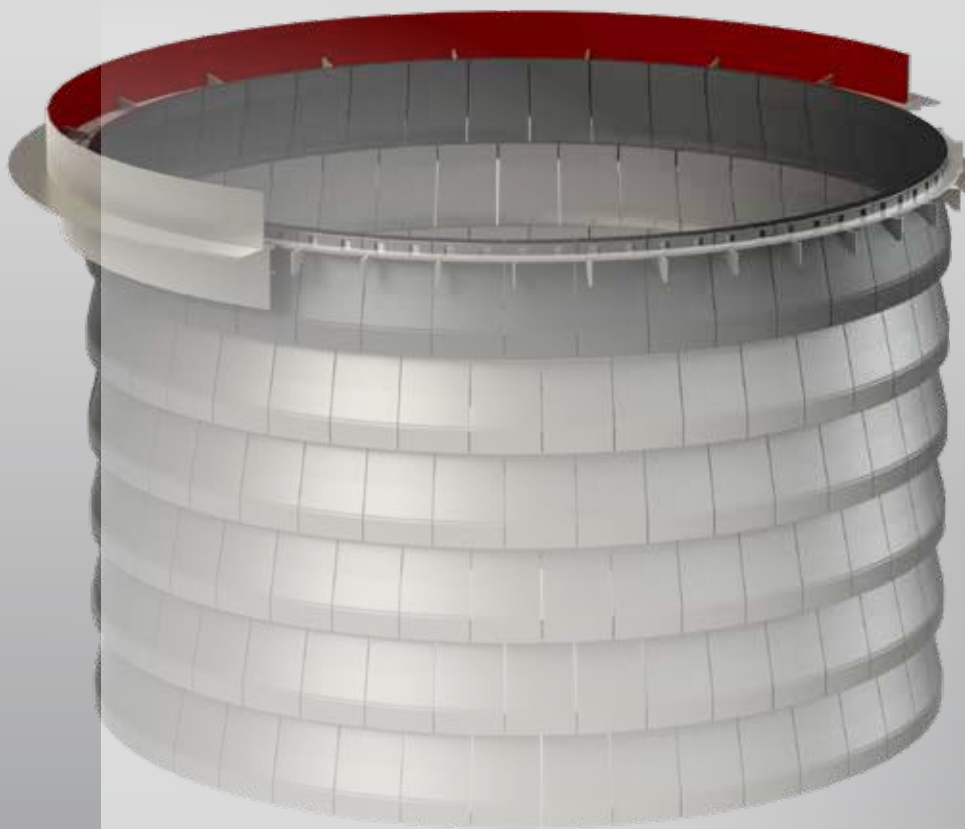


# Cast Central Pipe (CCP) for high-temperature cyclones



# Save energy or increase production

Our cast central pipe (CCP) improves separation and thermal efficiency, enabling your plant to save fuel and reduce power consumption. Use it to decrease energy costs or to increase production for a fast return on investment.

## Key benefits

■  
Customised  
solutions

■  
Fast, easy  
installation

■  
Increased  
service life

■  
Profitable  
investment

Installation of a central pipe in the preheater cyclones is essential for the overall performance of the preheater. Delivering both improved separation and thermal efficiency, the FLSmidth central pipe saves fuel and decreases power consumed on the ID fan drive, as the preheater gas temperature is reduced.

By installing one cast central pipe in the lower cyclone stages, the typical fuel savings are between 5-10 kcal/kg clinker and the power consumption savings on the ID fan drive are between 4-8%.

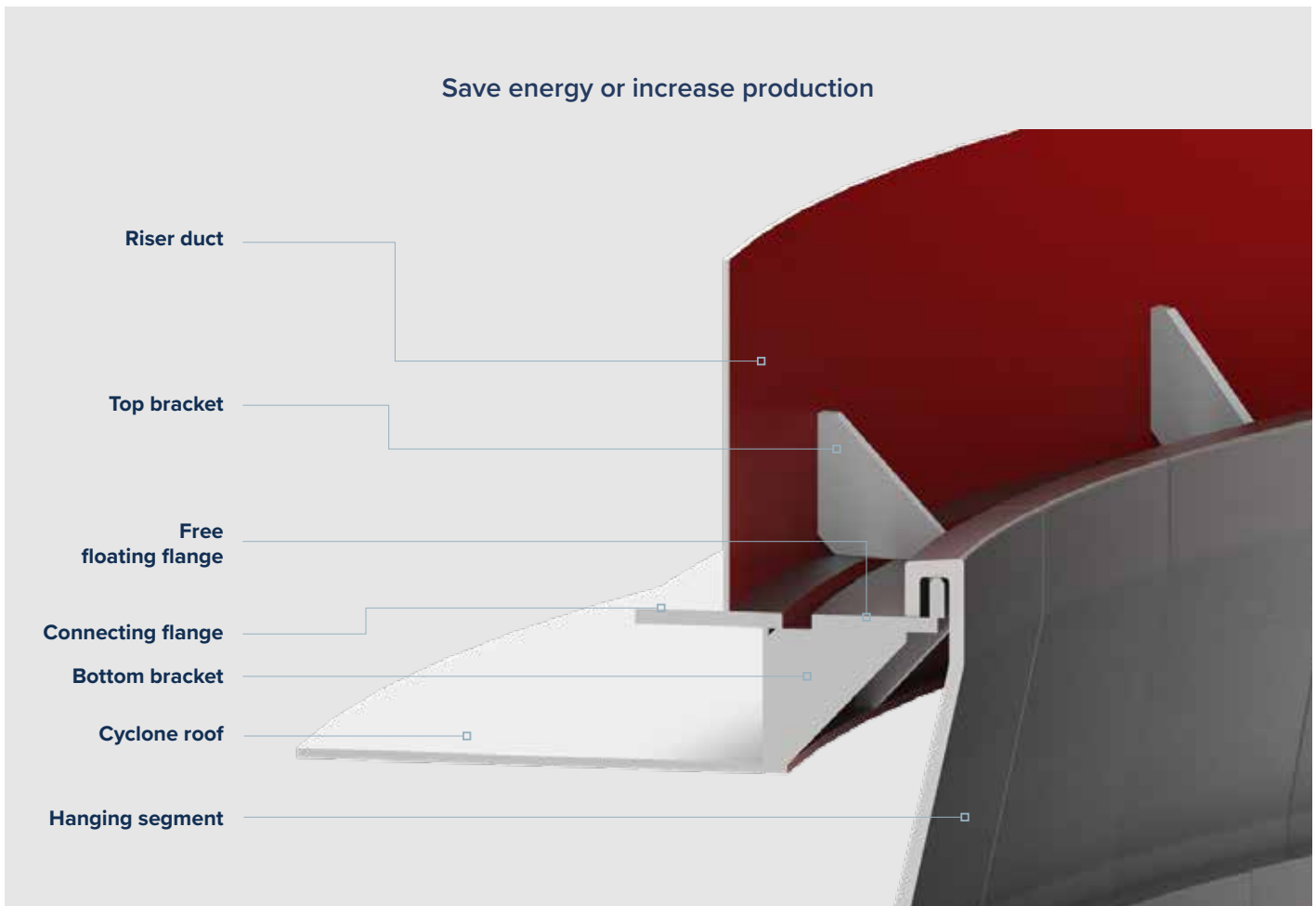
Whether reductions in fuel and power consumption are converted into savings or increased production of typically 1-2%, the central pipe provides a fast return on investment.

### Patented suspension system increases lifetime

A patented system for the suspension of the cast central pipe considerably increases the pipe's lifetime. Corrosion is reduced as a result of limited heat conduction across the free-floating suspension system, thereby reducing condensation of chloride and sulfur levels that can corrode the heat-resistant metal suspension.

The system also offers easy handling of replacement segments, thus minimising downtime. Thanks to FLSmidth process know-how and material technology, the segments have been optimised to provide the market's best wear and corrosive resistance for temperatures up to 1100 °C.

The free-floating design is a result of ongoing research and development, combined with the years of practical experience gained from installing more than 1,200 cast central pipes worldwide.



# Customised design for improved performance

Fast, easy installation and delivery

The cast central pipe's modular design fits into any size of cyclone design – both new and existing cyclones, regardless of manufacture.

The cast central pipe is very easy to install with only a short downtime required. The simple design and limited number of different replacement parts makes it possible for FLSmidth to maintain adequate stock to ensure fast delivery worldwide.

## Customised design for increased lifetime

FLSmidth has designed a 25mm segment to improve the performance of the free-floating cast central pipe in the lower stages of the preheater. The 25mm segments can be combined with 15mm segments, which makes it possible to tailor the cast central pipe according to mechanical and chemical influences during operation.

Erosive wear affects the entire cast central pipe, but the consequences of a failure are more significant in the top part of the pipe. The FLSmidth cast central pipes are therefore delivered with a 20 or 25mm top ring as standard depending on cyclone diameter.

To prevent mechanical wear caused by quartz particles or other hard and erosive particles, the 25mm segment can be used to upgrade the entire cast central pipe or only parts of it.



25 mm segment

15 mm segment

## Material choices for tomorrow's fuel types

The FLSmidth cast central pipe is available in three different materials to accommodate both normal and highly corrosive environments. The proven standard material offers a cost effective solution for applications in low-corrosive environments.

For plants suffering from rapid corrosion, typically caused by high chloride and sulphur content from alternative fuels, a corrosion-resistant material is available to improve lifetime and prevent downtime between planned maintenance stops.

**FLSmidth A/S**  
Vigerslev Allé 77  
DK-2500 Valby  
Copenhagen  
Tel: +45 3618 1000  
Fax: +45 3630 1820  
E-mail: [info@flsmidth.com](mailto:info@flsmidth.com)

[www.flsmidth.com](http://www.flsmidth.com)

Copyright © 2022 FLSmidth A/S.  
All Rights Reserved. FLSmidth is a (registered trademark) of FLSmidth A/S. This brochure makes no offers, representations or warranties (express or implied), and information and data contained in this brochure are for general reference only and may change at any time.