



*REAL*  
**Abrasion/Corrosion  
Solutions**  
*Charcoal Industry*



## OVERVIEW

### The Challenge

- Corrosion and wear
- Line downtime
- Labor costs
- Maintenance costs

### The Solution

- Applied a cutting edge new material coating offering a market leading advancement in abrasion & corrosion resistance
- Additional proprietary custom upgrades to the rotary airlock

### The Results

- Increased production line efficiency
- Increased charcoal profit margins
- Increased plant productivity
- Lower maintenance costs
- Saved the company over \$50,000 annually

### Business Overview:

A very large charcoal- producing manufacturer with locations nationwide. This company is part of a mega-conglomerate with sales in the billions of dollars annually.

### The Challenge:

This sizable charcoal manufacturer has been purchasing Rotary Airlock Valves from Prater for more than a decade. As a valued partner, Prater has familiarized itself with the customer's process so well that a "standard" airlock was developed to be used in all of their plants nationwide. The "standard" airlock includes specific rotor thickness, special gussets, hardened coatings, abrasion resistant wear bars, and a proprietary packing arrangement.

As time passes, application processes change as well. Due to the abrasive quality of charcoal and the application process, the manufacturer was experiencing rotary wear of the internal lining of the airlock. Once the charcoal wore through the airlock coating, moisture would penetrate the airlock and corrosion would eat away at the cast iron and bolts. Once this happened, the heavy-duty, abrasion resistant wear bars would weaken and eventually break under pressure.

### The Solution:

The Prater Airlock Team was approached to find a solution for these new corrosion and abrasion wear issues. After investing countless hours to identify the source of the problem, Prater further invested more time to research and engineer a new "standard valve" for the client. Prater also made a large capital investment to acquire new cutting-edge material.

This new material was purchased and developed to apply a more corrosion and wear resistant coating. After extensively adapting this new material, Prater can now apply this new coating to even their largest rotary airlocks. This new hardened coating was also combined with other custom airlock upgrades to obtain a superior airlock able to withstand the continuous impact of the charcoal.



**The Results:**

Prater was able to quickly identify the problem and custom engineer a solution saving the client a large amount of time and money. The charcoal company is now running more efficiently and was very pleased with Prater's ability to adapt its current product line to the changing need of their charcoal plant. This trust in Prater was evidenced in the purchase of several replacement airlocks and spare valves for each of the customer's plants across the United States. Every plant is now equipped with the new standard airlock from Prater and has reaped rewards in increased efficiency, durability and as a result, increased profit margins. Prater demonstrated their commitment to their customer to ensure their satisfaction and profitability.

**Bio:**

Melissa Fink is an Airlock Account Manager for Prater Industries specializing in rotary airlock solutions for manufacturers worldwide . Melissa has worked for the company since 2008.

At Prater, results come first. Prater has been providing reliable particle management solutions since 1925. The company specializes in an extensive line of equipment and engineered systems including rotary airlocks, lump breakers, hammermills, fine grinders, classifier mills, air classifiers, compactors, plant-wide automation/controls as well as toll processing services.

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