

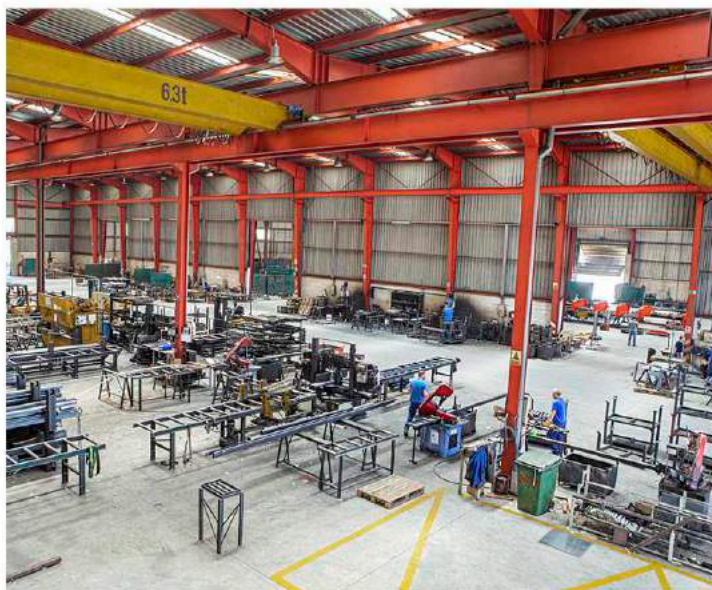
# TUNNEL AND GALLERY FORMWORKS EXPERTS



Leading company in the manufacture of  
formwork and steel structures with more than  
30 years of experience.

**Project catalogue**

## FACILITIES



We have **5000m2** for the preparation of the **material** and the development each production phase. We do the entire **manufacturing process** of the project from cutting, assembly, welding, painting and including shot blasting.

We have a **qualified team in constant training**, specialized with the latest techniques in the market.

Our philosophy is a well done job and our clients prove it.

After more than 30 years in the sector, Caldibe presents a **high value positioning within the custom-made formworks and steel structures**.



We are experts in the manufacturing of formworks and steel special structures. We carry out projects of any size and difficulty.

Our technical team will advise you if you require.

ENGINEERING

ASSEMBLY & WELDING

SHOT BLASTING

PAINTING



We understand the reality of today's companies, it is possible that last minute **emergencies arise** and quick **solutions are required**. We are used to these situations and **we know how to solve them**.



# CERTIFICATIONS



According to the European Directive on Construction Products, all products manufactured to be incorporated into construction works, both building and civil works, throughout the European Union's internal market must have their **CE mark** in accordance with the European reference standards. In the case of metal structures, this standard corresponds to **EN 1090**.

**Caldibe S.A.** has this accreditation as well as the **ISO 9001:2015** certification.



Welders and processes are governed by international requirements established in the **EN-9606, EN-15609, ISO-3834**.

Caldibe has its own IWE.



Our production processes are based on **strict quality standards** that are reflected in the final projects.



We are **CESOL member**; Spanish Association of Welding and Joining Technologies,



Our clients have the peace to know that a **job done by Caldibe** is synonymous with a **job well done**.



## MACHINERY

### ESSENTIAL MACHINERY

- We have 20 semi-automatic MIG/MAG welding machines.
- 4 Hydraulic punching machines of 90 and 110 tons.
- 5 Band Saws.
- 3 Blending cylinders.
- Machinery for the transformation of steel.

### SPECIAL MACHINERY

- Oxycut for large thicknesses.
- 2 High definition plasma
- 4 roller hydraulic cylinder
- Shot blasting machine (SA 2 1/2) for treatment by impact with which an excellent degree of surface preparation.

### LIFTING EQUIPMENT

**Self propelled crane** of 60 tons and **bridge cranes** with capacity up to 12Tn.

Indispensable equipment for both material loading and mobility







## SERVICES

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SELF-SUPPORTING FORMWORK

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SELF-REACTING FORMWORK

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FULL ROUND SECTIONS

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INVERTED SECTIONS

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EXTERNAL FORMWORK

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NICHES FORMWORK

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TRANSITION FORMWORK

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BAY-PASS/GALLERY FORMWORK

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KICKERS, WEDGES

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WIDER SECTIONS

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REINFORCEMENT CARRIERS

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CUSTOM MACHINES

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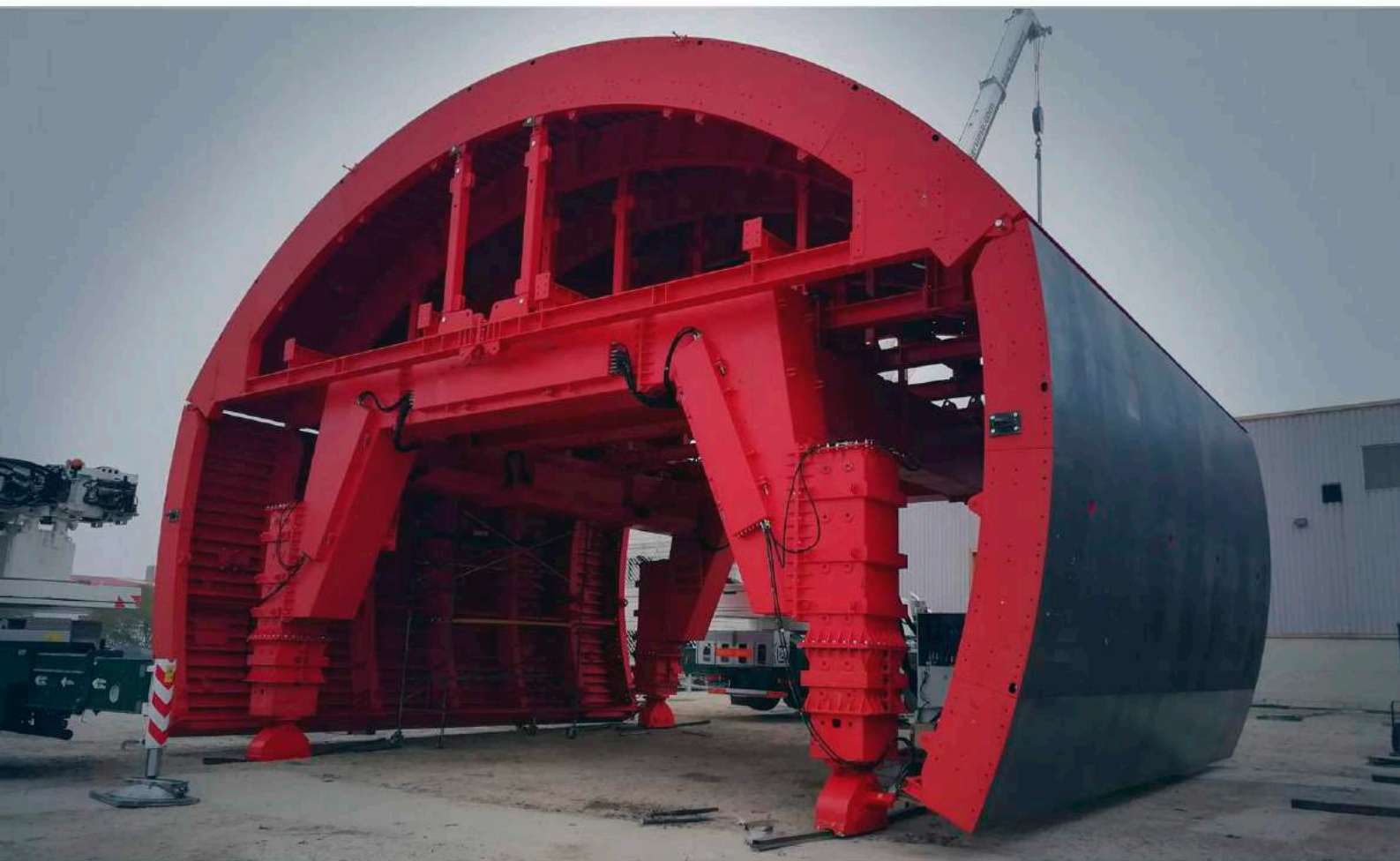
**Any special-custom steel solution**

## TUNNEL FORMWORK

### EGLINTON CROSSTOWN TRAIN TUNNEL

Eglinton Crosstown Light Rail Transit is a **light rail line** located in Toronto (Canada). It's a 19km rail line, 10km of which are subway.

- Technic data: **200 tons** and 9 metres high.
- Material: manufactured in **carbon steel type S-275 JR**.
- Year of manufacture: **2018**
- Engineering developed by client (Peri SAU)







### CARBALLINO TUNNEL

Manufacture of **carriers, formwork and kickers** for concrete lining in tunnels and cut-and-cover tunnels.

Formwork of **180 tons**.

Year: 2008



### CHURRIANA TUNNEL

A tunnel crosses the Churriana mountain range with a **length of 1,280 metres**.

Weight: **238 tons**.

Years: 2009.

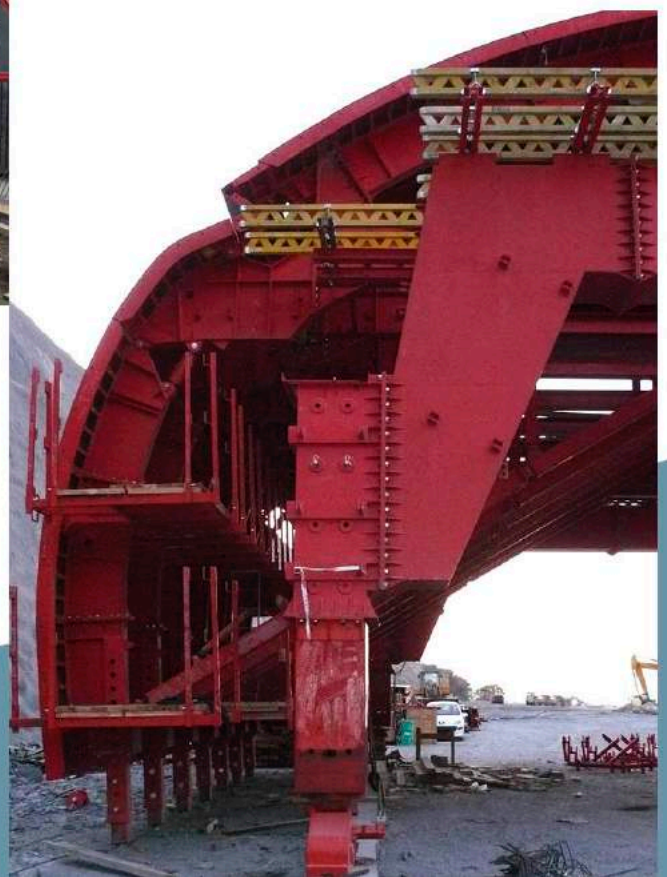


### ZVEROTICKY TUNNEL

The Zveroticky tunnel is located on the Soběslav - Doubí section in the **Czech Republic**. The tunnel is **370 metres long** and 3 metres high-

Formwork of **47 tons**.

Year: 2020



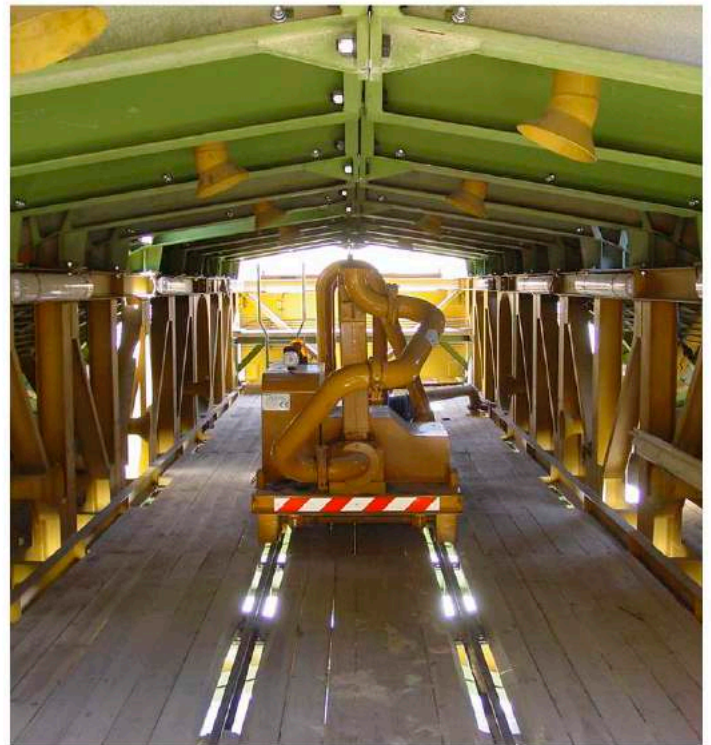


## JABLUNKOV TUNNEL

The Jablunkov tunnels were 2 railroad tunnels that passed through the Jablunkov passage. Between 2007-2013 they were reconstructed leaving one as a double-track tunnel and the other as an exit corridor.

Caldibe manufactured the **carrier and formwork** for concrete cladding. Also **auxiliary formwork** for niches and **concrete distributor system**.

- Technic data: **100 tons** and 12 m. of length.
- Year of manufacture: **2009**
- Engineering developed by client (Peri SAU)





## VALLIRANA TUNNEL

Carrier and formwork for concrete lining. Auxiliary formwork for kickers. **Hydraulic drive.**

**Formwork of 70 tons.**

Year: 2017



## THE ORDES VARIANT

The Ordes Variant project is part of the Atlantic High Speed Axis from Ferrol to the Portuguese border.

Manufacture of **formwork (180 tons) and carrier.**

Year: 2004



## PEDRALBA & BERROY TUNNEL

The Cerro de Berroy tunnel is the second **most emblematic project** after the Pedralba tunnel located in the province of Huesca.

Weight: **180 tons.**

Lenght: 12m metres

Year: 2008.



## CONTRERAS TUNNEL

Manufacture of **carrier and formwork (15m)** with hydraulic drive.

**Formwork of 210 tons.**

Year: 2007

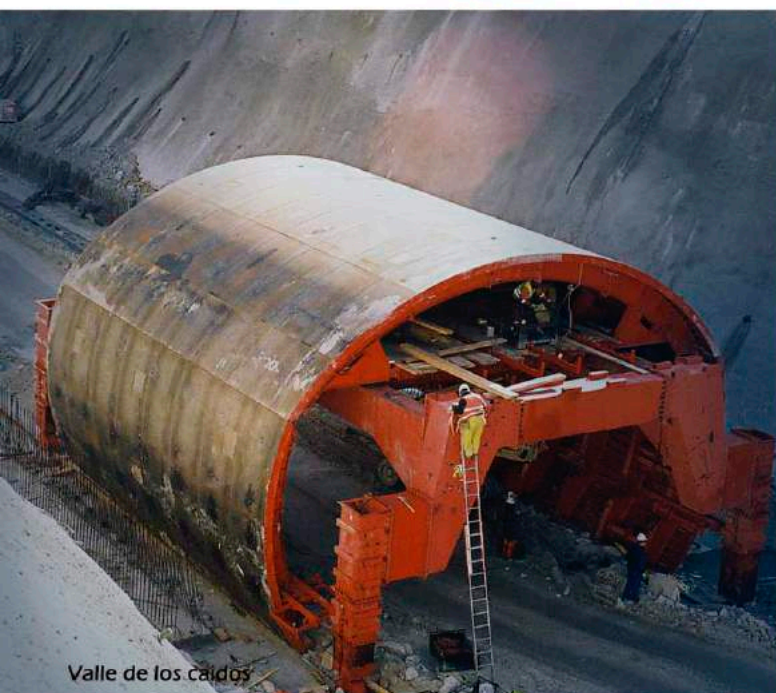
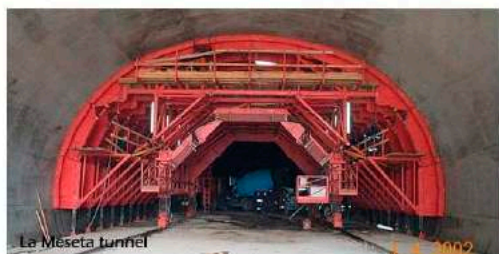
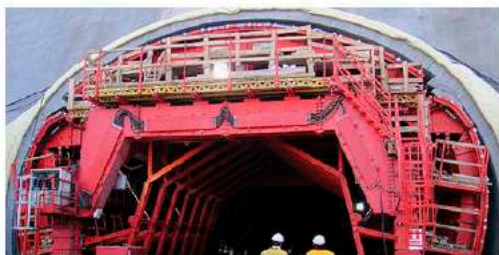




## FORMWORKS FOR TUNNEL

Our clients know the quality of our work and, for this reason, **we are a reference manufacturer for this type of formwork.**

We have manufactured many formworks for tunnels throughout our history, the most of them under the client's engineering.





# FULL ROUND

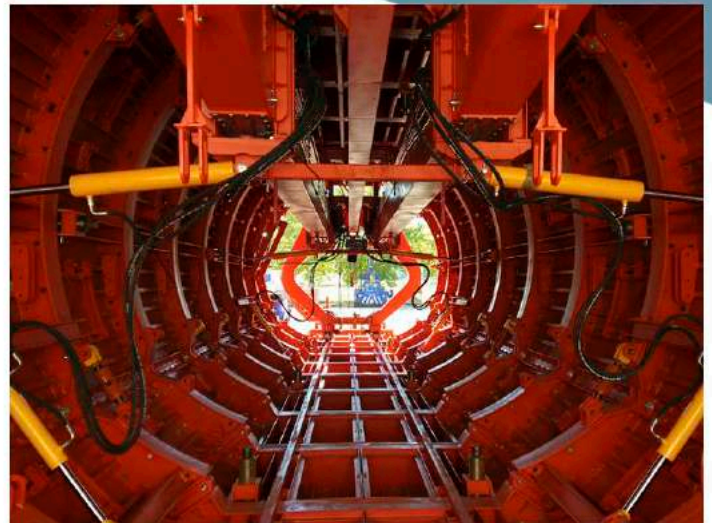
## XACBAL TUNNEL

In the year 2016, we manufactured the tunnel formwork for the **Xacbal hydroelectric power plant**, located in Guatemala.

This formwork presented a very complex hydraulic system.

The project also included the transport carrier.

- Technic data: **120 tons.**
- Year of manufacture: **2016**
- Engineering developed by client (Peri SAU)

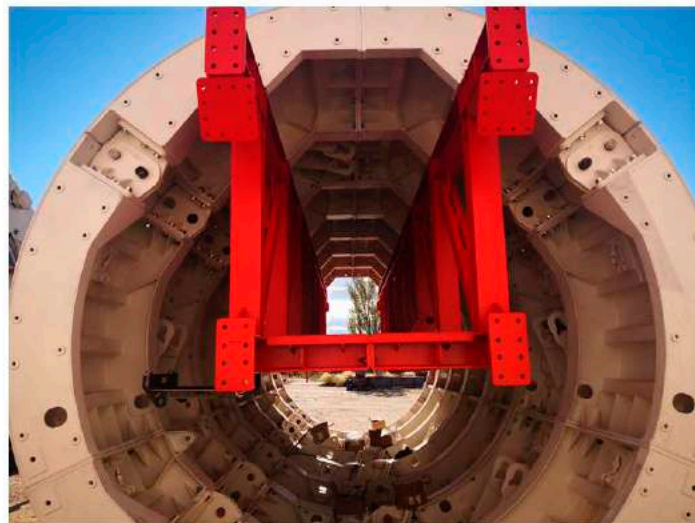




## TUMPEN TUNNEL

Formwork for the construction of a water tunnel to be used for the installation of a power plant. **The Tumpen tunnel** is one of the most **complex full round section** that we have ever manufactured.

- Technic data: **40 tons**
- Manufacture formwork, carrier and platforms
- Year of manufacture: **2020**
- Engineering by client (kern Tunneltechnik)





## INVERTED SECTIONS

### GUATEMALA RENACE III

- Technic data: **44 tons.**
- Year of manufacture: **2015**
- Engineering developed by client (Peri SAU)



## EXTERNAL SECTIONS





## GALLERY FORMWORK

### O'CAÑIZO GALLERY

This formwork was used to manufacture a gallery in the O'Cañizo tunnel, belonging to the high-speed line to Galicia.

Year of manufacture: **2016**

Engineering developed by client (Peri SAU)



### BY PASS GALLERY (UNDURRAGA DAM)

Year of manufacture: **2016**

Engineering developed by client (Secozam S.A)



### FOLLOW LINE GALLERY

The Follow Line project consisted of the construction of **two twin tunnels** between the cities of Oslo and Ski.

Caldibe's participation in this project was based on the manufacture of the formwork used for the lining of the **connection galleries** between these tunnels, including the carrier for moving them.

Year : **2018**

Engineering by client (Peri SAU)



# VAULT FORMWORKS



The formwork for vaults, like other types of formwork, is developed under very precise guidelines that are the ones that contribute to the success of the project.

At Caldibe we provide solutions for vault formworks, whatever the design and engineering.

Whether they are supported by cantilevered formwork, fixed on a transport carrier or by additional support structures, our work is of high quality and this is demonstrated by the recurrence of our clients.

## VILLALBA DE LOS BARROS DAM

Villalba de los Barros Dam was built on the bed of the Guadajira River, in Extremadura (Spain). It has two reinforced concrete galleries.

The first one is the perimeter gallery to control the contact of the dam with the foundations and the second one is the transversal gallery to the dam, which is used to divert the river during the construction phase.

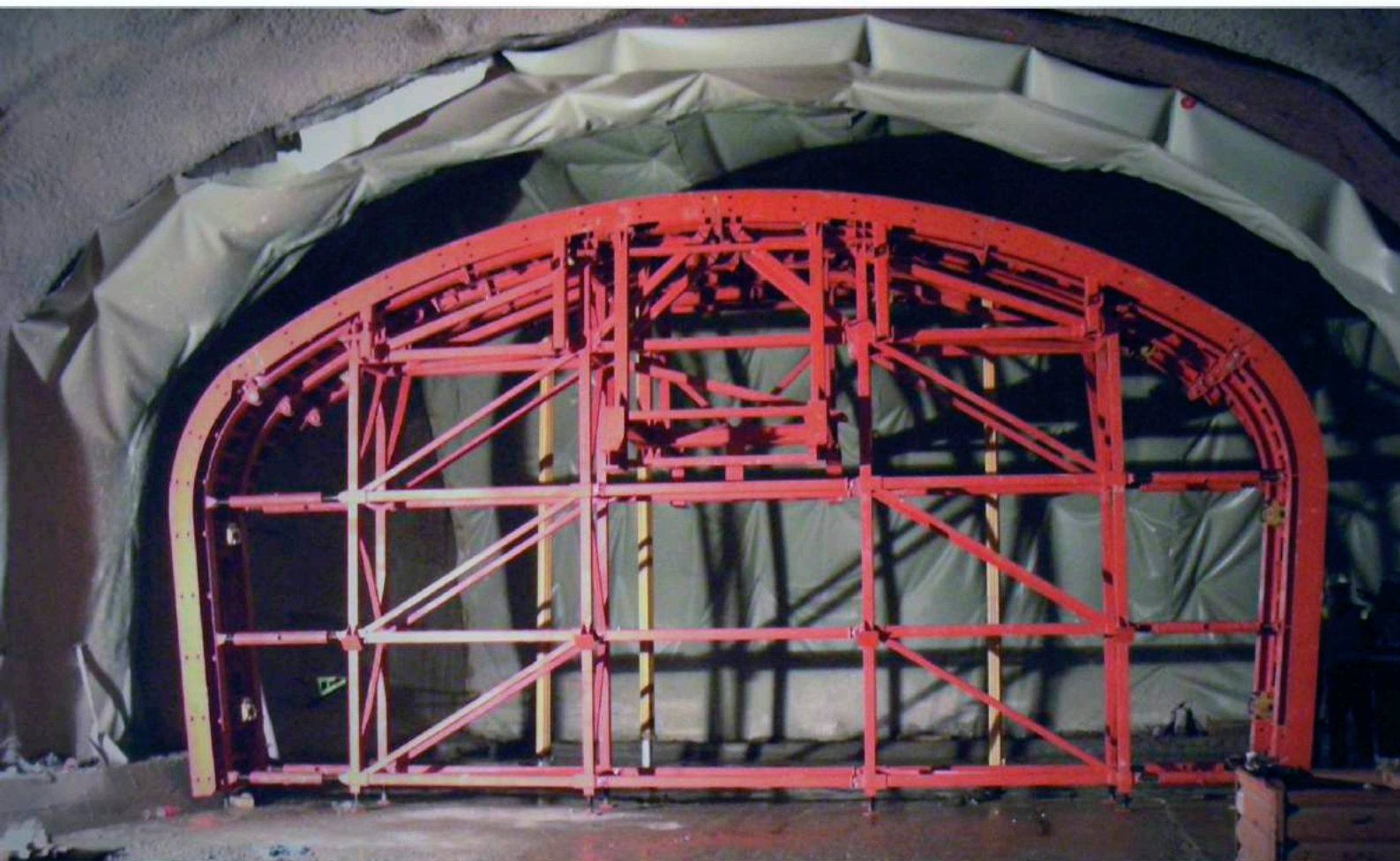
Year : 2008

Engineering by client (Peri SAU)





## TUNNEL-GALLERY TRANSITIONS





## KICKERS/NICHES/WEDGES





## And also...



### Refurbishing

We recover used formworks and give it a new live. This way many clients could reuse their old pieces for a new work. We have specialised machinery for this purpose



### Repairing

Any damaged part or piece of a formwork could be fixed up. We have extensive experience in this type of service.



### Geometry adaptatios

Modifying used formworks we can adapt them to compose a new final section for a different construction site.

## Competitive & Resolute

Efficiency factors of our processes





## WHY CHOOSE US?



### Quality:

Our production processes are governed by **strict quality standards** that are reflected in the final projects. Our clients know that a job made by **Caldibe** is synonymous with a **job well done**.

### Production:

Fulfilment of production deadlines. We have an **analysis and development** department that manages the manufacturing process by **measuring delivery times** to ensure that they are reliable and **real**.

### Experience:

After more than 30 years in the sector, Caldibe has forged a high value positioning within the formwork and metal structure market. Both in terms of meeting production deadlines, as well as standards and quality, the Caldibe brand image is a letter of introduction that is recognized and valued especially nationally and increasingly internationally.

### Resolute:

We **provide answers to all engineering** needs, without dimension limits. Whether simple structures or highly complex work, **we develop all type of projects**.





## CONTACT

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