

Eco-design of a boiler shelter

by Jean-Claude ESCRIVA / 2020-10-15 15:44:37 / France / 4821 / FR



Year of commitment : 2020

Green energies : Wood, Cogeneration

Water cycle : Rain water

Circular economy and waste management : Eco-Design, Industrial Ecology, Preservation of natural heritage, Optimization of resources, Bio-based materials, Save of resources

Biodiversity & Ecosystems : / Carbon capture /



21 107 €

Builder

Sofrinnov

Manager / Dealer

Alliaserv

GENERAL INFORMATION

Les Ateliers des Jeunes Handicapés (AJH) is an associative structure that hosts and provides jobs through several work-based learning centers. With multiple centers in Haute Garonne, the AJH have embarked on the renovation of their centers and have opted in particular for the implementation of wood pellet boilers.

On the occasion of the renovation of the "4 seasons" center located in the town of Bois de la Pierre, the AJH entrusted the Alliaserv Group via its subsidiary GTPFM with the construction of a building to house a Hargassner pellet boiler, insisting on the virtuous and united nature of the project.

What could be more natural for Alliaserv than to create an ecological device with a building complex also made of wood. Thus, Alliaserv entrusted Sofrinnov with the construction of a dedicated building.

Based on the **Sylcat patented construction principle**, Sofrinnov created a partitioned building in two parts, one for the boiler and the other for the pellet silo, all

placed on a 0.4m hedgehog made of compacted gravel.

Responding to the request of the AJH client, Sofrinov called on a **local integration project** led by ETRE (the Ecological Transition School) as well as the carpenters of the formation of the 3PA association in Lahage (31).

The boiler part, it was requested to make **fire walls 2 hours**.

It is with the help of a Fermacell complex (2x15mm fermacell + 70mm rock wool + 2x15mm fermacell) that the walls reach the objective reinforced by Aestuver slabs on the ground. Everything is accessible by a 1/2 hour fire door from Novoferm.

The silo part is ensured by the installation of 2 cut sides which direct the pellets in the center towards the supply auger.

These cut sides are covered with galvanized steel sheets to facilitate the flow.

Progress Status

Delivered

Data Reliability

Self-declared

Funding Type

Private

Website Enterprise / Infrastructure

<https://www.facebook.com/sylcatfrance/photos/a.1141786139277455/3137326363056746/?type=3>

Sustainable Development

Attractiveness :

The customer requested the integration into the production team of young people in training CAP carpenter as well as an integration project (association 3PA ETRE). We had the opportunity to train 2 carpenters and 2 people from the integration project.

Well Being : Monitoring of APAVE prescriptions.

Social Cohesion : Integration of the integration workcamp, explanation to disabled young people of the stages of the workcamp.

Preservation / Environmental Improvement : No influence on the concrete floor, only hedgehog slab of grave and structure only in wood and natural materials.

Resilience : Everything is removable and rebuildable. Each part can be changed.

Responsible use of resources :

Dry site, no water consumption. Use of recycled materials (pallets).

The boiler provides heating for the building.

Testimony / Feedback

The project was initiated in November 2019 with a presentation of the pallet structure to the end customer, the Ateliers de Jeunes Handicapés (AJH) within the CAT the 4 seasons installed at Bois de la Pierre. The operator who owns the boiler, the company Alliaserv, being very committed to the ecology and the issue of global warming, wanted to carry out a first series at a customer with the same values.

On the occasion of this meeting, the AJH sensitized to the problem of CSR asked us to kindly bring us closer to two associative structures that they host, the association 3PA, which within the framework of its activities carries out a project of integration, and ERTE the Ecological Transition School which provides CAP training in carpentry.

It was agreed to have a team of 2 people from each of these structures work during the site. At the start, the structure was created with the 2 carpenter CAPs who were involved in the assembly of the framework up to its coverage. At the end of the day, the 2 people from the integration site intervened to carry out the finishing work, in particular the interior fittings (fermacell facing) and the parts specific to the silo (inverted frame, and under the receptacle system) as well as the cladding of the building.

Governance

Workshop for Young People with Disabilities (AJH)

Holder Type : Private Company

Sofrinov

Builder Type : Other

Alliaserv

Manager / Dealer Type : Private

The installation of the boiler and the building that houses it was carried out under the control of the Ateliers des Jeunes Handicapés (CAT the 4 seasons of 31 - Bois de la Pierre). The company Alliaserv is the operator and owner for the next 20 years, a transfer of ownership is planned to the AJH at the end of the initial contract.

Business Model :

For Sofrinov: sale of building.
For Alliaserv: sale of kWh of heat.

Sustainable Solutions

Eco-design of a boiler shelter

Description :

The ground connection is ensured by the installation of a draining gravel slab on which a bed of pallets serves as the ground. The walls are raised using the patented SYLCAT method, which makes it possible to consider that the pallets are 1m² wooden blocks linked together by a dedicated piece of wood. The bracing is provided by OSB slabs for the silo part and by a 10cm complex of Fermacell and rock wool on the boiler part. The framework is carried out using beams in lame OSB laid in staggered so as to give the inclination and the slope to the roof. The walls are clad in Douglas with vertical slats laid in overlap.



For the interior of the silo an inverted frame made of pallets which pour the pellets into the center of the collector where the endless screw is located. A half internal frame accommodates the two jet breakers to prevent the bursting of the pellets during filling.

- Energy/climate :
- Circular economy
- Infrastructure
- Climate adaptation
- Low-carbon materials/ infrastructure

<https://sylcat.eu/>

Company (es) Website :

Company (es) Website :

Company (es) Website :

Photo credit

Sofrinov ; Jean-Claude Escriva

Contest

Reasons for participating in the competition(s)

Bâtiment réalisé en palettes recyclées. Intégration d'un chantier d'insertion. Formation de menuisiers.
Matériaux naturels pour la construction.
Délai de réalisation court (14 jours).

Building candidate in the category

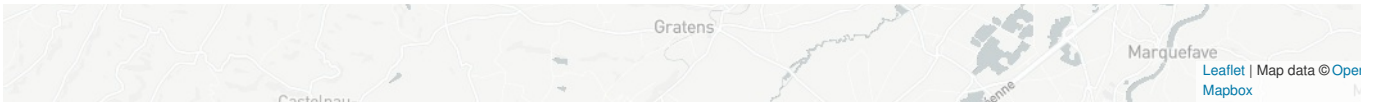


Grand Prix Infrastructure Durable



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