#### ROTARY VANE PUMPS AND CHEMISTRY-HYBRID PUMPS

5.9 m<sup>3</sup>/h

- reduced internal corrosion, even when working with corrosive vapors
- oil changes typically reduced 90% or more compared with rotary vane pumps alone
- excellent environmental friendliness due to efficient solvent recovery (accessory kit PC 8 with emission condenser; or as pumping unit PC 8)
- most economical solution: In practical operation a cold trap is often no longer necessary. For large amounts of vapors a pumping unit PC 3 / RC 6 with cold trap at the inlet is available
- ease of maintenance due to telescopic design



RC 6 - PC 8 WITH RC 6

The RC 6 chemistry-HYBRID pump is a combination of a two-stage rotary vane pump and a two-stage chemistry diaphragm pump for optimized corrosion resistance. The diaphragm pump maintains the oil reservoir under vacuum in order to keep the partial pressures of solvent vapors at levels below their condensation points and to reduce largely the concentration of oxygen and corrosive gases. Therefore the RC 6 chemistry-HYBRID pump has a much higher solvent vapor pumping capability and resistance to aggressive gases than conventional rotary vane pumps. The pumping unit version PC 8 with RC 6 offers excellent environmental friendliness due to efficient solvent recovery.



Further information and diagrams for 60 Hz mains frequency at www.vacuubrand.com Pumping speeds and pump down times are only for information. Ultimate vacuum specification: See "Technical Data"



### **TECHNICAL DATA**

1 - Vapor is aspirated at low pressure and ambient temperature.

2 - Vapor is heated to approx. 60°C by heat exchange and compression within pump.

C - Condensation problem with "normal" rotary-vane pumps: On the way to atmospheric pressure, the saturation vapor pressure (transition to liquid state) is reached **inside** the oil-filled section. Result: **Condensa**tion and corrosion inside the pump; contamination of the oil.

3 - Chemistry-HYBRID Pump: The chemistry diaphragm pump evacuates the vapors from the oil reservoir of the rotary-vane pump. Under intended operating conditions, **no condensation** takes place inside the oil-filled part and, in particular, within the oil reservoir. (Any condensa-tion taking place inside the oil-free diaphragm pump is much less problematic.) Less condensation means **less corrosion** and **cleaner oil** for longer life. For example, in the case of acid vapors, the evacuation of the oil reservoir to 20 mbar reduces corrosion by a factor of about 50!

## RC 6

Number of stages	2+2		
Max. pumping speed at 50/60 Hz	5.9 / 6.9 m³/h		
Ultimate partial vacuum (abs.)	4 x 10 <sup>-4</sup> mbar		
Ultimate vacuum (abs.)	2 x 10 <sup>-3</sup> mbar		
Ultim. vac. (abs.) with gas ballast	1 x 10 <sup>-2</sup> mbar		
Water vapor tolerance with gas ballast	>> 40 mbar		
Oil capacity (B-Oil) min./max.	0.34 / 0.53		
Inlet connection	Small flange KF DN 16		
Outlet connection	Hose nozzle DN 8-10 mm		
Rated motor power	0.37 kW		
Rated motor speed at 50/60 Hz	1500/1800 min <sup>-1</sup>		
Degree of protection	IP 40		
Dimensions (L x W x H), approx.	510 x 305 x 230 mm		
Weight, approx.	24.2 kg		

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	ORDERING INFORMATION		<b>RC 6</b>
	230 V ~ 50-60 Hz	CEE	698560
ACCESSORIES PTFE tubing KF DN 16 (1000 mm: 686031) Stainless steel tubing KF DN 16 (1000 mm: 673336) Kit PC 8 with emission condenser (699949) Filter element oil mist filter RC (640187) Package fine vacuum control KF DN 16 (683201) Rubber vacuum tubing DN 8 mm (686001) Small flange KF DN 16 with hose nozzle DN 8-10 mm (662806)	230 V ~ 50-60 Hz	СН	698561
	230 V ~ 50-60 Hz	UK, IN	698562
	100-120 V ~ 50-60 Hz	US	698563
	230 V ~ 50-60 Hz	CEE/CN	698566
	ORDERING INFORMAT	rion	PC 3 / RC 6 *2613307
ITEMS SUPPLIED			
Pump completely mounted, ready for use after oil filling (bottle 0.5 l enclosed), with manual.	ORDERING INFORMAT		PC 8 / RC 6
	230 V ~ 50-60 Hz	CEE	698570

\* Please order power cable separately

## THERMODYNAMIC FUNCTIONAL PRINCIPLE OF THE CHEMISTRY-HYBRID PUMP



Pricing on any accessories shown can be found by keying the part number into the search box on our website. The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.