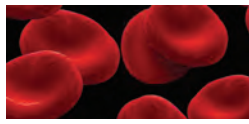


## CARLCHEM

TOTAL FILTRATION FOR THE CHEMICAL AND PHARMACEUTICAL INDUSTRIES  
PURITY THROUGH QUALITY™





## INTRODUCTION

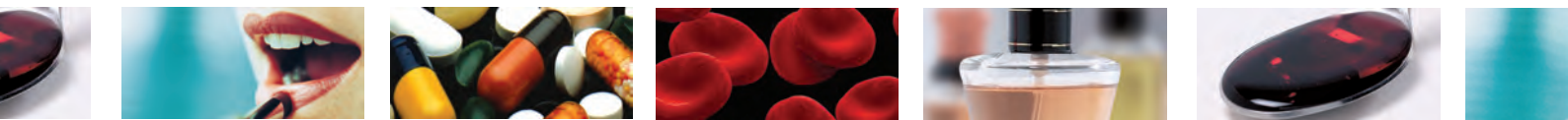
Depth Filtration in both sheet and lenticular format has been established for many years. Traditionally this filtration technique has been used extensively in a wide variety of applications in the food and beverage industries, but recently has found an increasingly important role in the manufacture of chemicals and pharmaceuticals in recognition of its high dirt holding capacity and ability to protect expensive final membrane systems.

### Applications:

Carlson media are used in many applications, a few are listed below:

- **Antibiotics**
- **Medicinal syrups**
- **Toiletries and cosmetic preparations**
- **Diagnostic products**
- **Food, pharmaceutical and photographic grade gelatins**
- **Blood products**





# FILTRATION MEDIA

## The Carlson EE all cellulose series

Carlson has specially developed this all cellulose range of products for a number of specific applications, particularly for filtration of high viscosity liquids and for controlled absorption and emission abilities. The EE series of filter sheets range in thickness from 1.00 to 4.60 mm.

Manufactured from high quality 100% bleached cellulose fibres, the EE series is available both in normal and high wet strength versions depending on the required application. The fact that these sheets are made as all cellulose grades means that they have very low metal and ion extractables.

The high wet strength grades are excellent for filtration of viscous liquids, even at elevated temperatures.

The standard products find uses as extremely absorbent wicking materials in such diverse applications as diagnostic kits, air freshners, insect repellents and insecticide units.

## Carlson EE-HF series (high flow rate)

New filtration grades have been added to the EE all cellulose series to improve filtration performance at very high flow rates, by utilising both cellulose and perlites, along with approved resins.

Filtration applications include:

- Wet metallurgy
- Resins
- Pesticides
- Ointment bases
- Liquid soaps
- Silicone oils
- Lacquers
- Varnishes
- Inks

Non-filtration applications include:

- Diagnostic kits
- Air freshners
- Insecticide units
- Insect repellents
- liquid spills

## Carlson SC – Low pyrogen sheets

A range of pharmaceutical grade depth filter sheets and lenticular cartridges especially designed for specific chemical and pharmaceutical applications.

Benefits:

- High dirt holding capacity and clarification capability
- Positive Zeta potential enhances retention and clarification effect of negatively charged colloids and endotoxins
- Low levels of ions and pyrogens (LAL value  $\leftarrow$  0.124 EU/ml)

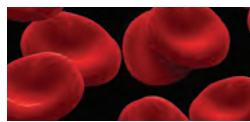
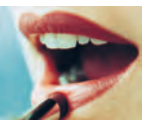
Applications:

Reduction of high particle load and colloids

- *Cells and cell debris*
- *Growth media*
- *Serum/plasma (Lipids)*
- *Precipitants (pH and temperature induced)*



As well as the grades mentioned above our standard range of XE grades can also be used. For more information on the grades of media please see the appropriate product leaflets.



## The Carlson Carlcarb Series

Activated carbon powder has been used in filter sheets for many years, primarily for colour removal from low grade sugar syrups and chlorine removal from water to be used in soft drinks production.

The number of carbon sheet treatment applications has escalated, not only in their variety, but also because of their convenience.

### Benefits:

- no need for use of loose activated carbon powder or granules
- no need for use of filters and filter aids to facilitate removal of activated carbon from the process fluid
- no messy filter cake
- less time consuming
- easier and cheaper disposal of spent filter materials



Always remember, as with all activated carbon treatment systems, that the quality, grade of activated carbon and resonance time affects the adsorption capacity.

The sheet life depends on the amount of colour / odour / off-taste / chlorine to be removed and the dwell time of the liquid within the sheet.

Bespoke grades of carbon can be varied to suit the customers requirements – although minimum order quantities may apply.

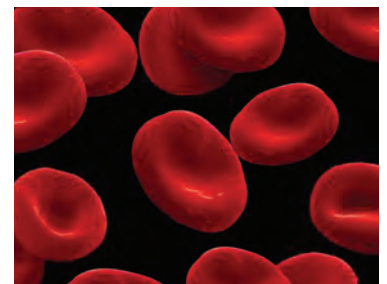
All grades are available with protective backing paper, if required.

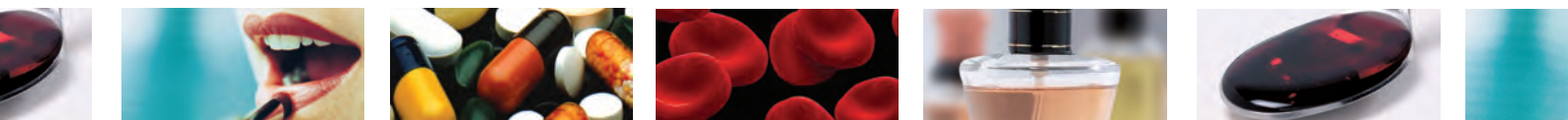
## Carbon treatment applications

These include **de-colourisation** of blood products, glucose solutions, antibiotics, solvents, sugar syrups, cosmetics, silicone oils, electroplating chemicals, alcoholic beverages;

**de-odourisation** of some spirits;

**de-chlorination** of water; **off-tastes removal** in food and beverages.





## Filtration Equipment/Methods of Filtration

### Lenticular filter cartridges and housings – Carlent

**The lenticular module concept offers compact, self contained, liquid filtration solution utilising proven filter media technology**

Carlson lenticular filters are essentially composed of Carlson depth filter media, supported on a polypropylene skeleton and supplied in modular form normally comprising 16 cells of either 12" (300mm) or 16" (400mm) diameter. They offer all the advantages of traditional filter sheet filtration but in a totally enclosed, sterile environment, thus eliminating product loss and external contamination. They are designed to fit industry standard housings incorporating 1, 2, 3 or 4 modules.

Carlson Filtration also offers a range of lenticular filter housings. These are available in 12" and 16" diameter, single or multi module versions to suit small scale laboratory or pilot plant production to large scale continuous production. These can be stand alone or skid mounted. Available in single or multi-stage ready to go filtration formats, the skid mounted system is supplied complete with filter housings, drip tray, pumps and valves. Traditionally customers would have to design, source and install all these components and then hard-pipe them into their process. Carlson now takes all this in-house. The advanced design of the lenticular housing facilitates easy filter changes with minimal changeover times in the secure enclosed drip tray without the need for an additional bund wall.

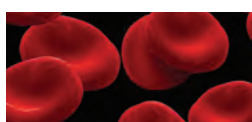
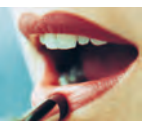
- For further information on this product please see our Carlent brochure



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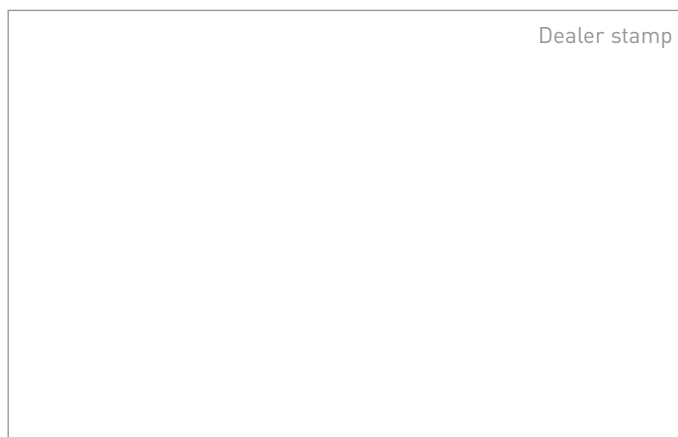
## Laboratory sized filter

Carlson Filtration can offer a Lab200 sheet filter which has been specifically designed for small volume and laboratory applications.

The Lab200 take 2 x 20cm filter sheets and has a capacity of 65 l/hr. Alternatively Carlson can also offer disposable mini capsules. Comprising of a 6cm disc of filter media encapsulated within a transparent PA housing the mini capsule is an ideal choice for small scale trials and filtration method development.

## New filter equipment

Carlson offers a comprehensive range of new filtration equipment, incorporating a full range of filter presses and plate and frame filters varying from lab scale 20cm units through to large 120cm automatic closing units.



Carlson Production Facility



Purity through quality™ since 1923

ISO 9001: 2008  
Investors in People  
DMF No 14255



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