



SINCE 1974

INDUSTRIAL

ENGINEERING AND MANUFACTURING

R-V INDUSTRIES, INC.

STRENGTH IN INDUSTRY DIVERSITY



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Made in the USA

*“Supplying superior products
and services at a competitive
price with integrity”*



BETA STAR LIFE SCIENCE EQUIPMENT

Steam Sterilizers and Process Equipment

Our Beta Star Life Science Equipment market area specializes in steam sterilization and disinfection products for pharmaceutical, biotechnology, laboratory and animal care clients.

We also specialize in **ASME Code Fabrication**, allowing us to supply complex equipment for sterilization processes involving extreme conditions.



Bulk (Vivarium) Units



BSL3 and cGMP Packages

BSL3 level sterilizers are used in highly critical laboratories around the country. Pass-through sterilization systems are essential for taking laboratory equipment from the “dirty-side” to the “clean room.”

cGMP pharmaceutical sterilizers are provided with non-proprietary controls and cycle data acquisition packages that comply with the requirements of the Industrial Standards for Moist Heat Sterilization.

cGMP software is internally developed according to Life Cycle Methodology, FDA regulation CFR 21. This includes Part 11 and GAMP IV (Good Automated Manufacturing Practice) requirements of CFR 21.

Equipment Service

Our sterilization systems are designed to require less maintenance than other sterilizers. By utilizing non-proprietary components, our equipment drastically reduces downtime and replacement costs. Industrial grade pneumatic valves, standard in our equipment, can last up to two years under corrosive steam conditions without any preventative maintenance service.



EnviroVac® Water Conservation Vacuum System

Our economy relies on clean, potable water to survive and grow. Water availability and quality has declined due to its high demand, which is why we developed the patented EnviroVac® System.

The EnviroVac® is a water conservation system engineered for integration into all Beta Star sterilizers. The system reduces the amount of water used during a sterilization cycle by as much as 75%.



Dedicated Facility

Our state-of-the-art facility, dedicated to use by Beta Star, features epoxy-coated floors, fabrication and assembly stations for sterilizer components. The facility is fully equipped with all utilities to complete Factory Acceptance Testing.

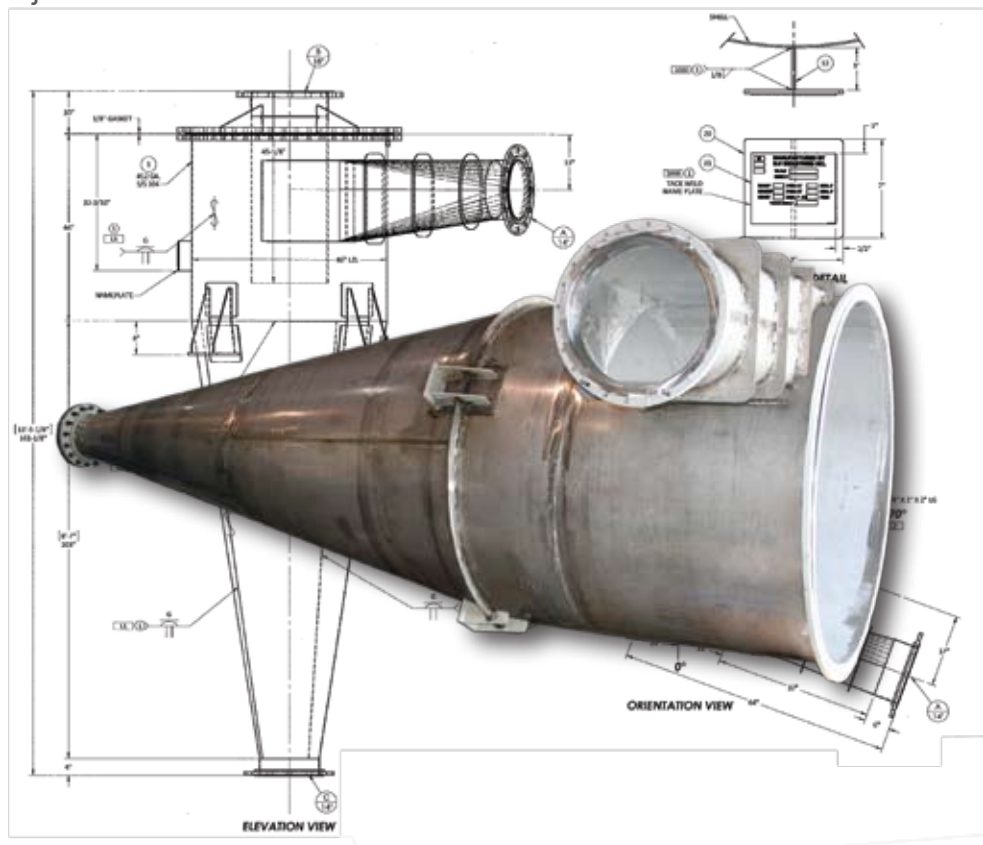


BUILD-TO-PRINT

Build To Print Manufacturing

While supporting manufacturing for Beta Star, Paper, and Power Generation product lines, our fabrication facilities and 300,000 annual manufacturing hours give us the capability to provide custom fabrication and build-to-print manufacturing across all industries that we serve.

Our design and engineering team members are cross-trained across multiple industries to provide expertise and insight into industrial build-to-print projects.



Extensive Fabrication Experience

- Agitation, Mixing and Storage Tanks
- ASME Vessels
- Columns
- Discharge Heads
- Pumps
- Structural Systems

Protecting Proprietary Designs

Unique designs and ideas are the lifeblood of any industrial company. By trusting R-V with your build-to-print needs, our company will provide a fabricated solution that meets required specifications, while keeping your designs private and secure.

Machining Capabilities

Through many years of continually investing in our company, we have the capability to handle our customers' machining needs internally. We operate two shifts to maximize our machining availability for our customers. The machining center includes:

- CNC and Manual Boring Mills
- CNC Horizontal Mill
- CNC Vertical Machining Center
- Multiple CNC Lathes
- Vertical Turret Lathe



Vertical Machining Center



Horizontal Boring Mill

Fabrication Capabilities

Driven by innovation, our fabrication capabilities are constantly broadening. Through burning, forming, rolling and welding, our fabrication potential is only limited by our customers' specifications.

- A.S.M.E. Code Welding
- A.W.S. Welding
- U and S Stamps
- Weldments to 60 Tons



Weld Types

OSHA Recognized Safety History

Since 2007, we have held the Safety and Health Achievement Recognition Program (SHARP) Certification from OSHA for an outstanding safety history. The SHARP Certification is held by only 50 companies in the state of Pennsylvania.

The certification is awarded every 2 years and requires frequent inspections and interviews from members of the OSHA team associated with the Indiana University of Pennsylvania.



CHEMICAL PROCESSING

ASME and Jacketed Vessels

One of the core competencies of our company is constructing vessels, reactors and process tanks in accordance with ASME Section VIII. Our carbon, stainless and nickel alloy steel vessels are used by multi-national companies for processing dangerous and corrosive chemicals. Our internal team of designers, engineers and welders are cross-trained to provide superb craftsmanship and consistent quality.

ASME
Section VIII

R-V's ASME Code Credentials:

- 325 Qualified Welding Procedures
- ASME Section VIII: U, S
- API 650 and API 620
- National Board 'R' Stamp
- NQA-1 Qualified

Vessel Finishing Options:

- Citric Acid and Chemical Passivation
- Electropolishing
- Glass Bead Finish
- Mechanical Polishing to 3-5 Ra
- Mill Finish
- Standard or Specialty Coatings



Jacketed Vessel Types

Every chemical process is different, and every jacketed vessel should be designed to best suit the process being conducted. R-V provides three different jacket options: conventional, dimple and half-pipe.

Conventional Jacket

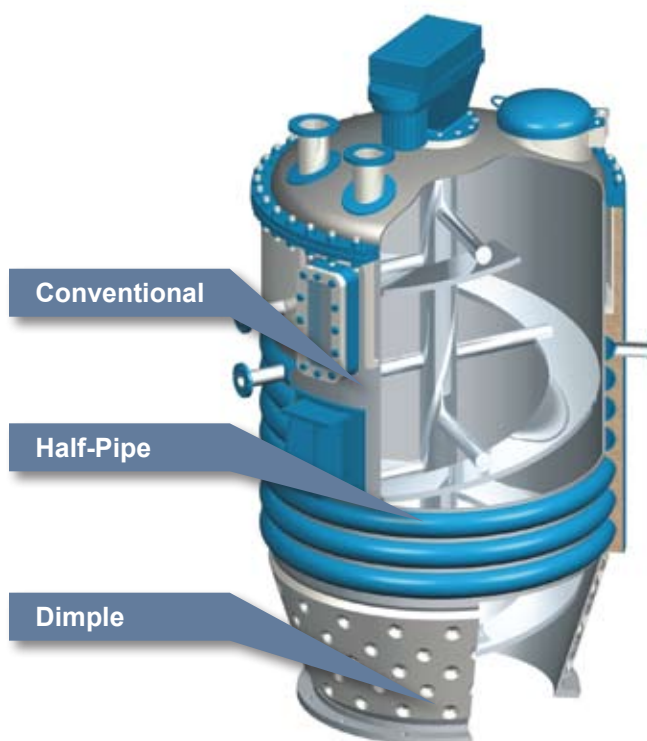
A conventional jacket is the best option for small volume vessels. An extra layer of covering surrounds all or part of the vessel.

Dimple Jacket

The best option for light-gauge vessel construction with considerable cost savings compared to other options. This jacket is approved by the National Board of Boiler and Pressure Vessel Inspectors for up to 300 psi.

Half-Pipe Jacket

The half-pipe jacket provides optimal strength for light-gauge material, rated to 750 psi. A half-pipe jacket is recommended for high temperature applications and liquid heat transfer processes.



ENGINEERING SERVICES

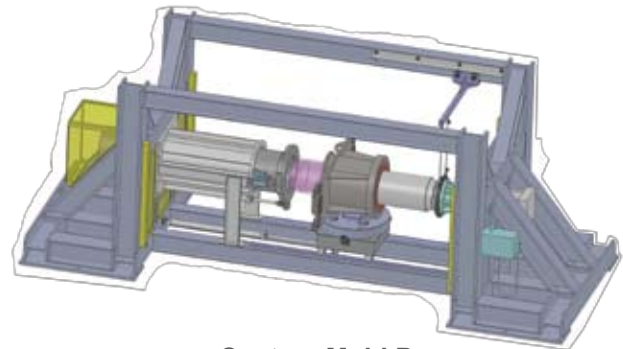
Designs That Build

Not every design can be cost-effectively and easily manufactured. As an engineering and manufacturing company, we design with material availability, cost and manufacturing processes in mind.

In addition to our internal design and engineering team, our engineering services team directly supports our customers in their manufacturing projects and processes.

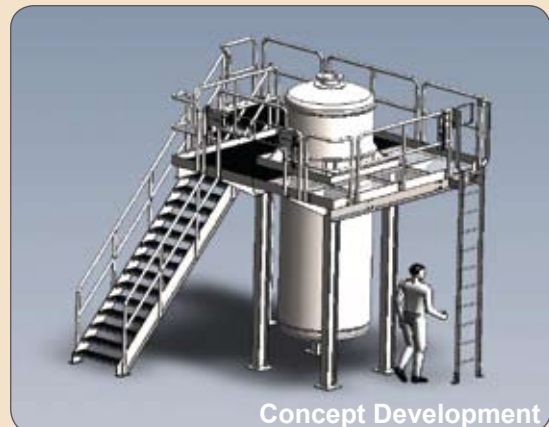
What does this mean? Every engineering or design project we undertake will be cost effective and useful for our customers. We provide four types of services:

- Engineering
- On-Site Long Term Support
- Project Support
- Safety Analysis



Custom Mold Press

DESIGNS THAT BUILD



Concept Development



Manufactured Equipment

Engineering

- Electrical Power and Controls
- Mechanical Engineering
- Industrial Process Design
- Machine Design
- Drafting and Design Support

Project Support

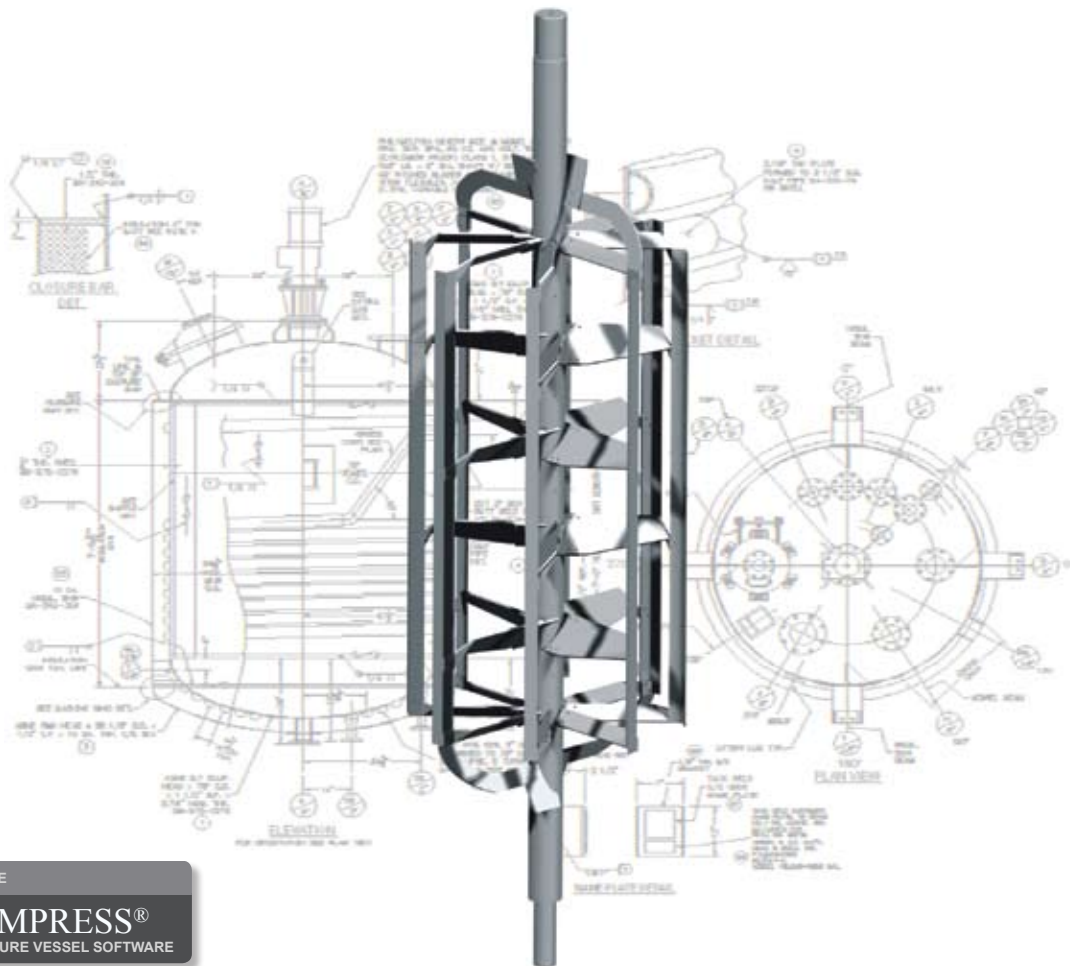
- Support For Tight Deadlines
- Additional Resources For Large Projects
- Project Management
- Turnkey Fabrication and Machining

On-Site Long Term Support

- Long-Term Support
 - Project Management
 - Engineering, Drafting and Design

Safety Analysis

- Enhance Automation
- Safety Guarding
- Reduce or Eliminate Hazards by Design



FOOD AND BEVERAGE

Tanks and Complete Conveyor Systems

Sanitary manufacturing is the top priority for food and beverage equipment. Our stainless and alloy-only manufacturing facility ensures that food and beverage equipment is not cross-contaminated by exposure to carbon steel.



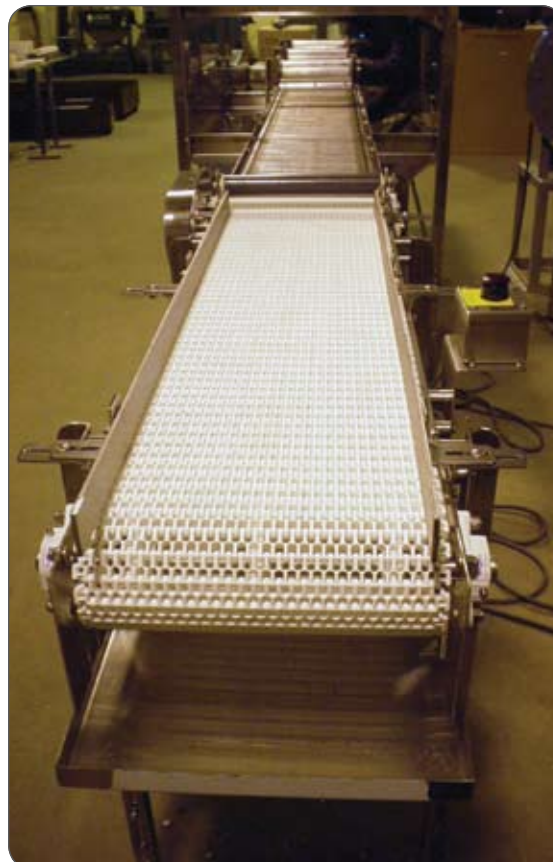
Documented Quality Assurance

With extensive experience in FDA and NQA-1 documentation for the Beta Star and Nuclear market segments, we can provide detailed reporting on the manufacturing process for your equipment.

This gives our food and beverage customers the peace of mind in knowing their equipment is designed and manufactured with all required sanitary characteristics.

Proudly Supplying

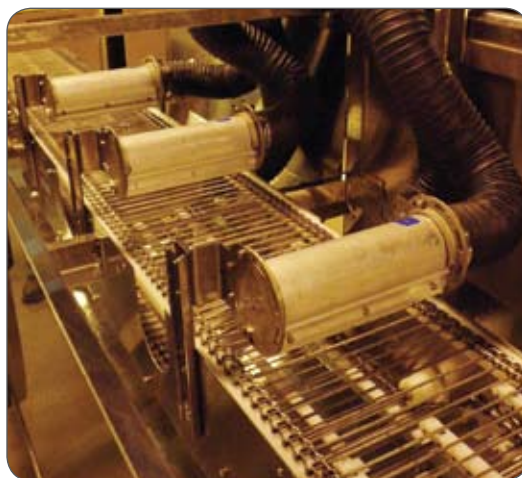
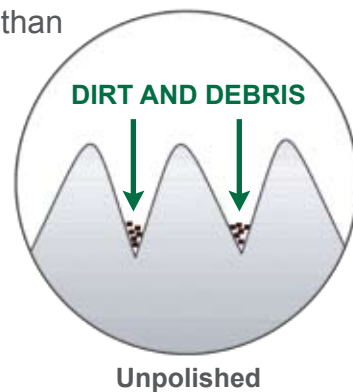
- Belt Conveyors
- Cooker and Chiller Units
- Cryogenic Equipment
- Drying and Coating Equipment
- Pressure Cookers
- Processing Vessels
- Storage Tanks and Vessels
- Toasting Ovens



Sanitary Surface Enhancement

It is common knowledge that a highly polished vessel shines brighter than a vessel without a polish. However, a highly polished vessel is also more sanitary, with intrinsic anti-cling characteristics.

Any metal surface has a series of peaks and valleys that are unseen to the human eye, which can trap dirt and residue from the food and beverage manufacturing process (shown on right). At R-V, we utilize mechanical polishing and electropolishing processes that level the peaks on the metal surface to produce a smooth and bright finish.



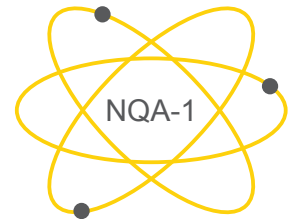
Vessels Can Be Polished to 3 Ra



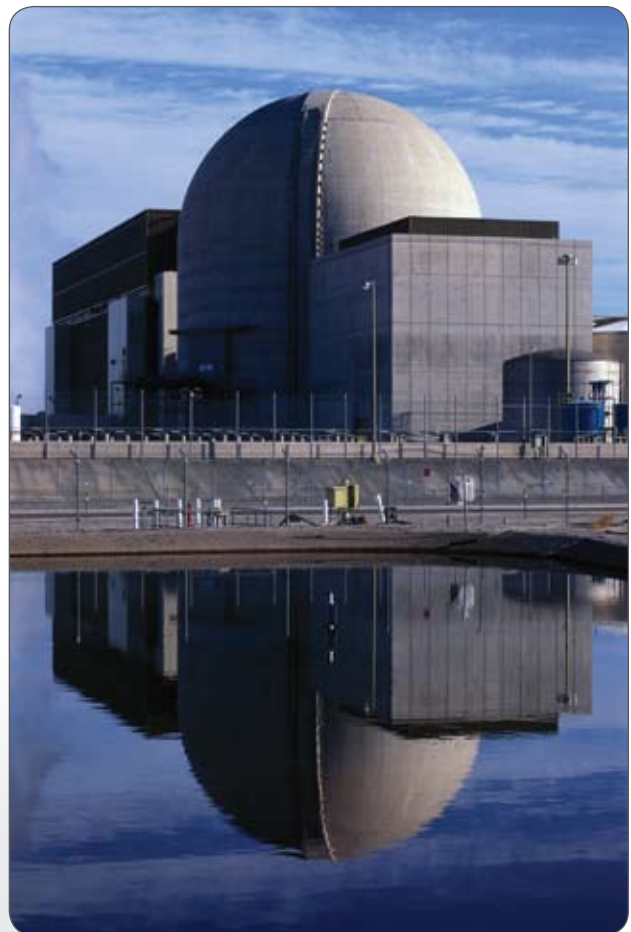
NUCLEAR (NQA-1)

NQA-1 Compliance

Our Nuclear Quality Assurance program adheres to the requirements specified in 10CFR50 Appendix B for nuclear fabrication. Through our quality assurance program, our customers receive high quality manufactured equipment while maintaining their Part 50 Licenses. Our equipment is manufactured and used in accordance with 10CFR Part 21 and 10CFR Part 71 standards.



Waste Containment Drums and Vessels



NQA-1 Product Expertise

We offer a number of waste containment and structural components for federal and private sector customers:

- Casks
- Cask Transporters
- Waste Containment Vessels
- Lifetime Equipment
- Processing Equipment
- Reactor Head Service Structures
- Reactor Heads and Internal Stands
- Reactor Internals
- Reactor Service Platforms
- Structural Steel Assemblies

NQA-1
QUALIFIED



OIL AND GAS

Engineering and Manufacturing

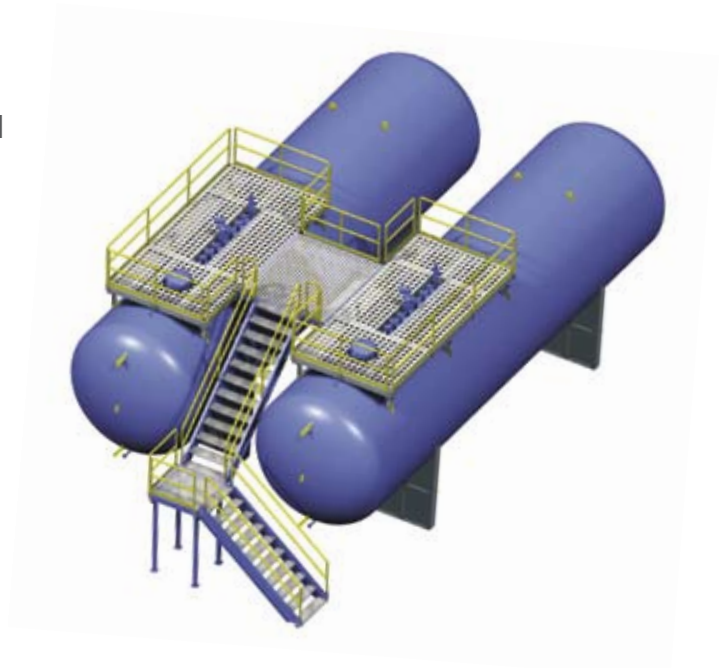
The oil and gas industry features a unique set of challenges and demands. Our internal engineering and manufacturing teams work closely together to build equipment in accordance with customer specifications.



Equipment Options

Specializing in the fabrication of ASME and non-pressure vessel equipment:

- Distillation Columns
- Jacketed Tanks and Vessels
- Reactors
- Spool Pieces
- Structural Platforms and Systems



An Expanding Industry

As the oil and gas industry continues to grow in the greater Pennsylvania area, our commitment remains: to provide superior products at a competitive price with integrity.

We provide a number of different equipment options for the hydraulic fracturing industry, including:

- Gas Processing Skids
- Separator and Storage Tanks
- Slug Catchers
- Towers
- Wastewater Treatment Tanks and Skids



PAPER MILL MACHINERY

Your Partner in Papermaking®

R-V has specialized in partnering customer mill requirements with our engineering and manufacturing expertise to provide custom machinery solutions for any step in the paper making process. We have experience designing and manufacturing complete paper machines, like the one illustrated below. In addition, we manufacture a number of different sections:

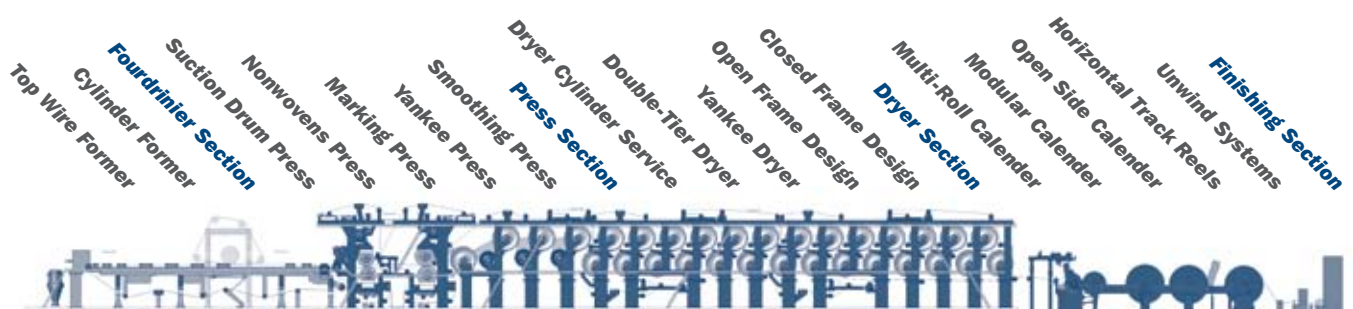
- Forming Sections
- Pressing Sections
- Drying Sections
- Finishing Equipment
- Component Parts



Drafting and Design Capabilities

With an internal team of cross-trained drafters, designers and engineers, we have experience in:

- AutoCAD Design and Drafting
- CFD Analysis
- Control Systems Engineering
- Finite Element Analysis
- Machine Upgrades
- Process Evaluation
- Solidworks 3D Modeling



Services

In addition to capital projects, we provide a variety of maintenance services to mill machinery:

- Balancing
- Dryer Cylinder Certification
- Installation and Field Service
- Optical Alignment
- Reel Spool Overhauls
- Roll Grinding
- Roll Repairs
- Suction Roll Overhauls



Accessories

- Auto Guides
- Fabric Guiding Systems
- Felt Stretchers
- Flumes and Silos
- Machine Surveys
- Patented TL™ Rolls
- Roll Doctors
- Roll Dollies
- Sole Plates
- Suction Rolls
- Tail Cutters
- Wire Tensioners



POWER GENERATION

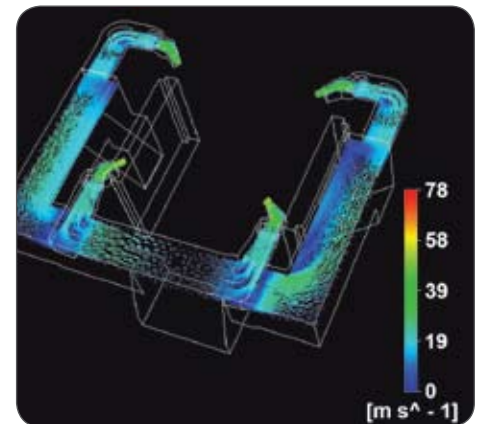
OEM Equipment Upgrades

For over 40 years, R-V has furnished OEM upgrades for the power generation industry. We supply much more than standardized OEM replacement parts. Our equipment is custom designed and built for your exact specifications. In addition, our patented **Thermal Guard™ Nozzles** have been lab and field tested for proven results over OEM options.



Technical Consulting

With some of the best and brightest professionals in the industry, R-V has been a cornerstone on technical consultations for generating utilities around the world, including countries in Asia, Europe, North America and South America.



Fuel Conversions

An increase in domestic natural gas supplies and a decrease in price has raised interest in utility conversions to natural gas in the United States. A coal to natural gas conversion is the best time for a complete firing system analysis to ensure the most efficient process.

“PROVIDING THE BEST COMBUSTION SYSTEMS AND COMPONENTS IN THE WORLD”

Specializing in Tangentially Fired Furnaces

SOFA Windboxes

Main Windboxes

Stationary Coal Nozzles

Gas Nozzle Tips

Air Nozzle Tips

Oil Nozzle Tips

Coal Nozzle Tips

Pilot Torch Nozzles

Diffusers

Tilt Mechanisms

Graphite Damper Bearings

Opposed Blade Upgrades

Complete Damper Frames

Oil Guns and Tips

Gun Retract Mechanisms

Retractable Spark Ignitors

Access Doors

Observation Doors

Riffle Elements

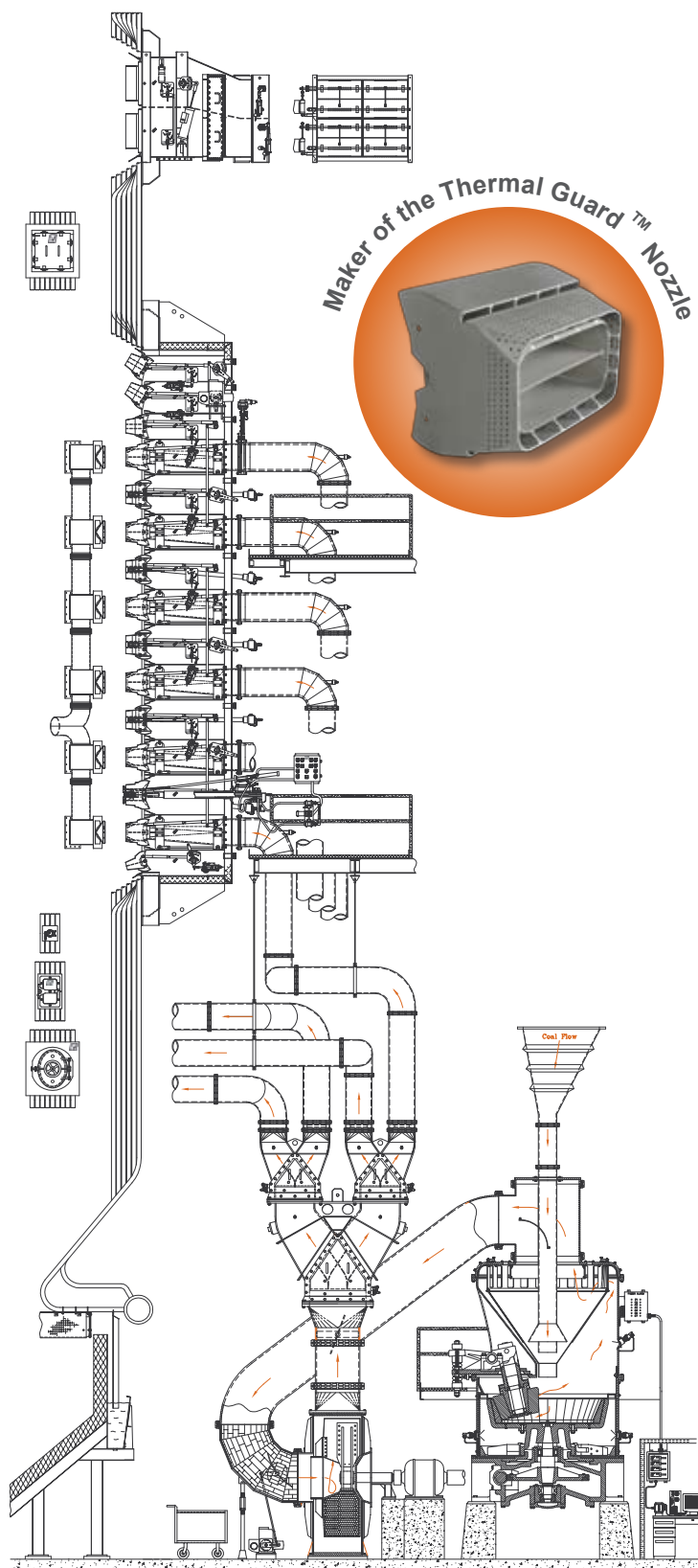
Flexible Drip Screens

Seal Plates

Pulverizer Parts

Whizzer Wheel Assemblies

Mill Fire Detection System



OUR COMPANY

Strength Through Industry Diversity

With over 280 employees and 160,000 square feet of manufacturing and storage space under roof, we have the resources and facilities to handle large manufacturing projects.

We take great pride in serving the individual needs in every industry we operate. While we maintain diversity in the industries we serve, our mission remains: to supply superior products and services at a competitive price with integrity.



Our Headquarters



Our People





“TO SUPPLY SUPERIOR PRODUCTS AND SERVICES WITH INTEGRITY”

R-V Industries, Inc. • 584 Poplar Road • Honey Brook, PA 19344 • www.rvii.com • 610-273-2457