





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

### 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

### 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
- by the operator

### 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

- 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

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

The process can be terminated automatically after evaporation is completed or manually at any time Integrated plug connectors enable you to connect and to **control** also peripheral equipment from a central point

- 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.o 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, cristallisation and formation of powder
- Bumping is eliminated by continuously feeding small volumes

## Automated 24/7 Evaporation



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

In case of an emergency the entirely





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

Time-Mode:

- 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



complete system will power off

#### • 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

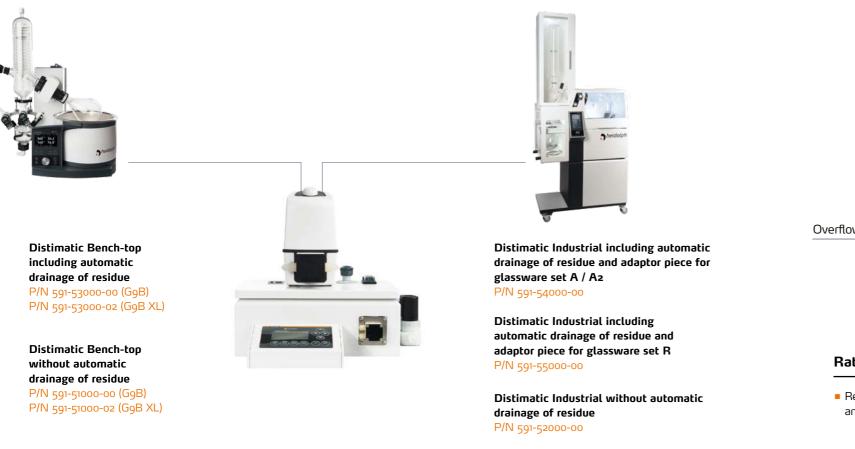
Automatic solvent supply of the evaporating flask	Automatic discharge of condensate	End of distillation process
<ul> <li>Refilling with the Sensor-Mode runs automatically and is based on the desired level in the evaporation flask</li> </ul>	<ul> <li>A valve matrix controls the continuous discharge of the condensate from the system into a temporary storage flask. Afterwards the collected condensate</li> </ul>	<ul> <li>The process can be terminated automatically after evaporation is completed or manually at any time by the operator</li> </ul>
<ul> <li>Refilling with the Time-Mode is done according to individual time parameters</li> </ul>	will be discharged into the collecting tank by a diaphragm pump	

#### 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

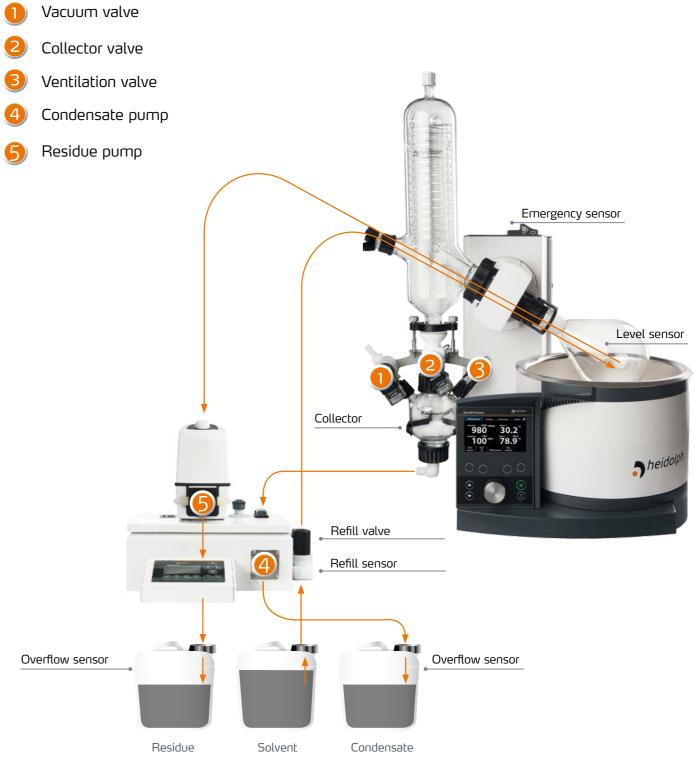
#### Distimatic Bench-top / Distimatic Industrial

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

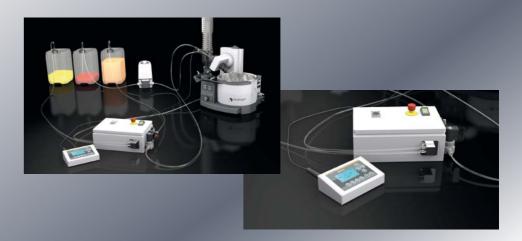
Reach outstanding evaporation rates of up to 6.5 l/h with the Distimatic Bench-top and up to 25.0 l/h with the Distimatic Industrial

### • Distimatic Bench-top Packages

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	
<b>Distimatic Bench-top Platinum 2 Package</b> 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	
<b>Distimatic Bench-top Platinum 2 XL Package</b> Distimatic Bench-top including automatic drainage of residue, Hei-VAP Precision Rotary Evaporator with motor lift and coated, vertical glassware set G9B XL	564-01915-00	
<b>Distimatic Bench-top Platinum 3 Package</b> Distimatic Bench-top without automatic drainage of residue, Hei-VAP Precision Rotary Evaporator with hand lift and coated, vertical glassware set G9B	563-01913-00	
<b>Distimatic Bench-top Platinum 4 Package</b> Distimatic Bench-top without automatic drainage of residue, Hei-VAP Precision Rotary Evaporator with motor lift and coated, vertical glassware set G9B	564-01913-00	
<b>Distimatic Bench-top Platinum 4 XL Package</b> Distimatic Bench-top without automatic drainage of residue, Hei-VAP Precision Rotary Evaporator with motor lift and coated, vertical glassware set G9B XL	564-01917-00	

### • Distimatic Industrial Packages

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









## Functional principle Distimatic





#### • 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 E	vaporators)	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 o - 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

# Certificate

continuous operation

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 (e	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 o - 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 o - 2000 m a.s.l., Contamination level 2 Overvoltage category II
Protection class (DIN EN 6	5o529)	IP 54	IP 54

The Automatic Module Distimatic features overtemperature safety circuits according to DIN EN 61010-1:2001 and DIN EN 61010-2-010:2014 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.

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

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

Stefan Peters Research and Development Manager



## To confirm the ability for of the Automatic Module Distimatic

Schwabach, January 2017

Marcell Sarré Quality Manager

heidolph Made in Germany



#### Heidolph Instruments GmbH & Co. KG

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