Drying, Storing, Mixing, Conveying and Dosing.

On the occasion of the K2016 in Düsseldorf, Germany, KREYENBORG Plant Technology GmbH, based in Senden, in northwestern Germany's Münsterland region, will be presenting information regarding their wide assortment of products for efficient bulk material handling in the plastic-, food- and chemical industries. Particular focus this year will be on the range of topics regarding drying and crystallizing, as well as comprehensive solutions for bulk material handling processes.

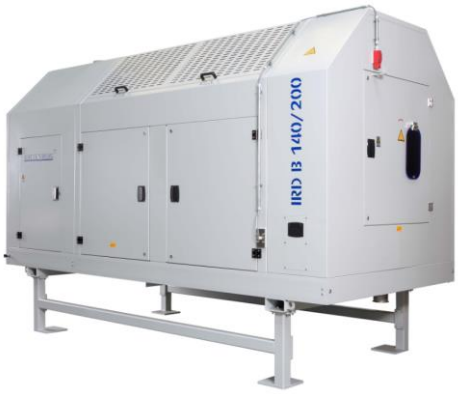

Fig. 1: IRD Infrared Rotary Dryer

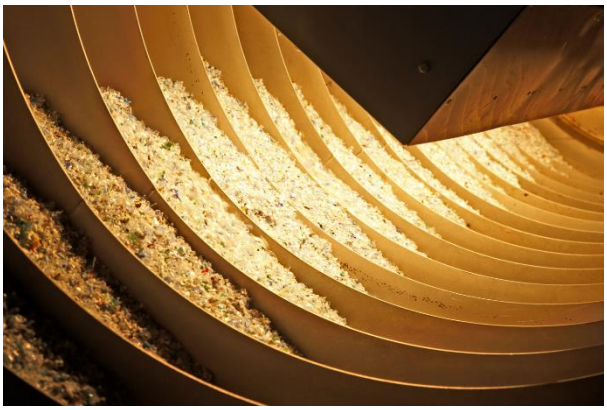

Fig. 2: IRD (interior)

Drying. Continuously. In Minutes Instead of Hours.

The range of applications of the KREYENBORG Infrared Rotary Dryers IRD is nearly unlimited. The IRD is used for crystallizing and drying virgin or regrind materials for a series of plastics, such as ABS, EVA, HDPE, PC, PEEK, PET, PLA, PPS, PTFE, TPE, and TPU. Through the use of the continuously functioning IRD, the need for energy-intensive processing using dry air is completely eliminated, easily resulting in energy savings averaging 30%. The raw material is heated directly with infrared light that works especially gently, so that the vaporizing moisture is diverted from the core of the material toward the outside. The raw material is conveyed evenly through the machine, and by the rotating of the drum carefully circulated and evenly heated. This eliminates clumping. The low rotation speed prevents breaking, abrasion and the raising of dust from the product.

Moreover, in a multitude of applications, a retrofitting of the IRD into existing plants significantly increases plant throughput, as well as improving the quality of the product. Through optimal, continuous and constant pre-drying of the material, the load is taken off of the extruder.

Drying: Presentation of the New KREYENBORG PET-BOOSTER.

For the first time, KERYENBORG will present their new PET-BOOSTER. This continuously operating system dries PET within 7-10 minutes. Focus here is specifically on applications in extrusion of plastic films and fibers with degassing extruders (twin-screw, planetary- and multi-screw-extruders). Varying levels of input moisture that results in process fluctuations in the extrusion process (as well as fluctuations in end-product quality) can be eliminated with the KREYENBORG PET-BOOSTER. By feeding pre-heated material with a consistent, low input moisture level, a smaller extruder and vacuum degassing system can be used. With existing plants, a quick 30% increase in throughput can be realized with the installation of the PET-BOOSTER. A further positive side-benefit: the toxic liquid precipitate from the vacuum system is reduced by up to 50%. The investment is thereby amortized in a very short period of time.

Coating of Granulates.

A specialty application of the IRD lies in the coating of granulates with powders or liquids. The constant recirculation of the materials with simultaneous heat input guarantees a very homogenous moistening and adhesion of the coating medium to the granulate.

New Product! Pneumatic Conveying Systems.

At the K, KREYENBORG will present, for the first time, their new pneumatic conveying system.
Owing to many years' experience with the conveying of poorly- flowing bulk materials, as for example bottle flakes or film flakes, that still present a challenge to the industry, KREYENBORG has incorporated hopper loaders into the process. The conveyers are distinguished by their container geometries that avoid bridging or that even have internal bridge-breakers. The containers come standard with an extremely large outlet. The conveyors have a compact central filter unit with a large filter area, to meet the requirements for dusty regrind materials.
The conveying systems can be combined with additional KREYENBORG components for complete systems and integrated into KREYENBORG PLC-Control. This enlarge KREYENBORG's turn-key solutions excellence for bulk material handling.

Mixing. Blending Bulk Materials. Fast, Precise and Gentle.

KREYENBORG mixing- and feeding systems are distinguished by a very specific focus on the particular bulk material used. The KREYENBORG Universal Quick Mixer features extremely precise mixing and homogenizing of bulk materials with limited flow properties. The KREYENBORG Masterbatch Mixer on the other hand shows its value through fast and gentle mixing and homogenizing of sensitive bulk materials.
The KREYENBORG silos, including its fiber- and flake silos, are used where conventional systems no longer work reliably. Particularly with storage and discharging of very light bulk materials in the plastic and food industries, dependable material handling is essential for the process. Typical bulk density of 0.02 km/dm³ and an edge length of 30 mm are no problem for KREYENBORG silos.

Turn-Key Solutions: Bulk Material Handling for Plants.

KREYENBORG's wide product spectrum for the range of tasks encompassing drying, storage, mixing, conveying and dosing are combined with know-how from more than 60 years' experience providing automated, completely integrated solutions for bulk material handling.

Turn-key solutions

Silos

Storage Silo

Fiber Silo

Film-Flake Silo

Block-type Silo

Mixer

SFM

USM

MBM

Dryer

IRD continuous

IR Batch

IRD PET Booster

Crystallizer

IRD continuous

IR Batch

Press Release

KREYENBORG

Feeding systems

Conveyor screws

Conveyor belts

Pneumatic conveying systems

Dosing equipment

Extruder feeding system, Densifier. Type KSW

Extruder feeding system, Special feed hopper

Volumetric metering systems

Big-Bag stations

Big-Bag filling station

Big-Bag emptying station

Container

Discharge container

Discharge container with agitator

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