



SINCE 1966

Introduction

Power Generation is a proud member of the HMA Group of companies who have been servicing the Australian market in excess of 50 years. Combined with the more than 100 years of experience of Diamond Power International, Inc we offer industry leading solutions for Power Generation, Pulp and Paper, Petrochemical and Heavy Industries.

Today, our customers increasingly require solutions that improve cycle efficiency and reduce the environmental impact of their processes. Products and services that deliver on both of these demands are fast becoming our specialty. More than ever our solutions are about extracting more from the existing plant and engineering new solutions that help our customers deliver on their environmental needs and policies.

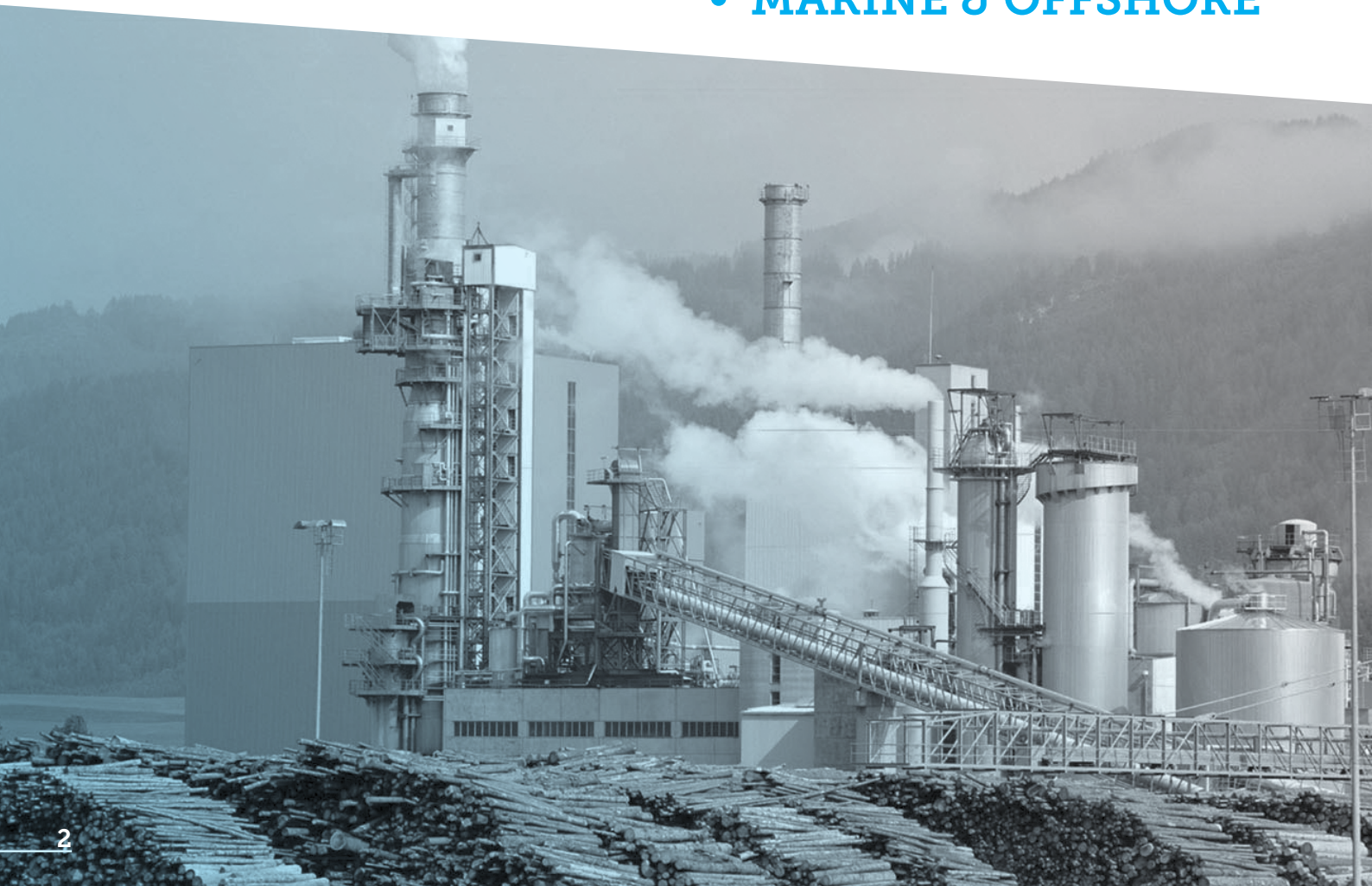
Through our team of locally certified and factory trained technicians we can provide lifetime support on all products. Our service team provide in-house repair, on site commissioning and calibration, as well as long term service contracts. Our markets extend from Australasia

through the Pacific Rim to Asia and Africa. We have local offices in Australia, New Zealand, Indonesia and South Africa.

We invite you to talk with us about cleaner energy solutions for a changing world.

Industries

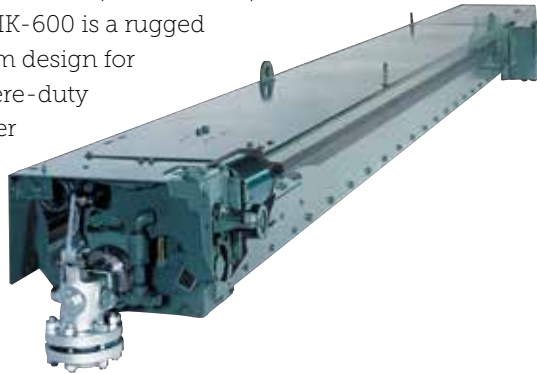
- **POWER GENERATION**
- **OIL & GAS**
- **PULP & PAPER**
- **MINING & MINERALS**
- **PROCESS INDUSTRY**
- **PHARMACEUTICAL, FOOD & BEVERAGE**
- **WATER & WASTE**
- **MARINE & OFFSHORE**



Online Boiler Cleaning

IK Series Retractable Sootblowers

Long retractable sootblowers available with steam, air or water as the cleaning medium. IK-525 & IK-545 have a cleaning coverage of 8.5 and 13.5 metres respectively. Typical applications: Superheater, reheater and economiser regions, Fired Heaters, Incinerators, Catalytic Crackers and SCR's. IK-600 is a rugged sootblower with an open beam design for accessibility intended for severe-duty applications. IK-4M for smaller units with a cleaning coverage up to 5.5 metres. Typical applications: Industrial applications such as oil fired heaters, waste heat and package boilers.



Diamond Rodding Robot

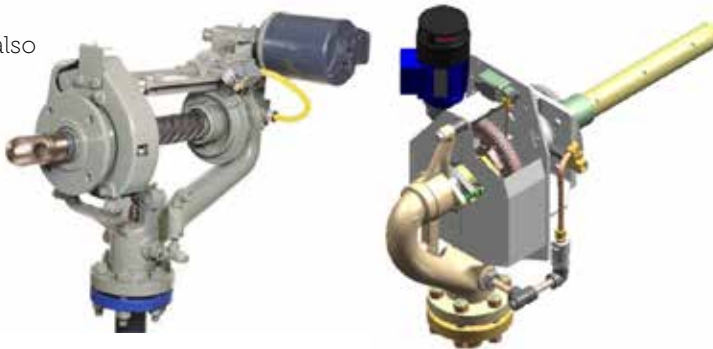
Simple robust automated port cleaning system, with a single stroke and patented flex head technology. If recovery boiler ports are cleaned regularly boiler capacity is increased, hence increasing steam production and reducing emissions.



IR & G9B Series Wall (Rotating) Sootblowers

The IR series wall sootblower is light and small enough to fit into tight areas, and is ideally suited for high temperature locations while the G9B sootblower is designed to remove ash deposits from tube surfaces in stationary boilers, marine boilers, waste heat boilers and direct-fired oil-heaters, where gas temperature zones inside the boiler permit a fixed cleaning element.

The G9B may also be used for cleaning low-temperature gas zones in large boilers.



Hydrojet® Retractable

Boiler cleaning system which represents a major breakthrough in furnace water cleaning technology.

Extended articulating nozzle into furnace for vastly improved cleaning area coverage and effectiveness.

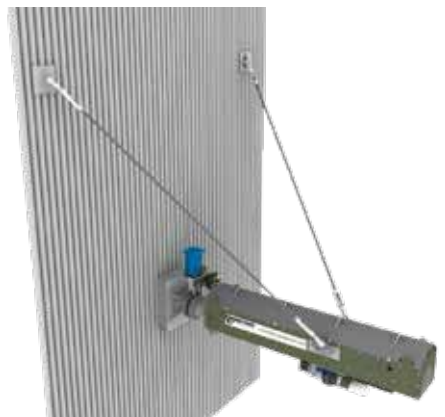
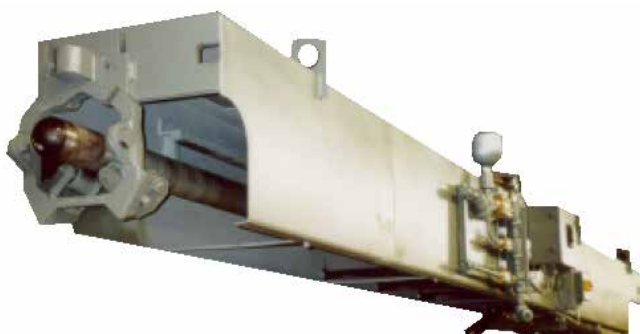
Consumes up to 70% less water than older models and eliminates requirement of continuous cooling air.



SPWL® & Customised Water Blowing

Provides effective cleaning on slag deposits that conventional steam or air cleaning cannot fully remove. Combines a high performance variable speed drive with accurate position sensors and PLC-based programmability.

Custom-programmed by our engineers for specific boiler surfaces to maximize coverage and control effects on tube life by avoiding areas that can be damaged by water impact. Available on the entire range of IK series sootblowers.



Sootblower Enhancements

Gemini® XeR Sootblower Nozzle

The Diamond Power® Gemini® XeR nozzle from HMA Power Generation is designed specifically to reduce condensation-related tube erosion in utility boilers.

This unique twin-channel design separates condensate from the cleaning medium and directs it safely away from the heat-transfer surfaces.

The design reduces the quantity of condensate, which aids in prolonging tube life and minimising the need to replace expensive tube shields and boiler tubes.

New money-saving design reduces steam flow up to 17% compared to a conventional nozzle and decreases boiler tube erosion potential by 30%.



Progressive Helix Mechanism

Patented mechanism that improves nozzle cleaning coverage by incrementally changing the nozzle path. Precision-g geared indexing mechanism precisely shifts the nozzle starting position every cycle for more complete cleaning and reduced tube erosion damage.

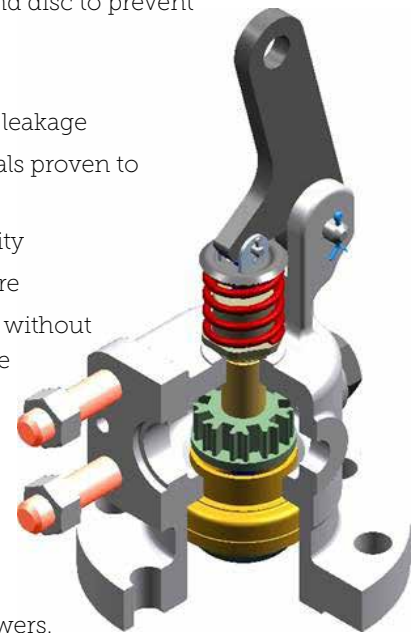


Poppet Valves

HMA Power Generation poppet valve features:

- Replaceable welded flexible valve seat and disc to prevent distortion from thermal stress
- Self-aligning disc for better sealing
- Long term reliability with freedom from leakage
- Pressure control disc made from materials proven to withstand steam service
- Varying models with adjustment flexibility
- Steam yoke ensures positive valve closure
- Feed tube and lance tube are removable without disturbing piping to the sootblower valve
- Fully serviceable
- Available in ANSI 600#, 900#, and 1800# pressure ratings.
- Companion flanges to suit are available.

HMA Power Generation poppet valves are available for other manufacturer's sootblowers.



Live Loaded Gland

For feed tube packing, the live loaded gland maintains uniform, 360-degree compression without frequent manual adjustments, substantially increasing packing life and reducing traditionally high maintenance activity. Graphite foil packing continuously loaded by a high energy packing gland virtually eliminates steam and condensate leakage.



Tubular Products

HMA Power Generation stock a vast variety of tubular products used in lance, feed tube and element manufacture. We source directly from the mills ensuring exacting standards are maintained. Tightly controlled weld procedures combined with full Non Destructive Testing ensure longevity. Whether it is an existing design or new application talk to us about your next requirement. Available for HMA Power Generation and all other manufacturers' boiler cleaning equipment.



Boiler Diagnostic Tools

High-Resolution Cameras

High resolution cameras with no moving parts, variety of mounting configurations that can be incorporated to meet individual requirements and provides temperature feedback for burner adjustments.

- KilnCam™ can view the product in the burner zone just before it's ready to exit
- SteelCam™ can view the slab/billet in the burner zone just before it's ready to exit
- GlassCam™ can view the batch product in the burner zone just before it's ready to exit
- Cameras feature exclusive TempVu™ software system allowing up to 15 user definable temperature regions and single or multi-point region averaging.



Wall-Eye™ HD Furnace & Viewing

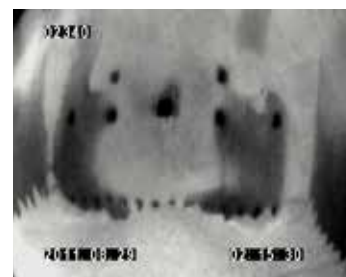
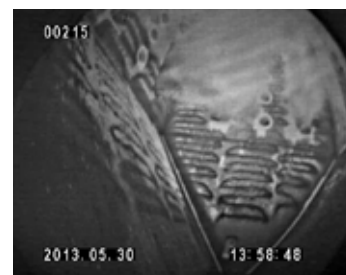
Our high resolution viewing system is the most powerful industrial remote system available. Using a solid state camera delivers pristine, highly-detailed images of your boiler or furnace – in vivid colour. Wide field-of-view that allows you to see more of your process.



Wall-Eye™ HD Furnace & Viewing

HMA Power Generation's high temperature IR camera systems feature the latest solid-state technology with special optics to produce viewing through smoke, fumes and particulate laden steams. Both in water or air cooled camera housings to minimise the amount of cooling medium used thus reducing operating costs.

Optional accessories include either pneumatic or electric retract systems in the event of cooling medium failure.



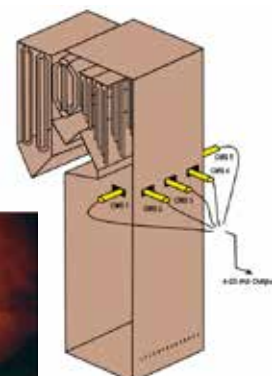
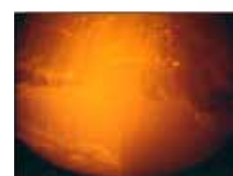
Gas Temp®

Extended range optical pyrometer uses a patented wavelength to directly measure actual furnace gas temperature - including minute changes in flue gas temperatures. Can be used from boiler start-up to full-load operation and also available for Recovery Boilers



Carry Over Monitoring System

Monitors on-line, luminous particle activity in the boiler. Multiple sensors used to detect activity at selected locations in the upper boiler, monitor particle carryover in several locations at once.

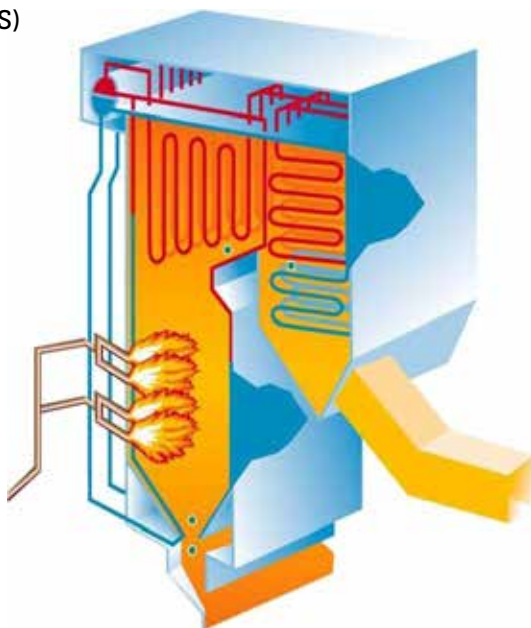


Boiler Optimisation

Intelligent Sootblowing (ISS)

Intelligent cleaning system provides real-time decisions to enable operators to maximise boiler cleaning and operating decisions under changing conditions.

Closed loop control system utilises sensors and software that go beyond conventional control systems. Anticipates and adapts to changes within the boiler.



SentrySeries™ Controls

Control systems that provide a cost effective programmable logic control (PLC) for modular solutions for up to 48 sootblowers.

Easy-to-configure cleaning solutions with colour touch screen, DCS interface option, incorporating header control and motor current monitoring for a complete control solution.



Steam Drum - Level, Indication & Monitoring

The Diamond® Series II - Ported Level Gauge (Bi-Color) which is a 3000 psi ported gauge that produces a red/green image to indicate the water level in a high-pressure steam drum.

Reflex Gauge providing excellent visibility of liquid level. Single Detection Circuit (SDC) Alarm Module represents a reliable, cost effective and versatile means of sensing water in high temperature and pressure applications.



Heat Flux Sensors

Used in conjunction with boiler optimisation, our transducers are the most robust of their kind and due to their patented design, incorporate a true 100% redundancy that is unmatched. Complete with an ASME



Boiler Services

Boiler Services

We aim to extend your boiler run length while improving its condition, output, reducing carbon emissions and steam consumption.

Our proven track record will return maximum gain on your investment, the services we provide include:

- Flexible maintenance arrangements such as turn-key maintenance contracts, onsite routine maintenance, offsite maintenance and repairs.
- Site service and inspections such as walk-down inspections with full written report, performance review, sequence optimisation and system operational parameter tuning.
- Engineering support such as heat transfer improvements, process optimisation, engineering consulting, product training, specialised equipment design and diagnostic equipment hire.



Offline Cleaning

Offline Cleaning

Our offline Boiler Cleaning service is a bespoke, highly automated process designed to reduce pre outage cleaning from days down to hours allowing your outage activity to commence and conclude much sooner. We offer a mobile cleaning system specific to your boiler dimensions that accurately deploys high pressure water to the desired cleaning zones.

Commencing during the cool down process the combination of thermal and kinetic energy rapidly removes tenacious slag and fouling deposits. The automation aspect removes the need for workers to enter the boiler space and twin rope access often required for hard to reach areas.

Our service is scalable from large utility boilers right through to package boilers, uses less water than traditional labor intensive cleaning methods and dramatically reduces outage durations. Talk to us about how this service can assist your operational requirements.





Email: power@hmagrp.com

AUSTRALIA

Tel: +61 (0)3 5136 8400

Fax: +61 (0)3 5136 8499

NEW ZEALAND +64 (0)7 850 2610

INDONESIA +62 21 2278 3377

SOUTH AFRICA +27 13 650 9800

HMA GROUP

MATERIALS HANDLING

WEAR SOLUTIONS

FLOW & INDUSTRIAL

INSTRUMENTATION

POWER GENERATION

GEOTECHNICAL

AUSTRALIA - NEW ZEALAND - INDONESIA - SOUTH AFRICA

www.hmagrp.com