Fine Art Storage
An environmental and economical storage approach

ARCS Biennial Conference 2019
Sustainable in what we do

Sustainability Circle

Packaging, Storage and Trucking are the company’s core competencies. Our aspiration is to be sustainable in every one of them. Today we focus on Storage.
1. Storage
Current market situation

Only 20% of Fine Art is shown in museums or exhibitions. About 80% is permanently stored in depots.

Demand for suitable but affordable and sustainable storage facilities increases steadily!
hasenkamp group storage network

Storage Standards

- Concrete construction with highest building insulation
- Permanent and constant climate conditions
- Highest security requirements
- Lowest energy consumption

Total storage space: approx. 1.2 Mio. sq.ft.
Challenges you have to face when planning a Fine Art Depot

- Conservational standards
- Locations
- Individual user preferences
- Governmental directives
- Budget and cost limitation
- Security standards
- Flexible and modular storage solutions
- Energy efficiency and operational costs

How to combine?
...using pre-fabricated, highly insulated and non-combustible concrete wall/roof elements

**Advantages:**

High passive resistance to outside climate conditions

Standardized products = Reducing costs and construction time
...making use of **geothermal energy** for heating and cooling the entire depot

**Advantages:**
- Ecological friendly
- No CO2 emission
- Low energy and maintenance costs
- Sluggish system

Merge ecological and economical challenges by ...
Self Sufficient Warehouses

Less than 1,8 kWh/f² average energy consumption per year!

We outperform the highest European energy class by more than 55%

All electricity from solar panels - No gas or oil consumption necessary

Strive for transferring warehouse into a PlusEnergyDepot - The solar panel will produce more green electricity than needed to maintain the entire depot.
Climate graph for Munich (January – September 2019)

Constant climate throughout the entire year
Even at high peaks (e.g. -6 °C / +36 °C) the climate inside the depot remains stable
By using an intelligent building control system, we can monitor the climate conditions on each floor and are able to take countermeasures if climate conditions become volatile
Individual storage solutions possible

Puristic basic setup, **BUT**…

...possibility to implement individual storage solutions of all kinds according to user’s preferences.

• Sliding shelves
• Mezzanine construction to make use of the ceiling heights
• Private boxes
• Working spaces
• Ateliers
• Hanging racks
• Etc.
Individual storage solutions possible

Mezzanine installed with moveable shelves

All kinds of racks possible
Individual storage solutions possible

Atelier with inside crane

Hanging racks
Individual storage solutions possible
Individual storage solutions possible

Advantages:

• Possibility to install several zones with different climate requirements
• Easy to install beneath mezzanine
• No loss of usable storage spaces
2. Trucking
We strive to make our transports as sustainable as possible. To achieve this, we take a variety of measures:

- Modern fleet, equipped with fuel-saving technologies
- Foresighted route guidance to reduce emissions
- Area-wide network to reduce empty runs
- Support of dispatch by tools to avoid empty runs
- Pilot project: E-Mobility
- Driver training in fuel-saving driving style
3. Packaging
Current market trend in art logistics:

„Sustainability“

Reduction of plastic packaging
Our Answer

Flxsm – The Reusable System

- Made of 99% recyclable materials
- Robust materials enable consistent reuse
- Low crate weight to increase the load on the means of transport used
- Climate transparency enables lean logistics processes, which is a direct economical benefit for the client
- High climate, mechanical and organic protection
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