

Vacuum Distillation Systems ilmdest and ilmdest *

The economical, complete solution for distillations.

ilmdest vacuum distillation systems automatically recognize the boiling points of solvents and solvent mixtures and distill it most efficiently without fractionated operation. Distillation and vacuum pump form one single unit. The water bath provides for the necessary temperature for the distillation of the solvent mixture.

Through extensive application tests we have developed an approach which makes it possible to replace a rotary evaporator with a static evaporator flask in the water heating bath. The economics are impressive! ilmdest vacuum distillation systems provide the same results as rotary evaporator systems and achieve solvent recovery rates of appr. 100 %.

For details please read the test reports of the Hold-Back-Pump on www.ILMVAC.com.

Special characteristics:

- independent process cycle without complex control and regulation of temperature and pressure
- no controller technology required
- self regulated ultimate pressure
- ventilation at the process end
- solvent recovery rates close to 100%
- economical alternative to regulated vacuum pump systems
- environmentally friendly
- low emissions
- low noise level, 45 dB(A)
- easy to service design
- available for different mains supplies
- pressure indication by optional sensor
- simply connect the unit and switch it on

Ranges of application:

For the evaporation of solvents and solvent mixtures down to 10 mbar.



Vacuum Distillation Systems ilmdest and ilmdest +

Systems:

ilmdest:
Hold Back Pump HBP 101 with lift, without water bath (must be provided by the user).

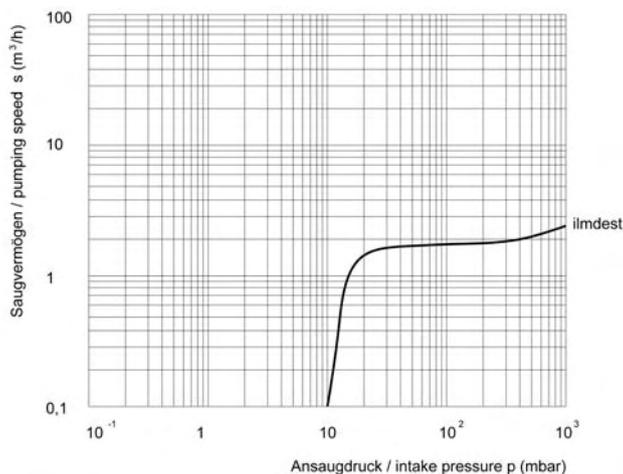
ilmdest +: complete system of Hold-Back-Pump HBP 101 with lift, with water bath.

Scope of delivery, ilmdest:

- Hold back pump with controlling and evaporation mechanism, with lift, without water bath
- ventilation valve
- exhaust connection: clamping ring union 8 for hose 8/ 6x1
- cooling water connection: hose nozzle DN 8 for hose inside diameter 8 mm
- 1000 ml round bottom flask at the exhaust side (other sizes, see accessories)
- optional: sensor, see accessories

Scope of delivery, ilmdest + same as ilmdest and in addition:

- 9 l water bath, heating power 1800 W, mains supply 230 V, 50/60 Hz, dia.Ø 280 mm, height 305 mm, weight 4.5 kg



Technical Features

Type	Ult. pressure DIN 28432 mbar	Pumping speed 50/60 Hz m³/h l/min		Dim. (W/D/H) mm	Weight kg	Motor power W
ilmdest	10	2.3/2.5	38/41	310/270/550	22.0	200
ilmdest +	10	2.3/2.5	38/41	310/550/550	26.8	200

Ordering Information

Type	Mains supply V / Hz	Mandatory accessories Connection cable	PU pcs.	Order-No.
ilmdest	230 / 50/60	yes	1	112005
ilmdest	115 / 50/60	yes	1	112005-03
ilmdest +	230 / 50/60	yes	1	112008
ilmdest +	115 / 50/60	yes	1	112008-02

Note:
Country specific
mains connection
cable separately
to the device, see
page 146.

Hold Back Pump HBP 101

The self regulating vacuum system.

The truly new and unique development for completely automatic and environmentally friendly vacuum distillations. The solvent recovery yield of almost 100 % guarantees very low emission rates to the environment.

The rotary evaporator flask is connected directly to the Hold-Back-Pump. After the heater bath and the rotary drive are prepared for the process the Hold-Back-Pump is switched on to produce the vacuum needed.

The evaporation pressure is reached automatically for any solvent or solvent mix without a vacuum controller and the distillation is processed automatically without interruption no matter how many different solvents are being distilled. The fractions are collected in a container of your choice at atmospheric pressure.

Hold-Back-Pumps operate without a controller by bringing physical condensation laws into practice. The solvent itself contains the necessary information for automatic pressure regulation. The boiling point of the solvent, or solvent mixture need not be known, monitored or controlled externally. The product is concentrated in just one evaporation cycle, quickly and without loss since the process is maintained at the optimum boiling point. There are no environmentally dangerous emissions, since the whole process is executed in a closed circuit.

Hold-Back-Pumps guarantee a fully-automatic process without any manual adjustment or regulation and without time consuming and costly electronic controller. The distillation result is considerably better and more economically sound than when using a diaphragm pump system with control valve or speed control.



Special characteristics:

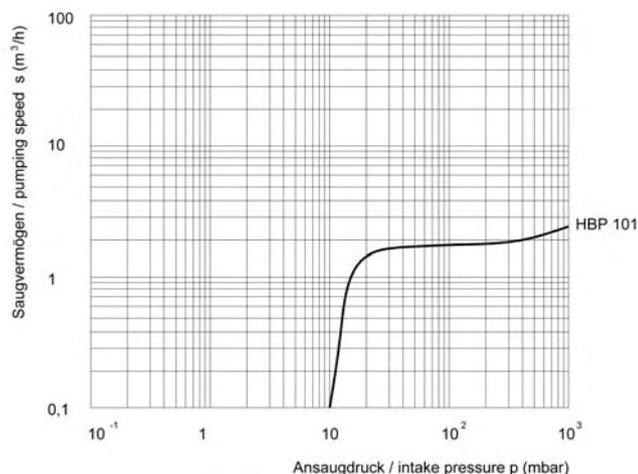
- independent process cycle without complex control and regulation of temperature and pressure
- no controller technology required
- ultimate pressure self regulating
- solvent recovery rates close to 100%
- economical alternative to regulated vacuum pump systems
- environmentally friendly
- small emissions
- low noise level, 45 dB(A)
- easy to service design
- available for different main supplies
- pressure indication by optional sensor

Ranges of application:

For the evaporation of solvents and solvent mixtures down to 10 mbar

Scope of delivery:

- hold back pump with controlling, without evaporation mechanism, lift and water bath
- suction connection: GI 14 with squeezing ring for hose 10/ 8x1 or hose nozzle DN 8 for hose inside diameter 8 mm
- exhaust connection: hose nozzle DN 8 for hose inside diameter 8 mm
- cooling water connection: hose nozzle DN 8 for hose inside diameter 8 mm
- round bottom flask at the exhaust side 1000 ml (other sizes, see chapter Device Accessories)
- optional: sensor, see chapter Device Accessories



Technical Features

Type	Ult. pressure DIN 28432 mbar	Pumping speed 50/60 Hz		Dim. (W/D/H) mm	Weight kg	Motor power W
		m³/h	l/min			
HBP 101	10	2.3/2.5	38/41	310/270/490	18.8	200

Ordering Information

Type	Mains supply V / Hz	Mandatory accessories Connection cable	PU pcs.	Order-No.
HBP 101	230 / 50/60	yes	1	112009
HBP 101	115 / 50/60	yes	1	112009-03

Note:
Country specific mains connection cable separately to the device, see page 146.