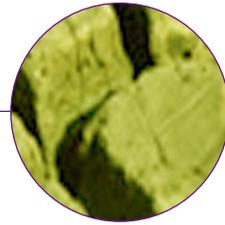


Resin Dryers



Technology in Action

Southeastern Container - Enka, NC

“

And I talked to the president of the company and just said, 'We're going to put ten systems in. Why don't we just put ten gas dryers in?'

”

Peter Falcigno
Technical Manager,
Injection

benefits

Benefits Realized

- Increased Temperature Control
- Reduced Energy Costs
- Lower Maintenance

what

What was Installed

Manufacturer: Conair?

Type: ?

Gas Company: ?

location

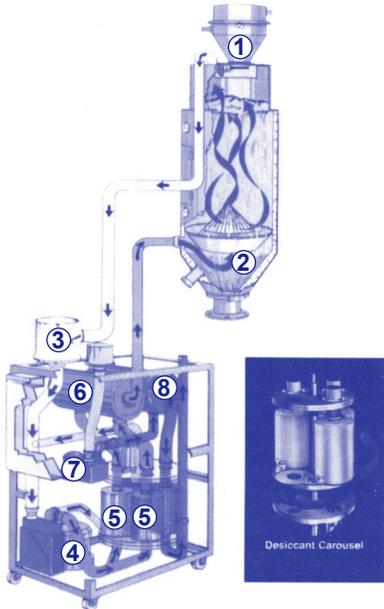
Technology on Location

Southeastern Container manufactures plastic beverage bottles exclusively for Coca-Cola. This fifteen year old company uses resin dryers to dry PET, a moisture-sensitive resin. They put a lot of weight on their choice for a resin dryer, stating that it makes up 90% of the end quality of their product. In the end Southeastern Container chose the natural gas solution for its performance and cost effectiveness.

Resin Dryers



How Carousel Dryers Work...



Process Cycle

1. Material is supplied to the insulated drying hopper on demand.
2. Heated, dehumidified air enters the drying hopper, penetrating the material and carrying moisture in vapor form up to the return air outlet.
3. Moisture-laden air passes through a filter to remove fines before re-entering the desiccant cartridge.
4. The process air blower forces moisture-laden air through on-stream desiccant cartridge.
5. The moisture is trapped within the on-stream desiccant cartridge.
6. Dehumidified air is reheated and delivered back to the drying hopper.

Regeneration Cycle

7. While desiccant cartridge(s) are on-stream removing moisture, one cartridge is in the regeneration position being purged of moisture which was deposited during the process cycle.
8. Separate regeneration blower and heaters are used in this moisture purging cycle.

Cool-Down Cycle

Following regeneration, the desiccant cartridge indexes into a cool down mode where a portion of the dry process air is used to reduce cartridge temperature so it can once again absorb moisture. This cool down mode also eliminates heat and dewpoint spikes that would adversely affect drying performance.

action Technology in Action

Increased Temperature Control

Because PET resin is so sensitive to heat, precise temperature control is a must for Southeastern Container. They experienced numerous temperature management problems with electricity. For example, if the units heated the resin too much, it would burn. If they didn't heat it enough, it would not dry properly. The natural gas equipment has given them the accurate control they need for a high-quality product every time.

Reduced Energy Costs

When comparing their electric and natural gas choices, Southeastern Container analyzed the cost of each option dollar-for-dollar. The results blew them away: approximately \$300,000 in savings with natural gas **per year**. This gave them a payback of just one year and made natural gas the obvious choice.

Lower Maintenance

Another benefit Southeastern Container had not accounted for was a reduction in maintenance. Their natural gas equipment has required far less troubleshooting and maintenance than its electric counterparts, resulting in better quality, less maintenance costs, and less downtime.

Overall Satisfaction

The natural gas equipment has impressed Southeastern Container so much that they decided to put **ten** gas dryers in their facility.

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Other Plastics Suite® Technology in Action Profiles Available

- Air Compressors
- Central Thermal Fluid Systems
- Chillers
- Desiccant Air Dryers
- Thermoforming Ovens



The **Plastics Suite®** is a collection of tools and resources to help increase awareness of natural gas technologies in the plastics industry. Currently plastics processing consumes approximately 280 trillion BTU's of energy throughout North America. Electricity accounts for 95% of this energy consumption. Natural gas is an under-utilized option which can in most instances produce the same product at a reduced cost. The **Plastics Suite®** consists of equipment manufacturer guides and software for calculating equipment feasibility and projecting cost estimates. For more information on the **Plastics Suite®**, visit the web page at www.plasticssuite.com.



For more information please contact your local Gas Supplier or visit our website: www.plasticssuite.com