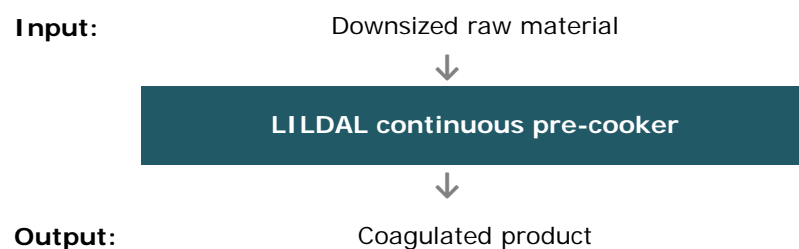




# Continuous pre-cooker



## Process



Design Features	Customer Benefits
Rotor and stator available in mild or stainless steel or combination of both	Always possible to find the most economic Drier solution for the product in question
Double plated discs with channels for the steam optimizing the heat transfer	Effective drying of the product and large heating surface per disc
The discs are not welded directly on the rotor pipe	The strength of the rotor pipe is maintained which gives a strong construction and long lifetime
Steam inlet and condensate outlet pipes are pairwise placed in a spiral along the inside of the rotor pipe	The strength of the rotor pipe is maintained which gives a strong construction and long lifetime
Bolted rotor axle ends	Reduction of maintenance costs
The stator can be equipped with dimple jacket as option	Cost efficient way to increase the heating surface
Easy detachable stator end plates	Easy access and reduction of maintenance costs
Compact drive line with hollow axle gear unit secured directly to the stator	Compact pre-cooker solution delivered as a unit
Rotor axels is embedded in free standing roller bearing housings	Easy access and maintenance

## Design

A major issue when designing by-product plants is to find ways to reduce energy consumption and lower operating costs for the benefit of the customer.

And here is removal of water a key issue. It demands a lot of energy to bring water from fluid to vapour phase in the subsequent drying process.

Here is where the Lildal continuous pre-cooker comes to it's right because it coagulates the product to the base components which includes free water.

The free water can the be removed in a subsequent drain screw conveyor reducing heat demand in the drier.

The continuous pre-cooker consists of a number of discs mounted on a center pipe.

Each disc consists of two round plates welded together with channels in between for the stream and condensate.

This design ensures a large heating surface per disc and an optimized stream distribution resulting in an effective heat transfer in a compact design.

Our goal when designing the Lildal pre-cooker was to make a strong construction and to ease service and maintenance.

This has been achieved by:

- A rotor with large heating surface in a compact design
- The strength of the rotor center pipe have been maintained by shrinking the discs onto the center pipe and by displacing the steam inlet and condensate outlet pipes along the center pipe
- The rotor is mounted with bolted axle ends making maintenance of the rotor easy
- The stator is equipped with large inspection openings
- Each end of the stator is mounted with bolted end plates
- The stator is as standard prepared with brackets for mounting of inspection platform
- The rotor is embedded in free standing roller bearing housings making maintenance easy
- The pre-cooker is delivered with shaft mounted gear with gear stay secured to the stator resulting in a compact design.

Each Lildal continuous pre-cooker is designed to meet capacity and requirements of the product it has to pre-cook.

We will, with our experience, guide you to choose the best possible pre-cooker solution for your product.

Distributor/ Agent



# Continuous pre-cooker

## Technical specifications

### Dimensions

Size depends on product and capacity - please ask us

## Configuration

### Standard

Rotor in mild steel

Stator in stainless steel

Shaft mounted gear box

Inspection doors with sight glass

### Options

Rotor in stainless steel

Stator for vacuum (Low temperature cooking)

Feed screw or raw material pump (Piston or Lamella type)

Discharge screw or drain screw for de-watering

Safety valve for the stator

Steam and condensate system

Inspection platform



## Certification

The rotor is approved in accordance with

the European Pressure Equipment Directive PED 97/23/EC

In general does the equipment from Lildal comply

with applicable European standards



**Lildal**

Part of LM-Group

Lildal

Lucernevej 65-67  
DK-8920 Randers NV

Phone: +45 86 43 33 55  
Fax: +45 86 41 51 71

[www.lildal.dk](http://www.lildal.dk)