CAST METALS FEDERATION

Casting Industry Awards 23

COMPONENT OF THE YEAR ENTRY

SYLATECH

Sylatech Limited

Component:
Prosthetic multi-part cast thumb

Application:
Medical prosthetics

Metal:
A356 (AlSi9MgMn alloy)

Process:
Lost-wax, using 3D wax printing and plaster block investment casting

Casting weight:
Comprises 7 parts with combined weight of 23.7g

Project Information:
Brand new design for multi-part thumb designed by renowned prosthetic hand designer Ted Varley, for use by children who have lost a hand due to injury, congenital conditions, or for other medical reasons, enhancing their quality of life and enabling them to regain confidence and their independence.

- **High level of detail and as-cast surface finish required requiring no machining.**
- **Minimisation of casting weight and maximising internal space for electronics.**
- **Wall thickness down to 2mm for some cast elements and 1mm diameter cast-in holes.**
- **Design flexibility enabled through use of 3D wax printing**
- **Samples provided to client with a lead time of just 3 weeks including heat treatment.**
- **Significant cost savings achieved compared with alternative production processes.**
- **New design has attracted NHS funding to enable further versions aimed at children.**

The company is now looking at further even smaller, lighter designs and are delighted that their castings are changing lives for the better.

BEST OF BRITISH CASTING