**Supplement**

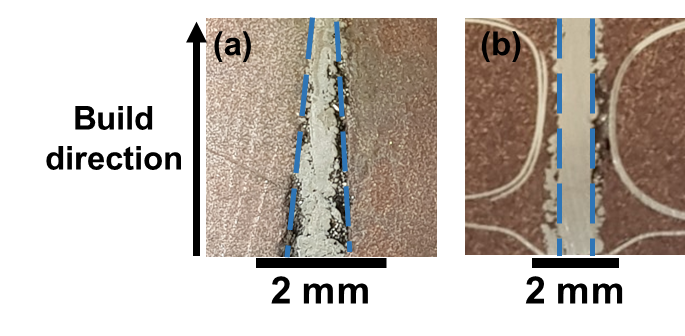


Figure S1. Cross sectional images of DED-printed pure tungsten samples. (a) Triangular structure fabricated at *F* = 228 J/mm2 and (b) structure with constant width fabricated at *F* = 237 J/mm2.



Figure S2. Samples fabricated at 21.6 m/s in carrier gas velocity.





Figure S3. Samples fabricated at 7.2 m/s in carrier gas velocity.

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Figure S4. Typical cross-sectional images of DED-printed samples, showing gas porosities and lack of fusion porosities.



Figure S5. Oxygen content obtained from pure tungsten powders and DED-printed samples fabricated at different laser powers (*VL* =150 mm/min in, *M* = 9 g/min and *VC* =7.2 m/s).