



**fibo intercon**

# Fibo Intercon helped build one of the world's first buildings built out of recycled concrete.

Fibo concrete batching plants are designed and built to a very high standard.

Our machines are designed to last more than fifteen years – this insures a very high return on your investment.

A Fibo batching plant has a dosing accuracy of  $\pm 3\%$  for standard machines and  $\pm 1\%$  for our pre-weighing machines. We can deliver high-quality concrete to BS 8500 and EN 206.

**Pelican Self Storage is one of the world's first buildings, built of recycled concrete. It has set new standards for sustainable construction and handling of construction waste.**

**The project is a pioneer project in the field of sustainable construction, and has received support from the Ministry of the Environment to develop constructively usable recycled concrete.**



The pioneer project is an example of how the positive development towards an increased focus on sustainability and circular economy in society can turn into concrete projects with significant environmental benefits.

## **The purpose of the project**

Due to the greater focus on minimizing CO<sub>2</sub> emissions in the construction industry, Pelican Self storage wanted to demonstrate how to produce concrete structures that have aggregates of crushed concrete and bricks from existing buildings.

The purpose of the project was thus to develop a total concept for on-site reuse of the heavy building materials (concrete and brick) that are today demolished.



**Henrik Jeppesen CEO  
Fibo Intercon**



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***Fibo Intercon  
After sales services***

Fibo Intercon offers our customers services throughout the product life cycle for long term benefits and reliable partnership.

Our service personnel can provide full support on-site and is ready to assist with the installation and servicing of plant and equipment.

We also offer a wide range of spare parts and training programs to give our customers a solid base to successfully operate and maintain their solution throughout its life time.



***Henrik Jeppesen CEO  
Fibo Intercon***

**The overall goal**

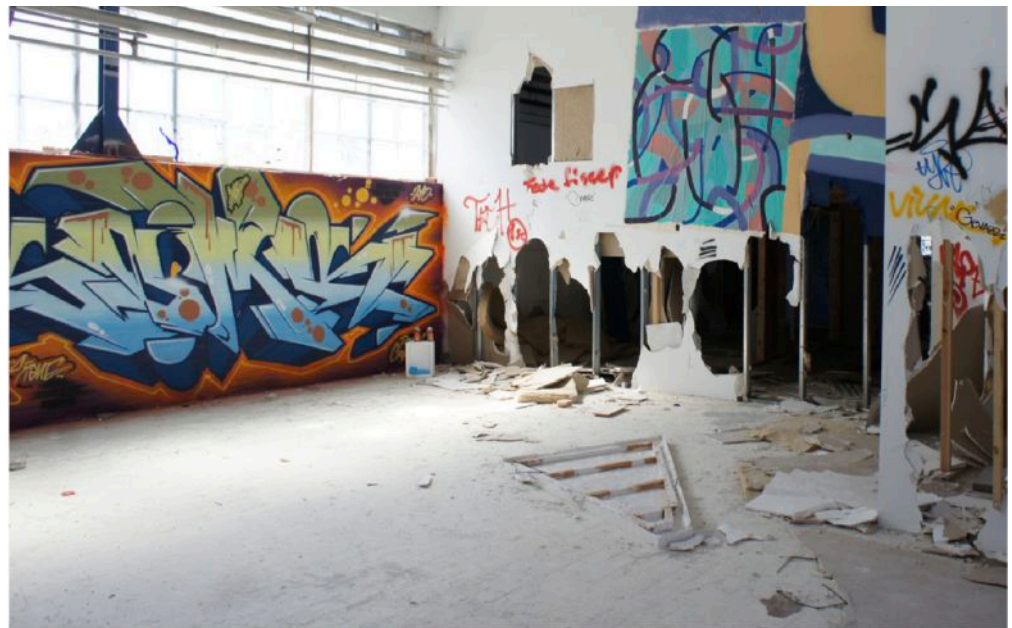
A goal was set that 80-100% of concrete on a building site should be recyclable for new concrete structures.

In this way they wanted to make it possible to save natural resources such as sand and stone.

When a concrete building is demolished today, the standard procedure is to crush the concrete and reuse the CO<sub>2</sub>-heavy construction waste for road refilling.

At Pelican Self storage, it was decided to challenge the standard procedure by re-using the crushed concrete from the existing buildings as aggregate in new concrete that was produced on site for the construction of a new warehouse.

In reality, this meant that the work with gravel graves was avoided for the production of the new concrete.



**With the Pelican Self storage project, the key question has been:**

What would happen if we imagined that concrete could be reused in new concrete or in new products, and thus become part of a continuous circuit, as it is, the case with so many other projects today?

Firstly, one it could reduce global CO<sub>2</sub> emissions - and the climate changes it creates markedly.

Furthermore, it will be possible to create an innovative development that, globally, will create sustainable growth



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Anders Lendager is architect MAA and founder and CEO of Lendager Group, which is an innovative construction group that specializes in cost-neutral sustainable construction with a particular focus on circular economy.

He is an expert in front of the circular economy and works with a long-term goal of making the Lendager Group globally market leader in circular economics and resource efficiency in three areas: architecture and urban development, strategy and analysis, and upcycle product development.

## The method

In this project, the crushing of the concrete took place on a mobile crushing plant that crushed the existing buildings to smaller pieces.

The concrete was crushed to a grain size of 0-32 mm.

That is, the sizes of the crushed material range from perfectly fine concrete dust to lumps with a maximum size of 32 mm in diameter.

An aggregate such as this cannot be used directly in new concrete, as the smallest fractions from the crushing will make the finished concrete weak.

In addition, it is very difficult to control the amount of water that must be put into the finished concrete if there is concrete dust in the mixture.

The solution to this was a sorting of the aggregate where the finest fractions were sorted. This made it possible to control the concrete properties very precisely in the concrete plant.



The main Contractor selected a Fibo Intercon concrete batching plant B1800 for the construction. The B1800 was chosen for functionality and reliability.

The production on the mobile concrete plant posed some challenges on the construction site, but it also quickly proved that there were a number of advantages to producing the concrete directly on the site.



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## High Quality Low Cost Concrete



Learn how to manufacture high quality low input cost concrete.

Text 07896 246 224 and request a copy



**Rick Van Boeijen**  
Sales Director  
Fibo Intercon

The challenge consisted mainly of the contractors having to do the concrete work in a different way than they were used to.

For similar projects, the contractor would typically use a laser screed for smoothing the concrete. A laser screed is a large machine that is effective for smoothing out very large concrete surfaces, where the concrete is laid out on the entire surface at one time.

But because of the chosen batching plant, the concrete came in the demonstration project in smaller batches. Which meant they had to solve the task differently. They therefore chose to use the traditional and more manual way, namely to lay out the concrete.

Usually, it is a heavy process to lay concrete out. But since they had the mobile concrete plant on the site itself, it was obviously very easy to adjust the concrete's consistency.

Moreover, for the same reason, the concrete was very fresh and therefore it was incredibly easy to work with. The two concrete workers could together lay out 1600 m<sup>2</sup> of terrain tires in one day.

The fact that they were able to deliver the fresh concrete just when they needed it and did not have to wait for the concrete trucks to come from a concrete manufacturer meant that the two concrete workers could work incredibly efficiently and without significant waste.

The omitted transport flows thus meant that only the exact amount of concrete needed in the square was produced, and at the pace that was required.

## Fibo Intercon - We reduce your construction time!

*"With a Fibo Intercon batching plants you will remain independent from concrete work There will be no waiting time and no risk of failure in delivery. You can produce concrete wherever and whenever needed."*



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**Price comparison  
example analysis  
between onsite and  
ready-mix**

Fibo Intercon concrete batching plant **B1800**, can produce 25 m<sup>3</sup>/hr, and have a daily output of 200 m<sup>3</sup>.

Buying ready mix concrete cost €115 pr. m<sup>3</sup>, - meaning 200 m<sup>3</sup> cost €23.000

Using the B1800 with the same mix onsite only cost €83pr m<sup>3</sup>, - meaning 200 m<sup>3</sup> cost €16.600

**Your SAVINGS is  
€6.400 for a single day!**



**Rick Van Boeijen**  
**Sales Director**  
**Fibo Intercon**

# B1800 Concrete Batching Plant



Fibo intercons concrete batching plant is the best available on the market, it is a well thought out solution, designed to provide optimum flexibility, performance and operating efficiency.

It does not require a cast foundation, it can be placed on any even surface.

Our concrete batching plants are designed and built to a very high standard, so it will last more than fifteen years - this insures a very high return on your investment.

## Fibo Intercon - Your partner in concrete solutions

One of the most effective ways to reduce concrete cost is to manufacture your concrete on site, with today's technology, this is very easy to do.

And with our machines the price difference between ready-mix and onsite batching is around €32 m<sup>3</sup>. That's €3.200 for every 100 m<sup>3</sup> or €32.000 for every 1.000 m<sup>3</sup>.



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*Your Partner in  
Concrete Solutions*

# High Quality Concrete Batching plants

Fibo Intercon supply a large range of high quality concrete batching plant with a dosing accuracy of  $\pm 3\%$  for standard machines and  $\pm 1\%$  for our pre-weighing machines.

Below you can see a small selection of our standard machines, there can be set up and ready to go within two hours.



## **Mini VIKING - Semi-mobile Concrete Batching Plant**

Mini Viking is the ideal solution for small and medium-sized construction projects

It has a capacity of 4-5 M<sup>3</sup>/h.



## **B1200**

B1200 is a compact, mobile batching plant assembled on a joint twin-axle bogie trailer.

It has a capacity between 10-16 M<sup>3</sup>/h.



## **M2200**

M2200 is a mobile batching plant assembled on a joint triple-axle bogie trailer with turn able front axle.

It has a capacity between 25-45 M<sup>3</sup>/h.



## **T2200**

T2200 is a mobile batching plant assembled on a common twin-axle step frame semi trailer.

It has a capacity between 25-60 M<sup>3</sup>/h.



## **Horizontal & Vertical Silos**

Fibo intercon supplies big bag silos as well as vertical and horizontal cement silos.

We can supply standard and customised solutions.