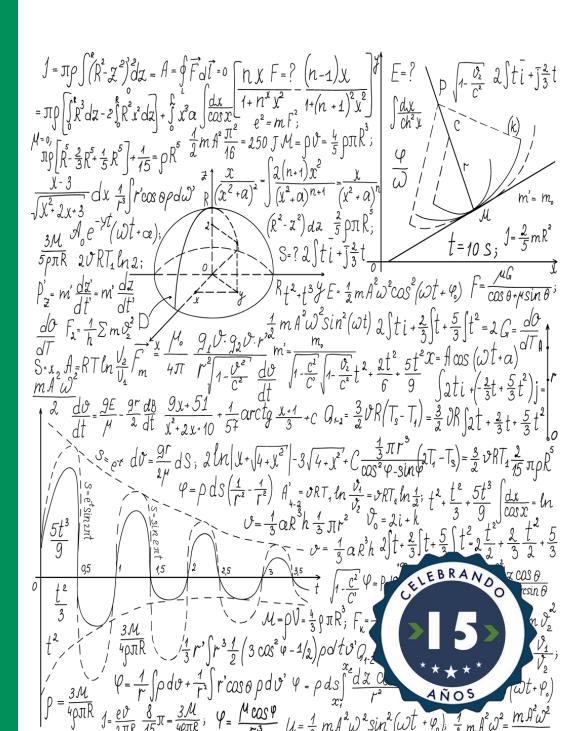


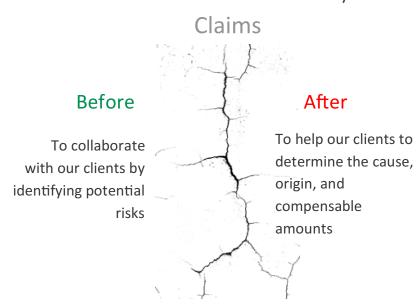
#### Engineering Consulting for Reinsurance



Managing Risk by Engineering



We are a team of 30 Engineers in different specialties, such as Civil, Mechanical, Geologists, Oil, Industrial, Electronic, dedicated to 2 things mainly:



We work on projects in Mexico and Latin America

We perform adequately and professionally in practically all specialized branches, but mainly in:

- Energy
- Oil & Gas
- Infrastructure
- And Industry





#### **Mission**

To be the best cost-benefit option in the market for our clients, in the identification and quantification of risks and their consequences, through innovative solutions.

#### **Vision**

To keep our position in the national and regional market among the 3 best Risk Engineering firms for our clients.

#### **Values**





### Experience

### Among our most important projects are the following:

#### Risk analysis and estimation of PMLs (Maximum Probable Losses) of:

- Laguna Verde Nuclear Power Plant.
- 2 sections of the Mayan Train.
- Supervía Poniente.
- Mexico's new International Airport.
- Pemex, PEP, Refining and Petrochemicals.
- CFE, all generation plants.
- More than 10 gas pipelines.
- More than 20 fuel storage stations.
- More than 20 highways.

#### Risk inspections of:

- Azteca construction vessel
- Nahuatl drilling rig
- All Pemex refineries and Petrochemicals
- Hydroelectric Plants El Cajón, Chicoasen and El Caracol.





#### ACR (Root Cause Analysis) and determination of the magnitude of damage of:

- Assessment of damage to SCT infrastructure under the Fonden program
- Viscosity Reduction Plant, Tula Refinery.
- Collapse of 250,000 barrels due to negative tank pressure.
- Pajaritos Petrochemical Explosion.
- El Encanto Hydroelectric Powerhouse Flood.
- Damage to power plant transformers in Central America due to oil degradation.





## **Experience**

### The numbers speak for themselves:

- For 7 years, each year
  we have traveled more
  than 15,000 Km,
  verifying damage to road
  infrastructure.
- We carry out more than 400 inspections a year.

 We have been acting as engineering support in claims for 30 million dollars.

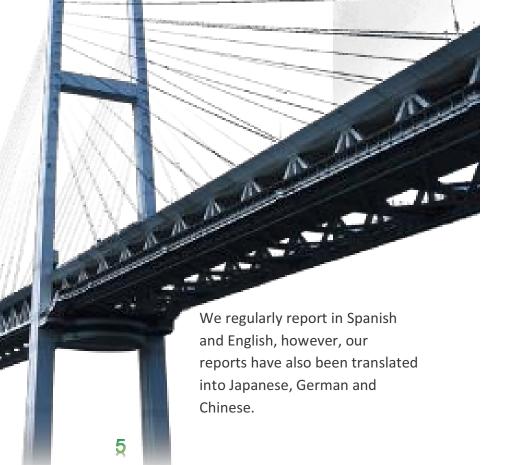
We have generated more than

**3,000** Reports.

We have more than
 1,000 years of
 accumulated
 experience in our pool
 of specialists.

We do approximately300 flights per year.

We have been involved in inspections and claims of the strangest and most complex coverages; from cases of spontaneous combustion by vacuum, through elaborate international consequential losses, to Stop Loss programs for hydroelectric plants, or cases of environmental liabilities associated with large demands.



### **Portfolio**

### Some of the clients who have given us their trust:

#### **Reinsurance Companies**











#### **Insurance Companies**













#### **Adjusters**













#### **Policy holders**













#### Lawyers









# **Technical Support**

# To report results with absolute certainty we have the following:

+ than 15 simulators of structures, flows, fires and explosions, tsunamis, materials, etc.











More than 500 Technical Documents, NOM, API, ITM, Oshas, NFPA, BCI Standards, etc.













Benchmark databases such as Richardson, CNIC, Neodata, Opus and hundreds of quotes











### **Main Services**

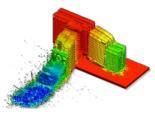
### What, how, when, where?

#### **Divisions**

#### **Loss Control**

Risk Inspections.- 3 different levels of depth, in all branches except Aviation and Hulls.





Calculation of PMLs

(Probable Maximum Loss).- For each Facility and for each coverage or sub-limit.

Value Estimates.- In accordance with the USPAP (Uniform Standards of Professional Appraisal Practice) and the IFRS (International Financial Reporting Standards).





BC & RP protocols (Business Continuity & Response Plans).-Oriented to humaninduced and natural disasters events.



#### **Claims**



ACRs (Root
Cause
Analysis).From the
determination
of the cause,
to the origin of
the claim.

**Determination of Losses.**- We start from the expert opinion on damages in constructions and equipment, to end with the economic appraisal.



**Stop Loss Programs.**- We help companies to reduce losses from large business interruption claims and consequential losses.



# **Pool of specialists**

# More than 1,000 years of experience in different disciplines at your service.

Mr. Grimberg, Engineer, 40 years in Strength of Materials / Mr. Escobar, Engineer, 20 years in Underwater Hydraulic Concrete Structures Mr. Velasco, Engineer, 35 years in Repair of machinery / Mr. Santoyo, Engineer, 40 years in Anti-seismic Foundations / Mr. Morales, Engineer, 23 years in Geohydrological Resources / Mr. Meli, Engineer, 40 years in Structural Design / Mr. Van Ruymmbeke, Engineer, 30 years in Environment / Mr. Pineda, Engineer, 37 years in Data and Business Continuity / Mr. Baters, Engineer, 23 years in Audits of systems against fire / Mr. Barranco, Engineer, 20 years in Marine Structures / Mr. Zapata, Engineer, 40 years in Heat Exchange Processes / Mr. De Esesarte, Engineer, 20 years in Chemical Processes / Mr. Del Conde, Engineer, 33 years in Cartography, Satellite Photography and Topography / Mr. Carbajal, Engineer, 30 years in Renewable Energies / Mr. Cordoba, Engineer, 30 years in Exploration and Mining / Mr. Hueicochea, Engineer, 31 years in mines / Mr. Vega, Engineer, 20 years in Continuous Improvement of Mechanical Processes / Mr. Straulino, Engineer, 40 years in Restoration of Movable Property / Mr. Avena, Engineer, 30 years in Structures / Mr. Morales, Engineer, 30 years in Hydrological Resources, and Environmental Engineering / Mr. Hernández, Engineer, 15 years in Oil & Gas / Mr. Tapia, Engineer, 25 years in Financial and Cyber Fraud / Mr. de los Ríos, Engineer, 30 years in Naval Expertise / Mr. Plano, Engineer, 37 years in Naval and Maritime Science / Mr. Zapata, Engineer, 32 years in Heat Exchange Engineering / Mr. Salazar, Engineer, 40 years in Generation Plants / Mr. Aguayo, 25 years in Integral Safety, Occupational Health and Environmental Management, Engineering in Disaster Management/ Mr. Audefroy, Doctor, 35 years in Architectural Projects / Mr. Fuentes, B.A, 25 years in Valuation of Art, Jewelry and Antiques/Mr. Menanche, Engineer, 30 years in Metallurgy/Mr. Bautista, Engineer, 30 years in Hydroelectric Plants, / Mr. Solares, Engineer, 22 years in Valuation and Appraisals for Banking, Commercial, Fiscal Purposes and Insurance.



# **Quality controls**

# How to make sure that everything is done as it should be?

To make sure that work is done properly and in the right time, we use the following tools:



- Admission test kit, with an acceptance rate of 15 to 1. Clear and practical written work orders for each of the jobs performed.
  - SinGest, proprietary internal management platform to monitor the progress
- and quality of work.
- Cross verifications of substance and form in the reports.
- Performance bonuses, according to the results of each team member.
- A fleet of vehicles and more than 50 non-destructive inspection teams to take inspections beyond just ocular examination.
- An average of 80 hours per year of training on issues related to risks.
- Customer satisfaction survey once a job is finished.



### Real aggregate values

# Depending on each case, we provide much more objectivity with the following tools:

Carrying out inspections on portable digital devices



Dashboards of results in Microso<sup>†</sup> B.I. of trends of identified risks, follow-up of recommendations, etc.





Flights with drones and realization of threedimensional or orthomosaic digital models.



Three-dimensional laser scans of any space with high density point clouds.

#### Non-destructive testing during inspections



**Specialized transport inspections** 



Specialized training for groups of policy holders



**Inspections specialized in Human Error** 



Niew 360°

Virtual tours for foreign reinsurance companies



Monitoring of trends of critical variables of SCDs (distributed control systems)

### How to find us

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#### Administration

#### Administration and Billing

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#### Senior Engineer

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