

The Helapet logo features the word "Helapet" in a bold, blue, sans-serif font. A thin blue line curves under the letters "e" and "t". Above the letter "e", there is a stylized blue crescent shape.

A CliniMed® Group Company

# Custom Inline Disc Filters

You design, we create



[filterdevices.com](http://filterdevices.com)



## OEM inline disc filters designed to suit your needs

When you require something special, Helapet offers unrivalled flexibility in developing and manufacturing inline filter devices, specialising in custom-made designs. For over 35 years we have supplied filters for a range of vital applications across a wide variety of industries.

Designed for precise micron level filtration and clarification of particulates in air and liquids, each filter is produced in close consultation with our clients to ensure you receive the perfect filter first time.

Our selection of housing sizes, media options and connector types allow our clients to create the best filtration solution that can be used efficiently within or alongside several types of instrumentation, devices and equipment.

### Our approach

If your company is developing a product or uses a product that requires an inline filter, then we are happy to talk to you regarding your design needs and requirements. Underpinned by our company Vision, Mission and Values and our commitment to quality products and service, we provide professional advice working closely with you across all design stages to produce the ideal disc filter.

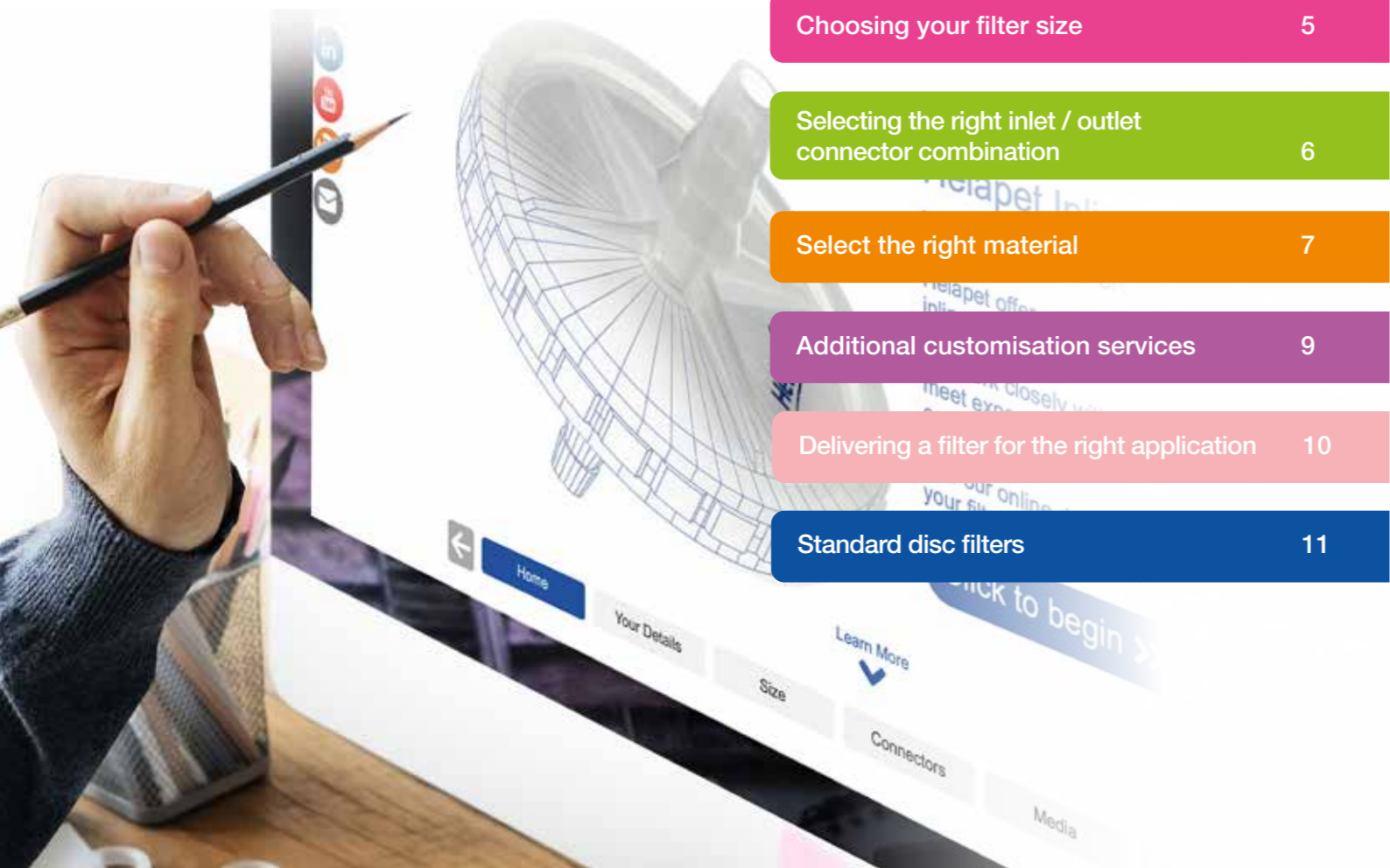
We can consult on all aspects of the filter construction and use our inhouse design and cleanroom production suites to construct suitable prototype samples to test and validate before final approval. Our experienced staff are always available to respond quickly to enquiries throughout the design process, helping our clients to select the right filter configuration to meet specific filtration requirements.

### What we offer:

- ✓ A selection of disc housing diameters to suit sample flowrate and filtration requirements
- ✓ Wide media choice with pore sizes ranging from 0.1 to 100 micron. We can even use clients' own media
- ✓ Up to 10 inlet/outlet connector choices including hose barb, luer lock and pipe thread
- ✓ Tampo single colour printing of logos, instructions or part numbers on both inlet and outlet sides of the filter in a range of colour options
- ✓ Free manufactured samples to test your prototype before final approval
- ✓ On-site cleanroom packing and testing. We also offer sterilisation services to optimise compliance

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Open up this page to view our handy filter design guide





# Let's design your filter

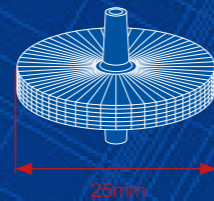
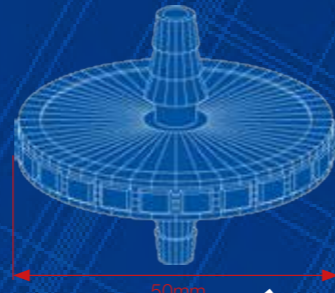


## Choosing your filter size

Disc filter diameter is commonly determined by the volume and viscosity of the sample passing through it. It is important that the effective filtration area (EFA) of the media is enough to process the sample without effecting the desired flow rate.

**Choose from 24mm, 25mm or 50mm sizes to best suit through-put volume.**

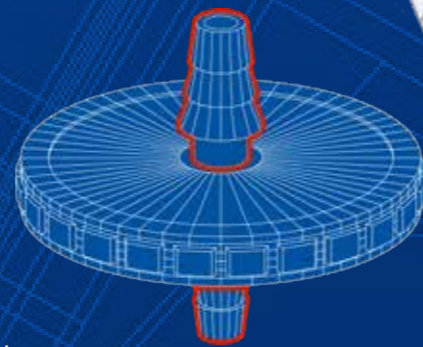
*See page 5 for more information.*



## Selecting the right inlet / outlet connector combination

Helapet provide an extensive range of connectors for the inlet and outlet sides of each filter, available in the right combination to meet our customer specifications.

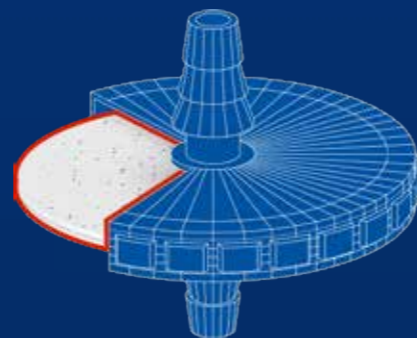
*See page 6 to select from our connector options.*



## Select the right media material

Filter media is the main component of filtration devices and making the right choice is critical to your application. Materials are chosen for their inherent characteristics whether the material is hydrophilic/phobic, its pore size, strength, chemical compatibility and thermal stability.

*See page 7 information the media options we have available.*



## Customised printing on your filter

As part of our OEM service we can print your brand, company logo, instructions or part numbers directly onto your filter design.

Filter printing can be carried out on both the inlet and outlet sides, in a range of ink colours.

*See page 9 for more information.*



## Testing and packaging services

We aim to deliver added value to our filtration products, by offering testing, packaging and sterilisation services, that can help to reduce time, improve convenience and provide added assurance.

*See page 9 for more information.*



## Further information

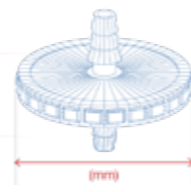
We take pride in providing our customers with their ideal filter solution, first time. To do this please ensure you can provide us with any additional information you have on your filter needs i.e. expected flowrates, volume and pressure.

You can consult with us directly by calling us on **+44 (0)1582 501980** or by sending us an enquiry at [www.filterdevices.com](http://www.filterdevices.com)





## Choosing your filter size



Through close consultation Helapet can help determine the right size filter for your requirements, taking into consideration the volume, viscosity and speed of the sample being processed, which will achieve the following associated benefits:

- ✓ Appropriate size filter to handle sample flowrate
- ✓ Maintain flow efficiency without the risk of hold up or premature clogging
- ✓ Maximise space efficiency and compatibility as part of an instrumentation system

### Encased in our quality polypropylene housing

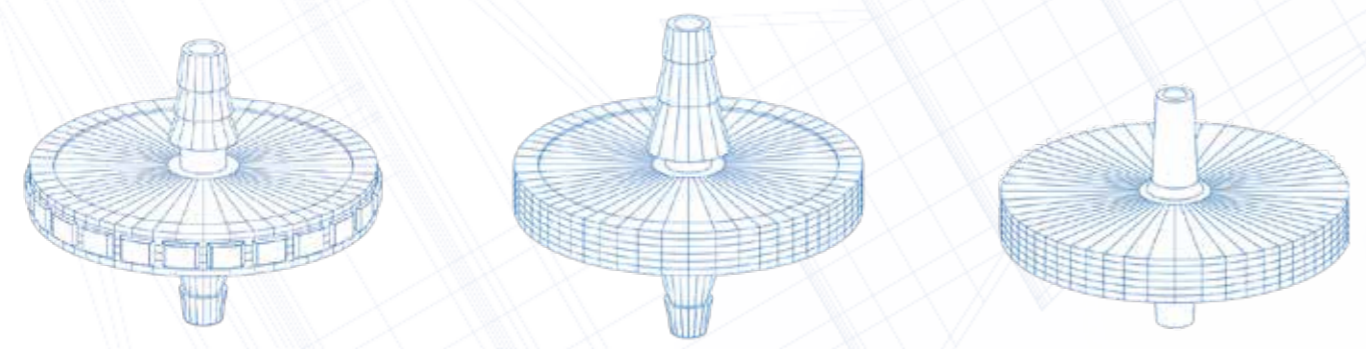
Helapet provide a choice of filter housing sizes, all manufactured using FDA approved virgin Borealis polypropylene based on its excellent chemical

compatibility and low lint properties. Our filters are used to support low flow filter applications across several industries where contaminant-free filtration is essential.

### Quality filters for quality filtration

Quality is vital when manufacturing filtration devices for specialist manufacturing processes, avoiding the risk of bacterial or particulate contamination.

To guarantee the performance of our filters, we use the latest injection moulding technology to form the connections and over mould the housing seals of our 50mm filters to withstand higher pressure requirements. Ultrasonic welding enables our media to be secured without the use of chemicals, ensuring the filtrate enters the media avoiding potential problems with bypass or contamination.

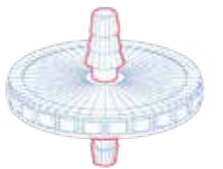


Filter Size	Effective Filtration Area
50mm	17.35 cm <sup>2</sup>

Filter Size	Effective Filtration Area
25mm	4.90 cm <sup>2</sup>

Filter Size	Effective Filtration Area
24mm	4.52 cm <sup>2</sup>

## Selecting the right inlet / outlet connector combination

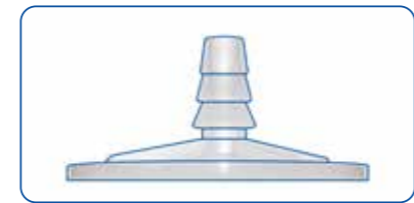


Helapet provide an extensive range of connectors for the inlet and outlet sides of each filter, available in the right combination to meet our customer specifications.

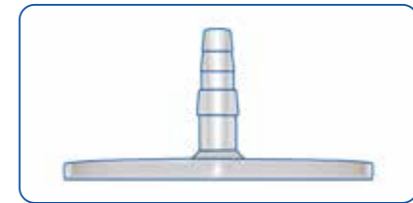
### Our connector options:

#### Stepped Hose Barb

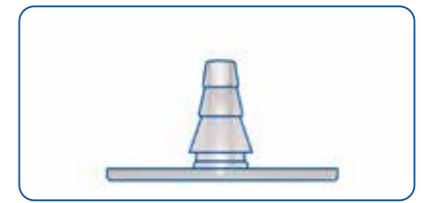
Available in different sizes, ideal for creating a tight seal with tubing.



1/4" - 3/8" Stepped Hose Barb (50mm filters only)



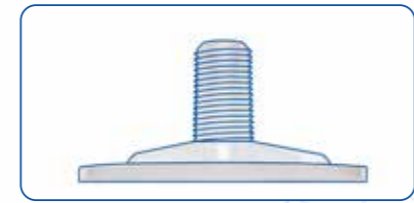
3/16" - 1/4" Stepped Hose Barb (50mm filters only)



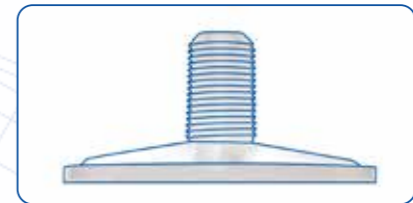
3/16" Stepped Hose Barb (25mm filters only)

#### Threads

By screwing in a filter, a strong seal is created maintaining critical connection with equipment.



1/8" British Standard Pipe Thread (50mm filters only)



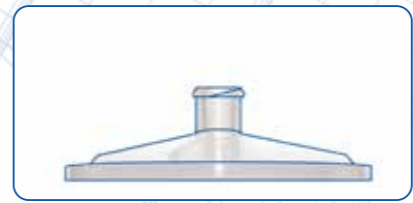
1/8" National Pipe Thread (50mm filters only)

#### Luers

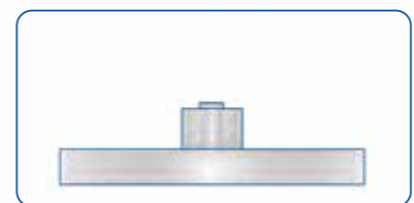
Standardised leak-free connection used for medical and laboratory devices.



Female Luer Lock (24mm and 25mm filters)



Female Luer Lock (50mm filters only)



Male Luer Lock (25mm and 50mm filter)



Male Luer Slip (24mm and 25mm filters)

#### Cut Flush



Cut Flush (50mm filters only)



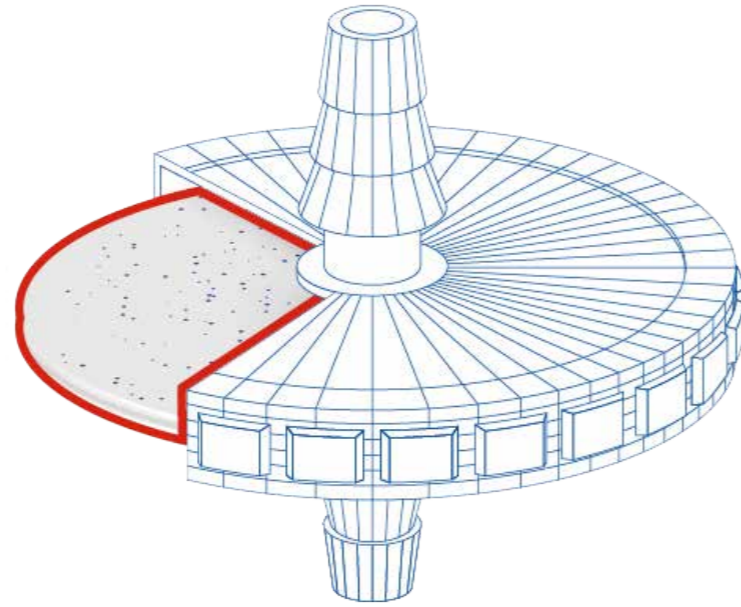


## Select the right material



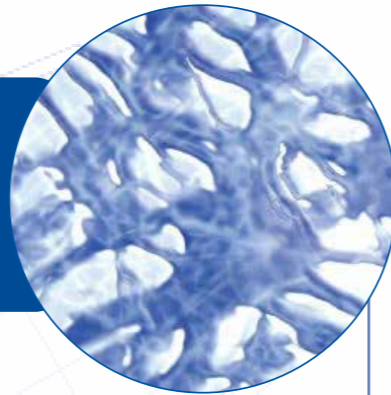
Filter media is the main component of filtration devices and making the right choice is critical to your application. Materials are chosen for their inherent characteristics whether the material is hydrophilic/phobic, its pore size, strength, chemical compatibility and thermal stability.

We have access to a comprehensive range of media for particle filtration and microfiltration requirements, with a comprehensive selection of filter media materials and pore sizes. We can combine media, including double or triple layering to add additional robustness, improve throughput or enhance particle retention. We can also incorporate our client's own media if required.



### Micro-porous membrane

Microporous filters are conventionally categorized as membrane filters or depth filters. Membrane filters are composed of a thin semipermeable film referred to as a membrane, which retains particles primarily through surface capture.



#### PTFE (PolyTetraFluroEthylene)

Sterile Venting | Clarification of Organic Materials

Gas analysis | Vacuum pumps | Micro-breweries  
Benchtop Fermenters

An inherently hydrophobic micro-porous media typically used to resist moisture in the air, ranging from 0.2µm to 5µm. 0.2µm rated media can be used for sterile venting applications.

#### PES (Polyether Sulphone)

Fluid Filtration

Biopharmaceutical engineering | Sterile vents | Liquid filling and packaging

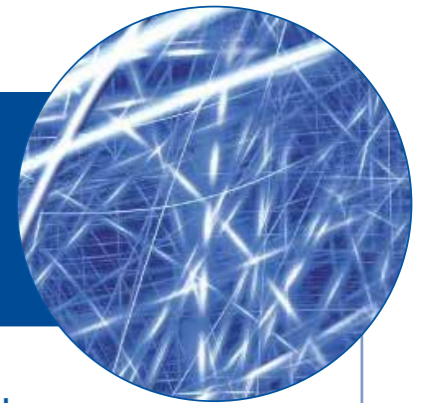
An inherently hydrophilic media providing a useful combination of high filter capacity with a wide range of pore sizes, versatile for specific filtration applications without affecting throughput. Low protein binding and low extractable properties make this media ideal for filtering of biological substances.

## Select the right material



### Depth media

Depth media filters retain particles throughout the media. Increasingly small pore sizes mean the media can trap particles of various sizes in addition to higher dirt holding capacity compared to surface media filters.



#### HEPA (High Efficiency Particulate Arresting)

Air Filtration

Gas control equipment | Incubators | Autoclaves | Fire testing

A non-woven synthetic fibre which is effective in capturing particles at 0.3 microns or larger from the air.

Ideal for dirt removal applications whilst maintaining good flow rates.

#### Stainless Steel Mesh

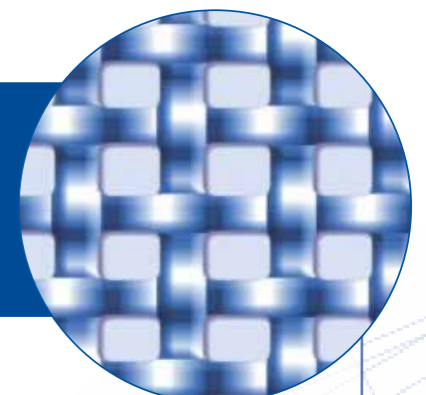
Liquid Filtration

Industrial ink jet printers | Last chance filtration of particulates

Robust and efficient with high level holding capacity and filtration between 10µm and 100µm. Typically used to reduce fluid contamination which can cause clogging and instrument damage by large particle removal.

### Woven screen

Woven screen filters are used for the precise filtration, separation and clarification of particles from liquids. Due to being used in more industrial applications, typical screen filter media are more resilient and durable, able to operate at higher temperature and pressures.



#### Nylon

Liquid Filtration

Life science applications | Filtration of proteins and macromolecules

Grants very high flow rates due to strong tensile strength and has excellent compatibility with chemicals. Ideal for the filtration of aggressive aqueous substances.

#### WPE (Woven Polyester)

Liquid Filtration

Industrial ink jet printers | Last chance filtration of particulates

Woven media in a screen pattern provides absolute filtration for liquids and ink, ideal for large particle removal.



## Additional Customisation Services



### Tampo printing on your filter

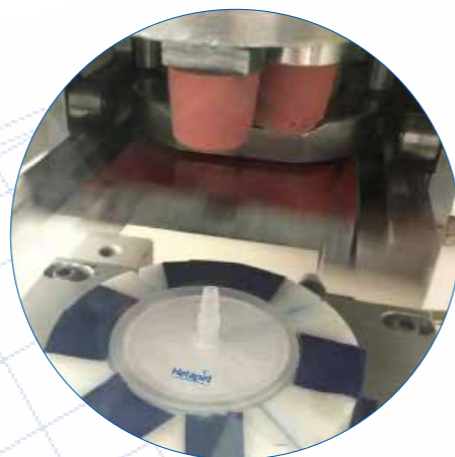
As part of our OEM service we can print your brand, company logo, instructions or part numbers directly onto your filter design. Our specialist Tampo printing technology can raise brand awareness and customer loyalty by promoting your brand on each part.

Filter printing can be carried out on both the inlet and outlet sides, providing a modern design and contemporary look. We offer single colour printing and can even match pantone colours to comply with corporate branding guidelines\*

#### Print colours include:

- ✓ **Black**
- ✓ **Blue** (Dark Navy and Light Blue)
- ✓ **Aqua**
- ✓ **Red**
- ✓ **Green**
- ✓ **Purple**

\*tailored pantone colours are subject to minimum order quantities



### Filter testing and validation services

Here at our Helapet site, we run a well-equipped testing facility that can conduct an individual, or a series of testing requirements to properly assess and validate your filter design. Conducted against individually designated standards, we supply full documentation to support the completed assessment, giving our clients assurance and validation for every purchase.

#### Services include:

- ✓ **Bubble point testing**
- ✓ **Media integrity testing**
- ✓ **Housing integrity testing**
- ✓ **Water-entry pressure**
- ✓ **Flow rate testing**

### Cleanroom Packing and sterilisation

Each filter device can be supplied non-sterile or ETO (Ethylene Oxide) sterilised, poly-packaged in convenient pack numbers or loose packaged. Adding additional value to your filter with custom packaging and sterilisation can help to reduce time, improve convenience and provide assured transfer of filters into environments where the reduced risk of contamination is vital.

#### What is cleanroom packing?

It is good practice to ensure that any device designated for use in a controlled application, or that is susceptible to contamination from airborne particles and microorganisms, be produced, processed and packaged in a cleanroom environment. To provide this service, Helapet operate an on-site ISO Class 8 rated cleanroom production suite operated by experienced, fully trained in-house staff.



## Delivering a filter for the right application



Helapet produce inline filter solutions that work as a vital component in a wide range of specialist instrumentation, using consultancy-based manufacturing to understand the specific application and desired filter requirements.



#### Autoclave Vent Filters

Specifically designed for sterile venting of autoclaves and storage tanks, this filter acts as a sterile vacuum break at the end of autoclave sterilisation cycles, retaining air-borne microbes while releasing air into the environment.



#### Desktop Vacuum Pump Protection Filter

Hydrophobic inline filter designed to protect vacuum instrumentation from contamination and moisture damage.



#### CO<sub>2</sub> Incubation Filter

A replacement filter designed to prevent airborne particle and microbe contamination from reaching the internal growth chamber.



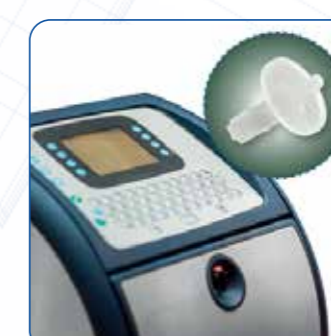
#### Pipette Controller Filters

Compact hydrophobic filters designed to universally fit inside standard pipette controllers, allowing aspiration of liquids whilst preventing the risk of moisture damage and contamination.



#### Gas Analyser Inline Protection Filter

Replacement filters designed for filtering particles and moisture in extreme or harsh environments and protecting the instrument from damage.



#### Inline ink jet filters

Helapet inline ink jet filters protect industrial printers against particles which could damage the printer's operation, whilst maintaining flowrates and providing an even distribution of ink.

### Other filter applications

#### Insufflation Filter

Provides a vital barrier, retaining microbes to ensure CO<sub>2</sub> entering the patient is contaminant free.

#### Last Chance Sterile Air Filter

Fits inline to sterile filter air going into a fermenter giving added assurance in case the air entering is contaminated.

#### Particulate and Bacterial Removal Inline Filter

Low volume filters used for the precise removal of unwanted impurities using chemically inert media to maintain the sample composition.

#### Inline Moisture Protection Filter

Prevents unwanted contamination getting into small sterile work environments such as isolators, whilst protecting sensors and electronics from the ingress of harmful moisture.





# Order Information

## Helapet Limited.

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E: [finance@helapet.co.uk](mailto:finance@helapet.co.uk)

### Track your delivery

Sign up to free text and email notification, giving you the date, time and location of every Helapet delivery with the option to track and amend the schedule to suit your availability.

Register online at [helapet.co.uk](http://helapet.co.uk) or email your contact details to [deliveries@helapet.co.uk](mailto:deliveries@helapet.co.uk)



*We changed our filter supplier to Helapet 2 years ago. In this time we have been impressed by the quality of the filters provided. Deliveries and lead times have been very good. An additional benefit has been the level of support on a technical basis, advising of the materials to be used and the professionalism of the sales and engineering staff.*

Instrumentation Manufacturer, UK



*We chose Helapet filters as they offered the product, price and quantity we required, with the added bonus that the filters we have are branded with our details. In a competitive market this gives us an important edge.*

Dental Equipment Manufacturer, UK



*We found Helapet very easy to work with. The understanding of our requirements and their technical knowledge have ensured we got the right product to suit our needs.*

Medical Equipment Manufacturer, UK

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