

ENGINEERING, PROCUREMENT & CONSTRUCTION

We start our projects with a well-defined scope of work and an accurate budget. We involve you in the design decisions as required to ensure that your objectives are met.

We perform all required calculations including mass and energy balances and optimal sizing of equipment.

Our first group of deliverables includes process diagrams and equipment specifications.

We produce a three-dimensional model of the systems and equipment and routinely review these with you via web-based conferencing as the designs progress.

Upon completion of refinements to the model, and with your approval, we produce the required certified deliverables.

We offer full EPC services. We can supply and install all required equipment or you may elect to purchase our major components and source non-proprietary equipment yourself.

We will start-up the systems and provide training for operations and maintenance staff.

General:

- Project schedule, Progress reports
- Hazop reports
- Constructability reviews and installation schedule
- Operating and maintenance manuals
- Start-up and balance report

Mechanical:

- Equipment Specifications
- General arrangement drawings
- Fabrication details
- Installation details,
- Process Flow Diagrams (PFDs)

Structural:

- General arrangement drawings for penetrations, platforms, walkways, and equipment supports
- Bill of materials
- Fabrication details

Electrical/Instrumentation:

- Piping & Instrument Diagrams (P & ID'S)
- Instruments I/O List, functional descriptions
- Single Line Diagrams, Cable schedules
- Electrical and Instrumentation component data sheets
- Electrical/Instrumentation Panel Layout Drawings

Equipment Supply and Procurement

- We provide fabricated specialty equipment
- Sizing and selection of OEM components including technical evaluation

Installation and Start-up

- Contracting of installation work
- Engineers on site for Installation quality control, commissioning and Start-up, testing, balancing and troubleshooting, operator training



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Detailed Engineering and Design

We have experience with engineering of a variety of systems including:

- Dust control systems, venturi scrubber type, wet system type, and baghouse type,
- Industrial central vacuum systems,
- Pneumatic conveying systems,
- Material handling systems,
- Paper machine wet end mist control and various process exhausts with centrifugal separators,
- Hot exhaust air heat recovery systems including indirect air to liquid, direct air to liquid, and indirect air to air,
- Multi-stage blower systems with pressure and temperature-controlled air,
- Conventional grade paper machine hood exhausts,
- Machine room ventilation – with direct fired gas, steam coils, glycol coils, or electric heating,
- Electrical room cooling, heating, and pressurization,
- Chemical containment systems,
- Conventional paper grades web cleaning systems,
- Tissue grade machine dry end tail threading systems – pneumatic type,
- Tissue machine web handling – creper to reel, including foils and driven spreader rolls,
- Converting Operations dust control,
- Pulper exhaust systems,
- Tissue machine yankee dryer coating containment systems,
- Air curtain systems for dust, mist, and chemical contaminant,
- Various systems involving piping, pumps, tanks, and valves.



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