



**opus**  
ASSOCIATE ENGINEERS

**Excellence at your Hands**



We offer SERVICES in:

## MULTIDISCIPLINARY ENGINEERING AND ARCHITECTURE

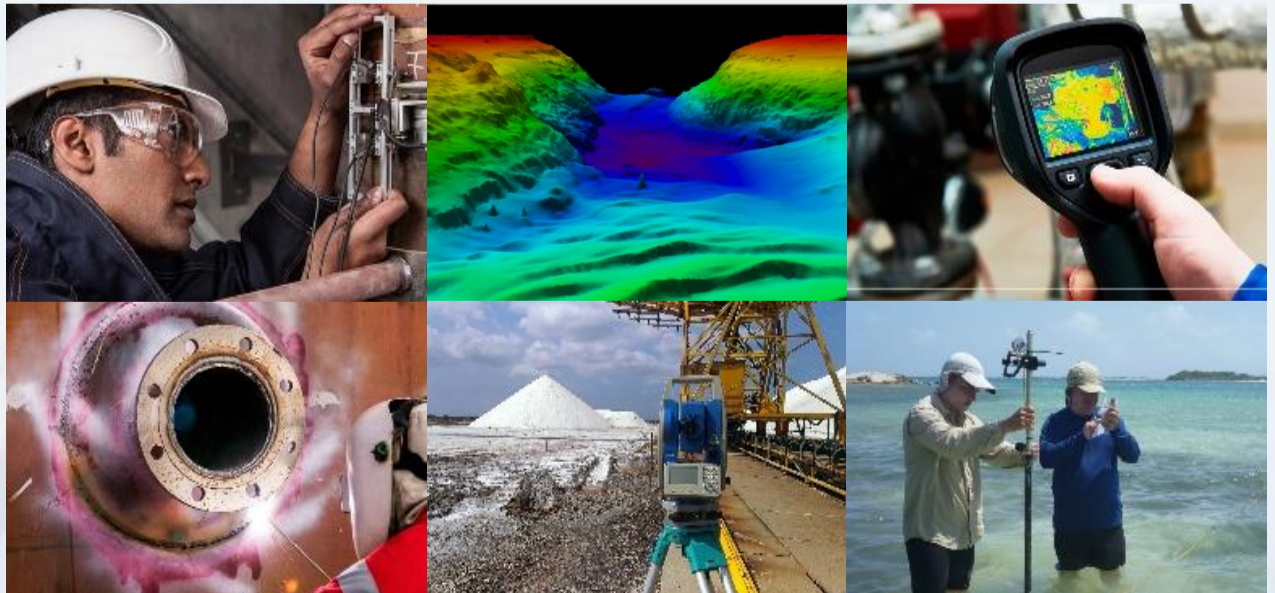
- Mechanical engineering
- Hydraulic and hydro-sanitary engineering
- Architecture and urbanism
- Electrical engineering
- Agro-industrial plants
- Mechatronic robotics and automatization of processes
- Structural engineering
- Road design and earthwork
- Food science engineering
- Industrial maintenance engineering

## PROJECT MANAGEMENT, VARIOUS SERVICES

- Management and planification of projects
- Quality Management System (QMS)
- Inspection of Projects/ Equipment/ Systems
- Survey of Facilities (CAD-Revit)
- Topography, Geodesy, and Photogrammetry
- Industrial maintenance management software development.
- Supply and installation of drainage systems.
- industrial floors with high chemical/physical resistance.

## SPECIALIZED STUDIES

- Electrical area
- Hydraulic area
- Food science engineering
- Destructive and non-destructive testing.
- Bathymetric and topographic studies



## What motivates us as a team?

We are **passionately motivated** by a profound desire to generate a positive impact and **accompany our clients in executing their organizational growth plans**, tending to their needs and **giving them the support that guarantees the success of the projects entrusted to us.**

## Who makes it possible?

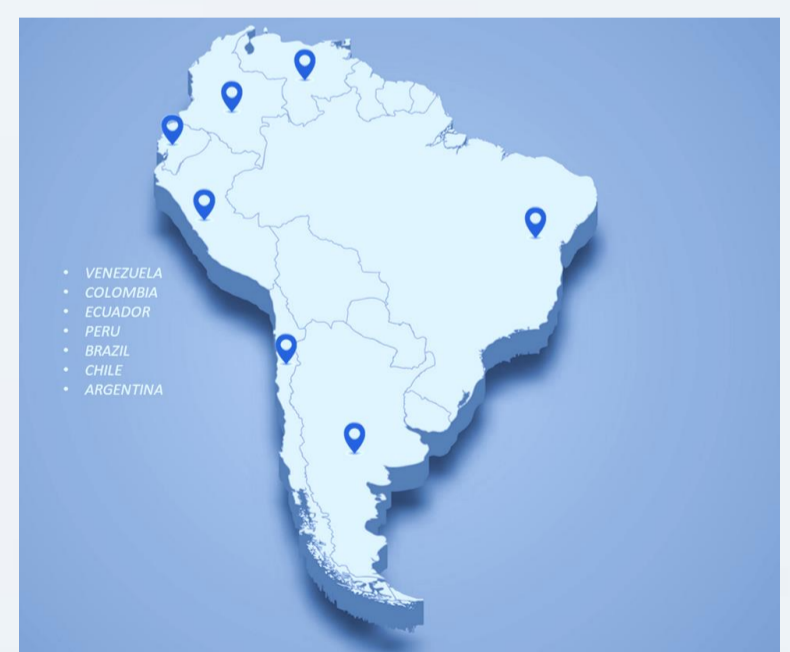


We count on a **staff of more than 50 professional experts** in multiple areas **who have an average of more than 20 years of prolific and successful careers**; compromised with adding value and positively impacting the processes of our clients via the providing of excellent services.

## What do we offer?



**OPUS, Associate Engineers**, offers **multidisciplinary engineering services**, be it in a **remote or/and on-site manner**, counting with professionals in more than eight (8) countries and supported by the connection that the Internet provides; we are always disposed to service you in a personalized way to **guarantee a close and excellent experience.**



**OPUS, Associate Engineers, ¡Excellence at your hands!**



# Successful Experiences in Sports Installations

## EXPERIENCE IN SPORTS INSTALLATIONS

The **OPUS Associate Engineers** team counts on professionals who have significant and relevant experiences in **Sports installation projects**. In this frame, they have participated in the development of multidisciplinary Architecture and Engineering, Inspection Management, Project Construction Management, and specialized technical studies.

We guarantee a service of a high technical level through an expert team of multidisciplinary professionals, knowledgeable in the processes associated with these types of installations.

We will proceed to summarize some of the projects developed by the professionals at OPUS associate engineers in the framework of their respective career experiences.

# DETAIL ENGINEERING. CONSTRUCTION MANAGEMENT EXPANSION AND RENOVATION OF THE “AGUSTÍN TOVAR” FOOTBALL STADIUM

## DESCRIPTION

Expansion and renovation of the stadium with the objective of using it as a location for the 2007 Copa América. Among its general characteristics, we can highlight: 26.500 people capacity, 440 piling foundations cast on-site, 5.500 tons of metallic structures installed, and 4 53 Mts. metallic lighting towers.

**Location:** Barinas-Venezuela, 2007.



## SCOPE

- Integral development of the multidisciplinary architecture and engineering project.
- Construction management.
- Project planning.
- Quality controls.
- Specialized tests.
- On-site engineering development.



## INVOLVED DISCIPLINES

- Architecture.
- Structures.
- Sanitary Installations.
- Area's electricity and lighting.
- Instrumentation.
- Mechanics: Ventilation, Acclimatization Elevators.



## Project Manager:

Mr. Lewins Monteverde.

# DETAIL ENGINEERING. EXPANSION AND RENOVATION OF THE “CUATRICENTENARIO” BASEBALL STADIUM

## DESCRIPTION

Expansion and renovation of the Municipal Baseball stadium with an original capacity of 2500 people to manage a stadium of an international caliber that will be able to hold 15.500 people and comply with the technological standards and normative to be the location of first-level events celebration.

**Location:** Barinas-Venezuela, 2008.

## SCOPE

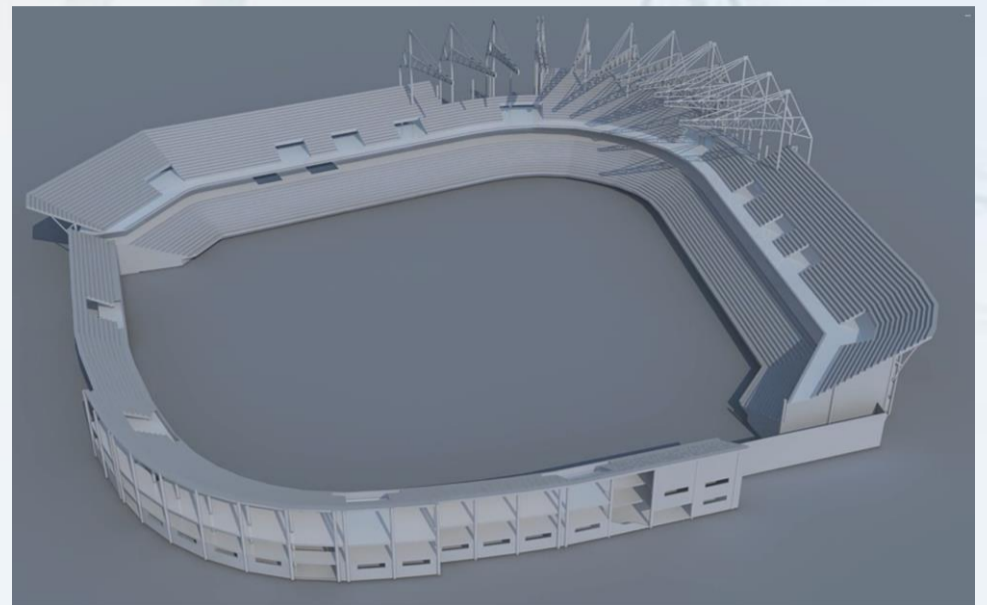
- Integral development of the multidisciplinary architecture and engineering project in its different phases: Conceptual, Basic, and Details.

## INVOLVED DISCIPLINES

- Ornament and Architecture.
- Structures.
- Sanitary Installations.
- Area's Electricity and Lighting.
- Instrumentation.
- Mechanics: Ventilation, Acclimatization Elevators.

## Project Coordinator:

Mr. Lewins Monteverde.



# PROJECT INSPECTION MANAGEMENT OF THE CABIMAS ROOFED GYM

## DESCRIPTION

Inspection Management of the Cabimas Roofed Gym projects, location of the Centro American and Caribbean Volleyball Championship in 1998, and the Volleyball World League. The tight execution deadlines and project quality were met, and the demanding standards established by the international organisms were satisfied. It was recognized by the ODEPA and FIVB as a World Category arena. Among its characteristics:

- 8.500 people capacity.
- 100 Pilings cast on-site.
- Reinforced concrete stands and portico.
- Roof: Metallic Structure of a 90m diameter installed at a height of 30m and weighing 250 tons.
- Light Aluminum Cover.
- 1580 tons of refrigeration.

## Location:

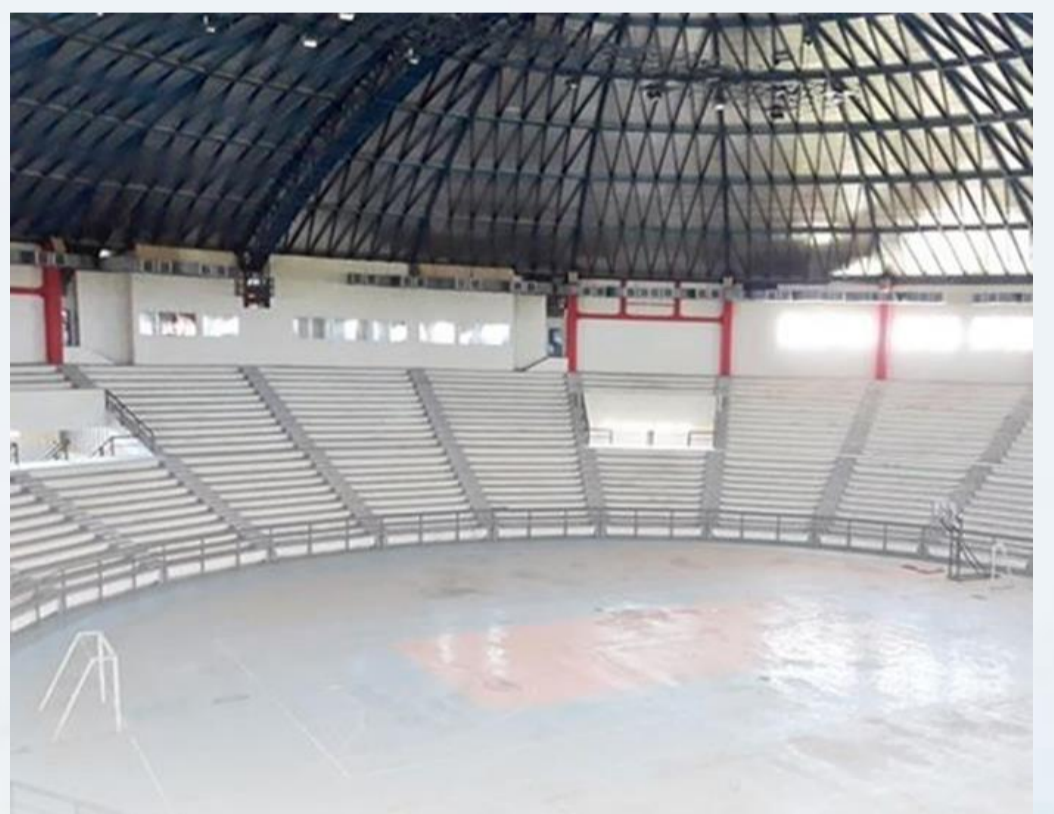
Cabimas-Venezuela, 1.996-1.998.

## PERFORMED OPERATIONS

- On-site engineering.
- Protocol definition for the assembly of the roof's metallic structure.
- Welding inspection.
- Quality control of project processes and materials.
- Activities' planification.

## Leader of the Inspection Team:

Mr. Lewins Monteverde.



# CORROSION AND STRUCTURAL EVALUATION STUDIES “JOSÉ ENCARNACIÓN ROMERO” FOOTBALL STADIUM

## DESCRIPTION

Corrosion studies and structural evaluation of the stadium stands were developed, which allowed diagnosing and contributing solutions to the problems present in the structure, with the objective of guaranteeing its adequate structural response and durability considering the new requirements of modern engineering.

**Location:** Maracaibo-Venezuela, 2004.



## SCOPE

- Counseling, control, and planning.
- Specialized engineering and testing.
- Load testing.
- Deflection measuring.
- Development of structure fixing and rehabilitation protocols.
- Building inspection.



## INVOLVED DISCIPLINES

- Corrosion Engineering.
- Structural Engineering.
- Project planning.

## Service Coordinator:

Mr. Lewins Monteverde.



# STRUCTURAL EVALUATION STUDIES, MARACAIBO BULLRING

## DESCRIPTION

On-site structural strength studies were developed for the bullring bleachers, which allowed the evaluation of their behavior under operational conditions. Technical recommendation reports were generated for the care of the detected areas for improvement.

**Location:** Maracaibo-Venezuela, 2005.



## SCOPE

- Trial protocol development.
- Load testing.
- Deflection control.
- Development of a technical evaluative report with recommendations.



## INVOLVED DISCIPLINES

- Visual inspection and element measuring.
- Structural engineering evaluation
- Deflection measuring of the bleachers.



**Service Coordinator:**  
Mr. Lewins Monteverde.