

HANDLING A WORLD OF MATERIALS

High-pressure, low-pressure and vacuum conveying systems for pulp and paper mills, biomass systems and boiler direct-injection systems.

## Features/Advantages

Efficiently move chips, bark and RDF bulk material over a long distance, elevate it in a short distance or inject woody material directly into a boiler.

Pneumatic conveying rates of more than 1,000 tons per hour can be achieved with these systems. TerraSource's Jeffrey Rader brand designs ruggedly-built rotary valves, cyclones, wear back elbows, ducting and blowers for tough, high-pressure, high-volume and abrasive pneumatic conveying applications.

With more than 50 years of experience and thousands of installations in pulp and paper mills around the world, Jeffrey Rader has the application knowledge to design and build customized pneumatic conveying systems to meet your operational needs.

## Systems

### Boiler Fuel Feed Systems

Jeffrey Rader boiler fuel feed systems are typically made up of a combination of metering and conveying equipment such as underpile screw reclaimers, drag chain conveyors, screw conveyors, robbing screws, slide gate valves and rotary airlock feeders.



Depending upon the desired flow rate to the boiler, the speed of the system can be increased and decreased to obtain that desired flow rate.

Because this type of boiler fuel feed system is made of a collection of standardized pieces of conveying equipment, it has the benefit of many years of industry experience along with the reliability of those types of equipment.

## Components and Equipment

### Airlock Feeders

Jeffrey Rader rotary airlock feeders are considered to be the best in the industry. We stock a complete line of high-quality new and OEM-rebuilt rotary airlock feeders. Rebuilt feeders, which are reconditioned to our stringent design standards, offer significant cost savings.



### Mark III Elbows

The Jeffrey Rader Mark III flat back elbow for pneumatic conveyor applications is specially designed to reduce energy consumption, reduce wear and help eliminate fiber damage.



Material moves smoothly through the elbow, first at the impact area, then guided as it changes direction and discharges into the downstream pipe.

Elbow backs and transitions are available in AR plate (200 - 400 BNH), R-35 (600 BNH) or ceramic materials.

## Components and Equipment

### Model "E" Cyclone

The Model "E" cyclone provides a highly efficient discharge device for pneumatic transport systems and works well for a variety of fibrous materials including chips, bagasse, sawdust and bark.

The specially designed inlet impact section minimizes material damage and eliminates the buildup of material.

The Model "E" is designed for longer service life and easier maintenance. Wear parts are easily accessible for replacement. The inlet impact section is easily replaced from the outside of the unit. Abrasion-resistant alloy-plate body liners are easily replaceable through the top of the cyclone.



Replaceable and rotatable cone liners and R-35 (600 BNH) cast inlet segments are available as options. R-35 is extremely wear resistant and ideal for abrasive applications. Ceramic liners are also available.

### Blower Assemblies with Belt or Direct Drive

Jeffrey Rader uses standard positive displacement blowers to deliver a steady volume of air at constant velocity. Electric controls are available to automatically

shut off system if continuously overloaded, and interrupt material flow if a slight temporary overload occurs. A built-in check valve automatically closes when blower stops, preventing back-pressure from carrying material into blower. Inlet and discharge silencers are available to reduce noise levels.

