

Application Bulletin

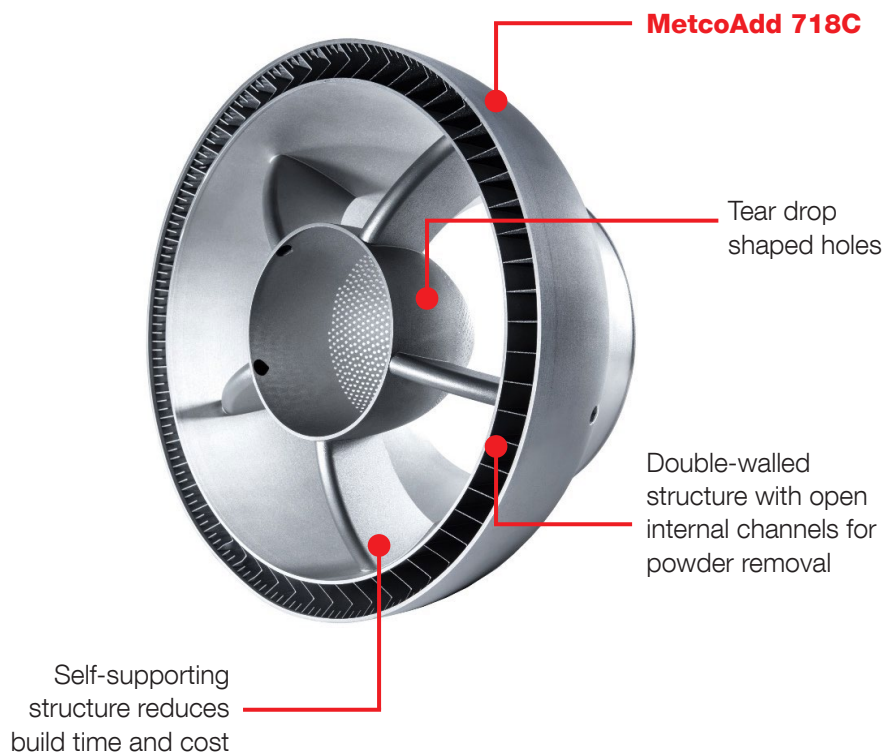
Additive Manufacturing

Double-Walled Nozzle — MetcoAdd 718C

Additive manufacturing allows the production of a double-walled engine exhaust nozzle featuring low weight and high integrity as a single component without weld seams. The application requires a material with high strength at elevated operating temperatures that can also produce thin-walled structures. This results in reduced mass, cost, build distortion, supports and post-processing. The nozzle has been designed for excellent structural integrity and high quality surface finish.

The Oerlikon Metco Solution

Oerlikon Metco utilizes MetcoAdd 718C to create thin-walled features based on application requirements. An advanced single-piece component with a complex geometry can be manufactured using powder bed laser fusion that is not possible to produce with conventional methods. Double-walled structure with open internal channels is integrated in the cone shape to create a self-supporting structure allowing a reduction in build time, cost and weight. Tear drop shaped holes in the cone reduce mass and build distortion without the need for support structures.



Recommended Oerlikon Metco Products

MetcoAdd 718C Outstanding strength at elevated temperatures while showing good thermal conductivity
For structural integrity and high quality surface finish

More Information

DSM-0296