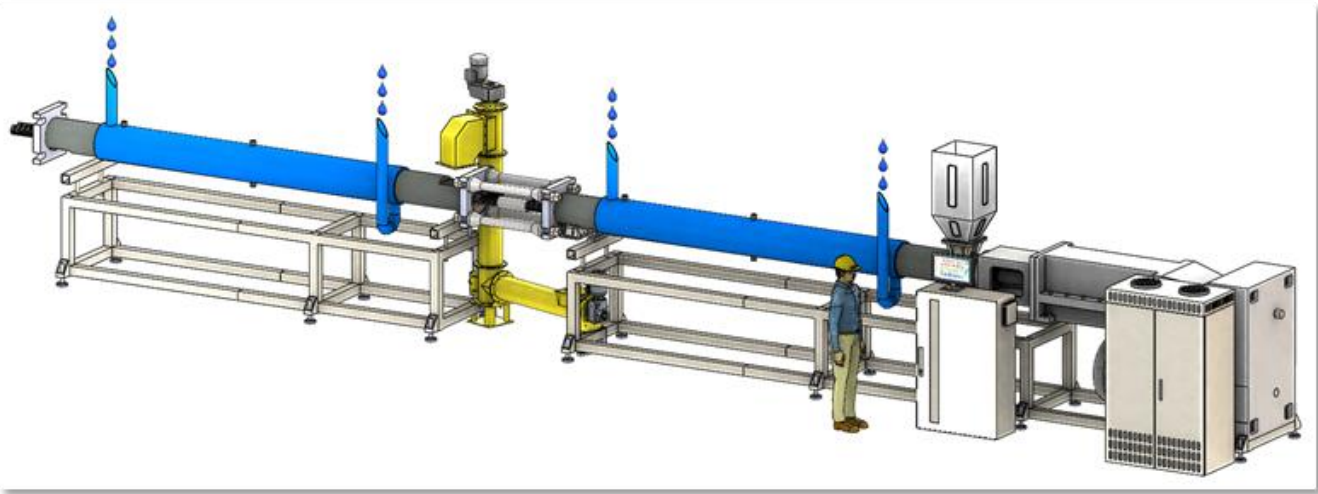


Rayeman De-Clumping System



Redefining Grain De-Clumping/Cooling Systems



INTRODUCTION

The Rayeman Grain De-Clumping Systems' patent pending technology safely and efficiently dissipates the heat from grain and similar residuals, in a process that preserves the highest nutritional properties in the grain, ultimately yields the lightest and best color grain, de-clumps and creates flowable grain that won't bridge.

The Rayeman Grain De-Clumping System features unique sets of counter-rotating, intermeshing twin screws enclosed in a barrel, in combination with a central water chilling system of temperature-controlled zones.

The De-Clumping system contains a water-based cooling medium that circulates in a closed loop on the barrels' surface, creating conductive/inductive cool transfer from the barrel to screws, and directly to the material.

Dried Distillers grain is fed from a hopper and distributed in a thin layer over the high surface area of the chilled screws. The temperature-controlled screws convey the grain through the barrel, passing it through a series of temperature-controlled cooling zones, which adjusts the grain to the desired temperature and eliminates clumps or masses, for a flowable grain

PERFORMANCE

This system will demonstrate the effectiveness of de-clumping grains at the desired output capacity. The de-clumping system best performs on moisture levels in the range from 16% down to 5%.

FLEXIBILITY

The Rayeman De-Clumping System is unmatched in its flexibility for effectively cooling and de-clumping grain, with the ability for processing up to 1500 tons/day, dependent on desired output and temperature.

BENEFITS

- Allows for temperature control of both the screws and barrel to maintain the desired temperature
- Can be hooked up to your existing dryer system, or to the Rayeman Compression Dryer
- "De-clumps" grain that has moisture levels in the grain between 5% and 16%
- Prevents the grain from burning
- Preserves the nutrients in the grain
- Produces steady, flowable grain

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Specifications – presented as example

Type of De-Clumping System	Rayeman Elements In-Line
Screw Diameter	285mm
Type of Material	DDGS
Input Weight	23.2 /hr., 557 tons/day
Input Moisture %	10%
Output Temperature	100° F
Operating Cost	Estimated at \$2.50/ton @ \$0.07KWH = 35KWH Water Chiller operating @ +40F Material Temperature from +180F to 100F
Electrical Requirement	480v to 460v 60Hz Three phase – 1,600 amps
Motor HP	600 HP
System Mounting	Mounted to the floor, ready to receive 4 legs of 480v three phase electricity

At Rayeman Elements, we strive to be the leaders of the industry not only for our technology and innovations, but for our dedication and commitment to you. The Rayeman De-Clumping System is customizable to meet your specific criteria, product, capacity and moisture content. Please contact us for more information, and to discuss your specific project requirements.

Rayeman Elements, Inc.
320 Gateway Drive
Berthoud, CO 80513

Phone: +1 (970) 344-4776
Email: info@rayemanelements.com
www.rayemanelements.com