

# Diamond Power® Gemini® Nozzle for Improved Boiler Cleaning

The Diamond Power® Gemini® sootblower nozzle, provided by Babcock & Wilcox (B&W) and designed specifically for recovery boiler applications, outperforms other nozzle designs with its patented, cast body and staggered jets. It is engineered to reduce steam consumption and increase cleaning energy, by up to 29% in some installations (compared to alternative designs).

### Design benefits

The Gemini sootblower nozzle dramatically enhances cleaning performance while significantly reducing operation and maintenance costs as well as steam consumption. We can assist you in calculating the steam savings and economic payback of installing Gemini sootblower nozzles.

### The Gemini sootblower nozzle's unique design

- Improves cleaning effectiveness by up to 29% due to innovative internal flow path of two high-performance nozzle jets
- Provides equal cleaning distribution, thereby reducing the potential for sootblower-induced boiler tube erosion by approximately 60%
- Increases average impact energy delivered by the two nozzle jets at any given steam supply pressure



The Gemini sootblower nozzle has a cast body with staggered nozzle jets to allow the most effective cleaning path.



Gemini sootblower nozzle (cutaway side-view).

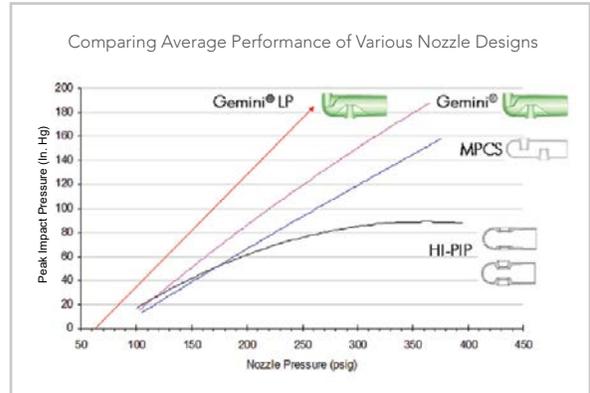
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## Applications

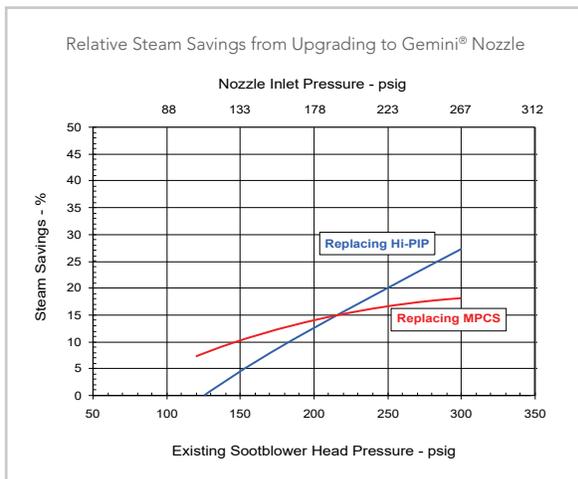
The family of Gemini nozzles include a variety of configurations that have been developed specifically for recovery boiler applications. These include:

- Cleaning between platen and pendant sections
- Lane cleaning
- Conventional steam sources
- Low pressure steam sources (Gemini LP)

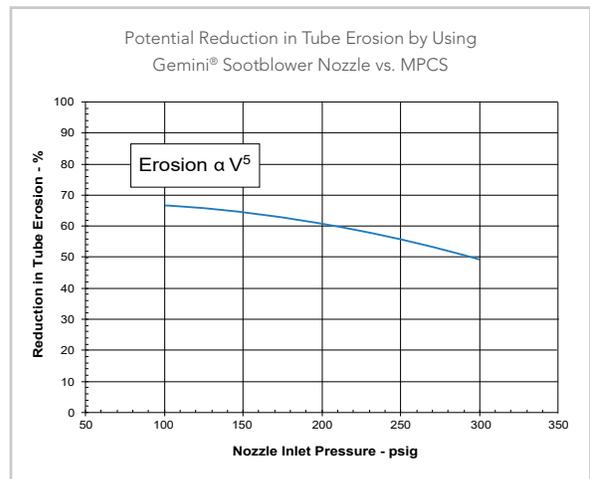
B&W's experienced engineers and field representatives are available to assist you in determining the right nozzle for your application, calculating the steam savings and economic payback of installing Gemini sootblower nozzles.



Compares peak impact pressure (PIP) of the Gemini sootblower nozzle and the Gemini low pressure (LP) sootblower nozzle, to previous Diamond Power high performance nozzles. The result is better cleaning at a wide-range of supply pressures.



Illustrates steam reduction and related savings by converting from previous nozzles to the Gemini sootblower nozzle.



Demonstrates how equal cleaning from Gemini sootblower nozzle jets results in reduced boiler tube erosion.

## Babcock & Wilcox

1200 E Market Street, Suite 650  
Akron, Ohio, U.S.A. 44305  
Phone: +1 330.753.4511

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

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