



RoBuT

(Rotatable Buoyancy Tunnel)

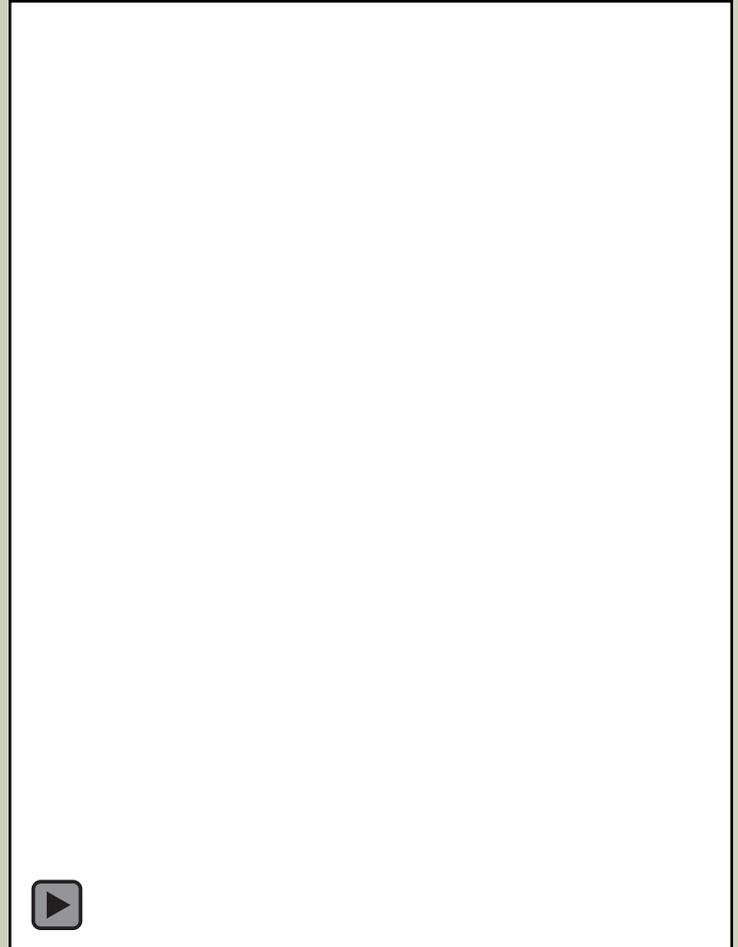
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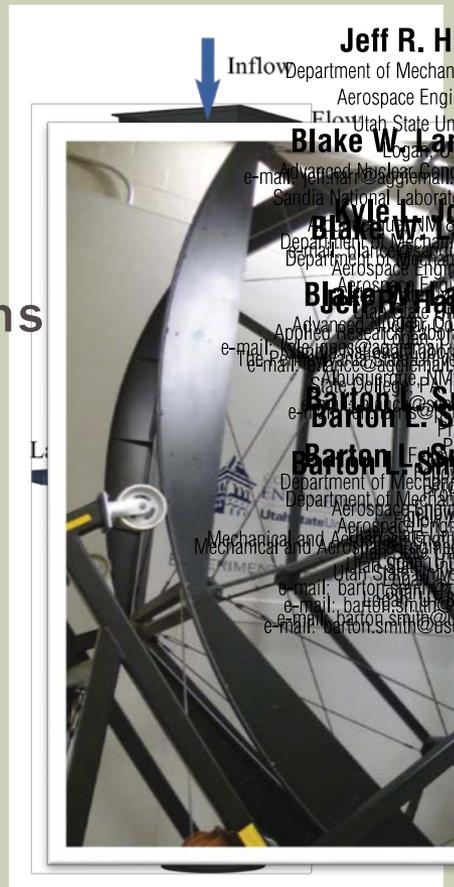
RoBuT Purpose/Capabilities

- Measurements in gas (air)
- Buoyancy Aided or Opposed
- BC/Inflow Measurements
- Unobtrusive Measurements
 - PIV (gas velocities)
 - Thermography (gas temperature)
 - Wall temperature and pressure
- EFDL Validation Benchmark Data Expertise
 - 4 published journal articles
 - SRQ and BC data all available to public



Previous Work

- Forced
- Mixed
- Transient
- Fuel Rods
- Publications



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Experimental Validation
Benchmark Experiments for
Benchmark Data for Detritation
for Computational Fluid Dynamics

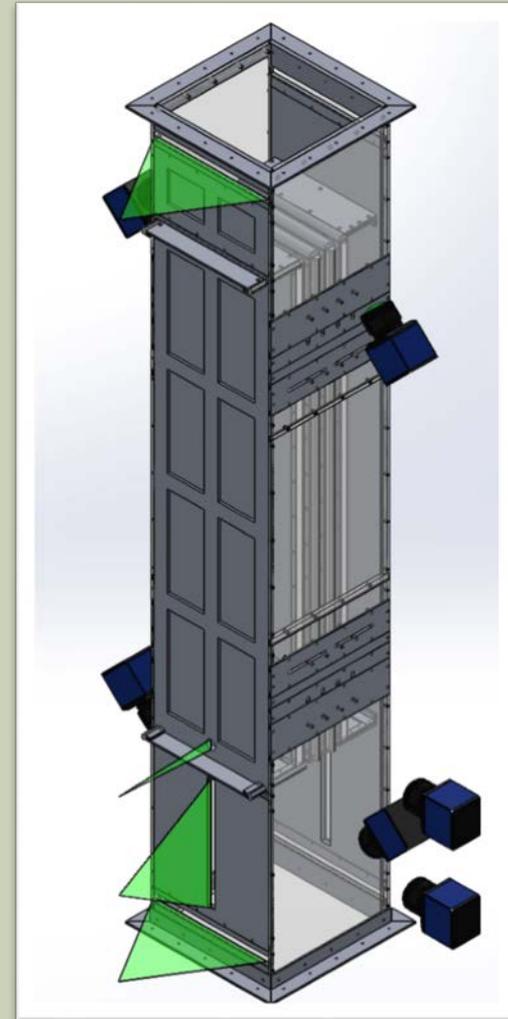
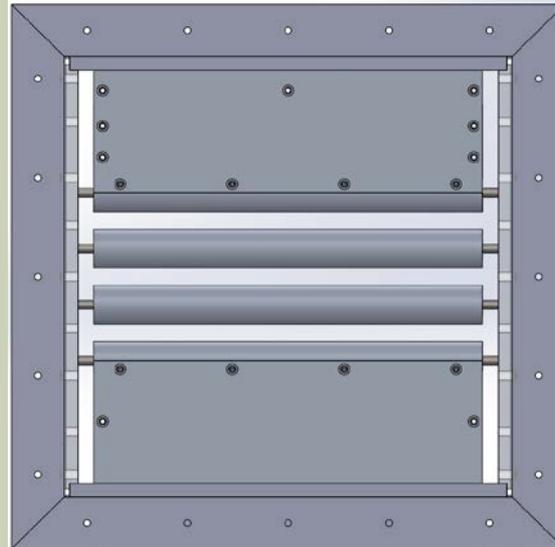


and SRQs are made available through this paper. The latter two are available for download while other details are included in this work. [DOI: 10.1115/1.4033963]

Seeding Array

Future Work

- Parallel Channels
- Increasing viscosity with temperature causes instabilities
- Introducing gas temperature measurements



How to Use RoBuT

- Currently starting year 2 of 3-year project
- Tunnel is 50% available
- All work to date has been through direct collaboration
- We are interested in other users
- Contact Barton Smith at barton.smith@usu.edu