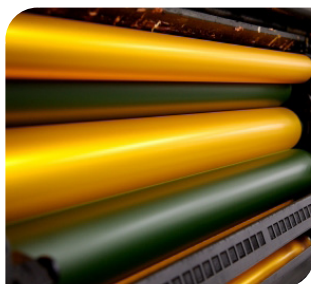




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Ink and Print Press Filtration



Ink and Print Press Filtration

Eclipse Magnetics filters use powerful high-intensity neodymium magnet material to remove ferrous and para-magnetic particles – down to less than a micron in size – from fluids.

How does magnetic filtration work?

With an ever increasing focus being placed on environmental awareness and the associated regulatory compliances more companies are seeking new and environmentally driven products that can assist and maintain operational continuity.

Magnetic filtration technology harnesses one of the most powerful natural energies available. Utilising the very latest in rare earth magnetic materials, we have been able to design and produce a comprehensive product range that can be tailored to suit almost any fluid application.

Magnetic filters are capable of removing ferrous and para-magnetic* contamination and also non-magnetic metals and minerals such as aluminium, silicon, calcium and magnesium.

Fragments and particles of worn or damaged stainless steel doctor blades will be captured by magnetic filters.

*Material that can be attracted by magnets but is not magnetic in itself. Stainless steel can become para-magnetic when worked or damaged.



Advantages of magnetic filtration

Confirmed ink quality

Eclipse Magnetics filters remove sub-micron magnetic contamination improving the quality of your printing and the reliability of your press.

No back pressure

Magnetic filters never build up back-pressure, even when full of contamination. In traditional media filters back pressure can result in burst socks or cartridges.

No loss of ink

With traditional media filters you throw away expensive ink every time you change a cartridge. Contamination is removed from magnetic filters as a relatively dry 'cake' that can be easily disposed of, reducing overall environmental impact.

No consumables required

Simply wipe the magnet core clean and re use. No need for costly replacement filters.

Reduced costs

Less ink thrown away with sodden filtration media. Lower disposal costs. No disposal of contaminated inks or solvents. No consumables at all.

No maintenance

Removal of the fine contamination will reduce overall wear, minimise the risk of damage to your press and maintain the quality and cleanliness of your rolls

No downtime

Magnetic filtration can run 24/7 continuously without the need for operator intervention.

Safety

Reduction in intrusive line maintenance reduces overall risk.



MAGNETIC FILTRATION IN PRINTING APPLICATIONS

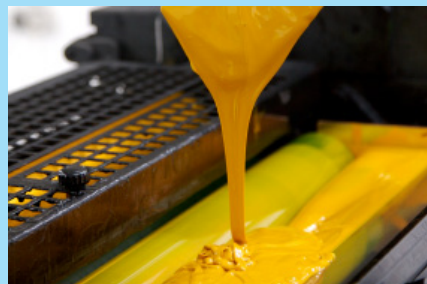
Inks, in particular, have the ability to hold and transfer pieces of damaged or splintered metal debris; the contaminants will generally stay suspended and not settle out. Inks then supplied back to the press may be in a contaminated state.

The debris in the main will be broken doctor blades, both steel and stainless steel, normally damaged due to wear and tear. The damage would normally be caused by the recycling of small segments of broken blades, nuts, bolts or washers that have been dropped during maintenance. All can be carried with the ink supply.

Our filters remove particles down to sub-micron size and material that will continue to damage blades and rolls.

Recycling the broken blades will increase the wear rate of newly installed blades. Fine particles released with the wear can adhere to the ceramic ink rolls. This will have an adverse effect on the final printed product causing loss of colour or colour density.

Magnetic filters draw the contaminants out of the ink rather than filter the ink itself, so manufacturers' additives, and ink itself, are not removed by the filtration process.



Locations

For complete protection we recommend filters are installed in the following critical control points:

Manufacturing new inks

This will qualify the inks entering the tank and new drums removing any chance of stray contamination being exported to your customers.

Between the press and the ink tanks

Ink leaving the press on the return to the tanks is cleaned, removing damaged doctor blades from the ink at source, protecting the pumps and rolls from the contamination that can be taken from the tank and preventing the build up of contamination in the ink reservoir.

Between the tank and press (option)

Micro filters installed before the point of pumping, if possible, or on the input side of the press. This would be a final check to ensure that the ink was clear of particulate prior to being supplied to the press.

Contaminants

Generally the material found in the filters will be doctor blades and other ferrous contaminants which enter the printing process from outside or are generated during printing.

Magnets will attract a mixture of swarf, scale and coarse sub-micron particulate which has been released by the holding tank, pipework, delivered with new ink or self-generated within the press.



Other Flow Ezy Magnetic Filtration Products



Magnetic Grids



Micromag



Micromag HP



Filtramag



Liquid filter



Automag