



A complete service, from the feasibility study to the design and construction of **small**, **medium and large metal framing structures**.

VEXA creates metal framing works for the industrial sector as well as for the private construction, both civil and public. We give shape to the ideas of designers in the fields of light, heavy and special metal framing. Our highly qualified workforce operate with our own means, ensuring accuracy and precision at every step of the construction.

### **Certified** Company









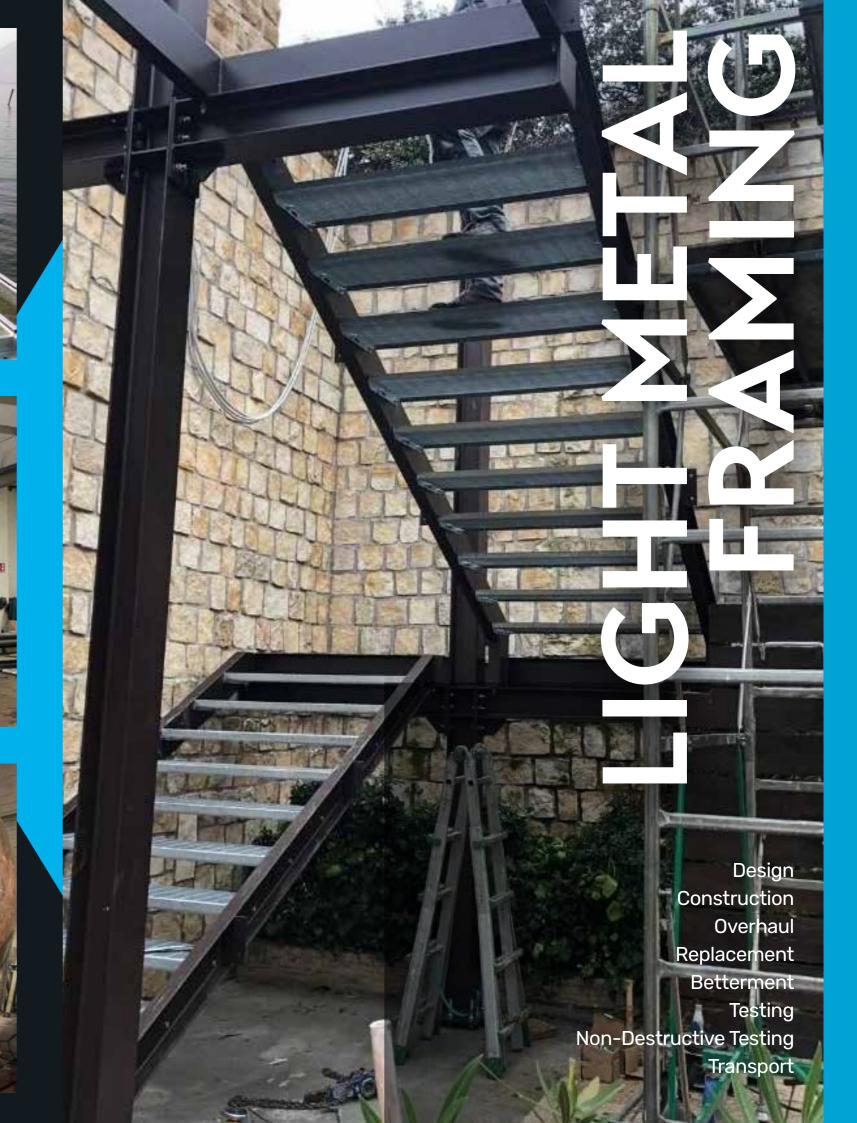


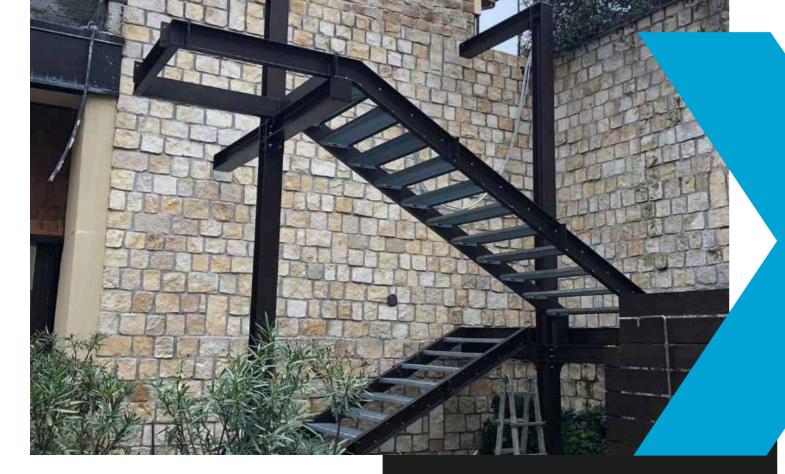




HEAVY METAL FRAMING

SPECIAL METAL FRAMING





## METAL FRAMING WORKS FOR RESIDENTIAL STRUCTURES

VEXA intervenes in the enlargement works of tourist and residential complexes with an innovative design.

#### **TECHNICAL INFORMATION**

For the accommodation facility in the pictures, it was required to **create a link** between the pre-existing building and the new body of the hotel.

After accurate surveys, VEXA took care of the **development of the drawings**, the construction of the single parts at the workshop and their assembly at the building site.

The project included the construction of stairs, **connecting bridges**, safety **finishing parapets**, load bearing structures for **lifts**. Our personnel worked on painted iron.





# INTERIOR DESIGN PRODUCTS

VEXA light metal framing also includes the construction of **coatings for lifts** and **gratings**.

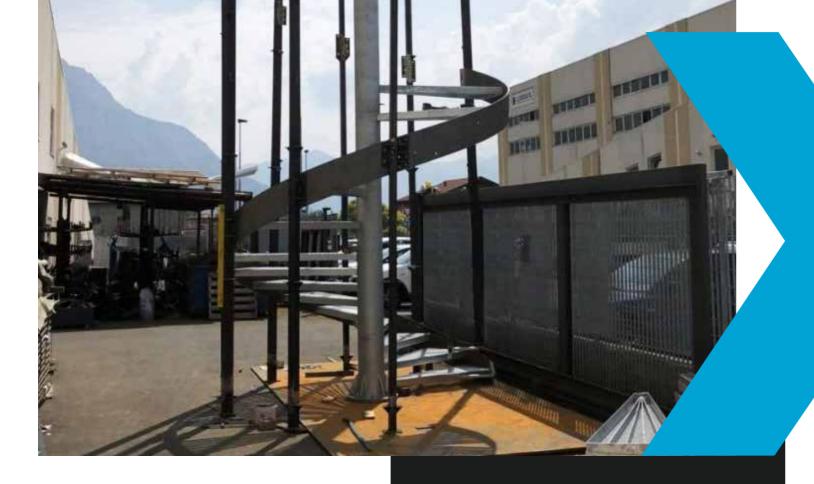
#### **TECHNICAL INFORMATION**

The pictures show some details of works with a **mainly aesthetic function**, that were built for a shopping mall. In order to ensure a delicate and elegant yield, we chose to use **aluminium**.

In this case, the **lift coating** is made of longitudinal members built at our workshop. Once powder-coated, the members were coupled with a joint system at the construction site

The **gratings** are instead made of a tubular perimetral frame. To ensure the quality of the finishing of these hanging structures we avoided welding, preferring **screwing with self-drilling screws.** 





## HELICOIDAL STAIRS

Survey, design, hot-galvanising, construction, preassembly at the workshop, **ad hoc assistance** for the on-site assembly.

#### **TECHNICAL INFORMATION**

The staircase in the pictures was built for a shopping mall. Given the features of the building, a **helicoidal-shaped structure** was evaluated as functional.

The load bearing structure **in steel** is made of a central pipe from which the steps develop. On the outside there are rectangular tubulars to which a stringer, a handrail and a protection barrier are attached.

Because of the proximity to the sea, the coating panels in aluminium were painted following the parameters of the quality label **QUALICOAT**.



## CYCLE-PEDESTRIAN BRIDGES

The structure in the pictures **improves the security of pedestrians and cyclists** in a section of the cycle lane that, prior to this work, was rather critical.

#### **TECHNICAL INFORMATION**

VEXA carried out the surveys with great precision, considering the bending of the section and the presence of a small difference in height. Our workforce took care of the design, construction, laying and assembly of the components.

The bridge presents a load bearing structure in cantilevers fastened with log bolts in the reinforced concrete. Every frame has its own features and it is bolted to the beams in specific slots. A composite wood floor lays on the frames.

The work is completed with a steel parapet, three stainless steel wire ropes, an iron toeboard and a handrail supplementing the guardrail.









## INDOOR STAIRCASES

Our heavy metal framing gives life to our customers' dreams. As for this **metal staircase**, a product of **interior design**.

#### **TECHNICAL INFORMATION**

The pictures show some construction details of a three-flight staircase, designed for the internal links of a **building in the old town centre.** 

So that the stringers followed the shape of the steps, we carefully cut the plates. VEXA took great care also of the drillings, the threads and the joints, to hide them as much as possible from the sight.

In this case, **solidity** and **elegance** go with significant dimensions and, most of all, with **an important weight.** The stringers alone weigh about 2 tons.







## BUILDING ROOFING STRUCTURES

Among our heavy metal framing works there are **metal covers for large buildings.** 

#### **TECHNICAL INFORMATION**

The trestles that you can see in the pictures are the base of a metal structure of **2,000 m2 for 170 tons of weight.** 

VEXA started from the prefabrication of the single elements, then assembling and welding them in subgroups. This work was possible thanks to the creation of a template, used for the **construction of all 54 trestles.** After the test preassembly of the whole structure and the non-destructive testing, the components were sent abroad with **an exceptional transport operation in 27 times.** 

What one cannot see although it lays at the very heart of a big and complex work like this is the **time-optimisation process.** VEXA organised its personnel on double shifts, to respect the intermediate deadlines of shipment of the components.







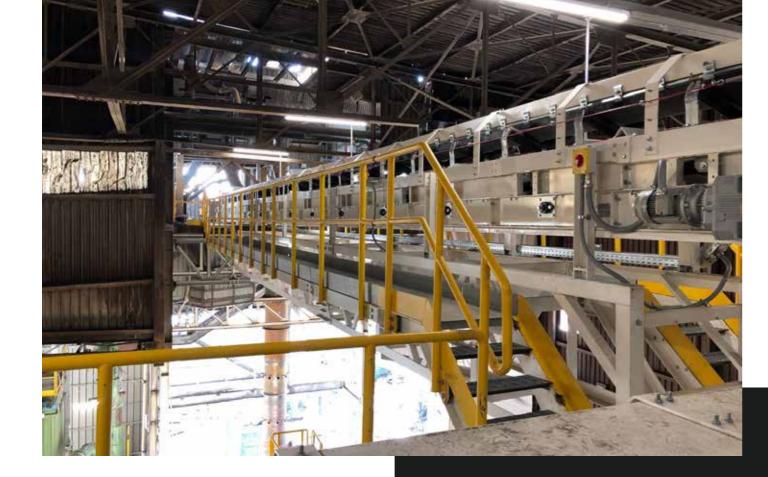
The passages in the pictures show how heavy metal framing can be applied **also in the private construction sector.** 

#### **TECHNICAL INFORMATION**

The palace of these remaking operations is in the town centre. The building needed an **enlargement both in width and in height.** VEXA took part in the reinforcement and enlargement operations of the ground floor and in the building of the 8th floor.

Our personnel carried out the **surveys**, the **construction of the components at the workshop** and their **assembly at the building site**. Among the built elements there are: tubular columns, beams, pipe bracings, other structural reinforcement components. The components were ground-anchored and fastened with small blocks to the reinforced concrete structure, or otherwise bolted.





## FURNACE LOADING SYSTEMS FOR GLASSWORKS

VEXA takes part in the **ex-novo construction of furnaces for glassworks** that, because of the wear, need special attention.

#### **TECHNICAL INFORMATION**

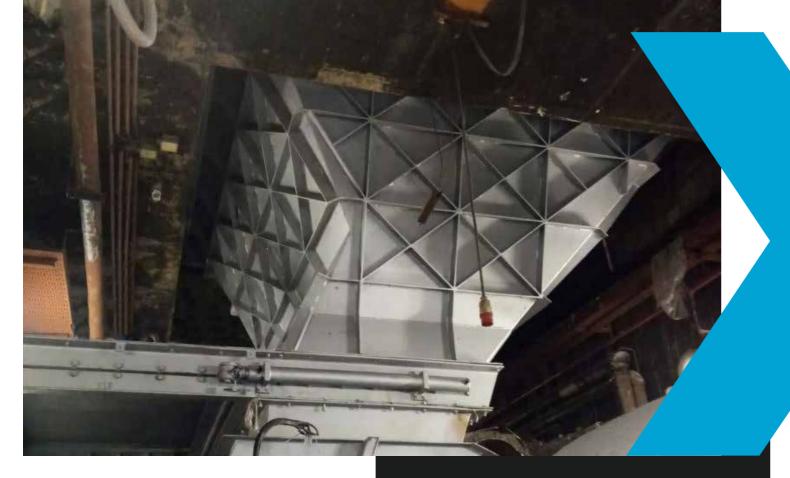
Our personnel have gained experience in the construction of the **structures of storage and transport of the material that is used to stock the furnace.** 

The work also entails the **construction at the workshop** of beams and columns, trestle beams,
plates and gratings for walking surfaces, storage
silos. After construction we take care of the **preassembly** in the area next to the plant. After this
step, we proceed with the **laying** of the structure
and of the conveyor belts for the feeding. Our service
is completed with the coating and bolting.

Intervening inside a glassworks plant means to be aware of **the importance of timing**. VEXA always takes into great consideration the correct coordination **with the other companies** involved in the process.







## HOPPERS FOR INCINERATORS

Beside the field of metal framing, VEXA has been working for years at the service of steelworks and in the construction of special equipment. Thanks to these **multi-sector skills** we can operate also on the plants of waste incineration.

#### **TECHNICAL INFORMATION**

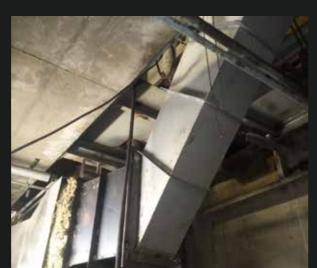
These pictures are related to an incinerator where it was necessary to intervene on the **hoppers of the two feeding lines.** 

VEXA operated on the two lines at the same time. This speeded up the process of demolition and construction. Our workforce took care of the dismantling, revamping and ex-novo construction, reassembling at the plant.

The main components are made of a conical part, a gate placed at an intermediate position and a water-cooled conduct. The structure is in **wear-resistant steel** with **reinforcement metal structures** applied on it.

Considering its big dimensions, the piece was designed to be divided into two and then reassembled at the construction site.







VEXA also works with special metal framing. This has given our personnel sound experience **to build metal tanks ex novo.** 

#### **TECHNICAL INFORMATION**

The product in the pictures weighs **almost 6 tons** and it was made starting from the development of construction drawings and then taking care of the construction itself and finishing with the organisation of the exceptional transport.

To optimise resources, a VEXA team focused on the **preparation of the components**, while the other one worked on the **connecting pieces with the welded flanges.** Operations included: bending, assembling, chamfering of the plates to allow the full penetration welds.





## CYCLE-PEDESTRIAN PATHS

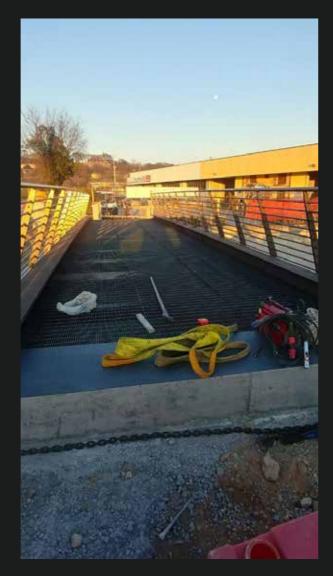
In the field of special metal framing, VEXA also builds **infrastructure** works.

#### **TECHNICAL INFORMATION**

The bridge in the picture was built to make it possible for cyclists and pedestrians **to pass over a channel.** 

The bridge is in weathering steel and it is mainly made of two beams, the main framework and the walking surface. VEXA carried out the construction at its own workshops, that **the work left already assembled and welded**, ready for the exceptional transport.

Once it arrived at the site, with speed and precision we carried out the operations of assembling and laying. This made it possible to ensure a fast reopening to traffic.





### **Certified** Company









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#### **CERTIFIED COMPANY**



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