OPTIMIZING FILTRATION FORHE CHEMICAL MARKET

Making the world Safer, Healthier, & More Productive

WACO



# YOUR CHEMICAL FILTRATION SOLUTION PROVIDER

Waco Filters, a Filtration Group company, is a total filtration solution supplier offering a broad range of air, liquid, gas, HVAC & dust collection filtration technologies nationwide. With a long-standing reputation of providing value to our customers, our goal is to provide engineered process solutions backed by excellent service and support to reduce our customer's overall cost of filtration and improve their profitability.

With a wide breadth of solutions to suit your filtration needs, Waco partners with our customers to solve their most complex filtration challenges and provide continuous process improvement. Approaching each customer and their process with a customized attitude, we know that filtration is not a one size fits all. That is why Waco leverages our comprehensive knowledge of filtration and experience in the Chemical industry to evaluate all applications within your process and deliver a plan for improved safety, efficiency, and reliability of your operations. Knowing our success directly impacts your businesses bottom line – we are committed to you and the continuous improvement of your operations.

At Waco we understand the impact filtration can have on the world around us and believe it is our mission to make the world safer, healthier and more productive. Proper filtration at critical points within your chemical manufacturing process can significantly reduce the risks facing your operations and business performance. Waco Filters partners with our customers to mitigate these risks.

#### Improve Chemical Operations with Proper Filtration

At Waco Filters we understand that efficient filtration and separation within your processes are critical to the reliability of your operations and the production of chemical and polymers which are the building blocks to many goods we all use in our daily lives. We also understand that you are consistently challenged as a business with process performance, operating costs, and improving end-product quality. Whether you are needing to remove contaminants, improve process streams, or protect critical downstream equipment, we leverage our broad range of filtration and separation solutions to deliver the right solution based on your needs while improving process efficiency and overall business performance.

Properly planned filtration is vital for the success and protection of your chemical processes – especially because chemical processing operations are highly sensitive to variations in feed quality and contamination levels. The slightest insufficiency has the ability to transfer downstream into other processes which can be costly and may not always be apparent until it is too late. The result can be lost productivity and quality, significant maintenance costs, or unplanned downtime of your operations.

By implementing proper filtration at critical points in your process these risks can be mitigated. That's why we take the time to understand your unique filtration challenges and process needs. We then draw on our more than 50 years of experience supplying filtration solutions, best-in-class resources and technology to develop a comprehensive plan based on all applications that best suits your needs. Our goal is to improve our customers bottom line by optimizing filtration operations, decreasing the risk of downtime, and improving operational reliability.

#### HELPING YOU REACH YOUR OPERATING GOALS

- Decrease operating costs
- Improve business profitability
- Reduce risks of downtime
- Reduce maintenance costs
- Provide continuous operational improvements
- Improving product quality



## **ADHESIVE AND SEALANTS**

Our team at Waco Filters understands the needs and challenges you are faced with in trying to reduce operating costs while improving product quality. With a broad range of filtration, separation and purification, solutions and experience in adhesive and sealant manufacturing provide you with improved filtration performance and longer life for a truly optimized operation.

#### **Applications Served:**

- Boiler/heat exchanger filtration
- Deionized (DI) water filtration
- Phase separation (liquid/liquid)
- Waste water recovery

Slurry filtration

## **CHEMICAL**

Alkalies | Chlorine | Chemicals | Chemical Preparations | Industrial Inorganic Chemicals Industrial Organic Chemicals | Pesticides & Agricultural Chemicals

Chemical processing operations face many challenges with managing their operations efficiently and delivering on-spec products as incoming feed quality and contamination levels can fluctuate based on a number of process conditions that are always changing. Our job is to help identify these areas early and prevent contaminants and impurities from migrating downstream which can have a significant cost to your operations from off-spec product production or damages to process equipment which causes unplanned maintenance and productivity loss.

#### **Applications Served:**

- Boiler feed water
- Catalyst and salt recovery
- Deionized (DI) water filtration
- Emission control

- Feedstock filtration
- Feedstock/Water Purification
- Fermentation broth clarification
- Final product filtration/clarification
- Hydraulic and lubricating fluids
- Minerals processing
- Phase separation (liquid/liquid)

## COATINGS

Allied Products | Enamels | Cyclic Organic Crudes & Intermediates | Inorganic Pigments Lacquers | Organic Dyes & Pigments | Paints | Printing Ink | Varnishes

Delivering a consistent product every time can be challenging for any chemical/coating manufacturer, but when manufacturing paints, inks, and coatings there can be challenges in adapting the process to the characteristics of different ingredients, and tailoring your process to deliver an end product that achieves the desired product performance. Waco works with our coatings manufacturers to improve their process run-times more efficiently and reduce contamination from silicones, gels, and dirt which can prohibit the products performance and overall quality.

#### **Applications Served:**

- Boiler feed water
- Deionized (DI) water filtration
- Feedstock filtration
- Feedstock/Water Purification
- Fermentation broth clarification
- Final product filtration/clarification

## **POLYMERS AND RESINS**

#### Nonvulcanizable Elastomers | Plastics Materials Synthetic Organic Fibers | Synthetic Resins

Whether you are manufacturing films, high-performance fibers, or resins - polymer producers are continuously challenged to find ways to improve operations and deliver a more competitive product to market. Whether you are looking to increase the efficiency of your operations, improve product quality, or decrease operating costs, examining your process to ensure you are properly using the right product in the right application can deliver real impact to your bottom line. Waco brings the industry and application knowledge to your process to ensure you are delivering on your productivity goals while delivering a quality product.

#### **Applications Served:**

- Catalyst and salt recovery
- Deionized (DI) water filtration
- Feedstock filtration
- Feedstock/Water Purification
- Mineral Processing
- Slurry Filtration



### SURFACTANTS AND OILS

Finishing Agents | Surface Active Agents | Sulfonated Oils | Assistants

Waco supports surfactant and oil producers with a broad range of filtration technologies to ensure their solutions are manufactured on spec and efficiently, but this is not our only area of focus as we want to assist our customers in meeting their operating goals safe and responsibly. Filtration plays a major role in delivering on this commitment and it is because of our portfolio of quality solutions and application knowledge that we are confident we can help you will meet all process requirements.

#### **Applications Served:**

- Deionized (DI) water filtration
- Feedstock filtration
- Feedstock/Water Purification
- Final product filtration/clarification
- Phase Separation (liquid/liquid)
- Waste Water Recovery

## DELIVERING VALUE AND SOLVING CUSTOMER CHALLENGES

**Polymer and Resin Producer** - \$10.5M Documented Savings Optimized Polymer filtration by providing alternative technology which increased production rates and reduced maintenance.

**Polymer and Resin Producer** - \$4.6M Documented Savings Provided alternative technology to reduce waste water which resulted in the elimination of the capex expenditure and reduced maintenance costs.

#### Polymer and Resin Producer - \$1.1M Documented Savings

Increased production rates, and eliminated a capex expenditure by improving the filtration efficiency of the press cloth media and throughput with the existing system

**Inorganic Chemical Manufacturer** - \$383K Documented Savings Recommended alternative liquid filtration technology for spray dryer application – reducing total annual unit cost by 50%.

**Inorganic Chemical Manufacturer** - \$306K Documented Savings Improved performance of deep well filtration system by with an alternative technology that had extended life, reduced maintenance, had lower cost/unit, and decreased waste.

**Printing Ink Manufacturer** - \$258K Documented Savings Recommended and provided alternative technology for ink jet filtration that improved gel and contaminant removal.

## **FILTRATION SOLUTIONS**



#### Liquid Process Filters

Pleated Cartridges Bag Filters Stringwound Resin Bonded Depth Meltblown Depth High Flow Capsule Filters



#### Liquid Process Housings

Bag Filter Housings Cartridge Filter Housings Single and Multi-Round Available with ASME-U Stamp Carbon Steel and Stainless Steel Custom Engineered Designs Rental Vessels Available



#### HVAC Filters

Pleated Air Filters Panel Air Filters Pocket Air Filters Ring and Link Panel Filters Rigid Cell Air Filters High Capacity Air Filters HEPA Air Filters



#### Hydraulic Filtration

Spin On Hydraulic Filters Hydraulic Housings Cartridge Style Hydraulic Filters Low/Medium/High Pressure Options Wide Range of Filter Media's Desiccant Tank Breathers OEM Replacements



#### Compressor Intake Filters

In Line Compressed Air Filters Air/Liquid Coalescers Compressed Air Preparation Systems Desiccant Dryers High Pressure Systems ASME Coded Vessels



#### Filtration Systems

Vertical Pressure Leaf Filters Horizontal Pressure Leaf Filters Backwashable Filters



#### Dust Collection

Dust Collectors and Bin Vents Pleated Dust Cartridges Dust Bags Cyclones High Temperature Specialty Media Available Custom Engineered Solutions Media Replacement Parts



#### Reverse Osmosis

RO Systems Reverse Osmosis Membranes Pharma Grade Beverage Grade Industrial Grade High Rejection Low Energy RO Prefilters



#### Gas Separation/ Filtration Housings

Gas/Liquid Coalescer Elements Liquid/Liquid Coalescer Elements Filter Separator Elements Dry Gas Filters Iron Sulfide Removal Ultra High Temperature Coalescing Wafer Packs Horizontal Coalescers Wet Gas Coalescers Dry Gas Filter Housings Wet Gas filter Separators Scrubbers & Separators Retro Fit Parts



#### Screens

Screener Systems Screener Parts Single Screens Screen Weld Pack Screen Frame Pack Screen Sintered Pack Screen Sintered Powder Vibrating Screens Fabricated Screens

#### The Right Solution for Your Process

Whether you are manufacturing films, high-performance fibers, or resins - polymer producers are continuously challenged to find ways to improve operations and deliver a more competitive product to market. Whether you are looking to increase efficiency of your operations, improve product quality, or decrease operating costs, examining your process to ensure you are properly using the right product in the right application can deliver real impact to your bottom line.

Waco Filters partners with chemical producers to solve their challenges by understanding your operating goals and evaluating all areas of filtration within your plants. With our broad offering of filtration technologies we are confident we can deliver an engineered solution specific to your process. Allowing you to deliver a quality product efficiently and at a cost that improves your profitability.

## **FILTRATION SERVICES**

At Waco Filters it is important to us that we deliver not only quality solutions but a high level of services that add value and meet the needs of our customers. Our purpose is to solve real challenges in filtration through engineering, innovative technologies, experience and collaboration – it's what we've been doing for the past 50 years.



#### FILTER CONSOLIDATION PROGRAM

Waco's Filter Consolidation Program was developed to aid our customers in improving sourcing capabilities and gaining real understanding of their total filtration spend. By consolidating your filtration spend through this program Waco can help you realize immediate hard cost savings for your business. Having partnered with more than 720 manufacturers to become filtration consolidation experts, we address all of your filtration needs objectively and provide a plan for all your maintenance and process filtration needs. Our goal is to deliver real savings and technical expertise while offering year-round, 24/7 service.



#### **TOTAL COST OF OWNERSHIP ANALYSIS**

Waco offers a Total Cost of Ownership (TCO) analysis which is focused on evaluating your process and identifying areas that may be costing you in efficiency or operating dollars. As part of this service one of our filtration experts will evaluate the type of filtration currently being used, production costs, and your processes performance data to run a technical analysis and provide insight to what your current filtration technologies are costing you and provide detailed recommendations on what improvements can be made to improve efficiencies and profitability of your operations.



#### **VESSEL RENTAL PROGRAM**

If you are looking to replace a vessel or perform repairs to your filtration equipment but needing to maintain operations or meet increased capacity demands but not ready to make a capital investment at this time, Waco Filters' Vessel Rental Program may be worth consideration. With a range of both liquid and gas filter vessels available we can provide you with a vessel design that fits your needs.

#### Value Added Services

- 24/7 Emergency Service
- Customized Inventory Management Solutions
- Energy and Carbon Footprint Savings Analysis
- Filter Cleaning Services
- Filter Installation and Disposal
- Engineering and Testing
- Same Day Shipment or Pick-Up of Stock Items
- Sustained Internal Quality Management System



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#### CONTACT

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