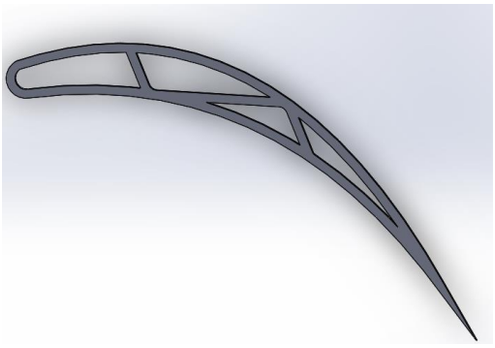
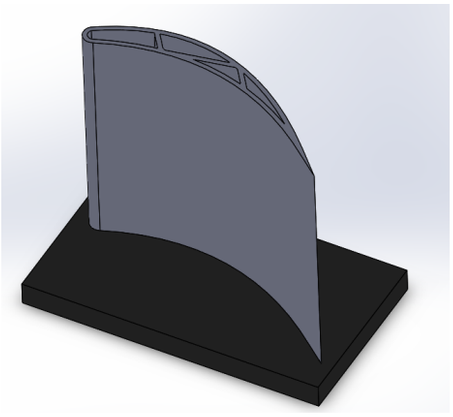
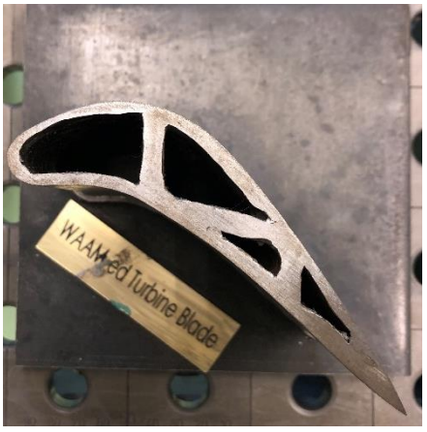
Turbine Blade



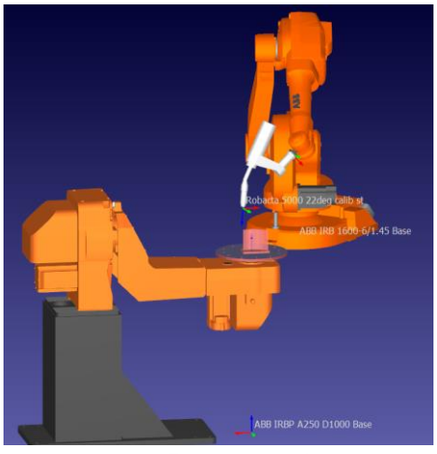
CAD model



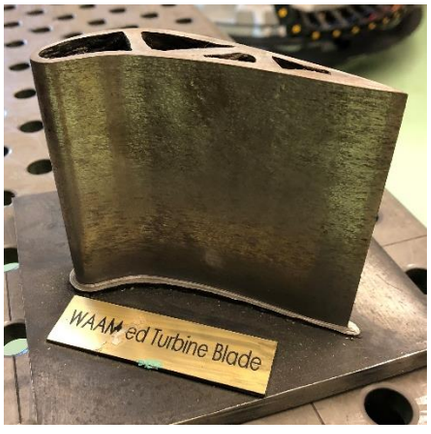
Printed model



Machined part



Work Station



Finished part

Advantages of WAAM over Conventional machining:
-WAAM material removal savings vs. Machining: **80%**
-Inner profile can't be milled from bulk shape.

TECHNICAL INFORMATION
Machine: ABB IRB 1600 + Fronius TPS 4000 + IRBP A positioner
Application: Turbine blade
Dimensions:
L = 110 mm H = 100 mm
Wire: ER70S-6, Ø 1.2 mm
Deposition Time: 4 h
Deposited Mass: 1.2 kg

BENEFITS OF WAAM:
-Cost savings
-Material savings
-Fast production rates
-Capability of printing complex designs

Alternatives to Milling process WAAM
-High deposition rates, flexible and short lead time to produce near net-shaped complex components.
-Repair, reverse engineering, prototype & topology optimization.
-Reduction in chip volume and milling time

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