

Centrum Pile Ltd Think Sustainability



We are proud to be the UK's leading and most advanced manufacturer of continuously reinforced, precast concrete piles - using the most advanced concrete, distribution, mould, pile joint and manufacturing technology available.

Centrum Pile has drawn on the success and expertise of its European colleagues and since its conception in the UK in 1993, the production facility has been continually developed to enable the manufacture of its high quality, reinforced precast concrete pile system.



Paul Pendleton
Director

Centrum Pile originated from a local brick-and-mortar company, founded in 1882 in Denmark. Today, the company is part of a group of a total of 5 production factories in 5 different countries, all of which specialise in the manufacture of prefabricated piles.

We are thus strongly represented with production in both Denmark, Sweden, Germany, Poland and here in the UK. Together, we constitute the largest pile manufacturer in Europe with a total capacity of approx. 3.5 million linear meters of piles per year.

The Centrum Group today employs more than 200 people globally in production and administration functions. The production consists of production management, warehouses, reinforcing welds as well as concrete production and foundry. The administration includes management, sales, marketing, logistics, accounting, development, quality and laboratory function, IT and HR.



The Centrum Group Presence



Centrum Pile Ltd
Newark, UK



Centrum Pfähle
Germaringen, Germany



Centrum Pile AB
Kollanda, Sweden



Centrum Pæle A/S
Vejle, Denmark



Centrum Pali
Kutno, Poland

CPS - Centrum Pile System

Centrum's complete system for quality assurance within all links of the foundation process.



The Centrum Pile System (CPS) was developed with a continual focus on obtaining a quality assurance standard that encompasses every stage that our precast piles go through on their way to the building site - and even beyond their installation.

Through our many different pile dimensions, the CPS offers a reliable and optimal solution for any project where precast piles are the desired foundation.

The main goal of the CPS is to be able to forecast the necessary pile dimensions, lengths and amounts of piles required when the specific building project is planned. Because this forecast takes place at such an early stage, it is possible to produce and deliver the piles precisely when they are needed, once the building site is prepared to take the delivery and start driving the piles into the ground.

Furthermore, as the CPS takes traceability into account it is always possible to trace and document the strength and durability of every single pile project that Centrum manufactures and supplies - both before and after the installation.

Benefits:

- **Faster and safer installation of foundations, independent of weather situations**
- **Use of prefabricated, tested concrete piles, produced in controlled environments to BS EN 12794 and BSI kitemark standard**
- **No need for waste management of soil - the piles displace the soil in the ground**



CPS - Centrum Pile System

How it works



By involving Centrum Pile early in the planning phase of the construction project, pile production can be optimised so that the pile installation can be carried out according to the planning.



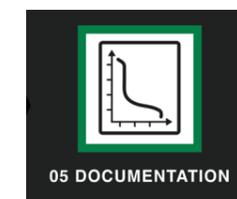
Production takes place with innovative and fully automatised processes, which ensure a harmonised uniform pile quality.



Centrum Pile houses a large variety of pile dimensions and lengths. This ensures that we can deliver the required pile dimensions and lengths as requested by our customers. Road transport is primarily used to provide fast and accurate deliveries based on the daily needs of a construction project. For daily deliveries, adjustments can therefore be made quickly and accurately, should the need arise.



At the construction site, piles are delivered as needed once the pile driving equipment is present and ready to start. As the piles are prefabricated, pile driving can take place in any weather and season, ensuring that the installation of the foundation is not hindered by these factors.



All Centrum piles are marked with labels and a unique serial number with an associated bar code. This ensures full traceability and provides easy access to all pile data, including the concrete used for the specific batch, date of manufacture, concrete strength, pile specifications etc.

Centrum Pile

Standard precast piles

The Centrum Pile System begins with a continuously reinforced precast concrete pile, cast in standard square sections from 200mm to 400mm and from 4m in length, increasing in 1m increments to standard lengths of up to 14m. Larger section sizes and lengths can be manufactured to suit project specific requirements.

Centrums standard precast piles are the core of our entire business. The piles are manufactured using the most advanced technology available, and have a high structural capacity which is achieved from the use of high strength sulphate resisting concrete and are made using exceptionally rigid welded reinforcement cages. This means that the Centrum Pile can be installed to work at higher concrete stress levels than would be permissible for piles formed in the ground using traditional cast insitu wet concrete.

Table 1 below highlights the different lengths, dimensions and types of standard piles produced by Centrum Pile, along with corresponding applicable pile joint compatibilities.

Dimension [mm]	Type (no. of 10mm main bars)	Type(s) (no. of 12mm main bars)	Maximum single segment length (standard)	Maximum single segment length (to special order)	Joint Type	
					A	D
200x200	4	-	6	9	-	D
200x200	-	4/6	-	12	A	D
250x250	-	4/6/8	13	16	A	D
300x300	-	8/12/16	13	16-18*	A	D
350x350	-	8/12/16/20	13	16-18*	A	-
400x400	-	8/12/16/20	13	16-18*	A	-

*16-18 metre long segments require sufficient lead time for setting up non-standard moulds and manufacturing capacity.

Centrum Pile Joints

The Centrum Pile can be easily and quickly extended when required using a robust mechanical interlocking joint cast into the pile segment. The Class A pile joint used by Centrum Pile is recognised as being the strongest, most durable pile joint available.

Class A Joint Mechanism

Manufactured to BS EN 12794, the A Joint pretensions the connection between the pile segments to be joined, thereby inhibiting the ingress of water or corrosive agents. Further development has recently resulted in a new generation of Class A Joints.



Class D Joint Single Pin

The Class D joint is available for the 200/250/300mm square piles and manufactured to the same high standards. This joint is more economical for use when lateral tension is not an issue.

Centrum Pile Production Process

For the production of reinforcement cages, Centrum use the latest generation of Welding Robots unique to the UK. This offers a high production rate in the region of 200 linear metres per hour, all in a quality controlled environment, ensuring that the cages are manufactured to our exact requirements in order to produce high standard precast concrete piles.

The semi automated factory is based on a mix of 45 insulated moulds, each consisting of a set of individual square section troughs catering for all common section sizes. The moulds travel round the facility on a system of wheeled chassis and rollers to each of the various work sections stations. They travel under the fixed concrete casting machine for automatic filling with self-compacting concrete before being stored in the specially adapted curing chamber. Once cured, the piles are then stripped and stored until they reach the required strength for driving.



Advantages:

- Responsibly sourced and high quality raw materials
- CE-certified concrete piles of high and consistent quality
- Full traceability of products produced in ISO 9001 factories & complying with all Certified Management Systems



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