



MultiBrain Pilot Unit

Membrane pilot unit for industrial elements - MultiBrain with CIP V3 CFU038.

PILOT UNIT CONFIGURATIONS

The MultiBrain pilot unit is designed for one or two industrial CoMem Conduit OD146x865mm elements with up to 16 m² filtration area. Alternatively, the unit can be equipped with multielement housing for Ø25mm or hexagonal elements.

Technical data	CFU038
Test element (not included)	CoMem Conduit OD146x865mm or Multihousing Ø25mm/Hexa
Feed pump capacity	15 m ³ /h / 66 gpm
Recirculation pump capacity	64 m ³ /h / 282 gpm
Backwash pump capacity	15 m ³ /h / 66 gpm
Mode of operation	Cross-flow and semi dead-end
Pumps	Grundfos
Valves	Bürkert
Piping, housing, permeate tank	Stainless Steel AISI316L
Temperature tolerance	85°C / 185°F
BPH maximum air pressure	6 bar / 87 psi
PLC/transmitters	Siemens Pro-face
Permeate tank	50 L / 13 gallons
CIP tank	60 L / 16 gallons
Power supply	3P+N+PE 400V 50Hz
Dimension (LxWxH)	1900x1200x1937mm 6.25x3.95x6.35ft
Weight	750 kg / 1650 lbs

FUNCTION AND DESIGN

The MultiBrain pilot unit is equipped with a feed pump which pressurizes and feeds the recirculation loop, a recirculation pump which generates the cross-flow and a pump for backwash. In addition, the test unit is equipped with a Back Pulse Hammer (BPH). The BPH system is a pulse generator, which delivers high frequency "block" pulses, from the permeate side, back through the membrane in order to keep the membrane clean and free of foulants.

The integrated cleaning-in-place (CIP) system with heating element, level sensors and dosing pumps makes it possible to do automatic cleaning of the membrane with acid and alkaline cleaning agents.

Transmitters and indicators makes it possible to measure:

- Pressure: at feed, retentate and permeate side of the membrane, feed pump pressure and level control
- Temperature: in the recirculation loop
- Flow: the incoming feed flow, cross-flow and permeate flow

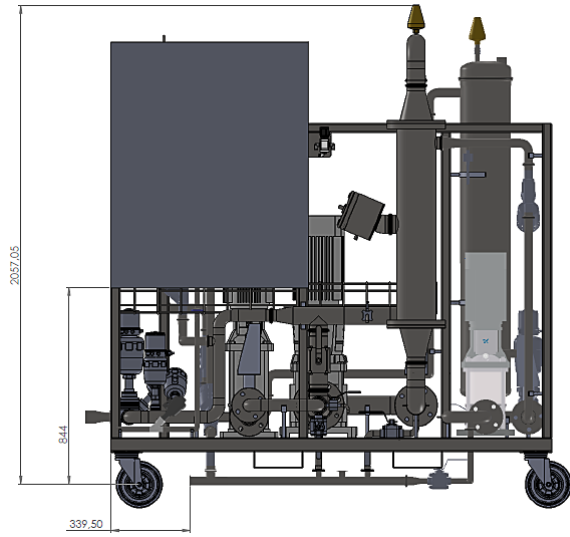
All data from pressure transmitters, flow transmitters, temperature transmitter, pump settings and actual valve positions are stored in the internal memory of the unit. The data can be reached by an USB port in the unit or by online access (depending on internet access on site).

The PLC is preprogrammed with among others the following options: automatic cross-flow operation, automatic backwash, automatic back pulse, automatic semi-dead end operation, chemical enhanced backwash (CEB), automatic constant recovery factor, automatic constant permeate production, automatic CIP etc.

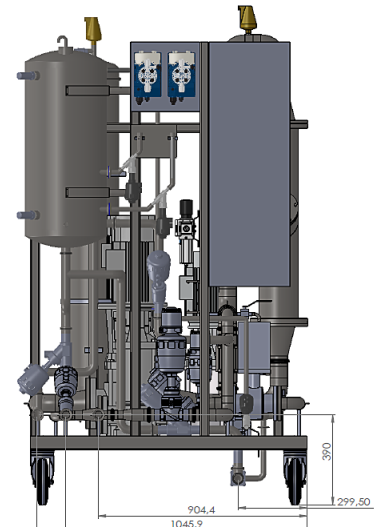
For operating manual please contact LiqTech.

DIMENSIONS

Front-view



Side-view



3D-view

