

# Vølund™ Combustion Grates

Efficient waste-to-energy combustion grate suitable for low-calorific waste

The Vølund™ grate from Babcock & Wilcox Renewable (B&W) is one of the most dependable waste-to-energy grates available. It is designed for highly efficient continuous combustion of household waste, including lower calorific waste.

The air-cooled Vølund grate's simplicity and robustness make it ideal for a wide calorific waste range of between 5 to 14 MJ/kg. With auxiliary burner support, the grate can handle wet waste, common during rainy seasons, below 5 MJ/kg. We have developed the Vølund grates to withstand very high temperatures and a long operational life.

## Minimum emissions of harmful substances and maximum energy recovery

The Vølund air-cooled combustion grate is a proven design, highly suitable for continuous, high-efficiency combustion of mixed household and bulk industrial waste with minimal emissions of harmful substances and maximum energy recovery.

## High availability and operational reliability

The Vølund grate uses a rigid design, specially developed for heavy-duty and high-temperature operation with high availability and operational reliability. This minimizes shutdown for routine maintenance and cleaning.

## Exceptional air distribution and minimal power consumption

The movement of the Vølund grate is like a "walking floor" and is unique in its simplicity. The combustion air is blown in and up through many small air holes in the grate, providing proper air distribution. This results in combustion of the waste with minimal power consumption for air injection and grate movement. Inspection and maintenance during the planned yearly stoppages is simple. All servicing of grate bars, grate blocks, grate girders, and rollers takes place in the furnace above the grate using only hand tools.

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## A solid, reliable design

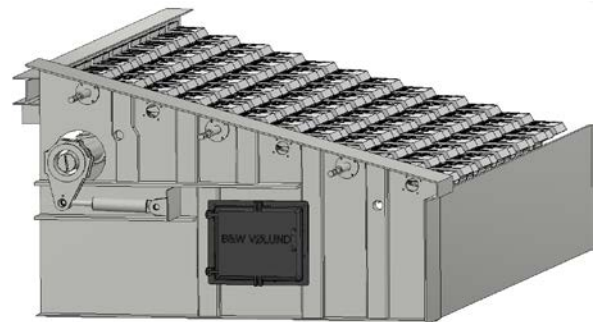
The combustion system encompasses the feeding section with pusher, combustion grate and burn-out grate. The Vølund grate has four sections, two of which form the combustion grate at an angle of 15 degrees, and two sections form the burn-out grate at an angle of 7.5 degrees. A one-meter-high vertical grate transition between the combustion grate and the burn-out grate facilitates complete burn-out of the waste. The grate sections are integrated into one unit, and all sections are operated and controlled individually. This means that each section has its own grate drive and control system for combustion air.

## High reliability with minimal downtime

Individual components used in the grate design are specially developed for highly variable loads and high temperatures. The result is high reliability with minimal downtime.



The Vølund grate is manufactured in Denmark and also under license in China and Korea.



The combustion grate and burn-out grate are integrated into one unit and all sections are operated and controlled individually, resulting in highly efficient combustion.

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