CERAMIC MEMBRANE TECHNOLOGY

ALFAPUR
TECHNOLOGIES

Alfapur Technologies Inc. 315 Ch. St Francois Xavier, QC, Canada | www.alfapur.com | info@alfapur.com

Advanced Purification Process (APP)

Redefining efficiency in separation and purification

Engineered to overcome the toughest purification obstacles

- Separation and purification of a wide range of substances.
- Nanomolecules and nanoparticles separation in strong acid and solvent solutions.c
- Simultaneous separation and purification of complex mixtures.

TECHNICAL DATA AND SPECIFICATIONS	
Equipment	Pilot unit filtration system
Model	AT50
Serial Number	210906112411
Manufacturing date	2023-07-15
Pressure	≤ 4bar
Power Consumption	2.2KWh, 3P, 220V, 60Hz
Operating Temperature	4 to 85C
Operating Frequency	30 to 60% Avg. 50%
Processing flow	3 m3/h
Permeate flow	0.25 to 1 m3/h
Dimensions	0.85 x 1.15x1.7m
Membrane Type	Porous, tubular, multi-channel configuration
Nominal Pore Size	MF Pore Size (nm) : 1200, 1000, 500, 200, 100 UF Pore Size (nm) : 50, 30, 20, 10, 2, 1
Sealing Type & Material	FKM and PTFE 'O' ring
Overall length	1016 mm
Machine - CSA Certificate	C-2085218

Advantages of this technology?

- High throughput
- Very cost-effective investment
- Small footprint
- Reduced labor costs
- Longer service life
- Automatic process with PLC/DCS control
- Continuous process
- Easy control

Liquids Filtration Type

- Micro-filtration
- Ultrafiltration
- Nano-filtration

Applications

- Chemical and petrochemical industries
- Water & wastewater treatment
- Food and pharmaceutical industries
- R&D laboratory
- Textile industry...

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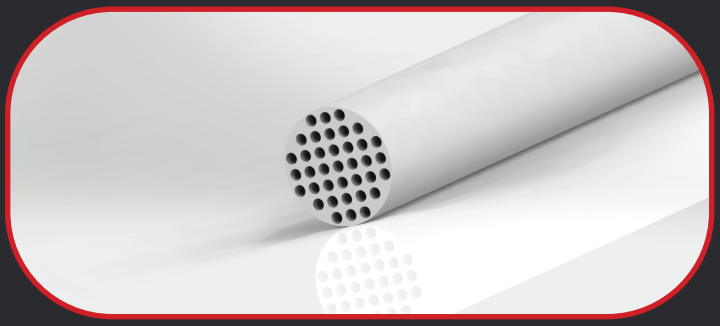
CERAMIC MEMBRANES

PURASIEV™ ceramic membranes are designed for the filtration and purification of:

- Oil/ water emulsion separation
- Total suspended solid (TSS)
- Chemical treatment
- Wastewater treatment
- Cooling tower feed
- Food & drug industry
- Separation of fats and natural oils



PURASIEV™– AL_2O_3 –TECHNICAL DATA

Membrane Trade Name	PURASIEV™
Membrane [M] and Substrate Material of Construction	Al2O3
Membrane Type	Porous Multi hole tubular
Filtration type	Cross Flow/ Dead end
Flow Direction	Inside- out operation
Nominal Pore Size	1.2 µm pore size
Clean Water Flux per square meter filtration surface area	Up to 5m3/day/Membrane
Overall length	Up to 1050mm
pH- stability	1-10pH
Sealing Type & Material	Side sealing, Glass based membrane both end (10mm) and Vitron 'O' ring

Nomenclature	OD (mm)	Channel size Avg. (mm)	Channel number	Surface area (m2)/ 520- 1050mm length
K32S	32	3.5	32	0.19 – 0.38

PURASIEV™ standard pressure vessels

Materials	Stainless steel of diverse ranges, 304/316 and 316L /FRP/UPVC
Filter surfaces	From 0.19 m2 to approx. 22 m2per vessel
Pressure rating	10 bar
Max. Temperature	110°C
Overall length	Up to 1050 mm
Fittings	Dairy couplings / threaded fittings/flange
Sealings	Industrial design (o-ring)

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ENGINEERING

The scope of our activities includes planning, design, calculation and manufacturing according to different regulations and directives, such as:

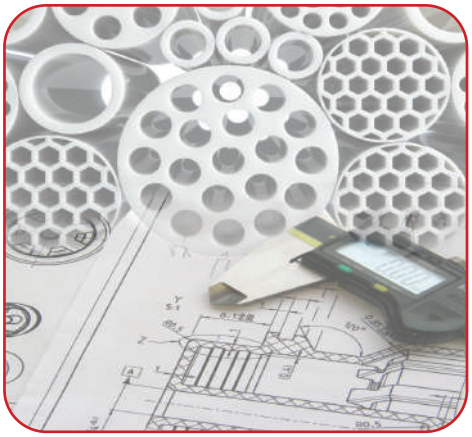
2014 / 68 / EU
European Pressure Equipment Directive concerning the principles for design, manufacture and the related inspections of pressure vessels.

ASME BPVC, Section VIII Boiler and Pressure Vessel Code according to the American Society of Mechanical Engineers concerning the principles for design, manufacture and the related inspections of pressure vessels.

Irrespective of which manufacturer they are from. Due to a huge variety of adapters / gaskets we will enable you to continue with your existing pressure vessel equipped with new membranes.

RETROFIT

Upgrading existing membranes for more competitiveness



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