



**NOXmatic®**

*Compliance out-of-the-box*

## Delivers Ultra Low NOx Compliance Right Out of the Box

### Site Information

User: Providence Holy Cross Hospital  
Location: Mission Hills, CA  
Boiler: Union Iron Works - watertube  
Contractor: Johnson's Boiler & Control, Inc.  
Fresno, CA  
Burner: NOXmatic™ A-Type  
Capacity: 300 HP  
Fuel: Natural Gas  
Emission Limit: 9 ppm NOx

### Situation

Providence Holy Cross Hospital had successfully operated S.T. Johnson FD68 burners for many years on their two Union Iron Works watertube boilers. When a new regulation required them to reduce NOx emissions below 9 ppm, they did not hesitate to call S.T. Johnson again. They selected an S.T. Johnson NOXmatic™ burner that requires no Flue Gas Recirculation to achieve sub-9 ppm NOx.

### Solution

S.T. Johnson Company delivered a NOXmatic™ Type-A burner system. The NOXmatic™ burner does not require flue gas recirculation to achieve ultra low NOx emissions, thereby eliminating the added expense of installing, operating and maintaining an FGR system.

The NOXmatic™ Type-A burner incorporates S.T. Johnson's trademark axial-flow air blower arrangement with swing-open housing to provide easy access to all burner internals for ease of maintenance. This allowed S.T. Johnson to provide a streamlined, compact package which was a direct replacement of the existing FD68 burners and minimized installation work. The result was a very clean, quick and cost-effective installation.



The burner system included Fireye PPC-6000 parallel positioning linkage-less controls. System efficiency was further enhanced by the use of an AB PowerFlex variable frequency drive to modulate combustion air fan speed in accordance with burner load.

### Results

The NOXmatic™ burner took a total of four days to install and commission after arriving on the site. After the burner passed the source test with flying colors, the hospital promptly ordered a second NOXmatic™ burner to retrofit their #2 boiler. Final performance parameters were as follows:

NOx limit:	9 ppm @ ref. 3% O <sub>2</sub> , dry
NOx emission actual:	8 ppm @ ref. 3% O <sub>2</sub> , dry
CO emission actual:	0 ppm @ ref. 3% O <sub>2</sub> , dry

For more information, call your authorized S.T. Johnson distributor. Find a complete list of distributors at [www.johnsonburners.com](http://www.johnsonburners.com)

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**S.T. Johnson Company**

925 Stanford Ave. • Oakland, CA 94608 • USA • Phone (510) 652-6000 • Fax (510) 652-4302 • [www.johnsonburners.com](http://www.johnsonburners.com)