HYBRiD^3™

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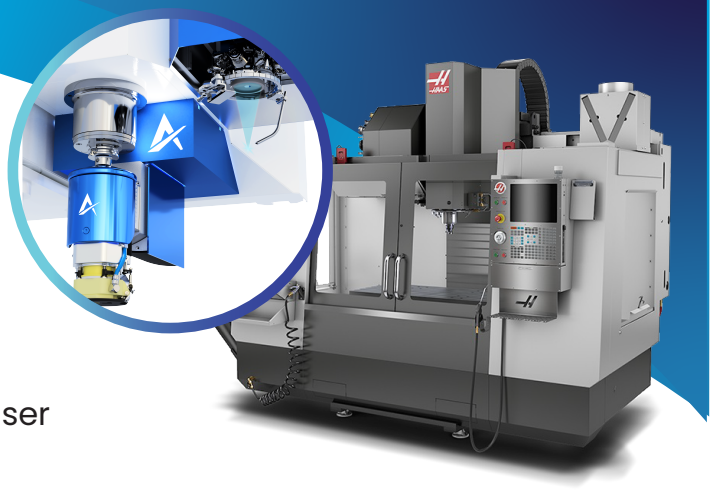

Multi-Tech Platform

Manufacturing System with Liquid Metal Jetting, Laser Directed Energy Deposition and CNC Machining.

Liquid metal jetting (LMJ) and laser directed energy deposition (LDED) are two additive processes desired within a hybrid manufacturing system as both processes use low-cost COTS welding wire to print near-net shape parts with 100% material utilization. With LMJ we unlock high resolution capability while with LDED we unlock high deposition rate capability. In addition, multi-material capability is enabled by having two additive processing heads within a single system. The subtractive process within a hybrid manufacturing system provides post-machining capabilities to achieve desired surface finish and tolerances for parts printed using the two additive processes.

Parameter	Laser DED	LMJ
Maximum Laser Power	6 kW	-
Laser Type	Fiber laser	-
Laser Wavelength	1080 nm	-
Layer Thickness	0.8 – 1.2 mm	0.24 mm (min.)
Maximum Deposition Rate	4 kg/hr	0.5 kg/hr
Wire Feed Stock	0.8 – 1.2 mm Φ	1.6 mm Φ
Resolution	2.5 mm	0.5 mm
Process control Closed Up	Yes	Yes

CNC Machining
Build volume
40” x 20” x 25”
Max. Spindle Speed
12000 rpm
Max. Cutting Speed
21.2 m/min

Materials	Iron, nickel, aluminum, and copper alloys
Shielding	Localized (Argon or Nitrogen)
Cooling	Active water cooling
Slicing software	ADDiTEC
Motion axes	3

For more information visit ADDITEC3D.COM

*These specifications are subject to change without notice.

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