

HyImpulse and Partner Adamant Composites Achieve Success in Hydrostatic Burst Test of Groundbreaking Linerless CFRP Oxygen Tank

[Feb 2023, Neuenstadt am Kocher, Germany] – HyImpulse, Technologies in partnership with Greek advanced composite manufacturer, Adamant Composites, is proud to announce the successful completion of a hydrostatic burst test of a groundbreaking linerless Carbon Fiber Reinforced Polymer (CFRP) liquid oxygen (LOX) tank. This marks a key milestone in the development of HyImpulse's orbital Small Launcher SL1.

The hydrostatic burst test is a critical step in the development of any pressure vessel and is used to ensure the safety and reliability of the tank under extreme conditions. The test subjects the tank to pressures far beyond what it is expected to experience in normal operation, to identify any potential weaknesses or failure points.

The linerless CFRP LOX tank passed the test with flying colors, demonstrating its ability to withstand pressures well beyond the limits of its intended use. This is a major achievement for the teams at HyImpulse and Adamant Composites, as the use of linerless CFRP tanks in space applications is relatively new in Europe and has not been extensively tested.

"We are thrilled with the results of this test," said Mario Kobald, CEO of HyImpulse. *"The use of linerless CFRP in our LOX tanks significantly improves our performance and reduces weight and cost. This successful test brings us one step closer to bringing this innovative technology to SL1 and revolutionizing the space launch industry."*

"We believe that revolutionizing access to space passes through revolutionizing composites structures design and manufacturing" said Antonios Vavouliotis, CEO of Adamant Composites. *"The unique full composites design provides 30 % mass savings, while the robotic inspired production process reduces the cycle time by 50% and cost by 25 %."*





About HyImpulse

HyImpulse is a launch services provider based in Baden-Württemberg, Germany. Founded with the goal to revolutionize access to space, HyImpulse's Small Launcher, SL1, is powered by unique and proprietary hybrid propulsion systems. This disruptive technology enables HyImpulse to offer affordable, frequent, responsive, and safe access to space for small satellites and spacecrafts. SL1 has a payload capacity of 400 kg to a 500 km SSO.

For more information about HyImpulse Technologies and its products, please visit [HYIMPULSE TECHNOLOGIES \(hyimpulse.de\)](http://HYIMPULSE TECHNOLOGIES (hyimpulse.de)).

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About Adamant Composites

Adamant Composites is a Greek company specializing in the development of advanced composites for aerospace, industrial and defense applications. Company's expertise lies in the design and manufacturing of composite structures and the engineering of nano-enabled materials in applications such as batteries, storage tanks, UAVs airframes, deployable structure subsystems, structural components and ground support equipment for satellites and launchers. With a team of highly skilled engineers and technicians, the company is committed to delivering innovative solutions that meet the demanding requirements of its customers.

For more information about Adamant Composites and its products, please visit [ADAMANT COMPOSITES \(adamant-composites.com\)](http://ADAMANT COMPOSITES (adamant-composites.com)).

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