

# SepraLYTE™ Liquid/Gas Coalescers



PISEPRAEN

Pall's SepraLYTE liquid/gas coalescers separate aerosols from gas at minimal pressure drop. The coalescers have been especially designed for Green Hydrogen production processes to separate electrolyte (~30% potassium hydroxide solution) from hydrogen.

The SepraLYTE coalescers are also well suited for separation applications where maximum allowable pressure drop is a constraint, for example, removing condensed water between compressor stages. The polypropylene coalescer media ensures chemical compatibility with a wide range of applications.

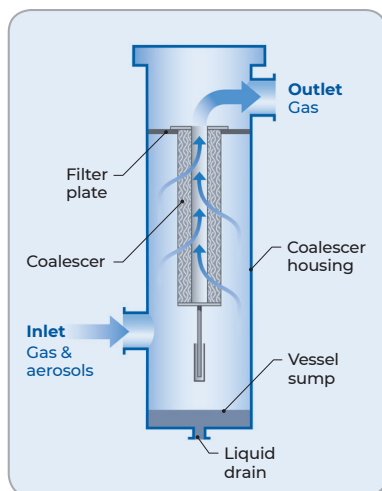
SepraLYTE liquid/gas coalescers feature Pall's proprietary melt blown media technology that achieves low differential pressure and liquid droplet separation in a compact design. The coalescer media fits over an adaptor that helps drain out the separated liquid stream. When the coalescer needs to be changed, only the coalescer media is replaced, minimizing waste, whilst the adaptor is reused.

## SepraLYTE liquid/gas coalescers provide:

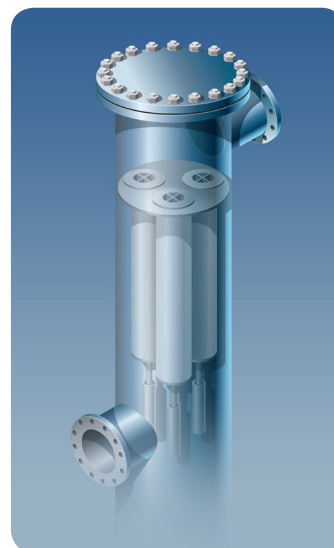
- Low differential pressure ( $\Delta P$ )
- Efficient liquid droplet separation
- Chemical compatibility with 30% potassium hydroxide
- Small, compact size/footprint

## How do SepraLYTE liquid/gas coalescers remove liquids from gas?

The aerosol-laden gas enters the housing and flows through the coalescer cartridge from outside to in. As the gas flows through the cartridge, the fibre matrix forces the small droplets to coalesce and form larger drops. As the gas exits the fibre matrix at the centre (inner core), the large coalesced drops separate and are drained to the vessel sump. The aerosol-free gas leaves the cartridge from the centre and exits at the top of the housing.



SepraLYTE™



## Why choose SepraLYTE liquid/gas coalescers?

SepraLYTE liquid/gas coalescers offer considerable advantage over conventional low  $\Delta P$  separation products:

- Reliable, consistent and verifiable separation performance
- High gas flow and liquid removal performance in a compact cartridge
- Smaller systems with low capital, operating and maintenance costs

## Advantage of SepraLYTE liquid/gas coalescers compared to other low $\Delta P$ separators

Needs of Green Hydrogen producers	SepraLYTE Liquid/Gas Coalescer	Mist Eliminator	Scrubber
Low Relative Operating Pressure Drop	✓	✓	✓
Small Size / Footprint	✓	✗	✗
Low Energy Consumption	✓	✓	✗
Insensitivity to "Turn-Down"	✓	✗	✓

### Technical Information

#### Nominal Dimensions

<i>Outer diameter:</i>	205 mm / 8 inches
<i>Coalescer media length:</i>	1012 mm / 40 inches
<i>Assembly length:</i>	1532 mm / 60 inches

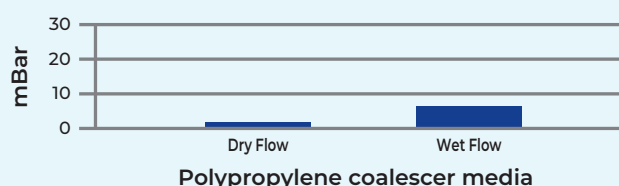
#### Materials of Construction

<i>Coalescer media:</i>	Polypropylene (PP)
<i>Adaptor:</i>	Polypropylene
<i>O-ring:</i>	FEP encapsulated EPDM

#### Performance Specification

<i>Aqueous Liquid removal efficiency rating:</i>	98.87 weight % <sup>1</sup>
<i>Temperature rating:</i>	82 °C (180 °F) – Polypropylene (PP) media

Pressure drop ( $\Delta P$ ) in air<sup>2</sup>



### Ordering Information<sup>3</sup>

Item	Part Number
Polypropylene coalescer media	LPCG41
Adaptor	LPCA4

<sup>1</sup> Based on Field testing of new polypropylene coalescer media; Aqueous aerosol (30% Potassium Hydroxide solution) loading of average 4 kg/hour

<sup>2</sup> Air flow via compressor suction, air flow rate of 300Am<sup>3</sup>/hr. Wet flow pressure at saturation with liquid aerosol challenge. As Hydrogen has a lower viscosity than air, pressure drop in Hydrogen service expected to be lower

<sup>3</sup> For Oxygen service, please contact Pall representative



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