

# Automatic 24/7 Evaporation



## Hei-VOLUME Automatic Modules

Leading Safety Standards

Superior Ease of Use

Reduced Cost of Ownership



 **heidolph**  
research made easy



Do you require a system to evaporate unlimited volumes in a continuous and unattended process 24 hours a day/7 days a week?

## Automatic 24/7 Evaporation

Save time by using the automatic module Distimatic and distill 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 sensor-controlled 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 emergency-button 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 automatic module Distimatic is available for Hei-VAP rotary evaporators (Distimatic Bench-top) and Hei-VAP Industrial large-scale rotary evaporators (Distimatic Industrial)
- 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/h**
  - **Acetone: 6.0 l/h**
  - **Toluene: 6.5 l/h**
  - **Ethanol: 2.5 l/h**
- Increased process rates with Hei-VAP Industrial large-scale evaporators, for example:
  - **Water: 4.5 l/h**
  - **Acetone: 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, crystallisation and formation of powder
- Bumping is eliminated by continuously feeding small volumes

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



#### 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

#### Time-Mode:

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.

Automated in unattended distillation in **two different modes**

**Automatic drainage of residue:** residue in the evaporation flask will be drained off

The automatic module Distimatic Bench-top can be **used in common fume hoods** due to the space saving design

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

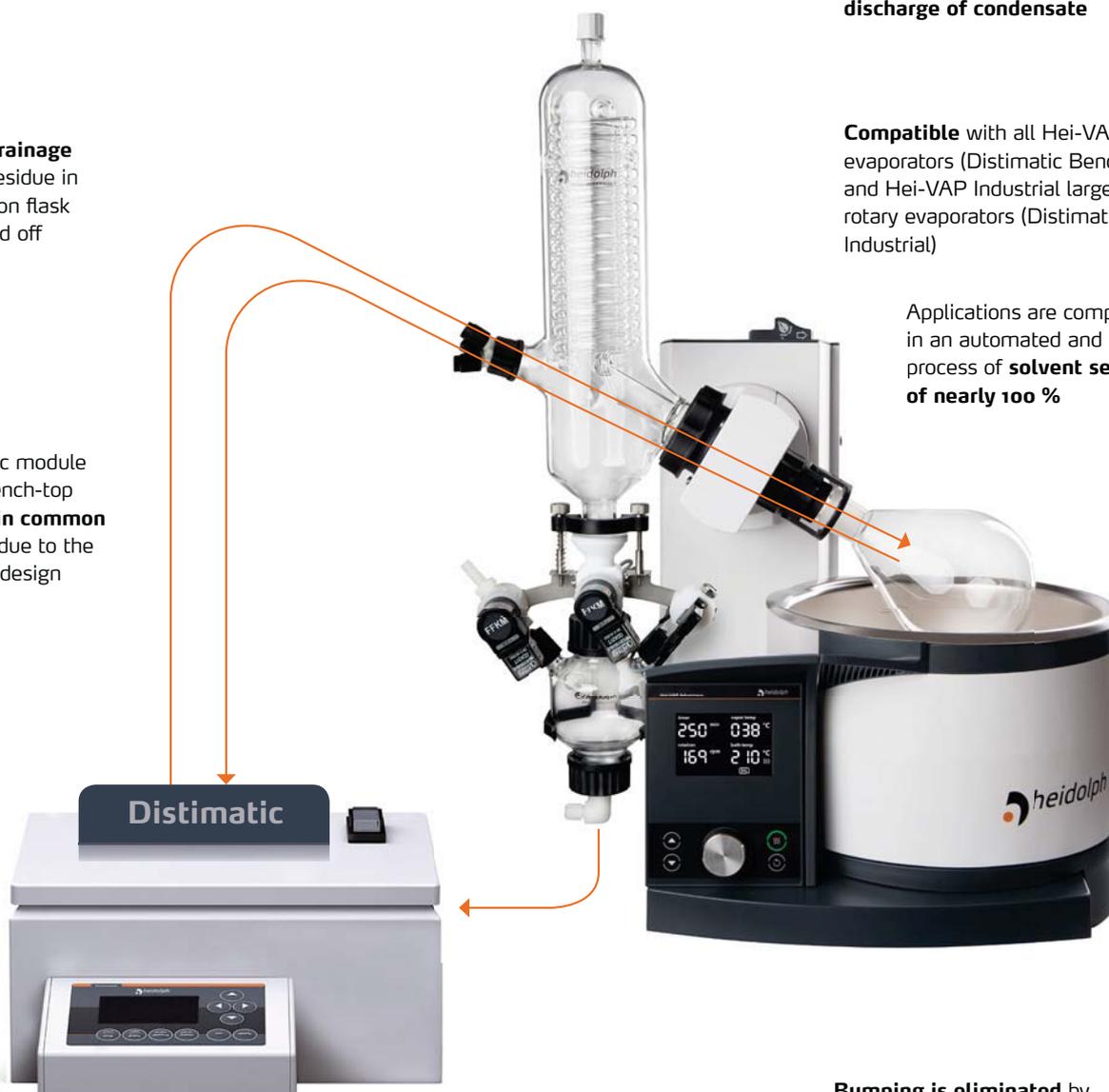
In case of an emergency **the complete system will power off entirely**

**Automatic refill** of the evaporation flask and continuous **automatic discharge of condensate**

**Compatible** with all Hei-VAP rotary evaporators (Distimatic Bench-top) and Hei-VAP Industrial large-scale rotary evaporators (Distimatic Industrial)

Applications are completed in an automated and unattended process of **solvent separations of nearly 100 %**

**Bumping is eliminated** by continuously feeding small volumes



## ➤ 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



#### Distimatic Bench-top including automatic drainage of residue

P/N 591-53000-00 (G9B)  
P/N 591-53000-02 (G9B XL)

#### Distimatic Bench-top without automatic drainage of residue

P/N 591-51000-00 (G9B)  
P/N 591-51000-02 (G9B XL)



#### Distimatic Industrial including automatic drainage of residue and adaptor piece for glassware set A / A2

P/N 591-54000-00

#### Distimatic Industrial including automatic drainage of residue and adaptor piece for glassware set R

P/N 591-55000-00

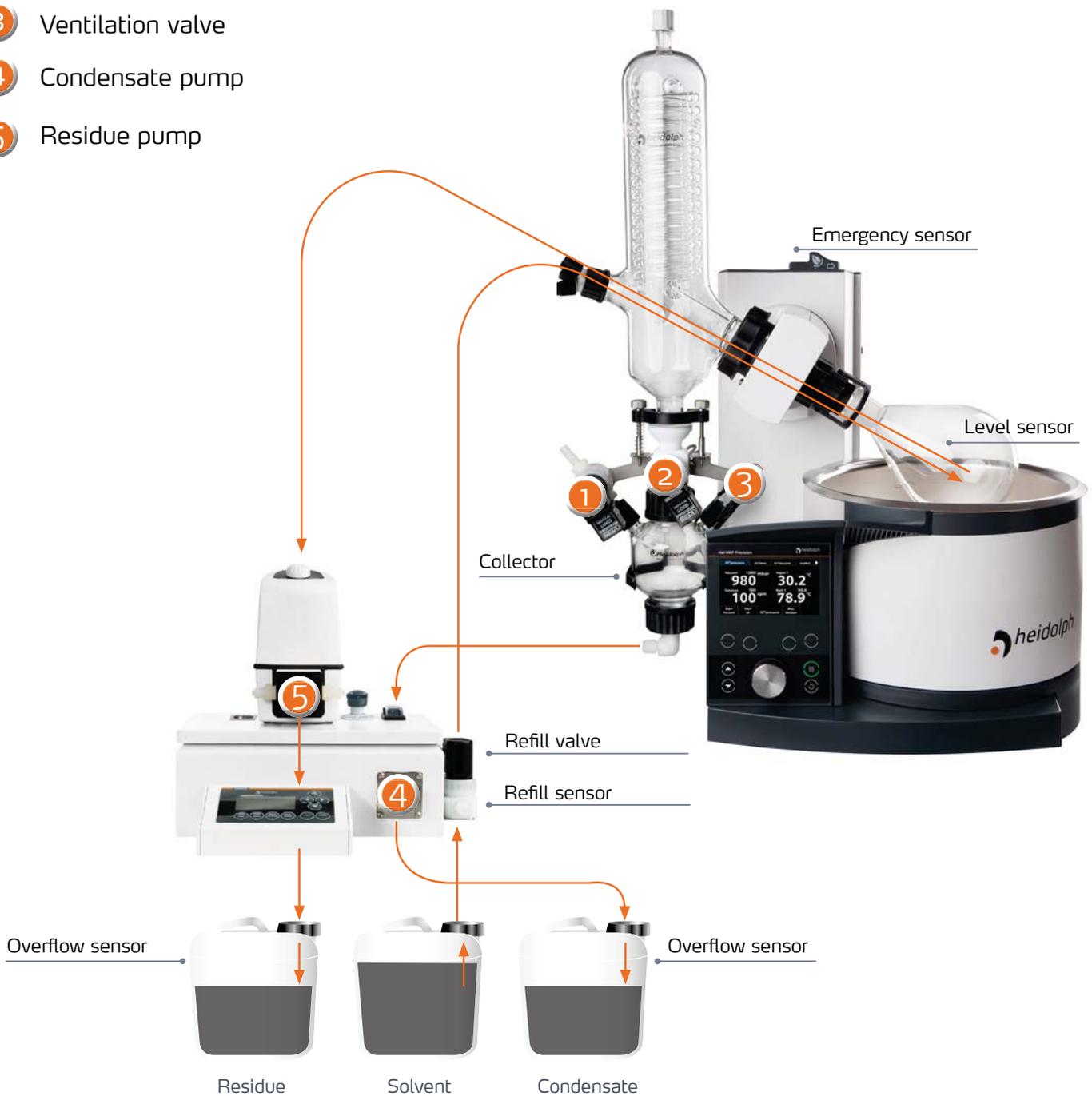
#### Distimatic Industrial without automatic drainage of residue

P/N 591-52000-00

## ➤ Functional Principle

Distimatic Bench-top including automatic drainage of residue

- 1 Vacuum valve
- 2 Collector valve
- 3 Ventilation valve
- 4 Condensate pump
- 5 Residue pump



### 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**

## ➤ Distimatic Bench-top Packages

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### Distimatic Bench-top Platinum Packages

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P/N

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#### Distimatic Bench-top Platinum 1 Package

Distimatic Bench-top including automatic drainage of residue, Hei-VAP Precision Rotary Evaporator with hand lift and coated, vertical glassware set G9B

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563-01914-00

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#### 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

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564-01914-00

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#### Distimatic Bench-top Platinum 2 XL Package

Distimatic Bench-top including automatic drainage of residue, Hei-VAP Precision Rotary Evaporator with motor lift and coated, vertical glassware set G9B XL

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564-01915-00

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#### 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 G9B

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563-01913-00

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#### 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 G9B

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564-01913-00

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#### Distimatic Bench-top Platinum 4 XL Package

Distimatic Bench-top without automatic drainage of residue, Hei-VAP Precision Rotary Evaporator with motor lift and coated, vertical glassware set G9B XL

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564-01917-00

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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

#### Distimatic Industrial Platinum 7 Package

Distimatic Industrial including automatic drainage of residue and Hei-VAP Industrial with glassware set A1

518-14154-20

#### Distimatic Industrial Platinum 8 Package

Distimatic Industrial without automatic drainage of residue and Hei-VAP Industrial with glassware set A1

518-14152-20

## › Functional principle Distimatic



[www.heidolph.com](http://www.heidolph.com)



## Technical Specifications - Automatic Module Distimatic

Model		Distimatic Bench-top without drainage of residue	Distimatic Bench-top including drainage of residue
P/N	(230 V)	591-51000-00	591-53000-00
Compatibility	(Rotary Evaporators)	Hei-VAP and Laborota 4000 series	Hei-VAP and Laborota 4000 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		no	yes
Power input control box	(VA)	50	50
Noise level	(dB(A))	< 80	< 80
Total power multiple switched 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 conditions		5 – 31 °C at 80 % rel. humidity 32 – 40 °C decreasing linearly up 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 decreasing linearly up 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

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		no	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 conditions		5 – 31 °C at 80 % rel. humidity 32 – 40 °C decreasing linearly up 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 decreasing linearly up 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 Distimatic without any external accessory parts  
To check the compatibility please contact your dedicated Heidolph contact person

# 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: 2011-07 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.

S c h w a b a c h , J a n u a r y 2 0 1 8



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