. (**Monterrey, 2015**)

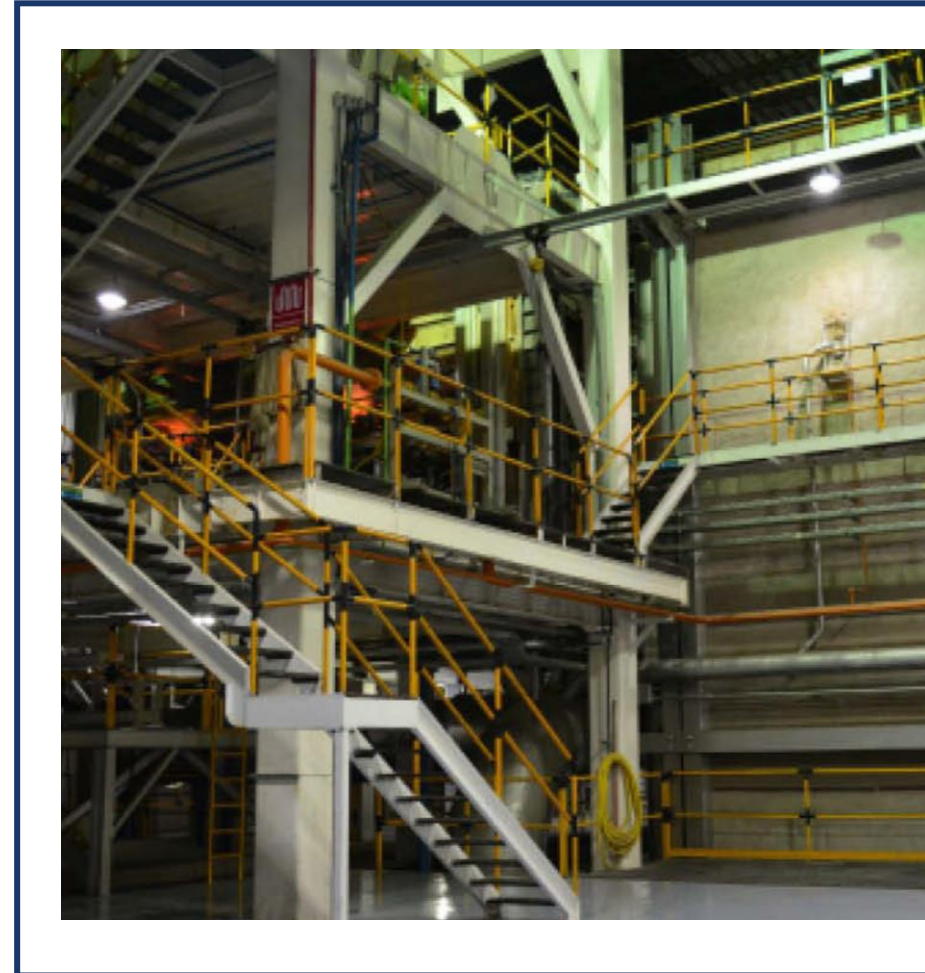




# Success stories

We have developed more than  
**20 turnkey projects**

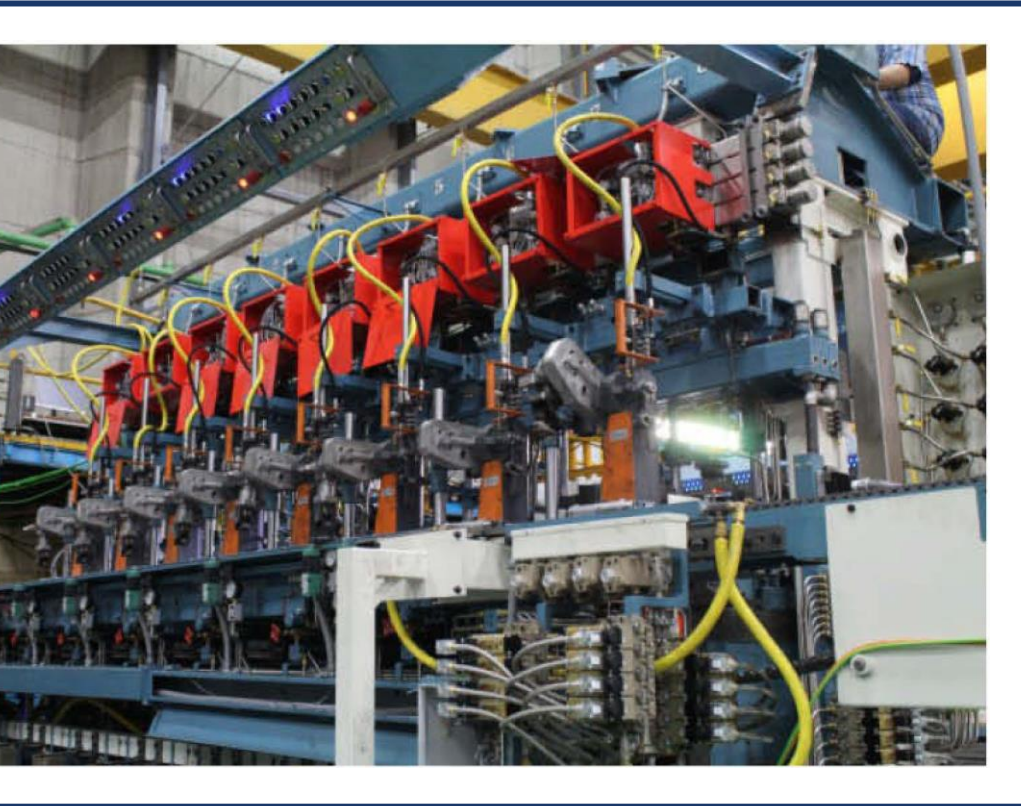
- **(HVM-2, Monterrey, 2015) Brownfield project.**  
Design, construction and plant startup with one 380 TPD furnace and 2 IS Machines: 12 sect. TG and 12 sect. QG  
Furnace design with 3.60 ft<sup>2</sup> / TPD (3.0 TmVF/m<sup>2</sup>) melting rate with no electric boosting. Gas consumption of 130m<sup>3</sup> / TmVF  
Equipment installation: IS Machines, cold end, decoration lines, etc.
- **(HVG-2, Guadalajara, 2015)**  
Design, construction and furnace startup.  
Furnace design with 3.60 ft<sup>2</sup> / TPD (3.0 TmFV / m<sup>2</sup>) melting rate with no electric boosting. Gas consumption of 130 m<sup>3</sup> /TmVF.  
Vitro proprietary technology using "monolithic construction". 40% (120 -170 TPD) furnace capacity increase.  
IS Machine replacement from 8 to 10 sections.  
Ladle out production line adjustments and coloring process addition





# Success stories

MEXICO



- Major Maintenance and technical service line 32 **(Querétaro, 2023)**
- Major Maintenance and Technical Service Viquesa 10 and Vimosa 21 **(Querétaro & Monterrey, 2023)**
- IS Machine Installation Service Furnace No. 4 **(Toluca, 2023)**
- Major Maintenance Nueva Fanal 40 & Vigusa 12 **(Mexico & Guadalajara, 2022)**
- Major Maintenance and technical service lines 30 and 31 **(Monterrey, 2022)**
- IS machine major maintenance Horno 8 and technical service **(Monterrey, 2021)**
- Maintenance Kit 10 Sections IS Machine **(Querétaro, 2021)**
- 10 Sections IS Machine Conversion Kit **(Los Reyes, 2021)**
- Feeder 111 **(Toluca, 2021)**
- Refurbished IS Machine 12 Section **(Toluca, 2020)**
- 8 section boxes **(Toluca, 2020)**
- IS machine major maintenance Horno 11 and technical service **(Toluca, 2020)**
- 10 sect IS machine mechanical installation and service adaptation. **(Veracruz, 2018)**

# Success stories

## LATAM

- Maintenance Kit 10 Sections IS Machine Vigua 31 **(Guatemala, 2023)**
- IS Machine 12 Sections Vigua **(Guatemala, 2021)**
- 10 Section Boxes Vicesa 104 **(Vicesa, 2022)**
- Conversion Kit D1 **(Chile, 2022)**
- IS Machine 12 Sections Vicesa **(Costa Rica, 2020)**
- 12 sect. conversion kit TG & cooling system change **(Chile, 2019)**
- 10 Section Boxes Vicesa **(Costa Rica, 2019)**
- 10 sections conversion kit double to triple. **(Chile, 2018)**
- 12 sections maintenance kit **(Chile, 2020)**
- Spare parts kit **(Chile, 2021)**

## USA

- IS machine spare parts **(Ohio, 2018)**
- Blank and mould linkage exchange **(Jacksonville, 2018)**
- 12 section boxes LSG **(Emhart, 2020)**
- 36 section boxes and basic mechanisms LSG **(Emhart, 2022)**
- Mechanic and Electronic fitting for 3 New Emhart Machines **(Valdosta, 2020)**
- IS machine conversion from DG to TC **(Warner Robbins, 2021)**
- Blank and mould linkage exchange **(Jacksonville, 2021)**
- IS machine conversion from DG to TC **(Henryetta, 2021)**
- IS machine maintenance and basic mechanisms exchange **(Houston, 2021)**
- Maintenance line 32 **(Jacksonville, 2022)**
- Minor Maintenance Service **(New Jersey, 2022)**

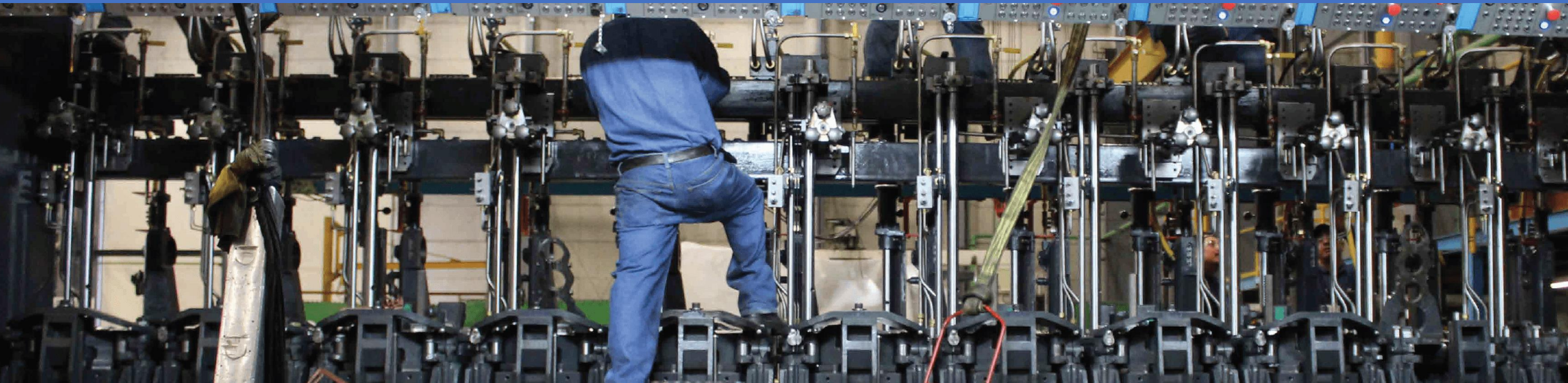
# Success stories

## EUROPE

- Spare parts: blank and mould bracket, holder, IS box, superior beam (Alemania, 2023)

## ASIA

- Spare Parts (Calcutta, 2019-2023)





# Certifications & Strategic Agreements

- Mould manufacturing processes certification. (O-I, Mexico)
- OEM machinery spare parts supplier certification. (O-I, Mexico)
- Mould and machinery supplier certification. (AB InBev, Mexico)
- Strategic supply agreement. (Emhart, 2008)
- Strategic supply agreement. (Xpar Vision, 2018)

# METAL MECHANICS

- **Iron Casting**
- **Machining**

We develop gray and ductile iron casting for a wide variety of industries, we design and manufacture toolings, and machine parts that enhance the processes for various industries by taking advantage of our foundry capabilities, well-equipped infrastructure, and quality processes.



# Success stories

- Foundry for glass mold container (Mexico, 2023)
- Foundry pieces for lighting industry (Monterrey, 2023)
- Foundry pieces for oil and gas industry. (Mexico, 2018)
- Machining monoblock head pieces for automotive industry (Saltillo, 2019)
- Foundry pieces for food industry (Monterrey, 2023)
- Foundry pieces for chemical industry. (Monterrey, 2017)
- Foundry pieces for railroad industry. (Monclova, 2022)
- Foundry pieces for mining industry. (Oklahoma, 2016)
- Foundry and machining pieces for flat glass industry. (Pennsylvania, 2019)



- **Production Systems**
- **Specialized Industrial Services**

We offer control and automation solutions in turnkey projects, precision manufacturing and the development of specialized applications for the industry.

Our main objective is to satisfy the particular needs of our customers; therefore, we have highly trained personnel, software, and design tools that keep us at the edge, along with high-level equipment and infrastructure.





# Specialized automation solutions

## Engineering

- System Layout
- Process List
- List of operations
- Equipment List
- Simulations
- Mechanical Design
- Controls design

## Construction

- Welding
- Machining
- Assembly
- Interconnection of systems

## Integration

- Validation at our facilities
- FAT acceptance tests

## Site services

- Installation
- Revalidation
- SAT Acceptance Testing
- PPAP support
- Acceleration ramp support
- Production support

## Spare parts & Maintenance

- Documentation
- Remote support
- Spare parts
- Support and maintenance policies
- Small projects & improvements

# Capabilities

## Material management

- Loading / unloading racks
- Conveyors
- Transfers
- Storage
- Identification and traceability
- Packaging
- Palletizing / depalletizing
- Intralogistics

## Machine service

- Feeding
- Download
- Dosing
- Inspection

## Metalmechanical processes

- Welding
- Material removal
- Foundry

## Component assembly processes

- Assembly lines and cells
- Individual component assembly stations
- Adhesive application
- Testing and inspection
- Traceability
- Andon

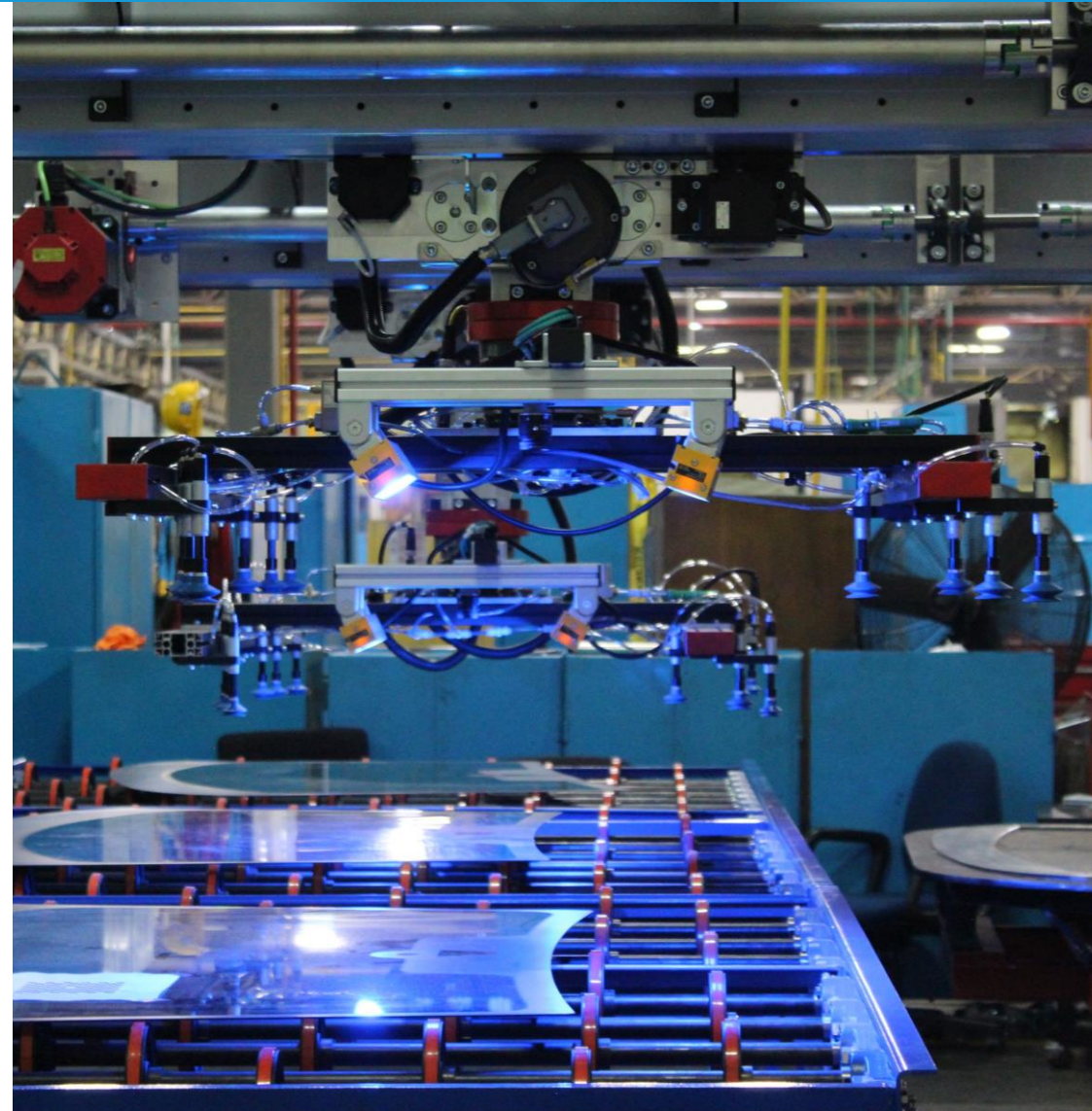
## Special processes integration

- Dedicated power supply systems
- Washers
- Process equipment
- Heat or cooling tunnels
- Presses
- Screwdrivers



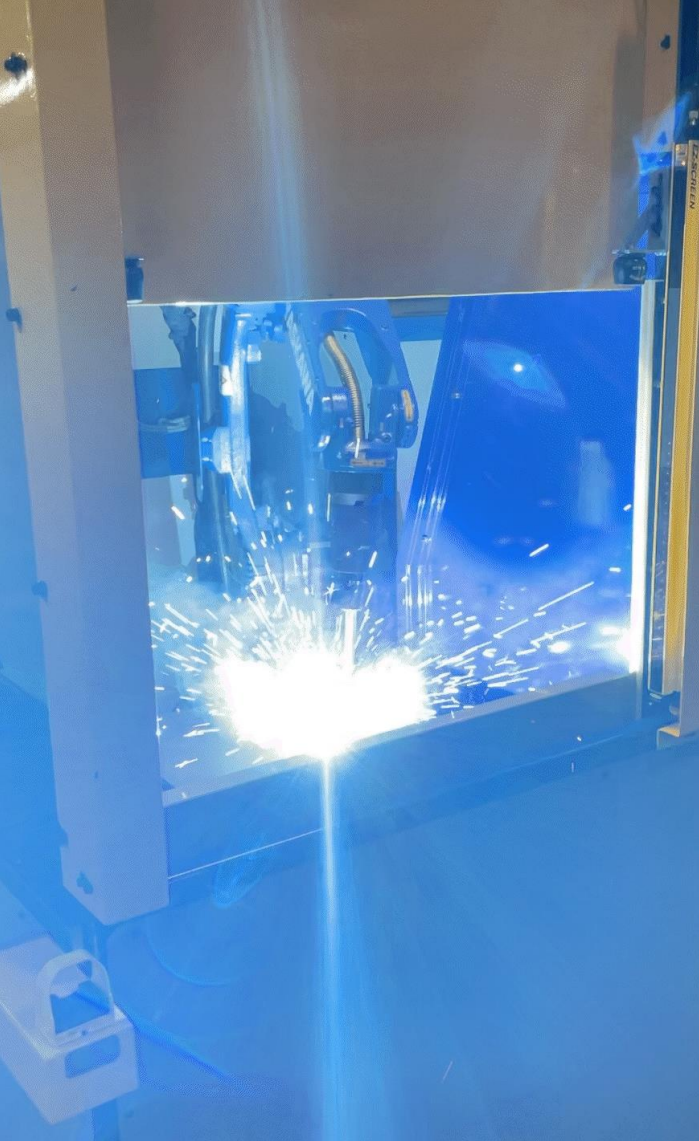
# Success stories Turnkey

- Automated gantry system for mask pick&place operations in glass coating process for automotive and architectural industry, vision system guided, including glass loading/unloading with robotized cells **(Mexico 2023)**
- Automatic packaging lines for glass containers, including depalletizing, packaging, corrugated tray formers, box palletizing, traceability and labeling **(Chile, 2023)**
- Fisher 718 Striker Wire Welding Station, pre-assembled "ready to weld" robotic cell, highly portable, the compact size and common base allowed to deploy this system quickly on the production floor. **(Mexico, 2022)**
- Automatic ceramic shell manufacturing system for foundry industry, 1 ton robot payload, peripheral equipment for mold layers, traceability of operations, automatic work orders generation based on the production plan. **(Mexico 2022)**





# Success stories Turnkey



- Multi-tool automatic packaging cell operating efficiently and effectively 24 / 7. **(Mexico, 2017, 2019, 2020)**
- Prestige type polishing system for glass containers, Vitro's patented system beautifies the articles, clean and transparent glass is appreciated. **(Mexico, 2016, 2017, 2019)**
- Temperature measurement system by IR sensors, automatic cooling control without contact, can be applied for various industries. **(Mexico, 2018)**
- Cavity number reader, Vitro patented method, offers a number and Dynamic item identification system, in process of integration to Glass Containers **(Mexico, 2020)**

# Success stories Turnkey

- **02** x Robotic ingot palletizing cell, **Peñoles, México**
- **29** x Robotic sampling processing in mining laboratories, **Fresnillo PLC, México**
- **08** x Robotic CNC machine tending for aluminum rims, **Alcoa, México**
- **150** x Robotic welding cell for automotive industry, **Magna/Fuji, México**
- **02** x Robotic palletizing cell, **Famosa, México**
- **100** x Robotic welding cell for automotive industry, **Metalsa/Comau, México**
- **21** x Robotic glass handling and component bonding, **Vitro, México**
- **08** x Robotic glass handling and component bonding, **Vitro, USA**
- **10** x Robotic primer application, **Vitro, USA**
- **05** x Robotic glass cutting, **Vitro México**
- **02** x Robotic glass trimming, **Vitro, México**
- **01** x Robotic welding cell for automotive industry, **Fisher, México**
- **01** x Robotic ceramic shell manufacturing for foundry industry, **POK, México**
- **40** x Robotic welding cell for automotive industry, **Magna/Fuji, México**







# 8 FAMA<sup>®</sup> YEARS



Follow us!  
**FAMAbbyVitro**

Keramos 225, Col. Del Prado 64410  
Monterrey, Nuevo León, Mx.

Tel. +52 (81) 8863 2800  
email. [ventasfama@vitro.com](mailto:ventasfama@vitro.com)

[fama.com.mx](http://fama.com.mx)