

Laboratory- and Pilot- Testplant Allrounder



Laboratory- and Pilot-Testplant at the same time!

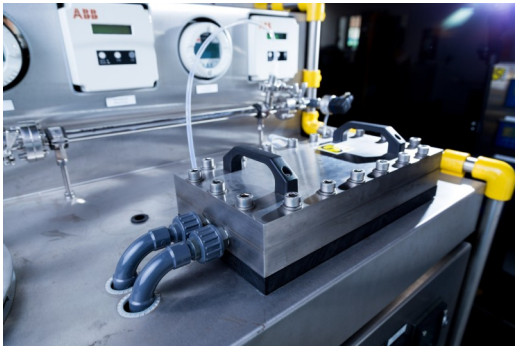
The “Allrounder 15” is an universal laboratory and pilot test unit for experiments in the field of micro-, ultra- and nanofiltration. The test unit consists of three test devices (initial fitting-out: flat sheet test cell, mono channel tube for tubular modules and a 2.5” spiral-wound module). It is possible to compare flat sheet membranes directly with tubular membranes in laboratory scale in just one experiment. Therefore the pressure is similar in both modules; the volume flow of the feed can be adjusted separately for each module. Afterwards the scale up experiment with technical modules (i.e. 2.5”- or 4”- spiral-wound module, 19-channel ceramic module etc.) can be performed.

The installed backflush facility is controlled by the SPC. During the operation of the unit, it is possible to sample all product flow lines because of the seven installed sample points.

Several safety- and protection cut-offs enable long-term tests. Optional, all measurement and control data is written and directly displayed in a measurement recording system.

The equipment of the test plant and the flexible use of different flat membranes offer a wide range of application in the field of membrane technology.

Characteristics of the Allrounder



Pic. 1: Testzelle für Flachmembranen

- Wide application range caused by high-quality material design
- Compact construction and low dead volume
- Temperature resistance: up to 60 °C at 4 bar (<25 °C at 15 bar)
- Adaptable connections for different pressure tubes.
- Feed pressure pump with 0.6 – 3 m³/h volume flow at 15 bar

- Three automated controlled regulation valves (Range: 1.5 – 15 bar)
- Storage tank 70 l; double-walled (material V4a)
- Integrated safety control (for high pressure, feed temperature and dry run)
- Feed & Bleed mode (optional)
- SPS-controlled permeate backwash (max. feed pressure: 4 bar) with permeate backwash vessel
- rack for “Allrounder 15” on plastic pallet, tube frame in stainless steel; extensions and adjustments possible

Flexible membrane screening possible



Pic. 2: transportable testplant

Transportable

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