



## Haarslev Industries Meal Cooler

The Haarslev Industries Meal Cooler type CAC (Cold Air Cooler) is designed to cool the product after the dryer.

The CAC has a simple and sturdy construction with few components and wearing parts, making it an efficient and reliable solution.

The CAC is a continuously working machine with a cooling principle based on the counter-flow of cooling air and hot product.

### Design

The CAC consists of a stator and a rotor made of mild steel.

The stator is designed as a cylindrical pipe with end plates and supports at each end.

The stator is equipped with sight glasses including cleaning brushes and openings with counterflanges for air intake and outlet. A centrifugal fan installed at the air outlet end extracts the hot air from the CAC through a bag filter. The airflow is regulated by a hand-set damper. A product side outlet is installed at the air intake end.

The rotor consists of a rotor pipe with agitating arms and paddles to lift the product up into the cold air stream. The paddles are adjustable to control the retention time in the cooler.

The rotor is supported by roller bearings at each stator end plate and is driven by an electric motor through a simple and reliable planetary gear transmission.

### Operation

The hot dried product is continuously fed into the CAC through the inlet chute at the driving end of the machine.

The rotor, rotating between 17 and 24 rpm, is equipped with agitating arms and paddles lifting the product up into the stator drum where it is cooled by the contact with the air stream that is drawn through the stator by the centrifugal fan.

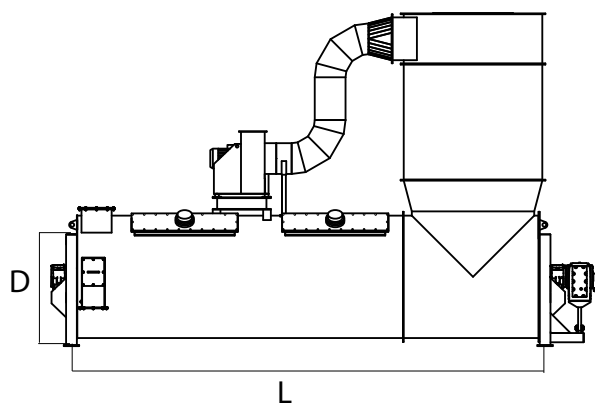
The adjustable paddles transport the product through the CAC. At the outlet end the product is elevated to the side outlet on the stator, from here the cooled product proceeds to further treatment or to storage.

To avoid loss of product a bag filter is built on to catch minor product particles that would otherwise leave the process with the cooling air. The filter unit is provided with automatic time-controlled pneumatic self-cleaning system, eliminating the risk of blocking the filter bags.

## Features

The CAC is delivered with:

- Rotor with drive station including electric motor and planetary gear
- Roller bearings at each stator end plate supporting the rotor
- Adjustable paddles for agitating arms
- Stator with bag filter including bags and panel for pneumatic control
- Centrifugal fan built onto the stator and provided with outlet pipe and counterflange for hot air outlet
- Ducts between the bag filter and the centrifugal fan and transition piece between the CAC and the bag filter
- Built-in damper for hand regulation of the cooling air flow
- Intake box with counterflange for cooling air intake
- Inspection hatches with cleaning brushes
- Product inlet and outlet with counterflanges
- Service hatches bolted onto each end plate



Type	Technical specifications				
	Dimensions in m DxL	Nominal capacity *) kg/h	Stator volume m <sup>3</sup>	Motor Drive/ Fan kW	RPM
CAC1207	1.2x7.0	1,200	9	15.0/5.5	24
CAC1606	1.6x5.0	2,300	10	15.0/5.5	24
CAC1609	1.6x9.0	3,350	18	18.5/11.0	24
CAC2007	2.0x7.0	4,000	22	30.0/15.0	21
CAC2009	2.0x9.0	5,250	28	30.0/15.0	21
CAC2012	2.0x12.0	7,000	28	37.0/18.5	21
CAC2909	2.9x8.5	10,500	56	55.0/30.0	17
CAC2912	2.9x12.0	14,500	79	75.0/37.0	17

*\*)The nominal capacity depends on the type of product and the process temperatures and should therefore be considered as a guideline value only.*

## Options

The CAC can be delivered in stainless steel depending on the product requirements, product composition and characteristics.

The CAC can be equipped with cyclones and motor-operated airlock valves as an alternative to the bag filter solution.

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



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