



Rotary oven

Crocus

Crocus has 15 years experience with production and assembly of custom-built solutions for conveying and industrial storage plant. Today, Crocus has an experienced and professional staff and 6000 m² production facilities. All products are manufactured in accordance with EU regulations.

Please contact Crocus for further technical information and prices.

Crocus Rotary Oven

The Crocus rotary oven is designed to dry and toast grain and similar free-flowing products such as wheat, barley, soya beans, pulses and oilseeds.

Drying

The Crocus rotary oven is well suited to drying products with a high water content or a consistency which makes them unsuited to drying in a column dryer.

Energy efficient drying is achieved when the rotary oven is deployed together with a Crocus Counter-flow cooler:

Oven temperature: 200°C - 960°C

Product temperature: 45°C - 120°C

Energy consumption: 800 - 950 kcal/Kg water removed.

Gelatinisation

Wheat, oats, barley and maize for animal feed

Infra-red radiation penetrates cereal husks creating high internal temperatures and efficiently breaking down complex starches thus increasing digestibility and adding to the nutritional value of the treated product without a long destructive heating process.

Typical analysis for processed wheat:

Protein	12.5%
Carbohydrates	72.5%
Ash	1.5%
Moisture	8.5%
Fibre	3.0%
Degree of gelatinisation:	
Fat	2.0%
Eur.j.clin.nutr. (46)	75-85
Total	100%
Calorific value FEs/100 Kg feed	123

Bacteriology:

Total count	< 10,000 / g
Yeast	< 1,000 / g
Mould	< 1,000 / g
Hemolytic bacteria	< 1,000 / g
B. cereus	< 100 / g
Salmonella	no trace in 50 g

Sterilisation

Cereals for consumer products and animal feed

Exposure to temperatures between 100 °C -120°C reduces the bacterial and fungal count significantly and effectively sterilises cereals without significantly breaking down amino acids and vitamins.

Conditioning /flaking

Cereals and pulses for consumer products such as Muesli and health food products, and animal feeds including pet food mixtures

Following gelatinisation or pre-cooking, cereals, soya beans and pulses are soft and malleable. Processed cereals can be flaked without significant dust production and without loss of natural colour and appearance.

Toasting

Soya beans and pulses for animal feeds

Raw materials such as soya beans and pulses cannot be used as feed without prior processing due to the presence of biologically active inhibitors, such as trypsin, urea and other known allergy inducing agents. Short term exposure to temperatures in excess of 138 °C significantly reduces bacteria and destroys inhibitors.

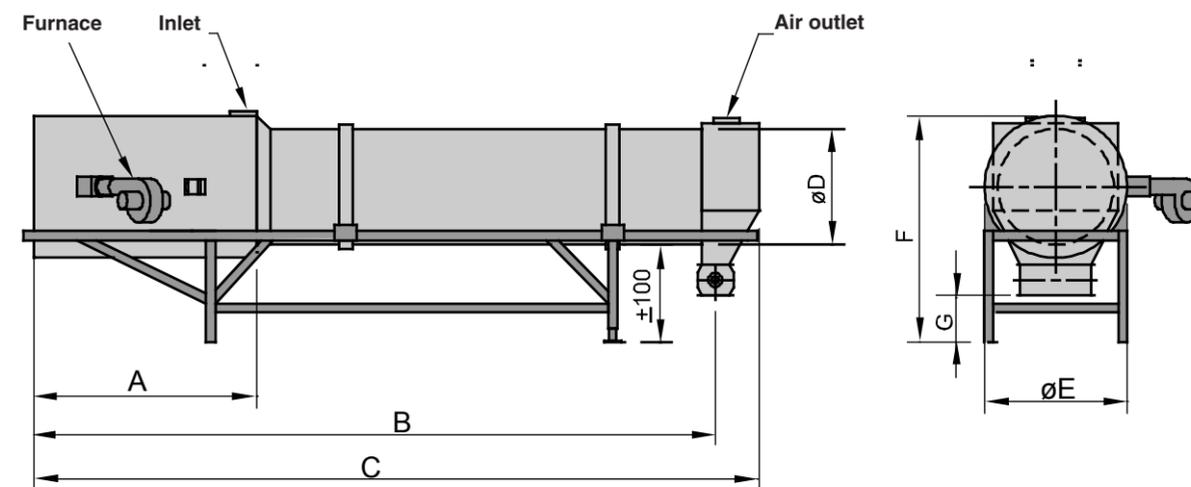
Typical analysis for toasted soya beans:

Protein	38.0%
Carbohydrates	25.0%
Ash	5.0%
Moisture	7.5%
Fibre	5.5%
Fat	19.0%
Total	100%
Calorific value FEs/100 Kg feed	146

Bacteriology:

Total count	< 10,000 / g
Yeast	< 1,000 / g
Mould	< 1,000 / g
Hemolytic bacteria	< 1,000 / g
B. cereus	< 100 / g
Salmonella	no trace in 50 g
Urea	0.02 -0.2 mg N / g /min.
Trypsin inhibitors	5,000 - 10,000 TIU / g

Technical data



Type	A	B	C	D	E	F	G
CR 800	1350	6600	6980	Ø900	Ø1270	2430	800
CR 1500	2470	7800	8250	Ø1200	Ø1620	2690	800
CR 2500	2300	8900	9600	Ø1360	Ø1860	2910	800

Type	CR 800	CR 1500	CR 2500
Power burner unit (kW)	800	1500	2500
Water evaporation capacity	800	1500	2500
Air outlet at 100 °C (m³/h)	7000	11000	16000