



OMEGA

Thermal Solutions Group, LLC

PROVIDING INNOVATIVE THERMAL SOLUTIONS

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Company Overview

Introduction

Omega Thermal Solutions Group, LLC. consists of a diverse group of seasoned individuals with a common goal to meet customer's requirements in dehydration and thermal-treatment processes. Omega personnel have over 125 years combined technical experience in designing, engineering, installing and commissioning equipment.

Omega's expertise is in dehydration and thermal-treatment of a wide variety of feedstocks for food, feed, energy, environmental, and building needs.

Mission

To advance environmental stewardship for every generation.

Vision

To provide innovative equipment for drying, combustion and thermal-treatment utilizing sustainable biomass resources and waste streams and use our knowledge, expertise and desire to solve our clients problems and concerns.



Rotary Dryer System Overview

Omega's Rotary Dryers are designed for commercial and industrial applications to process various feedstocks such as:

- *Lignocellulose*
- *Forages*
- *Grains*
- *Organic and Food Waste*
- *Municipal Solid Waste*
- *Paper sludge*
- *Sewage sludge, etc.*
- *Minerals*

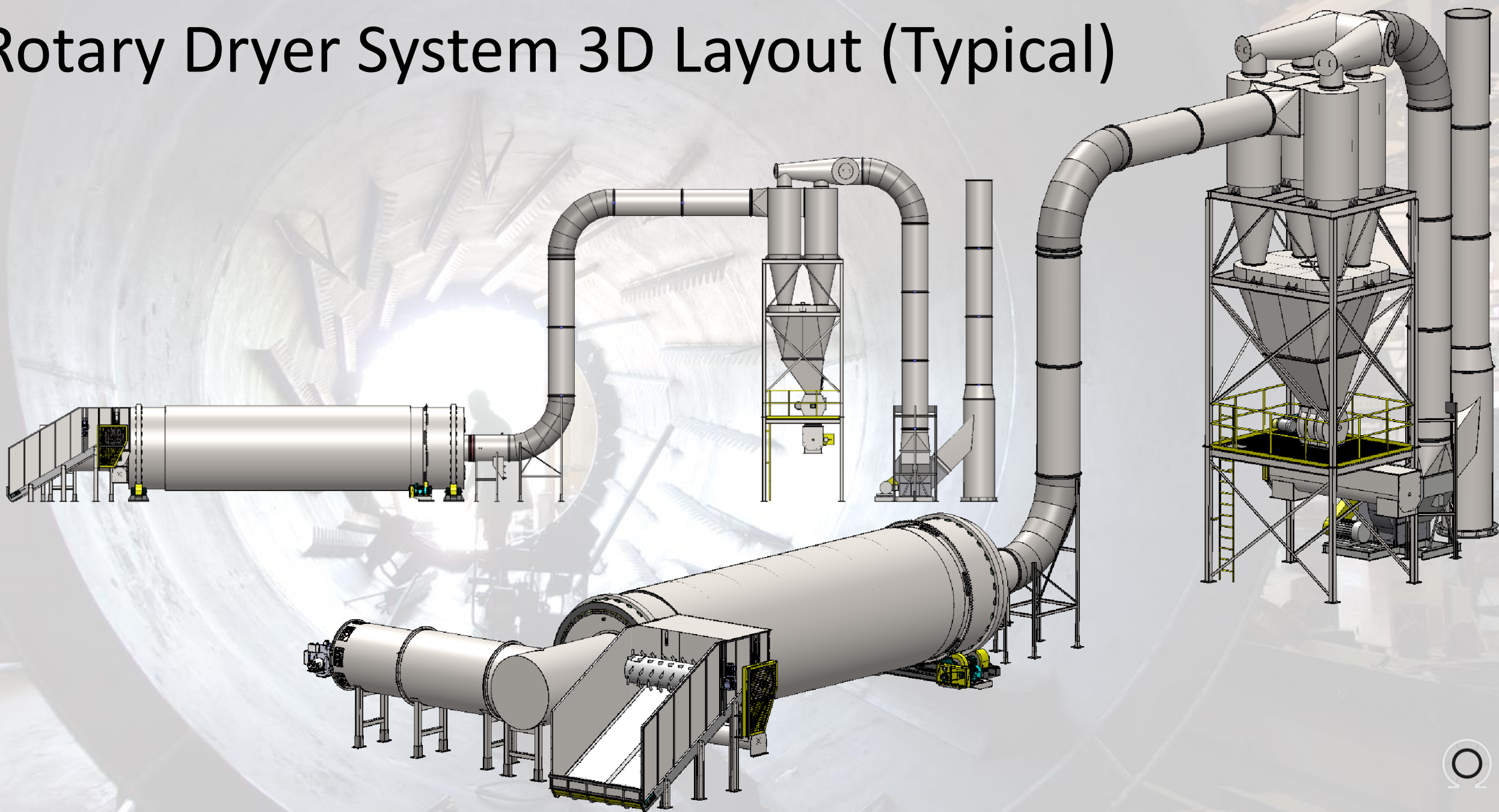
Feedstock moisture can range from 10% - 90% (wet basis) and vary in densities.

Rotary Dryers range from 6 to 14 feet diameter and up to 70 feet long.

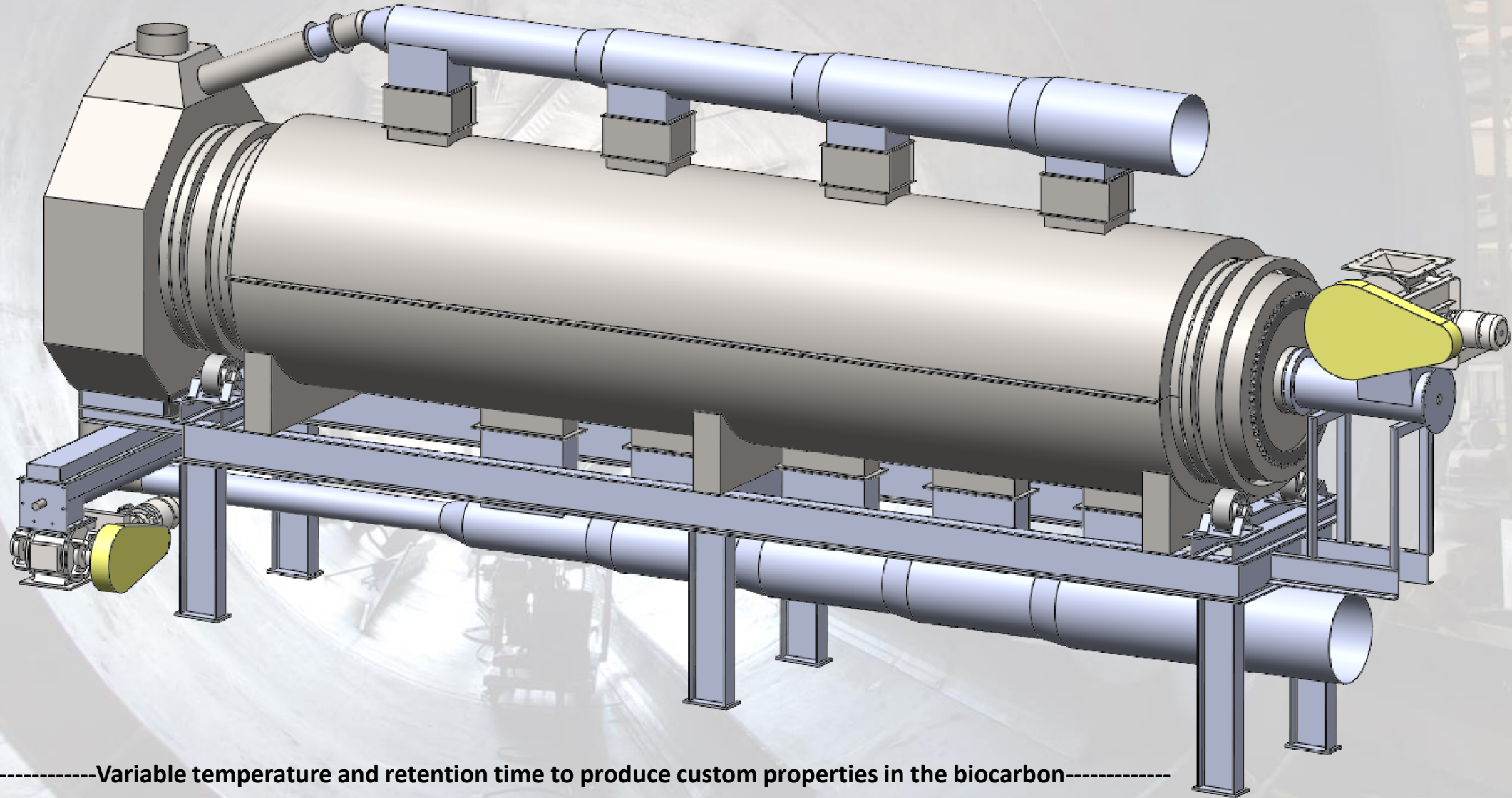
Omega can meet customer requirements with a complete dryer system and replacement parts.



Rotary Dryer System 3D Layout (Typical)



Rotary Thermal-treatment (Pyrolysis) Reactor



-----Variable temperature and retention time to produce custom properties in the biocarbon-----



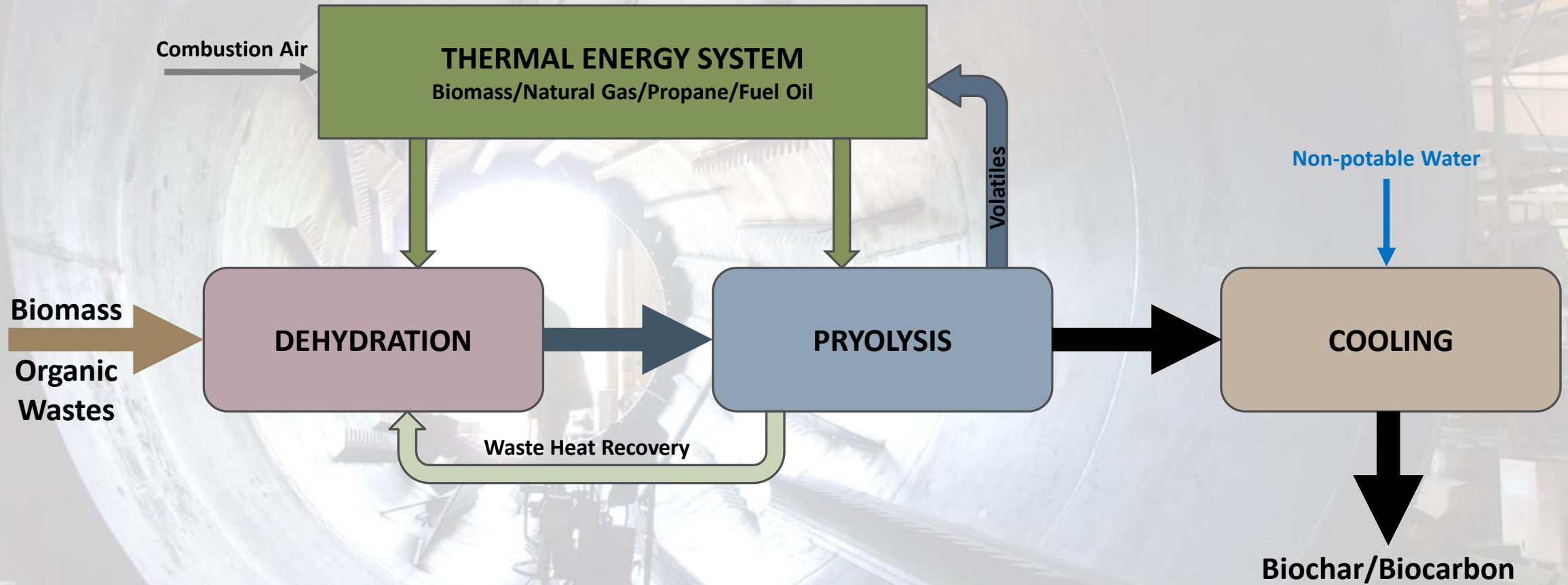
Rotary Thermal-treatment (Pyrolysis) Reactor



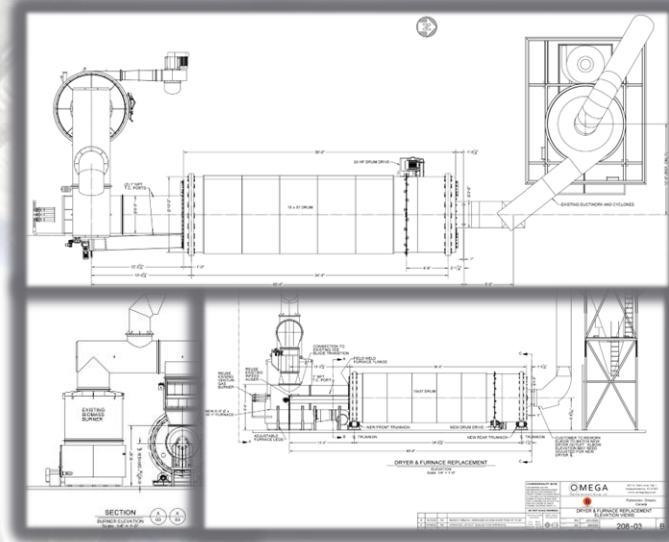
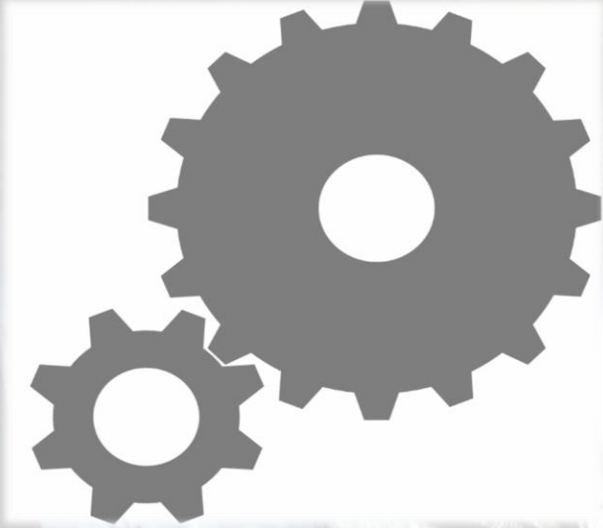
Single line capacity ranging from 1 ton per hour to 30-tons per hour input



Thermal-treatment Process Schematic



Engineering Services



Engineering:

- Mass Energy Balance
- Process Flow Design
- Equipment Design
- Equipment Specifications
- Emission Estimates
- CapEx & OpEx Estimates
- Feedstock Analysis and Testing

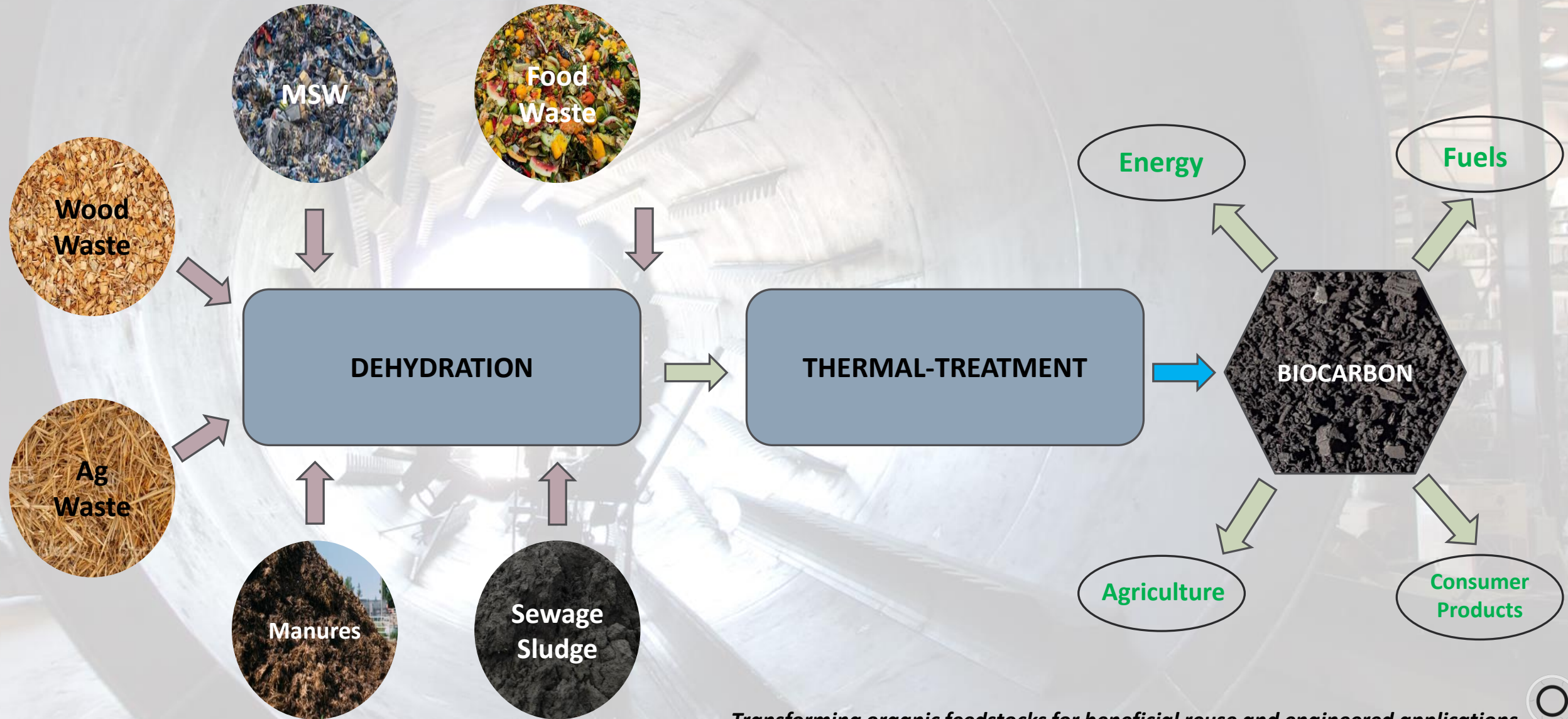
Design and Drafting:

- Process Flow Drawings
- Plan & Elevation Drawings
- 3D Equipment Layout Drawings
- Concrete Layout Drawings
- Electrical & P&ID Drawings

Field Services:

- Existing Equipment Evaluations
- Process Assessment
- Maintenance Review
- Site Visit & Plant Operations Review
- Installation Supervision
- System Commissioning
- Operator Training
- Troubleshooting and Inspection

Applications



Transforming organic feedstocks for beneficial reuse and engineered applications