Several unit operations are combined into one robust system, offering flexible and staged process configurations in one vessel. Spraying, soaking, low-severity pretreatment, enzymatic hydrolysis, fermentation, concentration/evaporation, and distillation are amongst its many capabilities.

- 1,900 L Horizontal Paddle Blender Vessel with Sidewall Liquid Drains
- 6-60 rpm / 50 HP Tri-Directional Agitator
- 3.4 bar & Vacuum ASME Design, 316L Stainless Steel
- Heating/Cooling Jacket using Water or Steam
- 150 L Chemical Mix Tank & Pump with Spray Injectors
- Vent Condenser with Collection Tank and Vacuum Pump

Dynamic Impregnator Reactor System

Multifaceted system designed for complex feedstock impregnation and processing

NREL is a national laboratory of the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, operated by the Alliance for Sustainable Energy, LLC.