



Pilot Laboratory Equipment for Membrane Filtration

PilotUnit Combi M39/M3.8

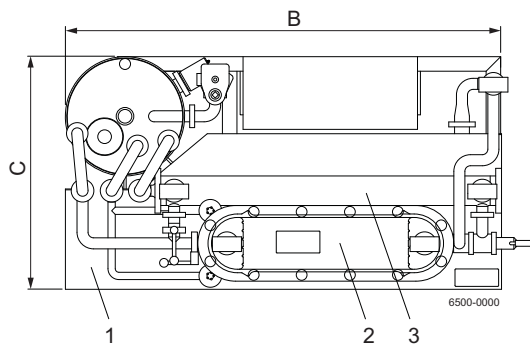
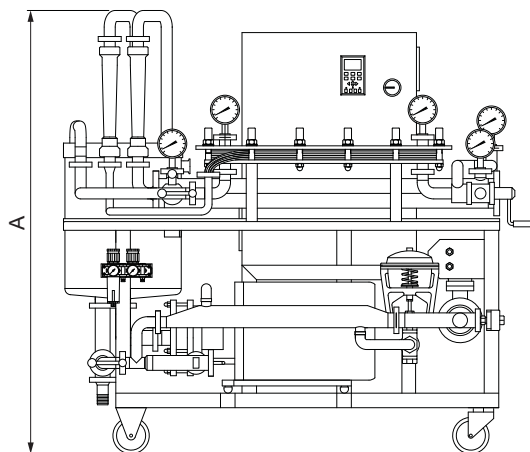
The Alfa Laval PilotUnit Combi M39/M3.8 is a handy, versatile test unit that provides a perfect combination of flat sheet and spiral wound designs. It consists of an Alfa Laval LabStak® M39 and a housing for 3.8" spiral elements and is available with either 50 Hz or 60 Hz Alfa Laval pump.

The Alfa Laval PilotUnit M39/M3.8 is the ideal tool for selective flat sheet membrane screenings, pilot scale spiral tests and small-scale production using ultrafiltration and microfiltration. To meet these demands, the module has a flat sheet membrane area of 1 m² and a 3.8" spiral element with a membrane area of up to 7.3 m².

Alfa Laval also provides tailor-made system solutions for individual requirements.

Flat sheet membrane options

Flat sheet UF and MF membranes.



Spiral element options

The element housing in the Alfa Laval PilotUnit Combi M39/M3.8 is specially designed for Alfa Laval 3.8" ultrafiltration and microfiltration spiral elements. For further information, please consult the product descriptions for the Alfa Laval sanitary spiral elements.

- A. 1526 mm
- B. 1500 mm
- C. 800 mm

Pos. Description of parts included

1. Basic equipment
2. Plastic set code no.
 - A: M39L PL835
 - B: M39H PL836
3. ATD system 516737

Advantages

- Versatile filtration properties
 - membrane area ranging from 0.2 to 7 m²
 - simultaneous test of different membrane types
 - system configuration tests and comparison tests
 - product volumes ranging from 13.2 to 1,000 litres
- Sanitary design with all components in compliance with FDA regulations
- Rapid, easy exchange of membranes and spiral element
- Operation at pH 1-13, and pressures of up to 8 bar
- Complete unit with pump, filter, heat exchanger, valves, tank, etc. Needs only a power supply, compressed air, water, and feed product to operate
- Cross-flow control
- Feed/product supply control

Alfa Laval PilotUnit Combi M39/M3.8 data

Feed	38 mm ISO 2852 clamp
Retentate	38 mm ISO 2852 clamp
Permeate	38 mm ISO 2852 clamp
Cooling/heating water	¾" BSP female
Drain	51 mm ISO 2852 clamp
Weight, empty	355 kg
Weight, liquid filled	410 kg (inclusive of 25 litres in tank)

Pump data

Make	Alfa Laval
Type	LKH-113 (50 Hz) or LKH-112 (60 Hz)
Capacity	15 m ³ /h at 2.5 bar/10 m ³ /h at 8 bar
Product wetted parts	Acid resistant, AISI 316
Motor size/speed	7.5 kW/2800 rpm (50 Hz) or 8.6 kW/3500 rpm (60 Hz)

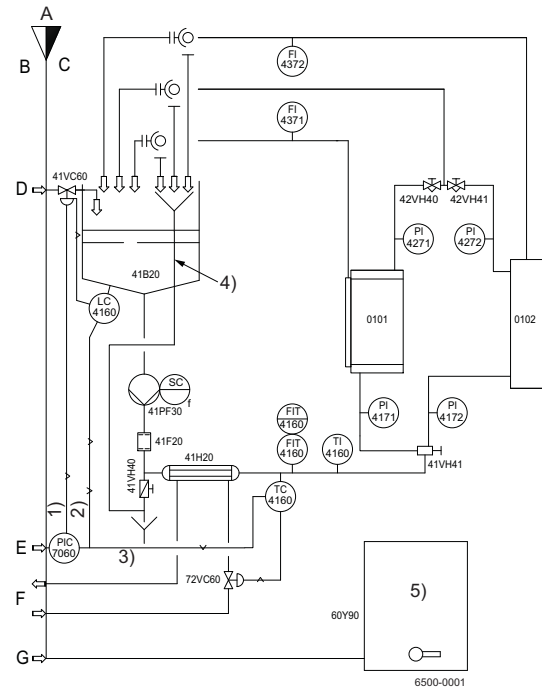
Instrumentation

Pressure gauge, 0-10 bar (2 pcs)	Inlet, module/element
Pressure gauge, 0-4 bar (2 pcs)	Retentate outlet, module/element
Temperature gauge, 0-160°C	Retentate outlet, module/element
Flow meter, 20-250 l/h and 60-640 l/h	Permeate outlet, module/element
Flow transmitter, 0-20 m ³ /h	Cross-flow, module/element
Level control, feed tank	Pneumatic level controller + valve with actuator and positioner
Temperature control	Pneumatic thermostat directly governing temperature control valve

Code no.:

520337 (50 Hz pump)

520411 (60 Hz pump)



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|-----------------------------|------------------------|
| A = Delivery limit | 1 = 5.6 bar |
| B = Excl. | 2 = 1.4 bar |
| C = Incl. | 3 = 1.4 bar |
| D = Feed/water | 4 = Sewer |
| E = Air 6 bar | 5 = MCC (Frequency |
| F = Cooling/Heating Medium | converter + cross flow |
| G = Power 3*400V + PE 50 Hz | control) |

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