





## Automatic 24/7 Evaporation

Save time by distilling large volumes in a continuous and unattended manner overnight and during the weekend











#### General

- Automatic refill of the evaporation flask with the solvent mixture according to your settings.
   Continuous automatic discharge of condensate
- The worldwide unique automatic residue drainage offers unattended distillation for days
- The automatic module is compatible with all bench-top and large-scale evaporators from Heidolph
- The storage and the collecting tank can be replaced during the process

#### Leading Safety Standards

- The complete system is sensorcontrolled and turns off the automatic module as well as all connected equipment completely in case of an emergency
- The system can be placed under a fume hood which ensures the highest safety level for the operator
- An easily accessible emergencybutton allows you to stop the process immediately by the operator

#### Superior Ease of Use

- Take advantage of the wide range of possibilities to adjust the settings according to your individual needs
- The worldwide unique automatic residue drainage offers a wide range of new possibilities for automatic, continuous and unattended distillation
- The process can be terminated automatically after evaporation is completed or manually at any time by the operator
- Integrated plug connectors enable you to connect and to control also peripheral equipment from a central point

#### **Reduced Cost** of Ownership

- Affordable alternative to common 50 or 100 liter evaporators
- Reduce your investments by using your existing equipment - the automatic module is compatible to all rotary evaporators from Heidolph
- Increase your efficiency the fully automatic process avoids the need of visual control and gives you time to focus on other tasks
- The unattended and continuous reconditioning of solvent avoids any bottlenecks of availability of solvents and reduce your investments in this way

# The smart way to process large quantities automatically

- The system is available for Hei-VAP bench-top evaporators and Hei-VAP Industrial evaporators
- Bumping is eliminated by continuously feeding small volumes
- For distillation select between these two modes:
- Sensor-Mode: Refill and drainage are automatically sensor-controlled
- **Time-Mode:** All parameters controlled by individually pre-programmed automatic time intervals

- Process rates with bench-top evaporators for the most common solvents are:
- Water: 1.4 l/hAcetone: 6.0 l/hToluene: 6.5 l/hEthanol: 2.5 l/h
- Increased process rates with Hei-VAP Industrial large-scale evaporators, for example:
  - Water: 4.5 l/hAcetone: 25.0 l/h

- Both modes are completed in an automated and unattended process of solvent separations of nearly 100 %
- Degree of concentration for final product can be determined to rule out dehydration, cristallisation and formation of powder

#### For distillation select between these two modes:



Time-Mode:

#### Sensor-Mode:

## Refill and drainage are automatically sensor-controlled

- A sensor detects the fill-level inside the evaporation flask
- The desired/requested fill-level can be set individually
- Flask refill is achieved via valve control and under system pressure
- A sensor monitors the quantity of the solvent mixture and powers off the unit once it is completely processed

## All parameters controlled by individually

pre-programmed automatic time intervals

- The desired/requested fill-level can be set individually
- Flask refill is achieved via valve control and under system pressure according to pre-programmed cycles
- The process is powered off once the pre-programmed number of cycles have expired

# Automated 24/7 Evaporation

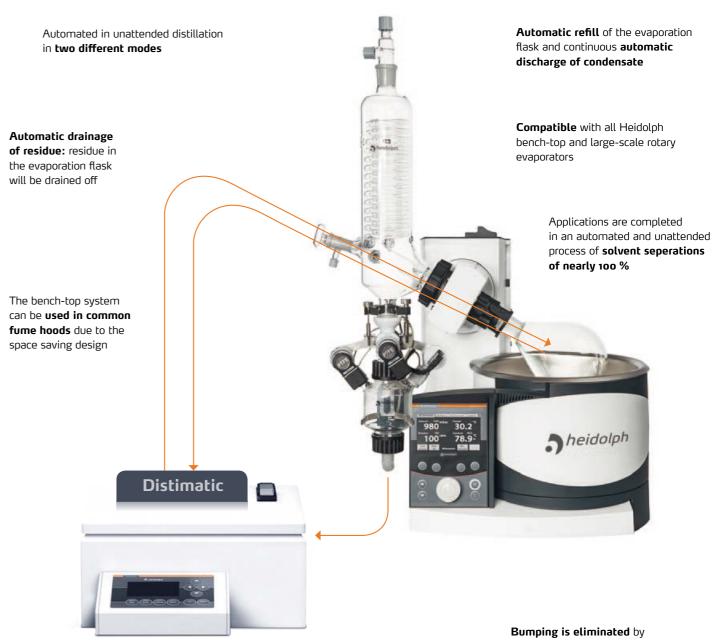


Leading Safety Standards

Superior Ease of Use

Reduced Cost of Ownership

The average operational lifespan of 10 years is backed by a 3 year warranty and makes your purchase a worthwhile investment.



Wide range of possibilities to adjust settings according to your individual needs

In case of an emergency the complete system will power off entirely

continuously feeding small volumes

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#### Functional Principle

#### For unattended and continuous use - including automatic drainage of residue

Save time by distilling large volumes in a continuous and unattended manner overnight and during the weekend

### Automatic solvent supply of the evaporating flask

- Refilling with the Sensor-Mode runs automatically and is based on the desired level in the evaporation flask
- Refilling with the Time-Mode is done according to individual time parameters

### Automatic discharge of condensate

 A valve matrix controls the continuous discharge of the condensate from the system into a temporary storage flask. Afterwards the collected condensate will be discharged into the collecting tank by a diaphragm pump

### End of distillation process

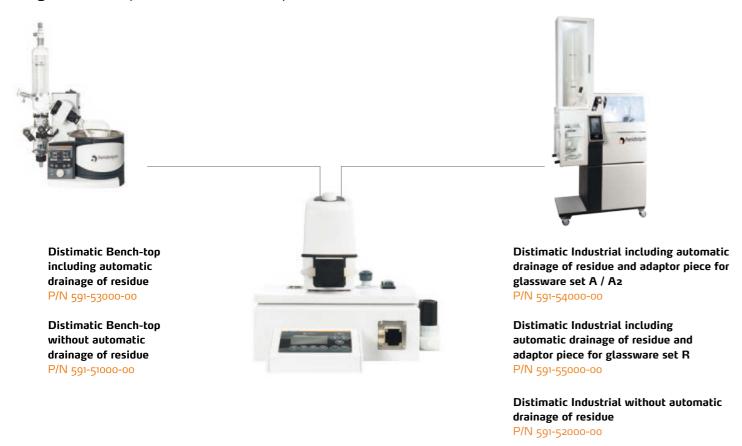
 The process can be terminated automatically after evaporation is completed or manually at any time by the operator

#### Automatic drainage of residue

• The residue in the evaporating flask will be drained into a collecting tank. Afterwards the process starts again automatically by refilling the evaporating flask

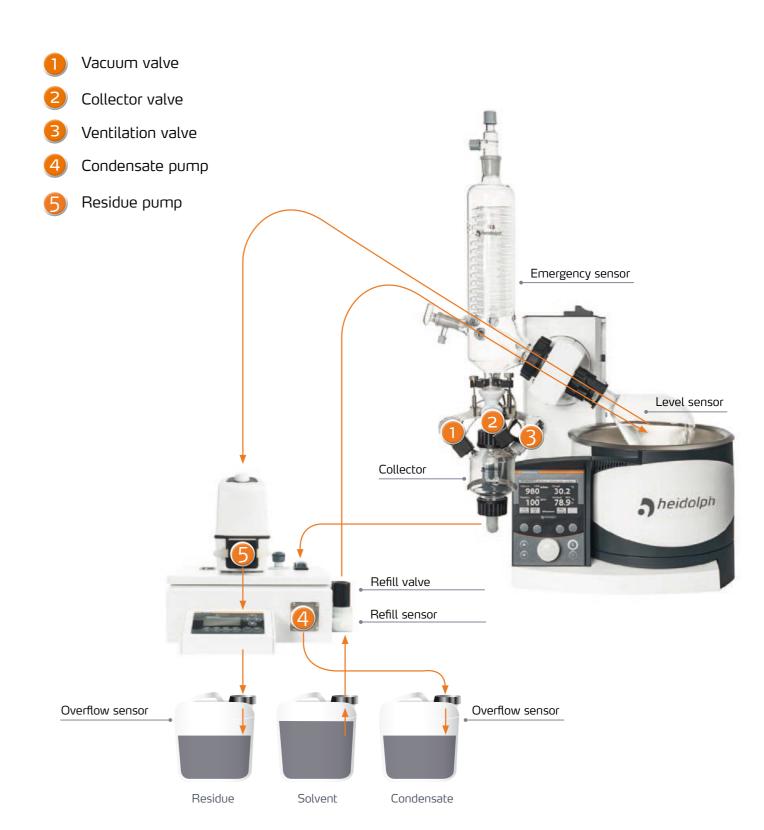
#### Distimatic Bench-top / Distimatic Industrial

The automatic module Hei-VAP Distimatic is compatible with all bench-top and large-scale evaporators from Heidolph



#### Functional Principle

Distimatic Bench-top including automatic drainage of residue



#### Rate of evaporation at continuous operation

Reach outstanding evaporation rates of up to 6.5 l/h with the Distimatic Bench-top and up to 25.0 l/h with the Distimatic Industrial

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## Distimatic Bench-top Packages

Distimatic Bench-top Silver Packages	P/N
Distimatic Bench-top Silver 1 Package Distimatic Bench-top including automatic drainage of residue, Hei-VAP Value Rotary Evaporator with coated, vertical glassware G9B	560-01914-00
<b>Distimatic Bench-top Silver 2 Package</b> Distimatic Bench-top including automatic drainage of residue, Hei-VAP Value Digital Rotary Evaporator with coated, vertical glassware set G9B	560-01914-20
<b>Distimatic Bench-top Silver 3 Package</b> Distimatic Bench-top without automatic drainage of residue, Hei-VAP Value Rotary Evaporator with coated, vertical glassware set G <sub>3</sub> B	560-01313-00
Distimatic Bench-top Silver 4 Package Distimatic Bench-top without automatic drainage of residue, Hei-VAP Value Digital Rotary Evaporator with coated, vertical glassware set G3B	560-01313-20
Distimatic Bench-top Gold Packages	P/N
<b>Distimatic Bench-top Gold 1 Package</b> Distimatic Bench-top including automatic drainage of residue, Hei-VAP Advantage Rotary Evaporator with hand lift and coated, vertical glassware set G9B	561-01914-00
<b>Distimatic Bench-top Gold 2 Package</b> Distimatic Bench-top including automatic drainage of residue, Hei-VAP Advantage Rotary Evaporator with motor lift and coated, vertical glassware set G9B	562-01914-00
<b>Distimatic Bench-top Gold 3 Package</b> Distimatic Bench-top without automatic drainage of residue, Hei-VAP Advantage Rotary Evaporator with hand lift and coated, vertical glassware set G <sub>3</sub> B	561-01313-00
<b>Distimatic Bench-top Gold 4 Package</b> Distimatic Bench-top without automatic drainage of residue, Hei-VAP Advantage Rotary Evaporator with motor lift and coated, vertical glassware set G <sub>3</sub> B	562-01313-00
Distimatic Bench-top Platinum Packages	P/N
<b>Distimatic Bench-top Platinum 1 Package</b> Distimatic Bench-top including automatic drainage of residue, Hei-VAP Precision Rotary Evaporator with hand lift and coated, vertical glassware set G9B	563-01914-00
Distimatic Bench-top Platinum 2 Package Distimatic Bench-top including automatic drainage of residue, Hei-VAP Precision Rotary Evaporator with motor lift and coated, vertical glassware set G9B	564-01914-00
Distimatic Bench-top Platinum 3 Package Distimatic Bench-top without automatic drainage of residue, Hei-VAP Precision Rotary Evaporator with hand lift and coated, vertical glassware set G3B	563-01313-00
Distimatic Bench-top Platinum 4 Package Distimatic Bench-top without automatic drainage of residue, Hei-VAP Precision Rotary Evaporator with motor lift and coated, vertical glassware set G3B	564-01313-00
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## Distimatic Industrial Packages

Distimatic Industrial Platinum Packages	P/N
Distimatic Industrial Platinum 1 Package Distimatic Industrial including automatic drainage of residue and Hei-VAP Industrial with glassware set R	518-11155-00
Distimatic Industrial Platinum 2 Package Distimatic Industrial including automatic drainage of residue and Hei-VAP Industrial with glassware set A	518-13154-00
Distimatic Industrial Platinum 3 Package Distimatic Industrial including automatic drainage of residue and Hei-VAP Industrial with glassware set A2	518-14154-00
Distimatic Industrial Platinum 4 Package Distimatic Industrial without automatic drainage of residue and Hei-VAP Industrial with glassware set A2	518-14152-00
Distimatic Industrial Platinum 5 Package Distimatic Industrial without automatic drainage of residue and Hei-VAP Industrial with glassware set A	518-13152-00
Distimatic Industrial Platinum 6 Package Distimatic Industrial without automatic drainage of residue and Hei-VAP Industrial with glassware set R	518-11152-00

## Functional principle Distimatic





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#### • Technical Specifications - Automatic Module Distimatic

age of residue	Distimatic Bench-top including drainage of	Distimatic Bench-top without drainage of residue	Model
	591-53000-00	591-51000-00	P/N (230 V)
	Hei-VAP and Laborota 4000 series	Hei-VAP and Laborota 4000 series *	Compatibility (Rotary Evaporators)
	yes	yes	Separate control panel
	digital	digital	Display
	yes	yes	Automatic refill of sample
	yes	yes	Automatic discharge of condensate
	yes	no	Automatic drainage of residue
	50	50	Power input control box (VA)
	< 80	< 80	Noise level (dB(A))
	3.500	3,500	Total power multiple switched socket (W)
	5	5	Weight (kg)
	300 X 200 X 120	300 X 200 X 120	Measurements without mounted components (W x D x H) (mm)
humidity	5 – 31 °C at 80 % rel. humidity 32 – 40 °C linearly declining to max. 50 % rel. humidity 0 - 2000 m a.s.l., Contamination level 2 Overvoltage category II	5 – 31 °C at 80 % rel. humidity 32 – 40 °C linearly declining to max. 50 % rel. humidity 0 - 2000 m a.s.l., Contamination level 2 Overvoltage category II	Permissible ambient temperature
	IP 54	IP 54	Protection class (DIN EN 60529)
humi	32 – 40 °C linearly declining to max. 50 % rel. humi o - 2000 m a.s.l., Contamination level 2 Overvoltage category II	32 – 40 °C linearly declining to max. 50 % rel. humidity 0 - 2000 m a.s.l., Contamination level 2 Overvoltage category II	·

Model	Distimatic Industrial without drainage of residue	Distimatic Industrial including drainage of residue
P/N (230 V)	591-52000-00	591-54000-00 Glassware A / A2 591-55000-00 Glassware R
Compatibility (Rotary Evaporators)	Hei-VAP Industrial and Laborota 20 series	Hei-VAP Industrial and Laborota 20 series
Separate control panel	yes	yes
Display	digital	digital
Automatic refill of sample	yes	yes
Automatic discharge of condensate	yes	yes
Automatic drainage of residue	по	yes
Power input control box (VA)	50	50
Noise level (dB(A))	< 80	< 80
Total power multiple socket (W)	3,500	3,500
Weight (kg)	5	5
Measurements without mounted components (W x D x H) (mm)	300 X 200 X 120	300 X 200 X 120
Permissible ambient temperature	5 – 31 °C at 80 % rel. humidity 32 – 40 °C linearly declining to max. 50 % rel. humidity 0 - 2000 m a.s.l., Contamination level 2 Overvoltage category II	5 – 31 °C at 80 % rel. humidity 32 – 40 °C linearly declining to max. 50 % rel. humidity 0 - 2000 m a.s.l., Contamination level 2 Overvoltage category II
Protection class (DIN EN 60529)	IP 54	IP 54

All shown values relate on Automatic Module Disitmatic without any external accesory parts



# Certificate

To confirm the ability for

CONTINUOUS OPERATION

of the Automatic Module Distimatic

The Automatic Module Distimatic features overtemperature safety circuits according to DIN EN 61010-1:2001 and DIN EN 61010-2-010:2003 and therefore is designed for continuous operation.

This statement is made under the precondition that all units are operated in accordance with the operation manual and in accordance with good practice standards for safety in laboratories, rules for accident preventions, and compliance with directions on hazardous materials.

Schwabach, January 2016

Stefan Peters
Research and Development Manager

Marcell Sarré Quality Manager

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<sup>\*</sup> Also compatible to some models of other manufacturers. To check the compatibility please contact your dedicated Heidolph contact person



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