



# Brief Introduction to Blade Manufacturing

**DWEA**

**Composites Subgroup Meeting**

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**Stephen Nolet**

**Senior Director, Innovation & Technology**

**TPI Composites**

**Warren, Rhode Island**

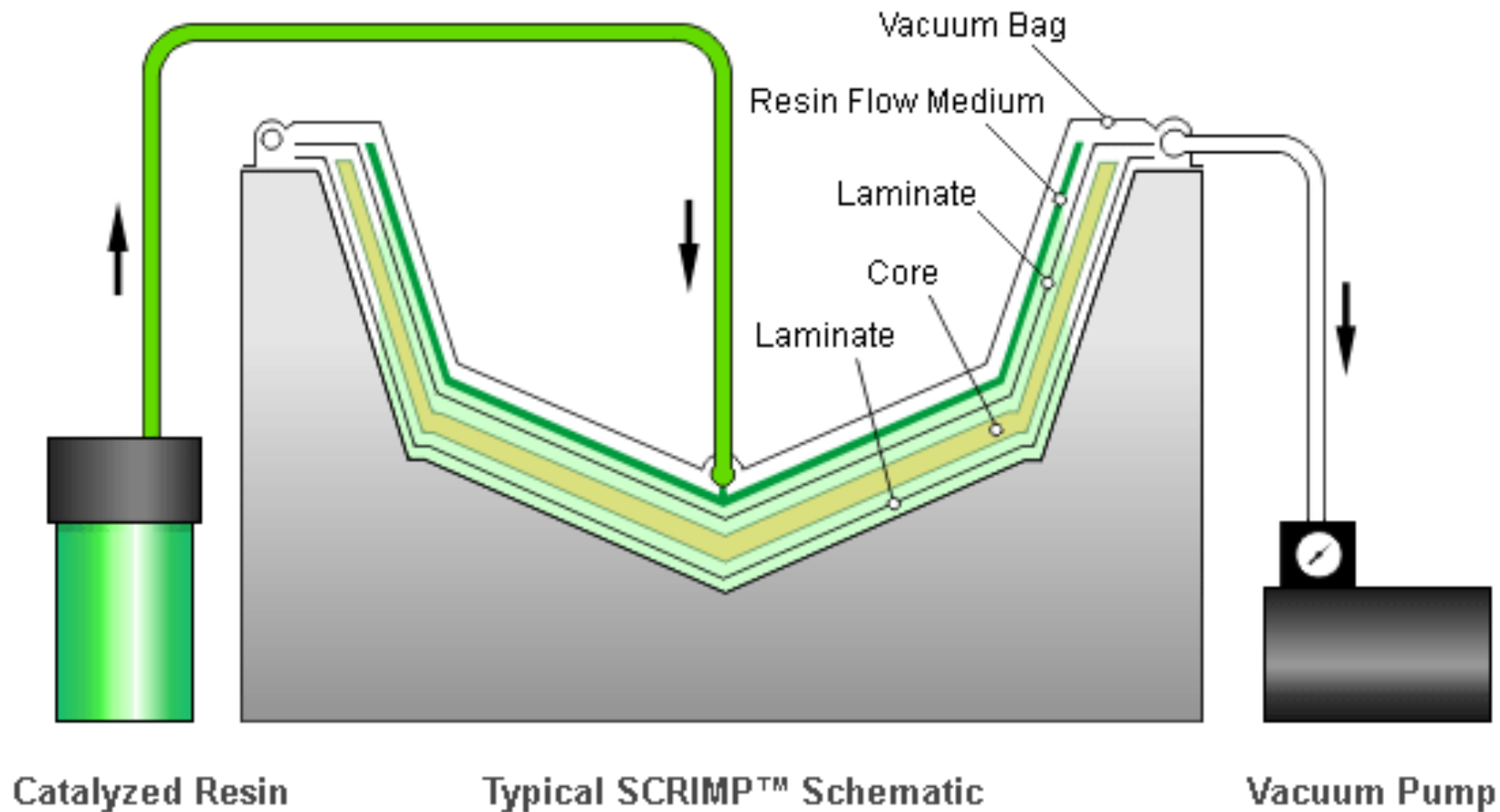


# How do we make turbine blades???





# Seemann Composite Resin Infusion Molding Process (SCRIMP®)





# How it is REALLY done!





- Nine Meter (9M) Blade Program
  - NPS 100 Blade: a Baseline
  - CX-100 Blade: Carbon Spar Cap Epoxy Blade
  - TX-100 Blade: Bend-Twist Coupling Epoxy Blade
  - BSDS Blade: Thick Airfoil / Carbon Spar Cap Epoxy Blade





# NEPTCO RodPacks: 9m Blade Manufacture

- > TPI and NEPTCO built the first Composite Rod Spar Cap Blade.
- > 9m 100kW NPS-100 blade.
- > To be tested as part of AMII program.
- > Ultimate benefit will be in large scale glass/carbon applications for highest translation of material properties.

