Clearly, Duiker's ongoing search for new, innovative concepts is driven by a solid commitment to keeping our environment clean through state-of-the-art process combustion technology. This has created a win-win scenario for our customers – by investing in a Duiker burner you are actively engaged in lowering your emissions, while increasing reliability and achieving cost savings at the same time.

Helping you Identify Improvement Opportunities

Support as an integral asset

Support can prove to be a valuable asset to any organization that wishes to get the most out of their sulphur recovery unit. We have extensive experience in identifying opportunities for plant optimization and helping plant management provide viable alternatives. For example, revamping existing combustion equipment, with or without the use of oxygen enrichment, can provide refineries with an economical alternative that allows them to increase the throughput of their current sulphur recovery unit while significantly reducing the cost of a unit.

Training for increased safety and less down-time

Duiker's field engineers are highly experienced supervisors when it comes to erecting, commissioning, starting-up, controlling, safeguarding, maintaining and revamping combustion equipment in general and sulphur recovery equipment in particular. But they are also highly capable of doing more – Duiker can provide expert training for your operators with the goal of optimizing equipment operation so that it is as safe and reliable as possible. This can significantly minimize unscheduled downtime and maximize the return on investment of the equipment.

Duiker provides support that really helps – our revamps, field services and training are all focused on increasing reliability, efficiency and lower costs.

Solutions for Sulphur Recovery Units

Because their excellent performance is universally recognized, Duiker often provides the main, tail gas treating and incinerator burners for sulphur recovery units. It is less recognized that the quality of in-line burners also ensures thorough mixing, which helps avoid SO_3 formation. The low oxygen breakthrough associated with these highly reliable burners also has a decisive impact on the lifetime of the catalyst. We have extensive experience in the design of all types of all burners and chambers for sulphur recovery units. Challenge us to design your next combustion solution for the best performance, reliability and safety available on the market. There is a lot to gain – both in terms of performance and cost.

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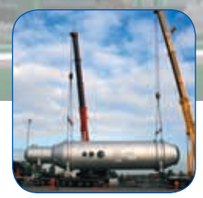
Duiker
Combustion Engineers

Improve your technology. Meet your targets. Lower your costs.



www.duiker.com

A professional way to meet demanding process and emission requirements.

Your Partner in **Combustion Technology**

Our Company, Our Values

Duiker Combustion Engineers has been a trusted name in combustion technology since the 1950's. The technology may have changed, but our core values still remain the same – performance, reliability, and safety. Our main activities include designing, supplying and installing a range of liquid and gaseous fuel process burners for oil refining, chemical and natural gas processing industries across the globe. Our professional team of engineers will always ensure that you receive a cost-effective, environmentally friendly solution uniquely tailored to your company's specific requirements.

Meeting your Complex Combustion Challenges

A technological leader

Sulphur recovery equipment is susceptible to a variety of factors such as feed gas impurities, demands for increased reliability and throughput increases, all of which constantly challenge optimal design and implementation. At Duiker, we use our frequent on-site involvement to provide real-world feedback to our research department. It is a proactive, research-focused approach that does more than just provide solutions to these problems – it also keeps us on the forefront of innovation, and has made us the clear technological leader for combustion equipment in sulphur recovery units.

Tailored design

Duiker's team of dedicated engineers has successfully completed thousands of projects worldwide, but we don't simply provide cookie-cutter solutions. Every company is unique, and has its own set of challenges, so we use the feedback we receive to provide you with the information you need during every step of the project. The advantages are clear: tailored equipment designs that provide optimal process performance, reliability and flexibility. The benefit for your bottom line is clear too: less unscheduled downtime, the prevention of adverse conditions to your downstream equipment and a better performing sulphur recovery unit.

Duiker – a true strategic partner that you can rely on to design and supply the best, state-of-the-art solution for your company.

Quality Equipment and Smart Alliances for Optimal Solutions

Pushing the limits of technology

Our original 1950's portfolio contained main, in-line, reducing gas generator and incinerator burners. Since then, things have changed. Our global experience and technology-focused innovation have allowed us to push the limits of burner design – whether using normal air, enriched air or pure oxygen. For instance, Duiker built the world's first oxygen enriched burners for sulphur recovery units. From the smallest main burner handling three tonnes of sulphur per day, to our main burners that can handle 2,000 tonnes per day, Duiker continues to supply the best quality combustion equipment in the industry.

Partnership alliances that make us stronger

Duiker has also forged strong alliances with the providers of auxiliary equipment, and we are a prime international supplier for equipment used within several licensed processes. This puts us in a good position to help you achieve the best possible solution for your company. Whether you need one piece of equipment or a complete unit, a complete turn-key solution or a partner to fully manage your project from the initial concept through to start-up, the knowledge and technical expertise of Duiker and its partners can provide a truly tailor-made solution.

The Power of Innovation – Lower Emissions, Lower Costs

Improving plant performance

There is no question about it – all companies operating today have to consider environmental problems such as global warming and the pollution of air, water and soil. Duiker has therefore worked hard to create solutions that don't just help companies meet increasingly stringent emission legislation. Our solutions also incorporate features that improve overall plant performance and operation, delivering cost savings into the mix.

Innovation for new and existing scenarios

Duiker's unique approach to the combustion process starts with the high-intensity mixing technology that forms the basis of all our process burners. Examples include extremely efficient process burners such as the Duiker main burner, the Duiker line burner and the Duiker incinerator burner. The mixing characteristics of our burners and chambers result in their extreme reliability, and allow you to achieve the lowest possible emissions. At the same time, our incineration processes have introduced many unique innovations that have led to increasingly economical designs.

One such innovation is our ammonia incineration process. This process separately incinerates the NH_3-bearing stream, eliminating the NO_x and NH_3 emissions that are normally associated with ammonia incineration. The results are lower capital expenditure due to a smaller sulphur recovery unit, reduced maintenance resulting from the prevention of salt formation in the Claus unit, a robust process which makes the entire unit much more capable of dealing with upset conditions upstream, lower stack emissions and energy cost savings. The best part? This process isn't just intended for new sulphur recovery units – it is especially suitable for debottlenecking existing plants.

The combined benefit of operational and cost improvements

In whatever process you apply our technology, the result will be objective advantages from both operational and cost perspectives:

- ✓ Low emissions
- ✓ Excellent flame stability
- ✓ High turn-down ratios
- ✓ The ability to deal with upstream upset conditions
- ✓ Low maintenance
- ✓ Low lifetime cost
- ✓ Energy cost savings

R&D focused on improving the environment... and your company's bottom line.