

PILODIST®

laboratory & process technology

FILMDIST SP 200



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FILMDIST SP 200

Universal lab-scale apparatus for shortpath evaporation.

The increasing demand for molecular distillation for various applications results in a re-design of the **PILODIST®** standard short-path evaporation system SP 200 to offer more flexibility as far as the vacuum range is concerned. The new glass evaporator type includes now 2 nozzles to position the vacuum supply at different positions to allow the evaporation of high viscous liquids at a vacuum down to **2 x 10⁻³ mbar (optional 2 x 10⁻⁴ mbar)**.

These systems are used for organic products of thermic instability, high molecular weight and/or high viscosity of up to 36000 cP at operating temperatures.

Please remember that molecular distillation does not perform a fractional distillation with a boiling process but a distillation by evaporation only without a boiling process. Hence the regulation of the vacuum is most important.

The evaporation surface consists of a vertical glass cylinder, double mantled and filled with a heating medium which is tempered by a thermostat. The product is being spread to a thin film on the inner surface of the evaporator by means of rotating wiper elements, available in glass and Teflon. These wipers are being pressed to the inner wall of the surface by centrifugal forces where they produce a thin film with a continuous distribution of the liquid film. The condenser is vertically arranged in the center of the glass evaporator, cooled by means of a cooling thermostat.

For the optimization of the evaporation process the type of wipers as well as the speed of the rotation can be adjusted to the viscosity of the product to be evaporated.

The cleaning of the evaporator is very easy due to an easy removable fastener.

SP 200 is offered as a turn-key system including complete vacuum accessories. A mobile rack to accommodate the system as well as accessories is offered optionally.

Technical Data

Operating temperature:	max. 200°C (optional 250°C)
Operating pressure:	down to 2 x 10 ⁻³ mbar (optional 2 x 10 ⁻⁴ mbar)
Feed range:	50 - 1000 ml / h
Evaporator surface:	200 cm ² , short path
Evaporator material:	borosilicate glass
Feed vessel:	250 ml
Product receivers:	2 x 250 ml
Mains supply:	3 x 208-260 V, 50 Hz (optional 60 Hz)
Evaporation volume	96 %
Speed range of stirrer	20 ... 2000 (rpm)