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CEFAS Slide

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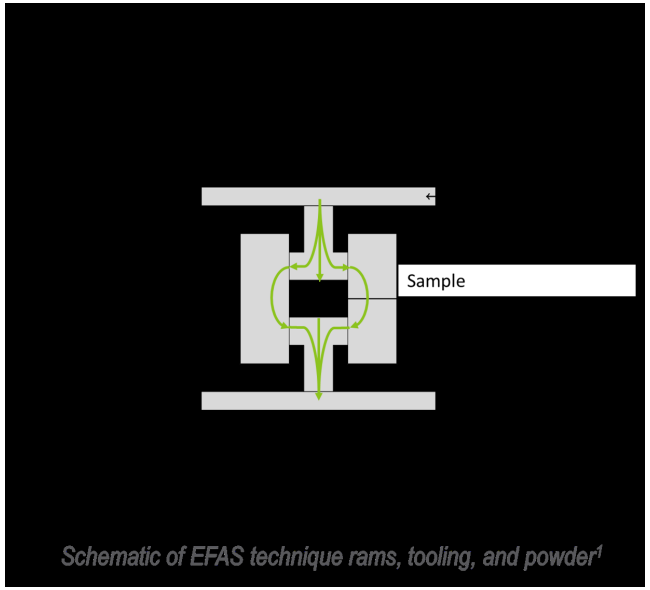
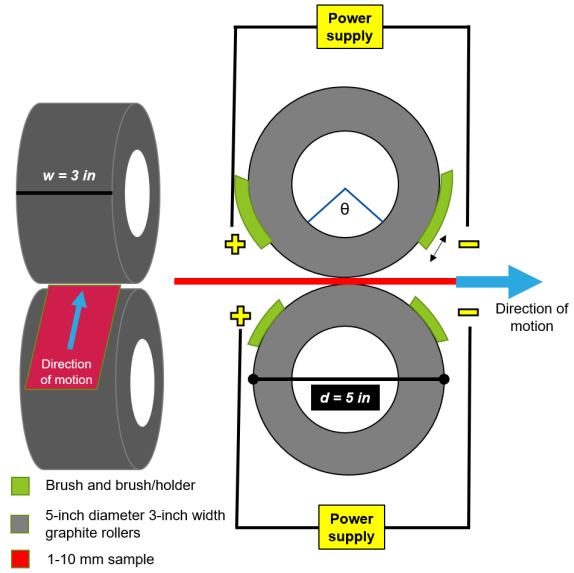
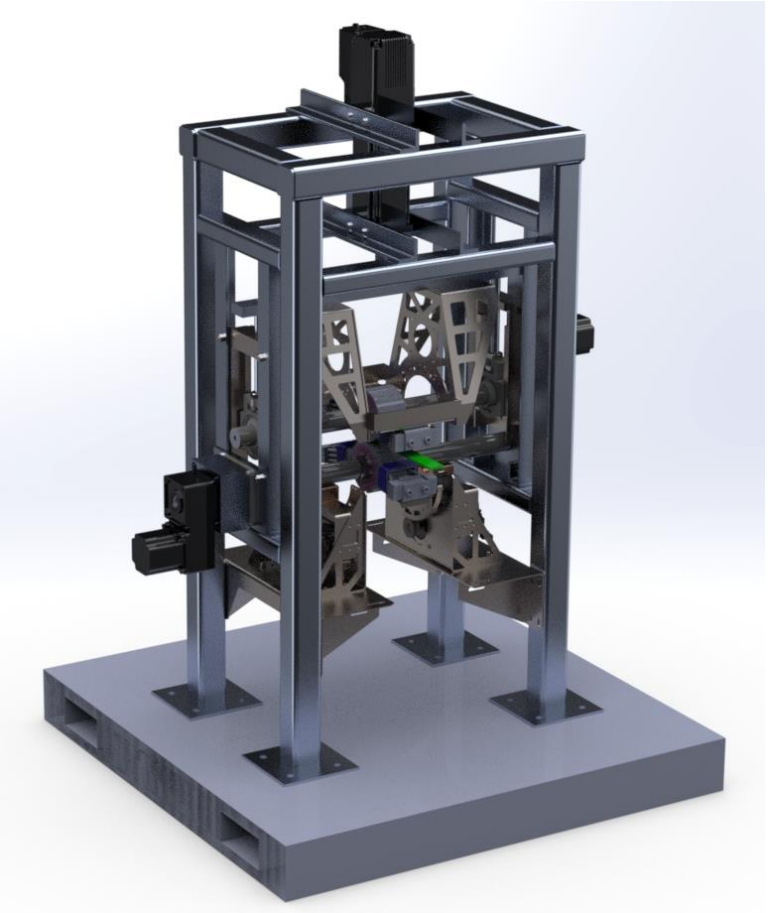
Continuous Electric-Field Assisted Sintering (CEFAS)



Schematic of EFAS technique rams, tooling, and powder[1]



EFAS	CEFAS
Batch production	Continuous production
Normal forces from rams	Normal and ***shear*** forces from roller
Temperatures up to 2500 °C	Goal temperature of 1650 °C
Heating rate hundreds °C/min	Heating rate of hundreds °C/min
Processing time • 10 mm disc ≈ 79 mm^2 ≈ 30 min • 500 mm disc ≈ 0.2 m^2 ≈ 2-4 hours	Processing time • 10 mm strip ≈ 760 mm^2 ≈ **15 seconds** • 2.6 m disc ≈ 0.2 m^2 ≈ **1 hour**



- 4’ x 4’ x 7’ footprint
- Sample width up to 3”
- Maximum current – 6000 A

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