



# SUPASEP LGP LIQUID/GAS COALESCERS

PROTECTING YOUR PROCESS | **OIL & GAS**  
UPSTREAM | MIDSTREAM | DOWNSTREAM

**AMAZON**

# Delivering Quality Filtration Product

---

As one of Europe's leading manufacturers of process filters, Amazon Filters is able to offer solutions for all your filtration and separation needs.

We offer a comprehensive product range of filtration and separation media. This, coupled with manufacturing and design expertise, enables us to provide truly industry specific filtration systems. We manufacture a wide range of depth and pleated filters ensuring the optimum product can be supplied for the key applications found in Upstream, Midstream and Downstream operations. For liquid applications we are able to offer both absolute and nominal rated filters with either nylon or polypropylene media. This range includes [SupaSpun II](#), [SupaGard](#), [SupaPleat II](#), [SupaPleat FFC](#), [Contour](#) and [VisClear](#) cartridges, [DuoLine bags](#) and [SupaMesh](#) metal filters. Our filters are used in many applications including Produced Water, SRP membrane protection, Amine Sweetening and Glycol streams. With operating systems positioned worldwide, Amazon Filters has built a reputation for designing high quality filter vessels to support the range of premium specification filters.



## Customer Commitment

Delivering quality filtration products to our customers is one of the major factors in Amazon's success. Another, is in providing a level of customer service that few, if any, competitors can match. Recognised as a reliable and trustworthy supplier, Amazon targets first class service performance in terms of on-time deliveries; same-day despatch and quick response to enquiries. These are some of the factors that make Amazon stand out from the competition.

## Approvals

Amazon Filters is accredited to the latest revisions of ISO 9001, ISO 14001 and ISO 45001 ensuring the highest standards in quality, environment and health & safety for our customers and employees.

Our design team is fully conversant with the increasing technical demands of pressure vessel design codes including ASME VIII, PD5500 and EN13445. All our products meet the demand of ATEX and conform to the latest version of the Pressure Equipment Directive (PED) 2014/68/EU.

# SupaSep LGP

## Highly Efficient & Cost-Effective Coalescing Technology

The removal of fine liquid aerosols from process gas streams is essential in protecting equipment and guaranteeing process performance. The new **SupaSep LGP** provides a design with exceptional separation performance based on a combination of pleated and meltblown technology to promote rapid drainage of the coalesced liquid and eliminate potential carry-over.

Developed in partnership with leading academic experts in coalescing technology, the new design utilises a patented process for the application of the outer drainage layer. This innovative design is key to the performance of **SupaSep LGP**.

The highly efficient pleated glass microfibre coalescing media ensures that the fine aerosols are coalesced to large droplets as they travel through the depth of the media.

The patented meltblown drainage layer then ensures the coalesced liquid can quickly separate and drain to the base of the filter. The fine inter-pleat fibres promote the disengagement of bulk liquid from the downstream side of the coalescing media whilst the graded density structure of the drainage layer controls velocity profiles to prevent re-entrainment into the gas flow.

This innovative design provides downstream liquid levels typically below 3ppb<sub>w</sub>, ensuring downstream processes are fully protected.



## Application Areas

**SupaSep LGP** is suitable for any application where a process needs to be protected or improved through the removal of liquid aerosols from a gas stream including:

- |  |   |
|--|---|
| <p><b>Compressor and Turbine Protection</b></p> <p><b>Gas Sweetening and Dehydration</b></p> <p><b>Low and Ultra Low NOx burner protection</b></p> <p><b>Separation Membranes and Sieves</b></p> <p><b>Ammonia Gas</b></p> <p><b>Transmission Lines</b></p> <p><b>BioGas</b></p> | <ul style="list-style-type: none"> <li>• Removal of solid particles and entrained liquid on gas intake</li> <li>• Minimise amine/glycol losses and foaming</li> <li>• Minimise amine/glycol losses and foaming</li> <li>• Protection of critical membranes</li> <li>• Removal of Lubrication Oil</li> <li>• Protection of Turbines</li> <li>• Cleaning up gas prior to compressing</li> </ul> |
|--|---|

## Oleophobic/Oleophilic Treatments

**SupaSep LGP** uses inherently oleophilic materials. The design philosophy has been centred around creating an innovative meltblown structure that actively promotes drainage of the coalesced liquid. This contrasts with other designs that rely on post oleophobic treatments on the drainage layers that can potentially deteriorate over time.

## Design Features & Benefits

Design Feature	Advantage	Benefit
Patented meltblown drainage and anti re-entrainment zone	Drainage layers are bonded to the pleats for increased strength	Prevents pleat movement during variable flow which could damage the GF media
		Pleat separation is guaranteed maximising surface area and minimising pressure drop
		Prevents drainage layer separating from coalescing layer which could reduce efficiency
Inter pleat microfibres	Accelerated drainage of the coalesced liquid	Larger volumes of liquid can be separated
		Operating differential pressures not affected by flow interruption
Oleophilic drainage	Prevents 'beading' of coalesced liquid on the outside of the drainage layer	Prevents small droplets re-entraining into the gas stream
High effective filtration area	Lower pressure drops and increased dirt holding capacity	Lower capital and maintenance costs
Available in standard and large format design	Optimum design configuration	Lower capital and operating costs
High efficiency coalescing media	Maximised coalescence with low saturated differential pressure	Lower operating costs
Heat bonded endcaps	Elimination of resins and adhesives	More robust product, minimal chance of endcap detachment

## Technical Data

Dimensions	Standard	Plus
Outside Diameter:	66mm	153mm

### Materials of Construction

Filtration Media:	Glass Microfibre
Drainage Layer:	Polypropylene or Polyester
Core / Cage:	304 Stainless Steel
Endcaps:	Polypropylene (PP) or Nylon (PA)

### Maximum Operating Conditions

Temperature:	82°C
	65°C (for version 11B when water present)
Pressure Drop:	Sized to customer requirements
Recommended Change-Out Differential Pressure:	0.3 Bar



### Performance

Efficiency:	99.99% with <3ppbw remaining oil content downstream (Testing based on modified CAGI-400)
-------------	---

## Ordering Guide

11A	C	G0X -	40	A	V	A
Media	Endcap	Length	End Caps	Seal	Branding	
11A - Pleated GF with Polypropylene Outer Drainage Layer 11B - Pleated GF with Polyester Outer Drainage Layer	A - PP Endcaps 66mm B - PA Endcaps 66mm C - PP Endcaps 153mm D - PA Endcaps 153mm	09 - 249mm 30 - 764mm 40 - 976mm	0 - DOE 2 - Code 2 A - SOE (153 dia)	V - Viton (Supplied as standard)	A - Amazon	

Example: 11ACG0X-40AVA = SupaSep Plus - Pleated GF with PP drainage layer, PP endcaps, Length 976mm (40") Long, SOE Endcaps, Viton Seal

## New & Retrofit Applications

Our engineers can work with you on new applications to design the most appropriate system or we can retrofit existing installations with our technology. Below are the common retrofits available. For availability on additional retrofits, please contact your Amazon Filters representative.

### Competitive Part Codes and Equivalent SupaSep LG Codes

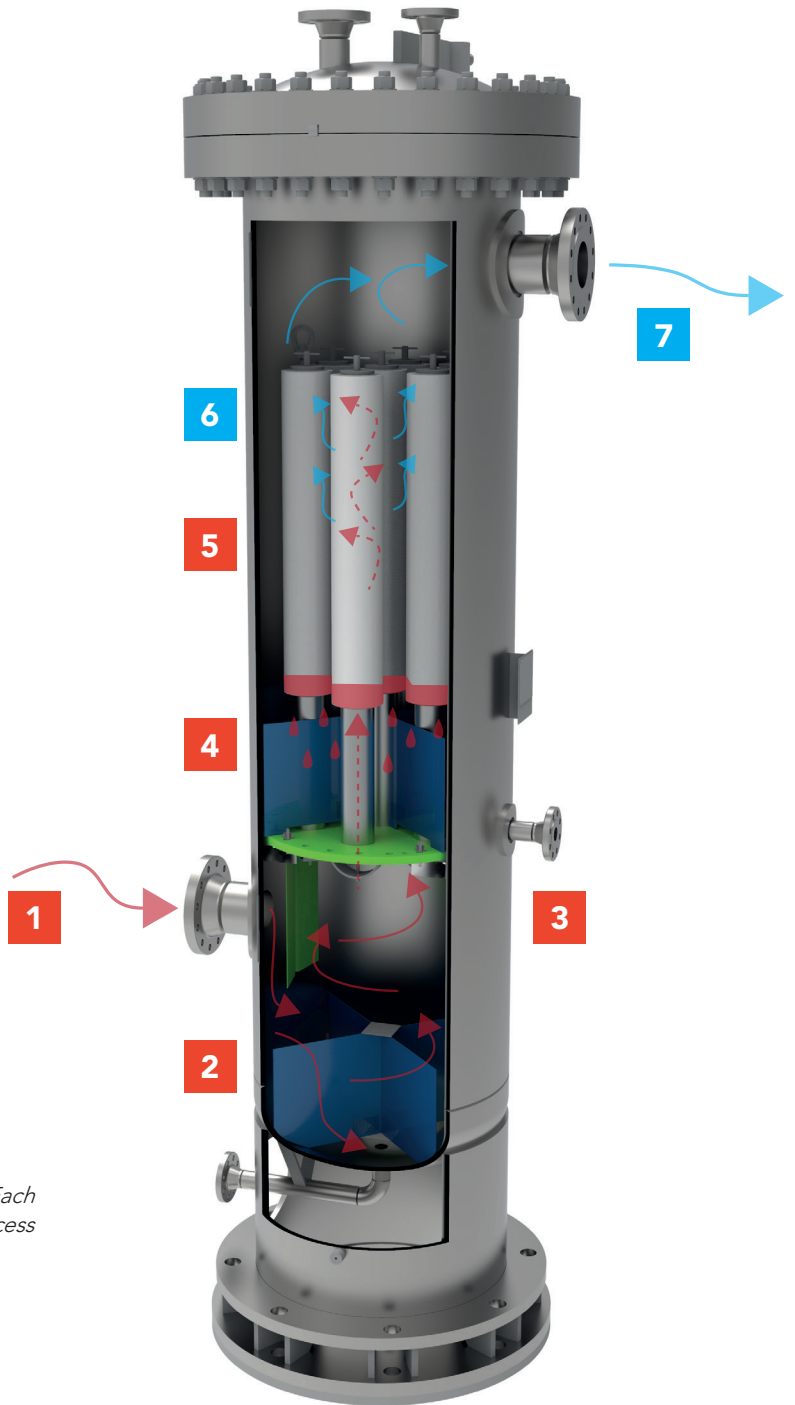
Seprazol <sup>1</sup>	Amazon Code		Seprazol Plus <sup>1</sup>	Amazon Code	
	Recommended	Alternative		Recommended	Alternative
CC3LGB7H13	11AAG0X-302V	-	CS604LGH13	11ACG0X-40AV	-
CC3LGA7H13	11AAG0X-302V <sup>2</sup>	11BAG0X-302V	CS604LGDH13	11ACG0X-40AV <sup>2</sup>	11BCG0X-40AV
CC3LG02H13	11AAG0X-300V <sup>2</sup>	11BAG0X-300V	CS604LGBH13	11ACG0X-400V	-
			CS604LGBDH1	11ACG0X-400V <sup>2</sup>	11BCG0X-400V

<sup>1</sup> Seprazol and Seprazol Plus are registered trademarks of Pall Corporation

<sup>2</sup> The standard construction for the SupaSep LGP product is with polypropylene componentry. This is the recommended replacement unless process conditions dictate that a polyester construction is required.

# Coalescer Principle

1. Contaminated gas enters the housing.
2. Internal impingement plates provide primary separation.
3. Small aerosols travel to the inside of the **SupaSep LGP**.
4. Coalescence occurs through highly efficient GF media.
5. Bulk liquid drains by gravity through the patented meltblown layer.
6. Gas velocity controlled to prevent re-entrainment.
7. Clean gas exits.



*The above design is a representation of one application. Each housing design is bespoke depending on customer process parameters and the quality of gas required.*

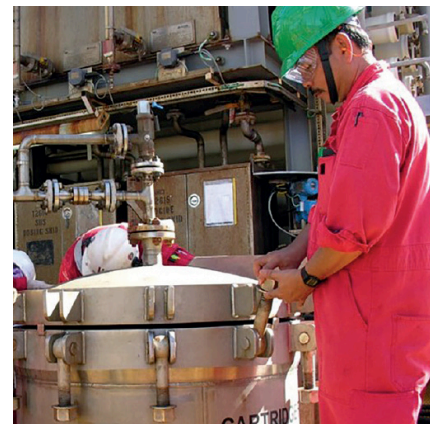
# Engineering Capabilities

Amazon Filters has particular strength in the design and manufacture of filter housings for the critical demands of the Oil and Gas industry. We have extensive experience in fabricating vessels in Duplex (UNS S31803), Super-Duplex (UNS S32750/60) and 316 stainless steels. We can also supply carbon steel vessels lined with rubber, vinyl ester or glass flake.

Amazon Filters also offer its **27 Series GRP** housing specifically for brackish and seawater applications.

Our design team is fully conversant in the increasing technical demands of pressure vessel design codes including ASME VIII, PD5500 and EN13445. All our products meet the demand of ATEX and conform to the latest version of the Pressure Equipment Directive (PED) 2014/68/EU.

Amazon Filters has onshore and offshore installations in service globally. Amazon Filters accredited design and build systems have offered EPC contractors and final clients the products demanded on time, to specification, making us an ideal partner for new project installations.



# Interested in Our Liquid Filtration Solutions?

Our engineers can work with you on new applications to design the most appropriate system or we can retrofit existing installations with our technology. Below are the common retrofits available. For availability on additional retrofits, please contact your Amazon Filters representative.

Amazon Product	Water Injection	Produced Water	Completion Fluids	Membrane Protection (SRP & Desal)	Amine Filtration	Glycol Filtration	Diesel Filtration
SupaGard*	✓		✓				
SupaSpun II*	✓	✓	✓	✓	✓	✓	
SupaPleat	✓	✓	✓	✓	✓	✓	✓
SupaCarb				✓	✓	✓	
SupaSorb		✓					
SupaMesh		✓	✓				✓

\*Available in KilBac variant for prevention of cartridge biofouling. If you are looking to retrofit other manufacturers, contact your Amazon Filter representative.



# ***AMAZON FILTERS LTD.***

Albany Park Estate, Camberley, Surrey, GU16 7PG, ENGLAND

Tel. +44 (0) 1276 670 600 Email: [sales@amazonfilters.co.uk](mailto:sales@amazonfilters.co.uk) Web: [www.amazonfilters.com](http://www.amazonfilters.com)