

Cosmodyne announces a unique application for its Kryoaire plant

Kryoaire, a Cosmodyne-manufactured refrigeration unit using low temperature air, has been integrated into a unique, environmentally-conscious tire recycling system.

Crumb Rubber Technology, a New York-based company, holds several patents on their system for freezing tires, which integrates the Cosmodyne Kryoaire unit. Two inch rubber chips are fed into a chamber and down a hopper where they are exposed to -150° F (-101° C) air from the Kryoaire system. Freezing the chips in this way keeps them brittle and allows grinding without the use of liquid nitrogen. Once ground in a hammermill, the "crumbs" are transported on a series of beds to eliminate unwanted material. First, a fiber separator is employed, and then steel is removed using magnetic tables. In the final stage,

the product is spread on a classification table and separated into different mesh sizes. By using cold air from the Kryoaire unit, this system will freeze three times more rubber chips than a liquid nitrogen generator with equal power.

The first system, with the freezing chamber and Kryoaire plant, has completed testing at Cosmodyne's facility and has been accepted by the customer. The end user intends to recycle test vehicle tires and mix the crumb rubber with polymers for specific end uses such as fiberglass bumpers, door handles, asphalt, etc. The recycling system has been erected on site and has been operating successfully at a major automotive manufacturer's facility in Detroit, Michigan, USA.

The Crumb Rubber system processes 4000 lbs (1814 kg) of rubber per hour.

Capacities doubling this output can be achieved utilizing the same Kryoaire unit with the addition of another air compressor and an additional tire recycling system. And while tire freezing is not new, freezing with air in lieu of the high power requirements of liquid nitrogen makes this system extremely economical.

How to dispose of used tires has become a global problem. In the U.S alone, there are approximately three billion tires discarded above ground as of 2000. Nearly 300 million are being added yearly. If recycled, the cleaned tire crumbs can be used for a variety of purposes including truck bed covers, playgrounds, running tracks, etc. Additionally, 5% of the crumb product can go back into new tires and 30% into offroad tires. The Crumb Rubber/Cosmodyne system offers a viable and timely solution.

For more information on the tire recycling system and other applications for the Kryoaire refrigeration plant, contact Joan Boitano at Cosmodyne, +1.310.320.5650 or jboitano@cosmodyne.com.

ACD CRYO and Sponsler announce strategic relationship in Europe

ACD CRYO and Sponsler Co. Inc. have formed an agreement where ACD CRYO will provide sales and service support for Sponsler flow meter systems for the cryogenic market.

Sponsler, located in Westminster, South Carolina, USA, has been manufacturing precision turbine flowmeters and truck totalizers for cryogenic service for over 25 years. With a 6000 ft² (557 m²) dedicated calibration facility and over 50 highly skilled professionals, Sponsler incorporates the most widely accepted meteorological standards in the industry.

ACD CRYO will be providing service support on meter repairs and recalibration

services as well as exchange programs on the Sponsler Totalizer and printer systems. Similar to the cryogenic pump exchange program, this will support the customer in eliminating expensive downtime of equipment. This is part of ACD CRYO efforts as they continue to expand it cryogenic pump service capabilities throughout Europe.

In addition to the service support, the products of Sponsler and ACD CRYO also go hand in hand. The new Sponsler Model T675 Flow Totalizer and precision turbine meter system interface with the cryogenic pump control output to allow for proper cooldown and loss of prime detection.

This gives the customer greater control on how they operate their pump and saves on unnecessary maintenance costs.

The Totalizer, with 10 point flowmeter linearization, comes with a large, user-friendly graphic display. It has the ability to support eight individual products and maintains a complete audit trail. The handheld portable printer works with an infrared system which downloads all information from the Totalizer to the printer. As an option, European customers are able to customize the Totalizer in four different languages including English, French, German, and Spanish. Additional language options are available upon request.

For more information, contact Mehmet Oezkent at ACD CRYO, tel +49.7635.8105.0 or mehmet.oez kent@acd cryo.com.