



Kristy Boone  
Synergy Marketing Group, Inc.  
+1 (317) 205-9690 ext. 228  
[kristy@synergy-mg.com](mailto:kristy@synergy-mg.com)

**FOR IMMEDIATE RELEASE**

## **Frarendi's Innovative Replacement Coupons Offer Viable Repair Option for Eroded or Damaged Land-based Gas Turbine First Stage Nozzle Vanes**

**INDIANAPOLIS** (October 10, 2007) Frarendi's leadership team recently authored a white paper to educate the industry about the challenges of operating land-based gas turbines at optimum efficiency levels: "The Gas Turbine Industry's Best Kept Secret: First-Stage Nozzle Replacement Coupons."

The white paper was researched and developed in response to growing worldwide demand for a better way to repair eroded or damaged first-stage nozzle trailing edges, reduce the total cost of ownership of turbines, extend the life of nozzles, and ultimately operate turbines more effectively and efficiently. Frarendi's growing product line offers repair shops and owners/ operators of land-based gas turbines an affordable alternative to replacing entire first stage nozzles when the vanes become eroded or damaged.

Frarendi's recent white paper explores the traditional options for repairing first-stage nozzles. One repair method uses welding to fix the vane cracks or supplement missing material. The other common approach is to replace the entire nozzle. Frarendi's experience has demonstrated that welding can be a simple and effective short-term solution, but the nozzle will continue to degrade with each weld. While total nozzle replacement resets the clock on the nozzle's lifespan, it is a very expensive, time-consuming, and often unnecessary, investment. As an alternative to these two options, Frarendi has developed a replacement coupon that repairs first-stage nozzle trailing edges to their original structural integrity and high performance levels.

"Our replacement trailing edge coupons make it possible to quickly and easily remove and replace the eroded sections of first-stage nozzles," said Kevin Davis, president of Frarendi. "The Frarendi coupon maintains the structural and metallurgical integrity of the original parts and extends the life of the entire nozzle, saving significant time and money."

**FRARENDI, INC.**

610 Maple Street Tipton IN 46072

office (317) 333-7650

fax (317) 333-7651

[www.FRARENDI.com](http://www.FRARENDI.com)



*Page 2/ Frarendi's Innovative Replacement Coupons Offer Viable Repair Option for Eroded or Damaged Land-based Gas Turbine First Stage Nozzle Vanes*

Each Frarendi coupon is made of the same high-quality, castable and weldable cobalt-based FSX-414 Alloy used in the original base metal of the nozzle. Coupons are matched with the exact geometric and dimensional specifications of the original vane. Intricate cooling holes are machined into each coupon using an electro-discharge machining (EDM) process at the piece part level. These holes are precisely drilled into the coupons to match the holes in the original vane to ensure that performance is not compromised.

Frarendi is known worldwide for providing a cost-effective, viable repair option to a wide-range of land-based gas turbines. The company offers a comprehensive selection of ready-to-install replacement coupons that range from \$300 U.S. to \$1,100 U.S. each. Sets are kept in stock at all times to provide a rapid repair process for replacing a variety of trailing edge nozzle parts including: Frame 3; Frame 5; Frame 6B; Frame 7B; Frame 7E; Frame 7F/7FA; and Frame 9E.

Visit [www.frarendi.com/PDF/FrarendiCouponWhitepaper.pdf](http://www.frarendi.com/PDF/FrarendiCouponWhitepaper.pdf) to download a copy of Frarendi's newest white paper: "The Gas Turbine Industry's Best Kept Secret: First-Stage Nozzle Replacement Coupons."

#### **About Frarendi, Inc.**

As a combustion service hardware innovator Frarendi, Inc. offers two exclusive lines of FSX-414 Alloy products and a unique method for quickly, easily and cost-effectively repairing first-stage gas turbine nozzles. Its trailing edge replacement coupons are also known as wishbones, tips or nozzle replacement sections. The Frarendi coupons make it possible to cut-out, remove and replace eroded sections of first stage gas turbine nozzles rather than replacing the entire nozzle. These coupons rival the lifespan of the original parts and extend the life of the entire nozzle, saving both significant time and money. The company serves original equipment manufacturers (OEM) and aftermarket repair, service and machine shops worldwide.

Frarendi was founded in 1981 and is managed by a team of industry experts. The company's leadership has more than 150 years of combined experience servicing and supplying critical components to the power generation, petroleum, energy, metalworking, machinery, instrumentation and aerospace industries. Frarendi is privately-held and is centrally headquartered in Tipton, Indiana just outside of Indianapolis.

To learn more about the company, its unique repair process or to check a list of in-stock parts, visit [www.Frarendi.com](http://www.Frarendi.com) or call +1 (317) 333-7650.

**###**

**FRARENDI, INC.**

610 Maple Street Tipton IN 46072

office (317) 333-7650

fax (317) 333-7651

[www.FRARENDI.com](http://www.FRARENDI.com)