

Universal Power Unit made by KREYENBORG combines two steps in one in cereals production

HEATING UP GERMS IN CEREALS TO ERADICATE THEM

Oat, rye, barley, rice and other refined cereals are increasingly popular and are available in an increasing variety of products today, such as delicious muesli, breakfast cereals or snacks between meals. Of primary importance in processing cereal products are the first step of disinsectisation to guarantee sterility and shelf-life of food and the second step of processing for a high-quality, healthy and unique food product. The FoodSafety-IRD made by KREYENBORG GmbH located in Senden, Westphalia, Germany, can be used for both of these production steps. In performing these steps, it does not only operate continuously, but also in a space-saving and cost-efficient manner.



Pic. 1: KREYENBORG, puffed rice inside the FS-IRD

Tremendous amounts of damage can be prevented in processing cereals, if the absence of cereal pests and their eggs or larvae in the food product is ensured. Precisely this disinsectisation process is ensured by the *FoodSafety-IRD*, without any addition of chemicals indeed, but simply by the use of infrared light. While the cereal is constantly mixed in this power unit of a tubular shape, the IR light ensures the destruction of pests and, consequently, reliable protection of the supply stock.



The *FS-IRD* allows performing a log-5 germ reduction ahead of the next processing step, e.g. for the destruction of salmonellae, aimed at the cereal's undercutting of the required limit values. Additional advantages of the power unit are its very low space requirement and its very energy-efficient operation. The processing time is only a matter of minutes and can be adjusted individually.

Finally, the *FoodSafety-IRD* convinces by its universal applicability. It also performs drying of wet feedstock. Even input moisture of up to 20% is decreased to target-moisture of less than 1% within a few minutes by the *FS-IRD*. Inversely, it is possible to increase the moisture content to 20% by slight heating for instance of oat or buckwheat while injecting water. With this process, the crushing of the product to obtain muesli is achieved without any risk of fine crumbling of the product. The



product temperature is measured constantly during the process and light intensity is adjusted accordingly. Thanks to this careful, but efficient operation without any addition of chemicals, the *FoodSafety-IRD* is particularly suitable for organic products.

To produce delicious snacks from the pre-treated cereals, it is for instance possible to apply a sugar coating to cornflakes or puffed rice, or to cover them with flavours, to roast or toast maize or to prepare buckwheat for the production of buckwheat flakes. The *FoodSafety-IRD* is the ideally suited equipment for these special kinds of applications as well. The heat treatment and the permanent revolution of the product ensured by the rotary movement prevent the formation of clusters and sticky agglomerates; and once again, the operation of this unique machine solution is efficient and quick.

But finally, the highlight of this equipment is its easy access for cleaning. It takes just two hours to clean the *FoodSafety-IRD* completely and to prepare it for use in the next processing task. The bottom line of everything is that producers of cereals can cover a wide range of processing tasks with just a low amount of investment cost. It is a machine that offers a great variety of application options!

www.kreyenborg.com

Further information:

Mr. Werner Krause

Phone: +49 2597 93997-154

Fax: +49 2597 93997-60

Mail: w.krause@kreyenborg.com

KREYENBORG GmbH & Co. KG

Messingweg 18

48308 Senden

Germany

