

How Industrial Filtration Enriches Modern Life

From pharmaceuticals and dietary supplements to polymers, plastics and dyes, industrial filtration plays a crucial role in the modern world. Separating solids from liquids through filters is a critical step in a wide variety of industrial processes. Filtration solutions in the chemical processing industry can enhance operational efficiency, product quality, yield and consistency while improving the safety, health and environmental performance of products we use on a daily basis.

Powering Production

Filtration makes industrial processes possible. From fluid catalytic cracking used in the production of gasoline to the refinement of industrial minerals used in construction and daily household products, it all goes through a filter.

Bio-Products

Bioethanol
Starch
Biopolymers
(natural rubbers, biodegradable films and packaging, chitosan water purification)

Metals

Lithium batteries
Copper
Aluminum

Chemicals

Gasoline
Paints
Dry mixes
Batteries
Detergents
Adhesives

Industry Fact

Bio-products are powering new developments in green chemistry, allowing chemical producers to replace oil-based chemistries with renewable sources.

Industrial Minerals

Talc
Soda ash
(glass, fiberglass, detergents)
Silica
(glass, detergents, concrete, petrochemistry)
Calcium Carbonate
(paint, rubber, building materials)
Kaolin
(construction materials, paper, ceramics)

Metso Outotec Fact

The Tube Press Filter is designed to filter demanding applications with ultrafine particles in a wide variety of applications, such as industrial minerals, chemical processing and mining. With few moving parts and a fully automated process, it helps operations save on energy and maintenance costs while delivering the highest dewatering pressure in the market.

How much do we use?

Global biofuel production reached 110 billion liters in 2019 and is expected to grow 25% by 2024.

Driving Commerce

From shopping bags and paper packaging for takeout to the pigments and dyes in clothing, the world of commerce relies on filtration for goods and services.

Pulp and Paper

Flexible packaging
Food service papers
Labels
Magazines
White pigment

Polymers and Additives

Plastics
Rubber
Clothing

Pigments, Dyes and Inks

Textiles
Paints
Cosmetics
Printing
Plastics and polymers
Food

Pharmaceuticals

Antibiotics
Penicillin
Active ingredients in drugs
Binder in tablets

Industry Fact

Lignosulfonates, a byproduct of the papermaking process, can be refined through filtration and used for specialty chemicals or fuel to power the paper mill.

Metso Outotec Fact

With over 1,300 installations around the world, Larox® PF filters are the benchmark for reliability and efficiency in a wide range of applications. The starch industry alone has over 60 Larox PF filters globally producing enough starch cake each day to fill 10 Olympic-size swimming pools.

How much do we use?

Globally, the average person uses 55 kg of paper per year.

Sustaining Everyday Life

Industrial filtration also plays a critical role in our daily sustenance, impacting the foods we eat, the way we cook and the vitamins we take every day.

Food Additives

Preservatives
Emulsifiers
Flavoring
Citric acids
Amino acids
Cellulose gum

Edible Oils

Specialty fats
(dressings, margarine, chocolate, skin lotion/products)

Starches

Bread
Noodles
Soups
Puddings

Nutraceuticals

Daily supplements
Vitamins
Talc for tableting

Industry Fact

Starch isn't just a useful food ingredient; it also has many industrial applications as a thickening, stiffening or adhesive agent. It's used as an additive in paper, in wallpaper glue and as a disintegrant of binder in pharmaceutical tablets.

Metso Outotec Fact

Larox® RT-GT and Larox® RT filters offer true multistep solvent processing in a single unit with superior cake washing, minimum wash liquid consumption and maximum recovery. With over 550 units deployed around the world, these filters are enhancing processes and reducing costs in pharmaceutical, food, chemical and biotech applications.

How much do we use?

Global consumption of chocolate is estimated to be over 7.2 million metric tons every year.

Visit www.mogroup.com/industrialfiltration to learn more about how Metso Outotec filters help to enrich the modern world.

Metso Outotec is an established leader in industrial filtration systems across a broad array of industries — improving filtration capacity, productivity, environmental impact and safety. See how Metso Outotec improves industrial processes through better filtration.

Metso:Outotec