VALISETTE LABORATORY

EST KIT



The valisette laboratory test kit is designed for the choice of the most adapted membrane for an operation of separation.

This equipment allows the operation of separation in Microfiltration, Ultrafiltration and Fine Ultrafiltration ranges.

With its low hold up volume, this unit allows to treat solutions containing micro-particles or suspensions with a view to do operations of concentration, purification, coupling to a membrane bioreactors, etc.

### The valisette laboratory test includes:

- I laboratory carter L= 250 mm.
- Gaskets supplied in 3 materials (2 Silicon, 2 EPDM, 2 Viton) for the membrane tightness.
- 2 clamp ends DN 38 ribbed DN 8 for the retentate.
- 2 clamp collars for retentate outlet with their EPDM gaskets.
- 9 sites for the membranes, to choose according to an application in MFT, UF, Fine UF range. These membranes are sold as an option.

## Functioning

The solution to be treated circulates along the membrane. The permeate (or filtrate) is collected outside the carter with the help of two permeate outlets. The retentate (or product to be treated) circulates through the circulation pump to the tank containing the product to be treated.



# **Applications**

- Concentration or sterile purification:
  - Scells, yeast, fungi, bacteria, virus, enzymes, amino acids, etc.
  - Pyrogen free of active principles, culture medium and amino acids.
- Separations between :
  - Micro-organisms and culture medium or active ingredients, etc.
  - Continuous systems:

Continuous fermentation by the elimination of growth inhibitors and/or metabolites.

Enzymatic reactors.

Membranes are available in length of 250 mm for *INSIDE* CéRAM<sup>™</sup> and filtanium<sup>™</sup>.

For an optimal use of valisette we recommend to recirculate at a flow rate between 200 and 600 l/h. To obtain a 1 m/s velocity the flow rate in the membrane is from 101 to 118 l/h depending on the membranes.

The membrane gaskets are assembled and secured by retaining bolts then finally tightened using a torque wrench.



## Advantages of the membranes

- Sterilisation by overheated water and oxidising agents.
- Autoclave.
- Recoverable by chemical action.
- Long-working life.
- Excellent performances in Microfiltration, Ultrafiltration and Fine Ultrafiltration.

### **Technical specifications**

#### Carter:

- Material :stainless steel 316 L
- 🛞 Surface quality: Ra 0,4 μ
- Operation pH range: 0 14
- Operating temperature: < 95 °C</p>
- Max operating pressure: 10 bars

#### Connections:

- Retentate: 2 clamps ISO DN 38
- Permeate: 2 ribbed blanks 4/6

#### Retentate connection Kit :

- 8 2 clamp ends with ribbed outlets:
- 🛞 Ext Ø.: 13.5 mm Int Ø.: 10.3 mm

#### Membranes:

⊗ Technical characteristics: INSIDE CéRAM™ and filtanium<sup>™</sup>.

#### Gaskets :

8 2 Silicon, 2 EPDM, 2 Viton

#### SHAPE VIEW OF MEMBRANE GEOMETRY Ø 10MM

10 mm

Length	Area (sqm)	Area (sqm)
	0	
250 mm	0,005	0,013



1 laboratory carter - L= 250 mm

Distributed by:

## **CUT-OFF TABLE**

#### @ INSIDE CéRAM®

Fine UF	UF	MFT
1 kg/mol	15 kg/mol	0,14 μm
3 kg/mol	50 kg/mol	0,20 μm
5 kg/mol	150 kg/mol	0,45 μm
8 kg/mol	300 kg/mol	0,80 μm
		1,40 μm

# CUT-OFF TABLE fil<u>taníum</u>

Fine UF	UF	MFT
1 kg/mol	10 kg/mol	0,14 μm
5 kg/mol	50 kg/mol	0,20 μm
	100 kg/mol	0,45 μm
	300 kg/mol	0,80 μm
		1.40 um



2 Viton gaskets (green), 2 Silicon gaskets (white) 2 EPDM gaskets (black), 2 clamps ends with EPDM gaskets (top, right and left) and 2 ribbed ends connectors (retentate) (bottom, right and left).



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