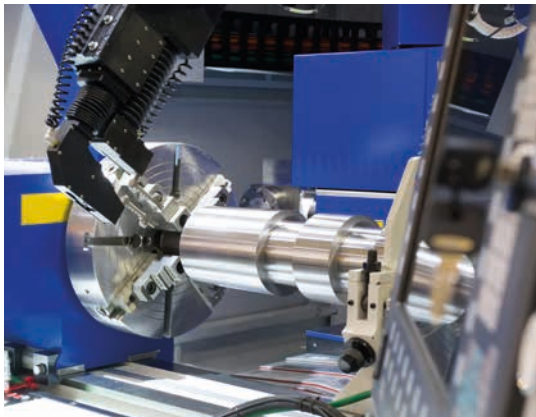


# Filtration in parts cleaning processes



Quality is required in the production of parts and components as well as in parts cleaning processes.

## *Filtration solutions safely separate dirt and production residues and ensure maximum cleanliness.*

Whether in the automotive industry, construction machinery, agricultural equipment, rail vehicles, ships, aviation, or precision mechanics, proper cleaning of parts is essential. It plays a vital role in ensuring the highest product quality and effectively prevents contamination of components.

The cleaning process removes dirt, impurities and residues from parts or components. It is used in various industries to ensure parts are clean, functional and suitable for further use, according to defined specifications. Technical cleanliness is a key feature and a prerequisite for the marketability of products. A parts cleaning process typically involves the use of cleaning media, mechanical or chemical exposure, rinsing and drying, followed by an inspection of the cleaned parts.

This overview provides cross-industry product recommendations for special filtration requirements in parts cleaning in all applications.

In order to meet customer expectations, plant manufacturers and operators must prioritize the development and operation of cleaning systems. It is critical for them to comply with the escalating requirements for residual dirt analysis and reliably prevent quality issues. At the same time, it is important to assure production is environmentally friendly and efficient by reducing energy and water requirements as well as general operating costs.

Filtration of the cleaning fluid is the key to optimal parts cleaning. Efficient filtration of washing and rinsing water allows the liquids to be reused – with positive impacts on the ecological footprint of the plant. Safe, efficient and defined filtration ensures that all requirements for cleanliness, quality and safety of the cleaned parts are met.



Powering Business Worldwide

# High-performance filtration in response to environmental regulations, quality requirements and cost pressure

Easy maintenance, high throughput and a bypass-proof filtration system are among the typical requirements for efficient cleaning systems.

In order to reliably meet the needs of plant manufacturers as well as the expectations of operators, Eaton has developed an extensive portfolio of bag and cartridge filtration solutions specifically designed for the needs of parts cleaning. This consists of high-performance components whose durability, efficiency and reliability increase the service life of the system and noticeably reduce the overall life cycle costs.

The portfolio includes TOPLINE bag filter housings, which provide excellent sealing due to their design and the SENTINEL sealing ring. Filter bag options range from pleated grades with high capacity and long service life, to melt-blown designs with protective cover layer that makes them impervious to metal chips, to fully welded filter elements with reinforced material thickness. Filter bags can also be equipped with magnetic bars to remove ferrous particles.

To meet specific filtration efficiency requirements, melt-blown or pleated depth filter cartridges can be used in ECOCART multi-filter cartridge housings.

In the case of plastics, metals and other materials, clean components and surfaces are a basic requirement for quality products in all industries. Clear specifications, efficient processes and high-quality plant technology lead to results that meet the expectations of customers. High-performance filtration ensures quality across all process steps and secures competitive advantages for plant manufacturers and operators alike.


### Eaton's high-performance portfolio for the highest quality in parts cleaning

- High efficiency for cleaning and quality assurance
- High-quality filters with a long service life
- Expert advice for every application
- Broad chemical resistance, e.g., when using solvents, alkali or acid
- High temperature resistance, if required
- High throughputs while at the same time adhering to defined retention rates
- Pre-separation of ferritic particles by magnetic bars

## Cleaning fluid treatment


### Coarse to fine filtration

Wash or rinse cycle

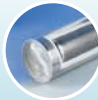


**TOPLINE™** bag filter housing with SENTINEL™ sealing ring


**Filter options**




MAX-LOAD™ pleated filter bag




HAYFLOW™ filter element



LOFPLEAT HF high flow filter cartridge




MAX-LOAD coreless filter bag




HAYFLOW Q filter element

and /or




**ECOCART™** multi-filter cartridge housing

**Filter options**




LOFTREX™ depth filter cartridge



LOFTREX M depth filter cartridge

with filter materials in polypropylene and polyamide 6.6 and two grades of nominal retention efficiency



Pleated LOFPLEAT™ AG filter cartridge with absolute retention efficiency

Wash or rinse cycle

Removal of dirt, contaminants and residues with high-performance bags, optionally with magnetic insert, and filter cartridges

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