The John Zink Hamworthy Combustion High Intensity (HI) burner has a proven track record of over 40 years of reliable performance. Every HI burner we deliver is developed with industry leading JZHC engineering and backed by our world-class support resources to ensure the most efficient and most effective operation possible.

Our HI burners are ideal for a wide range of applications including:

- Acid gas reaction furnaces
- Process heaters and boilers
- Inert gas generation
- CO and hydrogen synthesis
- Low NOx performance on NOxidizer® systems

HI Burner Design Features

Each HI burner design is optimized for maximum performance potential and efficient operation and maintenance.

- Our advanced spin vane assembly and burner design creates a high intensity mixing zone while providing a stable flame
- Each unit is fabricated to allow for easy access and maintenance of critical components
- Our HI burners can be designed as an “insert” for retrofit applications with minimal field work

HI Burner Performance

HI burners from JZHC deliver a variety of performance benefits, including:

- Flexible fuel capacity (either liquid or gas)
- Ability to meet turndown requirements up to 10-to-1
- Airflow is controlled for optimum H2S / SO conversion
- Can be used in Oxygen Enrichment applications
- Operates at sub-stoichiometric conditions with no soot formation
- Maximize destruction efficiency of acid gas contaminants

John Zink Hamworthy Combustion is an industry leader in Computational Fluid Dynamics (CFD) modeling. Combined with our extensive experience in design and manufacturing of combustion equipment, our CFD expertise ensures predicted performance upon start-up and delivers confidence in your decision to go with the leader.

In addition to CFD modeling and engineering, our burners are tested and proven at the JZHC Research and Development Test Center, the largest and most advanced testing complex of its kind. This exclusive resource allows our engineers to push innovation and measure burner performance in a full-scale industrial setting, collecting data vital to optimizing real-life operation.
Proven SRU Performance for Seamless System Integration

At John Zink Hamworthy Combustion, our proven capabilities allow us to provide Sulfur Recovery customers with complete packages on larger systems where integration is key for successful operation. We supply all necessary equipment for fired processes within the Claus Sulfur Recovery Unit, including Acid Gas Burners, Reaction Furnaces, In-Line Heaters, Reducing Gas Generators and Tail Gas Incinerator packages. We work both through appointed licensors for Claus SRU process and independently, providing complete process design and supply for all the fired equipment in the sulfur recovery unit.

John Zink Hamworthy Combustion can supply packaged units with controls and burner management systems, or any of these components, custom-designed for your particular needs:

- Acid Gas (Main) Burners
- Reaction Furnaces
- Tail Gas Incinerators
- Flame Scanners
- Low NOx Burners
- Acid Gas Flare
- Waste Heat Boilers
- Steam Superheaters
- High Energy Igniters / Pilots
- In-Line Heaters / RGG
- Stacks

For more information about the HI burner, contact:
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