



Carolina Design, PC  
Structural & Mechanical Engineers



ENGINEERING SOLUTIONS



[www.carolindesign.net](http://www.carolindesign.net)



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# About Carolina Design

## A short overview

Carolina Design is a consulting engineering firm licensed to provide structural and mechanical engineering services in South Carolina and North Carolina. Carolina Design has been in business since 1972, and historically has provided design services to industrial clients.

The majority of this work is retro-fit in nature and involves designing systems that are installed within the client's operating areas. This involves working closely with the client's maintenance, operating, and process personnel to ensure that the new work does not interfere with the owner's plant operations.

# Services provided by Carolina Design

## An engineering & design overview



### Structural Engineering

#### Foundation Design

Shallow foundations as well as deep-pile supported foundations

#### Reinforced Concrete

Elevated floor systems and slab-on-grade

#### Structural Steel

Process Equipment frames, pipe bridges, control rooms, pipe and duct supports, platforms, and access catwalks



### Mechanical Engineering

#### ASME Pressure Vessel Design

#### Process Piping Systems

#### Industrial Ventilation and Dust Collection

#### Material Handling

Belt, chain, and screw conveyors

#### Pipe Stress Analysis

# Completed Projects for Clients and Facilities

## Engineering & design projects

Kapstone Paper Mill	North Charleston, SC
Symrad Chemicals	Bushy Park, SC
PPG	Lexington, NC
Project Integration	Greenville, SC
Michelin Tire Company	Pendleton, SC
BASF The Chemical Company	Mauldin, SC
PPG	Shelby, NC
Mead Westvaco	North Charleston, SC
Clean Burn Fuel	Reaford, NC
GE Energy	Greenville, SC
Alcoa	Goose Creek, SC
BMW	Greer, SC
Nephron Pharmaceuticals	Columbia, SC
Johnson Controls Battery Group	Florence, SC
Michelin Tire Company	Lexington, SC



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# Project Sheets

## Typical projects completed by Carolina Design

The following pages contain typical projects completed by Carolina Design.





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# KAPSTONE NORTH CHARLESTON, SC



MODIFICATION TO  
THE EXISTING  
TURPENTINE  
FACILITY  
NEW TRS STRIPPER





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# BIONOMIC INDUSTRIES ROWLEY, UTAH

SERIES 7000  
VENTURI  
SCRUBBER  
SUPPORT  
TOWER



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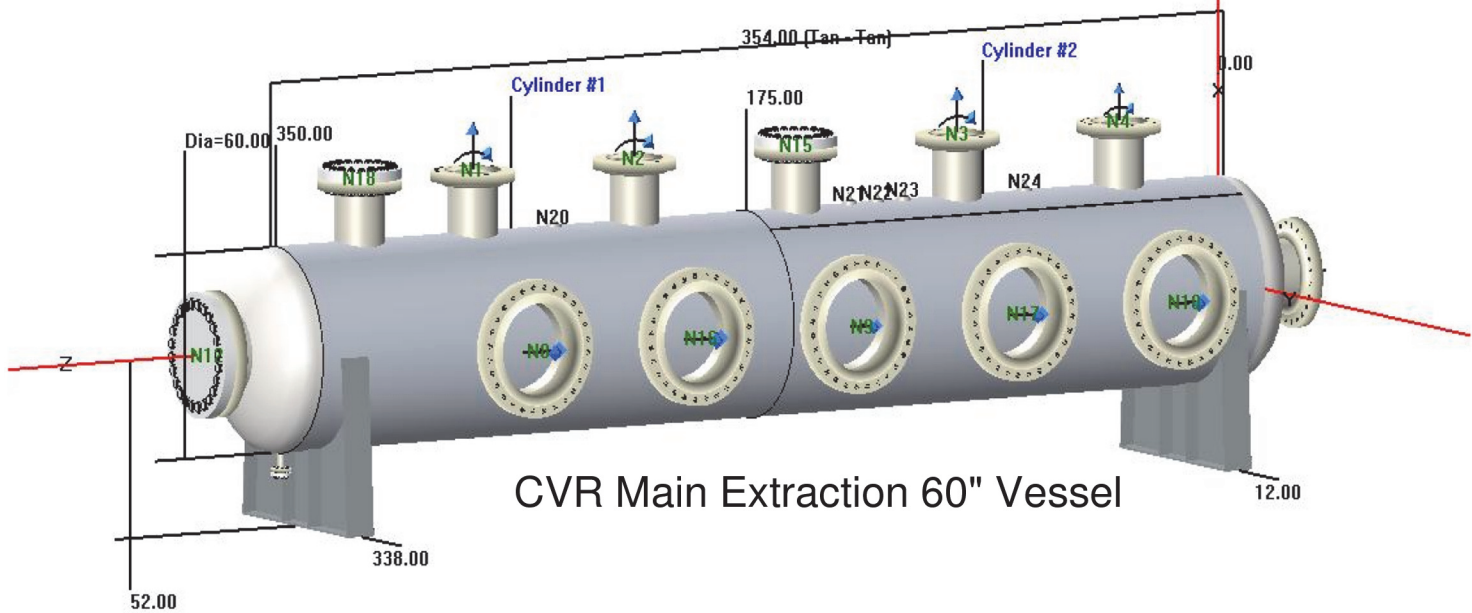
# KAPSTONE NORTH CHARLESTON, SC



## SURFACE CONDENSER



GE ENERGY  
GREENVILLE, SC



CVR Main Extraction 60" Vessel

ASME PRESSURE VESSEL DESIGN  
CVR MAIN EXTRACTION 60" VESSEL



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# KAPSTONE NORTH CHARLESTON, SC



## FLASH TANK PLATFORM & PIPING



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## **CLEAN BURN FUEL REAFORD, NC**



**STRUCTURAL &  
PROCESS PIPING  
FOR ETHONAL  
FACILITY**



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# BOEING NORTH CHARLESTON, SC



PIPE SUPPORTS  
FOR SC BOEING  
FACILITY



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## SHAW AFB SUMTER, SC



## FLIGHT LINE COVERED WALK



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## SHAW AFB SUMTER, SC



## MAIN ENTRANCE COVERED GATE





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# KAPSTONE NORTH CHARLESTON, SC



WASTE HEAT  
EVAPORATOR  
PIPING, PIPE  
SUPPORTS  
AND PUMP  
FOUNDATIONS



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# KAPSTONE NORTH CHARLESTON, SC



ACCESS PLATFORM,  
PUMP & CONCRETE  
CONTAINMENT  
SUMP



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