

## LUVO-MEM MEMBRANE FILTRATION

### Metallic Membranes

In addition to the well-known ceramic and polymer-based membranes for microfiltration, metallic membranes are also available. These are a metallic sinter which is pressed into a membrane under defined conditions. These membranes are used where, due to the prevailing application conditions, the medium is very abrasive and the previously mentioned membranes no longer offer sufficient service life. These membranes are also successfully used at high temperatures. Various exclusion limits are available.



ANALYSE



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### General Technical Specifications

Module/Membrane type	:	LuV – MF/MS (metallic sinter)
Membrane surface	:	Depending on the module; according to the technical requirements, customized modules can be created.
Module/Membrane type	:	Tube module
Length	:	800 mm and 1.500 mm (membrane)
Max. Temperature	:	300 °C
Max. Pressure	:	20 bar

## **LUVO-MEM MEMBRANE FILTRATION**

### **Metallic Membranes**

Metallic membranes have long been used in the world of filtration and separation. However, the products are primarily suitable for unique challenges and thus for special applications.

Metallic membranes are asymmetrically structured. In addition, a metal powder is sprayed onto a support body and pressed under a defined pressure. The pressing process gives the metallic sinter its porosity. This can be adjusted by varying the pressure. The pressure losses are lower than with other membranes because the porosity is very high and the membrane has a very uniform distribution on the base body (backing) due to the spray application. Because the membrane is friction-locked to the backing, the mechanical stability is very high. Due to its exceptional mechanical stability, there is an especially great advantage for the filtration of abrasive media and distinguishes the membrane from organic or ceramic membranes. The membrane shows its benefits over other processes, particularly in solid-liquid separation.

### **Applications**

- Particle separation from gas streams
- Food & beverage filtrations
- Sterile filtration
- Catalyst separation
- Oil filtration
- Separation of biomasses
- Pharmaceutical applications

### **Advantages**

- Suitable for high temperatures
- High mechanical resistance
- Very high porosity
- Low pressure loss
- Good for cleaning
- Long service life