One-off metal parts delivered within 2 weeks

Project summary:

Client:	Michael Anastassiades
Part description:	Silicon Brass Tri Bracket, 10 x 125 x 144mm
Production Method:	Vacuum Additive Casting
Industry application:	Lighting

Michael Anastassiades is a Cypriot-born, London-based designer whose practice encompasses product, spatial interventions and experimental works, often transcending the distinctions between different fields of creativity. Anastassiades' light fittings are recognised for their artisanship, clever translation of functional lighting into beautiful forms and a high degree of individualisation.

In May 2021, Anastassiades collaborated with Enable Manufacturing on the manufacture of a Silicon Brass Tri Bracket for a unique light fitting, specifically designed to the clients' specifications. Only two pieces of this bracket would need to be manufactured to a high standard to meet both the aesthetic and functional requirements of the product.

The main challenge for Anastassiades was to find a manufacturing method that could meet his demands at a short lead-time, as the project needed to be installed In June 2021.

At first, the team at Anastassiades tried to produce this part by method of Fabrication, during which tubes were cut and then braised together to form the desired shape. But this method turned out not to be strong enough for the application and so the team explored working with Enable Manufacturing instead, who had also manufactured some heat exchangers for Anastassiades during a previous project.

The team at Enable used their Vacuum Additive Casting process for the manufacture of this part. This process is suitable for smaller parts with intricate details and thin wall thicknesses. It is also suitable for small prototyping quantities as well as for mid-volume productions. Using this process, the Silicon Brass Tri Bracket was cast as a single part with a tube outer diameter of 10mm and a tube inner diameter of 6mm. The absence of joints made the part both very strong and highly aesthetic.

The two Tri Bracket were manufactured in only 12 business days from order to shipping date. And since the Additive Casting process does not require any investment in tooling, the cost per bracket sat at just above £200 per bracket.

'At Anastassiades, we make artisan products that are finished to the highest quality standards. Working with Enable has helped us to meet our quality requirements even with very complex parts at one-off quantities.' Rem Sutton – Product Development Engineer

About Enable Manufacturing
Enable is bringing a new, innovative manufacturing process to life – Additive Casting. The process uses moulds made via additive manufacturing to cast high-quality production parts from over 130 different metals. It bridges the gap between traditional casting and state-of-the-art manufacturing, offering the volume benefits of casting while increasing possible complexity, cutting lead times and eliminating the need for expensive tooling.

For more information, please contact our office:
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office@enable.parts

About Michael Anastassiades

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For more information, please contact:
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NOTES

Customer name: Rem Sutton – Product Development Engineer

- 2 brackets for a unique light fitting
    - 10 x 125 x 144 mm
    - Silicone Brass
- Order date 11/5/21
- Ship date 26/5/21
- Tube with a 10 mm o/d and 6mm I/d
- A brazed tube was not deemed to been strong enough
- Shot lead time to fit in with the light installation
- Cost: £430 for 2 Tri Brackets
- Foundry: Sylatech
- Advantage of our method over other manufacturing methods?

  Fabrication – cutting tubes and braising together was first approach
  Mechanically that wasn't going to be strong enough
  So they came to us to cast the part – part consolidation
  Quick lead time was needed for a custom light fitting

  Vacuum Additive Casting

  We've done a precious project with heat exchangers – returning customer

  Get image of final light fitting
  Check if we can include the heatsinks too. Get images.
  Looking for optimising design on the heat sinks, part consolidation and improving efficiency
  Key driver was the weight. We could make it lighter by reduction number of parts by optimising. Find out what the previous weight was and what we achieved – AM lighting under orders.