



Press release – Paris, August 22, 2023

Fives launches its first 100% hydrogen duct burner

Industrial leader Fives, with over 100 years of expertise in industrial combustion, has just launched its first 100% hydrogen duct burner. The Hy-Ductflam™ is a key step towards the decarbonization of heating and drying processes worldwide as hydrogen emits zero carbon when burnt. Designed for new installations or to replace standard duct burners, Fives' solution can be easily implemented by manufacturers with very limited process modification.

Combining economic and environmental performance for customers

Manufacturers are looking for alternatives to reduce their carbon footprint and since the combustion of hydrogen emits no CO₂, it is one of the solutions to reduce their environmental footprint.

Always one innovation ahead thanks to its ability to anticipate customer needs, **Fives has designed its first duct burner firing 100% hydrogen.**

Fives innovative solution, the Hy-Ductflam™, enables its customers to easily switch fuels going from 100% natural gas (NG) to 100% hydrogen (H₂) without any changes made to the equipment.

For example, by using Fives' Hy-Ductflam™ set on 100% hydrogen, a paper plant will emit 170 kg less of CO₂ per ton of paper produced which significantly reduces its carbon footprint (by about 2/3).

Providing high efficiency and mechanical reliability, the Hy-Ductflam™ is suitable for any duct configuration. This means it can be installed both in new installations and as a replacement of standard duct burners **thus limiting costs for manufacturers.**

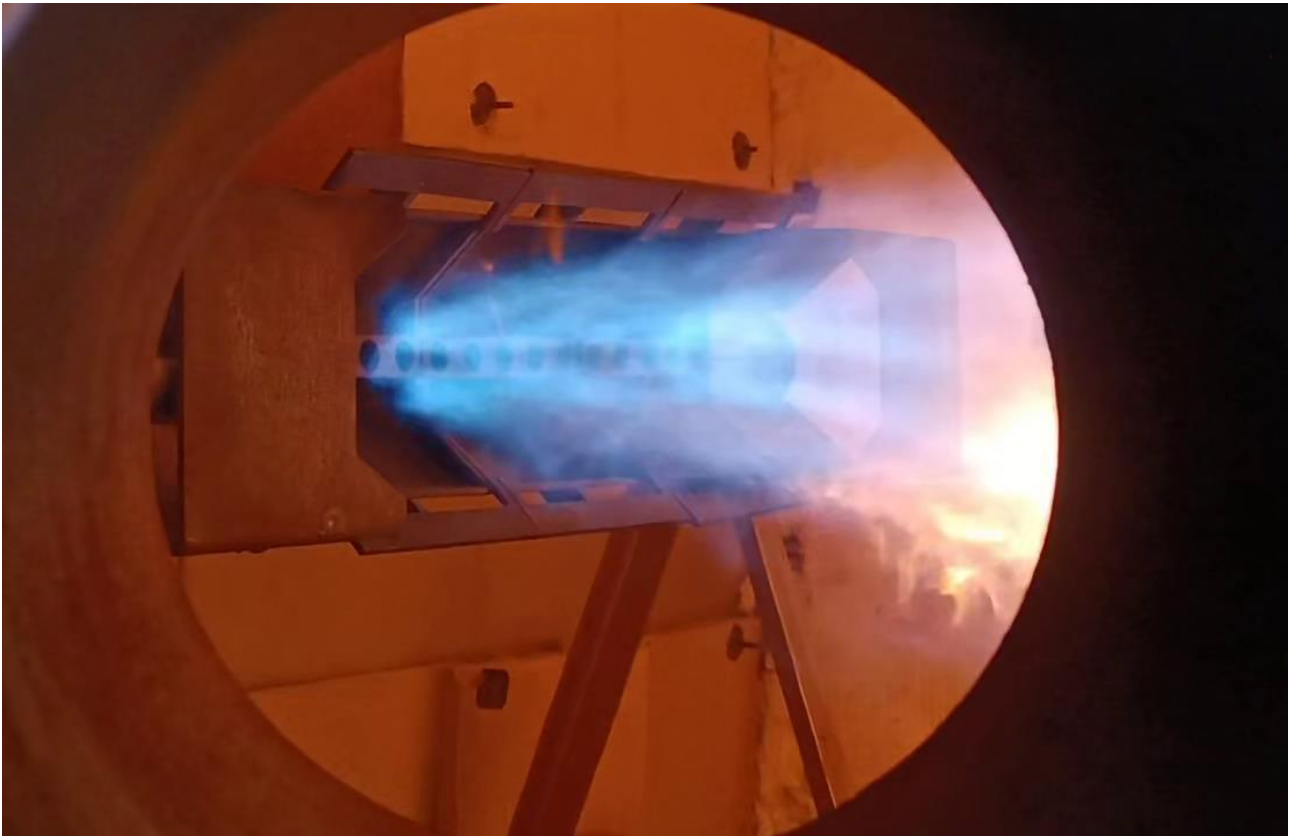
"Fives is at the forefront of hydrogen development and offers the largest range of hydrogen compatible burners on the market. We are proud to provide a new solution that answers the need for decarbonization of our customers and are excited for new innovations to come"
declares Francesco Giudici, General Manager at Fives ITAS.

This technology is mainly dedicated to drying application in ceramic, minerals, pulp, etc. to name a few **but could be extended to other applications** such as heat recovery boilers.

Technical features:

- For drying applications, hot gas generators, turbine/motor post firing
- Suitable for any duct configuration
- Going from 100%NG to 100%H₂
- High turndown (1:10 or higher)

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Fives' first 100% hydrogen duct burner: Hy-Ductflam™

About Fives

Fives, a pivotal player in the hydrogen industrial ecosystem

From the first railway lines to the Eiffel Tower lifts and factory 4.0, for over 200 years, Fives has been designing the disruptive solutions and technologies that make up industry. As a pioneer of decarbonization and digitalization, Fives is always one innovation ahead thanks to its ability to anticipate customer needs. By responding to the specificities of each market locally, Fives combines economic and environmental performance in 25 countries thanks to its 8,500 employees.

With more than 40 years of experience burning high hydrogen content fuels, Fives strongly invests in R&D and offers the largest range of hydrogen-compatible burners on the market.

For more information visit www.fivesgroup.com/energy-combustion



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Industry can do it

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