

Air Liquide has brought its expertise to the groundbreaking success of MX3D printing bridge

The first 3D printed bridge was inaugurated in Amsterdam, July 15, 2021. Air Liquide has supported this groundbreaking additive manufacturing project in an open innovation approach, bringing welding and additive manufacturing expertise and supplying the shielding gas environment from its ARCAL™ range. By participating in this demonstration, Air Liquide illustrates its ability to explore new territories and enables new technologies to emerge.

After 5 years of collaborative research and work, the 3D printing bridge imagined by the Dutch designer Joris Laarman Lab, with Arup as lead engineer, was inaugurated on July 15, 2021 in the city center of Amsterdam. The realization in additive manufacturing of the MX3D bridge is the demonstration of a revolution in large scale 3D printing technologies. Four robots completed the bridge after printing 6,000 kg of stainless steel.

Considering the disruptive aspect of MX3D project in additive manufacturing, **Air Liquide decided in early 2015 to be part of this large scale demonstration and supported the team, bringing expertise from R&D experts and providing the shielding gas environment.**

Industrial gases play a crucial role in the safety and stability of additive manufacturing processes to ensure the geometrical quality and the mechanical properties of the parts produced by these technologies. **Air Liquide has been strongly involved in research & development to meet the new fabrication challenges and develop innovative gas mixtures, in particular with an open innovation approach.**

Additive manufacturing is a new market that has great potential. Air Liquide's deep market knowledge and Research and Development capabilities enable it to address the main gas applications of this fast growing market: metal powder atomization, inerting of the metallic parts during the additive manufacturing and heat treatment.