

# H<sub>2</sub>RELEASE – HYDROGEN FROM LOHC



\*NI refers to Standard Reference Atmosphere acc. DIN 1945-1 (p = 1,0 bar and t = 20°C)

## PRODUCT DESCRIPTION:

The H<sub>2</sub>RELEASE product range from H<sub>2</sub>-Industries is designed to release large quantities of chemically bound hydrogen from a Liquid Organic Hydrogen Carrier (LOHC). By specially developed catalysts, the hydrogen is dissolved from the carrier medium by the application of heat and stands for subsequent processes such as reduction of iron in the steel industry or for chemical processes.

This will drive the transition to a more CO<sub>2</sub>-neutral industry.

The heat required for the process can be generated by a catalytic burner within the system itself or introduced into the plant from external processes.

In conjunction with H<sub>2</sub>STORAGE tank systems from H<sub>2</sub>-Industries, hydrogen supply is also ensured for larger consumers.

The size of the plant depends on the specific application and local conditions. The System is installed in modular designed 20 ft. Containers and is therefore still mobile in the future.

## GENERAL INFORMATION:

Dimensions in mm (LxWxH)	6,058 x 2,438 x 2,591 mm
Weight	ca. 25,000 kg

## INPUT PARAMETERS:

LOHC + (enriched with H <sub>2</sub> )	ca. 787 NI / h (793 l / h at T <sub>in</sub> = 30°C)
H <sub>2</sub>	ca. 45 kg / h
	ca. 500 Nm <sup>3</sup> / h

## OUTPUT PARAMETERS:

	incl. Burner:	excl. Burner:
LOHC - (unloaded LOHC)	ca. 647 NI / h (726 l / h at T <sub>out</sub> = 180°C)	ca. 760 l / h (726 l / h at T <sub>out</sub> = 180°C)
H <sub>2</sub>	ca. 30 kg / h	ca. 43 kg / h
	ca. 336 Nm <sup>3</sup> / h	ca. 473 Nm <sup>3</sup> / h
Energy Content (P <sub>el</sub> & P <sub>th</sub> )	ca. 1,000 kWh/h	ca. 1,420 kWh/h

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