MADIT

RENISHAW
apply innovation™

Renishaw's TEMPUS™ technology enables up to 50% cycle time saving for 3D printed automotive component

Time saved means lower cost per part

Part quality is unaffected

Challenge:

This is a fluid transfer component of a car refrigeration system, designed and developed with additive manufacturing (AM) specialists, MADIT, near Bilbao, Spain. With layer thickness of 80 µm, the part takes 13 hours, 43 minutes to print on Renishaw's four-laser RenAM 500Q metal additive manufacturing system.

Solution:

TEMPUS technology is a new productivity upgrade for the RenAM 500 series of metal AM systems, which delivers a substantial increase in productivity without affecting part quality. By allowing the lasers to fire at the same time as the recoater is moving, TEMPUS technology can save up to 50% on build time (depending on build geometry).

Outcome:

With TEMPUS technology on a RenAM 500Q system, we can get this build down to 6 hours, 44 minutes. That's more than twice as fast as is normally possible on a four-laser system, and more than four times as fast as a single laser machine. Reducing the amount of machine on-time means that users benefit from lower cost per part and better return on investment.

> **"Completing more builds in a day without compromising on quality means we can service our customers more efficiently and effectively, and creates capacity for growth."**
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> MADIT (Spain)