ATS WATER TECHNOLOGY

Aquaporin Inside® ESSENCE go

Lab-scale Forward Osmosis system

Lower dead volume

Natural concentration using Forward Osmosis (FO) for lower feed volumes.

Plug-N-Play

Ready to use with one place operation & control from human machine interface (HMI)

Compact design

Lower footprint allows easy installation in facilities with limited spaces.

Wide range of applications

Compatible to test a range of applications using Aquaporin Inside® technology.

Process monitoring & data logging

Key process data can be visualized, saved and transferred from HMI using a USB stick.

The ESSENCE go is a lab-scale system to start testing and develop new applications using the Aquaporin Inside® Natural Concentration Technology, both in food and industrial applications. The system has a compact size and low dead-volume, which is ideal for early stage development, and can also serve as starting point for further scale-up and developing.

The system is capable of continous online monitoring of key process parameters, making it easy to both control your experiments, analyzing data and optimizing the process conditions. The ESSENCE go is the combination of simplicity and power to help you unlock the potential of the Aquaporin Inside® technology.

EXAMPLES OF APPLICATIONS

Food and beverage

Juices & ingredients

Aromas & extracts

Coffee & tea

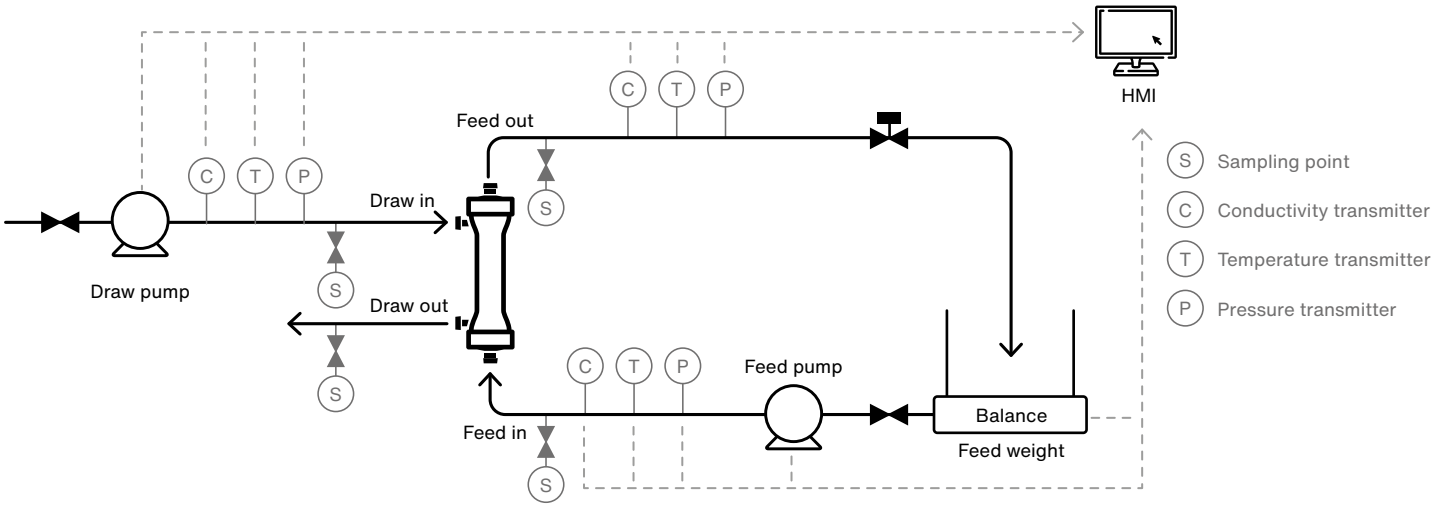
Industrial processing

Recovery of valuables

Dewatering of complex feeds

Bioproducts

SYSTEM CONFIGURATION WITH AQUAPORIN INSIDE® HFFO® MEMBRANE



UNIT SPECIFICATIONS

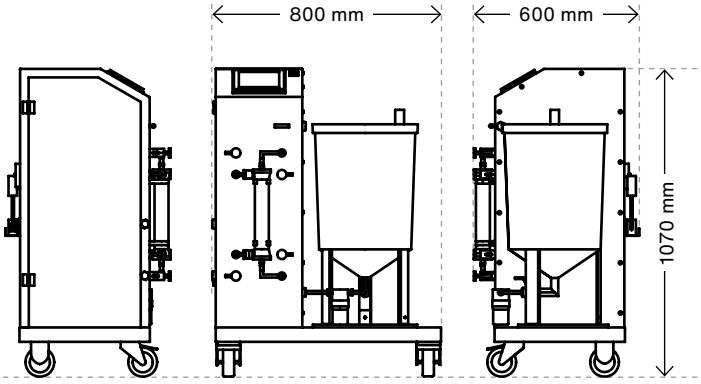
Support structure	**AISI 304 Frame** **Heavy duty caster wheel support**
Weight	**100 kg (excluding feed volume)**
Feed tank	**AISI 304 construction** **30 L capacity with conical bottom**
Electric supply	**100–240 VAC | 50 / 60 Hz | 1 Phase**
Membrane module	**1 x HFFO®2 or HFFO®2 Food** **2.3 m² active membrane area**
Contact materials	**AISI 316 Fittings** **Food Grade PU Tubing**
Conformity	CE
Directives Followed	**Electromagnetic Compatibility Directive (EMC) 2014/30/EU** **Low Voltage Directive (LVD) 2014/35/EU** **Restriction of Hazardous Substances Directive (RoHS) 2011/65/EU**

PROCESS SPECIFICATIONS

pH range	**2–12 (3–10*)**
Inlet pressure range	**0–12 bar (0–4 bar*)**
Operating viscosity	**0–100 cP (0–60 cP*)**
Flow range	**0–90 LPH (0–60 LPH*)**
Data recording	**Pressure, temperature, conductivity, pump speed, feed weight**
Temperature range	**5–95 °C (5–40 °C*)**
Max particle size	**50 µm***
Conductivity range	**0–300 mS/ cm**
Pump type	**Gear pump with control drive**
Sampling	**Feed In & Out** **Draw In & Out**
Pressure control	**Feed**

* Recommended process specifications while operating with HFFO® membrane module. Check the membrane datasheet for additional information.

DIMENSIONS



DISCLAIMER:

1. Lab Unit is not intended for commercial production of food products.
2. For using other membrane module, refer to the membrane datasheet or ask our experts.
3. Automatic operation mode using HFFO®2 or HFFO®2 Food modules within allowed conditions. Manual operation mode possible.
4. Aquaporin A/S shall not be liable nor responsible for direct, special, incidental, consequential, punitive or indirect losses or damages in connection with the furnishing, performance or use of this material. Aquaporin A/S cannot be held responsible for any technical or typographical errors or omissions and reserves the right to make changes to the products and datasheet without prior notice.

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