



# **X-FLOW** S-14 MICROFILTRATION MEMBRANE

MEMBRANE FLEMENT DATASHEET

8" S-14 FSFC PSU

TYPE1 ARTICLE CODE : 2451RB452NG TYPE2 ARTICLE CODE : 2451RB452NG2

#### **GENERAL INFORMATION**

S-14 is a microfiltration module used for clarification of beer. Mode of operation is feed and bleed with crossflow and regular backwash and CIP, as specified by the installation supplier.

The module is available in two types depending on the sealing, material of the end cap used and the clamp type. For S-14 Type 1 (2451RB452NG), the End Cap material is PSF and a DIN tri-clamp is used. For S-14 Type 2 (2451RB452NG2) the End Cap material is stainless steel and a TC-100 clamp is used.

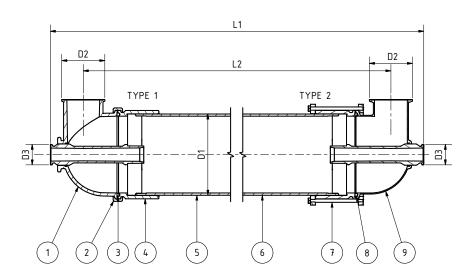
#### **MATERIALS OF CONSTRUCTION**

- 1. Art. No. 14107: End cap S-14 Type 1: PSF (in case of Double Decker 50% Art. No 18036; Transfer Cap Type 1: AISI 316)
- 2. Art. No. 32035: Tri-clamp S-14 Type 1: AISI 316
- 3. Art. No. 32041: O-ring concentrate Type 1, EPDM
- 4. Art. No. 2451RB452NG: S-14 module Type 1: Housing PSF; Flow distributor PES; Potting EP resin; Membrane PES/PVP
- 5. Art. No. 2451RB452NG2: S-14 module Type 2: Housing PSF; Flow distributor PES; Potting EP resin; Membrane PES/PVP

- 6. Art. No. : 32TCS100 + 32TCB100A: TC-100 Type 2: AISI 304
- 7. Art. No. 32032: O-ring Concentrate Type 2: EPDM
- 8. Art. No. 18037B: End cap Type 2: AISI 316 (in case of Double Decker 50% Art. No 18038; Transfer Cap Type 2: AISI 316)
- 9. Art. No. 32040: 0-ring S-14 permeate Type 1 and 2: EPDM

#### **ELEMENT SPECIFICATIONS**

Membrane Diameter [mm]	Membrane area [m²]	Length L <sub>1</sub> [mm]	Length L <sub>2</sub> [mm]	Module diameter D <sub>1</sub> [mm]	Feed connection D <sub>1</sub> [mm]	Feed connection D <sub>2</sub> [mm]	Permeate connection D3 [mm]
1.5	9.8	1172	1010	200	217.5 (189)	106 (80)	50.5 (32)



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MEMBRANE ELEMENT DATASHEET

#### **OPERATING SPECIFICATIONS**

Max. system pressure		Max. transmembrane pressure		Max. backflush pressure		Temperature range
[kPa]		[kPa]		[kPa]		[°C]
0 - 40 °C 40 - 60 °C 60 - 80 °C	600 500 400	0 - 30 °C 30 - 60 °C 60 - 80 °C	300 200 100	0 - 30 °C 30 - 60 °C 60 - 80 °C	200 150 100	80

- Dry weight of total membrane module (incl. End caps and Clamps):
  - ca. 16.5 kg S-14 Type 1
  - ca. 19.5 kg S-14 Type 2
- Cleaning fluids should be of permeate quality or better.
- Cleaning pumps should be made of noncorroding materials.
- To avoid mechanical damage, do not subject the membrane module or element to sudden temperature changes.
  Do never exceed the temperatures mentioned by the installation builder.
  During heating or cooling the max value 3°C/min above 35°C should never be exceeded. Failure to adhere to this guideline could result in irreparable damage.

#### **MEMBRANE CHARACTERISTICS**

- X-Flow B.V. product code: 1.5 MF05XL M2
- Hydrophilic membrane composed of a blend of polyvinylpyrrolidone and polyethersulfone
- Structure asymmetric/microporous
- High performance and a very good antifouling behaviour

#### **CLEANING CHEMICAL RESISTANCE**

Operation of membrane modules at any combination of maximum limits of pH, concentration of chemicals, pressure or temperature, during cleaning or production as mentioned in the documents suplied by the installation supplier, could influence the membrane and/or module lifetime.

#### **START-UP**

- New module should be cleaned during a complete CIP, before start up with beer
- The use of lubricant based on fat or oil should be avoided at any time.

### **CERTIFICATIONS**

- USA: FDA compliant (CFR 177.1440, CFR 177.1655, CFR 177.2440 and CFR 177.2600)
- Europe: tested according to EU regulation EC 1935/2004 and EC 10/2011

#### **STORAGE**

Dry membrane modules should be stored in a dry, normally ventilated place, away from sources of heat, ignition and direct sunlight. Store between 0 and 40 °C at a relative humidity below 80% in their original packaging.





info@lenntech.com Tel. +31-152-610-900 www.lenntech.com Fax. +31-152-616-289



