

INSIDE DisRAM™



Ceramic disc membranes produced by TAMI Industries are meant for applications on a laboratory scale. They are made of high purity materials.

Disc thickness of 2.5 mm, available in diameters: 47 mm and 90 mm.

They permit liquid separation by the standard process of dead-end filtration, in the ranges of Microfiltration, Ultrafiltration and Fine UF.

Thanks to the intrinsic qualities of the ceramic material (chemical and thermic inertia, solvent insensitivity...), these membranes allow separations trials in unexplored new domains.

Functioning

The ceramic disc is placed in the disc-holder and the solution to be treated is introduced through its inlet connection.

Standard disc-holder Ø 47 and Ø 90 mm

The product is filtrated in a frontal manner on the disc membrane.

The permeate (or filtrate) is recovered through the permeate outlet, situated underneath the disc-holder. The retentate can be recovered or eliminated directly from the top of the disc.

Tangential disc-holder SPIRLAB Ø 90 mm

Filtration is made in a tangential mode. The product circulates on the disc membrane due to a raised spiral form on the top of the disc

The permeate is recovered by an outlet situated underneath the disc-holder and the retentate by an outlet closed to the inlet connection.

The disc-holder is made of stainless steel 316L and has standard connections.



An O-ring gasket ensures that the unit is watertight .

Under the disc is placed a spiral guide spacer allowing for the collection of the filtrate.

Applications

- Sterile concentration or purification of: Cells, yeast, proteins, bacteria, serums, broth, enzymes...
- Pyrogen free of active principles, culture medium and amino acids
- Separations between micro-organisms and culture medium or active principle

Advantages

- Totally inert.
- Autoclavable.
- Regeneration of membrane by chemical actions.
- Re-usable, long-life.
- High performances in Microfiltration Ultrafiltration and Fine Ultrafiltration .

Specific information

- Filtration area :
 - Ø 47 mm = 13,1 cm²,
 - Ø 90 mm = 56,3 cm².



CUT-OFF TABLE

UF fine (NF)	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

Technical specifications

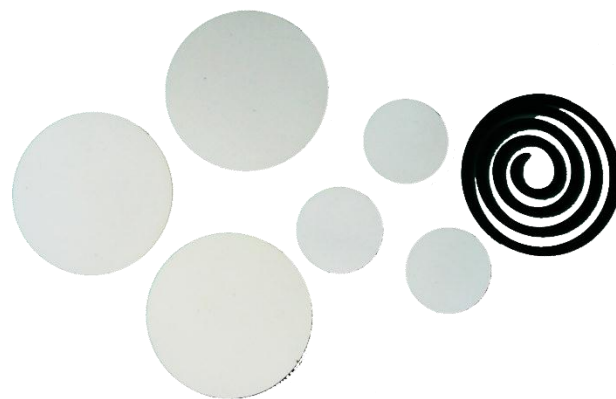
- ☼ **Support:** Titania
- ☼ **Membrane:** ZrO₂-TiO₂
 - ☼ Maximum operated pressure : 4 bar
 - ☼ pH operating range : 0-14, 2-14 (Fine UF)
 - ☼ Autoclave sterilization : Yes
 - ☼ Oxidant sterilization : Yes
 - ☼ Solvent resistance : Inert
 - ☼ Fine UF applications: Consult us
 - ☼ Operating temperature : <350°C
- ☼ **Disc-holder**
 - ☼ Ø 47/90 mm stainless steel 316L
 - ☼ Surface finish : Ra 0,4 µm
- ☼ **SPIRLAB Ø 90 mm :**
 - ☼ Teflon/stainless steel 316 L
 - ☼ Surface finish : polished
- Connections:**
 - ☼ Ribbed ends of external Ø 6 mm

Distributed by:

Regeneration

	MF/UF	UF Fine
Base NaOH	15 g/l 30 mn	
Acid HNO ₃	5 ml/l 15 mn	1.5 ml/l 15 mn
Steam sterilization	30 mn	
Oxydants : H ₂ O ₂ in solution at pH <3	2.10 ⁻³ V/V	
NaOCl	300 ppm Cl ⁻	

NB: UF fine membrane must be kept in high humidity storage



INSIDE CéRAM™ membranes spiral gasket for the Spirlab



Raised spiral-shaped form of a tangential disc-holder SPIRLAB

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