explore ...

Stereolithography

UnionTech™ Information Series

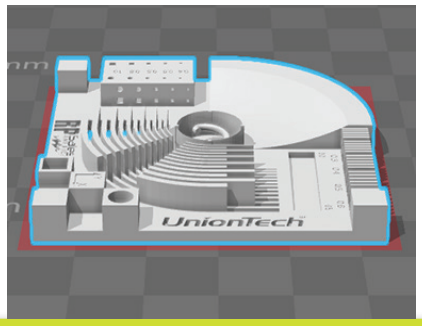
Small-Platform SL Equipment

BUILD SPEED Comparisons

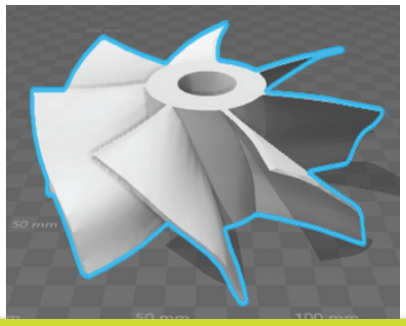
Goal: to compare build speeds on the UnionTech™ Pilot SD with current open design SL equipment in the US market (3D Systems Viper®). These machines have comparable platform sizes (10"x10") and accuracy/resolution capabilities.

Material: Somos® WaterShed XC 11122

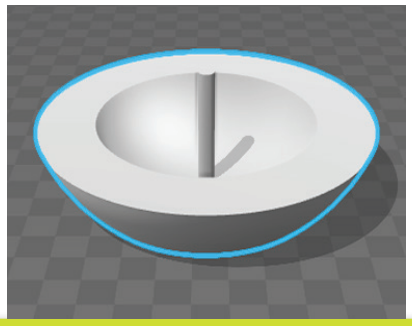
Parts:



High detail part



Turbine blade



Trapped volume part

Results: The parts were built on the Pilot SD at the RP Sales America lab in Iowa. They were also built at a commercial service bureau under optimized standard operating parameters. The turbine blade and trapped volume parts were built together on a platform, while the high-detail part was built alone.

	High detail part	Turbine blade + Trapped volume part
UnionTech Pilot SD	1 hour 6 minutes (high res. - 0.1 mm layers)	6 hours 25 minutes (high res. - 0.1 mm layers)
Viper	2 hours 51 minutes (high res. - 0.05 mm layers)	8 hours (standard res, 0.1 mm layers)

Conclusion: In these test conditions, the UnionTech Pilot SD performed faster than the Viper. Contributing factors include a more powerful laser to allow for faster scanning and recoating parameters. While future test results may vary, this provides a good baseline comparison to demonstrate the speed capability of the UnionTech™ SL equipment.

RP America is the North American distributor of Union-Tech equipment. Request Union Tech, Inc.'s white paper, "A Fresh Dimension in Stereolithography," for a more detailed discussion of this topic.

AMERICA

515.441.6890 | info@rpamerica.us | www.rpamerica.us

REV 10-17-2017