Supplying Nozzle Solutions for 25 Years

With tens of thousands of nozzles installed

An Industry Leader

Application Design

Quality Manufacturing

Cost Savings

Timely Deliveries

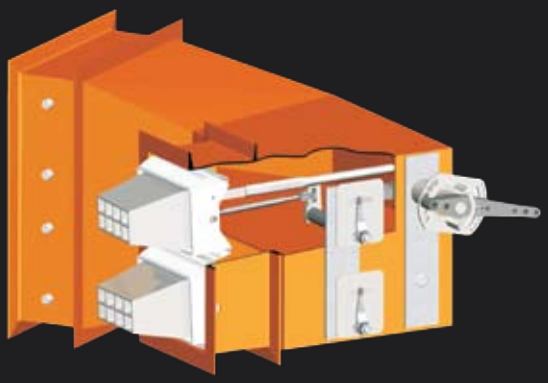
Innovative Upgrades

Total Windbox Expertise

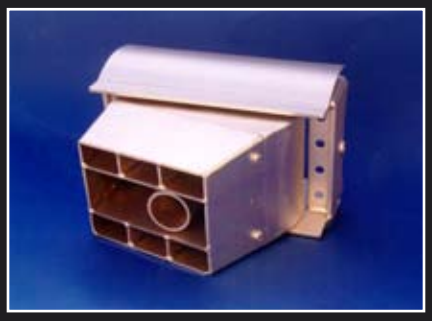
R-V INDUSTRIES INC.

Nozzle Experience

Major boiler and burner OEM's have recognized R-V Industries' extensive windbox design and manufacturing experience. As a result, we have been a key partner for NOx reduction projects and gas conversions on over 20,000 Megawatts of corner-fired furnaces. Trust us for your spare parts too.

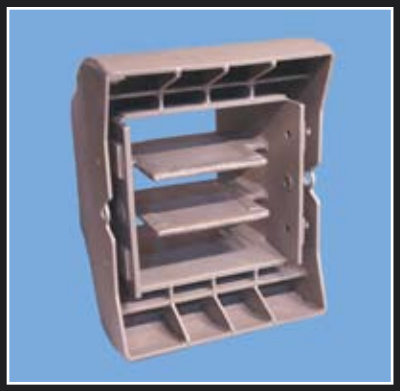


SOFA Windbox



R-V furnishes a wide range of replacement nozzle tips for your OEM NOx conversion, such as the Tilt and YAW Air Nozzle Tip. Fixed offset air nozzle tips are also available.

Bulbous Nozzles reduce air leakage when in the tilted position. The bulbous shape can be adapted to all nozzle types, including air, coal and oil.



R-V Industries offers a full line of Coal Nozzle Tip and Seal Plate sizes. Design choices include one-piece, two-piece, square corner, rounded corner, and bulbous styles. Extensive weld overlay on the splitter plates and inner annulus are available options.

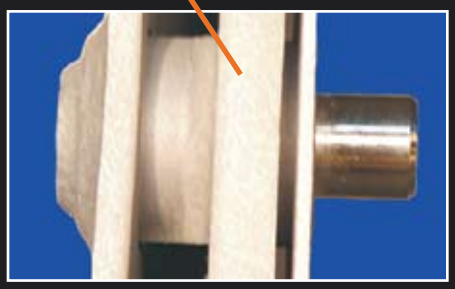
R-V Industries, Inc. 584 Poplar Road, Honey Brook, PA 19344
www.rvii.com • Phone: 610-273-2457 • Fax: 610-273-3361

R-V's Two-Piece Nozzle Design

In 1981 our innovative two-piece design started an industry trend. Two-piece Air Nozzle Tips enable you to replace the burned discharge end from inside the furnace. R-V can customize a design to accomodate your preferred attachment method. Higher temperature alloys can be limited to the tip portion of a two-piece nozzle for added cost savings.

Two-piece Coal Nozzle Tips enable you to replace the burned and eroded discharge end from the inside of the furnace. Many customers have realized significant equipment and installation cost savings as a result of converting to the two-piece design.

Our commitment to continual improvement resulted in our U.S. patented Quick-Change Coal Nozzle Tip™ design described below.



- ◊ Entire burner tip replaceable from inside the furnace
- ◊ Significantly reduces outage labor expense
- ◊ Eliminates removal of the stationary coal nozzle, fuel inlet elbow and compartment cover plate
- ◊ Works with your current operational stationary coal nozzle
- ◊ Includes integral seal plate and pivot pins
- ◊ Easily adaptable to your current burner tip design
- ◊ Excellent combination with our ceramic-lined stationary coal nozzles
- ◊ Available in both one-piece and two-piece designs in various material grades

The primary feature of our Quick-Change Coal Nozzle Tip is the spring-loaded pins and integral seal plate. High-temperature springs are enclosed inside the bushing. By depressing the pins the entire tip detaches from the stationary coal nozzle and can be removed from inside the furnace.

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Additional Windbox Enhancements

◊ Cermic-lined Stationary Coal Nozzles featuring a fabricated steel shell, pre-engineered, fine-grain, alumina tile lining and a bolt-on stainless steel end-tip.

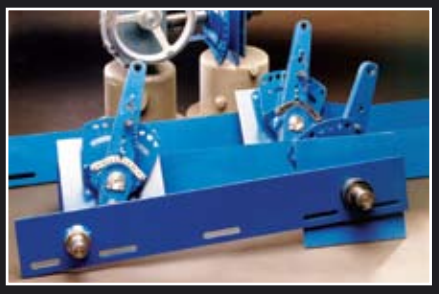
◊ Complete Damper Rebuilds:
- Stainless steel shafts and self-aligning graphite damper bearings
- Opposed damper blade retrofit for increased air flow control

◊ Tilting Mechanism components and complete system replacements in a modular design

◊ Modify existing windboxes with Side Access Doors for ease of maintenance and adjustment to tilting mechanism

◊ Full line of Oil Firing Components including side ignitor horns (pilot torch nozzles), diffusers, extension cones, oil guns, retraction mechanisms ignitors, burner valves and oil gun tips

◊ Replacement Windboxes complete with nozzles, dampers, tilting mechanisms, and turning vanes



Tilting Mechanism Modules

Retractable High Energy Spark Ignitor

Ceramic-Lined Coal Nozzle

Materials and Quality Control

We offer a wide range of material options for your nozzle applications, including:
◊ 309 & 310 Stainless Steel
◊ 253 and 353 MA
◊ Inconel 600 and 625
◊ Hastelloy X
◊ Customer certified

Certified ASME Code welding procedures coupled with a quality control program ensures you of an exceptional product.

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