

## HYCCO UNVEILS INNOVATIVE TESTING PLATFORM TO ACCELERATE HYDROGEN FUEL CELL DEVELOPMENT

Paris, France - HYCCO, a manufacturer of next-generation carbon fiber bipolar plates, has launched a groundbreaking 60kW testing platform set to revolutionize hydrogen fuel cell development for heavy mobility applications. This innovation positions HYCCO as a key enabler in the rapidly evolving hydrogen market, addressing critical industry challenges and paving the way for more efficient, sustainable transportation solutions.

Romain Di Costanzo, CEO of Hycco, explains, "We recognized the challenges our customers face when integrating cutting-edge technology. Our goal was to provide a solution that reduces the inherent risks and uncertainties in this process."

In just six months, HYCCO's team designed, simulated, and manufactured a fully operational 200cm<sup>2</sup> LT-PEMFC stack, showcasing the company's commitment to innovation and deep understanding of industry needs.

### Benefits of the testing platform:

- Allows evaluation of HYCCO's carbon fiber bipolar plates in real-world conditions,
- Reduces development costs and time-to-market,
- Enables accurate prediction of real-world performance,
- Aids in selecting the right technology partners.

"This platform is not just about testing; it's about empowering our partners to make informed choices and accelerate their journey towards sustainable energy solutions," Di Costanzo adds."

The testing platform complements HYCCO's advanced carbon fiber bipolar plates, known for their superior electrical conductivity, mechanical strength, and temperature resistance. These properties make them ideal for various electrochemical applications, including low and high-temperature PEM fuel cells.

#### Hycco will showcase this technology at Hyvolution 2025 in Paris, January 28-30, 2025.

For more information, visit www.hycco.fr or contact <u>ludovic.barbes@hycco.fr</u> to meet at HYVOLUTION 2025 on Booth 4K31B.

To download the product information: <u>Resources/Documentation</u>



The most compact, durable, lightweight, scalable bipolar plates available on the market.

## NEXT GENERATION CARBON FIBER BIPOLAR PLATES

Evaluate our technology in a representative environment

Accelerate your development cycle with advanced full-size stack testing platform

#### **Stack key features**

Liquid-cooled stack with power capacity of up to 60 kW

200 cm<sup>2</sup> active area

LT200+ material with a consistent 200  $\mu m$  web thickness

Headers for 300-Cell configuration

External datum centering

Cell voltage monitoring included

Stack fixture & MEAs on demand

#### Integrating HYCCO's technology: from design to production

RANCE

Material Formulation: Tailored composites

Plate Design & Prototyping: Guidance and rapid iteration

Manufacturing: All production tools are supported

Assembly & Sealing: Plug-and-Play solutions

Quality Control: 100% plates are tested and qualified

**Production Scaling:** Flexible capacity growth

#### **Custom co-development**

We collaborate to integrate our technology into your systems. Our team co-develops custom-designed full-scale stacks tailored to your performance requirements.

Through collaborative engineering, we ensure optimized designs that align with your goals.

Leveraging our expertise in material forming, we support you from prototyping to industrialization, ensuring efficient production of bipolar plates tailored to your specific electrochemical requirements.





# HYCCO's comprehensive testing environment

## HYCCO's material : The perfect blend of metallic and composite technology

#### Challenges in evaluating a new technology

Time and Capital: Significant investment required

**Complex Impact:** Outcomes are difficult to predict

**Crucial Decisions:** Supplier selection shapes long-term development

#### Our solution: advanced testing platform

**Cost-Effective:** Minimize development costs

Time-Efficient: Accelerate time-to-market

Informed Choices: Make data-driven choices for suppliers and technology

**Risk Mitigation:** Minimize adoption uncertainties

#### **More specifications**

External dimensions: 320x310x560 mm

Target power density: 4kW/kg

- Operating pressure: 2.5 bars
- BPP thickness: 1.1mm
- Cell pitch: 1.495 mm
- Airflow: Co-flow
- Hydrogen flow: Counterflow
- Nominal operating point: 2A/cm<sup>2</sup> at 0.6V

Superior electrical conductivity High mechanical strength Excellent temperature resistance Superior chemical stability

Distinctive carbon properties and tailored solutions for a wide range of electrochemical applications :

	<b>HT400+</b> 400μm	<b>НТ200+</b> 200µт	<b>LT200+</b> 200μm
Application compati	ibility		
Low Temp. PEMFC	0	0	
High Temp. PEMFC	0	$\bigcirc$	
REDOX flow batteries	0	$\bigcirc$	
PEM Electrolyzer	0	$\bigcirc$	



**Scan** to access our material data sheets





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