



## Sludge treatment plant Lynetten, Copenhagen, Denmark

### Sludge treatment plant WWTP Lynetten, Copenhagen

Lynetten, the largest sewage treatment plant in Denmark, treats industrial and municipal waste water of 1.1 million PE corresponding to 3.2 million litres of waste water every day. The waste water originates from the centre and parts of the suburbs of the City of Copenhagen.

In 1980 Lynetten was founded with biological treatment and sludge incineration with two multiple-hearth furnace.

At the beginning of the 1990s, a large project included biological removal of nitrogen and phosphorus in order to comply with new strict discharge limits.

Further the project involved digestion of sludge and the replacement of filter presses by centrifuges. The incineration process was retrofitted with predrying by three Atlas-Stord RCD (Ring Channel Dryers) to improve energy economy and to boost capacity.

### Haarslev Industries

Atlas Stord and Haarslev merged to Haarslev Industries in 2006. Over 50 years experience as a supplier of industrial thermal drying units made us to a competent partner.

The applications can be found in the range of the fishmeal industries, in the handling of animal by-products and for the drying process of industrial and municipal sludge. In addition they find an application in the drying process of biomass and in breweries and distilleries.

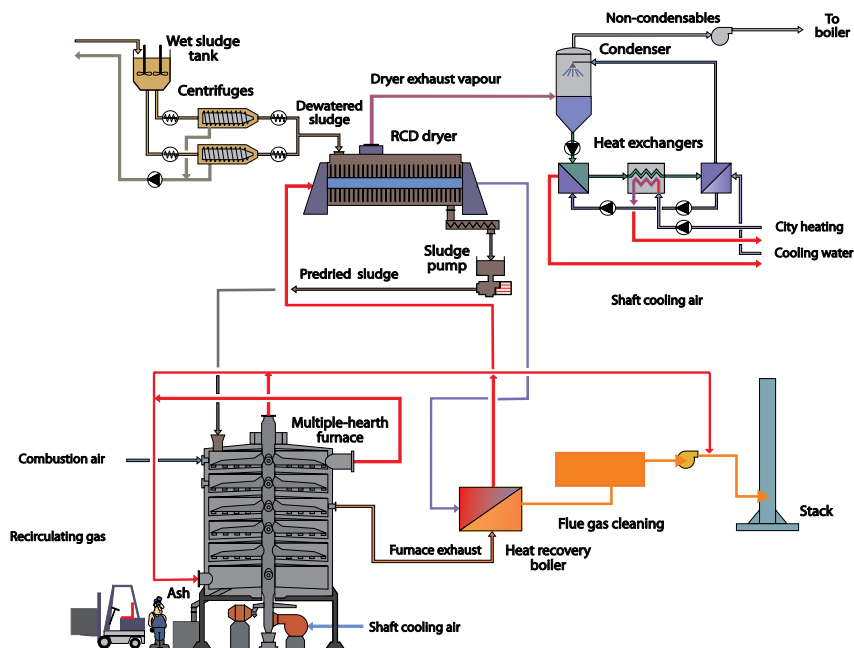
## Sludge predrying at Lynetten

The RCD sludge dryers were installed to boost incinerator capacity and improve performance.

Previously, the dewatered sludge was led directly into the multiple-hearth incinerator, where drying took place. By removing predrying from the incinerators to the RCD dryers, the incinerator capacity has increased. Moreover, the quality of the flue gas has been improved as a result of the rise in the incinerator outlet temperature.

The dryers are indirectly heated with pressurised hot water from boilers, using the energy of the hot exhaust gases from the incinerators.

The major part of the heat to the dryers is recovered from condensation of the vapour. This does not only fulfil the internal consumption of heat for buildings and technical processes at Lynetten, a considerable amount of heat is delivered to district heating for the city of Copenhagen.



### Plant data

Sewage plant capacity:	1,500,000
Sludge production wet sludge:	30 t/day
Dryer type	3 RCD 2064
Each dryer:	
Installed power	110 kW
Inlet sludge capacity, 20% DS	8,460 kg/h
Outlet sludge capacity, 45% DS	3,760 kg/h
Pressurised hot water, 10 bar (G), 180° C:	180 m <sup>3</sup> /h

We reserve the right to alter the specifications at any time without prior notice.



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