## Vacuum Pumps

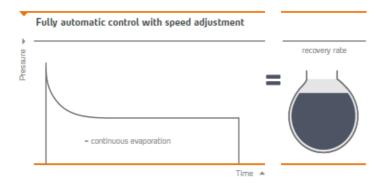
## Advantages of all chemical-resistant diaphragm vacuum pumps



- All components which come in contact with media are built from chemically resistant fluoropolymer
- The durable PTFE design guarantees an superior diaphragm lifespan
- The head cover and clamping disc have a stable core made of metal which offers unsurpassed long-term performance of your operational parameters
- The direct pump drive (without belt) is exceptionally quiet, creates a very low vibrational environment and reduces the need of wear and tear parts to a minimum
- The gas ballast valve has been optimized to prevent media condensing in the pump

## RPM-Regulated Vacuum Pumps

- Highest distillation rates possible and reducing process time by 30 %
- Stable distillation conditions account for solvent recovery up to 99 %



RPM regulated pumps adjust their speed individually when the required vacuum level is reached

## **YOUR ADVANTAGES**

- Speed adjustment stops completely if vacuum is reached and runs intermittently at very low speed to hold vacuum constant
- Increased diaphragm performance life due to periods of nonoperation
- Low energy consumption due to intermittent operation
- Significant noise and vibration reduction due to periods of nonoperation
- Operates without vacuum valve
- Most precise vacuum level at all times

# Valve-Regulated Vacuum Pumps

Standard vacuum pumps can be controlled manually or via valve operated vacuum controllers

### Rotavac Valve Tec

## Rotavac Valve Control





**Rotavac Valve Tec** P/N 591-00160-00 **Condenser** P/N 591-00083-00

For all Hei-VAP models Rotavac Valve Control P/N 591-00130-00 Condenser P/N 591-00083-00

For all Hei-VAP models

Diaphragm pump	
Suction capacity	m³/h
Ultimate vacuum	mbar
Combinable with a condensor	
Power input	Watt
Weight	kg
Dimensions L/W/H (without condenser)	mm

Specifications per unit

Two-stage	
0.75	
12	
yes	
80	
6.0	
145 / 315 / 169	

Recommended for solvents with low or medium boiling points

Vacuum can be controlled via valve operated or manual vacuum controllers

Two-stage			
2.0			
7			
yes			
180			
12.8			
195/ 245/ 310			
Surking annuality	 		

Suction capacity for up to three rotary evaporators at the same time

Vacuum can be controlled via valve operated or manual vacuum controllers

Depending on your application you can switch on and off the vacuum pump via switchbox

## RPM-Regulated Vacuum Pumps

Controllable vacuum pumps for digital regulation of the vacuum via operation panel or directly at the unit (depending on version - see below)

### Rotavac Vario Tec

## Rotavac Vario Control

## Rotavac Vario Pumping Unit



Rotavac Vario Tec P/N 591-00171-00 Condenser P/N 591-00084-00

For Hei-VAP Precision

Two-stage
1.0
12
yes
160
43
156 / 236 / 106

Recommended for solvents with low or medium boiling points



Rotavac Vario Control P/N 591-00141-00 Condenser P/N 591-00084-00

For Hei-VAP Precision

Three-stage
1.7
2
yes
160
5-4
167 / 236 / 196

Even if the gas ballast valve is open an excellent ultimate vacuum is reached when working with easily condensable vapors. This makes distilling high boiling point solvents such as DMF or DMSO possible at low bath temperatures



Rotavac Vario Pumping Unit P/N 591-00142-00 Condenser P/N 591-00084-00

Fully controllable stand-alone pumping unit including vacuum controller. For Hei-VAP Value and Hei-VAP Advantage

Three-stage	
1.7	
5	
yes	
160	
6.0	
193 / 263 / 299	

Precise vacuum control avoids bumping and eliminates foaming of your evaporation solution

Due to automatic vacuum supply to the process parameters you have more time for important laboratory activities

## Vacuum Accessories

#### **Switchbox**

Connect up to three rotary evaporators to one vacuum pump

#### Manual vacuum controller

For Hei-VAP Value and Hei-VAP Advantage

#### Vacuum valve

Required to control vacuum for Hei-VAP Precision models with valve-regulated pumps



#### Switchbox

P/N 569-00400-00

- Connect up to to three rotary evaporators to one pump and control vacuum individually
- Pump switches off automatically at required vacuum
- Reduces energy consumption of pump
- Increases performance life of the pump due to a complete switch-off if vacuum is reached
- Vacuum valve and non-return valve are required for every evaporator if you work with different pressures at the same time
- Delivery includes three non-return valves
- Designed for Hei-VAP Precision
- Weight: o.6 kg
- Dimensions: L8o / W16o / H45 mm



### Manual vacuum controller

P/N 591-26000-00

- Control your house vacuum or any other vacuum source
- Pressure range from o to 1,020 mbar
- Scaling on display in steps of 50 mbar
- Connection for tubes with 8 mm inner diameter
- Support rod included
- A vacuum valve is not required
- Dimensions: L8o / W8o / H15o mm



#### Vacuum valve

P/N 569 - 00060 - 00

- External attachment design for easy cleaning
- Can be combined with the Woulff Bottle to one unit
- Not required if you utilize a Manual vacuum controller

### Woulff bottle

P/N 569-00070-00

- Additional recovery of solvent to protect vacuum valve and vacuum pump
- Compatible with all Hei-VAP configurations
- Direct connection to the vacuum valve is possible
- Features connection to vacuum controller
- Volume of 250 ml